# CATANA SPECIFIC PLAN

# Initial Study

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*Lead Agency:*

City of Rancho Mirage

69-825 Highway 111

Rancho Mirage, California 92270

*Prepared by:*

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December 2023

# ENVIRONMENTAL INITIAL STUDY
# CATANA SPECIFIC PLAN

| | |
|---|---|
| **Project Title:** | Catana Specific Plan |
| **City Project No:** | Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; Development Agreement Case No. DA23-0002, Tentative Parcel Map Case No. TPM23-0004 (Tentative Parcel Map 38834) and Preliminary Development Permit Case Nos. PDP23-0006 and PDP23-0007 |
| **Lead Agency Name and Address:** | City of Rancho Mirage<br>69-825 Highway 111<br>Rancho Mirage, California 92270<br>Phone: (760) 328-2266 Fax: (760) 324-9851 |
| **Applicant:** | McKellar McGowan Holdings, LLC<br>5120 Shoreham Place, Suite 280<br>San Diego, CA 92122 |
| **Contact Person:** | Pilar Lopez, Senior Planner |
| **Phone Number:** | (760) 328-2266 Ext. 208 |
| **Project Location:** | Northwest corner of Ramon Road and Rattler Road |
| **Project Area:** | 36± acres |
| **Accessor Parcel Number:** | 670-230-021 |
| **Existing General Plan Designation:** | High Density Residential (H-R) |
| **Proposed General Plan / Zoning Designation:** | Catana Specific Plan; High Density Residential (H-R), General Commercial (C-G); High Density Residential/Affordable Housing Overlay (H-R/AHO) |

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# CHAPTER 1: PROJECT DESCRIPTION

*Project Location*

The Catana Specific Plan (referred to hereafter as SP and/or the Proposed Project) area is located on the northwest corner of Ramon Road and Rattler Road in the City of Rancho Mirage, California (Exhibit 1 and 2). The site is currently vacant and designated as High Density Residential (R-H) on the City's Land Use and Zoning Map, which allows a residential density of up to 9 DU/AC. The site is bounded by the Rancho Mirage High School to the north, Rattler Road and vacant land to the east, Ramon Road and residential development to the south, and vacant land to the west. The site consists of Assessor's Parcel Number (APN) 670-230-021 and is approximately 36 acres.

**Project Description**

The Catana Specific Plan proposes a mixed-use neighborhood on 36± acres located at the northwest corner of Ramon Road and Rattler Road. Catana provides much-needed housing for the City's residents and expands the City's commercial base. The residences at Catana will all be leased units catering to families and seniors who prefer to rent or are currently not able to purchase a home. Of the 305 potential units, up to 210 will be single family homes with front patios and private rear yards available at market rates, and up to 95 will be apartments in multiple buildings affordable to lower income households.

The community will be governed by a Specific Plan which establishes Project-specific standards and guidelines that provide flexibility for development of three distinct product types: single family homes, apartments and general commercial uses which are defined by Planning Area:

Planning Area 1 provides for up to 210 single family homes with a central clubhouse, pool, gym and interconnected paseos that bring internal connectivity to the residents and provides their homes a garden setting. This planning area is being developed consistent with the currently allowed density of 9 units per acre allowed under the High Density Residential designation.

Planning Area 2 allows up to 95 apartments affordable to lower income households, and including a central recreation area. This Planning Area will apply an Affordable Housing Overlay to allow a density of up to 28 units per acre.

Planning Area 3 is proposed to include up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices. This Planning Area will be developed using the General Commercial land use designation.

The SP includes development standards for building height, building setbacks, development density, landscaping and parking. These standards prevail over City of Rancho Mirage Municipal Code standards, with the Municipal Code standards remaining applicable where provided in the Specific Plan.

The Catana Project consists of the following applications:

1. Environmental Assessment Case No. EA23-0006 for environmental determination pursuant to California Environmental Quality Act (CEQA).
2. General Plan and Zoning Map Amendment Case No. GPZMA23-0002to change the High Density Residential land use designation to General Commercial for 8.3 acres fronting Ramon Road, and apply the Affordable Housing Overlay to 3.3± acres (see Exhibit 5).

3. Specific Plan Case No. SP23-0002 to establish the development standards and guidelines for 3 Planning Areas within the 36± acre site.
4. Development Agreement Case No. DA23-0002 to establish development timelines, and responsibilities of the applicant and developer in the development of the phased project
5. Tentative Tract Map Case No. TPM23-0004 (Tentative Parcel Map 38834) to subdivide the 36± acres into three parcels corresponding to the 3 Planning Areas.
6. Preliminary Development Plans Case Nos. PDP23-0006 and PDP23-0007 for the single family residential neighborhood in Planning Area 1 and the apartments in Planning Area 2. Additional Development Plan(s) will be submitted for Planning Area 3 in the future.

*Access*

The Project will take access from Ramon Road and Rattler Road. Please see Exhibit 4.

*Utilities*

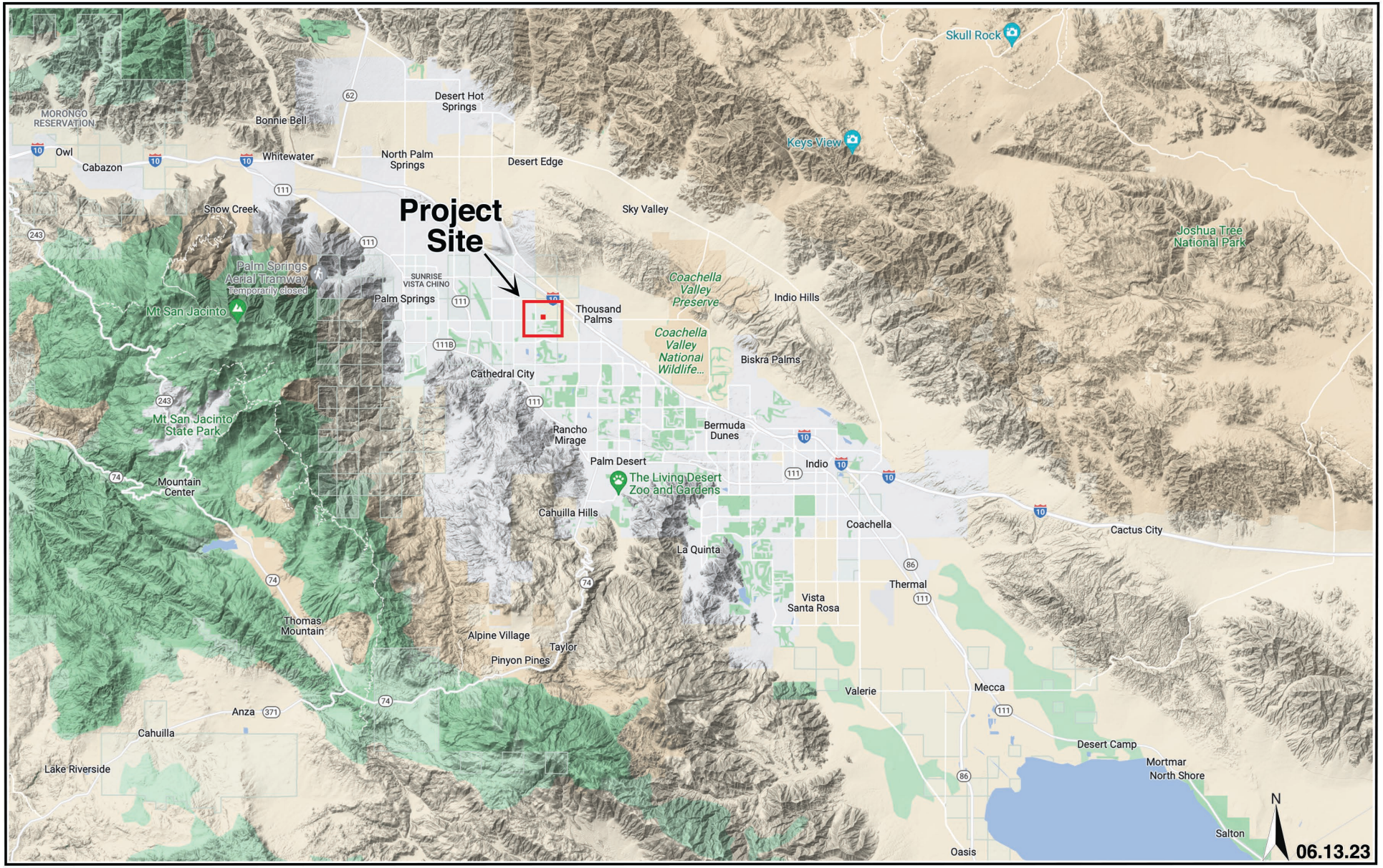
Electricity: Southern California Edison
Natural Gas: The Gas Company
Domestic Water: Coachella Valley Water District
Sanitary Sewer: Coachella Valley Water District

*Environmental Setting and Surrounding Land Uses*

West: Vacant lands designated for Mixed Use (M-U)
North: Rancho Mirage High School
South: Ramon Road, Mission Hills North Country Club golf course and single family residential
East: Rattler Road, vacant lands designated Medium Density Residential (R-M)

*Other public agencies whose approval is required.*

None.

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**Catana Specific Plan**
**Regional Location Map**
**Rancho Mirage, California**

**Exhibit**
**1**


Source: Google Maps, 2022

06.13.23

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**Catana Specific Plan**
**Vicinity Map**
**Rancho Mirage, California**

**Exhibit**
**2**


Source: Google Earth Image, 06.11.2021

06.13.23

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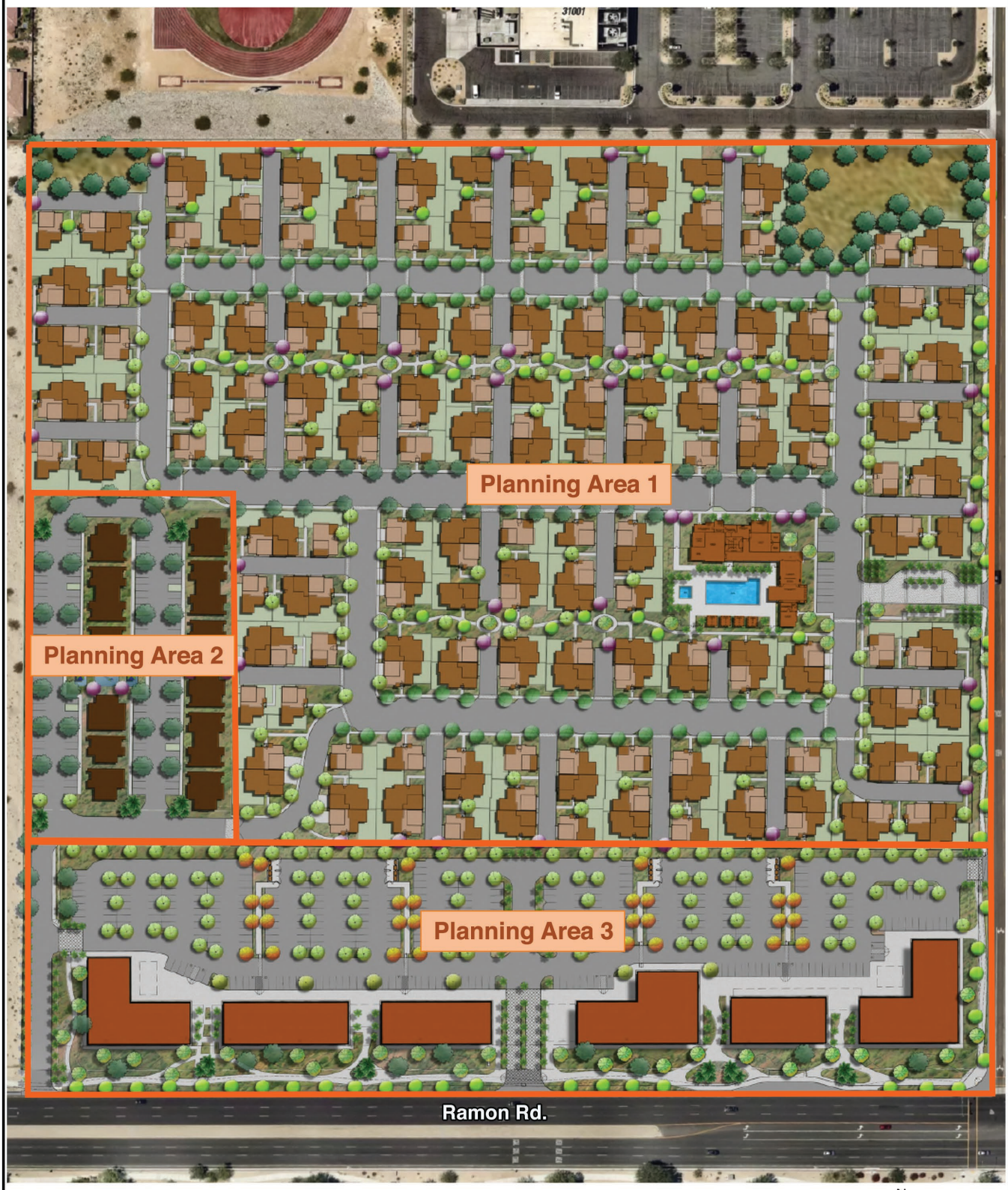
**Catana Specific Plan**
**Project Location Map**
**Rancho Mirage, California**

**Exhibit**

**3**




Source: McKellar McGowan Real Estate Development, 02.08.2023

06.13.23

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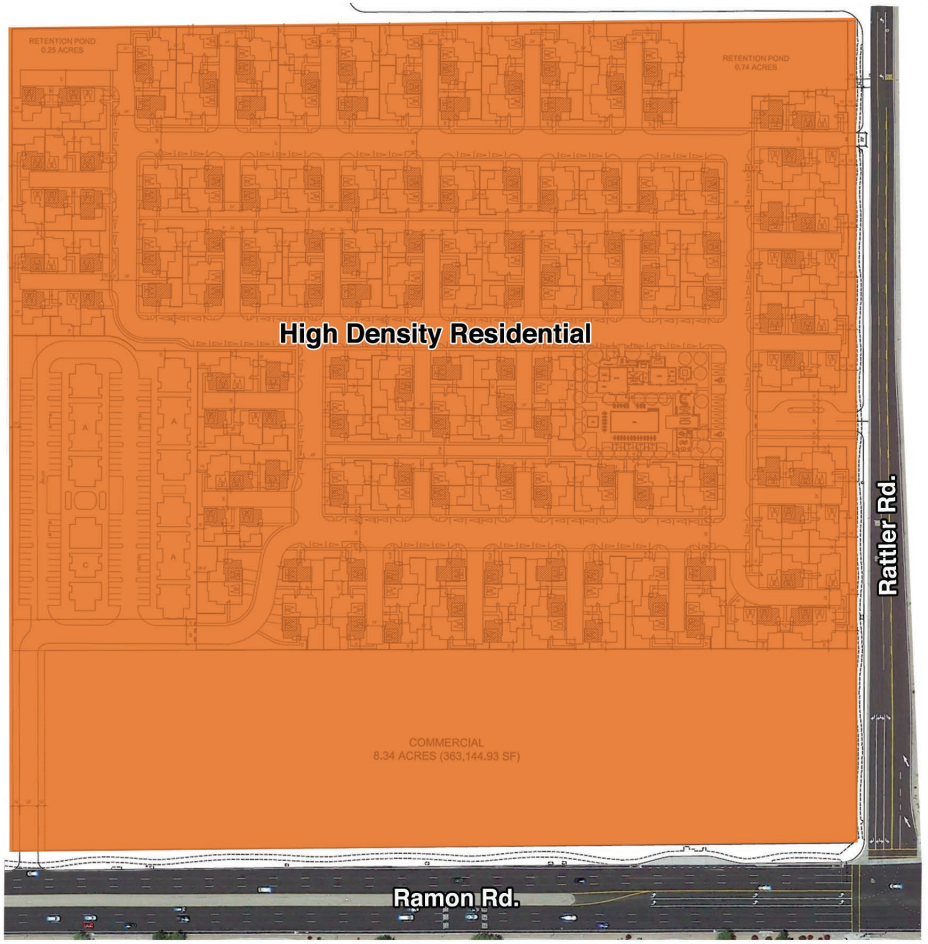
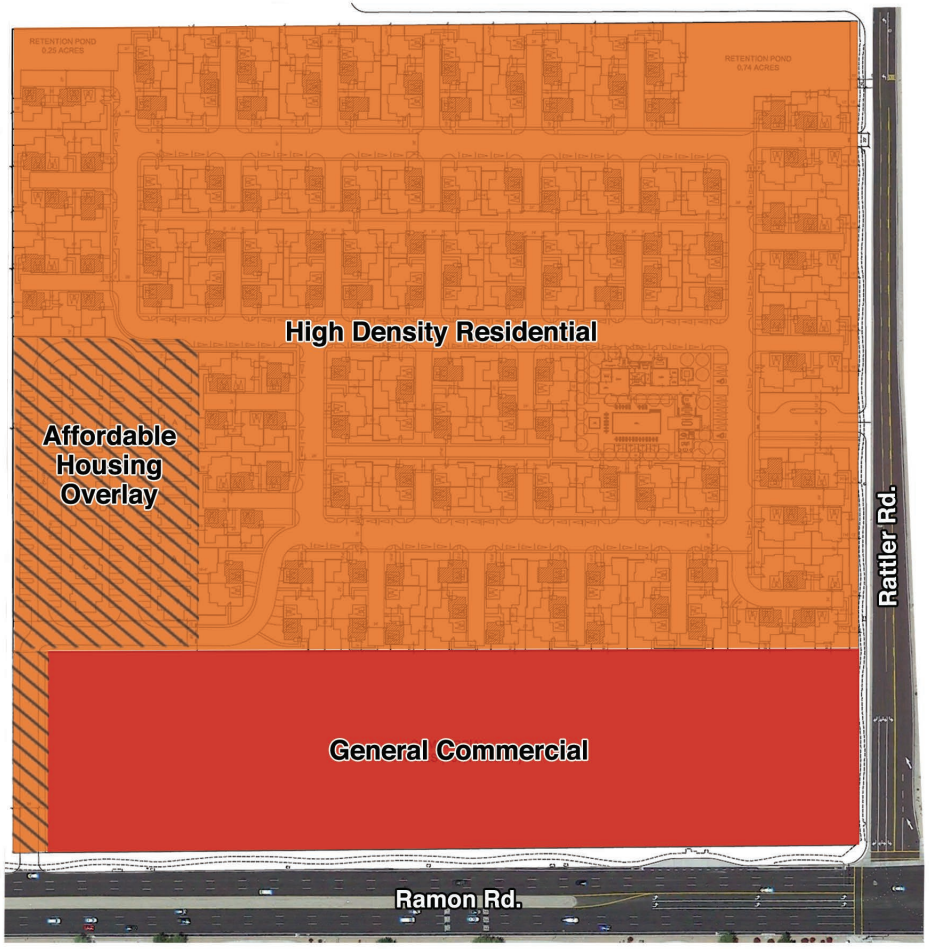
**Catana Specific Plan**
**Conceptual Site Plan**
**Rancho Mirage, California**

**Exhibit**
**4**

## Existing Land Use Map




## Proposed Land Use Map

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07.26.23

Source: City of Rancho Mirage Land Use and Zoning Map

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**Catana Specific Plan**
**Land Use Map Amendment**
**Rancho Mirage, California**

Exhibit
**5**

# CHAPTER 2: ENVIRONMENTAL ANALYSIS AND DETERMINATION

## Environmental Factors Potentially Affected:

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

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

## Evaluation of Environmental Impacts:

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

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

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

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

a) Earlier Analysis Used. Identify and state where they are available for review.

b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

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

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

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

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

Determination: (To be completed by the Lead Agency) On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Pilar Lopez, Senior Planner
City of Rancho Mirage

12/14/2023
Date:

## Environmental Checklist and Discussion:

The following checklist evaluates the proposed Project's potential adverse impacts. For those environmental topics for which a potential adverse impact may exist, a discussion of the existing site environment related to the topic is presented followed by an analysis of the Project's potential adverse impacts. When the Project does not have any potential for adverse impacts for an environmental topic, the reasons why there are no potential adverse impacts are described.

*1 - Aesthetics*

| **AESTHETICS** -- Would the project**:** | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☒ | ☐ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ☒ |
| c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ☐ | ☐ | ☒ | ☐ |
| d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☒ | ☐ |

**Sources:** Rancho Mirage General Plan 2017; Rancho Mirage Zoning Ordinance, as amended; Officially Designated State Scenic Highways Map, Caltrans.

*1.1 Setting:*

The City of Rancho Mirage, including the project site, is located in Coachella Valley which is a desert valley that extends approximately 45 miles in Riverside County, southeast from the San Bernardino Mountains to the northern shore of the Salton Sea. The Project site occurs in an urban environment in the northern portion of the city. The current urban environment includes a high school, single family homes, commercial services, vacant lands, and a major roadway.

The San Bernardino, San Jacinto and Santa Rosa Mountain ranges provide scenic views throughout the city. The San Bernardino range is to the north, the San Jacinto range is to the west, and the Santa Rosas to the south and southwest of the city.

The segment of Highway 111 within the city is eligible for designation as a state scenic highway in the California State Scenic Highway Program and is located 3 miles south of the project site. Ramon Road is a major roadway along the southern boundary of the project site and is designated a View Corridor in the General Plan (General Plan Exhibit 32).

The project site is currently vacant and undeveloped. Ultimate development of the project site will result in the construction of single- and multi-family residential units and a commercial shopping center which could include general commercial, retail, offices and restaurants.

The Aesthetic impacts of the project are discussed below.

*1.2 Discussion of Impacts:*

**a) Less Than Significant Impact.** A significant impact may occur if the Project introduces incompatible visual elements within a field of view containing a scenic vista or substantially blocks views of a scenic vista. Scenic vistas are generally described in two ways: panoramic views (visual access to a large geographic area, for which the field of view can be wide and extend into the distance) and focal views (visual access to a particular object, scene, or feature of interest).

The Project site is located in a largely urbanized area of Rancho Mirage that supports a mix of residential and commercial land uses. The Project site is currently vacant and bounded by Rancho Mirage High School to the north, Rattler Road and vacant lands to the east, Ramon Road and residential development to the south, and vacant lands to the west. The City of Rancho Mirage Municipal Code Section 17.18.090, View Protection, establishes development standards for the protection of scenic resources. Ramon Road is a designated view corridor in the General Plan (Exhibit 32).

From the subject property, scenic views of the San Bernardino Mountains are to the north and northeast, views of the Santa Rosa Mountains are to the south, and views of the San Jacinto Mountains are to the west. The Project site is located approximately 2.2 miles south of the San Bernardino Mountain foothills, approximately 3 miles north of the Santa Rosa Mountain foothills, and approximately 6.6 miles east of the San Jacinto Mountain foothills. From the Project site, views of the lower elevations of the mountains to the north, south and west are blocked by intervening developments. However, middle and upper elevations of the mountains are visible above.

Future construction of the Project site would require the use of heavy equipment for grading, paving and excavation, and building. Construction activities would be visible from the surrounding streets and urban developments; however, impacts from construction are temporary.

The Project proposes residential building heights of up to 24 feet in PA 1 and 37 feet in PA 2, and commercial/retail building heights of up to 28 feet tall in PA 3. Currently the City allows building heights of up to 1 story or 20 feet in height in the High Density Residential zone. The proposed buildings would be taller than what is allowed under the current zoning designation, and taller than the adjacent residential uses to the northwest and south of the project site.

Currently, the residents to the northwest (Tuscany) have middle and upper views of the Santa Rosa Mountains to the south and Little San Bernardino Mountains to the east. The Proposed Project will not affect those views. There are limited visual resources to the southeast where the Project is located, and the visual quality of existing viewsheds is already obstructed by intervening development and distance from the foothills. Furthermore, the residential units proposed in PA 1 (nearest to Tuscany) are designed with building heights of up to 24 feet, and with only partial second stories, which will provide breaks in structure massing. In addition, a setback of 45 feet is proposed for second story features along the north boundary of the Project. The 37 foot structures proposed in PA 2 will occur at a distance of 500 feet at their closes point to the southeast corner of Tuscany, which will limit their visibility when separated by the PA 1 homes intervening. While the Project has the potential to impact views of the lower elevations of the San Bernardino and Santa Rosa Mountains to the southeast, the views to the east and south from Tuscany would remain unaffected.

Residents to the south of the site have distant views of the San Bernardino Mountains to the north; however, these views are partially obstructed by existing intervening landscaping and fencing. The closest home to the Project site is located south of a golf course hole, over 400 feet from the Project. The proposed Project would partially obstruct views of the lower mountain elevations to the north; however, the SP requires 25-foot setbacks for commercial uses along Ramon Road. In addition, the maximum allowed height of 28 feet for commercial uses in PA 3 is limited to no more than 50% of all structures, with a 24-foot height average required PA-wide. These development standards would limit the mass and scale of proposed structures along Ramon Road. Therefore, existing homes to the south may have views of the lower elevations somewhat obstructed, however views of the upper elevations would remain.

Viewers from the north will not experience a change in northerly or westerly views but could experience view blockage of the Santa Rosa Mountains to the south. The upper elevations of the mountains would be visible above buildings within the Project, because of the setback requirements included in the SP and distance from the mountains.

Future residential development to the east of the Project will not experience a change in northerly or southerly views but could experience view blockage of the foothills to the west. However the upper elevations of the San Jacinto mountains would remain visible due to the limited height allowed in PA 1 (24 feet), and the distance from these homes to the Project across Rattler Road.

Future residential development to the west of the Project will not experience a change in northerly, southerly, or westerly views, but could experience view blockage of the foothills to the east. However, the upper elevations of the San Bernardino mountains would remain.

Public views from Ramon Road and Rattler Road for travelers on these roadways would be impacted in a similar manner, with northerly views of the San Bernardino foothills obstructed, but the ridgelines visible above due to distance for travelers on Ramon Road. From Rattler Road views to the west would be similarly affected, but the higher elevations of the San Jacinto Mountains to the west would remain visible.

With development of the proposed Project, views of the foothills will be reduced but not eliminated, views of the mid-range and tops of the surrounding mountains will remain, and impacts will be less than significant.

**b) No Impact.** The proposed SP area does not contain any scenic resources, including trees, rock outcroppings or historic buildings. No impact to these resources will occur.

**c) Less Than Significant Impact.** The SP area is currently vacant. The ultimate development of the site will result in the construction of a residential structures up to 24 feet in PA 1 and 37 feet in PA 2, and commercial/retail structures up to 28 feet tall in PA 3. The SP proposes a Desert Modern theme, which blends contemporary and Mid-Century styles. Buildings must have clean lines, play off horizontal and vertical planes, and incorporate natural materials. The proposed Project requires landscaping and high-quality design features to minimize any visual degradation of the site. Furthermore, the SP includes development standards and guidelines that require building articulation, quality construction, and a coordinated architectural style. The visual character along Ramon Road includes a mix of commercial, institutional and residential development of similar character, mass and scale to that proposed in the SP. Therefore, impacts associated with visual character are expected to be less than significant.

**d) Less Than Significant Impact.** The Project site is located in an urban environment that includes existing sources of light and glare associated with nearby land uses. Nearby sources of light include exterior lighting at the high school and on commercial and residential buildings, street lighting on the adjacent Ramon Road, passing vehicle headlights, and outdoor lighting on surface parking lots. Currently, there are no existing sources of light on the project site.

The ultimate development of the Project site can be expected to generate increased levels of light and glare from interior and exterior building lighting, safety and security lighting, landscape lighting, and vehicles accessing the site during the day and nighttime; however, the SP does not propose the use of high intensity outdoor lighting. Glare can also be expected from building windows during the day and nighttime. However, lighting and glare levels are not expected to exceed typical levels within the surrounding urban environment. The Catana SP does not allow the use of highly reflective materials in the architectural design. The proposed Project will be designed in accordance with City of Rancho Mirage Municipal Code Section 17.18.050, Exterior Glare, Heat, and Light, and will properly shield light fixtures to minimize spillage onto adjacent properties. The Municipal Code (Zoning Ordinance) design standards will be incorporated into Project PDPs to assure that the proposed Project's light and glare impacts will be less than significant.

*1.3 Mitigation Measures:*

**Mitigation Measures:** None required.

**Monitoring**: None required.

*2 - Agriculture and Forestry Resources*

| **AGRICULTURE AND FORESTRY**<br><br>**RESOURCES** – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| c) Conflict with existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned Timberland Production? | ☐ | ☐ | ☐ | ☒ |
| d) Result in the loss of forest land or conversion of forest land to non forest use? | ☐ | ☐ | ☐ | ☒ |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |

**Sources:** Rancho Mirage General Plan 2017; California Department of Conservation, Farmland Mapping & Monitoring Program, 2018.

*2.1 Setting:*

The City of Rancho Mirage contains no agricultural or forest lands, and no lands are designated for agricultural or forestry purposes in the General Plan. Agricultural production occurs in the eastern Coachella Valley, more than 10 miles east of the City.

*2.2 Discussion of Impacts:*

**a-e) No Impact.** The site is currently vacant and designated as High Density Residential (R-H) on the City's Land Use and Zoning Map, which allows a residential density of up to 9 DU/AC. There are no existing or mapped agricultural or forestry resources within or in proximity to the Project site, and such uses are not proposed as part of the Catana Specific Plan. No agricultural lands will be impacted by the Project.

Prime Farmland: According to the California Important Farmlands mapping provided by the California Department of Conservation, the Project site is designated as "Other Land." No prime or unique farmland, or farmland of statewide importance exists on the Project site or in the Project vicinity. The Project site is not located on or near any property zoned or otherwise intended for agricultural uses. As such, the Project would not convert farmland to nonagricultural use. No impact would occur.

Williamson Act: The Project site and surrounding properties are designated for urban uses in the General Plan Land Use and Zoning Map. No land on or near the Project site is under a Williamson Act contract. Therefore, the Project would not conflict with any zoning for agricultural uses or a Williamson Act Contract. No impact would occur.

Forest Land: The Project site is located on the desert floor, designated High Density Residential, and surrounded by urban development and vacant land designated for urban uses. The subject site does not contain forest land, timberland, or timberland zoned for timberland production. Therefore, the Project would not rezone forest land or timberland as defined by the Public Resources Code. It would not result in the conversion of forest land to non-forest uses or changes to the environment that could result in such a conversion. No impact would occur.

*2.3 Mitigation Measures:*

**Mitigation Measures:** None

**Monitoring:** None

*3 - Air Quality*

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

**Sources:** SCAQMD AQMP, 2022; 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Demographics and Growth Forecast Technical Report, Southern California Association of Governments, adopted September 3, 2020; "Final Localized Significance Threshold Methodology," prepared by the South Coast Air Quality Management District, Revised, July 2008; "2003 Coachella Valley $PM_{10}$ State Implementation Plan," August 1, 2003; CalEEMod Version 2022.1.1.14 (Appendix A); Project materials.

*3.1 Setting:*
**Background:**

The Coachella Valley is in the Salton Sea Air Basin (SSAB), which includes part of Riverside County and all of Imperial County. The SSAB is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). All development within the SSAB is subject to the 2022 SCAQMD Air Quality Management Plan (AQMP), and the Coachella Valley region is subject to the 2003 Coachella Valley $PM_{10}$ State Implementation Plan (CV $PM_{10}$ SIP). SCAQMD operates and maintains regional air quality monitoring stations at numerous locations throughout its jurisdiction. The Project site is within Source Receptor Area (SRA) 30, which includes monitoring stations in Palm Springs, Indio, and Mecca.

Criteria air pollutants are contaminants for which state and federal air quality standards have been established. The SSAB exceeds state and federal standards for fugitive dust ($PM_{10}$) and ozone ($O_3$), and is in attainment for $PM_{2.5}$, except the City of Calexico. Ambient air quality in the SSAB, including the Project site, does not exceed state and federal standards for carbon monoxide, nitrogen dioxides, sulfur dioxide, lead, sulfates, hydrogen sulfide, or vinyl chloride.

Buildout of the proposed Project will result in air quality impacts during construction and operation. The California Emissions Estimator Model (CalEEMod) Version 2022.1.1.14 was used to project air quality emissions that will be generated by the Project (Appendix A).

*3.2 Discussion of Impacts:*

**Discussion of Impacts**

**a) No Impact**. According to CEQA, a significant air quality impact could occur if the proposed project is not consistent with the applicable Air Quality Management Plan (AQMP) or would obstruct the implementation of the policies or hinder reaching the goals of that plan. The Project site is within the Salton Sea Air Basin (SSAB) and will be subject to SCAQMD's 2022 AQMP and the 2003 Coachella Valley $PM_{10}$ SIP. The AQMP is a comprehensive plan that establishes control strategies and guidance on regional emission reductions for air pollutants. The AQMP is based, in part, on the land use plans of jurisdictions in the region.

The Southern California Association of Governments (SCAG) adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS) to comply with metropolitan planning organization (MPO) requirements under the Sustainable Communities and Climate Protection Act. The RTP/SCS Growth Management chapter forms the basis of land use and transportation controls of the AQMP. Projects that are consistent with the population forecasts are considered consistent with the AQMP. SCAG forecasts that the City's population will be 25,200 in 2045.

A project is considered to be in conformity with adopted air quality plans if it adheres to the requirements of the SCAQMD Rule Book, AQMP, and adopted and forthcoming control measures, and is consistent with growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that a project is consistent with the land use plan that was used to generate the growth forecast. A non-conforming project would be one that increases the gross number of dwelling units, increases the number of vehicle trips, and/or increases the overall vehicle miles traveled in an affected area relative to the applicable land use plan.

The 36-acre Project site is currently designated High Density Residential which allows up to 9 DU/AC. The Catana Specific Plan proposes up to 305 single- and multi-family residential units and 75,000 square feet of commercial/retail uses across three planning areas (PAs). PA 1 proposes up to 210 dwelling units on 24.5 acres and PA 2 proposes up to 95 affordable housing units on 3.3 acres, which are densities of 9 DU/AC and 27 DU/AC, respectively. When considered as whole, the average density for the entire 36-acre project site is 9 DU/AC, which is consistent with the sites underlying land use and zoning designation. Therefore, the Project conforms to regional growth forecasts that were included in the local land use plans and SCAG RTP/SCS. Furthermore, a VMT screening analysis was prepared that found the Project conforms to the City's VMT policy, which complies with State law SB 743. The analysis found that due to the mix of local serving retail with a high percentage of affordable housing units, the Project allows for on-site interaction between residents, jobs, and retail services which will reduce VMTs by encouraging pedestrian and bicycle activity (see Section 17, Transportation, for detailed VMT analysis).

In summary, the Project will be part of anticipated growth, does not increase the residential land use assumptions used in the SCAG analysis, and conforms to the City's VMT policy. The proposed Project would be implemented in accordance with all applicable rules and regulations contained in these plans to meet the applicable air quality standards. Therefore, the Project will be consistent with the AQMP and will not conflict with or obstruct implementation of the plan. No conflict will occur.

**b) Less Than Significant Impact**. A project is considered to have significant impacts if there is a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. As previously stated, the SSAB is currently a non-attainment area for $PM_{10}$ and ozone. Therefore, if the Project's construction and/or operational emissions exceed SCAQMD thresholds for $PM_{10}$ and ozone precursors, which include carbon monoxide (CO), nitrous oxides ($NO_x$), and volatile/reactive organic compounds/gases (VOC or ROG), then impacts would be cumulatively considerable and significant.

The California Emissions Estimator Model (CalEEMod) Version 2022.1.1.14 was used to project air quality emissions that will be generated by the proposed Project (Appendix A). Criteria air pollutants will be released during both the construction and operational phases of the Project, as shown in Tables 1 and 2. Table 1 summarizes short-term construction-related emissions, and Table 2 summarizes ongoing emissions generated during operation.

Construction Emissions

For analysis purposes, Project buildout is anticipated to take up to 2 years. The construction period includes all aspects of Project development, including site preparation, grading, paving, building construction, and application of architectural coatings.

As shown in Table 1, emissions generated by construction activities will not exceed SCAQMD thresholds for any criteria pollutant. The analysis assumes cut and fill material will balance on-site and will not require the import or export of grading material. Applicable standard requirements and best management practices include, but are not limited to, the implementation of a dust control and management plan in conformance with SCAQMD Rules 403 and 403.1, phased application of architectural coatings, and the use of low-polluting architectural paint and coatings per SCAQMD Rule 1113.

**Table 1**
**Maximum Daily Construction-Related Emissions Summary**
**(pounds per day)**

| **Construction Emissions**[1] | **CO** | **$NO_x$** | **ROG** | **$SO_2$** | **$PM_{10}$** | **$PM_{2.5}$** |
|---|---|---|---|---|---|---|
| Daily Maximum | 52.10 | 47.80 | 25.10 | 0.09 | 9.61 | 5.63 |
| **SCAQMD Thresholds** | **550.00** | **100.00** | **75.00** | **150.00** | **150.00** | **55.00** |
| **Exceeds?** | **No** | **No** | **No** | **No** | **No** | **No** |

Source: CalEEMod Version 2022.1.1.14 (output tables provided in Appendix A).

Given that criteria pollutant thresholds will not be exceeded, and standard best management practices will be applied during construction, impacts will be less than significant.

Operational Emissions

Operational emissions are ongoing emissions that will occur over the life of the Project. They include area source emissions, emissions from energy demand (electricity), and mobile source (vehicle) emissions.

According to the Project traffic impact analysis (Appendix D), the Project will generate approximately 5,680 daily trips (see Section 17 Transportation). Table 2 summarizes projected emissions during operation of the Project at build out. As shown, operational emissions will not exceed SCAQMD thresholds of significance for any criteria pollutants for operations. Impacts will be less than significant.

**Table 2**
**Maximum Daily Operational-Related Emissions Summary**
**(pounds per day)**

| **Operational Emissions**[1] | **CO** | **$NO_x$** | **ROG** | **$SO_2$** | **$PM_{10}$** | **$PM_{2.5}$** |
|---|---|---|---|---|---|---|
| Daily Maximum | 143.0 | 21.3 | 39.9 | 0.26 | 16.8 | 4.83 |
| **SCAQMD Thresholds** | **550.00** | **100.00** | **75.00** | **150.00** | **150.00** | **55.00** |
| **Exceeds?** | **No** | **No** | **No** | **No** | **No** | **No** |

Source: CalEEMod Version 2022.1.1.14 (output tables provided in Appendix A).

Cumulative Contribution

A significant impact could occur if the Project would make a considerable cumulative contribution to federal or state non-attainment pollutants. The Coachella Valley portion of the SSAB is classified as a "non-attainment" area for $PM_{10}$ and ozone. Cumulative air quality analysis is evaluated on a regional scale (rather than a neighborhood or city scale, for example), given the dispersing nature of pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts. Any development project or activity resulting in emissions of $PM_{10}$, ozone, or ozone precursors will contribute, to some degree, to regional non-attainment designations of ozone and $PM_{10}$.

The SCAQMD does not currently recommend quantified analyses of construction and/or operational emissions from multiple development projects, nor does it provide methodologies or thresholds of significance to be used to assess the significance of cumulative emissions generated by multiple cumulative projects. However, it is recommended that a project's potential contribution to cumulative impacts be assessed utilizing the same significance criteria as those for project-specific impacts. Furthermore, SCAQMD states that if an individual development project generates less than significant construction or operational emissions, then the project would not generate a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

As shown in the tables above, Project-related $PM_{10}$, CO, $NO_x$, and ROG emissions are projected to be below established SCAQMD thresholds. Therefore, the proposed Project will result in incremental, but not cumulatively considerable impacts on regional $PM_{10}$ or ozone levels.

Summary

As shown above, both construction and operation of the Project will result in criteria emissions below the SCAQMD significance thresholds, and neither would violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts related to

construction and operation will be less than significant and are not cumulatively considerable from a non-attainment standpoint.

**c) Less Than Significant Impact.** Sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, hospitals, and other land uses occupied by individuals who are potentially more sensitive to pollutants than the average. The nearest sensitive receptors to the Project site are the single-family residences (Tuscany) located immediately northwest of the site.

To determine if a project has the potential to generate significant adverse localized air quality impacts, SCAQMD offers Localized Significance Thresholds (LST) analysis. Analysis of LSTs by a local government is voluntary and is designed for projects that are less than or equal to 5 acres. Although the total Project area is greater than 5 acres, the area of daily disturbance (for purposes of LST analysis only) can be expected to be 5 acres or less per day at any given location. As such, the 5-acre Mass Rate Look-Up table is appropriate under the SCAQMD's methodology to screen for potential localized air quality impacts.[1]

The Mass Rate Look-Up tables for LSTs were used to determine if the proposed Project would have the potential to generate significant adverse localized air quality impacts during construction and operation. The LST for Source Receptor Area (SRA) 30 (Coachella Valley) was used to determine LST emission thresholds. The distance from the emission source and the maximum daily site disturbance also determines the emission thresholds. The nearest sensitive receptors are the single-family residences located immediately northwest of the Project site. For analysis purposes, the scenario of a sensitive receptor being within 25 meters was used, which is the shortest available receptor distance.

Operation of the proposed Project will not involve any substantial stationary sources, such as industrial or heavy agricultural uses, that might result in substantial pollutant concentrations. Therefore, operational emissions will not be further analyzed using LSTs. Table 3 shows that LST thresholds are not expected to be exceeded for any criteria pollutant during construction. Impacts to sensitive receptors will be less than significant.

**Table 3**
**Localized Significance Thresholds**
**25 Meters, 5 Acres**
**(pounds per day)**

| | **CO** | **$NO_x$** | **$PM_{10}$** | **$PM_{2.5}$** |
|---|---|---|---|---|
| Construction Emissions | 52.10 | 47.80 | 9.61 | 5.63 |
| **LST Threshold** | 2,292 | 304 | 14 | 8 |
| **Exceeds Threshold?** | **No** | **No** | **No** | **No** |

Source of Emission Data: CalEEMod version 2022.1.1.14 (output tables provided in Appendix A).
Source of LST Threshold: LST Mass Rate Look-up Table, 25 meters, 5 acres, SCAQMD

[1] SCAQMD "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds."

Health Impacts

As shown in Tables 1 and 2, construction and operation of the proposed Project will result in criteria emissions that are below the SCAQMD significance thresholds, and neither would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

It is not scientifically possible to calculate the degree to which exposure to various levels of criteria pollutant emissions will impact an individual's health. There are several factors that make predicting a Project-specific numerical impact difficult:

- Not all individuals will be affected equally due to medical history. Some may have medical pre-dispositions, and diet and exercise levels tend to vary across a population.
- Due to the dispersing nature of pollutants, it is difficult to locate and identify which group of individuals will be impacted, either directly or indirectly.
- There are currently no approved methodologies or studies to base assumptions on, such as baseline health levels or emission level-to-health risk ratios.

Due to these limitations, the extent to which the Project poses a health risk is uncertain but unavoidable. However, the application of the SCAQMD localized significance thresholds indicates that construction of the Project would have less than significant impacts to sensitive receptors. Likewise, the overall emissions expected to result from the Project based on projections developed using CalEEMod indicate that the development-related emissions will fall below the SCAQMD mass rate thresholds.

Pursuant to Rule 1401, 1401.1, and 212 of the SCAQMD rulebook, the District requires the preparation of a Health Risk Assessment (HRA) for facilities associated with high levels of toxic air contaminants. To reduce exposure to toxic air contaminants (TACs), CARB recommends minimum separation distances between new sensitive land uses, such as residences, and eight categories of existing sources of TACs: high-traffic freeways and roads, distribution centers, rail yards, ports, refineries, chrome plating facilities, perchloroethylene dry cleaners, and large gas stations.[2] The proposed Project neither proposes the development of any such facilities, nor is it situated in proximity to any such facility. While the Project is bound by a major arterial roadway to the south (Ramon Road), CARB defines freeways and high traffic roads as including rural roads with 50,000 vehicles per day. As shown in the Traffic Impact Analysis (Appendix D) prepared for the Project by Urban Crossroads, nearby roadways have maximum daily traffic (ADT) volumes of up to 31,100 vehicles per day in 2025 with Project and ambient growth weekday conditions.[3] The preparation of an HRA is therefore not required.

Based on these findings, it is therefore anticipated that the Project's impacts and associated health effects resulting from criteria pollutants will overall be less than significant. The Project will not expose sensitive receptors to substantial pollutant concentrations.

**d) Less Than Significant Impact.** A significant impact could occur if objectionable odors are generated that would adversely impact sensitive receptors. Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as in sewage treatment facilities and

[2] CalEPA and CARB, Air Quality and Land Use Handbook: A Community Health Perspective (April 2005).

[3] Catana Specific Plan Traffic Analysis, prepared by Urban Crossroads, Inc. (June 30, 2023), Exhibit 6-1: EAPC (2025) Traffic Volumes.

landfills. The Project proposes a mixed use development consisting of residential units and a commercial center. Odors from these uses could include cooking odors and similar odors associated with daily living and shopping opportunities. None of these types of odors are either objectionable or long term, and no odors from industrial uses are anticipated.

During construction, odors associated with construction activities, particularly paving, will be generated. However, any such odors would be short-term and quickly dispersed below detectable levels as distance from the construction site increases. The SCAQMD Rule 402 (Nuisance), and SCAQMD Best Available Control Technology Guidelines would limit potential objectionable odor impacts from residential and commercial uses during the Project's long-term operations phase. Therefore, impacts from objectionable odors will be less than significant.

*3.3 Mitigation Measures:*

**Mitigation Measures:** None required

**Monitoring:** None required

*4 - Biological Resources*

| **BIOLOGICAL RESOURCES** – Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife 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 or by the California Department of Fish and Wildlife or US Fish and Wildlife Service? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☐ | ☒ | ☐ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☒ | ☐ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☒ | ☐ |

**Sources:** Rancho Mirage General Plan 2017; Ramon Rattler Project, Biological Resources Assessment and Coachella Valley Multiple Specifics Habitat Conservation Plan Compliance Report, prepared by WSP, March 2023 (Appendix B).

*4.1 Setting:*

The Coachella Valley is located within the Sonoran Desert which is a subdivision of the Colorado Desert. The Sonoran Desert contains a wide range of biological resources that are highly specialized and endemic to the region. A wide range of common plant species, such as mesquite, smoke tree, desert holly, creosote bush, and palo verde, are supported by the conditions present in the valley. A variety of wildlife species including those endemic to the valley are present, and some have been listed as threatened or endangered by federal and state agencies. Regional sensitive wildlife species include the Coachella Valley fringe-toed lizard, Peninsular bighorn sheep, Casey's June beetle, arroyo southwestern toad, and mountain yellow-legged frog. Several sensitive bird species are found in the valley, including the Least Bell's vireo and southwestern flycatcher, both listed as endangered. Plant species that are federally listed as endangered include the Coachella Valley milkvetch and triple-ribbed milkvetch.

The Proposed Project is within the boundaries of and subject to the provisions of the Coachella Valley Multiple Species Conservation Plan (CVMSHCP).[4] The CVMSHCP is a comprehensive regional plan that balances growth in the Coachella Valley with the requirements of federal and State endangered species laws. The project site is not located within or adjacent to a CVMSHCP Conservation Area.

*4.2 Discussion of Impacts:*

**a) Less than Significant with Mitigation.** The Project site is currently vacant and is surrounded by a mix of developed and undeveloped lands. The proposed Project site is relatively flat and contains two types of Myoma fine sand [0 to 5 percent slopes (MaB) and 5 to 15 percent slopes (MaD)]. The Project site was previously cleared in 2018, and currently consists of largely open ground with a scant cover of plant species that have regrown since 2018. The native vegetation on site is described a disturbed "Dicoria canescens – Abronia villosa Sparsely Vegetated Alliance Desert dunes" (Holland type "desert sand fields).

A Biological Resources Assessment was prepared for the Project in March 2023 (WSP) that reported a list of 63 special status species with the potential to occur on the project site or within the project vicinity (3-mile radius). The Assessment included a field survey that was conducted on January 24, 2023. Of the 63 special status species listed, 49 have no potential of occurrence. No species listed as threatened or endangered were observed on the site.

<u>CVMSHCP Covered Species</u>

There are six CVMSHCP covered species with a potential to occur on the project site including: Coachella Valley milk-vetch, Coachella giant sand treader cricket, Coachella Valley Jerusalem cricket, burrowing owl, Palm Springs pocket mouse, and Coachella Valley (Palm Springs) round-tailed ground squirrel. Participation in the CVMSHCP, payment of the required CVMSHCP development/mitigation fee and participation in the plan will fully mitigate project related impacts (although none are anticipated) to all of the CVMSHCP covered species with the exception of burrowing owl.

[4] Recirculated Final Coachella Valley Multiple Species Habitat Conservation Plan; Figure 8-3.

*Burrowing Owl*
Burrowing owl is a State species of special concern that resides in open dry grasslands and desert areas. Since the site is currently vacant and covered sparsely with vegetation, there is a very low potential for burrowing owl to occur onsite. None were identified during the site survey, nor were their sign or suitable burrows sighted. The CVMSHCP and State law prohibit the take of burrowing owl. Should burrowing owl be found on the property prior to construction, a significant impact would occur. In order to assure that this impact is mitigated, Mitigation Measure BIO-1 is provided below, which requires pre-construction surveys to assure that the species is not present, or to protect the species should it be identified on-site. With implementation of this mitigation measure, impacts to burrowing owls will be less than significant.

Non-CVMSHCP Species

There are eight species not covered by the CVMSHCP with a potential to occur on the project site. Two bird species, the prairie falcon and golden eagle, are expected to have a low probability to forage over the site. Prairie falcon is not listed as threatened or endangered by either State or Federal agencies but is considered a “Species of Special Concern” by the California Department of Fish and Wildlife. The golden eagle is not listed as threatened or endangered but is a fully protected species under CDFW. Five plant species have a low probability of growing on the site, including Chaparral sand-verbena, Abram’s spurge, Arizona spurge, flat-seeded spurge, and slender cottonheads. None of these plant species are listed as threatened or endangered and are generally not expected to occur on the site considering the past history of disturbance on this parcel, including grubbing and use of soil binders.

One special status bird species was observed immediately adjacent to the site during the assessment: loggerhead shrike (Lanius ludovicianus) designated as a California Species of Special Concern (SSC) by the CDFW. No suitable nesting habitat occurs on the Project site, but the species could forage on the site. Loggerhead shrike is protected under the Migratory Bird Treaty Act, as described below.

*Migratory Bird Treaty Act*
The existing vegetation on and adjacent to the property would have the potential to provide nesting opportunities for birds covered under the Migratory Bird Treaty Act (MBTA). As the subject site is vacant, these species would reside seasonally within the subject site. Nesting activities would occur between February and August of any year. Under the provisions of the MBTA, impacts to covered nesting birds would be considered a significant impact. In order to assure that impacts to bird nests covered under the MBTA are reduced to less than significant levels, a pre-construction survey is required if any activity to remove vegetation is proposed during the nesting season, as provided in Mitigation Measure BIO-2, below. With implementation of this mitigation measure, impacts to birds covered by the MBTA will be less than significant.

**b, c) No Impact**. The Project site does not contain any streams, riparian habitat, marshes, protected wetlands, vernal pools or sensitive natural communities protected by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. No Project related impacts will occur.

**d) Less than Significant**. According to the Project-specific Biological Resource Assessment, no wildlife corridors or biological linkages are mapped on or adjacent to the Project site. Therefore, development of the site will not interfere substantially with the movement of any native resident or migratory species. The site is not known to be a native wildlife nursery site; however, the Project could result in potential impacts to nesting birds, as discussed in a) above. Impacts will be less than significant.

**e, f) Less than Significant Impact.** The project site is located within the boundaries of the CVMSHCP, and is therefore subject to payment of the Development Mitigation Fee, which will mitigate potential impacts to covered species as a standard requirement imposed by the City.

The site is not within or adjacent to a CVMSHCP-designated Conservation Area, so no additional mitigation measures or provisions are required. The project will not conflict with any policies or ordinances that protect biological species, or any habitat conservation plans or natural community conservation plans. Impacts are expected to be less than significant.

*4.3 Mitigation Measures:*

**BIO-1** A preconstruction survey following CDFG's Staff Report for Burrowing Owl (2012) must be conducted by a qualified biologist prior to initiating construction. Unless avoidable, all burrowing owls present must be relocated prior to any ground disturbing activities. If burrowing owls are identified on-site, a Burrowing Owl Relocation and Management Plan will be prepared to describe and outline how the burrowing owl will be actively or passively relocated per CDFW protocol. Prior to construction, any owls occurring on-site will be relocated prior to vegetation removal. Relocation will require prior permission from the CDFW, at a minimum.

**BIO-2** To avoid impacting nesting birds, either avoidance of project-related disturbance during the nesting season (1 February through 31 August) or nesting bird surveys conducted by a qualified ornithologist or biologist immediately prior to on-site disturbance during the nesting season shall be required. If nesting birds are found, no work would be permitted near the nest until young have fledged. There is no established protocol for nest avoidance, however, when consulted the CDFW generally recommends avoidance buffers of about 500 feet for birds-of-prey and species listed as threatened or endangered, and 100–300 feet for unlisted songbirds.

**Mitigation Monitoring:**

**BIO-A** Prior to the issuance of any permit to allow ground disturbance on the site, the Project Proponent shall furnish the City with pre-construction surveys for burrowing owl and MBTA covered birds.
**Responsible Parties:** Project applicant, project biologist, Planning Department.

*5 - Cultural Resources*

| **CULTURAL RESOURCES** – Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | ☐ | ☐ | ☒ | ☐ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | ☐ | ☒ | ☐ | ☐ |
| c) Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ☐ | ☐ | ☒ |

**Sources:** Phase 1 Historical/Archaeological Resources Survey, William Warren Group Project (Catana SP), prepared by CRM TECH. December 17, 2022 (Appendix C).

*5.1 Setting:*

The City of Rancho Mirage is located in the Coachella Valley where the Cahuilla Indians settled centuries ago. The Cahuilla Indians were a Takic-speaking people of hunters and gatherers generally divided into three groups by geographic setting: the Pass Cahuilla of the San Gorgonio Pass – Palm Springs area; the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains and the Cahuilla Valley; and the Desert Cahuilla of the eastern Coachella Valley.

In 1823, the first noted group of European explorers traveled through the Coachella Valley mainly along established trails due to the harsh environment. As railroad lines and stations were completed, non-Indian settlement arrived in the Coachella Valley and expanded in the next decade after the Homestead Act, the Desert Land Act, and other federal land laws opened public land for claims. Agriculture became the dominant economic activity with the development of extensive groundwater resources (mainly artesian wells). From 1920s on, a new industry began to develop focusing on winter resorts, hotels and winter camps. By the mid-20$^{th}$ century, country clubs began to develop and have since spread throughout the Valley, making it a premier winter retreat in southern California. The first settlement activities were noted in the 1910s-1920s in the Rancho Mirage area. The community gained its name in the 1930s and rapid growth after the WWII.

A standard Phase I Historical/Archaeological Resources Survey was performed for the Project site in 2022 under provisions of the California Environmental Quality Act. That study consisted of a historical/archaeological resources records search, historical background research, Native American consultation, and an intensive-level field survey. The results of the Phase 1 study are further discussed below.

*5.2 Discussion of Impacts:*

**a, b) Less than Significant; Less than Significant with Mitigation.** Section 15064.5 of the CEQA Guidelines generally defines a historic resource as a resource that is:

(1) Listed in, or determined to be eligible for listing in the California Register of Historical Resources (California Register);
(2) Included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code); or
(3) Identified as significant in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code).

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register. The California Register automatically includes all properties listed in the National Register of Historic Places (National Register) and those formally determined to be eligible for listing in the National Register.

Section 15064.5(a)(3)(D) of the CEQA Guidelines generally defines archaeological resources as any resource that "has yielded, or may be likely to yield, information important in prehistory or history." Archaeological resources are features, such as tools, utensils, carvings, fabric, building foundations, etc., that document evidence of past human endeavors and that may be historically or culturally important to a significant earlier community.

Eastern Information Center (EIC) Record's Search
A CRM TECH archaeologist conducted a cultural resources records search on March 30, 2022, at the Eastern Information Center (EIC) University of California, Riverside. Within a half-mile radius of the project boundary, EIC records identify at least nine other previous studies on various tracts of land and linear features, including adjacent properties to the west and the south. One historical/ archaeological site and two isolates—i.e., localities with fewer than three artifacts—were previously recorded within the half-mile radius of the project site. The nearest among the three known cultural resources was located just outside of the northern project boundary in an area now occupied by Rancho Mirage High School. Since none of the previously recorded cultural resources was located within the project site, none of them require further consideration.

Historical Record Search
Review of recent and historical aerial photographs found that the project site has remained undeveloped despite commercial and residential development occurring on surrounding properties.

Field Inspection
A field survey of the Project site was conducted on March 8, 2022, by a CRM Tech archaeologist. As a result of the field survey, a previously undocumented archaeological site from the historic period was recorded in the project area and given the temporary designation of Site 3817-1H, pending assignment of an official identification number in the California Historical Resources Inventory. No other cultural resources, either prehistoric or historical in origin, were found during the survey.

Site 3817-1H measures roughly 10 feet by 9 feet in size and consists of a very small refuse scatter of four crushed metal cans. Light refuse deposits like this represent one of the most common types of historic-period archaeological remains found in the southern California desert region, typically the results of incidental trash discarding. Without an exceptional quantity or quality of artifacts, Site 3817-1H holds little promise for any new or important archaeological data. Based on these considerations, Site 3817-1H does not appear eligible for listing in the California Register of Historical Resources and does not meet CEQA definition of a "historical resource."

Native American Consultation

On December 7, 2021, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. In addition, CRM TECH contacted the Agua Caliente Band of Cahuilla Indians to invite tribal participation in the field survey.

In response to CRM TECH's inquiry, the NAHC states in a letter dated February 2, 2022, that the Sacred Lands File identified no Native American cultural resources in the project vicinity; however, the NAHC recommended that local Native American groups be consulted for further information and provided a referral list of 16 individuals associated with 11 local Native American groups who may have knowledge of such resources. The NAHC's reply has been provided to the City for reference during their tribal consultation efforts.

In addition to the consultation undertaken by the Project archaeologist, California Government Code Section 65352.3 (adopted pursuant to the requirements of Senate Bill 18 [SB 18]) requires local governments to contact, refer plans to, and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan. The tribal organizations eligible to consult have traditional lands in a local government's jurisdiction, and are identified, upon request, by the NAHC. As noted in the California Office of Planning and Research's Tribal Consultation Guidelines (2005), "The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places.".

Assembly Bill 52 (AB 52) requires lead agencies to notify their local tribes about development projects. It also mandates lead agencies consult with Tribes if requested and sets the principals for conducting and concluding the required consultation process. Pursuant to AB 52 and SB 18 consultation requirements, the City of Rancho Mirage initiated a SB18 and AB52 consultation process. The City conducted a 90-day tribal consultation period from September 20, 2023 to December 20, 2023. As a result of that consultation, the Agua Caliente Band of Cahuilla Indians (ACBCI), requested the addition of Mitigation Measures CUL-2 and CUL-3. See Section 18, Tribal Cultural Resources, for further discussion.

Summary:

No historical resources exist within or adjacent to the project site, and thus the proposed Project will not cause a substantial adverse change to any known "historical resources."

No archaeological resources were identified on the site from records searches or site investigation. However, the potential for buried resources does exist on the site. To protect the potential archaeological resources under the site and reduce potential impacts to less than significant levels, Mitigation Measure CUL-1 is included at the end of this section, consistent with the findings of the cultural resource investigation. The mitigation measure requires the presence of archaeological and Native American monitors during earth moving activities, to assure that

subsurface resources are identified and protected during the grading and excavation of the proposed Project. In addition, the ACBCI requested the addition of Mitigation Measure CUL-2, to educate construction personnel prior to the initiation of earth moving activities to further lower the risk of impact. With the implementation of these mitigation measures, potential impacts associated with archaeological resources will be reduced to less than significant levels.

**c) Less than Significant with Mitigation**. No cemeteries or human remains are known to occur on-site. It is unlikely that human remains will be uncovered during project development. Should human remains be uncovered during grading of the site, and consistent with California law Mitigation Measure CUL-3 requires that all activity stop, that the coroner be notified, that he or she determine the nature of the remains, and whether Native American consultation will be required. This measure, consistent with the requirement of law assures that impacts to cemeteries or human remains will be reduced to less than significant levels.

*5.3 Mitigation Measures:*

**Mitigation Measures:**

**CUL-1** Earth-moving activities including grading, grubbing, trenching, or excavations at the site shall be monitored by a qualified archaeologist and approved Agua Caliente Native American Cultural Resource Monitor(s).

Should cultural materials be discovered, they shall be recorded and evaluated in the field. The monitors shall be prepared to recover artifacts quickly to avoid construction delays but must have the power to temporarily halt or divert construction equipment to allow for controlled archaeological recovery if a substantial cultural deposit is encountered. The Native American Monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of the Interior's Standards and Guidelines) to investigate and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Officer and Agua Caliente Tribal Historic Preservation Office. . If artifacts are discovered, these shall be processed, catalogued, analyzed, and prepared for permanent curation in a repository with permanent retrievable storage that would allow for additional research in the future. Archaeological site records shall be prepared to document the cultural remains discovered during monitoring and submitted to the California Historical Resources Information System.

**CUL-2** A qualified archaeologist and/or approved Agua Caliente Native American Cultural Resource Monitor(s) shall provide preconstruction training for all earthmoving construction personnel prior to the start of any ground disturbing activities, regarding how to recognize the types of Tribal Cultural Resources and/or archaeological resources that may be encountered and to instruct personnel about actions to be taken in the event of a discovery.

**CUL-3** In the unexpected event human remains are uncovered during construction activities, all construction work taking place within the vicinity of the discovered remains must cease and the necessary steps to ensure the integrity of the immediate area must be taken, consistent with State law. The County Coroner must be notified within 24 hours of the discovery of human remains. If the remains discovered are determined by the Coroner to be of Native American descent, the Coroner shall contact the Native American Heritage

Commission (NAHC) within 24 hours. The NAHC would in turn contact the Most Likely Descendant (MLD), who would determine further action to be taken. The MLD would have 48 hours to access the site and make a recommendation regarding disposition of the remains.

**Monitoring:**

**CUL-A** Prior to the issuance of a grading permit for the site, the applicant shall provide a fully executed Tribal monitoring agreement as requested by the Agua Caliente Band of Cahuilla Indians (ACBCI) to the City which includes a pre-construction education component.

Within 30 days of the completion of ground disturbing activities on the project site, a report of findings shall be filed with the City. The report will summarize the methods and results of the monitoring program, including an itemized inventory and a detailed analysis of recovered artifacts, upon completion of the field and laboratory work. The report should include an interpretation of the cultural activities represented by the artifacts and a discussion of the significance of all archaeological finds.
**Responsible Parties:** Project applicant, Planning Department, Project archaeologist, Agua Caliente Native American Cultural Resource Monitor(s).

*6 - Energy*

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

**Sources:** Rancho Mirage General Plan 2017.

*6.1 Setting:*

**Background**

Primary energy sources include fossil fuels (oil, coal, and natural gas), nuclear energy, and renewable sources like wind, solar, geothermal, and hydropower. Southern California Edison (SCE) provides electric services to the City of Cathedral City. Currently, SCE serves approximately 4.4 million residential service accounts and 520,000 commercial service accounts, which use up to 69% of the electricity generated by SCE in its service area.[5] Natural gas is provided to Cathedral City by the Southern California Gas Company (SoCalGas). Its service territory encompasses approximately 24,000 square miles in Central and Southern California, from the City of Visalia to the Mexican border.[6]

Both SCE and SoCalGas have existing underground utilities along Ramon Road.

The Rancho Mirage Energy Authority (RMEA) is a locally run, not-for-profit power program created by the City of Rancho Mirage. RMEA purchases power directly from power providers, pays consultants for compliance functions, and sets electricity rates based on its costs. Each SCE customer that resides within the City of Rancho Mirage is automatically enrolled in the Base Choice program which allows 31.7% of each customers energy to be provided by renewable energy sources. Customers additionally have an option to enroll in RMEA's Premium Renewable Choice program which allows 100% of each customers energy to be provided by renewable energy sources.

[5] Errata to Southern California Edison Company's Amended Energy Efficiency Rolling Portfolio Business Plan For 2018-2025 by SCE (May 15, 2017) – Page 42 and 43.

[6] SoCalGas Company Profile, https://www.socalgas.com/about-us/company-profile, accessed July 2023.

The City adopted an Energy Action Plan in 2012 through the CVAG Green for Life a roadmap of actions for both municipal and community implementation to help reduce energy consumption, to reduce operating costs, and increase energy awareness. It focuses on ways the City can reduce costs while enhancing energy conservation. The City established a 10 percent energy reduction target.

*6.2 Discussion of Impacts:*

**a, b) Less Than Significant Impact.** Energy resources would be utilized during both construction and operational activities. Construction related energy demand comes from the operation of construction equipment and the manufacturing of construction materials. Fuel consumed by construction equipment, such as petroleum and diesel, would be the primary energy resource expended over the course of construction. However, petroleum and diesel use during construction would be temporary and minimal and would not be wasteful or inefficient.

Operational energy demand primarily comes from building/site lighting and HVAC systems. The proposed development will be subject to Title 24 of the California Code of Regulations, which requires energy efficient building practices and the installation of roof-top solar panels on new residential and commercial development. All structures will be constructed in accordance with the Building Code, California Green Building Code, and Energy Code in effect at the time that development occurs, to ensure the most efficient construction/building technologies are used, which will benefit overall building operations, ensure energy efficiency and reduce wasteful and unnecessary consumption of energy resources. The Project is also required to comply with the City's Energy Action Plan, implementing energy reduction strategies as applicable for residential and commercial components of the Project. These requirements of law assure that future buildings on the site will not waste energy.

Operation would also result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project site. Although the Project will result in a direct increase in City VMTs, the Project will not interfere with increased fuel efficiency standards and will not result in wasteful, inefficient, or unnecessary consumption of transportation energy resources during operation. The Project proposes a mixed-use development that places multi-family residential within a half-mile to commercial uses, transit, and employment opportunities which reduces vehicle trips, trip length and the consumption of fuel. Impacts were determined to be less than significant (see also Section 17 Transportation).

SCE is committed to promoting renewable energy generation for its own operations and throughout the State and local communities SCE's Pathway 2045 provides a roadmap to achieving statewide carbon neutrality that requires decarbonization of the State's economy, including the electric sector, natural gas and low-carbon fuels, transportation, and building construction and operation efficiencies.[7] SoCalGas is also committed to energy and climate sustainability and investing in a diverse portfolio of technologies and applications to decarbonize, including the use of cleaner fuels like renewable natural gas. SoCalGas aspires to achieve net zero GHG emissions in both operations and delivery of energy by 2045.

The Project will comply with the solar and energy requirements in the California Building Code in effect when construction occurs, and will not interfere with any state or local plan that promotes renewable energy or energy efficiency. Adherence to the applicable state standards enforced by

[7] "Pathway 2045," by Southern California Edison, November 2019. https://www.edison.com/home/our-perspective/pathway-2045.html. Accessed July 2023.

SCE and SoCalGas will ensure the development is consistent with current energy standards and conservation goals laid out in the City's Sustainability Plan. Therefore, impacts related to energy will be less than significant.

*6.3 Mitigation Measures:*

**Mitigation Measures**: None required.

**Monitoring:** None required.

*7 - Geology and Soils*

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

**Sources:** Rancho Mirage General Plan 2017.

*7.1 Setting:*

Geologic Setting

The Project is located in the City of Rancho Mirage which is part of the Coachella Valley. The geology and seismicity of the Coachella Valley is primarily influenced by the tectonics of the San Andrea and San Jacinto fault systems. The San Andreas Fault is a continental transverse fault that extends roughly 750 miles through California. It forms the tectonic boundary between the Pacific Plate and the North American Plate, and its motion is right-lateral strike-slip (horizontal). The San Jacinto Fault Zone (SJFZ) is a major strike-slip fault zone that runs through San Bernardino, Riverside, San Diego, and Imperial Counties in Southern California. The SJFZ is a component of the larger San Andreas transform system and is considered to be the most seismically active fault zone in the area.

The Coachella Valley is located in the northwestern portion of the Salton Trough which is bounded by the San Bernardino Mountains on the northwest, San Jacinto Mountains on the west, Santa Rosa Mountains on the south, and Little San Bernardino Mountains and Indio Hills on the north and northeast. Regional soils range from rocky outcrops within the mountains bordering the valley to coarse gravels of mountain canyons and recently laid fine- and medium-grained alluvial (stream deposited) and aeolian (wind deposited) sediments on the central valley floor. Episodic flooding of major regional drainages, including the Whitewater River, results in the deposition of sand and gravel on the valley floor. Strong sustained winds emanating from the San Gorgonio Pass cause wind erosion and transport and deposit dry, finely granulated, sandy soils on the central valley floor. The base of the Santa Rosa Mountains consists of alluvial and stream-washed deposits, which are coarse sands and gravels.

Paleontological Resources

Paleontological resources are the fossilized remains of prehistoric animals and plants, created more than 12,000 years ago in the Pleistocene era. Fossils are usually buried resources, and often cannot be identified on the surface. A relatively thick sequence (20,000 feet) of sediment has been deposited in the Coachella Valley portion of the Salton Trough from the Miocene era to present times. These sediments are predominantly terrestrial in nature with some lacustrine (lake) and minor marine deposits. The major contributor of these sediments has been the Colorado River. The mountains surrounding the Coachella Valley are composed primarily of Precambrian metamorphic and Mesozoic "granitic" rock. According to the Riverside County Map My County GIS database, the City and Project site contain recent alluvium soils which have a low potential to contain significant paleontological resources.[8]

*7.2 Discussion of Impacts:*

**a.i) No Impact.** The subject property is not located within or adjacent to an Alquist-Priolo Earthquake Fault Zone. The nearest earthquake fault is the San Andreas Fault Zone, approximately 3.3 miles northeast of the site. This active fault is capable of generating earthquakes of magnitude 7.4. There are no active faults in the vicinity of the subject property. Fault rupture is not expected on the project site because it does not occur on any of these faults. No impact is anticipated.

[8] Riverside County Map My County, https://gis1.countyofriverside.us/Html5Viewer/index.html?viewer=MMC_Public. Accessed July 2023.

**a.ii) Less Than Significant Impact.** The Project site is located in a seismically active region where earthquakes originating on local and regional seismic faults can produce severe ground shaking. Buildings proposed for the site will be required to conform to the most recent edition of the California Building Code (CBC) to provide collapse-resistant design. These building standards are designed to minimize the catastrophic failure of buildings, thereby lowering the potential impacts to life and property. According to the CBC, Site Class D may be used to estimate design seismic loading for the proposed structures. As a result of these standards, Project-related impacts associated with seismic ground shaking will be less than significant.

**a.iii) Less than Significant Impact with Mitigation.** Liquification occurs when 3 conditions exist: (1) liquefaction-susceptible soils; (2) groundwater within 50 feet or less below ground surface; and (3) strong seismic shaking. According to the Rancho Mirage General Plan Safety Element, the Project site is located in an area that has a moderate liquefaction susceptibility. Therefore, the potential for liquefaction at the project site exists.

The City requires, as part of its building permit process, the preparation of site-specific soils analysis and geotechnical report. This standard requirement, as set forth in Mitigation Measure GEO-1, will assure that a qualified geologist studies all geotechnical and soil issues at the project site based on the actual construction proposed. As a result of this standard requirement, impacts associated with liquefaction are expected to be less than significant.

**a.iv) No Impact.** The Project site is on the Coachella Valley floor. It predominantly consists of sand and is surrounded by relatively flat terrain. The nearest hillsides slope of the Santa Rosa mountains are approximately 2.9 miles southwest of the subject property. Due to distance from the nearest hillside, no impacts associated with landslides will occur.

**b) Less Than Significant Impact.** Development of the Project site has the potential to result in the erosion of soils during site preparation, grading, and building construction. The subject property is located in an area susceptible to very severe and severe wind according to the Rancho Mirage General Plan (GP Exhibit 25 Wind Erosion Hazards). Soils on the site consist of Myoma fine sand, which are prone to wind and water erosion. The site is essentially flat, thus minimizing the potential for water erosion. The site will be mostly covered by buildings, pavement or landscaping at build out, minimizing long-term wind erosion potential.

Grading and construction may require removal of the topsoil; however, they would occur in accordance with erosion control requirements, including grading and dust control measures imposed by the City pursuant to grading permit regulations, including adherence to SCAQMD Rule 403.1, that requires a fugitive dust control plan. Specifically, Project construction would be required to comply with the City's Municipal Code, including submittal and approval of grading permits, site and building plans, and inspections to ensure that the Project does not generate excessive soil erosion. In addition, the Project will be required to prepare a Project-specific Water Quality Management Plan (WQMP) (See Section 10, Hydrology and Water Quality). As part of the WQMP, Best Management Practices (BMPs) would be implemented during grading and construction to reduce sedimentation and soil erosion to the maximum extent practicable. Therefore, impacts would be less than significant.

**c) Less Than Significant with Mitigation Incorporated.** The site is undeveloped, and grading will be conducted in compliance with City's standards. The City will require project-specific geotechnical engineering analysis as part of the building permit process (Mitigation Measure GEO-1) to determine whether additional soil remediation or compaction is required to mitigate

impacts from lateral spreading, subsidence, liquefaction or collapse. The recommendations set forth in the Project-specific geotechnical report shall be integrated into grading and building plans that the City will review and approve prior to the issuance of grading and building permits, which will assure that impacts associated with unstable soils remain less than significant.

**d) Less Than Significant Impact with Mitigation Incorporated.** Expansive soils typically contain large amounts of clay that expands when water is absorbed and shrinks when it dries. The City will require project-specific geotechnical engineering analysis as part of the building permit process (Mitigation Measure GEO-1) to determine whether additional soil remediation or compaction is required to mitigate impacts from expansive soils. The recommendations set forth in the Project-specific geotechnical report shall be integrated into grading and building plans that the City will review and approve prior to the issuance of grading and building permits, which will assure that impacts associated with soils remain less than significant.

**e) No Impact.** The Project area is readily served by sewage infrastructure. The Project would not require the use of septic tanks or alternative wastewater disposal systems or result in impacts related to the ability of soils to support septic tanks or alternative wastewater disposal systems. No impacts would occur and no mitigation measures would be required.

**f) No Impact.** Paleontological resources are the fossilized remains of organisms that lived in a region in the geologic past and whose remains are found in the accompanying geologic strata. This type of fossil record represents the primary source of information on ancient life forms, most of which are now extinct. The Project site is not known to contain unique paleontological features. Also, there are no unique geological features (rivers, lakes, hills, faults, folds, etc.) located onsite that would directly or indirectly be destroyed by the proposed Project. The surface soils consist of recently deposited alluvial sand and gravel that are not conducive to the location of paleontological resources. Therefore, potentially sensitive paleontological resources are not expected to occur on site and there will be no impact to such resources.

*7.3 Mitigation Measures:*

**Mitigation Measures:**

**GEO-1** Development of the Project shall adhere to the recommendations set forth in the Project-specific geotechnical engineering report required by the City prior to issuance of grading and building permits.

**Monitoring:**

**GEO-A** The City shall review a project-specific soils study concurrent with grading and building plans prior to the issuance of ground disturbing permits to ensure plans adhere to the recommendations set forth in the Project Geotechnical Engineering Investigation.
**Responsible Parties:** Project applicant, construction manager, Planning Department, City Engineer.

*8 – Greenhouse Gas Emissions*

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

**Sources:** Rancho Mirage General Plan 2017; "2013 Sustainability Action Plan," prepared by EcoMotion, March 2013; "2012 Greenhouse Gas Inventory," prepared by EcoMotion, September 2012; CalEEMod Version 2022.1.1.14 (Appendix A).

*8.1 Setting:*

**Background**

Air quality has become an increasing concern because of human health issues, but also because greenhouse gas emissions are contributing to global warming and climate change. The primary contributor to greenhouse gas emissions is the burning of fossil fuels through the use of automobiles, power and heat generators, and industrial processes.

The principal greenhouse gases (GHGs) include carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), ozone ($O_3$), and water vapor ($H_2O$), which are generated by both mobile and stationary sources, including vehicles, electricity and natural gas consumption, and emissions associated with water pumping and application of fertilizers.

The State of California has taken a leading role to curb GHG emissions and has developed laws and regulations to reduce these emissions. State legislation and regulations call for better integrated land use planning and curtailing energy production away from nonrenewable sources and toward new renewable sources, such as solar and wind. California SB 375 in part implements greenhouse gas reduction targets set forth in AB 32 and encourages regional land use planning to reduce vehicle miles traveled; it also requires jurisdictions to adopt a sustainable communities strategy. The California Air Resources Board continues to draft regulations to implement the Scoping Plan. Senate Bill 350 requires that, by the year 2020, 50% of the electricity used in California is from renewables to help reduce statewide GHG emissions.

State law mandates that all cities decrease their GHG emissions to 1990 levels by the year 2020. Executive Order B-30-15 set an interim target goal of reducing GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050, as set forth in Executive Order S-3-05.

City of Rancho Mirage Sustainability Plan, Energy Action Plan, and GHG Inventory

The City of Rancho Mirage completed its Sustainability Plan in March 2013 in an effort to address climate change at the local level by reducing greenhouse gas emissions within its own operations and the overall community. The Sustainability Plan provides a framework for the development and implementation of policies and programs that will reduce the City's emissions and is tracked via the City's Greenhouse Gas Inventory. In addition to the Sustainability Plan, the City prepared an Energy Action Plan (2013) to identify energy saving options and actions necessary to meet the City's future energy needs, consistent with the energy policies set forth by the State of California.

In 2010, Rancho Mirage was over its 1990 baseline emissions value (220,061 tonnes) by 57,637 tonnes $CO_2e$. "Business as usual" emissions with the impacts of federal and state programs could reach 274,333 tonnes $CO_2e$ by 2020. To achieve the AB 32 target by 2020, the City would have to cut GHG emissions by 19.8%, or 54,272 tonnes from the business-as-usual estimate. The following is a summary of major findings in the 2012 Greenhouse Gas Inventory:

- Communitywide emissions in 2010, using guidelines approved by the California Air Resources Board, total 277,698 tonnes $CO_2e$.
- This level is 26.2% above 1990 target levels referenced in AB 32—220,061 tonnes $CO_2e$.
- The municipal contribution to the community's emissions footprint is 0.78%, or 2,145 tonnes $CO_2e$.
- Electricity—predominantly used for air conditioning—is responsible for 43.2% of the community's emissions.
- At 16.1 tonnes per capita (2010), Rancho Mirage has high emissions relative to its neighboring cities.
- Transportation emissions are the second highest source for the City as a whole. The per capita regional transportation emissions value of 2.8 tonnes $CO_2$, when added to City emissions, puts Rancho Mirage's total emissions per capita at 18.9 tonnes $CO_2e$ (2010).

GHG Thresholds

On December 5, 2008, the SCAQMD formally adopted a greenhouse gas significance threshold of 10,000 MTCO2e/yr that only applies to industrial uses' stationary sources where SCAQMD is the lead agency (SCAQMD Resolution No. 08-35). This threshold was adopted based upon an October 2008 staff report and draft interim guidance document that also recommended a threshold for all projects using a tiered approach.

It was recommended by SCAQMD staff that a project's greenhouse gas emissions would be considered significant if it could not comply with at least one of the following "tiered" tests:

- Tier 1: Is there an applicable exemption?
- Tier 2: Is the project compliant with a greenhouse gas reduction plan that is, at a minimum, consistent with the goals of AB 32?
- Tier 3: Is the project below an absolute threshold (10,000 MTCO2e/year for industrial projects; 3,000 MTCO2e/year for residential and commercial projects)?
- Tier 4: Is the project below a (yet to be set) performance threshold?
- Tier 5: Would the project achieve a screening level with off-site mitigation?

*8.2 Discussion of Impacts:*

**a, b) Less Than Significant Impact.** The proposed Project will generate GHG emissions during both construction and operation. As described in Section 3 Air Quality, above, the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.14 was used to quantify air quality emission projections, including greenhouse gas emissions (Appendix A).

Construction

Construction activities will result in short-term GHG emissions associated with operation of construction equipment, employee commute, material hauling, and other ground disturbing activities. As shown in Table 4, the project will generate 1,251 CO2e metric tons during the 2-year construction period. There are currently no construction-related GHG emission thresholds for projects of this nature. To determine if construction emissions will result in a cumulatively considerable impact, buildout GHG emissions were amortized over a 30-year period and added to annual operational emissions to be compared to applicable GHG thresholds (see Table 4, below).

Operation

At buildout, there are five emission source categories that will be contributing either directly or indirectly to operational GHG emissions, including energy/electricity usage, water usage, solid waste disposal, area emissions (pavement and architectural coating off-gassing), and mobile sources. Table 4 provides a summary of the projected short-term construction and annual operational GHG generation associated with buildout of the proposed Project.

**Table 4**
**Projected GHG Emissions Summary**
**(Metric Tons)**

| Phase | $CO_2e$ (MT/YR) |
|---|---|
| **Construction** | |
| Construction Total | 1,251 |
| **Operation** | |
| Area | 78 |
| Energy | 1,352 |
| Mobile | 3,151 |
| Waste | 102 |
| Water | 94 |
| Construction: 30-year amortized [1] | 42 |
| Total Operational | 4,819 |

1. Buildout construction GHG emissions were amortized over 30-years then added to buildout operational GHG emissions. 1,251/30 = 41.7 or 42.

According to the SCAQMD's recommended threshold Tier 2, a project would have a less than significant impact if it would be consistent with an approved plan for the reduction of GHG that is, at a minimum, consistent with the goals of AB 32. The City's 2012 GHG Inventory provides baseline emission data, consistent with the reduction targets of AB 32, from which future developments within the City are to be measured.

For the City to achieve the goals of AB 32 by 2020 it would need to reduce community-wide emissions to 220,061 tons of annual CO2e. In 2020, the City's had a total population of 16,990[9]. To be consistent with AB 32, the per capita GHG emission rate would therefore need to be, at most, 12.95 MT $CO_2$e/yr. Based on the Project's annual GHG emissions of 4,819 MT $CO_2$e/yr and estimated population of 565[10], the Project's per capita GHG emission rate is 8.53 MT $CO_2$e/yr, which is 34% reduction in per capita emissions required to achieve the goals of AB 32. While the City's GHG inventory has not been updated in recent years, the 1990 GHG emissions baseline from the 2012 GHG inventory has not changed; therefore, it is reasonable to assume that that Project per capita emission of 8.53 MT $CO_2$e/yr is consistent with, and exceeds, the goals of AB 32.

The accompanying 2013 Sustainability Plan identifies efficiency and saving measures that inform both City staff and developers on ways to reduce GHG emissions in compliance with these reduction targets. The Sustainability Plan set forth lists of 82 "saving measures" that cover seven spheres of daily activity – live, work, build, mobility, govern, recreate, learn – that represents 60,411 tons of annual CO2e savings, which is 10% over the required 54,272 tons to reach compliance with AB 32 2020 levels. If the project is not consistent with the saving measures or if the measures are not otherwise binding, they must be incorporated as mitigation measures applicable to the project. Table 5 compares the proposed Project with the applicable saving measures. As shown in the table, the proposed Project would implement applicable GHG reduction measures and therefore would be consistent with the Sustainability Plan. It should be noted that the majority of reduction measures provided in the Plan are dependent on third party actions, including the City and utility companies. Nevertheless, the proposed Project will be constructed in conformance with the current California Building Code, which sets for stringent energy efficiency requirements and standards for new development that support the goals of the Statewide GHG reduction plans. Therefore, the Project is considered consistent with local and state GHG reduction measures, and impacts would be less than significant, and mitigation would not be required.

9 U.S. Census QuickFacts. https://www.census.gov/quickfacts/fact/table/ranchomiragecitycalifornia/PST045222.

10 State of California Department of Finance, Table E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2021-2023, with a 2020 Benchmark. 1.85 persons per household for Rancho Mirage, 2023.

| Table 5<br>Consistency with Applicable<br>Sustainability Plan GHG Saving Measures | |
|---|---|
| **Measure** | **Consistency** |
| **Build-3:** New and Efficient Construction: Promote the Savings by Design Program from SCE for new commercial buildings. | **Consistent:** The proposed Project would meet Title 24 California Building Code Energy Efficiency standards for which the Savings by Design Program is based. |
| **Build-5:** Green Building Program: Promote Voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards. | **Consistent:** The city has adopted the California Building Code as Part 2 of *Title 24* of the California Code of Regulations. The Project is required to meet the standards of the Title 24 requirements. |
| **Build-8:** Affordable Housing: Promote the construction of energy-efficient affordable housing with private-sector partners. | **Consistent:** The proposed Project would provide new affordable housing options designed to meet Title 24 California Building Code Energy Efficiency standards. |
| **Mobility-4**: Charging Stations: Foster public/ private partnerships to promote EV charging stations with public access. | **Consistent:** The proposed Project would meet Title 24 California Building Code Energy Efficiency standards, which sets forth electric vehicle charging stations requirements and standards for new commercial and multi-family residential construction (Chapter 4.106.4). |
| **Mobility-6:** Biking and Walking: Expand bikeways, trails, and walking paths connecting residential neighborhoods and commerce. | **Consistent:** The project site design includes pedestrian walkways throughout the site and along Ramon Road that will provide residents convenient access to the project's commercial uses as well as other commercial uses in the area. |
| **Govern-13**: Solar Ready Ordinance: Develop and implement an ordinance requiring 100% of new homes be solar ready (PV). | **Consistent:** The proposed Project would meet Title 24 California Building Code mandatory solar-ready requirements for new buildings. |
| Source: "2013 Sustainability Action Plan," prepared by EcoMotion, March 2013. | |

*8.3 Mitigation Measures:*

**Mitigation Measures:** None required.

**Monitoring**: None required.

*9 - Hazards and Hazardous Materials*

| **HAZARDS AND HAZARDOUS MATERIALS** – Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☐ | ☒ | ☐ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ☒ | ☐ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☒ | ☐ |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ☒ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☒ | ☐ |
| g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☐ | ☒ |

**Sources:** 2017 Rancho Mirage General Plan; California Department of Toxic Substances Control EnviroStor; State Water Resources Control Board GeoTracker database.

*9.1 Setting:*

The proper management of hazardous materials is a common concern for all communities within the Coachella Valley. Beginning in the 1970s, governments at the federal, state, and local levels became increasingly concerned about the effects of hazardous materials on human health and the environment. Numerous laws and regulations were developed to investigate and mitigate these effects. As a result, the storage, use, generation, transport, and disposal of hazardous materials are highly regulated by federal, state, and local laws and regulations. The City is responsible for coordinating with the appropriate agencies in the identification of hazardous material sites and regulation of their timely cleanup. Hazardous materials transport, storage, and use in the City is strictly regulated for large quantity users, such as industrial processes and commercial dry cleaners.

The Project site is surrounded by vacant lands, residential development and a high school. The site is currently vacant, and no chemical or hazardous waste disposal has been documented on the site. There are no known underground tanks or buried materials on the site.

Proposed development would bring a variety of commonly used but potentially hazardous materials, including chlorine for pools and chemicals typical of restaurant, retail and residential developments.

*9.2 Discussion of Impacts:*

**Discussion of Impacts**

**a, b) Less than Significant Impact.** Construction of the Project would involve the use of heavy equipment and vehicles, which will use limited quantities of oil and fuels and other potentially flammable substances. During construction, equipment could require refueling and minor maintenance on site that could lead to fuel and oil spills. The contractor will be required to identify a staging area for storing materials and will be subject to laws regarding the handling, storage, and use of hazardous materials during construction.

During long-term operation, the Project would involve use of limited quantities of hazardous materials such as cleaning and degreasing solvents, fertilizers, pesticides, and similar materials. These chemicals will be transported and stored within the project site. These will occur in limited quantities and will not require a hazardous material handling/storage permit. The manner in which commercial chemicals are stored and handled is highly regulated by the Fire Department, County and State. These standard requirements will assure that impacts associated with commercial quantities of chemicals will be less than significant.

**c) Less than Significant Impact.** The nearest school is Rancho Mirage High School located immediately north of the Project site. While the Project site is within ¼ mile of a school, the use and storage of hazardous materials during Project construction and operation would be in accordance with manufacturers' instructions and handled in compliance with applicable federal, State, and local regulations. No significant amount of hazardous materials would be stored or transported to the site, because the Project consists of residential and commercial uses that are typical of development in the City, which use limited amounts of cleaning products in daily activities. Adherence to standard regulations would ensure impacts would be less than significant.

**d) No Impact.** According to the California Department of Toxic Substances Control EnviroStor database and the State Water Resources Control Board GeoTracker database, the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the proposed Project would not create a significant hazard to the public or the environment. No impact will occur.

**e) No Impact.** The subject property is not within the boundaries of an airport land use plan or within 2 miles of a public or private airstrip. The site is approximately 3.3 miles east of the Palm Springs International Airport and 9.6 miles northwest of the Bermuda Dunes Airport. Therefore, the Project will not result in a safety hazard or excessive noise for people in the Project area. No impact will occur.

**f) Less Than Significant.** The City of Rancho Mirage has a Multi-Hazard Functional Plan, originally adopted in 1994, which is continually updated. The two main evacuation routes in the City include I-10 and Highway 111, along with primary and minor arterial streets serving as secondary routes. Since earthquakes, floods, fires, or other disasters may render certain routes impassible, specific evacuation routes are not identified in the plan because they can change depending upon the type of emergency.

Future development and improvements facilitated by the proposed Specific Plan may require temporary lane closures, detours, or re-routing. However, Construction Traffic Control Plans would be prepared when necessary, and emergency/secondary access would be established and preserved during all construction activities. At buildout, the Project will take access from Ramon Road and Rattler Road. The Project will be required to comply with police and fire department regulations to assure adequate emergency access and vehicle turn-around space. Therefore, the Specific Plan will have a less than significant impact on the adopted emergency response plan or evacuation plan.

**g) No Impact.** The Project site is not within or near a wildland fire hazard zone. The site is sparsely vegetated with sandy soils and provides no substantial fire fuel source. The Project will not expose people or structures to a significant risk associated with wildfire hazards. No impact will occur.

*9.3 Mitigation Measures:*

**Mitigation Measures:** None required

**Monitoring:** None required

*10 - Hydrology and Water Quality*

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

**Sources:** 2017 Rancho Mirage General Pan.

*10.1 Setting:*

Domestic Water

The Project site is within the Coachella Valley Water District (CVWD) service area for domestic water. The District's primary water source is groundwater extracted through a system of wells from the Coachella Valley Groundwater Basin. In addition to groundwater, CVWD relies on

imported water that is recharged into the groundwater basin at three facilities: Whitewater River Groundwater Recharge Facility (GRF), Thomas A. Levy GRF, and Palm Desert GRF. CVWD's domestic water system includes 97 groundwater production wells and 65 enclosed reservoirs. In 2020, it pumped 99,843 acre-feet per year (AFY) of groundwater from the Indio and Mission Creek Subbasins. CVWD also owns and operates the water distribution system, which is generally located under existing streets in the public right-of-way. There are existing 18-inch water lines beneath Ramon Road and Rattler Road in the Project vicinity.

CVWD is responsible, under the California Water Code, for analyzing its current and future water supply, and assuring that sufficient supply is available to serve land uses within the District through the preparation of an Urban Water Management Plan (UWMP). CVWD is required to periodically update the UWMP. In 2020, CVWD collaborated with other water purveyors in the Coachella Valley to prepare a regional UWMP.[11]

Wastewater Treatment

CVWD provides sewer service to the City of Rancho Mirage, including the Project area. CVWD maintains sewer trunk lines ranging from 6 to 36 inches in diameter and 28 lift stations and associated force mains. Effluent from Palm Desert is conveyed to CVWD's Cook Street treatment plant (Water Reclamation Plant No. 10), which has a total capacity of 18 million gallons per day (mgd), including 15 mgd of tertiary treatment capacity. CVWD also implements the requirements of the Regional Water Quality Control Board pertaining to domestic water quality and wastewater discharge.

The Project site is in an urban area where sewer lines are installed under the main roads. The Project will connect to existing sewer lines located in the Ramon Road and Rattler Road right of ways.

Flood Control

The Project site is located in the Coachella Valley where the average rainfall is approximately 3.76 inches per year. Several watersheds drain the adjoining elevated terrain of the San Jacinto and Santa Rosa Mountains towards the valley floor. The proposed Project will not discharge into either regional or local drainages. Rather, it will manage stormwater on-site with a retention basin and potentially an underground system.

The Project area is subject to City requirements relating to flood control. The City implements standard requirements for the retention of storm flows, and participates in the National Pollution Discharge Elimination System (NPDES) to protect surface waters from pollution.

*10.2 Discussion of Impacts:*

**a) Less than Significant Impact.** The Project site is in the Whitewater River watershed. All water providers in the watershed are required to comply with Regional Water Quality Control Board (RWQCB) standards for the protection of water quality, including the preparation of project-specific Water Quality Management Plans (WQMP) for surface waters. CVWD is required to meet water quality requirements in its production and delivery of domestic water.

[11] 2020 Coachella Valley Regional Urban Water Management Plan, Water Systems Consulting, Inc., June 30, 2021.

Development within the Specific Plan planning area will connect to the existing CVWD sewer system that will minimize impacts to regional groundwater quality. Installation of water lines on the Project site will comply with CVWD and RWQCB standards for water conveyance. Development of the site will be required to prepare a WQMP per the Colorado River Basin Regional Board. To minimize the pollutant load associated with urban runoff, it will also be required to comply with NPDES regulations, including preparation of a Storm Water Pollution Prevention Plan (SWPPP). Adherence to conditions of approval and local, state, and federal standard requirements will assure that the Project will not violate any water quality standards or waste discharge requirements or conflict with any water quality control plan or sustainable ground water management plan. Project impacts will be less than significant.

**b) Less than Significant Impact.** During construction, water demand will be limited and temporary and used for dust control purposes, including the routine spraying of ground surfaces and construction equipment. During operation, water will be used for residential uses, commercial uses, and drought-tolerant landscape irrigation.

The American Water Works Association Research Foundation (AWWARF) has developed demand factors for land use categories including residential and commercial uses. As shown in the table below, the Project has the potential to generate a demand of 76.91 acre-feet per year.

**Table 6**
**Water Demand at the Project Buildout**

| Proposed Land Use | Unit | Water Consumption Factor | Water Demand (gpd) | Total Water Demand At buildout (AFY) |
|---|---|---|---|---|
| Residential | 565 occupants | 55 gallons per occupant per day | 31,075 | 34.8 |
| *Commercial/Office | 37,500 SF | 35 gallons per SF per year | 3,596 | 4.02 |
| *Restaurant | 37,500 SF | 331 gallons per SF per year | 34,007 | 38.09 |
| | | | **TOTAL** | **76.91** |
| *Assumes PA 3 will develop with 50% commercial/office and 50% restaurant uses. | | | | |

According to the 2020 Coachella Valley Regional UWMP[12], the projected 2025 regional water supply is 137,061 AFY, and the projected 2045 regional water supply is 164,966 AFY (UWMP Table 4-22). Approximately 90% of water supplies are expected to be groundwater and 10% are expected to be recycled water. Projections are based on existing water sources and expected future water supply projects or programs. The proposed Project's water demand (76.91 AFY) is 0.05% of projected 2025 regional water supplies and 0.04% of projected 2045 regional water supplies. The Project will result in a change in land use designation, but not a substantial change in water demand. Therefore, the Project will not substantially decrease local groundwater supplies or interfere with groundwater recharge such that it would impede sustainable management of the basin. The Project includes irrigation requirements, including the use of water-efficient fixtures and drought-tolerant landscape materials, which will help reduce water demand over the long term. Impacts will be less than significant.

[12] 2020 Coachella Valley Regional Urban Water Management Plan, Water Systems Consulting, Inc., June 30, 2021.

**c) i-iii) Less than Significant Impact.** The Project site is generally flat. The ground surface consists of mostly wind-blown fine-grained sand and contains no rivers or streams. On-site soils consist primarily of Myoma find sand which is categorized as hydrologic soil group A in the National Cooperative Soil Survey and represent well drained to excessively drained sands or gravelly sands with high infiltration rates (low runoff potential) and high rates of water transmission.

Pursuant to Policy 2.7 of the General Plan Safety Element, the proposed development's on-site stormwater retention facilities must have adequate capacity to retain flows from the 100-year, 24-hour storm. In Planning Area 1, stormwater will be retained on site in the two retention ponds provided in the northeastern and northwestern corners of Planning Area 1. Additional underground storage may be provided on-site if required. PA 2 and 3 will also develop on-site drainage facilities, likely consisting of a combination of above-ground retention, and underground detention facilities. A Hydrology Report and Water Quality Management Plan (WQMP) will be prepared for each Planning Area as it develops within the Catana Specific Plan, consistent with City standard requirements.

The Project will also be required to comply with conditions of approval pertaining to discharge, standard stormwater management requirements, and project-specific Best Management Practices (BMPs) and a Water Quality Management Plan (WQMP) that are subject to approval by the City Engineer and required by the City's NPDES implementation agreement. Implementation of the WQMP and BMPs will reduce impacts to surface waters by reducing siltation and reducing or eliminating pollutants in storm flows, including pathogens (bacteria/virus) generally associated with human activities but also present in the environment. With the implementation of these measures, impacts associated with surface water pollution will be less than significant.

Adherence to City requirements, including WQMP BMPs, will ensure the Project will not result in erosion or siltation on- or off-site. Implementation of these and other applicable requirements will assure that the Project will not create or contribute water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

**c) iv) Less than Significant Impact.** The subject property is designated Zone X, which represents areas determined to be outside the 0.2% annual chance floodplain on FEMA's Flood Insurance Rate Maps (FIRM). The site is not located in a 100-year or 500-year FEMA Flood Zone. Implementation of the proposed onsite drainage retention facilities will further ensure that the Project will have a less than significant impact on impeding or redirecting flood flows.

**d) No Impact.** The Project site is inland and not subject to tsunami. It is not in the vicinity of a water body, levee, dam, or above-ground water reservoir (General Plan Exhibit 26 Flood Map). The Project site is not within a 100-year or 500-year floodplain. There will be no impacts associated with Project inundation from being in a flood hazard, tsunami, or seiche zone.

**e) No Impact.** The Project will be required to comply with all applicable water quality standards and implement a WQMP approved by the city and the RWQCB for both construction activities and long-term operation. The Project is consistent with the General Plan land use designation assigned to the Project site, and its anticipated water demand is addressed in the 2020 Coachella Valley regional UWMP. Therefore, it will not conflict with a sustainable groundwater management plan. Adherence to the City's standard requirements related to water quality will ensure there will be no impacts to a water quality control plan.

*10.3 Mitigation Measures:*

**Mitigation Measures:** None required

**Monitoring:** None required

*11 - Land Use and Planning*

| **LAND USE AND URBAN PLANNING** – Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☒ |
| b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☒ | ☐ |

**Sources:** Rancho Mirage General Plan 2017.

*11.1 Setting:*

**Background**

The site is currently vacant and designated as High Density Residential (R-H) on the City's Land Use and Zoning Map, which allows a residential density of up to 9 DU/AC. A General Plan and Zoning Map Amendment is proposed to change the High Density Residential land use designation to General Commercial for 8.3 acres fronting Ramon Road, and apply the Affordable Housing Overlay to 3.3± acres.

*11.2 Discussion of Impacts:*

**a) No Impact**. The Project site is currently vacant and is located in an area that is predominantly developed with residential uses and a high school. These developments operate independently of the subject property and will not be physically divided by the Proposed Project. No impact is anticipated.

**b) Less than Significant Impact**. The Rancho Mirage General Plan, as required by the California Government Code, establishes direction for future growth and development within the City. The California Government Code (under Sections 65451.b and 65454) states that a "specific plan shall include a statement of the relationship of the specific plan to the general plan, and further, that it may not be adopted or amended unless found to be consistent with the general plan."

Per the Rancho Mirage General Plan land use plan and zoning map, the project site is designated as High Density Residential (R-H), which allows a residential density of up to 9 DU/AC. The SP would modify the proposed permitted uses on the site to allow a mix of high-density residential and commercial uses.

The California Government Code provides authority for a city to adopt a specific plan by ordinance (as a regulatory plan) or resolution (as a policy plan). The SP would be adopted by the Rancho Mirage City Council as an ordinance and would function as the regulatory document that serves as the zoning for the project site; the SP establishes the prevailing land use regulations for all development activities within the project site.

Proposed site development plans or other similar entitlements would be required to be consistent with the regulations set forth in the SP. As also noted above, future site plan approvals, building permits, or any other actions requiring ministerial or discretionary approval applicable to the project site would be required to be consistent with the intent and objectives of the SP.

**General Plan Consistency**

An analysis of applicable goals, policies and programs contained in the General Plan was conducted and is provided below, demonstrating that the Project will not conflict with the City's General Plan. Impacts will be less than significant.

*LAND USE*

> GOAL LU 1: A resort residential community of desirable neighborhoods, a variety of community facilities, and high-quality development.
>
> GOAL LU 2: A balanced mix of functionally integrated land uses, meeting the general social and economic needs of the community through simplified, compatible, and consistent land use and zoning designations.
>
> GOAL LU 3: The preservation and enhancement of the predominantly low-density, high-quality residential character of Rancho Mirage.
>
> GOAL LU 4: High-quality commercial land uses conveniently and appropriately distributed throughout Rancho Mirage, to meet the community's current and future needs and to take full advantage of emerging development and economic opportunities.

Consistency: The proposed Catana Specific Plan provides guidance to ensure the phased, logical, and cost-effective development of the subject site. The standards and guidelines provided in the Specific Plan will ensure that the resulting residential and commercial development is high quality, providing ample shared residential amenities, access to commercial resources, as well as adequate privacy via buffering and screening. The proposed land use will ensure that the commercial development will be highly visible on Ramon Road, the residential development will be screened from the major arterial by the commercial uses, and that the two land uses are functionally integrated. The proposed land use pattern incorporates concepts described in the SCAG's RTP/SCS, such as facilitating multimodal access to work, educational, and other destinations, as well as prioritizing infill to increase amenities and connectivity with existing neighborhoods. The Project will involve outreach to the Agua Caliente Band of Cahuilla Indians for consultation, as well as consultation with other local Tribes and jurisdictions, as applicable. See Section 18, Tribal Cultural Resources, for further discussion.

The proposed residential development will be consistent with the residential character of the City and of adjacent residential neighborhoods. The proposed site plan and building massing will be designed complement the character of surrounding neighborhoods, while considering issues such as view preservation, lot coverage, vegetation, safety, and access. The proposed affordable housing component of the SP will be compatible with the surrounding market-rate attached and detached single family homes on-site.

The Project proposes commercial development in the southern portion of the site, along the Ramon Road frontage. The proposed high-quality commercial center would be conveniently located for residents of the Project, as well as for residents of existing residential neighborhoods in the area. In addition to providing commercial services to the community, the proposed commercial center would provide revenue to the City.

**CIRCULATION**

GOAL CIR 1: A safe, efficient, attractive, and economical circulation network meeting current and future demands in a manner consistent with the resort residential character of community.

Consistency: The Project proposes one primary access point for each of the planning areas as well as secondary ingress/egress. The SP will ensure that these access points are designed to minimize potential impacts to traffic flow and public safety. Meandering sidewalks and bicycle lanes are provided on the public streets surrounding the subject site in accordance with complete streets concepts. Internal streets will also be designed based on complete streets concepts, with sidewalks and landscaped curb bump-outs to ensure that circulation within the site is safely accessible for all modes of transportation. The internal residential streets will be developed in accordance with the standards established in the City's Zoning Ordinance as well as those set forth in the Specific Plan. All streets will be signed and striped consistent with the vehicle code.

**HOUSING**

GOAL H 1: A variety of housing types that meet the needs of residents in Rancho Mirage.

GOAL H 2: Housing to meet the needs of Rancho Mirage's lower income households.

Consistency: The Specific Plan proposed a combination of market-rate and affordable housing. The site will include both attached and detached single family rental housing, as well as low rise multi-family apartments. The standards and guidelines provided in the SP will ensure that this diversity of housing types will adhere to the General Plan's community design policies.

**CONSERVATION + OPEN SPACE**

GOAL COS 3: The protection and preservation of biological resources in Rancho Mirage, especially sensitive and special status wildlife species and their natural habitats.

GOAL COS 4: The conservation, efficient use, and thoughtful management of energy sources and mineral deposits.

GOAL COS 5: The long-term viability of limited and non-renewable resources.

GOAL COS 7: An informed public that respects Rancho Mirage's finite water resources and maximizes protection and conservation efforts for the benefit of the entire community.

GOAL COS 8: The preservation, maintenance, continuity, and enhancement of cultural heritage and resources in Rancho Mirage, including historic and prehistoric sites, objects, landscapes, and structures.

Consistency: A biological resources assessment report will be prepared for the proposed Project in order to evaluate and mitigate any potential impacts to protected species and/or habitat on the subject site. This will ensure that the proposed development is consistent with local and regional efforts to protect natural habitats and endangered species. The design guidelines provided in the Specific Plan promote the use of native and drought-resistant plants and landscaping.

The proposed development will be subject to Title 24 of the California Code of Regulations, which requires energy efficient building practices and the installation of roof-top solar panels on new residential and commercial development. The Project site has access to public transportation, with SunLine Route 4 operating on Ramon Road, including a bus stop at the Ramon and Rattler Road intersection. This will provide a convenient and safe transit option for residents of the Project as well as employees of the commercial center. The configuration of proposed land uses will

support efficient daily circulation, with the proposed commercial center and existing Rancho Mirage High School both in walking distance from the proposed residential development. Overall, the use of energy efficient building practices, inclusion of on-site solar facilities, and the availability of alternative modes of transportation, will ensure that the Project is efficient in its use of energy and therefore mindful of the long-term viability of limited and non-renewable resources.

The Specific Plan promotes the use of water conservation measures where practicable. The design guidelines established in the SP encourage the use of native, drought tolerant plants, consistent with the CVWD Model Water Efficient Landscape Ordinance (MWELO). A hydrology study and WQMP will be prepared for the proposed development which will be subject to approval by the City, thereby ensuring that the Project will not result in groundwater contamination. As discussed in Section 10 Hydrology and Water Quality, CVWD has adequate supplies to meet the Project's water demand.

An archaeological and historic resources assessment was prepared for the proposed Project that found no significant resources on site. Nonetheless, a qualified archeologist and Tribal Monitor will be present on-site during ground disturbing activities to ensure cultural resources are not impacted by development of the property.

**AIR QUALITY**

GOAL AQ 1: Preservation and enhancement of regional air quality for the protection of the health and welfare of the community as a whole.

Consistency: An air quality analysis was prepared for the Project that determined the projected pollutant emissions would not exceed the daily maximum thresholds established by SCAQMD (See Section 3 Air Quality). The proposed development will provide commercial amenities in convenient proximity to the residential portion of the development and will include internal and external sidewalks in order to promote alternative modes of transportation and provide a safe and comfortable environment for pedestrians. Bicycle lanes on Ramon Road will also provide access to the site.

**NOISE**

GOAL N 1: A noise environment providing peace and quiet that complements and is consistent with Rancho Mirage's resort residential character.

Consistency: The proposed development would be configured such that the commercial center would screen the residential developments from traffic noise emanating from Ramon Road, which is designated as a Major Arterial in the General Plan. As discussed in Section 13 Noise analysis will be conducted for the proposed Project, at which point design measures can be recommended if necessary to ensure that residential interior noise levels would not exceed 45 dBA.

**SAFETY**

GOAL SAFE 1: A community that plans for and is protected from the effects of seismic and geological hazards.

GOAL SAFE 2: Protection of lives, property, and essential facilities from flooding and other hydrologic hazards in Rancho Mirage.

Consistency: The Specific Plan includes design features, such as a perimeter wall to screen the proposed development from wind and blowing sand, as well as the use of drought-resistant landscaping to reduce erosion. Also, as described in the SP, stormwater retention ponds will be

provided on site, consistent with standards provided by the Riverside County Flood Control and Water Conservation District. Geotechnical analysis will be prepared for the proposed Project, including analysis of the site's risk of erosion, wind-blown sand, as well as potential hazards related to seismic events. If necessary, the geotechnical analysis will provide measures to mitigate identified impacts.

**PUBLIC SERVICES + FACILITIES**

GOAL PS&F 3: A city-wide sewer system that serves all residences and businesses.

GOAL PS&F 6: A high level of police and fire protection and paramedic service.

Consistency: The proposed development will be connected to the existing CVWD sewer line in Rattler Road. The Specific Plan provides development standards to ensure that the Project will include adequate fire, police, and paramedic access within the site, as well as design guidelines that encourage the integration of defensible space. Final site plans will be reviewed by the City to ensure that adequate police and fire protection services will be available to service the Project.

**COMMUNITY DESIGN**

GOAL CD 1: Preservation and promotion of the special identity of Rancho Mirage as an "Oasis in the Desert," combing quality development with scenic, natural, and open space amenities.

GOAL CD 3: Scenic roadways that impart a sense of place and are attractively landscapes, provide visual continuity along adjacent uses, preserve views, and create focused intersection landscaping.

GOAL CD 5: Walls and fences that act as attractive elements of the streetscape, while providing privacy and views, creative design, and visual continuity.

GOAL CD 6: Signage of the highest level of design and construction quality.

GOAL CD 7: Protection of the star-studded desert night sky from excessive glare.

GOAL CD 8: Architecture that is sensitive to its context, blending quality materials, distinctive detailing, and a strong sense of living with natural.

GOAL CD 9: Retail centers in Rancho Mirage that are visually attractive, people-friendly, and economically successful.

GOAL CD 10: Distinctly designed parking areas in Rancho Mirage's commercial centers that incorporate rich paving materials, drought and heat-tolerant landscaping, clear and safe pedestrian and vehicular access, and protection from the desert climate through the use of well-placed trees and/or carports.

GOAL CD 11: Parking areas that are screened from public streets to the greatest extent possible.

Consistency: The development standards and design guidelines provided in the Specific Plan promote a distinct and high-quality residential and commercial development that is compatible with the character of nearby residential developments and of the City as a whole. Shared neighborhood community spaces will be provided on-site, including a club house, pool, and paseo for the single-family rental housing, as well as shared outdoor amenities including pools for the affordable housing. The Specific Plan provides standards to ensure the adequate provision of parking, the screening of trash enclosures and other services areas, a comprehensive

landscaping plan that is consistent with the MWELO, and perimeter walls with integrated landscaping to provide screening.

The Specific Plan provides standards requiring signage to be high quality, attractive, and informative. The standards require lighting to be shielded and directed downward in order to reduce glare, preserve dark night skies, while still providing directional, safety, and informational functions.

The Specific Plan provides standards and guidelines to ensure high-quality, context sensitive design, while allowing flexibility for future tenants. The SP includes guidelines to ensure cohesive yet visually-interesting schemes in building materials, color palettes, landscaping, signage, and lighting. Proposed development plans include pedestrian amenities on the Ramon Road and Rattler Road frontages as well as within the property, with internal pedestrian connections and a paseo. Entrances to the development will be distinct and easily indefinable entrances, supported by monument signage, accent landscaping and lighting. Development will be required to comply with Title 24 of the California Code of Regulations, ensuring energy efficient design and the integration of roof-mounted photovoltaic panels.

The Specific Plan includes development standards and design guidelines instructing the development of parking, landscaping, and lighting on the subject site. Parking for the commercial center will allow for free flow of vehicle traffic, and will be easily accessible via ingress/egress onto Ramon Road, as well as secondary access points on Ramon Road and Rattler Road. The configuration of the commercial component of the Project places parking to the rear of commercial buildings, thereby screening the parking from view from Ramon Road. On-street parking for the affordable housing component of the Project will be placed in the western portion of the site, shielded from view from Ramon Road and Rattler Road. The landscape guidelines promote the use of greenery at varying scales, including trees, low shrubs, and groundcover. Lighting will be required to be shielded and directed downwards, in order to minimize glare.

**ECONOMIC + FISCAL**

> GOAL E&F 1: A growing and balanced economic base that serves the needs of Rancho Mirage residents, businesses, and visitors while maintaining the City's high standards of development and environmental protection.

Consistency: The proposed Project includes residential and commercial development. The adjacent uses proposed for the site will provide convenience for residents, while situating the commercial center in a highly visible location on a major arterial road. The commercial uses will support the City's economic base. The development standards and design guidelines will ensure that both the residential and commercial uses will be consistent with the City's high standard for development and environmental protection.

**ARTS + CULTURE**

> GOAL A&C 3: Night sky protection.

Consistency: Design guidelines provided in the Specific Plan require the use of shielded outdoor lighting in order to reduce light pollution and glare, consistent with §17.18.050 of the City's zoning code.

*11.3 Mitigation Measures:*
**Mitigation Measures:** None required.

**Monitoring**: None required.

*12 - Mineral Resources*

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

**Sources:** Rancho Mirage General Plan 2017. Updated Mineral Land Classification Map for Portland Cement Concrete-Grade Aggregate in the Palm Springs Production-Consumption Region, Riverside County, California by Lawrence L. Busch, 2007.

*12.1 Setting:*

In the Coachella Valley, mineral resources are largely limited to aggregates, such as sand, gravel, and crushed stone. These are major components of concrete, plaster, stucco, road base and fill, which are essential to the construction industry. There are important deposits of these materials that occur within the region that are being actively developed.

Other mineral deposits in the region are generally limited to rocky outcroppings within the Little San Bernardino and Santa Rosa Mountains and have not been mined. These resources include copper, limestone, specialty sands, and tungsten. There are decorative stone deposits that are being mined on public land in the Painted Hills area west of Desert Hot Springs, as well as clay deposits at the base of the Mecca Hills east of Thermal on public and private land. These may be used as an impermeable layer for lining landfills, ponds, and similar construction applications, and some of these deposits have been permitted for mining.

*12.2 Discussion of Impacts:*

**a,b) No Impact.** The Project site is located within Mineral Resource Zone (MRZ) 3, defined as areas containing known or inferred mineral occurrences of undetermined mineral resource significance. Nowhere in the specific plan area are areas designated, used, or planned for mineral resource extraction or development. The proposed Specific Plan would result in no impacts to mineral resources.

*12.3 Mitigation Measures:*

**Mitigation Measures:** None required

**Monitoring:** None required

*13 - Noise*

| **NOISE** – Would the project result in: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☐ | ☒ | ☐ |
| b) Generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☒ | ☐ |
| c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☒ | ☐ |

**Sources:** Rancho Mirage General Plan 2017.

*13.1 Setting:*

Noise can be defined as “unwanted sound.” Excessive and/or sustained noise can contribute to both temporary and permanent physical impairments, such as hearing loss and increased fatigue, as well as stress, annoyance, anxiety, and other psychological reactions in humans. The evaluation and mitigation of noise in a community is essential to protecting the health and welfare of the general public, and preserving the inherent value of recreation, open space, and conservation lands. Furthermore, it can help define the need for additional remedial measures that mitigate noise problems. Noise propagation can also be affected by terrain and surrounding development.

*Noise Standards*

Rancho Mirage Municipal Code Section 17.18.060 states that all “uses, activities, and processes shall not generate or emit any noise or sound beyond the property line of the subject parcel, which exceeds the maximum level identified in the Municipal Code Chapter 8.45 (Noise).” Chapter 8.45 (Noise Ordinance) establishes exterior noise level limits (dBA CNEL) for land use zones throughout the City. Acceptable exterior noise levels for single-family residential development range from 45 to 55 dBA CNEL, for multi-family residential range from 50 to 60 dBA CNEL, and for commercial development range from 55 to 65 dBA CNEL. These noise levels do not include construction-related noise levels, as construction activities generate temporary noise.

*Vibration Standards*

The Rancho Mirage Municipal Code Section 17.18.080 addresses vibration in all new and modified uses and structures and states that "no vibration associated with any use shall be allowed which is discernible beyond the boundary line of the subject property." However, the city has not adopted specific, quantified vibration level standards.

*13.2 Discussion of Impacts:*

**a) Less than Significant Impact.** The subject property is currently vacant and undeveloped. The main noise source in the area is vehicular traffic on Ramon Road and Rattler Road. The surrounding area mainly consists of roadways, residential and institutional (high school) development, and vacant lands. The nearest sensitive receptors are the single-family residences (Tuscany) immediately northwest of the site.

Off-Site Construction Noise Impacts

Noise generating construction activities would include site preparation, excavation, grading, and the construction and finishing of the proposed buildings. Noise levels surrounding the Project site could be elevated for short periods of time, as equipment moves through the site. These noise levels would be limited to the less sensitive daytime hours and would cease once building construction began. Construction activities will comply with the City's Municipal Code Section § 15.04.030 which limits construction times and days between the hours of 7 p.m. of each day and 7 a.m. of the next succeeding day or on Sundays and holidays, without written permission of the Building Official being first obtained. The Building Official may grant permission to work during those periods under appropriate circumstances after first having determined that such work will not unduly or unreasonably interfere with the peaceful enjoyment of property adjacent to such work.

Noise levels surrounding the Project site could be elevated for short periods of time, as equipment moves through the site. These noise levels would be limited to the less sensitive daytime hours and would cease once building construction began. Compliance with the City's noise ordinance exempts construction activities from noise infractions, because of their temporary nature. Therefore, impacts associated with construction noise on the Project site would be less than significant.

Operational Noise

At buildout, principal project-related noise sources will include vehicular traffic accessing the site, grounds maintenance equipment, and heating, ventilation, and air conditioning (HVAC) units. As discussed above, residential development, a high school, and vacant lands surround the subject site, so the vehicle mix will be comparable with existing vehicles on surrounding roads.

According to the General Plan Draft EIR, noise levels are expected to reach up to 75 dBA CNEL at 50 feet from the centerline of roadways used by heavy trucks, including Ramon Road.[13] According to Figure 5.10-5 of the EIR (Future Noise Contours), a portion of the Project site fronting Ramon Road is located within a 65 dBA CNEL future noise contour. The portion of the site within the 65 dBA CNEL noise contour is the frontage of PA 3 and is planned for General Commercial uses, for which an exterior noise level of 65 dBA CNEL is considered acceptable. The 65 dBA CNEL would fall at a distance of 158 feet from the centerline,[14] and since noise decreases rapidly

[13] Rancho Mirage General Plan Update Draft EIR. pg. 5-237
[14] Ibid.

with distance, residential users of the Project in PAs 1 and 2 that are more than 500 feet from the centerline will experience noise levels within the City's acceptable range for residential uses (55-60 dBA CNEL). Furthermore, with typical building construction and a windows-closed condition, a minimum 20 dBA CNEL reduction is achievable for new dwelling units and in other noise-sensitive uses. Typical methods used to lower interior noise levels include weather-stripping exterior doors and dual glazed windows.

The General Plan EIR projected future noise levels at General Plan buildout using land use designations assigned by the General Plan land use map, including High Density Residential on the Project site. Although the Project proposes a General Plan Amendment to allow General Commercial uses, which could result in increased noise levels due to vehicle trips, this use is limited to the portion fronting Ramon Road and thus creates a noise buffer for the residential uses planned in PAs 1 and 2. In conclusion, Project operational noise will increase noise levels in the area, but they will not exceed General Plan standards. Impacts will be less than significant.

**b) Less Than Significant Impact**. Ground-borne vibration and/or ground-borne noise would be generated during on-site construction, which could be felt by adjacent land uses. Lands surrounding the proposed SP consist of developed (residential development, a high school, and roadways) and undeveloped lands. The primary source of ground-borne vibration will be operation of heavy equipment, such as bulldozers; however, the impacts will be temporary and will end once construction is complete. The Municipal Code exempts construction activities from short-term, short-duration noise standards when they are conducted during permitted time frames. The City will require that construction activity comply with Section § 15.04.030 of the Municipal Code, which limits construction activity to the less sensitive daylight hours. These requirements will reduce vibration impacts to less sensitive daytime hours and assure that short-term construction noise impacts will be less than significant levels.

The SP does not propose any land uses (e.g. concert hall, drilling, blasting, or high-speed transit systems etc.) which could generate ground-borne vibrations or noise. At buildout, the project would not generate any ground-borne vibration or noise to adversely affect the surrounding developments. Less than significant impacts are anticipated.

**c) Less Than Significant Impact**. The proposed SP is not located within noise contour boundaries of an airport and therefore will not expose future employees to excessive airport related noise levels.[15] The SP area is located more than three miles east the Palm Springs Airport, so the project will not expose people living or working in the area to excessive noise levels.

*13.3 Mitigation Measures:*

**Mitigation Measures:** None required.

**Monitoring**: None required.

[15] Palm Springs International Airport Master Plan, Figure 2-6 2002 Noise Exposure Map.

*14 - Population and Housing*

| **POPULATION AND HOUSING** – Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☒ | ☐ |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

**Sources:** Rancho Mirage General Plan 2017; 2020-2045 RTP/SCS, Demographics & Growth Forecast Appendix, Southern California Association of Governments.

*14.1 Setting:*

**Background:**

According to the California Department of Finance, the population of the City of Rancho Mirage was estimated to be 17,012 (2023).[16] The City housing stock is composed of a mix of single-family and multi-family development, but the majority of housing units are single-family detached homes. The Southern California Association of Governments (SCAG) estimates that the City will have a total population of 25,200 in 2045.17

*14.2 Discussion of Impacts:*

**a) Less Than Significant Impact.** The Project would result in the construction of 305 new single- and multi-family residential units and commercial development. Given the City's average household size of 1.85 persons[18], the 305 new units could potentially include a permanent population of approximately 565 persons. This represents 2.24% of the City's anticipated 2045 population of 25,200, which would have a less than significant impact on the overall population of the area. The subject property is currently designated for High Density Residential development in the Land Use and Zoning map and, therefore, onsite population growth is planned and part of the City's vision for this site.

16 California Department of Finance 2023 data on City/County Population and Housing Estimates.

17 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Appendix: Demographics & Growth Forecast, Table 14, Southern California Association of Governments, September 2020.

18 1.85 persons per household in Ranch Mirage, based on California Department of Finance 2023 data on City/County Population and Housing Estimates.

The Project will generate a variety of new jobs, including construction and retail jobs and could attract new residents to the city. The Southern California Association of Governments (SCAG) estimates that the city will have a total employment of 21,200 in 2045. Most jobs are expected to be filled by people already living in the valley or future residents coming to the area as part of expected growth, and the Project is not expected to attract a substantial number of new residents to the area. Project impacts on population growth and housing demand are expected to be less than significant.

The site is currently vacant and undeveloped. The proposed Project occurs on the City's existing street grid, and will tie into existing utility systems. Since existing streets, utilities and public facilities are located adjacent to the project site along Ramon Road and Rattler Road, the project will not result in the construction or expansion of new infrastructure. Overall, less than significant impacts are anticipated.

**b) No Impact.** The subject property is currently vacant and the proposed Project would not displace any existing housing or persons or require the construction of housing elsewhere. No impact will occur.

*14.3 Mitigation Measures:*

**Mitigation Measures:** None required.

**Monitoring:** None required.

*15 - Public Services*

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

**Sources:** Rancho Mirage General Plan 2017.

*15.1 Setting:*

*Fire Protection Services*
Fire protection, first response, emergency medical services, and natural disaster preparedness services in the City are provided by the Riverside County Fire Department (RCFD) under contract to the California Department of Forestry and Fire Protection (Cal Fire). The City is a member of the Cove Communities Services Commission, which includes the cities of Palm Desert, Rancho Mirage, and Indian Wells. The Fire Department has 27 sworn, 2 full time non-sworn and 1 part time non-sworn personnel, serving 24.7 square miles and ~18,799 persons.

*Police Protection*
Police protection in Rancho Mirage is provided on a service contract basis by the Riverside County Sheriff's Department that operates out of the Palm Desert Station. Daily staffing is comprised of 7 officers that work in two, 12-hour shifts. Four deputy patrol officers work the day shift, and 3 deputy patrol officers work the night shift. The City currently provides 1.77 officers per 1,000 residents.

*Schools*
Two school districts, Desert Sands Unified School District (DSUSD) and Palm Springs Unified School District (PSUSD), serve the City. One private school, the Palm Valley School, also provides K-12 education in the City.

*Parks*
The City of Rancho Mirage offers a wide variety of recreational opportunities, including golf courses, bikeways, and parkland. The City is also located near thousands of acres of National Park and National Monument lands, and U.S. Forest Service wilderness lands, as well as state, regional, and tribal parks, within which are miles of hiking, biking and equestrian trails. The nearest public park to the Project site is Desert Memorial Park located 0.25 miles west of the subject property.

*15.2 Discussion of Impacts:*

**a)** Fire Protection

**Less Than Significant Impact.** Fire protection and emergency services in the City are provided by the Riverside County Fire Department, under City contract. The nearest Riverside County Fire Department is located approximately 2 miles east of the Project site at 31920 Robert Road in the community of Thousand Palms. The nearest City fire department is the Cathedral City Fire Department located at 32100 Desert Vista Road approximately 1.45 miles west of the Project site.

Fire and emergency personnel will be able to access the site using multiple entrances, including those on Rattler Road and Ramon Road. Emergency and secondary roadway access may be temporarily affected during construction of projects facilitated by the Specific Plan. However, project-specific construction traffic control plans implemented during construction will assure that impacts to mobility and accessibility in the area will be less than significant. Additional structures and population in the planning area, as facilitated by the Specific Plan, may increase the demand for fire protection services. However, Project development will be in accordance with all state and local (Municipal Code and RCFD) fire standards to assure adequate fire safety and emergency access. The Project will be required to pay City development impact fees to contribute its fair share of costs for future fire facilities, personnel, and apparatus. Therefore, Project impacts will be less than significant.

Police Protection

**Less Than Significant Impact.** Police protection in the City is provided by the Riverside County Sheriff's Department, under City contract. The Riverside County Sheriff's Palm Desert station is located at 3.7 miles southeast of the Project site at 73705 Gerald Ford Drive in the City of Palm Desert. Buildout of the planning area in accordance with the Specific Plan may result in additional demand for police protection services. However, the Project will be required to comply with all Police Department regulations and procedures, and Project plans will be reviewed by the Police Department to assure adequate emergency access is provided. The Project is not expected to require the construction of new or expanded police services or facilities. Impacts will be less than significant.

Schools

**Less Than Significant Impact.** The Project site is located within the Palm Springs Unified School District. The Rancho Mirage High School is located immediately north of the planning area. The proposed Project will be subject to the PSUSD developer fees in place at the time development occurs, which currently stand at $4.79 per square foot of residential development and $0.78 per square foot of commercial development[19]. Payment of the developer fee would mitigate potential significant impacts to school resources to less than significant levels.

Parks

**Less Than Significant Impact.** The proposed Specific Plan could generate an estimated permanent population of 565 residents (1.85 persons per household for Rancho Mirage, based on California Department of Finance 2023 City/County Population and Housing Estimates). The single-family residences in PA 1 will have private backyards, as well as access to the community's central Clubhouse/recreation facilities. The Clubhouse will include a pool and spa with lounge chairs and cabanas, a gym and central leasing office. The multi-family units in PA 2 will have access to a central recreation area that includes a playground, community room, and leasing office. PA 3 is planned for commercial uses and will not generate demand for recreational amenities or services. The Project will generate a marginal increase in population, which is likely to occasionally visit City parks, however, with the payment of Developer Impact Fees, the increased population, which is consistent with what is planned for the site in the General Plan, will not impact parks.

Other Public Facilities

**Less Than Significant Impact.** The project's increase in permanent population has the potential to marginally increase the use of existing public facilities. However, no additional public facilities are required for the proposed Project. Increase in demand for the city's existing facilities will be less than significant.

*15.3 Mitigation Measures:*

**Mitigation Measures:** None required.

**Monitoring:** None required

[19] Website. Palm Springs Unified School District, Level 1 Fee Structure. https://www.psusd.us/Page/2400. Accessed July 2023.

*16 - Recreation*

| **RECREATION** – Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☒ | ☐ |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? | ☐ | ☐ | ☒ | ☐ |

**Source:** Rancho Mirage General Plan 2017.

*16.1 Setting*

The City of Rancho Mirage offers a wide variety of recreational opportunities, including golf courses, bikeways, and parkland. The City is also located near thousands of acres of National Park and National Monument lands, and U.S. Forest Service wilderness lands, as well as state, regional, and tribal parks, within which are miles of hiking, biking and equestrian trails. The nearest City park to the Project site is the City's dog park located 2.5 miles southeast of the subject property.

*16.2 Discussion of Impacts:*

**a, b) Less than Significant Impact.** The proposed Specific Plan could generate an estimated permanent population of 565 residents (1.85 persons per household for Rancho Mirage, based on California Department of Finance 2023 City/County Population and Housing Estimates). The single-family residences in PA 1 will have private backyards, as well as access to the community's central Clubhouse/recreation facilities. The Clubhouse will include a pool and spa with lounge chairs and cabanas, a gym and central leasing office. The multi-family units in PA 2 will have access to a central recreation area that includes a playground, community room, and leasing office. PA 3 is planned for commercial uses and will not generate demand for recreational amenities or services.

The proposed SP will not induce substantial population growth that would result in significant impacts such as physical deterioration or construction of new recreational facilities to existing parks or recreational facilities. Less than significant impacts are anticipated.

*16.3 Mitigation Measures***:**

**Mitigation Measures:** None required.

**Monitoring:** None required.

*17 - Transportation*

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

**Source:** Rancho Mirage General Plan 2017; Traffic Impact Analysis for the Catana Specific Plan, Urban Crossroads, Inc., June 2023; Catana Specific Plan Vehicle Miles Traveled (VMT) Screening Analysis, prepared by Urban Crossroads, Inc., June 2023.

*17.1 Setting:*

In the City of Rancho Mirage, the circulation system consists of roadways, freeways, bus lines, sidewalks, and bike lanes. The Rancho Mirage General Plan Circulation Element establishes a street classification system based on cross sections and the configuration and width of right-of-way features, such as medians, bike lanes, landscaped parkways, and sidewalks. Ramon Road is classified as a Major Arterial (6 lane) and Rattler Road is classified as a Major Collector (4 lane).

The City of Rancho Mirage is currently served by the SunLine Transit Agency (STA), a public transit agency serving various jurisdictions throughout Coachella Valley. STA Route 4 runs along Ramon Road adjacent to the Project site. Existing on-street bike lanes occur on both sides of Ramon Road between Da Vall Drive and Los Alamos Road within the Project area. Sidewalks currently exist adjacent to the site on Rattler Road and Ramon Road.

Level of Service Thresholds

The City's acceptable Level of Service (LOS) for both roadway segments and intersection operations in LOS D or better. All area roadways and intersections currently operate at LOS D or better, with the exception of two of the school access points on Rattler Road, which have morning and midday LOS deficiencies due to high school traffic.

VMT Analysis

Effective July 1, 2020, the California Environmental Quality Act (CEQA) Guidelines require lead agencies to adopt Vehicle Miles Traveled (VMT) as a replacement for automobile delay-based LOS as the measure for identifying transportation impacts for land use projects. City of Rancho Mirage Resolution 2021-06 (City Guidelines) aligns the City's VMT analysis policy with SB 743 and the City's goals as set forth in the General Plan Update (2017). The purpose of the policy is to comply with State laws while maintaining the resort residential character of the community.

*17.2 Discussion of Impacts:*

**a) Less Than Significant with Mitigation.** The Specific Plan proposes development of up to 305 residential dwelling units and 75,000 square feet of general commercial uses. The Project proposes four access points and one emergency access point. The single-family rentals (PA 1) will have one emergency only access and one full access (both gated) driveways along Rattler Road and access onto the westerly driveway for residents, while the affordable apartments (PA 2) will be accessed from the project driveway on the west side of the site, from Ramon Road. The commercial portion of the Project (PA 3) will have one full access driveway along Rattler Road, and two restricted access driveways along Ramon Road.

The westerly driveway serves as the primary access to the affordable apartment, and also connects to the commercial and single-family portions of the Project. The westerly driveway is proposed as a Right-In/Right-Out with Left-In-Only (no left out) median configuration at the southwest driveway access to the site. This access provides the only eastbound left-in access opportunity from Ramon Road to the site.

The Traffic Analysis recommends the following site access improvements to be implemented as part of Project design.

- Access 1 serves the single-family rental home neighborhood of the Project (PA 1) and is located approximately 335 feet north of Access 2, measured from the south curb of Access 1 to the north curb of Access 2 along Rattler Road. Northbound left turns into the site will be accommodated within the existing two-way left turn lane (TWLTL) striped median on Rattler Road.
- Access 2 serves the commercial retail portion of the Project (PA 3) and is located approximately 280 feet north of Ramon Road, measured from the south curb of Access 2 to the north curb of Ramon Road along Rattler Road. Because the retail parcel is also served by two other direct connections to Ramon Road, northbound left turns into the site at Access 2 from Rattler Road are minimal (16 AM peak hour vehicles and 40 PM peak hour vehicles). These low left turn volumes can be accommodated in the short northbound storage length available at this location within the existing two-way left turn lane (TWLTL) striped median on Rattler Road.
- Access 3 serves the commercial retail portion of the Project (PA 3) from Ramon Road and is located approximately 590 feet west of Rattler Road, measured from the east curb of Access 3 to the west curb of Rattler Road along Ramon Road. This commercial driveway location will be restricted as right-in/right-out only access (no median break on Ramon Road).
- Access 4: In conjunction with development of either the affordable apartment dwelling units (PA 2) or the commercial retail parcel (PA 3), construct median improvements on Ramon

Road to accommodate a 150-foot eastbound left turn pocket. Provide a Left-In-Only (no left out) median configuration which allows left-in/right-in/right-out only access at Access 4.

- On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project site. Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Rancho Mirage sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

As shown in the following table, the Project is forecast to generate approximately 5,680 daily vehicle trips at buildout, including 215 trips during the AM peak hour and 443 trips during the PM peak hour.

**Table 7**
**Project Trip Generation Summary**

| **Trip Generation Rates[1]** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Land Use** | **ITE Code** | **Unit[2]** | **AM Peak Hour** | | | **PM Peak Hour** | | | **Daily** |
| | | | **In** | **Out** | **Total** | **In** | **Out** | **Total** | |
| Single Family Rental | 220 | 215 | 0.10 | 0.30 | 0.40 | 0.32 | 0.19 | 0.51 | 6.74 |
| Affordable Apartments | 223 | 90 | 0.10 | 0.26 | 0.36 | 0.27 | 0.19 | 0.46 | 4.81 |
| Shopping Center (40-150k) | 821 | 75 | 1.07 | 0.66 | 1.73 | 2.54 | 2.65 | 5.19 | 67.52 |
| **Project Trips Generated** | | | | | | | | | |
| **Land Use** | **Quantity** | **Unit[2]** | **AM Peak Hour** | | | **PM Peak Hour** | | | **Daily** |
| | | | **In** | **Out** | **Total** | **In** | **Out** | **Total** | |
| Single Family Rental | 215 | DU | 22 | 65 | 87 | 69 | 41 | 110 | 1,449 |
| Affordable Apartments | 90 | DU | 9 | 23 | 32 | 24 | 17 | 41 | 433 |
| *Residential interaction w/ commercial* | | | *-3* | *-4* | *-7* | *-10* | *-10* | *-20* | *-253* |
| Residential Subtotal | | | 28 | 84 | 112 | 83 | 48 | 131 | 1,629 |
| Shopping Center | 75 | TSF | 80 | 50 | 130 | 191 | 199 | 390 | 5,064 |
| *Commercial Pass-By (15%)* | | | *-10* | *-10* | *-20* | *-29* | *-29* | *-58* | *-760* |
| *Commercial interaction w/ residential* | | | *-4* | *-3* | *-7* | *-10* | *-10* | *-20* | *-253* |
| Commercial Subtotal | | | 66 | 38 | 104 | 152 | 160 | 312 | 4,051 |
| | | **Total:** | **94** | **121** | **215** | **235** | **208** | **443** | **5,680** |

[1] Source: Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th edition, 2021.
[2] TSF = thousand square feet; DU = Dwelling unit

Based on consultation with City staff, the traffic impact analysis studied the following 15 intersections to evaluate Project impacts on the circulation network:

1. Date Palm Dr/ Ramon Rd.
2. Da Vall Dr/ Ramon Rd
3. Da Vall Dr/ Dinah Shore Dr
4. Rattler Rd/ School Access 1
5. Ratter Rd/ Ramon Rd
6. Los Alamos Rd/ Ramon Rd
7. Bob Hope Dr/ I-10 WB Ramps
8. Bob Hope Dr/ I-10 EB Ramps
9. Bob Hope Dr/ Ramon Rd
10. Rattler Rd/ Access 1

11. Rattler Rd/ Access 2
12. Access 3/ Ramon Rd
13. Access 4/ Ramon Rd
14. Rattler Rd/ School Access 2 (exit only)
15. Rattler Rd/ School Access 3

The following scenarios were analyzed:

- Existing (2023) Conditions
- Existing plus Ambient Growth plus Project (EAP) (2025)
- Existing plus Ambient Growth plus Project Plus Cumulative (EAPC) (2025)
- Horizon Year 2040 Without Project
- Horizon Year 2040 With Project

In addition, due to the Project's proximity to Rancho Mirage High School, the City requested that analysis of the mid-day peak associated with school departures be analyzed, in order to determine whether those impacts would be significant with addition of the Project to area roadways.

Existing Conditions

The analysis of Existing Conditions establishes the baseline for the Project's traffic analysis, and consideration of impacts. Under Existing Conditions, except for the intersections of Rattler Rd/ School Access 1 (#4), which operates at LOS E (unacceptable level) in the AM, and Rattler Rd/ School Access 3 (#15), which operates at LOS E and F in the AM and mid-day (MD), respectively. All other studied intersections operate at LOS D or better, as shown in Table 8.

**Table 8**
**Existing Intersection Delay and Levels of Service**

| Study Intersection | Traffic Control[1] | Level of Service | | |
|---|---|---|---|---|
| | | AM | MD | PM |
| 1. Date Palm Dr/ Ramon Rd. | TS | D | -- | D |
| 2. Da Vall Dr/ Ramon Rd | TS | C | -- | C |
| 3. Da Vall Dr/ Dinah Shore Dr | TS | D | -- | C |
| 4. Rattler Rd/ School Access 1 | CSS | **E** | C | B |
| 5. Ratter Rd/ Ramon Rd | TS | B | B | B |
| 6. Los Alamos Rd/ Ramon Rd | TS | B | -- | B |
| 7. Bob Hope Dr/ I-10 WB Ramps | TS | B | -- | C |
| 8. Bob Hope Dr/ I-10 EB Ramps | TS | B | -- | B |
| 9. Bob Hope Dr/ Ramon Rd | TS | C | -- | D |
| 10. Rattler Rd/ Access 1 | Future Intersection | | | |
| 11. Rattler Rd/ Access 2 | Future Intersection | | | |
| 12. Access 3/ Ramon Rd | Future Intersection | | | |
| 13. Access 4/ Ramon Rd | Future Intersection | | | |
| 14. Rattler Rd/ School Access 2 (exit only) | CSS | B | C | B |
| 15. Rattler Rd/ School Access 3 | CSS | **E** | **F** | B |

[1] TS = Traffic Signal; CSS = Cross-street Stop; RDB = Roundabout

EAP (2025) Conditions

EAP traffic conditions represent Existing Conditions, plus the addition of ambient traffic growth (in this case an ambient growth factor of 4.04% was added to Existing Conditions volumes), plus the addition of the Project. EAP projections assume that these conditions occur in 2025.

As shown in the following table, the intersection analysis results indicates that there are no new intersections operating at an unacceptable LOS with the addition of Project traffic. For the existing deficient intersections of Rattler Road / School Access 1 (#4) and Rattler Road / School Access 3 (#15), improvements are not recommended for EAP conditions since the worst movement that causes both intersections to fail are due to the high eastbound outbound school traffic (minor approach) and not anticipated to impede the flow of traffic for the northbound and southbound through traffic (major approaches). Providing additional capacity (adding eastbound turn lanes) is not anticipated to improve intersection delay at these school driveways, and this condition is solely associated with High School traffic.

**Table 9**
**Intersection Analysis for EAP (2025) Conditions**

| Study Intersection | Traffic Control[1] | Level of Service | | |
|---|---|---|---|---|
| | | AM | MD | PM |
| 1. Date Palm Dr/ Ramon Rd. | TS | D | -- | D |
| 2. Da Vall Dr/ Ramon Rd | TS | C | -- | C |
| 3. Da Vall Dr/ Dinah Shore Dr | TS | D | -- | C |
| 4. Rattler Rd/ School Access 1 | CSS | **F** | C | B |
| 5. Ratter Rd/ Ramon Rd | TS | B | B | B |
| 6. Los Alamos Rd/ Ramon Rd | TS | B | -- | B |
| 7. Bob Hope Dr/ I-10 WB Ramps | TS | B | -- | C |
| 8. Bob Hope Dr/ I-10 EB Ramps | TS | B | -- | B |
| 9. Bob Hope Dr/ Ramon Rd | TS | D | -- | D |
| 10. Rattler Rd/ Access 1 | CSS | B | B | B |
| 11. Rattler Rd/ Access 2 | CSS | B | B | B |
| 12. Access 3/ Ramon Rd | CSS | C | -- | C |
| 13. Access 4/ Ramon Rd | CSS | C | -- | C |
| 14. Rattler Rd/ School Access 2 (exit only) | CSS | B | C | B |
| 15. Rattler Rd/ School Access 3 | CSS | **F** | **F** | C |

[1] TS = Traffic Signal; CSS = Cross-street Stop; RDB = Roundabout

EAPC Conditions

Under EAPC (2025) conditions, with the inclusion of the proposed Project, ambient growth, known cumulative projects, as shown in the following table, the intersection analysis results indicate that there are no new intersections operating at an unacceptable LOS with the addition of Project and cumulative traffic under EAPC conditions.

Similar to EAP conditions, for the existing deficient intersections of Rattler Road / School Access 1 (#4) and Rattler Road / School Access 3 (#15), improvements are not recommended for EAPC conditions since the worst movement that causes both intersections to fail are due to the high eastbound outbound school traffic (minor approach) and not anticipated to impede the flow of traffic for the northbound and southbound through traffic (major approaches). Providing additional capacity (adding eastbound turn lanes) is not anticipated to improve intersection delay at these school access driveways, as described above.

**Table 10**
**Intersection Analysis for EAPC (2025) Conditions**

| Study Intersection | Traffic Control[1] | Level of Service | | |
|---|---|---|---|---|
| | | AM | MD | PM |
| 1. Date Palm Dr/ Ramon Rd. | TS | D | -- | D |
| 2. Da Vall Dr/ Ramon Rd | TS | C | -- | C |
| 3. Da Vall Dr/ Dinah Shore Dr | TS | D | -- | D |
| 4. Rattler Rd/ School Access 1 | CSS | **F** | D | C |
| 5. Ratter Rd/ Ramon Rd | TS | B | B | B |
| 6. Los Alamos Rd/ Ramon Rd | TS | B | -- | B |
| 7. Bob Hope Dr/ I-10 WB Ramps | TS | B | -- | D |
| 8. Bob Hope Dr/ I-10 EB Ramps | TS | B | -- | B |
| 9. Bob Hope Dr/ Ramon Rd | TS | D | -- | D |
| 10. Rattler Rd/ Access 1 | CSS | B | B | B |
| 11. Rattler Rd/ Access 2 | CSS | B | B | B |
| 12. Access 3/ Ramon Rd | CSS | C | -- | C |
| 13. Access 4/ Ramon Rd | CSS | C | -- | C |
| 14. Rattler Rd/ School Access 2 (exit only) | CSS | C | C | B |
| 15. Rattler Rd/ School Access 3 | CSS | **F** | **F** | C |

[1] TS = Traffic Signal; CSS = Cross-street Stop; RDB = Roundabout

Horizon Year (2040) Without and With Project Conditions
Future horizon year 2040 traffic projections were sourced from the following analyses:

- City of Rancho Mirage General Plan Update Traffic Impact Analysis, 2017 prepared by Urban Crossroads Inc.,
- Draft Section 31 Specific Plan Transportation Impact Study, 2019, prepared by Fehr & Peers, and
- City of Cathedral City Draft Comprehensive General Plan, July 2019, prepared by Terra Nova Planning & Research.

For intersections without 2040 data, a minimum growth of 10% over existing (2023) was applied to turn movements in addition to traffic data from known cumulative projects in the area.

As shown in the following table, the analysis found that no new study area intersections would operate at an acceptable level of service with the exception of Date Palm Drive/ Ramon Road (#1) and Da Vall Drive/ Ramon Road (#2). Similar to EAP and EAPC conditions, for the existing deficient intersections of Rattler Road / School Access 1 (#4) and Rattler Road / School Access 3 (#15), improvements are not recommended for EAPC conditions since the worst movement that causes both intersections to fail are due to the high eastbound outbound school traffic (minor approach) and not anticipated to impede the flow of traffic for the northbound and southbound through traffic (major approaches). Providing additional capacity (adding eastbound turn lanes) is not anticipated to improve intersection delay at these school access driveways.

To achieve acceptable circulation system performance without or with the Project consist of the following:

Date Palm Drive/ Ramon Road (#1)

- Modify existing NB right turn lane by striping to a shared through/right lane. The 3rd NB receiving lane exists.
- Provide a separate EB right turn lane.
- Provide a separate WB right turn lane.

Da Vall Drive/ Ramon Road (#2)

- Modify traffic signal phasing to provide overlap phase to the existing WB right turn lane.
- Provide a 2nd SB left turn lane.

As shown in the Table, impacts occur whether the Project is constructed or not in the horizon year condition. To reduce project impacts to less than significant levels, the Project will be required to pay a fair share contribution for the above intersection improvements (Mitigation Measures TRA-1). The Project's fair share of cumulative traffic amounts to 5.7% towards the 2040 lane re-striping improvements at Date Palm Drive / Ramon Road (#1) and 8.2% towards the 2040 ultimate lane improvements and signal modification at Da Vall Drive / Ramon Road (#2). Project participation may include fee payments to established programs (e.g., TUMF), payment of a fair share contribution toward future improvements, or a combination of these approaches.

With the implementation of Mitigation Measure TRA.1, impacts associated with build out of the proposed Project will be less than significant.

**Table 11**
**Intersection Analysis for Horizon Year (2040) Conditions**

| Study Intersection | Traffic Control[1] | Without Project Level of Service | | | With Project Level of Service | | |
|---|---|---|---|---|---|---|---|
| | | AM | MD | PM | AM | MD | PM |
| 1. Date Palm Dr/ Ramon Rd. | | | | | | | |
| without Project improvements | TS | D | -- | **E** | **E** | **--** | **E** |
| with Project improvements | | D | -- | D | D | -- | D |
| 2. Da Vall Dr/ Ramon Rd | | | | | | | |
| without Project improvements | TS | E | -- | E | E | -- | E |
| with Project improvements | TS | D | -- | A | D | -- | D |
| 3. Da Vall Dr/ Dinah Shore Dr | TS | D | -- | D | D | -- | D |
| 4. Rattler Rd/ School Access 1 | CSS | **F** | **E** | C | **F** | **E** | C |
| 5. Ratter Rd/ Ramon Rd | TS | B | B | B | B | C | B |
| 6. Los Alamos Rd/ Ramon Rd | TS | C | -- | B | C | -- | B |
| 7. Bob Hope Dr/ I-10 WB Ramps | TS | D | -- | D | D | -- | D |
| 8. Bob Hope Dr/ I-10 EB Ramps | TS | D | -- | C | D | -- | D |
| 9. Bob Hope Dr/ Ramon Rd | TS | D | -- | D | D | -- | D |
| 10. Rattler Rd/ Access 1 | CSS | A | A | A | B | B | B |
| 11. Rattler Rd/ Access 2 | CSS | A | A | A | B | B | B |
| 12. Access 3/ Ramon Rd | CSS | A | -- | A | C | -- | D |
| 13. Access 4/ Ramon Rd | CSS | A | -- | A | D | -- | D |
| 14. Rattler Rd/ School Access 2 (exit only) | CSS | C | D | B | C | D | C |
| 15. Rattler Rd/ School Access 3 | CSS | **F** | **F** | C | **F** | **F** | C |

[1] TS = Traffic Signal; CSS = Cross-street Stop; RDB = Roundabout

Alternative Transportation

Existing on-street bike lanes are located on both sides of the roadways along Ramon Road in front of the Project site. The City will require the applicant to restore site-adjacent sidewalks to excellent condition by the project prior to opening day. Crosswalks at Project access points will be provided in conjunction with the development of the Project. The Project would not conflict with plans or policies addressing multimodal facilities.

The Project area is currently served by the Sunline with bus services along Ramon Road via route 4, and there is one transit stop within 400 feet of the Project site. SunLine periodically reviews and updates its services and facilities based on ridership, budget, and community demand. The Project would have no impact on plans or policies addressing transit facilities.

**b) No Impact.** SB 743 requires amendments to the CEQA Guidelines (pre-2019) to provide an alternative to LOS for evaluating transportation impacts. CEQA Guidelines were amended to require all lead agencies to adopt vehicle miles traveled (VMT) as a replacement for automobile delay-based level of service (LOS) for identifying transportation impacts. This statewide mandate went into effect July 1, 2020.

A Project-specific VMT Screening Analysis was prepared by Urban Crossroads in June 2023. The City's VMT policy establishes VMT as the metric to measure transportation impacts in conformance with CEQA. Exhibit A of Resolution 2021-06 sets forth screening criteria under which Projects are not required to submit detailed VMT analysis.

Of the seven (7) screening steps, the VMT analysis found that the Project meets two of the screening criteria:

1. Small Project Screening: Does not meet;
2. Project's Near High Quality Transit: Does not meet;
3. Local Serving Retail: Meets for retail component. The proposed Catana Specific Plan Project includes six buildings that have a combined square footage of 75,000 square feet, each of which is anticipated to be less than 25,000 square feet. The addition of these retail shops at this location, with building sizes well under the 50,000 square feet threshold, will allow residents to interact with local businesses rather than traveling farther to serve their retail needs.
4. Affordable Housing: Meets for residential component. Of the 305 Project residential units, 90 dwelling units are affordable housing. This equates to 29.5% of the dwelling units. In comparison, recent residential projects in Rancho Mirage have not included an affordable housing component, meaning the Project proposes a high percentage of affordable housing units compared to existing trends in the City.
5. Local Essential Service: Does not meet;
6. Map Based Screening: Does not meet; and
7. Redevelopment Project: Does not meet.

Therefore, the Project, per the City's VMT guidelines, can be determined to have less than significant impacts on circulation. The Project will not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

**c) No Impact.** The Project is proposed to have access from Ramon Road and Rattler Road. As discussed in subsection a) above, roadway improvements will be constructed in compliance with City standards and will not cause significant traffic delays or increased traffic hazards. No sharp curves, dangerous intersections, or hazardous geometric features are proposed. The Project vehicle mix will be consistent with the existing mix in the Project area. Construction plans will be coordinated with the city so that construction activity does not interfere with traffic on adjacent and nearby roads.

**d) No Impact.** There is one dedicated emergency access point proposed for PA 1 on Rattler Road, and a second proposed between PA 1 and PA 2, however all Project driveways can serve as emergency access routes, since they are open to emergency vehicles. Prior to construction, the Fire and Police Departments will review the site plan to ensure safety measures are addressed, including emergency access and vehicle turnaround space. Construction plans will be coordinated with the city and emergency providers, as needed, to assure that emergency access is maintained throughout all stages of development. No impact will occur.

*17.3 Mitigation Measures:*

**TRA.1** In addition to paying the requisite CVAG TUMF fee, and to remedy intersection LOS deficiencies, the Project's fair share of cumulative traffic amount is 5.7% towards the 2040 lane re-striping improvements at Date Palm Drive / Ramon Road (#1) and 8.2% towards

the 2040 ultimate lane improvements and signal modification at Da Vall Drive / Ramon Road (#2).

**Monitoring:**

**TRA.A** The Project applicant shall coordinate with the City and CVAG the payment of CVAG's TUMF fee and the agreed upon fair share contribution for improvements to the intersection of Date Palm Drive / Ramon Road (#1) and Da Vall Drive / Ramon Road (#2).
**Responsible Parties:** Project applicant, CVAG, City Engineer.

*18 - Tribal Cultural Resources*

| **TRIBAL CULTURAL RESOURCES** – Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| i) 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 section5020.1(k), or | ☐ | ☒ | ☐ | ☐ |
| ii) 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ☒ | ☐ | ☐ |

**Source:** Rancho Mirage General Plan 2017.

*18.1 Setting*

Cahuilla Indians are known to have lived in the Coachella Valley for thousands of years. They were Takic-speaking people who lived in various groups in the area. Today, Native Americans of Pass or Desert Cahuilla heritage are mostly affiliated with one or more of the Indian reservations in and near the Coachella Valley, including the Cabazon, Augustine, Torres Martinez, Twenty-nine Palms, Agua Caliente, and Morongo.

Numerous cultural resources are found throughout the valley which are considered non-renewable resources because they provide important information about the past.

*18.2 Discussion of Impacts:*

**a. i), ii) Less Than Significant with Mitigation Incorporated.** Based on historical/ archaeological resources record searches and historical background research conducted by

qualified professional archaeologists, no historical or archaeological resources were identified, nor are any expected on the Project site that would be 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).

Pursuant to AB 52 and SB 18 consultation requirements, the City of Rancho Mirage initiated a consultation process for a 90-day period from September 20, 2023 to December 20, 2023. The City contacted 16 tribes and their representatives provided by the Native American Heritage Commission (NAHC). During the consultation period, the City received one comment letter from the Agua Caliente Band of Cahuilla Indians (ACBCI). ACBCI responded that the project area is not located within the boundaries of the ACBCI Reservation, but it is within the Tribe's Traditional Use Area. ACBCI requested any copies of cultural resource documentation generated in connection with the proposed Project be provided. During consultation, ACBCI requested the addition of CUL-2, in order to assure that impacts be further reduced by assuring that construction personnel is knowledgeable regarding what potential resources might be uncovered during grading and excavation. In addition, in order to highlight the requirements of State law, the Tribe requested the addition of CUL-3, which requires the implementation of State law if human remains are uncovered during earth moving activities.

The City received a meeting request from the Cahuilla Band of Indians to further understand project. After the meeting, the Tribe deferred to ACBCI. No additional correspondence or requests for formal consultation were received and the SB 18 and AB 52 noticing period was concluded.

*18.3 Mitigation Measures:*

**Mitigation Measures:** See Section V Cultural.

**Monitoring:** See Section V Cultural.

*19 - Utilities and Service Systems*

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

**Sources:** Rancho Mirage General Plan 2017.

*19.1 Setting:*

Domestic Water

The Project site is within the Coachella Valley Water District (CVWD) service area for domestic water. Its primary water source is groundwater extracted through a system of wells from the Whitewater River subbasin. In addition to groundwater, CVWD relies on imported water brought to the region by canals. CVWD's domestic water system includes 97 wells with a total daily pumping capacity of 244 million gallons. CVWD has a total of 64 reservoirs, with an average storage capacity of 153.2 million gallons. CVWD also owns and operates the water distribution system, which is generally located under existing streets in the public right-of-way.

CVWD is responsible, under the California Water Code, for analyzing its current and future water supply and assuring that sufficient supply is available to serve land uses within the District, through the preparation of an Urban Water Management Plan (UWMP). CVWD is required to periodically update the Plan.

Wastewater Treatment

The Coachella Valley Water District (CVWD) also provides sewer service to the City of Rancho Mirage, including the Project area. The Project site is located in an urban area where the main sewer lines were laid out under the main roads and streets. Effluent from the City is conveyed to CVWD's Cook Street treatment plant (Water Reclamation Plant No. 10), which has a total capacity of 18 million gallons per day (mgd), including 15 mgd tertiary treatment capacity. CVWD also implements the requirements of the Regional Water Quality Control Board pertaining to domestic water quality and wastewater discharge.

Electric Power and Natural Gas

Southern California Edison (SCE) provides electrical services to the City of Rancho Mirage. Natural gas is provided by the Southern California Gas Company (SoCalGas).

Solid Waste

The City contracts with Burrtec for provision of solid waste management and disposal services. Burrtec offers services for businesses, construction-related activities, and special events, in addition to a variety of residential services. Most landfill waste is taken to the Edom Hill Transfer Station in northern Cathedral City. The Edom Hill Transfer Station has a maximum permitted throughput of 3,500 tons per day for general waste (e.g, agricultural, construction/demolition, food wastes, green materials, industrial, metals, tires). In addition, it has a separate area for composting (construction/demolition and green materials) with a maximum permitted throughput of 500 tons per day and a permitted capacity of 10,221 cubic yards. Recyclables are transported to a Material Recovery Facility (MRF) for sorting and processing, and then shipped to destinations for reuse and repurposing. The closest MRF to Rancho Mirage is the West Valley Transfer Station/MRF in Fontana.[20]

Landfill facilities serving the City of Rancho Mirage are Lamb Canyon Sanitary Landfill and Badlands Sanitary Landfill. Lamb Canyon has a maximum permitted throughput of 5,000 tons per day and had a remaining capacity of 19,242,950 cubic yards as of 2015 (latest available data).[21] Badlands Landfill has a maximum permitted throughput of 5,000 tons per day and had a remaining capacity of 7,800,00 cubic yards as of 2020 (latest available data).[22]

*19.2 Discussion of Impacts:*

**a-c) Less Than Significant.**

Water

The proposed Project will connect to the existing 18-inch water lines located in the Ramon Road and Rattler Road right of ways. As discussed in Table 6 under Hydrology and Water Quality, the total water demand for the proposed SP would be 76.91 acre-feet per year. This assumption is

[20] Rancho Mirage General Plan 2017, – Chapter 9 Public Services and Facilities, p.102.
[21] CalRecycle SWIS Facility/Site Activity Details. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2246?siteID=2368
[22] CalRecycle SWIS Facility/Site Activity Details. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2245?siteID=2367

based on full buildout of the SP area. The City of Rancho Mirage's largest water supply source is groundwater from the Whitewater River Basin, which is managed by CVWD. The Proposed Project water demand is 0.05% of the projected 2025 regional water supplies, and 0.04% of the projected 2045 regional water supplies. The Project would not substantially decrease local groundwater supplies or interfere with groundwater recharge such that it would impede sustainable management of the basin. Therefore, project impacts associated with domestic water demand are expected to be less than significant.

To reduce water consumption, the proposed Project will be required to implement all water conservation measures imposed by CVWD under both normal and drought conditions over the life of the proposed Project.

Wastewater Treatment

The Project site is served by CVWD for wastewater collection and treatment services. The project site does not currently contain any wastewater infrastructure but will connect to the existing sewer lines located in the Ramon Road and Rattler Road right of ways. The Specific Plan would accommodate a total of up to 305 new residential units and 75,000 square feet of commercial uses. Future development under the Specific Plan would be required to connect to existing main wastewater treatment lines. To ensure adequate sewer system capacity to meet the growing needs of the City and the entire service area, CVWD has plans in place which would be updated based on future demands in their jurisdictions. The wastewater treatment plant serving the planning area, WRP-10, has a current average annual flow of 10.8 million gallons per day (mgd), and the CVWD 2010 Urban Water Management Plan projects wastewater treatment at WRP-10 to be 15.53 mgd in year 2045.

The Project wastewater discharges will be typical of commercial and residential uses and would not exceed wastewater treatment requirements of CVWD or the Regional Water Quality Control Board. Therefore, buildout of the proposed Specific Plan update would result in a less than significant impacts related to wastewater treatment facilities; no mitigation is required.

Stormwater Drainage

The Project is subject to the City of Rancho Mirage Stormwater Management and Discharge Control Ordinance (Rancho Mirage Municipal Code Chapter 7.03). The implementation of the General Plan goals, policies, and programs regarding drainage and flood control will occur through the use and enforcement of City, CVWD and (where applicable) FEMA's National Flood Insurance Plan (NFIP) guidelines and mitigation measures, as well as NPDES requirements.

Pursuant to Policy 2.7 of the General Plan Safety Element, the proposed development's on-site stormwater retention facilities must have adequate capacity to retain flows from the 100-year, 24-hour storm. In Planning Area 1, stormwater will be retained on site in the two retention ponds provided in the northeastern and northwestern corners of Planning Area 1. Additional underground storage may be provided on-site if required. PA 2 and 3 will also develop on-site drainage facilities, likely consisting of a combination of above-ground retention, and underground detention facilities. A Hydrology Report and Water Quality Management Plan (WQMP) will be prepared for each Planning Area as it develops within the Catana Specific Plan. As discussed above in Section 10, Hydrology and Water Resources, development of the Project site will incorporate BMPs for construction and post-construction conditions, designed to control pollutants that enter the on-site and off-site system, and is not expected to affect water quality. A final hydrologic analysis will be required to demonstrate that the Project meets the City's standards. These standard requirements will assure that impacts associated with storm water retention remain less than significant.

Other Utilities

The proposed Project will require construction of on-site electric power, natural gas, and telecommunications infrastructure to connect to the existing infrastructure located adjacent to the Project site. The Project would not result in the construction of new electric power, natural gas, or telecommunications facilities off-site that could cause significant environmental effects.

**d, e) Less than Significant Impact.** Burrtec provides solid waste services to the City of Rancho Mirage. Solid waste is recycled, reused, or transformed at a waste-to-energy facility[23], or disposed of at County landfills. The Lamb Canyon regional landfill has a remaining capacity of 19,242,950 cubic yards as of 2015 (latest data available).

As shown in the following table, the Project would develop up to 305 residential dwelling units and 75,000 square feet of commercial uses, and generate an estimated 522.7 tons of solid waste per year. This equals 4,181.6 cubic yards per year[24], which is approximately 0.02% of the Lamb Canyon landfill's remaining capacity. Therefore, the Project will not exceed the available capacity of the landfill and Project impacts will be less than significant.

**Table 12**
**Estimated Solid Waste Disposal at Buildout**

| Proposed Land Use | Disposal Rate* | Proposed Units | Solid Waste Disposal (lbs/day) | Projected Solid Waste Disposal (tons/year) |
|---|---|---|---|---|
| Shopping Center | 2.5 lbs./100 SF/day | 75,000 SF | 1,875 | 342.2 |
| Residential | 12.23 pounds/dwelling unit/day | 315 DU | 3,853 | 703.2 |
| | | | Subtotal: | 1,045.4 |
| | | | **Total (with 50% diversion):** | **522.7** |

*Estimated Solid Waste Generation Rates by CalRecycle, https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates, accessed July 2023.

Recyclable materials (e.g., paper, plastic, glass, cardboard, aluminum) will be transported to Burrtec's material recovery facilities for recycling and reuse. Burrtec is responsible for maintaining standards that assure that all waste is handled in a manner that meets local, state, and federal standards. These requirements will assure that impacts associated with solid waste disposal remain less than significant.

*19.3 Mitigation Measures:*

**Mitigation Measures:** None required.

**Monitoring**: None required.

[23] Riverside County Nondisposal Facility Element by Riverside County Department of Waste Resources (2015), https://www.rcwaste.org/Portals/0/Files/Planning/CIWMP/NDFE.PDF.

[24] Assumes 1 cubic yard of uncompacted residential, institutional and commercial solid waste equals 250 lbs. "Volume-to-Weight Conversion Factors," US EPA Office of Resource Conversion and Recovery, April 2016.

*20 - Wildfire*

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

**Sources:** Rancho Mirage General Plan 2017; Very High Fire Hazard Severity Zones mapping, CalFire 2023 https://calfireforestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008.

*20.1 Setting:*

The California Department of Forestry and Fire Protection (CalFire) ranks fire hazard of wildland areas of the state using four main criteria: fuels, weather, assets at risk, and level of service. The historical record indicates that the wildland fire hazard in Rancho Mirage is relatively low. Recent (2023) CalFire mapping shows there are no Fire Threat Zones in Rancho Mirage.

*20.2 Discussion of Impacts:*

**a) No Impact**. The primary emergency evacuation routes in the City include Interstate 10, Highway 111, along with primary and minor arterial streets serving as secondary routes. The project site is located along Ramon Road, which provides access in an emergency. Development on the subject property would not substantially impair the City's adopted emergency evacuation

and response plan as the Project is not proposing to amend these routes to impede emergency evacuation. The City maintains a Multi-Hazard Functional Plan that addresses the planned response to extraordinary emergency situations, including natural or human-caused disasters. The Specific Plan would not impair the adopted emergency response plan. No impact is anticipated.

**b, c) No Impact**. According to updated CalFire mapping (2023), the Project area is not located within a wildfire hazard severity zone nor a wildland-urban interface (WUI). The Project is located in an urban environment, and miles from an area of wildland fire potential. Urban roadways exist surrounding the Project, and no new wildfire risk infrastructure will be required. No impact is anticipated.

**c) No Impact**. The Project site is located on the valley floor where there is no potential for flooding, landslide, or post-fire slope instability. Therefore, the proposed Project would not expose people or structures to significant risks such as downslope or downstream flooding or landslides, post-fire slope instability, or drainage changes. No impact is anticipated.

*20.3 Mitigation Measures:*

**Mitigation Measures:** None required.

**Monitoring**: None required.

*21 - Mandatory Findings of Significance*

| **MANDATORY FINDINGS OF SIGNIFICANCE** | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Does the project 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? | ☐ | ☒ | ☐ | ☐ |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | ☐ | ☐ | ☒ | ☐ |
| c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☒ | ☐ |

*21.1 Discussion of Impacts:*

**a) Less Than Significant Impact with Mitigation Measures Incorporated.**

Biological Resources: The project site is not located within the CVMSHCP-designated conservation area and does not contain any wildlife corridors or biological linkage areas. However, on-site vegetation could provide habitat for nesting birds; therefore, a pre-construction survey will be required to avoid impacts to nesting birds covered by the MBTA and to burrowing owl. In addition, the site is subject to payment of the Development Mitigation Fee to mitigate potential impacts to covered species under the CVMSHCP.

The Proposed Project will not significantly reduce fish or wildlife habitat or otherwise adversely impact a fish or wildlife species. The construction of the project has the potential to impact nesting birds, but the mitigation measures included in this document will reduce those impacts to less than significant levels.

Cultural Resources: No cultural resources are known to exist within or adjacent to the project site. Since the project will require excavation, there is a small potential for unknown resources to be uncovered. Mitigation measures provided in this document will ensure that impacts to cultural and/or tribal resources are less than significant in the unlikely event that resources are discovered during project development.

Overall, there will be no significant environmental impacts which cannot be mitigated. Project related impacts, including cumulative impacts, are considered less than significant.

**b) Less Than Significant Impact**. A significant impact could occur if the Proposed Project, in conjunction with related projects, would result in impacts that would be less than significant when viewed separately, but would be significant when viewed together. Here, however, the impacts of the Proposed Project are individually limited and not cumulatively considerable. The Proposed Project is consistent with the development envisioned for this area of the City in its General Plan. The project involves the implementation of a Catana Specific Plan which will not significantly intensify land use in the area beyond what is envisioned in the City's General Plan. All environmental impacts that could occur as a result of the proposed Project would be less than significant with the implementation of mitigation measures included herein, and when viewed in conjunction with other closely related past, present or reasonably foreseeable future projects, would not be significant.

**c) Less Than Significant Impact**. The proposed Project will not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly, with the implementation of the City's Municipal Code, other standard requirements and requirements of law, and the mitigation measures included in this document.

*21.3 Mitigation Measures*

| Table 13: Mitigation Monitoring and Reporting Program | | | |
|---|---|---|---|
| **Mitigation Measure** | **Responsible Agency** | **Timing** | **Verification (Date and Initials)** |
| **BIOLOGICAL RESOURCES** | | | |
| **BIO-1** A preconstruction survey following CDFG's Staff Report for Burrowing Owl (2012) must be conducted by a qualified biologist prior to initiating construction. Unless avoidable, all burrowing owls present must be relocated prior to any ground disturbing activities. If burrowing owls are identified on-site, a Burrowing Owl Relocation and Management Plan will be prepared to describe and outline how the burrowing owl will be actively or passively relocated per CDFW protocol. Prior to construction, any owls occurring on-site will be relocated prior to vegetation removal. Relocation will require prior permission from the CDFW, at a minimum. | Planning Department | Prior to any earth moving activity | |
| **BIO-2** To avoid impacting nesting birds, either avoidance of project-related disturbance during the nesting season (1 February through 31 August) or nesting bird surveys conducted by a qualified ornithologist or biologist immediately prior to on-site disturbance during the nesting season shall be required. If nesting birds are found, no work would be permitted near the nest until young have fledged. There is no established protocol for nest avoidance, however, when consulted the CDFW generally recommends avoidance buffers of about 500 feet for birds-of-prey and species listed as threatened or endangered, and 100–300 feet for unlisted songbirds. | Planning Department | Prior to any earth moving activity | |
| **CULTURAL & TRIBAL CULTURAL RESOURCES** | | | |
| **CUL-1** Earth-moving activities including grading, grubbing, trenching, or excavations at the site shall be monitored by a qualified archaeologist and approved Tribal Monitor(s) if requested.<br><br>Should cultural materials be discovered, they shall be recorded and evaluated in the field. The monitors shall be prepared to recover artifacts quickly to avoid construction delays but must have the power to temporarily halt or divert construction equipment to allow for controlled archaeological recovery if a substantial cultural deposit is encountered. The Native American Monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of the Interior's Standards and Guidelines) to investigate and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Officer and Tribal Historic Preservation Office. If artifacts are discovered, these shall be processed, catalogued, analyzed, and prepared for permanent curation in a repository with permanent retrievable storage that would allow for additional research in the future. Archaeological site records shall be prepared to document the cultural remains discovered during monitoring and submitted to the California Historical Resources Information System. | Public Works Inspectors | During earth moving activities. | |
| **CUL-2** A qualified archaeologist and/or approved Agua Caliente Native American Cultural Resource Monitor(s) shall provide preconstruction training for all earthmoving construction personnel prior to the start of any ground disturbing activities, regarding how to recognize the types of Tribal Cultural Resources and/or archaeological resources that may be encountered and to instruct personnel about actions to be taken in the event of a discovery. | Planning Department | Prior to any earth moving activity | |
| **CUL-3** In the unexpected event human remains are uncovered during construction activities, all construction work taking place within the vicinity of the discovered remains must cease and the necessary steps to ensure the integrity of the immediate area must be taken. The County Coroner must be notified within 24 hours of the discovery of human remains. If the remains discovered are determined by the | Planning Department | During earth moving activities. | |

| | | | |
|---|---|---|---|
| Coroner to be of Native American descent, the Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC would in turn contact the Most Likely Descendant (MLD) would determine further action to be taken. The MLD would have 48 hours to access the site and make a recommendation regarding disposition of the remains. | | | |
| **GEOLOGY AND SOILS** | | | |
| GEO-1 Development of the Project shall adhere to the recommendations set forth in the Project-specific geotechnical engineering report required by the City prior to issuance of grading and building permits. | City Engineer | Improvement plan review. | |
| **TRANSPORTATION/TRAFFIC** | | | |
| TRA.1 In addition to paying the requisite CVAG TUMF fee, and to remedy intersection LOS deficiencies, the Project's fair share of cumulative traffic amount is 5.7% towards the 2040 lane re-striping improvements at Date Palm Drive / Ramon Road (#1) and 8.2% towards the 2040 ultimate lane improvements and signal modification at Da Vall Drive / Ramon Road (#2). | City Engineer | Prior to issuance of grading permit. | |

# CHAPTER 3: REFERENCES


- 2003 Coachella Valley $PM_{10}$ State Implementation Plan, August 1, 2003.
- 2012 Greenhouse Gas Inventory, prepared by EcoMotion, September 2012.
- 2013 Sustainability Action Plan, prepared by EcoMotion, March 2013.
- 2017 Rancho Mirage General Plan; California Department of Toxic Substances Control EnviroStor; State Water Resources Control Board GeoTracker database.
- 2020-2045 RTP/SCS, Demographics & Growth Forecast Appendix, Southern California Association of Governments.
- CalEEMod Version 2022.1.1.14.
- California Department of Conservation, Farmland Mapping & Monitoring Program, 2018.
- Catana Specific Plan Vehicle Miles Traveled (VMT) Screening Analysis, prepared by Urban Crossroads, Inc., June 2023.
- Final Localized Significance Threshold Methodology, prepared by the South Coast Air Quality Management District, Revised, July 2008.
- Officially Designated State Scenic Highways Map, Caltrans.
- Phase 1 Historical/Archaeological Resources Survey, William Warren Group Project (Catana SP), prepared by CRM TECH. December 17, 2022.
- Ramon Rattler Project, Biological Resources Assessment and Coachella Valley Multiple Specifics Habitat Conservation Plan Compliance Report, prepared by WSP, March 2023.

- Rancho Mirage General Plan 2017; Very High Fire Hazard Severity Zones mapping, CalFire 2023 https://calfireforestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008.
- Rancho Mirage General Plan 2017.
- Rancho Mirage General Plan 2017. Updated Mineral Land Classification Map for Portland Cement Concrete-Grade Aggregate in the Palm Springs Production-Consumption Region, Riverside County, California by Lawrence L. Busch, 2007.
- Rancho Mirage Zoning Ordinance, as amended.
- SCAQMD AQMP, 2022; 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Demographics and Growth Forecast Technical Report, Southern California Association of Governments, adopted September 3, 2020.
- Traffic Impact Analysis for the Catana Specific Plan, Urban Crossroads, Inc., June 2023.


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Appendix A
CalEEMod Modeling

Appendix B
Biological Resources Assessment & Coachella Valley
Multiple Species Habitat Conservation Plan Compliance Report

Appendix C
Phase I Historical/Archaeological Resources Survey
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# Catana Specific Plan Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Catana Specific Plan |
| Construction Start Date | 9/1/2023 |
| Operational Year | 2025 |
| Lead Agency | Rancho Mirage |
| Land Use Scale | Plan/community |
| Analysis Level for Defaults | Air Basin |
| Windspeed (m/s) | 3.30 |
| Precipitation (days) | 10.0 |
| Location | 33.81836587134663, -116.43480618105977 |
| County | Riverside-Salton Sea |
| City | Rancho Mirage |
| Air District | South Coast AQMD |
| Air Basin | Salton Sea |
| TAZ | 5674 |
| EDFZ | 11 |
| Electric Utility | Southern California Edison |
| Gas Utility | Southern California Gas |
| App Version | 2022.1.1.14 |

## 1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 90.0 | Dwelling Unit | 2.00 | 95,400 | 19,602 | — | 291 | Affordable housing units |
| Single Family Housing | 215 | Dwelling Unit | 25.0 | 419,250 | 2,518,264 | — | 694 | Single family attached and detached residences |
| Regional Shopping Center | 75.0 | 1000sqft | 5.00 | 75,000 | 52,272 | — | — | Commercial/Office/Retail/Restaurants |
| Parking Lot | 3.00 | Acre | 3.00 | 0.00 | 0.00 | — | — | — |

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

# 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 25.1 | 39.8 | 37.0 | 0.05 | 1.81 | 7.80 | 9.61 | 1.66 | 3.97 | 5.63 | — | 6,673 | 6,673 | 0.25 | 0.24 | 6,761 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 24.9 | 47.8 | 52.1 | 0.09 | 1.96 | 7.80 | 9.61 | 1.81 | 3.97 | 5.63 | — | 11,546 | 11,546 | 0.47 | 0.29 | 11,643 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 11.8 | 11.6 | 18.0 | 0.03 | 0.46 | 1.39 | 1.80 | 0.43 | 0.66 | 1.03 | — | 3,801 | 3,801 | 0.15 | 0.16 | 3,854 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 2.15 | 2.12 | 3.28 | < 0.005 | 0.08 | 0.25 | 0.33 | 0.08 | 0.12 | 0.19 | — | 629 | 629 | 0.02 | 0.03 | 638 |

## 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2023 | 4.06 | 39.8 | 36.9 | 0.05 | 1.81 | 7.80 | 9.61 | 1.66 | 3.97 | 5.63 | — | 5,462 | 5,462 | 0.22 | 0.05 | 5,482 |
| 2024 | 3.32 | 21.1 | 37.0 | 0.05 | 0.90 | 1.69 | 2.60 | 0.83 | 0.41 | 1.24 | — | 6,673 | 6,673 | 0.25 | 0.24 | 6,761 |
| 2025 | 25.1 | 13.3 | 28.2 | 0.03 | 0.47 | 1.84 | 2.31 | 0.44 | 0.44 | 0.88 | — | 5,405 | 5,405 | 0.20 | 0.23 | 5,488 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2023 | 4.03 | 39.8 | 36.3 | 0.06 | 1.81 | 7.80 | 9.61 | 1.66 | 3.97 | 5.63 | — | 6,759 | 6,759 | 0.28 | 0.06 | 6,784 |
| 2024 | 5.60 | 47.8 | 52.1 | 0.09 | 1.96 | 5.32 | 7.28 | 1.81 | 1.84 | 3.65 | — | 11,546 | 11,546 | 0.47 | 0.29 | 11,643 |
| 2025 | 24.9 | 13.5 | 22.8 | 0.03 | 0.47 | 1.84 | 2.31 | 0.44 | 0.44 | 0.88 | — | 5,134 | 5,134 | 0.21 | 0.23 | 5,208 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2023 | 0.94 | 9.23 | 8.26 | 0.01 | 0.41 | 1.39 | 1.80 | 0.37 | 0.66 | 1.03 | — | 1,453 | 1,453 | 0.06 | 0.01 | 1,459 |
| 2024 | 1.69 | 11.6 | 18.0 | 0.03 | 0.46 | 1.25 | 1.71 | 0.43 | 0.33 | 0.75 | — | 3,801 | 3,801 | 0.15 | 0.16 | 3,854 |
| 2025 | 11.8 | 5.66 | 10.4 | 0.01 | 0.20 | 0.78 | 0.98 | 0.18 | 0.19 | 0.37 | — | 2,210 | 2,210 | 0.09 | 0.10 | 2,242 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2023 | 0.17 | 1.68 | 1.51 | < 0.005 | 0.07 | 0.25 | 0.33 | 0.07 | 0.12 | 0.19 | — | 241 | 241 | 0.01 | < 0.005 | 242 |
| 2024 | 0.31 | 2.12 | 3.28 | < 0.005 | 0.08 | 0.23 | 0.31 | 0.08 | 0.06 | 0.14 | — | 629 | 629 | 0.02 | 0.03 | 638 |
| 2025 | 2.15 | 1.03 | 1.90 | < 0.005 | 0.04 | 0.14 | 0.18 | 0.03 | 0.03 | 0.07 | — | 366 | 366 | 0.01 | 0.02 | 371 |

## 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 39.9 | 20.5 | 143 | 0.26 | 0.78 | 16.0 | 16.8 | 0.76 | 4.06 | 4.83 | 211 | 36,220 | 36,431 | 23.2 | 1.31 | 37,476 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 32.1 | 21.3 | 94.9 | 0.23 | 0.76 | 16.0 | 16.8 | 0.75 | 4.06 | 4.82 | 211 | 33,789 | 34,000 | 23.3 | 1.34 | 34,989 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 34.2 | 15.6 | 105 | 0.20 | 0.38 | 15.1 | 15.5 | 0.37 | 3.82 | 4.19 | 211 | 27,667 | 27,878 | 23.1 | 1.25 | 28,861 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.24 | 2.86 | 19.1 | 0.04 | 0.07 | 2.75 | 2.82 | 0.07 | 0.70 | 0.77 | 35.0 | 4,581 | 4,616 | 3.82 | 0.21 | 4,778 |

## 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Sector | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 23.7 | 12.8 | 119 | 0.21 | 0.16 | 16.0 | 16.2 | 0.15 | 4.06 | 4.21 | — | 21,181 | 21,181 | 1.23 | 1.17 | 21,631 |
| Area | 16.1 | 5.26 | 22.7 | 0.03 | 0.42 | — | 0.42 | 0.42 | — | 0.42 | 0.00 | 6,482 | 6,482 | 0.12 | 0.01 | 6,489 |
| Energy | 0.14 | 2.44 | 1.09 | 0.02 | 0.20 | — | 0.20 | 0.20 | — | 0.20 | — | 8,141 | 8,141 | 0.59 | 0.04 | 8,168 |
| Water | — | — | — | — | — | — | — | — | — | — | 34.6 | 417 | 451 | 3.57 | 0.09 | 566 |
| Waste | — | — | — | — | — | — | — | — | — | — | 177 | 0.00 | 177 | 17.7 | 0.00 | 618 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4.05 |
| Total | 39.9 | 20.5 | 143 | 0.26 | 0.78 | 16.0 | 16.8 | 0.76 | 4.06 | 4.83 | 211 | 36,220 | 36,431 | 23.2 | 1.31 | 37,476 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 18.0 | 13.8 | 91.6 | 0.18 | 0.16 | 16.0 | 16.2 | 0.15 | 4.06 | 4.21 | — | 18,810 | 18,810 | 1.38 | 1.20 | 19,204 |
| Area | 14.0 | 5.06 | 2.15 | 0.03 | 0.41 | — | 0.41 | 0.41 | — | 0.41 | 0.00 | 6,422 | 6,422 | 0.12 | 0.01 | 6,429 |
| Energy | 0.14 | 2.44 | 1.09 | 0.02 | 0.20 | — | 0.20 | 0.20 | — | 0.20 | — | 8,141 | 8,141 | 0.59 | 0.04 | 8,168 |
| Water | — | — | — | — | — | — | — | — | — | — | 34.6 | 417 | 451 | 3.57 | 0.09 | 566 |
| Waste | — | — | — | — | — | — | — | — | — | — | 177 | 0.00 | 177 | 17.7 | 0.00 | 618 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4.05 |
| Total | 32.1 | 21.3 | 94.9 | 0.23 | 0.76 | 16.0 | 16.8 | 0.75 | 4.06 | 4.82 | 211 | 33,789 | 34,000 | 23.3 | 1.34 | 34,989 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 19.3 | 12.8 | 93.3 | 0.18 | 0.15 | 15.1 | 15.2 | 0.14 | 3.82 | 3.96 | — | 18,641 | 18,641 | 1.24 | 1.12 | 19,034 |
| Area | 14.8 | 0.44 | 10.3 | < 0.005 | 0.04 | — | 0.04 | 0.03 | — | 0.03 | 0.00 | 469 | 469 | 0.01 | < 0.005 | 470 |
| Energy | 0.14 | 2.44 | 1.09 | 0.02 | 0.20 | — | 0.20 | 0.20 | — | 0.20 | — | 8,141 | 8,141 | 0.59 | 0.04 | 8,168 |
| Water | — | — | — | — | — | — | — | — | — | — | 34.6 | 417 | 451 | 3.57 | 0.09 | 566 |
| Waste | — | — | — | — | — | — | — | — | — | — | 177 | 0.00 | 177 | 17.7 | 0.00 | 618 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4.05 |
| Total | 34.2 | 15.6 | 105 | 0.20 | 0.38 | 15.1 | 15.5 | 0.37 | 3.82 | 4.19 | 211 | 27,667 | 27,878 | 23.1 | 1.25 | 28,861 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 3.52 | 2.33 | 17.0 | 0.03 | 0.03 | 2.75 | 2.78 | 0.03 | 0.70 | 0.72 | — | 3,086 | 3,086 | 0.20 | 0.19 | 3,151 |
| Area | 2.69 | 0.08 | 1.87 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 0.00 | 77.7 | 77.7 | < 0.005 | < 0.005 | 77.8 |
| Energy | 0.03 | 0.44 | 0.20 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 1,348 | 1,348 | 0.10 | 0.01 | 1,352 |
| Water | — | — | — | — | — | — | — | — | — | — | 5.72 | 69.0 | 74.7 | 0.59 | 0.01 | 93.8 |
| Waste | — | — | — | — | — | — | — | — | — | — | 29.2 | 0.00 | 29.2 | 2.92 | 0.00 | 102 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.67 |
| Total | 6.24 | 2.86 | 19.1 | 0.04 | 0.07 | 2.75 | 2.82 | 0.07 | 0.70 | 0.77 | 35.0 | 4,581 | 4,616 | 3.82 | 0.21 | 4,778 |

# 3. Construction Emissions Details

## 3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.95 | 39.7 | 35.5 | 0.05 | 1.81 | — | 1.81 | 1.66 | — | 1.66 | — | 5,295 | 5,295 | 0.21 | 0.04 | 5,314 |
| Dust From Material Movement | — | — | — | — | — | 7.67 | 7.67 | — | 3.94 | 3.94 | — | — | — | — | — | — |
| Onsite truck | 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 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.95 | 39.7 | 35.5 | 0.05 | 1.81 | — | 1.81 | 1.66 | — | 1.66 | — | 5,295 | 5,295 | 0.21 | 0.04 | 5,314 |
| Dust From Material Movement | — | — | — | — | — | 7.67 | 7.67 | — | 3.94 | 3.94 | — | — | — | — | — | — |
| Onsite truck | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.49 | 4.90 | 4.37 | 0.01 | 0.22 | — | 0.22 | 0.20 | — | 0.20 | — | 653 | 653 | 0.03 | 0.01 | 655 |
| Dust From Material Movement | — | — | — | — | — | 0.95 | 0.95 | — | 0.49 | 0.49 | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite truck | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.09 | 0.89 | 0.80 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 108 | 108 | < 0.005 | < 0.005 | 108 |
| Dust From Material Movement | — | — | — | — | — | 0.17 | 0.17 | — | 0.09 | 0.09 | — | — | — | — | — | — |
| Onsite truck | 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 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.08 | 1.39 | 0.00 | 0.00 | 0.14 | 0.14 | 0.00 | 0.03 | 0.03 | — | 166 | 166 | 0.01 | 0.01 | 169 |
| Vendor | 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 |
| Hauling | 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 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.09 | 0.84 | 0.00 | 0.00 | 0.14 | 0.14 | 0.00 | 0.03 | 0.03 | — | 141 | 141 | 0.01 | 0.01 | 143 |
| Vendor | 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 |
| Hauling | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.12 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | < 0.005 | < 0.005 | — | 18.6 | 18.6 | < 0.005 | < 0.005 | 18.9 |
| Vendor | 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 |
| Hauling | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 3.09 | 3.09 | < 0.005 | < 0.005 | 3.13 |
| Vendor | 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 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 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 |

## 3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.72 | 37.3 | 31.4 | 0.06 | 1.59 | — | 1.59 | 1.47 | — | 1.47 | — | 6,598 | 6,598 | 0.27 | 0.05 | 6,621 |
| Dust From Material Movement | — | — | — | — | — | 3.59 | 3.59 | — | 1.42 | 1.42 | — | — | — | — | — | — |
| Onsite truck | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.43 | 4.31 | 3.63 | 0.01 | 0.18 | — | 0.18 | 0.17 | — | 0.17 | — | 762 | 762 | 0.03 | 0.01 | 764 |
| Dust From Material Movement | — | — | — | — | — | 0.41 | 0.41 | — | 0.16 | 0.16 | — | — | — | — | — | — |
| Onsite truck | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.08 | 0.79 | 0.66 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 126 | 126 | 0.01 | < 0.005 | 127 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | 0.08 | 0.08 | — | 0.03 | 0.03 | — | — | — | — | — | — |
| Onsite truck | 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 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.10 | 0.96 | 0.00 | 0.00 | 0.16 | 0.16 | 0.00 | 0.04 | 0.04 | — | 161 | 161 | 0.01 | 0.01 | 163 |
| Vendor | 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 |
| Hauling | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.13 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | < 0.005 | < 0.005 | — | 19.9 | 19.9 | < 0.005 | < 0.005 | 20.2 |
| Vendor | 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 |
| Hauling | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 3.30 | 3.30 | < 0.005 | < 0.005 | 3.35 |
| Vendor | 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 |
| Hauling | 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 |

## 3.5. Grading (2024) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.52 | 34.3 | 30.2 | 0.06 | 1.45 | — | 1.45 | 1.33 | — | 1.33 | — | 6,598 | 6,598 | 0.27 | 0.05 | 6,621 |
| Dust From Material Movement | — | — | — | — | — | 3.59 | 3.59 | — | 1.42 | 1.42 | — | — | — | — | — | — |
| Onsite truck | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.17 | 1.68 | 1.48 | < 0.005 | 0.07 | — | 0.07 | 0.07 | — | 0.07 | — | 323 | 323 | 0.01 | < 0.005 | 324 |
| Dust From Material Movement | — | — | — | — | — | 0.18 | 0.18 | — | 0.07 | 0.07 | — | — | — | — | — | — |
| Onsite truck | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.31 | 0.27 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 53.4 | 53.4 | < 0.005 | < 0.005 | 53.6 |
| Dust From Material Movement | — | — | — | — | — | 0.03 | 0.03 | — | 0.01 | 0.01 | — | — | — | — | — | — |
| Onsite truck | 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 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.09 | 0.87 | 0.00 | 0.00 | 0.16 | 0.16 | 0.00 | 0.04 | 0.04 | — | 157 | 157 | 0.01 | 0.01 | 160 |
| Vendor | 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 |
| Hauling | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 8.25 | 8.25 | < 0.005 | < 0.005 | 8.37 |
| Vendor | 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 |
| Hauling | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.37 | 1.37 | < 0.005 | < 0.005 | 1.39 |
| Vendor | 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 |
| Hauling | 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 |

## 3.7. Building Construction (2024) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.20 | 11.2 | 13.1 | 0.02 | 0.50 | — | 0.50 | 0.46 | — | 0.46 | — | 2,398 | 2,398 | 0.10 | 0.02 | 2,406 |
| Onsite truck | 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 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 1.20 | 11.2 | 13.1 | 0.02 | 0.50 | — | 0.50 | 0.46 | — | 0.46 | — | 2,398 | 2,398 | 0.10 | 0.02 | 2,406 |
| Onsite truck | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.80 | 7.51 | 8.78 | 0.02 | 0.33 | — | 0.33 | 0.31 | — | 0.31 | — | 1,605 | 1,605 | 0.07 | 0.01 | 1,610 |
| Onsite truck | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 1.37 | 1.60 | < 0.005 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | — | 266 | 266 | 0.01 | < 0.005 | 267 |
| Onsite truck | 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 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.95 | 0.67 | 12.1 | 0.00 | 0.00 | 1.29 | 1.29 | 0.00 | 0.30 | 0.30 | — | 1,542 | 1,542 | 0.07 | 0.05 | 1,565 |
| Vendor | 0.05 | 1.32 | 0.66 | 0.01 | 0.01 | 0.28 | 0.30 | 0.01 | 0.08 | 0.09 | — | 1,083 | 1,083 | 0.01 | 0.15 | 1,131 |
| Hauling | 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 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.75 | 0.75 | 7.27 | 0.00 | 0.00 | 1.29 | 1.29 | 0.00 | 0.30 | 0.30 | — | 1,308 | 1,308 | 0.08 | 0.05 | 1,327 |
| Vendor | 0.05 | 1.43 | 0.68 | 0.01 | 0.01 | 0.28 | 0.30 | 0.01 | 0.08 | 0.09 | — | 1,084 | 1,084 | 0.01 | 0.15 | 1,130 |
| Hauling | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.54 | 0.50 | 5.91 | 0.00 | 0.00 | 0.86 | 0.86 | 0.00 | 0.20 | 0.20 | — | 938 | 938 | 0.05 | 0.04 | 952 |
| Vendor | 0.03 | 0.94 | 0.45 | 0.01 | 0.01 | 0.19 | 0.20 | 0.01 | 0.05 | 0.06 | — | 725 | 725 | 0.01 | 0.10 | 756 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hauling | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.10 | 0.09 | 1.08 | 0.00 | 0.00 | 0.16 | 0.16 | 0.00 | 0.04 | 0.04 | — | 155 | 155 | 0.01 | 0.01 | 158 |
| Vendor | 0.01 | 0.17 | 0.08 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | — | 120 | 120 | < 0.005 | 0.02 | 125 |
| Hauling | 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 |

## 3.9. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 0.10 | 0.02 | 2,406 |
| Onsite truck | 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 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.13 | 10.4 | 13.0 | 0.02 | 0.43 | — | 0.43 | 0.40 | — | 0.40 | — | 2,398 | 2,398 | 0.10 | 0.02 | 2,406 |
| Onsite truck | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.47 | 4.35 | 5.44 | 0.01 | 0.18 | — | 0.18 | 0.17 | — | 0.17 | — | 999 | 999 | 0.04 | 0.01 | 1,003 |
| Onsite truck | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.09 | 0.79 | 0.99 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 165 | 165 | 0.01 | < 0.005 | 166 |
| Onsite truck | 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 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.90 | 0.62 | 11.1 | 0.00 | 0.00 | 1.29 | 1.29 | 0.00 | 0.30 | 0.30 | — | 1,508 | 1,508 | 0.07 | 0.05 | 1,532 |
| Vendor | 0.05 | 1.26 | 0.62 | 0.01 | 0.01 | 0.28 | 0.30 | 0.01 | 0.08 | 0.09 | — | 1,064 | 1,064 | 0.01 | 0.14 | 1,110 |
| Hauling | 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 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.70 | 0.70 | 6.68 | 0.00 | 0.00 | 1.29 | 1.29 | 0.00 | 0.30 | 0.30 | — | 1,281 | 1,281 | 0.08 | 0.05 | 1,299 |
| Vendor | 0.04 | 1.37 | 0.63 | 0.01 | 0.01 | 0.28 | 0.30 | 0.01 | 0.08 | 0.09 | — | 1,065 | 1,065 | 0.01 | 0.14 | 1,109 |
| Hauling | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.32 | 0.27 | 3.38 | 0.00 | 0.00 | 0.54 | 0.54 | 0.00 | 0.13 | 0.13 | — | 572 | 572 | 0.03 | 0.02 | 580 |
| Vendor | 0.02 | 0.56 | 0.26 | < 0.005 | 0.01 | 0.12 | 0.12 | 0.01 | 0.03 | 0.04 | — | 444 | 444 | 0.01 | 0.06 | 462 |
| Hauling | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.05 | 0.62 | 0.00 | 0.00 | 0.10 | 0.10 | 0.00 | 0.02 | 0.02 | — | 94.7 | 94.7 | 0.01 | < 0.005 | 96.1 |
| Vendor | < 0.005 | 0.10 | 0.05 | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | 0.01 | 0.01 | — | 73.5 | 73.5 | < 0.005 | 0.01 | 76.5 |
| Hauling | 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 |

## 3.11. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.85 | 7.81 | 10.0 | 0.01 | 0.39 | — | 0.39 | 0.36 | — | 0.36 | — | 1,512 | 1,512 | 0.06 | 0.01 | 1,517 |
| Paving | 0.17 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 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 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.85 | 7.81 | 10.0 | 0.01 | 0.39 | — | 0.39 | 0.36 | — | 0.36 | — | 1,512 | 1,512 | 0.06 | 0.01 | 1,517 |
| Paving | 0.17 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.10 | 0.96 | 1.24 | < 0.005 | 0.05 | — | 0.05 | 0.04 | — | 0.04 | — | 186 | 186 | 0.01 | < 0.005 | 187 |
| Paving | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.18 | 0.23 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 30.9 | 30.9 | < 0.005 | < 0.005 | 31.0 |
| Paving | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 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 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.06 | 1.09 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.03 | 0.03 | — | 139 | 139 | 0.01 | < 0.005 | 141 |
| Vendor | 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 |
| Hauling | 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 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.07 | 0.66 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.03 | 0.03 | — | 118 | 118 | 0.01 | < 0.005 | 120 |
| Vendor | 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 |
| Hauling | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.10 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 15.6 | 15.6 | < 0.005 | < 0.005 | 15.8 |
| Vendor | 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 |
| Hauling | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 2.58 | 2.58 | < 0.005 | < 0.005 | 2.62 |
| Vendor | 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 |
| Hauling | 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 |

## 3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.13 | 0.88 | 1.14 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 134 | 134 | 0.01 | < 0.005 | 134 |
| Architectural Coatings | 22.7 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 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 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.88 | 1.14 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 134 | 134 | 0.01 | < 0.005 | 134 |
| Architectural Coatings | 22.7 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.06 | 0.42 | 0.54 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 63.7 | 63.7 | < 0.005 | < 0.005 | 63.9 |
| Architectural Coatings | 10.8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.08 | 0.10 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 10.5 | 10.5 | < 0.005 | < 0.005 | 10.6 |
| Architectural Coatings | 1.98 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 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 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.18 | 0.12 | 2.23 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 302 | 302 | 0.01 | 0.01 | 306 |
| Vendor | 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 |
| Hauling | 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 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.14 | 0.14 | 1.34 | 0.00 | 0.00 | 0.26 | 0.26 | 0.00 | 0.06 | 0.06 | — | 256 | 256 | 0.02 | 0.01 | 260 |
| Vendor | 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 |
| Hauling | 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 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.06 | 0.77 | 0.00 | 0.00 | 0.12 | 0.12 | 0.00 | 0.03 | 0.03 | — | 131 | 131 | 0.01 | 0.01 | 133 |
| Vendor | 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 |
| Hauling | 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 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.14 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.01 | 0.01 | — | 21.7 | 21.7 | < 0.005 | < 0.005 | 22.0 |
| Vendor | 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 |
| Hauling | 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 |

# 4. Operations Emissions Details

## 4.1. Mobile Emissions by Land Use

### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 1.64 | 0.97 | 9.28 | 0.02 | 0.01 | 1.32 | 1.34 | 0.01 | 0.34 | 0.35 | — | 1,731 | 1,731 | 0.09 | 0.09 | 1,766 |
| Single Family Housing | 5.94 | 3.51 | 33.6 | 0.06 | 0.05 | 4.79 | 4.83 | 0.04 | 1.21 | 1.26 | — | 6,261 | 6,261 | 0.33 | 0.33 | 6,387 |
| Regional Shopping Center | 16.1 | 8.30 | 76.4 | 0.13 | 0.10 | 9.93 | 10.0 | 0.09 | 2.52 | 2.61 | — | 13,189 | 13,189 | 0.81 | 0.75 | 13,478 |
| Parking Lot | 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 |
| Total | 23.7 | 12.8 | 119 | 0.21 | 0.16 | 16.0 | 16.2 | 0.15 | 4.06 | 4.21 | — | 21,181 | 21,181 | 1.23 | 1.17 | 21,631 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 1.25 | 1.06 | 6.93 | 0.02 | 0.01 | 1.32 | 1.34 | 0.01 | 0.34 | 0.35 | — | 1,535 | 1,535 | 0.10 | 0.09 | 1,565 |
| Single Family Housing | 4.52 | 3.82 | 25.1 | 0.05 | 0.05 | 4.79 | 4.83 | 0.04 | 1.21 | 1.26 | — | 5,552 | 5,552 | 0.36 | 0.33 | 5,661 |
| Regional Shopping Center | 12.2 | 8.97 | 59.7 | 0.11 | 0.10 | 9.93 | 10.0 | 0.09 | 2.52 | 2.61 | — | 11,723 | 11,723 | 0.92 | 0.77 | 11,977 |
| Parking Lot | 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 |
| Total | 18.0 | 13.8 | 91.6 | 0.18 | 0.16 | 16.0 | 16.2 | 0.15 | 4.06 | 4.21 | — | 18,810 | 18,810 | 1.38 | 1.20 | 19,204 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.24 | 0.18 | 1.31 | < 0.005 | < 0.005 | 0.23 | 0.23 | < 0.005 | 0.06 | 0.06 | — | 256 | 256 | 0.01 | 0.01 | 261 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single Family Housing | 0.87 | 0.65 | 4.77 | 0.01 | 0.01 | 0.85 | 0.85 | 0.01 | 0.21 | 0.22 | — | 935 | 935 | 0.05 | 0.05 | 953 |
| Regional Shopping Center | 2.41 | 1.51 | 10.9 | 0.02 | 0.02 | 1.68 | 1.69 | 0.02 | 0.42 | 0.44 | — | 1,895 | 1,895 | 0.14 | 0.12 | 1,937 |
| Parking Lot | 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 |
| Total | 3.52 | 2.33 | 17.0 | 0.03 | 0.03 | 2.75 | 2.78 | 0.03 | 0.70 | 0.72 | — | 3,086 | 3,086 | 0.20 | 0.19 | 3,151 |

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 898 | 898 | 0.06 | 0.01 | 902 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 2,927 | 2,927 | 0.18 | 0.02 | 2,938 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | — | 1,067 | 1,067 | 0.07 | 0.01 | 1,071 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 167 | 167 | 0.01 | < 0.005 | 167 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 5,058 | 5,058 | 0.31 | 0.04 | 5,077 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartment Low Rise | — | — | — | — | — | — | — | — | — | — | — | 898 | 898 | 0.06 | 0.01 | 902 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 2,927 | 2,927 | 0.18 | 0.02 | 2,938 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | — | 1,067 | 1,067 | 0.07 | 0.01 | 1,071 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 167 | 167 | 0.01 | < 0.005 | 167 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 5,058 | 5,058 | 0.31 | 0.04 | 5,077 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | 149 | 149 | 0.01 | < 0.005 | 149 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | 485 | 485 | 0.03 | < 0.005 | 486 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | — | 177 | 177 | 0.01 | < 0.005 | 177 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | — | 27.6 | 27.6 | < 0.005 | < 0.005 | 27.7 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 837 | 837 | 0.05 | 0.01 | 841 |

### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.02 | 0.39 | 0.16 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 489 | 489 | 0.04 | < 0.005 | 491 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single Family Housing | 0.11 | 1.93 | 0.82 | 0.01 | 0.16 | — | 0.16 | 0.16 | — | 0.16 | — | 2,451 | 2,451 | 0.22 | < 0.005 | 2,457 |
| Regional Shopping Center | 0.01 | 0.12 | 0.10 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 142 | 142 | 0.01 | < 0.005 | 143 |
| Parking Lot | 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 |
| Total | 0.14 | 2.44 | 1.09 | 0.02 | 0.20 | — | 0.20 | 0.20 | — | 0.20 | — | 3,082 | 3,082 | 0.27 | 0.01 | 3,091 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | 0.02 | 0.39 | 0.16 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 489 | 489 | 0.04 | < 0.005 | 491 |
| Single Family Housing | 0.11 | 1.93 | 0.82 | 0.01 | 0.16 | — | 0.16 | 0.16 | — | 0.16 | — | 2,451 | 2,451 | 0.22 | < 0.005 | 2,457 |
| Regional Shopping Center | 0.01 | 0.12 | 0.10 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 142 | 142 | 0.01 | < 0.005 | 143 |
| Parking Lot | 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 |
| Total | 0.14 | 2.44 | 1.09 | 0.02 | 0.20 | — | 0.20 | 0.20 | — | 0.20 | — | 3,082 | 3,082 | 0.27 | 0.01 | 3,091 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | < 0.005 | 0.07 | 0.03 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 81.0 | 81.0 | 0.01 | < 0.005 | 81.3 |
| Single Family Housing | 0.02 | 0.35 | 0.15 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 406 | 406 | 0.04 | < 0.005 | 407 |
| Regional Shopping Center | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 23.6 | 23.6 | < 0.005 | < 0.005 | 23.6 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parking Lot | 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 |
| Total | 0.03 | 0.44 | 0.20 | < 0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 510 | 510 | 0.05 | < 0.005 | 512 |

## 4.3. Area Emissions by Source

### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Source | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.30 | 5.06 | 2.15 | 0.03 | 0.41 | — | 0.41 | 0.41 | — | 0.41 | 0.00 | 6,422 | 6,422 | 0.12 | 0.01 | 6,429 |
| Consumer Products | 12.6 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 1.08 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 2.09 | 0.20 | 20.5 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 59.7 | 59.7 | < 0.005 | < 0.005 | 59.9 |
| Total | 16.1 | 5.26 | 22.7 | 0.03 | 0.42 | — | 0.42 | 0.42 | — | 0.42 | 0.00 | 6,482 | 6,482 | 0.12 | 0.01 | 6,489 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | 0.30 | 5.06 | 2.15 | 0.03 | 0.41 | — | 0.41 | 0.41 | — | 0.41 | 0.00 | 6,422 | 6,422 | 0.12 | 0.01 | 6,429 |
| Consumer Products | 12.6 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 1.08 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 14.0 | 5.06 | 2.15 | 0.03 | 0.41 | — | 0.41 | 0.41 | — | 0.41 | 0.00 | 6,422 | 6,422 | 0.12 | 0.01 | 6,429 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Hearths | < 0.005 | 0.06 | 0.03 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 0.00 | 72.8 | 72.8 | < 0.005 | < 0.005 | 72.9 |
| Consumer Products | 2.30 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.20 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.19 | 0.02 | 1.85 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 4.87 | 4.87 | < 0.005 | < 0.005 | 4.89 |
| Total | 2.69 | 0.08 | 1.87 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 0.00 | 77.7 | 77.7 | < 0.005 | < 0.005 | 77.8 |

## 4.4. Water Emissions by Land Use

### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | 7.06 | 27.7 | 34.7 | 0.73 | 0.02 | 58.0 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | 16.9 | 346 | 363 | 1.75 | 0.04 | 419 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | 10.6 | 43.2 | 53.8 | 1.09 | 0.03 | 89.0 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 34.6 | 417 | 451 | 3.57 | 0.09 | 566 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | 7.06 | 27.7 | 34.7 | 0.73 | 0.02 | 58.0 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | 16.9 | 346 | 363 | 1.75 | 0.04 | 419 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | 10.6 | 43.2 | 53.8 | 1.09 | 0.03 | 89.0 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 34.6 | 417 | 451 | 3.57 | 0.09 | 566 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | 1.17 | 4.58 | 5.75 | 0.12 | < 0.005 | 9.61 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | 2.79 | 57.2 | 60.0 | 0.29 | 0.01 | 69.4 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | 1.76 | 7.15 | 8.91 | 0.18 | < 0.005 | 14.7 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 5.72 | 69.0 | 74.7 | 0.59 | 0.01 | 93.8 |

## 4.5. Waste Emissions by Land Use

### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | 34.2 | 0.00 | 34.2 | 3.42 | 0.00 | 120 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | 99.9 | 0.00 | 99.9 | 9.99 | 0.00 | 350 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | 42.4 | 0.00 | 42.4 | 4.24 | 0.00 | 148 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 177 | 0.00 | 177 | 17.7 | 0.00 | 618 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | 34.2 | 0.00 | 34.2 | 3.42 | 0.00 | 120 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | 99.9 | 0.00 | 99.9 | 9.99 | 0.00 | 350 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | 42.4 | 0.00 | 42.4 | 4.24 | 0.00 | 148 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 177 | 0.00 | 177 | 17.7 | 0.00 | 618 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | 5.67 | 0.00 | 5.67 | 0.57 | 0.00 | 19.8 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | 16.5 | 0.00 | 16.5 | 1.65 | 0.00 | 57.9 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | 7.03 | 0.00 | 7.03 | 0.70 | 0.00 | 24.6 |
| Parking Lot | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 29.2 | 0.00 | 29.2 | 2.92 | 0.00 | 102 |

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.68 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3.00 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.36 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4.05 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.68 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3.00 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.36 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4.05 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Apartments Low Rise | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.11 |
| Single Family Housing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.50 |
| Regional Shopping Center | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.06 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.67 |

## 4.7. Offroad Emissions By Equipment Type

### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.8. Stationary Emissions By Equipment Type

### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.9. User Defined Emissions By Equipment Type

### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10. Soil Carbon Accumulation By Vegetation Type

### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetation | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5. Activity Data

## 5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Site Preparation | Site Preparation | 9/1/2023 | 11/2/2023 | 5.00 | 45.0 | — |
| Grading | Grading | 11/3/2023 | 1/25/2024 | 5.00 | 60.0 | — |
| Building Construction | Building Construction | 1/25/2024 | 8/1/2025 | 5.00 | 397 | — |
| Paving | Paving | 2/25/2024 | 4/26/2024 | 5.00 | 45.0 | — |
| Architectural Coating | Architectural Coating | 1/1/2025 | 9/1/2025 | 5.00 | 174 | — |

## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Site Preparation | Rubber Tired Dozers | Diesel | Average | 3.00 | 8.00 | 367 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | Diesel | Average | 4.00 | 8.00 | 84.0 | 0.37 |
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Building Construction | Forklifts | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Paving | Pavers | Diesel | Average | 2.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 2.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Site Preparation | — | — | — | — |
| Site Preparation | Worker | 17.5 | 11.0 | LDA,LDT1,LDT2 |

| | | | | |
|---|---|---|---|---|
| Site Preparation | Vendor | — | 7.55 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 20.0 | HHDT |
| Site Preparation | Onsite truck | — | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 20.0 | 11.0 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 7.55 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 166 | 11.0 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 44.9 | 7.55 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 15.0 | 11.0 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 7.55 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 33.2 | 11.0 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 7.55 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

| Control Strategies Applied | PM10 Reduction | PM2.5 Reduction |
|---|---|---|
| Water unpaved roads twice daily | 55% | 55% |
| Limit vehicle speeds on unpaved roads to 25 mph | 44% | 44% |

## 5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|
| Architectural Coating | 1,042,166 | 347,389 | 112,500 | 37,500 | 7,841 |

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (sq. ft.) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Site Preparation | — | — | 67.5 | 0.00 | — |
| Grading | — | — | 180 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 5.37 |

### 5.6.2. Construction Earthmoving Control Strategies

| Control Strategies Applied | Frequency (per day) | PM10 Reduction | PM2.5 Reduction |
|---|---|---|---|
| Water Exposed Area | 2 | 61% | 61% |

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| Apartments Low Rise | — | 0% |
| Single Family Housing | 2.37 | 0% |
| Regional Shopping Center | 0.00 | 0% |

| | | |
|---|---|---|
| Parking Lot | 3.00 | 100% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2023 | 0.00 | 532 | 0.03 | < 0.005 |
| 2024 | 0.00 | 532 | 0.03 | < 0.005 |
| 2025 | 0.00 | 532 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 389 | 373 | 295 | 136,187 | 1,874 | 1,796 | 1,423 | 656,572 |
| Single Family Housing | 1,385 | 1,406 | 1,193 | 496,523 | 6,675 | 6,779 | 5,753 | 2,393,792 |
| Regional Shopping Center | 3,900 | 3,900 | 3,900 | 1,423,500 | 12,582 | 14,058 | 14,058 | 4,746,265 |
| Parking Lot | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

| Hearth Type | Unmitigated (number) |
|---|---|
| Apartments Low Rise | — |

| | |
|---|---|
| Wood Fireplaces | 0 |
| Gas Fireplaces | 90 |
| Propane Fireplaces | 0 |
| Electric Fireplaces | 0 |
| No Fireplaces | 0 |
| Conventional Wood Stoves | 0 |
| Catalytic Wood Stoves | 5 |
| Non-Catalytic Wood Stoves | 5 |
| Pellet Wood Stoves | 0 |
| Single Family Housing | — |
| Wood Fireplaces | 0 |
| Gas Fireplaces | 215 |
| Propane Fireplaces | 0 |
| Electric Fireplaces | 0 |
| No Fireplaces | 0 |
| Conventional Wood Stoves | 0 |
| Catalytic Wood Stoves | 11 |
| Non-Catalytic Wood Stoves | 11 |
| Pellet Wood Stoves | 0 |

### 5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|
| 1042166.25 | 347,389 | 112,500 | 37,500 | 7,841 |

### 5.10.3. Landscape Equipment

| Season | Unit | Value |
|---|---|---|

| | | |
|---|---|---|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| Apartments Low Rise | 616,211 | 532 | 0.0330 | 0.0040 | 1,527,320 |
| Single Family Housing | 2,007,937 | 532 | 0.0330 | 0.0040 | 7,646,328 |
| Regional Shopping Center | 731,880 | 532 | 0.0330 | 0.0040 | 444,163 |
| Parking Lot | 114,476 | 532 | 0.0330 | 0.0040 | 0.00 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| Apartments Low Rise | 3,683,306 | 472,973 |
| Single Family Housing | 8,799,009 | 60,762,674 |
| Regional Shopping Center | 5,555,439 | 1,031,940 |
| Parking Lot | 0.00 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| Apartments Low Rise | 63.5 | — |

| | | |
|---|---|---|
| Single Family Housing | 185 | — |
| Regional Shopping Center | 78.8 | — |
| Parking Lot | 0.00 | — |

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| Apartments Low Rise | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Apartments Low Rise | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |
| Single Family Housing | Average room A/C & Other residential A/C and heat pumps | R-410A | 2,088 | < 0.005 | 2.50 | 2.50 | 10.0 |
| Single Family Housing | Household refrigerators and/or freezers | R-134a | 1,430 | 0.12 | 0.60 | 0.00 | 1.00 |
| Regional Shopping Center | Other commercial A/C and heat pumps | R-410A | 2,088 | < 0.005 | 4.00 | 4.00 | 18.0 |
| Regional Shopping Center | Stand-alone retail refrigerators and freezers | R-134a | 1,430 | 0.04 | 1.00 | 0.00 | 1.00 |

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

| Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

| Equipment Type | Fuel Type | Number per Day | Hours per Day | Hours per Year | Horsepower | Load Factor |
|---|---|---|---|---|---|---|

### 5.16.2. Process Boilers

| Equipment Type | Fuel Type | Number | Boiler Rating (MMBtu/hr) | Daily Heat Input (MMBtu/day) | Annual Heat Input (MMBtu/yr) |
|---|---|---|---|---|---|

## 5.17. User Defined

| Equipment Type | Fuel Type |
|---|---|
| — | — |

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 23.3 | annual days of extreme heat |
| Extreme Precipitation | 0.40 | annual days with precipitation above 20 mm |
| Sea Level Rise | 0.00 | meters of inundation depth |
| Wildfire | 0.09 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | 1 | 1 | 0 | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | N/A | N/A | N/A | N/A |
| Wildfire | N/A | N/A | N/A | N/A |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | 5 | 3 | 0 | N/A |

| | | | | |
|---|---|---|---|---|
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | 1 | 1 | 1 | 2 |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | N/A | N/A | N/A | N/A |
| Wildfire | N/A | N/A | N/A | N/A |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | 5 | 3 | 1 | 5 |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|

| | |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 88.7 |
| AQ-PM | 6.29 |
| AQ-DPM | 42.2 |
| Drinking Water | 45.4 |
| Lead Risk Housing | 2.86 |
| Pesticides | 0.00 |
| Toxic Releases | 2.66 |
| Traffic | 75.4 |
| Effect Indicators | — |
| CleanUp Sites | 0.00 |
| Groundwater | 22.1 |
| Haz Waste Facilities/Generators | 26.7 |
| Impaired Water Bodies | 0.00 |
| Solid Waste | 52.9 |
| Sensitive Population | — |
| Asthma | 17.9 |
| Cardio-vascular | 15.1 |
| Low Birth Weights | 0.35 |
| Socioeconomic Factor Indicators | — |
| Education | 21.7 |
| Housing | 51.4 |
| Linguistic | 12.3 |
| Poverty | 28.6 |
| Unemployment | 55.0 |

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | 69.75490825 |
| Employed | 13.55062235 |
| Median HI | 79.18644938 |
| Education | — |
| Bachelor's or higher | 77.86475042 |
| High school enrollment | 10.47093545 |
| Preschool enrollment | 43.9753625 |
| Transportation | — |
| Auto Access | 76.73553189 |
| Active commuting | 13.58911844 |
| Social | — |
| 2-parent households | 18.91441037 |
| Voting | 76.46605928 |
| Neighborhood | — |
| Alcohol availability | 93.43000128 |
| Park access | 10.50943154 |
| Retail density | 12.87052483 |
| Supermarket access | 24.17554215 |
| Tree canopy | 40.61337097 |
| Housing | — |
| Homeownership | 93.750802 |
| Housing habitability | 64.63492878 |
| Low-inc homeowner severe housing cost burden | 32.22122418 |
| Low-inc renter severe housing cost burden | 12.38290774 |
| Uncrowded housing | 91.95431798 |

| | |
|---|---|
| Health Outcomes | — |
| Insured adults | 75.63197742 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 85.8 |
| High Blood Pressure | 0.0 |
| Cancer (excluding skin) | 0.0 |
| Asthma | 0.0 |
| Coronary Heart Disease | 0.0 |
| Chronic Obstructive Pulmonary Disease | 0.0 |
| Diagnosed Diabetes | 0.0 |
| Life Expectancy at Birth | 32.6 |
| Cognitively Disabled | 85.7 |
| Physically  Disabled | 29.8 |
| Heart Attack ER Admissions | 79.9 |
| Mental Health Not Good | 0.0 |
| Chronic Kidney Disease | 0.0 |
| Obesity | 0.0 |
| Pedestrian Injuries | 65.7 |
| Physical Health Not Good | 0.0 |
| Stroke | 0.0 |
| Health Risk Behaviors | — |
| Binge Drinking | 0.0 |
| Current Smoker | 0.0 |
| No Leisure Time for Physical Activity | 0.0 |
| Climate Change Exposures | — |
| Wildfire Risk | 0.0 |
| SLR Inundation Area | 0.0 |

| | |
|---|---|
| Children | 97.9 |
| Elderly | 0.7 |
| English Speaking | 87.7 |
| Foreign-born | 25.4 |
| Outdoor Workers | 86.9 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 76.6 |
| Traffic Density | 47.3 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 23.1 |
| Other Decision Support | — |
| 2016 Voting | 84.1 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 9.00 |
| Healthy Places Index Score for Project Location (b) | 51.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

| Screen | Justification |
|---|---|
| Characteristics: Project Details | Assumes a 2-year build out. |
| Land Use | Assumes 15% landscaping coverage for retail and low-rise apartments. Parking lot assumes 1 acre for apartments and 2 acres for shopping center. |
| Construction: Construction Phases | Assumes 2 year project build out with operation beginning in 2025. |
| Construction: On-Road Fugitive Dust | All roads accessing the project site are paved. |
| Operations: Vehicle Data | Trip rates adjusted to account for internal capture, based on project specific traffic report. 5,680 daily trips total. Trip lengths shortened due to the project's urban setting and proximity to jobs and services. |
| Operations: Road Dust | All roads are paved. |
| Operations: Hearths | No wood burning appliances are proposed. |

Appendix B
Biological Resources Assessment & Coachella Valley
Multiple Species Habitat Conservation Plan Compliance Report

# RAMON RATTLER PROJECT
## Assessor's Parcel Number 670-230-021

### Biological Resources Assessment & Coachella Valley Multiple Species Habitat Conservation Plan Compliance Report

### CITY OF RANCHO MIRAGE, CALIFORNIA


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**Survey: 24 January 2023**

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## 1.0 INTRODUCTION

At the request of Terra Nova Planning & Research (Terra Nova), this biological resource assessment report (BRAR) was prepared by WSP USA Environment & Infrastructure Inc. (WSP) for the proposed Ramon Rattler Residential Project (project site/project), located in the city of Rancho Mirage, Riverside County, California. Information contained herein is intended to be used for compliance with the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP), California Environmental Quality Act (CEQA), as well as federal and California Endangered Species Acts.

## 2.0 PROJECT LOCATION / DESCRIPTION

Terra Nova is preparing California Environmental Quality Act (CEQA) documentation for the proposed Ramon Rattler Residential Project on an approximately 36.17-acre project site located on currently undeveloped land south of the Rancho Mirage High School, north of Ramon Road, west of Rattler Road, and east of Da Vall Drive in a largely developed residential/commercial area. The current design is to have 24.43-acres of Market Rate Town Homes, 3.33-acres of Affordable Housing, and 8.41-acres of Commercial development (bordering Ramon Road). The project site is surrounded by paved roads on the east, west, and south and by the Rancho Mirage High School to the north. The Interstate 10 corridor is less than 1.25 miles east of the site, and there is a railroad corridor less than 1.13 miles east of the site (Appendix A – Figure 1). The project site includes one Assessor's Parcel Number: 670-230-021. Specifically, the project site is located within the southwest ¼ of Section 14; Township 4 South; Range 5 East as shown on the United States Geological Survey (USGS) *Cathedral City*, California, 7.5-minute topographic quadrangle (Appendix A – Figure 2). The geographic coordinates near the approximate center of the project area are 33°49'05.00" north latitude and 116°26'03.28" west longitude. The elevation of the project site ranges from approximately 317 to 334 feet above mean sea level.

## 3.0 REGULATORY FRAMEWORK

### 3.1 Federal

*Endangered Species Act* (ESA) – The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are the designated federal agencies accountable for administering the ESA. The ESA defines species as "endangered" or "threatened" and provides regulatory protection at the federal level.

- Section 9 of the ESA prohibits the "take" of listed (i.e., endangered or threatened) species. The ESA's definition of take is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct." Recognizing that take cannot always be avoided, Section 10(a) includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Specifically, Section 10(a) (1) (A) permits (authorized take permits) are issued for scientific purposes. Section 10(a) (1) (B) permits (incidental take permits) are issued for the incidental take of listed species that does not jeopardize the species.
- Section 7 (a) (2) requires federal agencies to evaluate the proposed project with respect to listed or proposed listed, species and their respective critical habitat (if applicable). Federal agencies must employ programs for the conservation of listed species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat."

As defined by the ESA, "individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding.

Section 10(a) of the ESA authorizes the issuance of incidental take permits and establishes standards for the content of habitat conservation plans (see Section 3.3 below).

*Migratory Bird Treaty Act* (MBTA) – Treaties signed by the U.S., Great Britain, Mexico, Japan, and the countries of the former Soviet Union make it unlawful to pursue, capture, kill, and/or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg or parts thereof listed in the document. As with the ESA, the MBTA also allows the Secretary of the Interior to grant permits for the incidental take of these protected migratory bird species.

*National Environmental Policy Act* (NEPA) – If portions of a proposed project could fall under the jurisdiction of a federal agency (i.e., U.S. Bureau of Reclamation, U.S. Army Corps of Engineers) they are subject to environmental review pursuant to NEPA. NEPA establishes certain criteria that must be adhered to for any project that is "financed, assisted, conducted or approved" by a federal agency. The federal lead agency is required to "determine whether the proposed action will significantly affect the quality of the human environment."

*Section 404 of the Clean Water Act* – This section of the Clean Water Act, administered by the U.S. Army Corps of Engineers (USACE), regulates the discharge of dredged and fill material into "waters of the United States." The USACE has created a series of nationwide permits that authorize certain activities within waters of the U.S. provided that the proposed activity does not exceed the impact threshold of 0.5 acre for nationwide permits, takes steps to avoid impacts to wetlands and other designated U.S. waters where practicable, minimizes potential impacts to wetlands, and provides compensation for any remaining, unavoidable impacts through activities to restore or create wetlands. For projects that exceed the threshold for nationwide permits, individual permits under Section 404 can be issued. An inspection of the project site to determine presence or absence of potential jurisdictional wetlands and waters was conducted during the assessment for this project.

### 3.2 State

*California Endangered Species Act* (CESA) – This legislation is similar to the federal ESA, but it is administered by the California Department of Fish and Wildlife (CDFW – formerly Department of Fish and Game). The CDFW is authorized to enter into "memoranda of understanding" with individuals, public agencies, and other institutions to import, export, take, or possess state-listed species for scientific, educational, or management purposes. CESA prohibits the take of state-listed species except as otherwise provided in state law. Unlike the federal ESA, the CESA applies the take prohibitions to species currently petitioned for state-listing status (candidate species). State lead agencies are required to consult with CDFW to ensure that actions are not likely to jeopardize the continued existence of any state-listed species or result in the destruction or degradation of occupied habitat.

*California Environmental Quality Act* (CEQA) – The basic goal of CEQA is to maintain a high-quality environment now and in the future. The specific goals are for California's public agencies to:

1) identify the significant environmental effects of their actions; and, either
2) avoid those significant environmental effects, where feasible; or
3) mitigate those significant environmental effects, where feasible.

CEQA applies to "projects" proposed to be undertaken or requiring approval by state and local government agencies. Projects are activities that have the potential to have a physical impact on the environment and may include the enactment of zoning ordinances, the issuance of conditional use permits and the approval of tentative subdivision maps. Where a project requires approvals

from more than one public agency, CEQA requires one of these public agencies to serve as the "lead agency."

A "lead agency" must complete the environmental review process required by CEQA. The most basic steps of the environmental review process are to:

4) Determine if the activity is a "project" subject to CEQA.
5) Determine if the "project" is exempt from CEQA.
6) Perform an Initial Study to identify the environmental impacts of the project and determine whether the identified impacts are "significant". Based on its findings of "significance", the lead agency prepares one of the following environmental review documents:
    a) Negative Declaration if it finds no "significant" impacts.
    b) Mitigated Negative Declaration if it finds "significant" impacts but revises the project to avoid or mitigate those significant impacts.
    c) Environmental Impact Report (EIR) if it finds "significant" impacts.

While there is no ironclad definition of "significance", Article 5 of the State CEQA Guidelines (California Natural Resources Agency 2014) provides criteria to lead agencies in determining whether a project may have significant effects.

*The Native Plant Protection Act* (NPPA) – The NPPA includes measures to preserve, protect, and enhance rare and endangered native plant species. Definitions for “rare and endangered” are different from those contained in CESA. However, the list of species afforded protection in accordance with the NPPA includes those listed as rare and endangered under CESA. NPPA provides limitations on take as follows: “no person will import into this state, or take, possess, or sell within this state” any rare or endangered native plants, except in accordance with the provisions outlined in the act. If a landowner is notified by CDFW, pursuant to section 1903.5 that a rare or endangered plant is growing on their property, the landowner shall notify CDFW at least 10 days prior to the changing of land uses to allow CDFW to salvage the plants.

*Natural Community Conservation Planning (NCCP) Program* – A NCCP, which is managed by the CDFW, is intended to conserve multiple species and their associated habitats, while also providing for compatible use of private lands. Through local planning, the NCCP planning process is designed to provide protection for wildlife and natural habitats before the environment becomes so fragmented or degraded by development that species listing are required under CESA. Instead of conserving small, often isolated “islands” of habitat for just one listed species, agencies, local jurisdictions, and/or other interested parties have an opportunity through the NCCP to work cooperatively to develop plans that consider broad areas of land for conservation that would provide habitat for many species. Partners enroll in the programs, and by mutual consent, areas considered to have high conservation priorities or values are set aside and protected from development. Partners may also agree to study, monitor, and develop management plans for these high value “reserve” areas. The NCCP provides an avenue for fostering economic growth by allowing approved development in areas with lower conservation value. The project site is in a combined Habitat Conservation Plan (HCP) / NCCP, see Section 3.3.

*Sections 1600-1603 of the State Fish and Game Code* – The California Fish and Game (Wildlife) Code, pursuant to Sections 1600 through 1603, regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife resources. Under state code, CDFW jurisdiction is assessed in the field based on one, or a combination, of the following criteria:

7) At minimum, intermittent, and seasonal flow through a bed or channel with banks and that also supports fish or other aquatic life.

8) A watercourse having a surface or subsurface flow regime that supports or that has supported riparian vegetation.
9) Hydrogeomorphically distinct top-of-embankment to top-of-embankment limits.
10) Outer ground cover and canopy extents of, typically, riparian associated vegetation species that would be sustained by surface and/or subsurface waters of the watercourse.

The CDFW requires that public and private interests apply for a "Streambed Alteration Agreement" for any project that may impact a streambed or wetland. The CDFW has maintained a "no net loss" policy regarding impacts to streams and waterways and requires replacement of lost habitats on at least a 1:1 ratio.

*Section 2081 of the State Fish and Game Code* – Under Section 2081 of the California Fish and Game Code, the CDFW authorizes individuals or public agencies to import, export, take, or possess state endangered, threatened, or candidate species in California through permits or memoranda of understanding. These acts, which are otherwise prohibited, may be authorized through permits or "memoranda of understanding" if (1) the take is incidental to otherwise lawful activities, (2) impacts of the take are minimized and fully mitigated, (3) the permit is consistent with regulations adopted in accordance with any recovery plan for the species in question, and (4) the applicant ensures suitable funding to implement the measures required by the CDFW. The CDFW shall make this determination based on the best scientific information reasonably available and shall include consideration of the species' capability to survive and reproduce.

*Section 3505.5 of the State Fish and Game Code* – This section makes it unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey, e.g.: owls, hawks, eagles, etc.) or to take, possess, or destroy the nest or eggs of any bird-of-prey.

*Clean Water Act* – The Regional Water Quality Control Board (RWQCB) regulates activities pursuant to Section 401(a)(1) of the Clean Water Act (CWA). Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters. Through the Porter Cologne Water Quality Control Act, the RWQCB asserts jurisdiction over Waters of the State of California (WSC) which is generally the same as WUS but may also include isolated waterbodies. The Porter Cologne Act defines WSC as "surface water or ground water, including saline waters, within the boundaries of the state".

### 3.3 Coachella Valley Multiple Species Habitat Conservation Plan

Finalized in October 2008, and amended in 2016, the CVMSHCP is a comprehensive regional plan that addresses the conservation needs of 27 species of native flora and fauna and 24 natural vegetation communities occurring throughout the Coachella Valley region of western Riverside County, California. Permits for the CVMSHCP were issued by the CDFW on September 9, 2008 and the United States Fish and Wildlife Service (USFWS) on October 1, 2008 (TE104604-0). Managed by the Coachella Valley Conservation Commission (CVCC), CVMSHCP participants include Riverside County, the Cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, Rancho Mirage, as well as the Coachella Valley Association of Governments (CVAG), Coachella Valley Water District, Imperial Irrigation District, Mission Springs Water District and the California Department of Transportation (CVAG 2008, 2016).

The CVMSHCP serves two primary purposes: Balancing environmental protection and economic development objectives in the CVMSHCP planning area and simplifying compliance with endangered species related laws. The CVMSHCP accomplishes this by conserving unfragmented habitat to permanently protect and secure viable populations of the covered 27

species within the planning area. The covered species include those plants and animals that are either currently listed as threatened or endangered, are proposed for listing, or are believed by an appointed Scientific Advisory Committee, USFWS and CDFW, to have a high probability of being proposed for listing in the future if not conserved by the CVMSHCP. The goal of the CVMSHCP is to meet the requirements of the ESA and CESA, while at the same time allowing for the economic growth (land development) within the plan area without significant delay or hidden costs. Under the CVMSHCP, land development/mitigation fees are collected from all new development projects occurring in the plan area. The purpose of this fee is to support the assembly of a preserve system for the covered species and natural vegetation communities within areas identified as having high conservation value (CVAG 2008).

## 4.0 METHODS

### 4.1 Literature Review

In preparation for the field surveys, a literature search was conducted to identify special status biological resources known from the vicinity of the project site. In the context of this report, and for the purpose of this assessment, vicinity is defined as areas within a 5-mile radius of the project site.

The literature search included a review of the following documents:

- California Natural Diversity Data Base (CNDDB) RareFind 5 (CDFW 2023a)
- Special Animals List (CDFW 2022)
- California Native Plant Society's (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2023a)
- CVMSHCP (CVAG 2008)
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2019. Web Soil Survey
- USGS 7.5' *Cathedral City, Palm Springs, Myoma,* and *Seven Palms Valley Calif.* quadrangles (USGS 1972 and 1988)

Scientific nomenclature for this document follows standard reference sources: For plant communities, CVMSHCP (CVAG 2008), Sawyer et. al (2009), and/or Holland (1986); for flora, Jepson eFlora (2022) and the USDA NRCS PLANTS Database (2022); for amphibians, reptiles, and mammals, CDFW (2016); and for birds, California Bird Records Committee (2022).

### 4.2 Field Assessment

The field assessment was conducted on 24 January 2023 by WSP Senior Wildlife Biologist Nathan Moorhatch. On-site suitable habitat was assessed based on the presence of constituent habitat elements (e.g., soils, vegetation, and topography) characteristic of the potentially occurring special status biological resources determined by the literature review. The entire site and adjacent properties (where accessible) were assessed on foot to record pertinent field data and current site conditions. Adjacent undeveloped areas within an approximate 150-meter (~500-foot) buffer zone that were unfenced and unsigned (i.e., not posted with "No Trespassing" and/or "Private Property") were also assessed for burrowing owl (*Athene cunicularia*). This area was limited to the vacant land east of the site, as there is a chain link fence on the western border of this parcel that prevents access to the vacant land to the west (see Photo 4 in Appendix C). Inaccessible areas were scanned for burrowing owl habitat and sign (i.e., burrows & perches with whitewash) with binoculars. All on-site flora and fauna observed or otherwise detected (e.g., vocalizations, presence of scat, tracks, and/or bones) during the assessment were recorded in field notes and are included in Appendix B. General weather and site conditions were also

recorded at the beginning and end of the survey. Temperatures and wind speeds were recorded with a handheld Kestrel 2000 anemometer. Percent cloud cover was visually estimated.

## 5.0 RESULTS

The proposed project site is partially surrounded by development, primarily residential development to the north and south. The Desert Memorial Park is west of the site, with an intervening undeveloped parcel between it and this project site. The entire project site was cleared in 2018, and currently consists of largely open ground with a scant cover of plant species that have regrown since 2018. No drainage features occur within the project site. Representative site photos are included in Appendix C.

### 5.1 Coachella Valley Multiple Species Habitat Conservation Plan

The entire project is located within the CVMSHCP fee area but is not within a conservation area. The project site is located approximately 2.24 miles south of the Willow Hole Conservation Area (Figure 6, Appendix A). The development of the project site will have no effect on any CVMSHCP Conservation Areas.

### 5.2 Weather Conditions

Weather conditions during the field assessment were clear and cool. There was 0% cloud cover with temperatures that ranged from 63 to 73 degrees Fahrenheit. Winds were calm with wind speeds measured between 0 to 2 miles per hour.

### 5.3 Topography and Soils

The proposed project site is relatively flat. Two soil types occur on the project site. These include: 1) Myoma fine sand, 0 to 5 percent slopes (MaB); 2) Myoma fine sand, 5 to 15 percent slopes (MaD); (USDA, NRCS. 2019) (Appendix A - Figure 4).

Myoma series soils consists of somewhat excessively drained soils formed in recent alluvium. Slopes are 0 to 15 percent, elevations range from 1,800 feet above to 200 feet below sea level. Myoma soils were historically, and still are used for irrigated cropland including citrus, grapes, alfalfa hay, dates, and homesites (USDA, NRCS. 2019).

The field assessment confirmed that on-site topsoils have been disturbed and in some areas removed during past grading and clearing activities on this site. Adjacent areas to the north have been developed for the High School and residential development. There is also a large golf course and residential development south of the site (south of Ramon Road). Vacant lands are present east and west of the site.

The site does not contain active sand dunes, rock outcrops, significant rocky areas, clay lenses, springs, or seeps.

### 5.4 Vegetation

The site appears to have been cleared of vegetation sometime in 2018 (historic aerial imagery Google Earth Pro 2023). The entire project site appears to have been grubbed at that time and had soil binders applied over the majority of it (please see Photographs 15 & 16 in Appendix C). Evidence of past use of soil binders (of the green pigmented variety) is still present on several areas of this site (please see Photographs 3, 8, 9, & 11 in Appendix C) especially on the northern edge of the site just south of the Rancho Mirage High School. The native vegetation community present on this site is best described as a disturbed "*Dicoria canescens – Abronia villosa* Sparsely Vegetated Alliance Desert dunes" (Holland type "desert sand fields).

A total of 14 plant species were identified across the project site during the assessment (Appendix B). These included a mixture of native and a few non-native and/or weedy species, (only 14%

were nonnative species). Representative plant species identified within the project site include four-wing saltbush (*Atriplex canescens*), desert twinbugs (*Dicoria canescens*), California croton (*Croton californicus*), Sahara mustard (*Brassica tournefortii*), Mediterranean grass (*Schismus* sp.), Palmer's tiquilia (*Tiquilia palmeri*), creosote bush (*Larrea tridentata*), Spanish needle (*Palafoxia arida*), and desert sand-verbena *(Abronia villosa).*

## 5.5 Wildlife

Vertebrate wildlife directly observed and/or detected otherwise (e.g., scat, bones, tracks, feathers, burrows, etc.) during the assessment was not notably diverse or abundant, limited to just six species, all of which were birds and are common to the region (Appendix B). This included some species common to desert scrub and/or relatively open areas with some disturbance. These included: mourning dove (*Zenaida macroura)*, northern flicker (*Colaptes auratus*), common raven (*Corvus corax*), verdin (*Auriparus flaviceps*), Costa's hummingbird (*Calypte costae*), and loggerhead shrike (*Lanius ludovicianus*). The number of species detected does not represent the total number of species that may occur on the project site. Brief, one visit assessments are limited by the seasonal timing and short duration of the survey period as well as the nocturnal, fossorial and/or migratory habits of many animals. The disturbed condition of the project site reduces and/or eliminates the potential for use by many special status species, as many of these require higher quality and/or more extensive areas of natural habitats. Some are habitat specialists requiring specific soils, landscape features, or riparian vegetation, which may not be present on a given project site. No actively nesting birds were detected on or adjacent to the site during the assessment.

## 5.6 Special Status Biological Resources

Some plant and/or animal taxa are designated as having special status due to declining populations, limited geographic distributions and/or vulnerability to climate change, habitat loss and/or fragmentation. Some have been listed as threatened or endangered by the USFWS or by the CDFW and are protected by the federal and state ESAs. Others have been identified, and are managed as sensitive by the USFWS, CDFW, or by private conservation organizations, including the CNPS, but have not been formally listed as threatened or endangered. Impacts to such species can still be considered significant under the CEQA, if not avoided, minimized and/or mitigated by specific project design and implementation.

The literature review and field visit resulted in a list of 63 special status biological resources which occur or potentially occur on the project site and/or vicinity (3-mile radius) of the project site. Tables 1-3 provide a summary of these resources, their current conservation status, habitat associations and potential to occur on the project site. One special status species was observed immediately adjacent to the site during the assessment: loggerhead shrike (*Lanius ludovicianus*) designated as a California Species of Special Concern (SSC) by the CDFW. No species listed as threatened or endangered were observed on the site.

## Table 1. Special Status Plants

| Species | Protective Status | Habitat | Flowering Period | Occurrence Probability |
|---|---|---|---|---|
| *Abronia villosa var. aurita*<br>Chaparral sand-verbena | F: ND<br>C: ND<br>CNPS List: 1B.1<br>State Rank: S2<br>CVMSHCP: No | Chaparral, coastal scrub, desert dunes; found in sandy areas. 245 to 5,250 feet. | (January) March - September | **Absent – Low**<br>The nominate subspecies (*A. villosa* var. *villosa* is present on site). 2005 CNDDB record less than 0.5 mi. east of site. |
| *Acmispon haydonii*<br>pygmy lotus | F: ND<br>C: ND<br>CNPS List: 1B.3<br>State Rank: S3<br>CVMSHCP: No | Rocky areas in Sonoran desert scrub and pinyon-juniper woodland between 1,700 and 4,000 feet elevation. | Jan - June | **Absent**<br>Habitat not present, site is below elevation range of species. |
| *Ambrosia monogyra*<br>singlewhorl burrobrush | F: ND<br>C: ND<br>CNPS List: 2B.2<br>State Rank: S2<br>CVMSHCP: No | Sandy areas in chaparral and Sonoran desert scrub habitats, between 35 and 1,640 feet elevation. | August - November | **Absent**<br>The only Ambrosia present on site is the common *Ambrosia dumosa*. |
| *Astragalus hornii* var. *hornii*<br>Horn's milk-vetch | F: ND<br>C: ND<br>CNPS List: 1B.1<br>State Rank: S2<br>CVMSHCP: No | Lake margins, alkaline sites, meadows, seeps, and playas between 195 and 2,790 feet in elevation. | May - October | **Absent**<br>No habitat on or adjacent to site. |
| *Astragalus lentiginosus var. coachellae*<br>Coachella Valley milk-vetch | F: END<br>C: ND<br>CNPS List: 1B.2<br>State Rank: S1<br>CVMSHCP: Yes | Annual/Perennial herb found in sandy flats, washes, alluvial fans, sand field, dunes and dune edges, at 130 to 2,150 feet, a CA endemic. | February - May | **Low**<br>Habitat marginal (sandy soils appear to have been disturbed/altered with soil binders in the past). No Astragalus or their dead remains found on site. CNDDB record from 0.5 mi. N of site. |
| *Astragalus tricarinatus*<br>Triple-ribbed milk-vetch | F: END<br>C: ND<br>CNPS List: 1B.2<br>State Rank: S2<br>CVMSHCP: Yes | Gravelly to sandy habitats in Joshua tree woodland and Sonoran desert scrub between 1,475 – 3,905 feet. Mainly found along the ecotone between the Mojave and Colorado deserts in the San Bndo. and little San Bndo. Mtns. area. | February - May | **Absent**<br>Habitat not present, site is below known elevational range of species. Also, outside known range of species. |
| *Atriplex parishii*<br>Parish's brittlescale | F: ND<br>C: ND<br>CNPS List: 1B.1<br>State Rank: S1<br>CVMSHCP: No | Alkaline soils associated with vernal pools, playas, and chenopod scrub, between 80 and 6,235 feet. | June - October | **Absent**<br>No habitat on-site. |

| Species | Protective Status | Habitat | Flowering Period | Occurrence Probability |
|---|---|---|---|---|
| *Ayenia compacta*<br>California ayenia | F: ND<br>C: ND<br>CNPS List: 2B.3<br>State Rank: S3<br>CVMSHCP: No | Found on rocky slopes, in canyons, and gravelly/sandy washes between 490 and 3,595 feet elevation. | March - April | **Absent**<br>No habitat on-site. Site is below elevation range of species. |
| *Caulanthus simulans*<br>Payson's jewelflower | F: ND<br>C: ND<br>CNPS List: 4.2<br>State Rank: S4<br>CVMSHCP: No | Granitic/sandy substrates, often in recently burned areas, or dynamic habitats like streambeds, also rocky, steep slopes. Between 295 - 7220 feet | (Feb)March – May(June) | **Absent**<br>Habitat not present. |
| *Chorizanthe parryi* var. *parryi*<br>Parry's spineflower | F: ND<br>C: ND<br>CNPS List: 1B.1<br>State Rank: S2<br>CVMSHCP: No | Sandy or rocky openings in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland between 900 – 4,005 feet | April - June | **Absent**<br>No habitat on-site, site is both below elevation range and likely not in geographic range of species. |
| *Chorizanthe xanti* var. *leucotheca*<br>white-bracted spineflower | F: ND, BLM: sensitive<br>C: ND<br>CNPS List: 1B.2<br>State Rank: S3<br>CVMSHCP: No | Sandy to gravelly places in saltbush scrub, pinyon-juniper, and pine-oak woodlands between 985 and 3935 feet in elevation | April - June | **Absent**<br>No habitat on-site, site is both below elevation range and likely not in geographic range of species. |
| *Eremothera boothii* ssp. *boothii*<br>Booth's evening-primrose | F: ND<br>C: ND<br>CNPS List: 2B.3<br>State Rank: S3<br>CVMSHCP: No | Open areas (including rocky alluvial slopes) in creosote scrub, Joshua tree woodland and pinyon-juniper woodland between 2,675 and 7,875 feet in elevation. | April -June (August - September) | **Absent**<br>Site is well below elevation range of species, no habitat present on or adjacent to site. Most accepted records are from the Mojave Desert. |
| *Euphorbia abramsiana*<br>Abram's spurge | F: ND<br>C: ND<br>CNPS List: 2B.2<br>State Rank: S2<br>CVMSHCP: No | Sandy microhabitats in both Mojavean and Sonoran desert scrub areas between -15 to 4,300 feet in elevation. | (August) September - November | **Absent - Low**<br>Sandy habitat present (disturbed), no *Euphorbia* genus observed during survey. |
| *Euphorbia arizonica*<br>Arizona spurge | F: ND<br>C: ND<br>CNPS List: 2B.3<br>State Rank: S3<br>CVMSHCP: No | Sonoran desert scrub (sandy microhabitats) between 165 and 985 feet in elevation. | March -April | **Absent – Low**<br>No Euphorbia sp. seen during survey. Habitat is disturbed. |
| *Euphorbia platysperma*<br>flat-seeded spurge | F: ND<br>C: ND<br>CNPS List: 1B.2<br>State Rank: S1<br>CVMSHCP: No | Desert dune habitats and sandy Sonoran scrub areas between 215 and 330 feet in elevation. Species is possibly a waif in California, more common in Arizona and Mexico. | February - September | **Absent – Low**<br>No Euphorbia sp. seen during survey. Habitat on site is disturbed. |

| Species | Protective Status | Habitat | Flowering Period | Occurrence Probability |
|---|---|---|---|---|
| *Heuchera hirsutissima* shaggy-haired alumroot | F: ND<br>C: ND<br>CNPS List: 1B.3<br>State Rank: S3<br>CVMSHCP: No | Rocky (granitic) areas in subalpine and upper montane coniferous forest between 4,985 and 11,485 feet in elevation. | (May) - July | **Absent**<br>Habitat not present, site is well below elevation range of species |
| *Imperata brevifolia* California satintail | F: ND<br>C: ND<br>CNPS List: 2B.1<br>State Rank: S3<br>CVMSHCP: No | Mesic (wet) habitats such as meadows and seeps (often alkali) within chaparral, coastal scrub, desert scrub, and riparian scrub between 0 and 3,985 feet. | Sept. - May | **Absent**<br>No habitat on-site or in greater project vicinity. |
| *Lilium parryi* lemon lily | F: ND<br>C: ND<br>CNPS List: 1B.2<br>State Rank: S3<br>CVMSHCP: No | Mesic (wet) areas in meadows and seeps, lower and upper montane coniferous forest, and riparian forest between 4,005 and 9,005 feet elevation. | July - August | **Absent**<br>No habitat on-site or in greater area, site also far below elevational range of species. |
| *Linanthus jaegeri* San Jacinto linanthus | F: ND<br>C: ND<br>CNPS List: 1B.2<br>State Rank: S2<br>CVMSHCP: No | Dry rocky granitic outcrops, sheer (almost vertical) slopes in subalpine/ upper montane coniferous forest between 7,200 and 10,005 feet elevation. | July - September | **Absent**<br>No habitat on-site, site also far below elevational range of species. Also not in geographic range of species. |
| *Linanthus maculatus* ssp. *maculatus*<br>Little San Bernardino Mtns. linanthus | F: ND<br>C: ND<br>CNPS List: 1B.2<br>State Rank: S2<br>CVMSHCP: Yes | A California endemic that is known mainly from sandy areas near the Little San Bernardino Mtns., Joshua Tree N.P., and the northern end of the Coachella Valley between 460 and 4,005 feet in elevation. Often quartz sands in washes or bajadas. | March - May | **Absent**<br>No habitat on-site. Site is below typical elevation range of species. Closest CNDDB record (1952) is ~5 NW of the site. |
| *Nemacaulis denudata* var. *gracilis* slender cottonheads | F: ND<br>C: ND<br>CNPS List: 2B.2<br>State Rank: S2<br>CVMSHCP: No | Sandy areas in coastal and desert areas, saltbush scrub, creosote bush scrub, and coastal grasslands between 165 and 1,310 feet elevation | (March) - May | **Low**<br>Habitat marginal, sandy topsoil has been disturbed on this site. |
| *Petalonyx linearis*<br>narrow-leaf sandpaper-plalnt | F: ND<br>C: ND<br>CNPS List: 2B.3<br>State Rank: S3?<br>CVMSHCP: No | Mojavean/Sonoran desert scrub in sandy or rocky canyons between -80 – 3,660 feet. | Mainly March – May, but can bloom year-round | **Absent**<br>No habitat on-site. No *Petalonyx* sp. on site. |
| *Saltugilia latimeri*<br>Latimer's woodland-gilia | F: ND<br>C: ND<br>CNPS List: 1B.2<br>State Rank: S3<br>CVMSHCP: No | Grows on areas of coarse sand to rocky soils on dry desert slopes, chaparral, and pinyon-juniper woodland between 1,310 and 6,235 feet in elevation. | March - June | **Absent**<br>No habitat on-site, site also below elevation range of species. |

| Species | Protective Status | Habitat | Flowering Period | Occurrence Probability |
|---|---|---|---|---|
| *Selaginella eremophila* desert spike-moss | F: ND<br>C: ND<br>CNPS List: 2B.2<br>State Rank: S2S3<br>CVMSHCP: No | Often found growing in rock crevices or on rocks (also the ground) on rocky slopes between 655 and 4,250 feet in elevation in desert and desert edge areas. | (May) June – (July) doesn't truly "bloom", but produces antheridia | **Absent**<br>No habitat on-site, site also below elevational range of species. |
| *Stemodia durantifolia* purple stemodia | F: ND<br>C: ND<br>CNPS List: 2B.1<br>State Rank: S2<br>CVMSHCP: No | Wet or moist sandy areas in riparian habitats (within surrounding Sonoran desert scrub) between 590 and 1,000 feet elevation. | (Jan)April - December | **Absent**<br>No habitat on-site. Site is below known elevation range of species. |
| *Streptanthus campestris* southern jewelflower | F: ND<br>C: ND<br>CNPS List: 1B.3<br>State Rank: S3<br>CVMSHCP: No | Rocky areas in chaparral, lower montane coniferous forest, pinyon and juniper forest between 2,900 and 7,550 feet elevation. | April - July | **Absent**<br>No habitat on-site. Site is well below known elevation range of species. |
| *Thelypteris (Pelazoneuron) puberula* var. *sonorensis* | F: ND<br>C: ND<br>CNPS List: 2B.2<br>State Rank: S2<br>CVMSHCP: No | Moist areas (shaded preferable) along streams and seepage areas in desert canyons between 165 and 2,000 feet in elevation. | Jan. – Sept. | **Absent**<br>No habitat present. Species not found in sand field habitat. |
| *Xylorhiza cognata* Mecca-aster | F: ND, BLM sensitive<br>C: ND<br>CNPS List: 1B.2<br>State Rank: S2<br>CVMSHCP: Yes | Grows on sandstone and clay substrates on steep canyon slopes between 65 and 1,000 feet elevation. | Jan - June | **Absent**<br>No habitat on-site. Outside species' range. |

## Table 2. Special Status Vegetation Communities

| Community | Protective Status (F=Federal, C=California) | Occurrence Probability |
|---|---|---|
| Desert Fan Palm Oasis Woodland | F: ND<br>C: ND<br>State rank: S3.2<br>CVMSHCP: No | **Absent**<br>No palms present onsite. |
| Southern Riparian Forest | F: ND<br>C: ND<br>State rank: S4<br>CVMSHCP: No | **Absent**<br>This habitat is not present on or adjacent to the project site |

## Table 3. Special Status Wildlife

| Species | Protective Status (F=Federal, C=California) | Habitat | Occurrence Probability |
|---|---|---|---|
| **Invertebrates** | | | |
| *Bombus crotchii*<br>Crotch's bumble bee | F: C<br>C: C - END<br>State Rank: S2<br>CVMSHCP: No | Mainly coastal California east to the Sierra-Cascade Crest and south into Baja. | **Absent**<br>Most records are from cismontane (coastal and inland valley) California. Not expected on this site unless there were sufficient flowering plants favored by this species. |
| *Danaus plexippus*<br>Monarch Butterfly | F: C<br>C: CSC<br>State Rank: S2S3<br>CVMSHCP: No | Can be found in a variety of areas where milkweed and flowering plants are present; milkweeds are necessary for breeding | **Absent**<br>No milkweed present on-site. Very little remaining vegetation for nectar sources. |
| *Dinacoma caseyi*<br>Casey's June beetle | F: END<br>C: ND<br>State rank: S1<br>CVMSHCP: No | Associated with Palm Canyon Wash and its floodplain. Flightless females live below ground and come to surface only for mating. Known only from two populations in a small area of southern Palm Springs. | **Absent**<br>Site outside currently known geographic distribution. |
| *Macrobaenetes valgum*<br>Coachella giant sand treader cricket | F: ND<br>C: ND<br>State Rank: S2<br>CVMSHCP: Yes | Found in the sandy areas of the specialized sand dune ecosystem of Coachella Valley (aka "blow sand" habitat) | **Absent – Very Low**<br>Habitat onsite is marginal and disturbed, partially isolated from sand sources by development on three sides. 1960 CNDDB record from ~0.7 miles west of site has been developed. |
| *Oliarces clara*<br>cheeseweed owlfly | F: ND<br>C: ND<br>State Rank: S2<br>CVMSHCP: No | Occur on or near bajadas, attracted to elevated topographic features when mating | **Absent**<br>Habitat lacking, also no elevated features for males to congregate at during mating. No stream bed or wash areas on site Nearest CNDDB record (1952) is from >7 miles NE of site. |

| Species | Protective Status (F=Federal, C=California) | Habitat | Occurrence Probability |
|---|---|---|---|
| *Stenopelmatus cahuilaensis*<br>Coachella Valley Jerusalem cricket | F: ND<br>C: ND<br>State Rank: S2<br>CVMSHCP: Yes | Found in a small segment of sand dunes in the Coachella Valley, from the pass down to Palm Springs. | **Absent – Very Low**<br>The project site is southeast of the currently understood range of the species. Most records are from the western edge of the valley, which is cooler and more moist than the eastern part. |
| **Fish** | | | |
| *Cyprinodon macularius*<br>Desert pupfish | F: END<br>C: END<br>State rank: S1<br>CVMSHCP: Yes | Desert ponds, springs, marshes, and streams. Able to adapt to a variety of aquatic habitats, including those having high temperatures and salinities | **Absent**<br>No habitat on or adjacent to site. |
| **Amphibians & Reptiles** | | | |
| *Rana draytonii*<br>California red-legged frog | F: THR<br>C: SSC<br>State Rank: S2S3<br>CVMSHCP: No | Generally permanent water bodies with shrubby or emergent riparian vegetation in lowlands and foothill areas (requires 11-20 weeks of permanent water for larval development). | **Absent**<br>No aquatic habitat on or adjacent to site. Species not present on floor of Coachella Valley (historically or currently). |
| *Rana muscosa*<br>southern mountain yellow-legged frog | F: END<br>C: END<br>State Rank: S1<br>CVMSHCP: No | In the project area the nearest known locations are in the San Jacinto Mtns. Populations in southern California historically were in streams between 1,000 and 12,000 ft. in elevation, usually with semi-permanent to permanent pools. | **Absent**<br>No aquatic habitat on or adjacent to site. Site is below 350 ft. above mean sea level (AMSL). Species not present on floor of Coachella Valley (historically or currently). |
| *Gopherus agassizii*<br>Desert tortoise | F: THR<br>C: THR<br>State Rank: S2S3<br>CVMSHCP: Yes | Found in desert environments with high plant diversity, digging burrows in soils friable enough for digging. | **Absent**<br>Habitat lacking, sandy substrates not optimal desert tortoise habitat (especially for maintaining burrow integrity long term). |

| Species | Protective Status (F=Federal, C=California) | Habitat | Occurrence Probability |
|---|---|---|---|
| *Phrynosoma mcallii*<br>Flat-tailed horned lizard | F: ND<br>C: SSC<br>State rank: S2<br>CVMSHCP: Yes | Fine sand in desert washes and flats with vegetative cover and ants, generally below 600 feet elevation in Riverside, San Diego, and Imperial Counties. | **Absent**<br>Habitat marginal and poor quality, site partially isolated from sand sources (by high school to north of site), and sandy topsoils have been altered on this site. CNDDB records in vicinity are historic and have been mostly developed. |
| *Uma inornata*<br>Coachella Valley fringe-toed lizard | F: THR<br>C: END<br>State rank: S1<br>CVMSHCP: Yes | Sandy areas of the Coachella Valley (dunes and sand field habitats) | **Absent**<br>Habitat poor quality, site partially isolated from sand sources and many areas have been disturbed on this site. 1975 CNDDB record from ~0.9 mi. east of site is thought to be no longer viable. |
| *Crotalus ruber*<br>red-diamond rattlesnake | F: ND<br>C: CSC<br>State rank: S3<br>CVMSHCP: No | Inhabits a variety of habitats including chaparral, woodland, grassland, and desert edge areas from Coastal San Diego County to eastern slopes of mountains bordering the Colorado Desert. | **Absent**<br>More common in desert edge areas [rocky], no habitat onsite, not expected on the valley floor. |
| **Birds** *birds covered by the CVMSHCP still cannot be directly impacted while nesting or in burrows | | | |
| *Aimophila ruficeps canescens*<br>southern California rufous-crowned sparrow | F: MBTA<br>C: WL<br>State: S3<br>CVMSHCP: No | Usually found on rocky slopes vegetated with coastal sage scrub and/or chaparral. | **Nesting: Absent**<br>No suitable nesting habitat<br><br>**Foraging: Absent**<br>Not expected on desert valley floor. Usually found on rocky slopes in coastal sage scrub or chaparral communities. |
| *Aquila chrysaetos*<br>golden eagle | F: MBTA, BLM Sensitive<br>C: WL, Fully Protected<br>State: S3<br>CVMSHCP: No | Golden eagles occupy the mountains and coastal areas of southern California and often nest in chaparral and oak woodland/savanna habitats and grassland amongst low rolling hill typified by diverse vegetation. Not common in true desert areas. | **Nesting: Absent**<br>Nesting habitat not present (cliffs, canyons, mountain slopes)<br><br>**Foraging: Low - Absent**<br>Not common in developed areas, usually requires large, open areas (not usually in proximity to residential/commercial development). |

| Species | Protective Status (F=Federal, C=California) | Habitat | Occurrence Probability |
|---|---|---|---|
| *Athene cunicularia*<br>Burrowing Owl | F: MBTA, BCC<br>C: SSC<br>State: S3<br>CVMSHCP: Yes | Occupies open, dry grasslands, scrub habitats, agricultural, railroad rights-of-way, and margins of highways, golf courses, and airports. Utilizes ground squirrel burrows and man-made structures, such as earthen berms, cement culverts, cement, asphalt, and debris piles for nesting and shelter. | **Nesting: Absent**<br>No owls or suitable burrows/surrogates present<br><br>**Foraging: Low**<br>Portions of the site have been cleared and graded, surrounding open areas also degraded/disturbed or converted to residential development (and a high school immediately north of the site). Nearest CNDDB record is ~1.62 miles to the northeast. |
| *Cypseloides niger*<br>black swift | F: ND, BCC<br>C: SSC<br>State Rank: S2<br>CVMSHCP: No | In our area San Bernardino and San Jacinto Mountains. Breeds in small colonies usually roosting behind or near waterfalls in deep canyons. Can forage long distances. | **Nesting: Absent**<br>No suitable nesting habitat<br><br>**Foraging: Absent**<br>Not expected on desert valley floor, and even then would be an extremely rare flyover. |
| *Falco mexicanus*<br>Prairie falcon | F: ND<br>C: WL<br>State: S4<br>CVMSHCP: No | Another raptor that favors dry, open terrain for foraging, although smaller open areas adjacent to human development are not as commonly used. Usually nests on cliff ledges. | **Nesting: Absent**<br>No suitable nesting habitat<br><br>**Foraging: Low**<br>Low quality foraging habitat on-site, not likely to occur except if moving through the area (rare). |
| *Empidonax traillii extimus*<br>Southwestern willow flycatcher | F: END<br>C: END<br>State: S1<br>CVMSHCP: Yes | Nests in large areas of riparian forests and woodlands | **Nesting: Absent**<br>No suitable nesting habitat<br><br>**Foraging: Absent**<br>No suitable foraging habitat on or adjacent to site. |
| *Lanius ludovicianus*<br>loggerhead shrike | F: MBTA<br>C: SSC<br>State Rank: S4<br>CVMSHCP: No | A variety of open habitats with perches for scanning, and fairly dense shrubs/brush for nesting. Woodlands, pinyon-juniper, Joshua trees, desert oases, scrub and washes. | **Nesting: Absent**<br>No suitable nesting habitat<br><br>**Foraging: Present**<br>Observed perched on the adjacent parcel immediately west of the site. |

| Species | Protective Status (F=Federal, C=California) | Habitat | Occurrence Probability |
|---|---|---|---|
| *Polioptila melanura*<br>Black-tailed gnatcatcher | F: ND<br>C: WL<br>State rank: S3S4<br>CVMSHCP: No | Nests in wooded desert wash habitat containing mesquite, palo verde, ironwood, and acacia. May also occur in areas with salt cedar, especially when adjacent to native wooded desert wash habitat. Also occurs in desert scrub habitat in winter. | **Nesting: Absent** Suitable habitat not present<br>**Foraging: Absent** Site is disturbed and lacks enough shrub cover for foraging. |
| *Toxostoma crissale*<br>Crissal thrasher | F: ND<br>C: SSC<br>State rank: S3<br>CVMSHCP: Yes* | Dense thickets of shrubs or low trees in desert riparian and desert wash habitats. Southeastern California to Texas and northern Mexico. | **Nesting: Absent** Habitat nor present<br>**Foraging: Absent** No habitat present. |
| *Toxostoma lecontei*<br>LeConte's thrasher | F: BCC<br>C: ND)<br>State rank: S3<br>CVMSHCP: Yes | Resident of open desert wash, scrub, alkali scrub, succulent scrub habitats, nests in dense spiny shrubs and cacti in washes, usually within 2-8 feet of the ground. | **Nesting: Absent** Nesting habitat not present.<br>**Foraging: Absent** Shrub cover is too sparse, many of the larger creosotes appear to have been removed. Development on three sides, but open land to the east. 1921 CNDDB record ~0.70 miles east of site. |
| *Vireo bellii pusillus*<br>Least Bell's vireo | F: END<br>C: END<br>State rank: S2<br>CVMSHCP: Yes* | Riparian woodland habitats along the riverine systems of Southern California | **Nesting: Absent** No suitable nesting habitat on or adjacent to site.<br>**Foraging: Absent** No suitable foraging habitat on or adjacent to site. |
| **Mammals** | | | |
| *Chaetodipus fallax pallidus*<br>Pallid San Diego pocket mouse | F: ND<br>C: SSC<br>State rank: S3S4<br>CVMSHCP: No | Desert border areas in desert wash, desert scrub, desert succulent scrub, pinon-juniper, etc. Associated with sandy herbaceous areas usually in association with rocks or coarse gravel from sea level to 1350 m (4500 ft). | **Absent** Site largely outside preferred range of suspecies and lacking preferred habitat. |

| Species | Protective Status (F=Federal, C=California) | Habitat | Occurrence Probability |
|---|---|---|---|
| *Dipodomys merriami collinus*<br>Earthquake Merriam's kangaroo rat | F: ND<br>C: ND<br>State rank: S2<br>CVMSHCP: No | Only known from Riverside and San Diego Counties. Lives in Riversidean sage scrub, nonnative grassland, and chaparral areas with sandy loam substrates for burrowing. | **Absent**<br>Species not associated with desert habitats. None of the required plant communities are on or near the site. |
| *Lasiurus xanthinus*<br>Western yellow bat | F: ND<br>C: SSC<br>State rank: S3<br>CVMSHCP: Yes<br>WBWG: H | Found in valley foothill riparian, desert riparian, desert wash, and palm oasis. Roosts in trees, particularly palms. Forages over water and among trees. | **Absent**<br>No palms on site for roosting. |
| *Neotoma lepida intermedia*<br><br>San Diego desert woodrat | F: ND<br>C: SSC<br>State rank: S3S4<br>CVMSHCP: No | Most often in Coastal scrub in southern California (San Diego to San Luis Obispo Counties) but does range into desert areas. Most common in areas with rock outcrops, cliffs, and slopes. | **Absent**<br>Site lacks rocky habitat, no "stick nests" characteristic of this species observed on site during survey. Cacti and succulent plants absent. Site is disturbed. |
| *Nyctinomops femorosaccus*<br>pocketed free-tailed bat | F: ND<br>C: SSC<br>State rank: S3<br>CVMSHCP: No<br>WBWG: M | Colonial and roosts primarily in crevices of rugged cliffs, high rocky outcrops and slopes. It has been found in a variety of plant associations, including desert shrub and pine-oak forests. The species may also roost in buildings, caves, and (rarely) under roof tiles. | **Absent**<br>No suitable habitat on project site. |
| *Nyctinomops macrotis*<br>big free-tailed bat | F: ND<br>C: SSC<br>State rank: S3<br>CVMSHCP: No<br>WBWG: M | Low-lying arid habitats with high cliffs or rocky outcrops for roosting sites. | **Absent**<br>No suitable habitat on project site. |

| Species | Protective Status (F=Federal, C=California) | Habitat | Occurrence Probability |
|---|---|---|---|
| *Ovis canadensis nelsoni* pop 2<br><br>Peninsular bighorn sheep DPS | F: END<br>C: THR, FP<br>State rank: S2<br>CVMSHCP: Yes | Eastern slopes of the Peninsular Ranges generally below 4,600 ft. elev., range of this DPS is from the San Jacinto Mtns. South to the international border. Optimal habitat includes steep-walled canyons and ridges bisected by rocky/sandy washes w available water. | **Absent**<br>No suitable habitat on site, site is not within the known range of this subspecies (too far east on the valley floor). |
| *Perognathus longimembris bangsi*<br>Palm Springs pocket mouse | F: BLM Sensitive<br>C: SSC<br>State Rank: S2<br>CVMSHCP: Yes | Sonoran Desert habitats with level to gently sloping topography, sparse to moderate vegetative cover, and loosely packed or sandy soils. | **Absent - Low**<br>Habitat disturbed and marginal, proximity to development. |
| *Xerospermophilus tereticaudus chlorus*<br>Coachella Valley (Palm Springs) round-tailed ground squirrel | F: ND<br>C: SSC<br>State Rank: S2<br>CVMSHCP: Yes | Prefers open, flat, grassy areas in fine-textured, sandy soil in desert succulent scrub, desert wash, desert scrub, alkali scrub, & levees. | **Low**<br>Suitable habitat present but of low quality, native soils remaining on site are disturbed. |

**Definitions of occurrence probability:**

*Occurs:* Observed on the site by WSP personnel or recorded on-site by other qualified biologists.

*High:* Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.

*Moderate:* Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.

*Low:* Site is within the known range of the species but habitat on the site is rarely used by the species.

*Very Low:* Species not expected on site, but can not be completely ruled out.

*Absent:* A focused study failed to detect the species, or no suitable habitat is present.

**Definitions of status designations and occurrence probabilities.**

**Federal designations**: (federal Endangered Species Act, US Fish and Wildlife Service):

END: Federally listed, Endangered.
THR: Federally listed, Threatened.
BCC: Bird of Conservation Concern
C: Candidate for Federal listing
ND: Not designated.

**State designations**: (California Endangered Species Act, California Dept. of Fish and Game)

END: State listed, Endangered.
THR: State listed, Threatened.
C: Candidate for State listing
RARE: State listed as Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
SSC: Species of Special Concern.
WL: Watch List Species.
ND: Not designated.

**CDFW CNDDB rankings: Animals**

**S1** = Extremely endangered: <6 viable occurrences or <1,000 individuals, or < 2,000 acres of occupied habitat
**S2** = Endangered: about 6-20 viable occurrences or 1,000 - 3,000 individuals, or 2,000 to 10,000 acres of occupied habitat

**S3** = Restricted range, rare: about 21-100 viable occurrences, or 3,000 – 10,000 individuals, or 10,000 – 50,000 acres of occupied habitat
**S4** = Apparently secure; some factors exist to cause some concern such as narrow habitat or continuing threats
**S5** = Demonstrably secure; commonly found throughout its historic range
**SH** = all sites are historical, this species may be extinct, further field work is needed

**CDFW CNDDB rankings: Plants and Vegetation Communities**
**S1** = Less than 6 viable occurrences OR less than 1,000 individuals OR less than 2,000 acres
S1.1 = very threatened
S1.2 = threatened
S1.3 = no current threats known
**S2** = 6-20 viable occurrences OR 1,000-3,000 individuals OR 2,000-10,000 acres
S2.1 = very threatened
S2.2 = threatened
S2.3 = no current threats known
**S3** = 21-80 viable occurrences or 3,000-10,000 individuals OR 10,000-50,000 acres
S3.1 = very threatened
S3.2 = threatened
S3.3 = no current threats known
**S4** = Apparently secure within California; this rank is clearly lower than S3, but factors exist to cause some concern. i.e., there is some threat, or somewhat narrow habitat.
**S5** = Demonstrably secure to ineradicable in California.

***California Native Plant Society (CNPS) designations:***
**California Rare Plant Ranks (CRPR)** Note: According to the CNPS (http://www.cnps.org/programs/Rare_Plant/inventory/names.htm), ALL plants on Lists 1A, 1B, 2A, and 2B meet definitions for state listing as threatened or endangered under Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code. Certain plants on Lists 3 and 4 do as well.
The CDFW (http://www.dfg.ca.gov/hcpb/species/t_e_spp/nat_plnt_consv.shtml) states that plants on Lists 1A, 1B, 2A, and 2B of the CNPS Inventory consist of plants that may qualify for listing, and recommends they be addressed in CEQA projects (CEQA Guidelines Section 15380). However, a plant need not be in the Inventory to be considered a rare, threatened, or endangered species under CEQA. In addition, CDFW recommends, and local governments may require, protection of plants which are regionally significant, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 and 4.
**List 1A**: Plants presumed extinct in California.
**List 1B**: Plants rare and endangered in California and throughout their range.
**List 2A**: Plants presumed extirpated in California, but more common elsewhere.
**List 2B**: Plants rare, threatened, or endangered in California, but more common elsewhere.
**List 3**: Plants for which more information is needed.
**List 4**: Plants of limited distribution; a "watch list."
**CA Endemic**: Taxa that occur only in California
CNPS Threat Code:
**.1** - Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
**.2** – Fairly endangered in California (20-80% occurrences threatened)
**.3** – Not very endangered in California (<20% of occurrences threatened, or no current threats known)
**Note:** All List 1A (presumed extinct in California) and some List 3 (need more information- a review list) plants lacking any threat information receive no threat code extension. Also, these Threat Code guidelines represent a starting point in the assessment of threat level. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are also considered in setting the Threat Code.

**Western Bat Working Group (WBWG) designations:**
The Western Bat Working Group is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western states and provinces. Its goals are (1) to facilitate communication among interested parties and reduce risks of species decline or extinction; (2) to provide a mechanism by which current information on bat ecology, distribution and research techniques can be readily accessed; and (3) to develop a forum to discuss conservation strategies, provide technical assistance and encourage education programs.
**H**: High: Species which are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.
**M**: Medium: Species which warrant a medium level of concern and need closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.

**L**: Low: Species for which most of the existing data support stable populations, and for which the potential for major changes in status in the near future is considered unlikely. There may be localized concerns, but the overall status of the species is believed to be secure. Conservation actions would still apply for these bats, but limited resources are best used on High and Medium status species.
**P**: Periphery: This designation indicates a species on the edge of its range, for which no other designation has been determined.

***CVMSHCP designations***
**Yes: Conserved by the CVMSHCP**
No: Not Specifically Conserved by the CVMSHCP
C: Considered, but not included in the CVMSHCP

## 5.7 Discussion of the Special-status Species Tables

Based on examination of historic aerial photography of the site (on Google Earth Pro), the site appears to have been cleared of vegetation sometime in 2018 (please see Photograph in Appendix C). At that time, the entire site appeared to have been cleared for a project that to date was not completed. Green soil binder/tackifier appears to have been applied over this parcel (visible on the aerial). Remnants of this past soil binder use persist on the site currently (please see Photographs 3, 8, 9, & 11 in Appendix C). The project site is surrounded by paved roads on the east, west, and south and by development to the north, south, and west (beyond another vacant parcel). The Interstate 10 corridor is less than 1.25 miles east of the site, and there is a railroad corridor less than 1.13 miles east of the site. All of this serves to illustrate that this project is located in an area that has undergone a fair amount of disturbance and development. Unsurprisingly, of the 63 special status biological resources listed in Tables 1-3, 49 have no potential for occurrence. They will not be discussed further. A single sensitive wildlife species, loggerhead shrike (*Lanius ludovicianus*) was observed immediately adjacent to the project site on the western neighboring vacant lot. Please refer to Appendix C Site Photographs to observe the current site conditions and level of disturbance.

### 5.7.1 CVMSHCP Covered Species

Nineteen of the species listed in Tables 1 – 3 are conserved under the CVMSHCP: Coachella Valley milk-vetch, triple-ribbed milk-vetch, Mecca aster, Little San Bernardino Mountains linanthus, Coachella giant sand treader cricket, Coachella Valley Jerusalem cricket, desert pupfish, desert tortoise, flat-tailed horned lizard, Coachella Valley fringe-toed lizard, burrowing owl, Southwestern willow flycatcher, crissal thrasher Le Contes' thrasher, Least Bell's vireo, western yellow bat, Palm Springs pocket mouse, Coachella Valley (Palm Springs) round-tailed ground squirrel, and Peninsular bighorn sheep. Six of these species are expected to have at least a low to very low probability of occurring on the project site. These include: Coachella Valley milk-vetch, Coachella giant sand treader cricket, Coachella Valley Jerusalem cricket, burrowing owl, Palm Springs pocket mouse, and Coachella Valley (Palm Springs) round-tailed ground squirrel. Participation in the CVMSHCP, payment of the CVMSHCP development/mitigation fee and participation in the plan will fully mitigate project related impacts (although none are anticipated) to all of these CVMSHCP covered species with the exception of burrowing owl.

No burrows suitable for burrowing owl use were observed on or adjacent to the project site. Where accessible, adjacent vacant lands were surveyed within 500 feet of the site. No burrowing owls, their sign, or burrows capable of supporting owls were observed in this buffer area. The burrowing owl is not listed as threatened or endangered by the USFWS or CDFW. It is, however, managed as a Bird of Conservation Concern (BCC) by the USFWS and designated as a SSC by the CDFW. It is also protected from take by the MBTA and California Fish and Game Code. The burrowing owl is a covered species under the CVMSHCP, however the federal permit for the CVMSHCP does not allow take of this species under the MBTA. For these reasons, all burrowing owls must be avoided or relocated prior to any ground disturbing activities. A preconstruction survey for burrowing owl can be performed prior to construction to ensure that no owls have moved onto the site in the interim time between this survey and project implementation.

### 5.7.2 Potentially Occurring Species Not Covered Under the CVMSHCP and USFWS IPAC Species

Seven special status species that are not covered by the CVMSHCP are considered to have at least some potential (low to very low) to occur on or forage over the project site. Prairie falcon and golden eagle are expected to have a low probability to forage over the site (although this

would be rare given the disturbed nature of the site and surrounding area). Prairie falcon is not listed as threatened or endangered by either State or Federal agencies but is considered a "Species of Special Concern" by the California Department of Fish and Wildlife. The golden eagle is not listed as threatened or endangered but is a fully protected species under CDFW. Chaparral sand-verbena, Abram's spurge, Arizona spurge, flat-seeded spurge, and slender cottonheads are expected to have a low probability of growing on this site. No spurge species or their dead remains were observed on the project site during the survey, but the seasonal timing of this survey was likely too early for many species. Sand verbena was present on the site, but this was the nominate subspecies, not Chaparral sand-verbena. Slender cottonheads were not observed during the survey, but the timing of this survey was also early for this species. None of these plant species are listed as threatened or endangered and are generally not expected to occur on the site considering the past history of disturbance on this parcel, including grubbing and use of soil binders. Still, they could not be absolutely ruled out due to presence of marginally suitable habitat and the seasonal timing of the site visit.

One special status species was observed immediately adjacent to the site during the assessment: loggerhead shrike (*Lanius ludovicianus*) designated as a California Species of Special Concern (SSC) by the CDFW. No species listed as threatened or endangered were observed on the site. This species is not expected to nest on the site due to the lack of suitable dense, spiny shrubs favored by this bird for nesting.

The USFWS IPAC report generated for this project lists six sensitive wildlife species and one plant as having potential to be affected by development of this project. As discussed in Tables 1 – 3 in Section 5.6, only one of these species: Coachella Valley milk-vetch would be expected (low probability) to occur on this site. Monarch butterflies require milkweeds for larval development and other flowering plants for adult nectar sources. No milkweed were observed on the site, and flowering plants were mainly limited to a sparse growth along some of the street edges. This species is not expected to utilize this site apart from the occasional transient individual passing through. There is no habitat present for desert tortoise, Coachella Valley fringe-toed lizard, least Bell's vireo, southwestern willow flycatcher, or Peninsular bighorn sheep on the project site.

Should project-related disturbance be conducted during the nesting season (1 February through 31 August), a nesting bird clearance survey is recommended to ensure that implementation of the proposed project does not impact nesting birds.

## 6.0 DISCUSSION

The proposed project includes the development of all 36.17 acres into a mixed residential development with limited commercial development. As discussed in Section 5.7 the project site was cleared of vegetation in 2018 for a project that was never built. The site has been grubbed in the past, and soil binders have been applied over much of the parcel and were still in evidence at the time of this survey. The "native" or natural topsoil has been disturbed and altered by these actions. The project site is also located in an area that consists of residential development with a school immediately north of the site, as well as a cemetery and golf course with associated housing in the immediate project area. There is low quality native habitat on the project site, with less disturbed habitat east of the site (east of Rattler Road). It provides no connectivity to any conservation areas. The project site does not contain any United States Army Corps of Engineers, Regional Water Quality Control Board, or CDFW jurisdictional waters. The project site is not within and/or adjacent to any CVMSHCP Conservation Areas, so will not be subject to CVMSHCP land use adjacency guidelines. Nevertheless, implementation of the proposed project is expected to permanently disturb all areas within the project site, which in turn may potentially result in direct or indirect disturbance to biological resources, sensitive and otherwise, occurring (not anticipated), or potentially occurring on- and/or adjacent to the site. We have made

recommendations above for the protection of these species. Additionally, to prevent impacts to all native birds protected by the MBTA and state fish and game code, the following measures should be taken:

### 6.1 Protection of Nesting Birds

All native bird species that are excluded from coverage under the CVMSHCP are still protected by the MBTA and the state Fish and Game Code. This includes virtually all native migratory and resident bird species. Avoidance of impacts to these birds is a requirement of the federal permit issued for the CVMSHCP. To avoid impacting nesting birds either avoidance of project-related disturbance during the nesting season (1 February through 31 August) or nesting bird surveys conducted by a qualified ornithologist or biologist immediately prior to on-site disturbance during the nesting season would be required. If nesting birds are found, no work would be permitted near the nest until young have fledged. There is no established protocol for nest avoidance, however, when consulted the CDFW generally recommends avoidance buffers of about 500 feet for birds-of-prey and species listed as threatened or endangered, and 100–300 feet for unlisted songbirds.

### 6.2 Burrowing Owl

As noted above, no burrowing owls or their sign were present on site. Also, no burrows or burrow surrogates that could be used by burrowing owls were present on the site at the time of this survey. This species nests and roosts underground so is uniquely vulnerable to ground disturbing activities. A preconstruction survey following CDFG (2012) guidelines must be conducted prior to initiating construction to ensure that no owls have moved onto the site in the interim between this survey and project startup. Unless avoidable, all burrowing owls present must be relocated prior to any ground disturbing activities. If burrowing owls remain on-site, a Burrowing Owl Relocation and Management Plan will be prepared to describe and outline how the burrowing owl will be actively or passively relocated per CDFW guidelines. Prior to construction, any owls occurring on-site will be relocated prior to vegetation removal or grading activities. Relocation will require prior permission from the CDFW, at a minimum. Since the burrowing owl is a covered species under the CVMSHCP, additional mitigation/conservation measures will not be required.

## 7.0 CONCLUSION

With the implementation of the recommendations above, impacts to special status biological resources are anticipated to be avoided, minimized, and/or mitigated in accordance with the CVMSHCP and other resource agency requirements.

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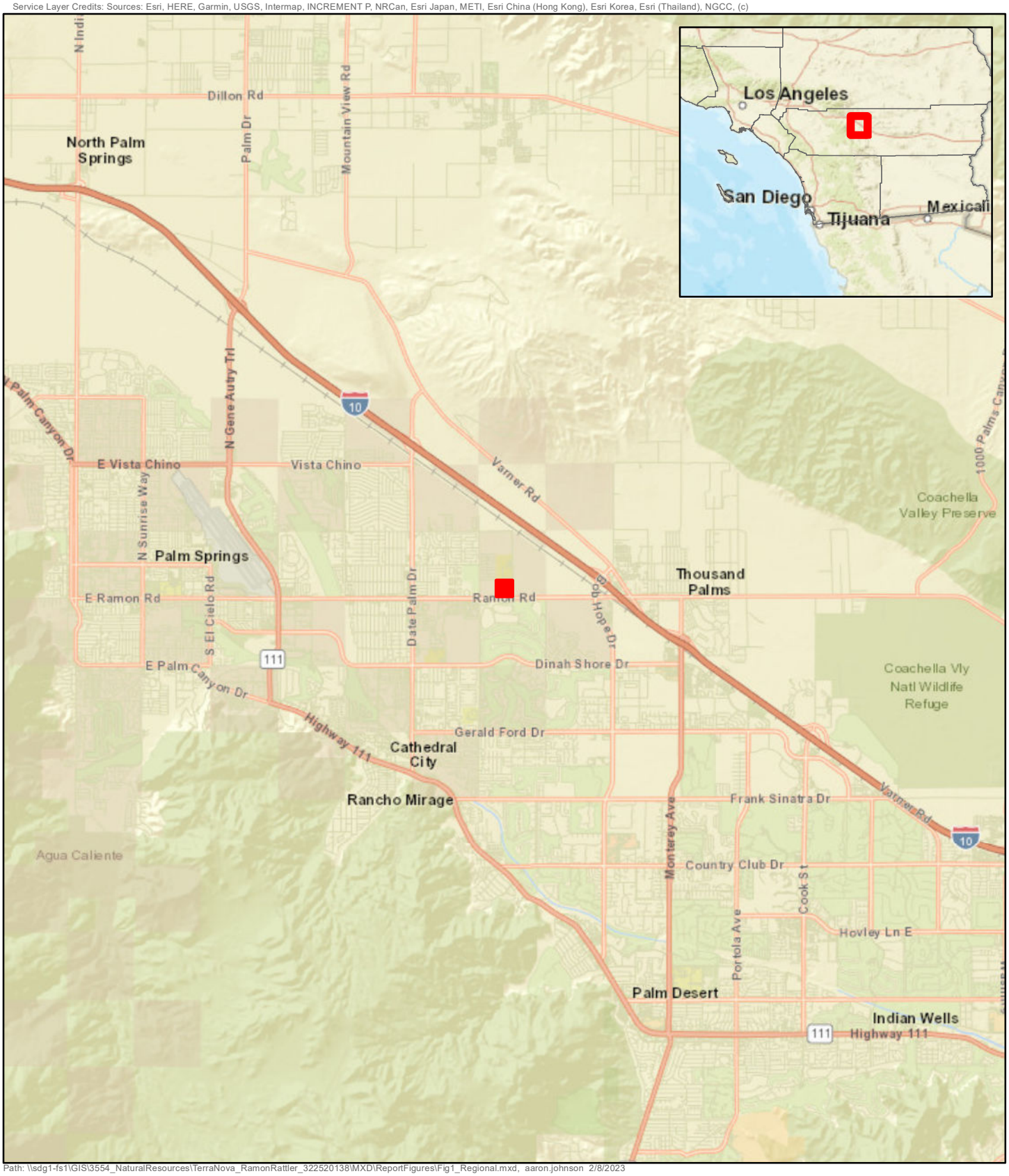
USGS 7.5' *Cathedral City, Palm Springs, Myoma,* and *Seven Palms Valley Calif., Calif.* 7.5-minute topographic quadrangles (USGS 1972 and 1988)

# APPENDIX A

# FIGURES




Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_RamonRattler_322520138\MXD\ReportFigures\Fig1_Regional.mxd, aaron.johnson 2/8/2023

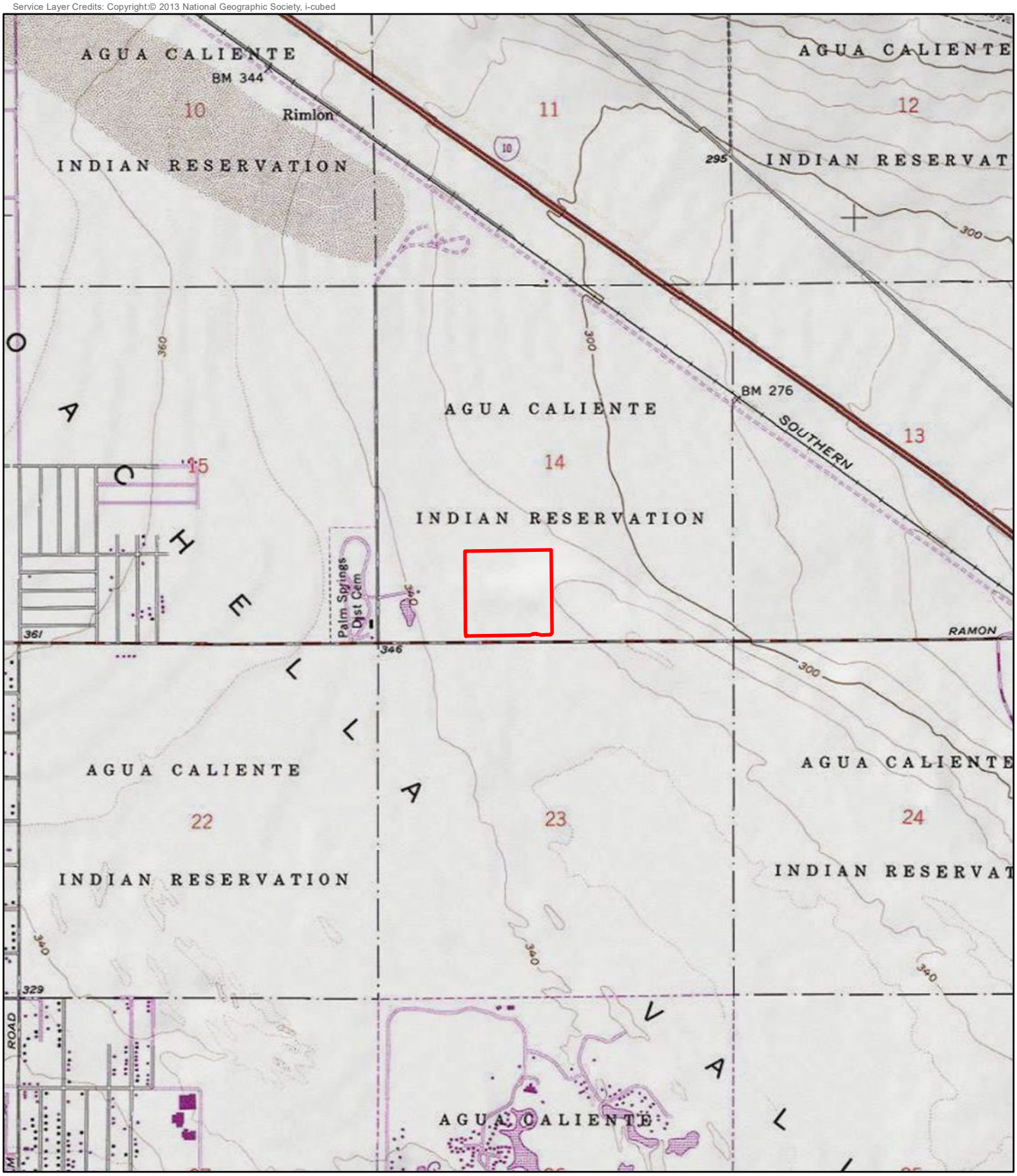
1 inch = 2 miles

0 1 2 Miles

Project Location

# FIGURE 1

Regional Map
Ramon Rattler Project
Riverside County, California




Path: \\sdg1-fs1\gis\3554_NaturalResources\TerraNova_RamonRattler_322520138\MXD\ReportFigures\Fig2_USGS.mxd, lindsay.gutting 2/8/2023

1 inch = 2,000 feet
0 1,000 2,000 Feet

Project Boundary

# FIGURE 2

USGS 7.5' Topo Quad: Cathedral City
Ramon Rattler Project
Riverside County, California

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors


Path: \\sdg1-fs1\gis\3554_NaturalResources\TerraNova_RamonRattler_322520138\MXD\ReportFigures\Fig3_ProjectSite.mxd, lindsay.gutting 2/8/2023

1 inch = 250 feet

0 125 250 Feet

Project Boundary

# FIGURE 3

Site Location
Ramon Rattler Project
Riverside County, California

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community


Path: \\sdg1-fs1\gis\3554_NaturalResources\TerraNova_RamonRattler_322520138\MXD\ReportFigures\Fig4_Soils.mxd, lindsay.gutting 2/8/2023

1 inch = 250 feet

0 125 250 Feet

wsp

Project Boundary

**Soils**

MaB - Myoma fine sand, 0 to 5 percent slopes

MaD - Myoma fine sand, 5 to 15 percent slopes

# FIGURE 4

Soils
Ramon Rattler Project
Riverside County, California

Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Path: \\sdg1-fs1\GIS\3554_NaturalResources\TerraNova_RamonRattler_322520138\MXD\ReportFigures\Fig5_Vegetation.mxd, aaron.johnson 2/9/2023

1 inch = 250 feet

0 125 250 Feet

Project Boundary

Stabilized shielded sand fields

# FIGURE 5

Vegetation Communities
Ramon Rattler Project
Riverside County, California


# FIGURE 6

CVMSHCP Conservation Areas
Ramon Rattler Project
Riverside County, California

# APPENDIX B

# PLANTS AND VERTEBRATE WILDLIFE OBSERVED

**Plants Observed or Detected**
**Ramon Rattler Project Site, Rancho Mirage, Riverside County, California**

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| | |
|---|---|
| **ANGIOSPERMAE**<br>**DICOTYLEDONEAE** | **DICOT FLOWERING PLANTS** |
| **Asteraceae** | **Sunflower Family** |
| *Ambrosia dumosa* | white bur-sage |
| *Dicoria canescens* | desert twinbugs |
| *Palafoxia arida* | Spanish needle |
| **Brassicaceae** | **Mustard Family** |
| **Brassica tournefortii* | Sahara mustard |
| *Dithyrea californica* | California spectacle pod |
| **Chenopodiaceae** | **Goosefoot Family** |
| *Atriplex canescens* | four-wing saltbush |
| **Ehretiaceae** | **Ehretia Family** |
| *Tiquilia palmeri* | Palmer's tiquilia |
| *Tiquilia plicata* | fan-leaf crinklemat |
| **Euphorbiaceae** | **Spurge Family** |
| *Croton californicus* | California croton |
| **Fabaceae** | **Legume Family** |
| *Psorothamnus emoryi* | Emory's indigobush |
| **Nyctaginaceae** | **Four O'Clock Family** |
| *Abronia villosa* | desert sand-verbena |
| **Onagraceae** | **Evening-Primrose Family** |
| *Eremothera* sp. (germinating) | evening-primrose sp. |
| **Zygophyllaceae** | **Caltrop Family** |
| *Larrea tridentata* | creosote bush |
| MONOCOT ANGIOSPERMS | |
| **Poaceae** | **Grass Family** |
| **Schismus* sp. | Mediterranean grass |

* - denotes a non-native species

**Wildlife Observed**
**Ramon Rattler Project Site, Rancho Mirage, Riverside County, California**

| **CHORDATES** | **CHORDATA** |
|---|---|
| **BIRDS** | **AVES** |
| **Pigeons and Doves** | **Columbidae** |
| mourning dove | *Zenaida macroura* |
| **Hummingbirds** | **Trochilidae** |
| Costa's hummingbird | *Calypte costae* |
| **Picidae** | **Woodpeckers and Allies** |
| northern flicker | *Colaptes auratus* |
| **Shrikes** | **Laniidae** |
| loggerhead shrike | *Lanius ludovicianus* |
| **Jays, Magpies, and Crows** | **Corvidae** |
| common raven | *Corvus corax* |
| **Penduline Tits and Verdins** | **Remizidae** |
| verdin | *Auriparus flaviceps* |

* - non-native species

# APPENDIX C

# SITE PHOTOS

**Photo 1**. Looking west along southern edge of site from west of the intersection of Rattler Road and Ramon Road.

**Photo 2**. Looking north across central portion of site.

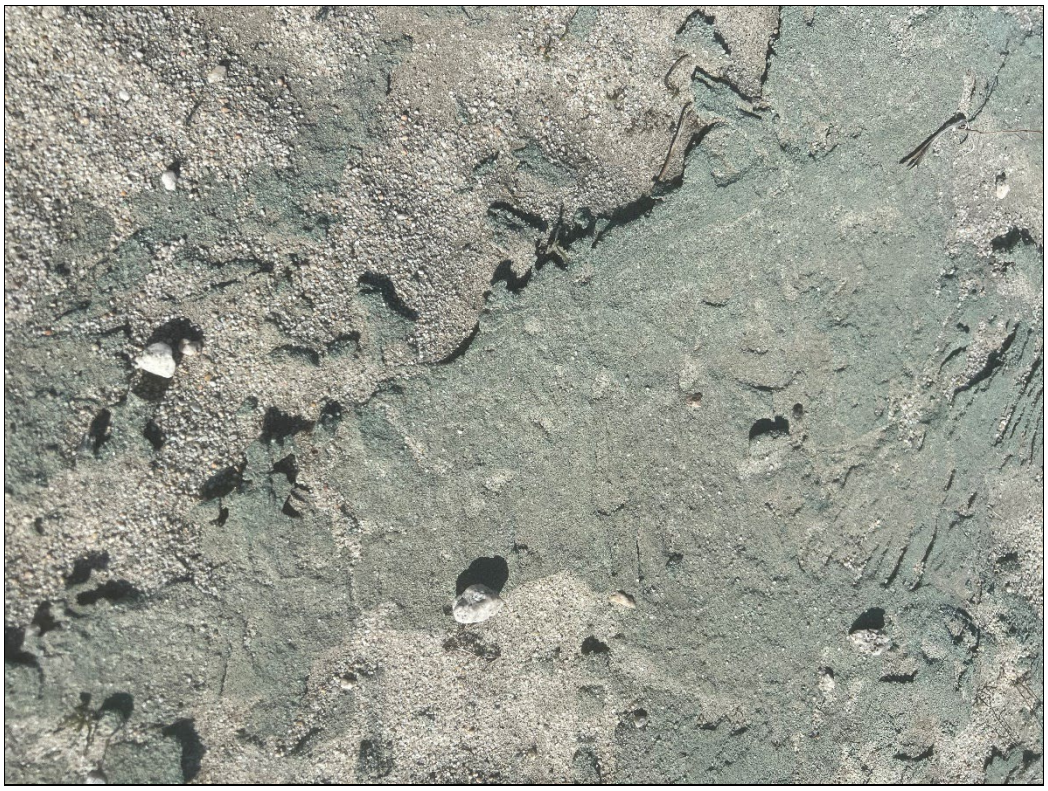

**Photo 3**. Old soil binder (green pigmented) still present along southern edge of site.

**Photo 4**. Looking north from the southwest corner of the site along fence line.

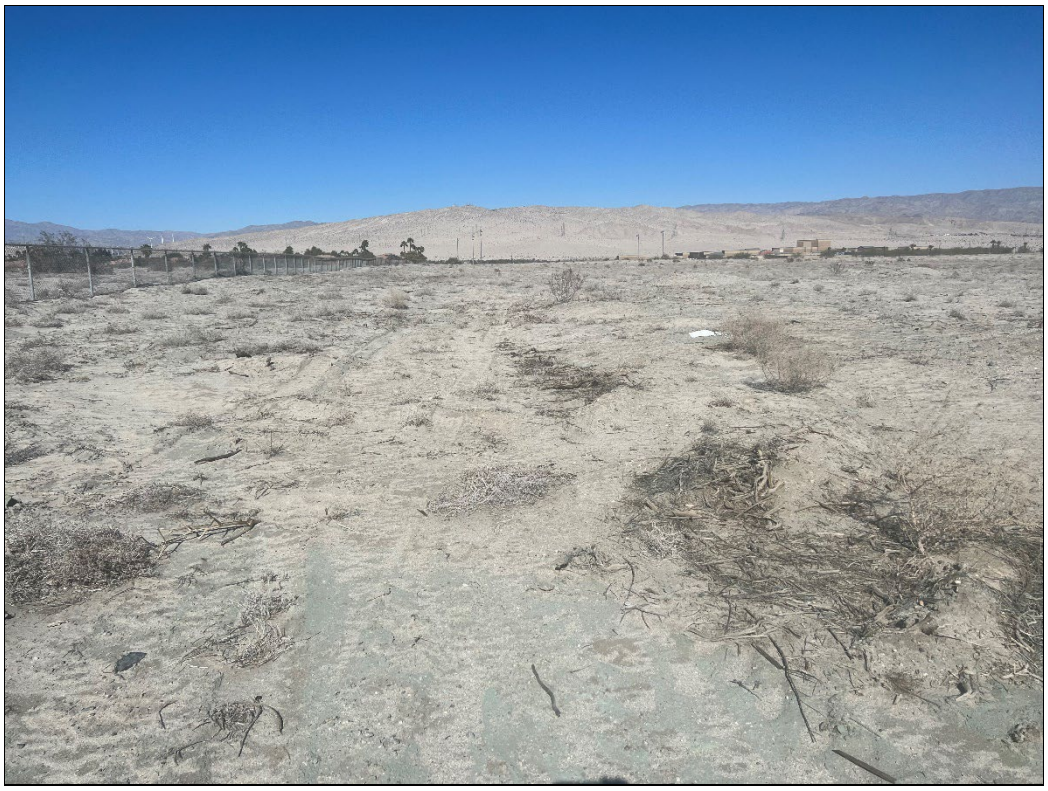

**Photo 5**. Western edge of site showing former disturbance (tracks and remains of flattened creosotes).

**Photo 6**. One of several dead creosotes likely uprooted during the clearing that took place in 2018.

**Photo 7.** View from northwest corner of site looking east along fence line with High School.

**Photo 8.** Fairly large area on northwest corner still showing soil binders used in 2018.

**Photo 9.** Another area where soil binders had been used along the north edge of site.

**Photo 10.** Northeast corner of site looking south along Rattler Road.

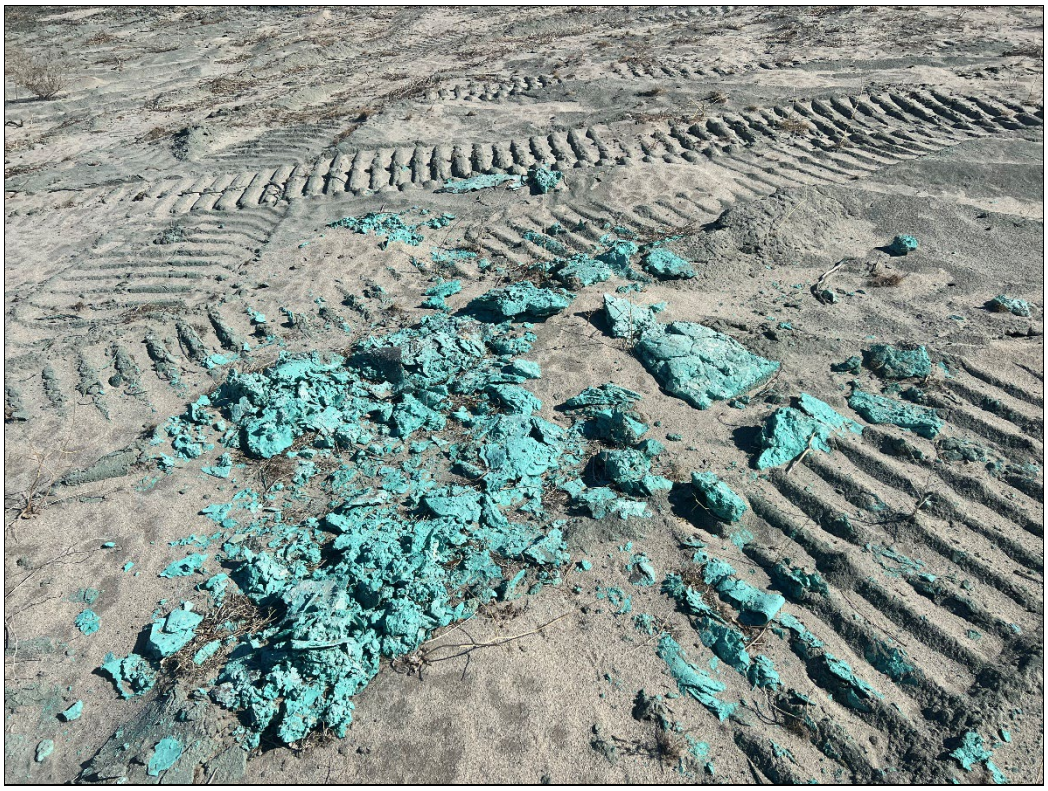

**Photo 11.** Soil binders and recent tracks.

**Photo 12.** View of southeast corner of site (intersection of Ramon and Rattler Roads).

**Photo 13.** Remnants of a structure that was formerly present on the southeast corner of the site.

**Photo 14.** Central portion of site, facing north. This area had the most sandy soils on the site.


**Photo 15.** Historic aerial image of the site from 2018. The entire site appears to have soil binders applied over it (no filter or color added to this photograph).

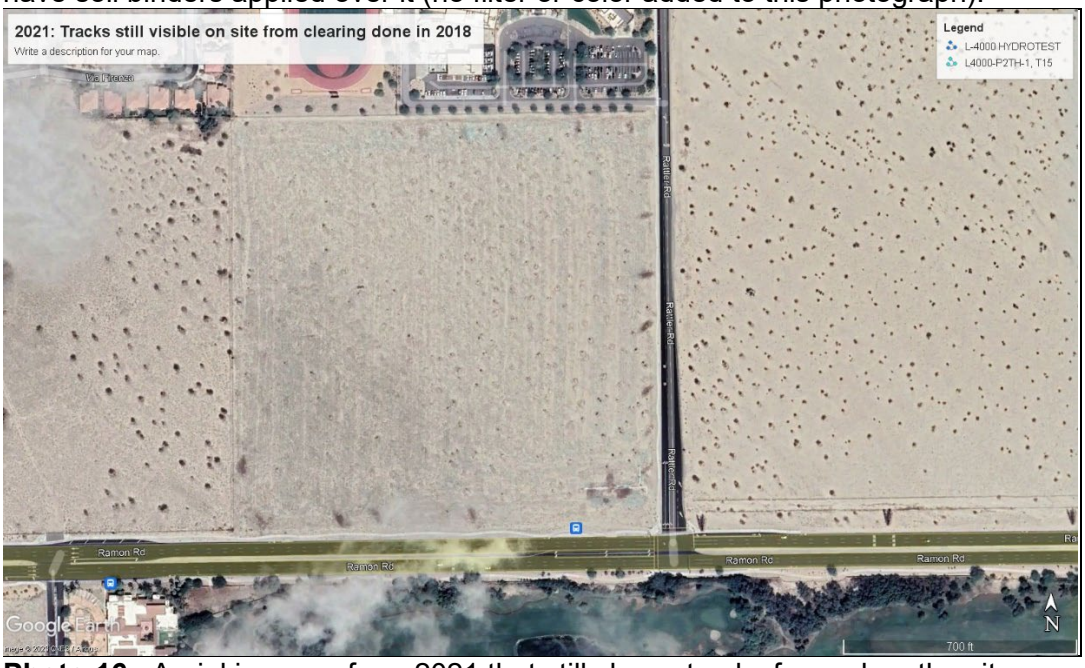


**Photo 16.** Aerial imagery from 2021 that still shows tracks from when the site was cleared (grubbed, dragged, or disced).

# APPENDIX D

## CVMSHCP Table 4-112:
## Coachella Valley Native Plants Recommended for Landscaping

**Coachella Valley Native Plants Recommended for Landscaping**

| **BOTANICAL NAME** | **COMMON NAME** |
|---|---|
| ***Trees*** | |
| *Washingtonia filifera* | California fan palm |
| *Cercidium floridum* | blue palo verde |
| *Chilopsis linearis* | desert willow |
| *Olneya tesota* | ironwood tree |
| *Prosopis glandulosa* var. *torreyana* | honey mesquite |
| ***Shrubs*** | |
| *Acacia greggii* | cat's claw acacia |
| *Ambrosia dumosa* | burro bush |
| *Atriplex canescens* | four wing saltbush |
| *Atriplex lentiformis* | quailbush |
| *Atriplex polycarpa* | cattle spinach |
| *Baccharis sergiloides* | squaw water-weed |
| *Bebia juncea* | sweet bush |
| *Cassia (Senna) covesii* | desert senna |
| *Condalia parryi* | crucilllo |
| *Crossosoma bigelovii* | crossosoma |
| *Dalea emoryi* | dye weed |
| *Dalea (Psorothamnus) schottii* | indigo bush |
| *Datura meteloides* | jimson weed |
| *Encelia farinosa* | brittle bush |
| *Ephedra aspera* | Mormon tea |
| *Eriogonum fasciculatum* | California buckwheat |
| *Eriogonum wrightii membranaceum* | Wright's buckwheat |
| *Fagonia laevis* | no common name |
| *Gutierrezia sarothrae* | matchweed |
| *Haplopappus acradenius* | goldenbush |
| *Hibiscus denudatus* | desert hibiscus |
| *Hoffmannseggia microphylla* | rush pea |
| *Hymenoclea salsola* | cheesebush |
| *Hyptis emoryi* | desert lavender |
| *Isomeris arborea* | bladder pod |
| *Juniperus californica* | California juniper |
| *Krameria grayi* | ratany |
| *Krameria parvifolia* | little-leaved ratany |
| *Larrea tridentata* | creosote bush |
| *Lotus rigidus* | desert rock pea |
| *Lycium andersonii* | box thorn |
| *Petalonyx linearis* | long-leaved sandpaper plant |
| *Petalonyx thurberi* | sandpaper plant |
| *Peucephyllum schottii* | pygmy cedar |
| *Prunus fremontii* | desert apricot |
| *Rhus ovata* | sugar-bush |
| *Salazaria mexicana* | paper-bag bush |
| *Salvia apiana* | white sage |
| *Salvia eremostachya* | Santa Rosa sage |

| | |
|---|---|
| *Salvia vaseyi* | wand sage |
| *Simmondsia chinensis* | jojoba |
| *Sphaeralcia ambigua* | globemallow (desert mallow) |
| *Sphaeralcia ambigua rosacea* | apricot mallow |
| *Trixis californica* | trixis |
| *Zauschneria californica* | California fuchsia |

***Groundcovers***

| | |
|---|---|
| *Mirabilis bigelovii* | wishbone bush (four o'clock) |
| *Mirabilis tenuiloba* | white four o'clock (thin-lobed) |

***Vines***

| | |
|---|---|
| *Vitis girdiana* | desert grape |

***Accent***

| | |
|---|---|
| *Muhlenbergia rigens* | deer grass |

***Herbaceous Perennials***

| | |
|---|---|
| *Adiantum capillus-veneris* | maiden-hair fern |
| *Carex alma* | sedge |
| *Dalea parryi* | Parry dalea |
| *Eleocharis montevidensis* | spike rush |
| *Equisetum laevigatum* | horsetail |
| *Juncus bufonis* | toad rush |
| *Juncus effuses* | juncus |
| *Juncus macrophyllus* | juncus |
| *Juncus mexicanus* | Mexican rush |
| *Juncus xiphioides* | juncus |
| *Notholaena parryi* | Parry cloak fern |
| *Pallaea mucronata* | bird-foot fern |

***Cacti and Succulents***

| | |
|---|---|
| *Agave deserti* | desert agave |
| *Asclepias albicans* | desert milkweed (buggy-whip) |
| *Asclepias subulata* | ajamete |
| *Dudleya arizonica* | live-forever |
| *Dudleya saxosa* | rock dudleya |
| *Echinocereus engelmannii* | calico hedgehog cactus |
| *Ferocactus acanthodes* | barrel cactus |
| *Fouquieria splendens* | ocotillo |
| *Mamillaria dioica* | nipple cactus |
| *Mamillaria tetrancistra* | corkseed cactus |
| *Nolina parryi* | Parry nolina |
| *Opuntia acanthocarpa* | stag-horn or deer-horn cholla |
| *Opuntia bigelovii* | teddy bear or jumping cholla |
| *Opuntia basilaris* | beavertail cactus |
| *Opuntia echinocarpa* | silver or golden cholla |
| *Opuntia ramosissima* | pencil cholla, darning needle cholla |
| *Yucca schidigera* | Mojave yucca, Spanish dagger |
| *Yucca whipplei* | Our Lord's candle |

# APPENDIX E

## Prohibited Invasive Ornamental Plants

## Prohibited Invasive Ornamental Plants

| BOTANICAL NAME | COMMON NAME |
|---|---|
| *Acacia spp. (all species except A. greggii)* | (all species except native catclaw acacia) |
| *Arundo donax* | giant reed or arundo grass |
| *Atriplex semibaccata* | Australian saltbush |
| *Avena barbata* | slender wild oat |
| *Avena fatua* | wild oat |
| *Brassica tournefortii* | African or Saharan mustard |
| *Bromus madritensis ssp. rubens* | red brome |
| *Bromus tectorum* | cheat grass or downy brome |
| *Cortaderia jubata [syn.C. atacamensis]* | jubata grass or Andean pampas grass |
| *Cortaderia dioica [syn. C. selloana]* | pampas grass |
| *Descurainia sophia* | tansy mustard |
| *Eichhornia crassipes* | water hyacinth |
| *Elaegnus angustifolia* | Russian olive |
| *Foeniculum vulgare* | sweet fennel |
| *Hirschfeldia incana* | Mediterranean or short-pod mustard |
| *Lepidium latifolium* | perennial pepperweed |
| *Lolium multiflorum* | Italian ryegrass |
| *Nerium oleander* | oleander |
| *Nicotiana glauca* | tree tobacco |
| *Oenothera berlandieri* | Mexican evening primrose |
| *Olea europea* | European olive tree |
| *Parkinsonia aculeata* | Mexican palo verde |
| *Pennisetum clandestinum* | Kikuyu grass |
| *Pennisetum setaceum* | fountain grass |
| *Phoenix canariensis* | Canary Island date palm |
| *Phoenix dactylifera* | date palm |
| *Ricinus communis* | castorbean |
| *Salsola tragus* | Russian thistle |
| *Schinus mole* | Peruvian pepper tree |
| *Schinus terebinthifolius* | Brazilian pepper tree |
| *Schismus arabicus* | Mediterranean grass |
| *Schismus barbatus* | Saharan grass, Abu Mashi |
| *Stipa capensis* | no common name |
| *Tamarix spp. (all species)* | tamarisk or salt cedar |
| *Taeniatherum caput-medusae* | Medusa-head |
| *Tribulus terrestris* | puncturevine |
| *Vinca major* | periwinkle |
| *Washingtonia robusta* | Mexican fan palm |
| *Yucca gloriosa* | Spanish dagger |

Sources: California Exotic Pest Plant Council, United States Department of Agriculture-Division of Plant Health and Pest Prevention Services, California Native Plant Society, Fremontia Vol. 26 No. 4, October 1998, The Jepson Manual; Higher Plants of California, and County of San Diego Department of Agriculture.

# APPENDIX F

# USFWS IPaC Report

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901


In Reply Refer To:
Project Code: 2023-0048236
Project Name: Ramon Rattler Project Site

February 22, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A biological assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a biological assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a biological assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found at the Fish and Wildlife Service's Endangered Species Consultation website at:

https://www.fws.gov/endangered/what-we-do/faq.html

**Migratory Birds**: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

# OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Carlsbad Fish And Wildlife Office**
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

# PROJECT SUMMARY

Project Code: 2023-0048236
Project Name: Ramon Rattler Project Site
Project Type: Residential Construction
Project Description: A proposed residential development located just north of Ramon Road, south of the Rancho Mirage High School, bordered by Rattler Road on the east, and an undeveloped parcel (with the Desert Memorial Park west of it) to the west.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.81799945,-116.43424677208559,14z


Counties: Riverside County, California

# ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

| NAME | STATUS |
|---|---|
| Peninsular Bighorn Sheep *Ovis canadensis nelsoni*<br>Population: Peninsular CA pop.<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/4970 | Endangered |

## BIRDS

| NAME | STATUS |
|---|---|
| Least Bell's Vireo *Vireo bellii pusillus*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/5945 | Endangered |
| Southwestern Willow Flycatcher *Empidonax traillii extimus*<br>There is **final** critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: https://ecos.fws.gov/ecp/species/6749 | Endangered |

## REPTILES

| NAME | STATUS |
|---|---|
| Coachella Valley Fringe-toed Lizard *Uma inornata* | Threatened |
| There is **final** critical habitat for this species. Your location does not overlap the critical habitat. | |
| Species profile: https://ecos.fws.gov/ecp/species/2069 | |
| Desert Tortoise *Gopherus agassizii* | Threatened |
| Population: Wherever found, except AZ south and east of Colorado R., and Mexico | |
| There is **final** critical habitat for this species. Your location does not overlap the critical habitat. | |
| Species profile: https://ecos.fws.gov/ecp/species/4481 | |

## INSECTS

| NAME | STATUS |
|---|---|
| Monarch Butterfly *Danaus plexippus* | Candidate |
| No critical habitat has been designated for this species. | |
| Species profile: https://ecos.fws.gov/ecp/species/9743 | |

## FLOWERING PLANTS

| NAME | STATUS |
|---|---|
| Coachella Valley Milk-vetch *Astragalus lentiginosus var. coachellae* | Endangered |
| There is **final** critical habitat for this species. Your location does not overlap the critical habitat. | |
| Species profile: https://ecos.fws.gov/ecp/species/7426 | |

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# IPAC USER CONTACT INFORMATION


| | |
|---|---|
| Agency: | WSP Environment and Infrastructure |
| Name: | Nathan Moorhatch |
| Address: | 1845 Chicago Avenue |
| Address Line 2: | Suite D |
| City: | Riverside |
| State: | CA |
| Zip: | 92507 |
| Email | nathan.moorhatch@woodplc.com |
| Phone: | 7144238559 |

Appendix C
Phase I Historical/Archaeological Resources Survey
(Including Tribal Consultation letters and responses)

**PHASE I HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY**

# WILLIAM WARREN GROUP PROJECT

**Assessor's Parcel Number 670-230-021**
**City of Rancho Mirage, Riverside County, California**

**For Submittal to:**

City of Rancho Mirage
Planning Division
69-825 Highway 111
Rancho Mirage, CA 92270

**Prepared for:**

William Warren Properties, Inc.
201 Wilshire Boulevard, Suite 102
Santa Monica, CA 90401

**Prepared by:**

CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

December 17, 2022
CRM TECH Contract No. 3817

**Title:** Phase I Historical/Archaeological Resources Survey: William Warren Group Project, Assessor's Parcel Number 670-230-021, City of Rancho Mirage, Riverside County, California

**Author(s):** Deirdre Encarnación, Archaeologist/Report Writer
Hunter O'Donnell, Archaeologist

**Consulting Firm:** CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324
(909) 824-6400

**Date:** December 17, 2022

**For Submittal to:** City of Rancho Mirage
Planning Division
69-825 Highway 111
Rancho Mirage, CA 92270
(760) 328-2266

**Prepared for:** Tim Hobin
William Warren Properties, Inc.
201 Wilshire Boulevard, Suite 102
Santa Monica, CA 90401
(760) 341-4800

**Project Size:** Approximately 36 acres

**USGS Quadrangle:** Cathedral City, Calif., 7.5' quadrangle (Section 14, T4S R5E, San Bernardino Baseline and Meridian)

**Keywords:** Coachella Valley, western Colorado Desert; Site 3817-1H*: historic-period can scatter; no "historical resources" under CEQA

** Temporary designation, pending assignment of official identification number*

## EXECUTIVE SUMMARY

Between December 2021 and December 2022, at the request of William Warren Properties, Inc., CRM TECH performed a Phase I cultural resources survey on approximately 36 acres of undeveloped land in the northern portion of the City of Rancho Mirage, Riverside County, California. The subject property of the study, Assessor's Parcel Number 670-230-021, is located on the northwest corner of Ramon Road and Rattler Road, in the southwest quarter of Section 14, T4S R5E, San Bernardino Baseline and Meridian, as depicted in the United States Geological Survey Cathedral City, California, 7.5' quadrangle.

The study is part of the environmental review process for a proposed mixed-use residential and commercial development on the property. The City of Rancho Mirage, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or around the project area.

In order to identify such resources, CRM TECH initiated a historical/archaeological resources records search and a Native American Sacred Lands File search, pursued historical background research, and carried out an intensive-level field survey of the entire project area. As a result of the field procedures, one previously undocumented archaeological site from the historic period was recorded in the project area and given the temporary designation of Site 3817-1H, pending assignment of an official identification number in the California Historical Resources Inventory.

Site 3817-1H consists of a refuse scatter with a total of four crushed metal cans, specifically three beverage cans and one chemical can. The site lacks an exceptional quantity or quality of artifacts and does not hold the potential for any important archaeological data. Therefore, 3817-1H does not appear to meet the criteria for listing in the California Register of Historical Resources and does not qualify as a "historical resource" under CEQA provisions.

Based on these findings, CRM TECH recommends to the City of Rancho Mirage a determination of *No Impact* regarding "historical resources." No further cultural resources investigation is recommended for the project unless development plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are discovered during any earth-moving operations associated with the project, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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## INTRODUCTION

Between December 2021 and December 2022, at the request of William Warren Properties, Inc., CRM TECH performed a Phase I cultural resources survey on approximately 36 acres of undeveloped land in the northern portion of the City of Rancho Mirage, Riverside County, California (Fig. 1). The subject property of the study, Assessor's Parcel Number 670-230-021, is located on the northwest corner of Ramon Road and Rattler Road, in the southwest quarter of Section 14, T4S R5E, San Bernardino Baseline and Meridian, as depicted in the United States Geological Survey Cathedral City, California, 7.5' quadrangle (Figs. 2, 3).

The study is part of the environmental review process for a proposed mixed-use residential and commercial development on the property. The City of Rancho Mirage, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or around the project area.

In order to identify and evaluate such resources, CRM TECH initiated a historical/archaeological resources records search and a Native American Sacred Lands File search, pursued historical background research, and carried out an intensive-level field survey of the entire project area. The following report is a complete account of the methods, results, and final conclusion of the study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

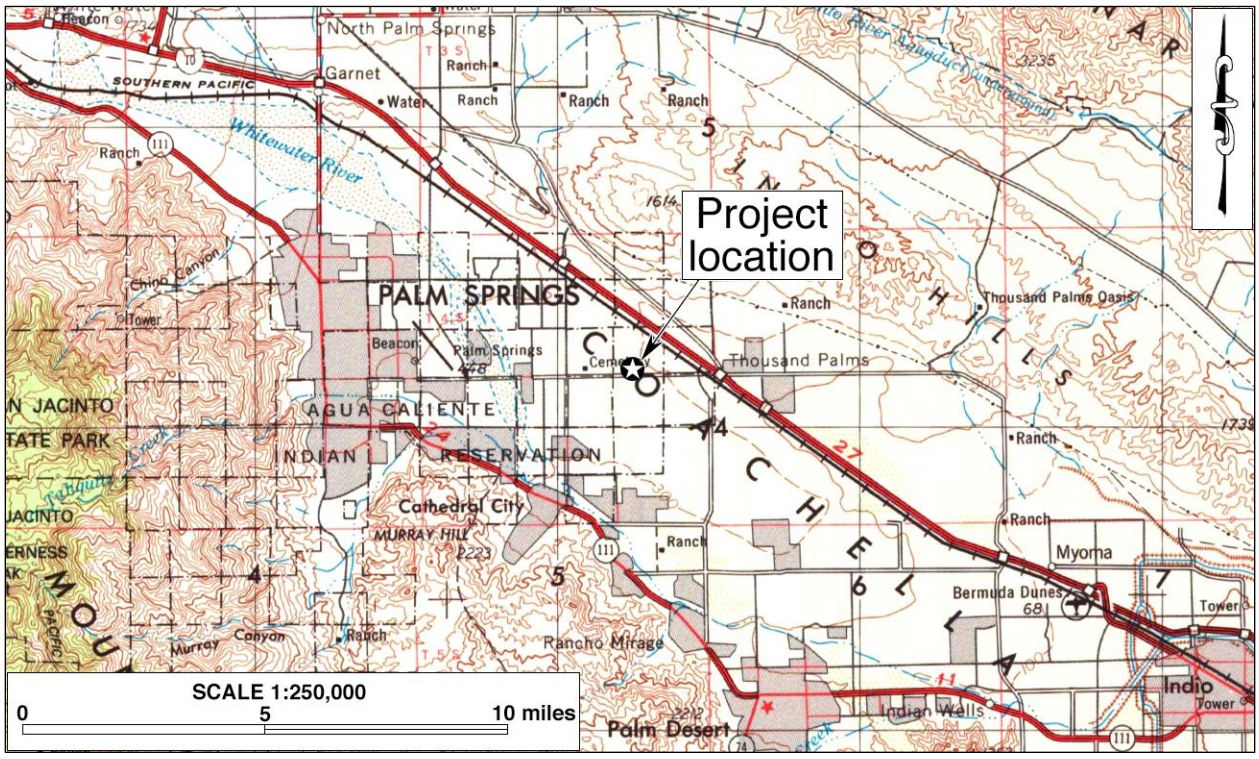


Figure 1. Project vicinity (based on USGS Santa Ana, Calif., 120' x 60' quadrangle [USGS 1979]).

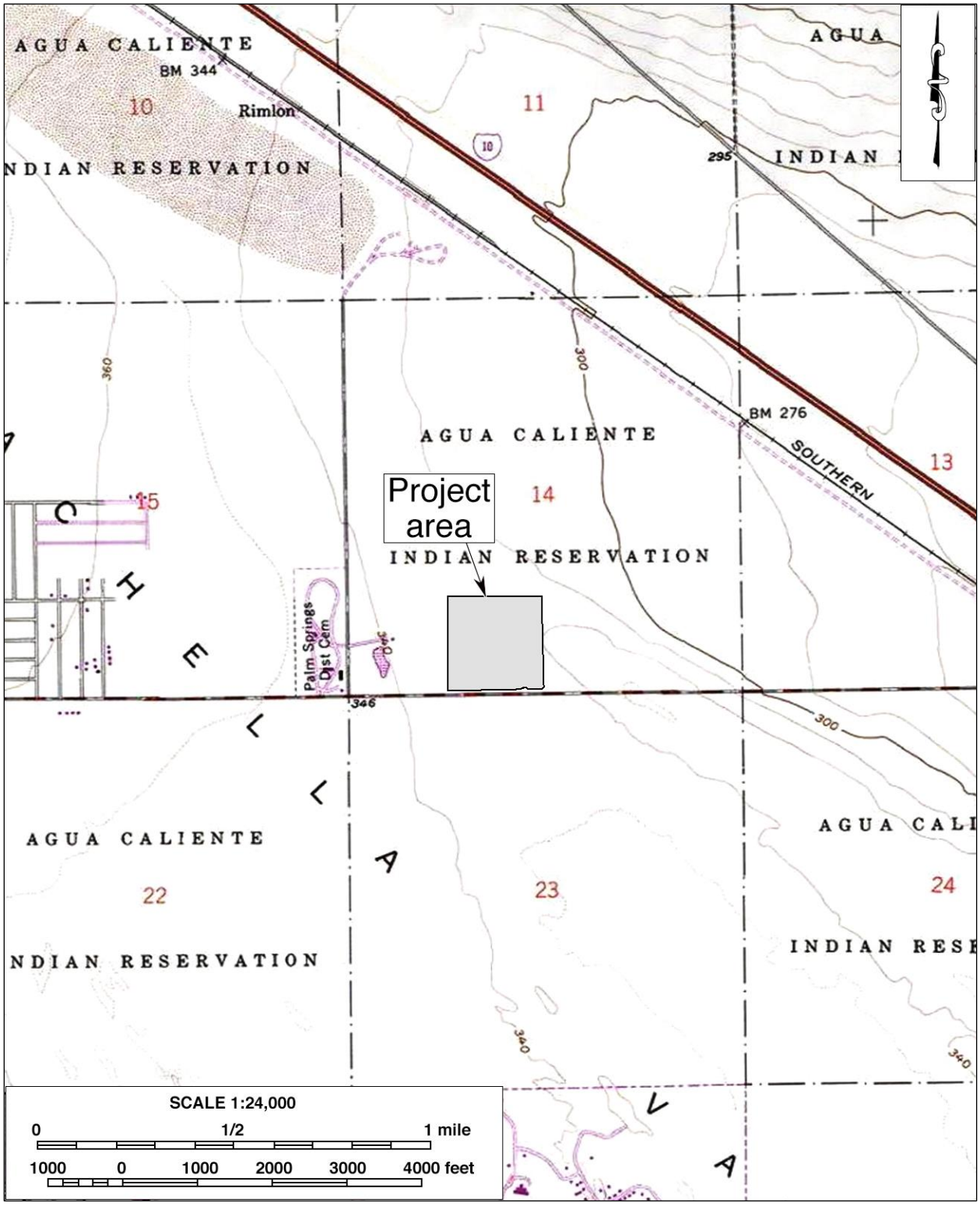


Figure 2. Project area (based on USGS Cathedral City, Calif., 7.5' quadrangle [USGS 1981]).


Figure 3. Aerial view of the project area (based on Google Earth imagery).

## SETTING

### CURRENT NATURAL SETTING

The City of Rancho Mirage lies in the heart of the Coachella Valley, a northwest-southeast trending desert valley that constitutes the western end of the Colorado Desert. Dictated by this geographic setting, the climate and environment of the region are typical of the southern California desert country, marked by extremes in temperature and aridity. Temperatures in the region reach over 120 degrees Fahrenheit in summer, and dip to near freezing in winter. Average annual precipitation is less than five inches, and the average annual evaporation rate exceeds three feet.

Situated in an area of relatively recent suburban growth on the northern edge of the city and along the Interstate Highway 10 corridor, the project area is bounded by Rattler Road on the east, Rancho Mirage High School on the north, Ramon Road on the south, and open desert land on the west (Fig. 3). Surrounding land uses include residential tracts, golf courses, a hospital, an RV park, and a cemetery. The terrain in the project area is relatively level, with a gentle incline towards the west and elevations ranging approximately from 325 to 335 feet above mean sea level. The property is currently open desert land that appears to have been grubbed in the past. Vegetation observed on the property includes purple sage, Mojave sand verbena, primrose, desert sunflower, and other small shrubs and grasses (Fig. 4).

Figure 4. Overview of the current natural setting of the project area (photograph taken on March 8, 2022, view to the southeast).

## CULTURAL SETTING

### Prehistoric Context

Numerous investigations on the history of cultural development in southern California have led researchers to propose a number of cultural chronologies for the desert regions. A specific cultural sequence for the Colorado Desert was offered by Schaefer (1994) on the basis of the many archaeological studies conducted in the area. The earliest time period identified is the Paleoindian (ca. 8,000 to 10,000-12,000 years ago), when "small, mobile bands" of hunters and gatherers, who relied on a variety of small and large game animals as well as wild plants for subsistence, roamed the region (*ibid*.:63). These small groups settled "on mesas and terraces overlooking larger washes" (*ibid*.:64). The artifact assemblage of that period typically consists of very simple stone tools, "cleared circles, rock rings, [and] some geoglyph types" (*ibid*.).

The Early Archaic Period follows and dates to ca. 8,000 to 4,000 years ago. It appears that a decrease in population density occurred at this time and that the indigenous groups of the area relied more on foraging than hunting. Very few archaeological remains have been identified to this time period. The ensuing Late Archaic Period (ca. 4,000 to 1,500 years ago) is characterized by continued low population densities and groups of "flexible" sizes that settled near available seasonal food resources and relied on "opportunistic" hunting of game animals. Groundstone artifacts for food processing were prominent during this time period.

The most recent period in Schaefer's scheme, the Late Prehistoric, dates from ca. 1,500 years ago to the time of the Spanish missions, and saw the continuation of the seasonal settlement pattern. Peoples of the Late Prehistoric Period were associated with the Patayan cultural pattern and relied more heavily on the availability of seasonal "wild plants and animal resources" (Schaefer 1994:66). It was during this period that brown and buff ware ceramics were introduced into the region.

The shores of Holocene Lake Cahuilla, during times of its presence, attracted much settlement and resource procurement; but in times of the lake's desiccation around 1700, according to Schaefer (1994:66), the Native people moved away from its receding shores towards rivers, streams, and mountains. Numerous archaeological sites dating to this time period have been identified along the shoreline of Holocene Lake Cahuilla. Testing and mitigative excavations at these sites have recovered brown and buff ware ceramics, a variety of groundstone and projectile point types, ornaments, and cremations.

### Ethnohistoric Context

The Coachella Valley is a historical The Coachella Valley is a historical center of Native American settlement, where U.S. surveyors noted large numbers of Indian villages and *rancherías*, occupied by the Cahuilla people, in the mid-19th century. The origin of the name "Cahuilla" is unclear, but may originate from their own word *káwiya*, meaning master or boss (Bean 1978). The Takic-speaking Cahuilla are generally divided by anthropologists into three groups, according to their geographic setting: the Pass Cahuilla of the San Gorgonio Pass-Palm Springs area, the Mountain Cahuilla of the San Jacinto and Santa Rosa Mountains and the Cahuilla Valley, and the Desert

Cahuilla of the eastern Coachella Valley. The basic written sources on Cahuilla culture and history include Kroeber (1925), Strong (1929), and Bean (1978), based on information provided by such Cahuilla informants as Juan Siva, Francisco Patencio, Katherine Siva Saubel, and Mariano Saubel. The following ethnohistoric discussion is based primarily on these sources.

The Cahuilla did not have a single name that referred to an all-inclusive tribal affiliation. Instead, membership was in terms of lineages or clans. Each lineage or clan belonged to one of two main divisions of the people, known as moieties. Their moieties were named for the Wildcat, or *Tuktum*, and Coyote, or *Istam*. Members of clans in one moiety had to marry into clans from the other moiety. Individual clans had villages, or central places, and territories they called their own, for purposes of hunting game, and gathering raw materials for food, medicine, ritual, or tool use. They interacted with other clans through trade, intermarriage, and ceremonies.

Cahuilla subsistence was defined by the surrounding landscape and primarily based on the hunting and gathering of wild and cultivated foods, exploiting nearly all of the resources available in a highly developed seasonal mobility system. They were adapted to the arid conditions of the desert floor, the lacustral cycles of Holocene Lake Cahuilla, and the environments of the nearby mountains. When the lake was full, or nearly full, the Cahuilla would take advantage of the resources presented by the body of fresh water, building elaborate stone fish traps. Once the lake had desiccated, they relied on the available terrestrial resources. The cooler temperatures and resources available at higher elevations in the nearby mountains were also taken advantage of.

The Cahuilla diet included seeds, roots, wild fruits and berries, acorns, wild onions, piñon nuts, and mesquite and screw beans. Medicinal plants such as creosote, California sagebrush, yerba buena and elderberry were typically cultivated near villages (Bean and Saubel 1972). Common game animals included deer, antelope, big horn sheep, rabbits, wood rats and, when Holocene Lake Cahuilla was present, fish and waterfowl. The Cahuilla hunted with throwing sticks, clubs, nets, traps, and snares, as well as bows and arrow (Bean 1978; CSRI 2002). Common tools included manos and metates, mortars and pestles, hammerstones, fire drills, awls, arrow-straighteners, and stone knives and scrapers. These lithic tools were made from locally sourced material as well as materials procured through trade or travel. They also used wood, horn, and bone spoons and stirrers; baskets for winnowing, leaching, grinding, transporting, parching, storing, and cooking; and pottery vessels for carrying water, storage, cooking, and serving food and drink (*ibid.*).

As the landscape defined their subsistence practices, the tending and cultivation practices of the Cahuilla helped shape the landscape. Biological studies have recently found evidence that the fan palms found in the Coachella Valley and throughout the southeastern California desert (*Washingtonia filifera*) may not be relics of palms from a paleo-tropical environment, but instead a relatively recent addition brought to the area and cultivated by native populations (Anderson 2005). Cahuilla oral tradition tells of a time before there were palms in the area, and how the people, birds, and animals enjoyed the palm fruit once it had arrived (Bean and Saubel 1972).

The planting of palms by the Cahuilla is well-documented, as is their enhancement of palm stands through the practice of controlled burning (Bean and Saubel 1972; Anderson 2005). Burning palm stands would increase fruit yield dramatically by eliminating pests such as the palm borer beetle, date scales, and spider mites (Bean and Saubel 1972). Firing palm stands prevented out-of-control wildfires by eliminating dead undergrowth before it accumulated to dangerous levels. The Cahuilla

also burned stands of chia to produce higher yields, and deergrass to yield straighter, more abundant stalks for basketry (Bean and Saubel 1972; Anderson 2005).

Population data prior to European contact is almost impossible to obtain, but estimates range from 3,600 to as high as 10,000 persons covering a territory of over 2,400 square miles. During the 19th century, the Cahuilla population was decimated as a result of European diseases, most notably smallpox, for which the Native peoples had no immunity. Today, Native Americans of Pass or Desert Cahuilla heritage are mostly affiliated with one or more of the Indian reservations in and near the Coachella Valley, including Agua Caliente, Cabazon, Torres Martinez, Augustine, and Morongo.

**Historic Context**

In 1823-1825, José Romero, José Maria Estudillo, and Romualdo Pacheco became the first noted European explorers to travel through the Coachella Valley when they led a series of expeditions in search of a route to Yuma (Johnston 1987:92-95). Due to its harsh environment, few non-Indians ventured into the desert valley during the Mexican and early American periods, except those who traveled along the established trails. The most important of these trails was the Cocomaricopa Trail, an ancient Indian trading route that was "discovered" in 1862 by William David Bradshaw and known after that as the Bradshaw Trail (Gunther 1984:71; Ross 1992:25). In much of the Coachella Valley, this historic wagon road traversed a similar course to that of present-day State Route 111. During the 1860s-1870s, the Bradshaw Trail served as the main thoroughfare between coastal southern California and the Colorado River, until the completion of the Southern Pacific Railroad in 1876-1877 brought an end to its heyday (Johnston 1987:185).

Non-Indian settlement in the Coachella Valley began in the 1870s with the establishment of railroad stations along the Southern Pacific Railroad, and spread further in the 1880s after public land was opened for claims under the Homestead Act, the Desert Land Act, and other federal land laws (Laflin 1998:35-36; Robinson 1948:169-171). Farming became the dominant economic activity in the valley thanks to the development of underground water sources, often in the form of artesian wells. Around the turn of the century, the date palm was introduced into the Coachella Valley, and by the late 1910s dates were the main agricultural crop and the tree an iconic image celebrating the region as the "Arabia of America" (Shields Date Gardens 1957). Then, starting in the 1920s, a new industry featuring equestrian camps, resorts, hotels, and eventually country clubs began to spread throughout the Coachella Valley, transforming it into southern California's premier winter retreat.

In the Rancho Mirage area, the first notable settlement activities occurred in the 1910s-1920s, when several date ranches were established in the present-day city boundary (Love and Tang 1996:7). In 1924, R.P. "Bert" Davie and E.E. McIntyre subdivided the Rancho Rio del Sol Estates around today's Clancy Lane, creating a small community nicknamed "Little Santa Monica" (*ibid.*:8). Ten years later, Louis Blankenhorn and Laurence Macomber began a new subdivision at the mouth of Magnesia Springs Canyon, and for the first time bestowed the name Rancho Mirage on the community (*ibid.*). After the end of WWII, Rancho Mirage embarked on a period of rapid growth. With the development of the Thunderbird Country Club and the Tamarisk Country Club in 1951-1952, Rancho Mirage set the trend in the post-WWII boom among the five cove communities along Highway 111 (*ibid.*:8-9). This trend has continued to the present time and has given rise to the City of Rancho Mirage's popular reputation as the "country club city."

## RESEARCH METHODS

### RECORDS SEARCH

The historical/archaeological resources records search for this study was conducted by the Eastern Information Center (EIC) of the California Historical Resources Information System on March 30, 2022. Located on the campus of University of California, Riverside, the EIC is the State of California's official cultural resource records repository for the County of Riverside. During the records search, EIC staff examined the center's digital maps, records, and databases for previously identified cultural resources and existing cultural resources reports within a half-mile radius of the project area. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or Riverside County Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

### SACRED LANDS FILE SEARCH

On December 7, 2021, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. The NAHC is the State of California's trustee agency for the protection of "tribal cultural resources," as defined by California Public Resources Code §21074 and is tasked with identifying and cataloging properties of Native American cultural value throughout the state, including places of special religious, spiritual, or social significance and known graves and cemeteries. In addition, CRM TECH contacted the Agua Caliente Band of Cahuilla Indians to invite tribal participation in the field survey (see below). The NAHC's reply is summarized below and attached to this report in Appendix 2.

### HISTORICAL BACKGROUND RESEARCH

Historical background research for this study was conducted by CRM TECH archaeologist Deirdre Encarnación. Sources consulted during the research included published literature in local and regional history, historical maps of the Rancho Mirage area, and aerial/satellite photographs of the project vicinity. Among the maps consulted were U.S. General Land Office (GLO) land survey plat map dated 1856 and U.S. Geological Survey (USGS) topographic maps dated 1904-1981, which are accessible at the websites of the U.S. Bureau of Land Management and the USGS. The aerial and satellite photographs, taken in 1972-2021, are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

### FIELD SURVEY

On March 8, 2022, CRM TECH archaeologist Hunter O'Donnell carried out the intensive-level field survey of the project area with the assistance of Native American monitors representing the Agua Caliente Band of Cahuilla Indians, including Cultural Resources Coordinator Andreas J. Heredia and tribal archaeologists Lacy Padilla and Arysa Gonzales. The survey was completed on foot by walking a series of parallel north-south transects spaced 15 meters (approximately 50 feet) apart. In this way, the ground surface in the entire project area was systematically and carefully examined for any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years or older).

Ground visibility was excellent (90 to 95%) due to the sparse vegetation growth throughout the project area.

When archaeological artifacts were discovered during the survey, their locations were marked with survey flags. Upon completion of the survey, further field recordation, including descriptions of the artifacts, a location map with UTM coordinates, and a scaled sketch map, were completed to document the exact locations and nature of the finds. The field map, descriptions, and other data were then compiled into a standard site record form for submittal to the EIC and incorporation into the California Historical Resources Inventory (see App. 3).

## RESULTS AND FINDINGS

### RECORDS SEARCH

According to EIC records, the project area was covered in its entirety by a Phase I cultural resources survey in 2014 that included a historical/archaeological resources records search and a systematic field survey (George 2014), as well as by a large-scale overview study from 1996 (Love and Tang 1996). Because the 2014 survey is now eight years old, it is considered out of date for statutory compliance purposes today. Despite these previous survey efforts, no cultural resources were previously recorded within the project boundaries.

Within the half-mile scope of the records search, EIC records identify at least nine other previous studies on various tracts of land and linear features, including adjacent properties to the west and the south (Fig. 5). As a result of these and other similar studies in the vicinity, one historical/ archaeological site and two isolates—i.e., localities with fewer than three artifacts—were previously recorded within the half-mile radius, as listed below in Table 1.

**Table 1. Previously Recorded Cultural Resources within the Scope of the Records Search**

| Resource No. | Recorded by/Date | Description |
|---|---|---|
| 33-013685 | Goodman and Moriquand 2004 | Ceramic scatter with 13 undecorated sherds |
| 33-013687 | Goodman et al. 2004 | Isolate: upper shoulder sherd of a brownware jar |
| 33-013688 | Goodman and Moriquand 2004 | Isolate: pressed-metal button |

As Table 1 shows, the site and one of the isolates in the project vicinity were of prehistoric—i.e., Native American—origin. Nearest among the three known cultural resources, 33-013687 was an isolate representing a single upper shoulder fragment of a brownware ceramic jar located just outside of the northern project boundary in an area now occupied by Rancho Mirage High School. The site consisted of a scatter of 13 prehistoric ceramic sherds, and the other isolate was a single pressed-metal button. Since none of the previously recorded cultural resources was located within the project area, none of them require further consideration during this study.

### SACRED LANDS FILE SEARCH

In response to CRM TECH's inquiry, the NAHC states in a letter dated February 2, 2022, that the Sacred Lands File identified no Native American cultural resources in the project vicinity (see App. 2). Noting that the absence of specific information would not necessarily preclude the presence of

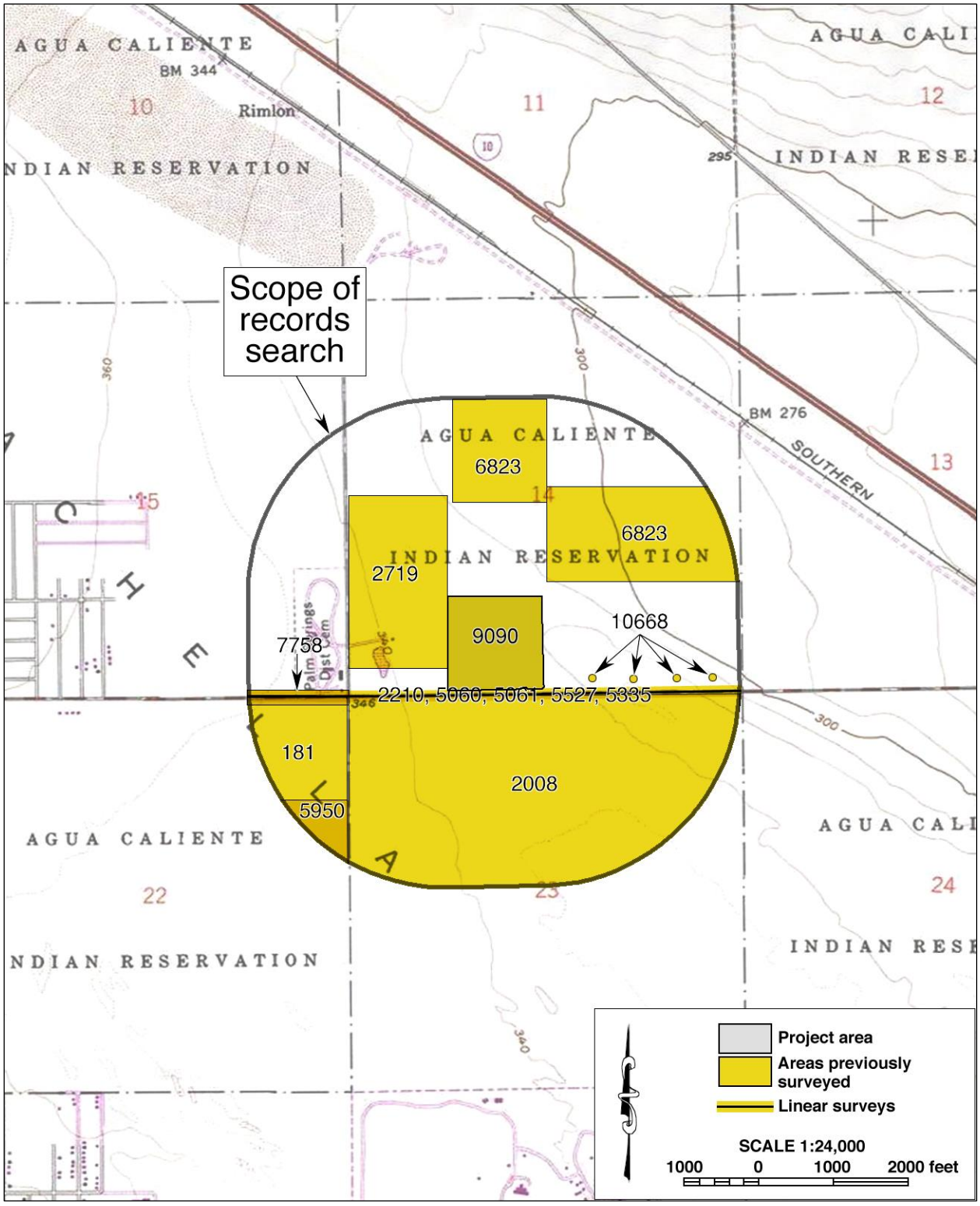


Figure 5. Previous cultural resources studies within the scope of the records search, listed by EIC file number. Location of historical/archaeological resources are not shown as a protective measure.

cultural resources, however, the NAHC recommended that local Native American groups be consulted for further information and provided a referral list of 16 individuals associated with 11 local Native American groups who may have knowledge of such resources. The NAHC's reply is attached in Appendix 2 for reference by the City of Rancho Mirage in future government-to-government consultations with the pertinent tribal groups, if necessary. As noted above, representatives from the Agua Caliente Band of Cahuilla Indians were present during the current field survey.

## HISTORICAL BACKGROUND RESEARCH

Historical sources consulted for this study suggest that the project area is low in sensitivity for cultural resources from the historic period. Throughout the 1850s-1970s era, no evidence of any settlement or development activities were observed in or near the project area (Figs. 6-9; NETR Online 1972). The earliest notable human-made feature was Ramon Road, evident outside of the southern project boundary in the 1940s across an otherwise undeveloped landscape (Fig. 8).

Several residential tracts were constructed in the vicinity between 1984 and 1996, serving as the first sizable developments in the area (NETR Online 1984; 1996; Google Earth 1996). Located on the adjacent property to the north, Rancho Mirage High School was built between 2010 and 2012 (Google Earth 2009-2012; NETR Online 2010; 2012). While the commercial and residential development gradually continued to expand on the surrounding properties, the project area has remained undeveloped to the present time (NETR Online 1972-2018; Google Earth 1996-2021).

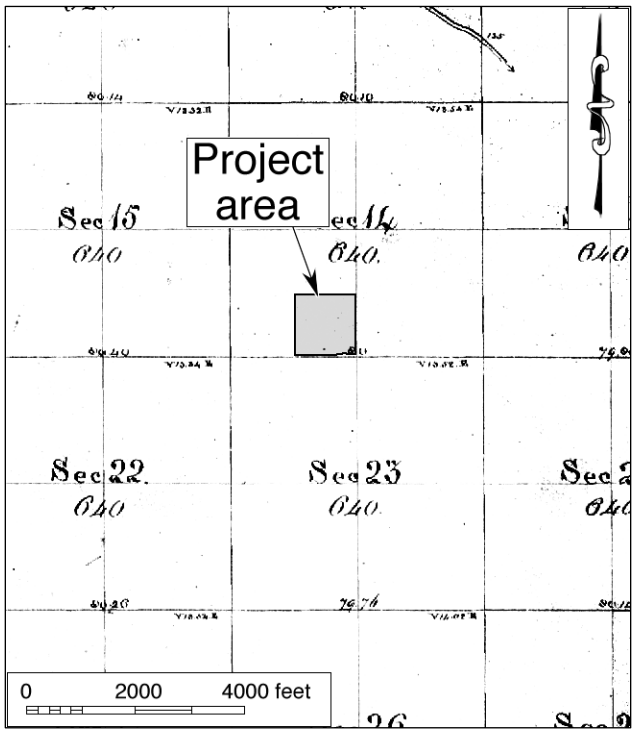


Figure 6. The project area and vicinity in 1855-1856 (source: GLO 1856).

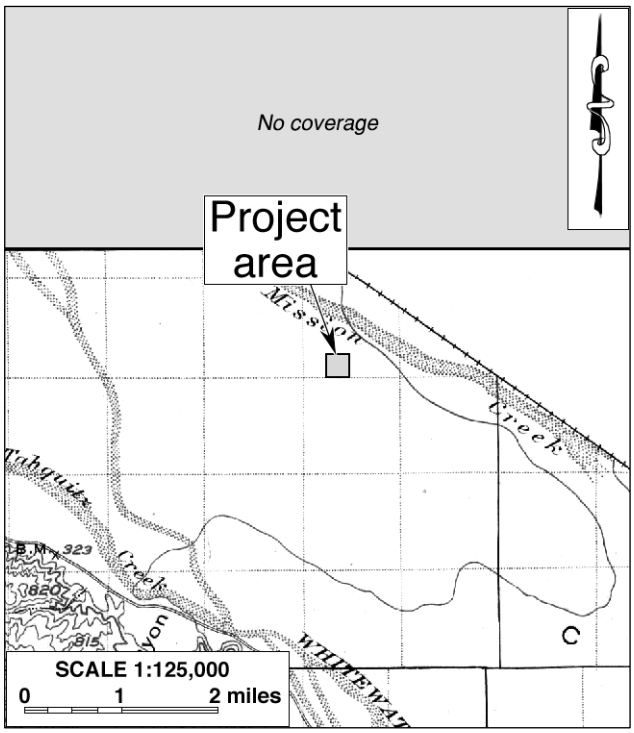


Figure 7. The project area and vicinity in 1901 (source: USGS 1904).

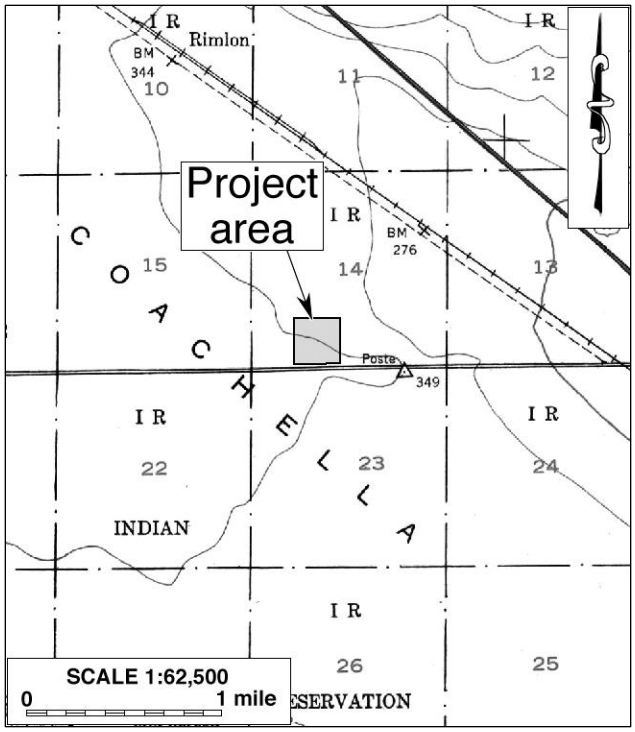


Figure 8. The project area and vicinity in 1941 (source: USGS 1941).

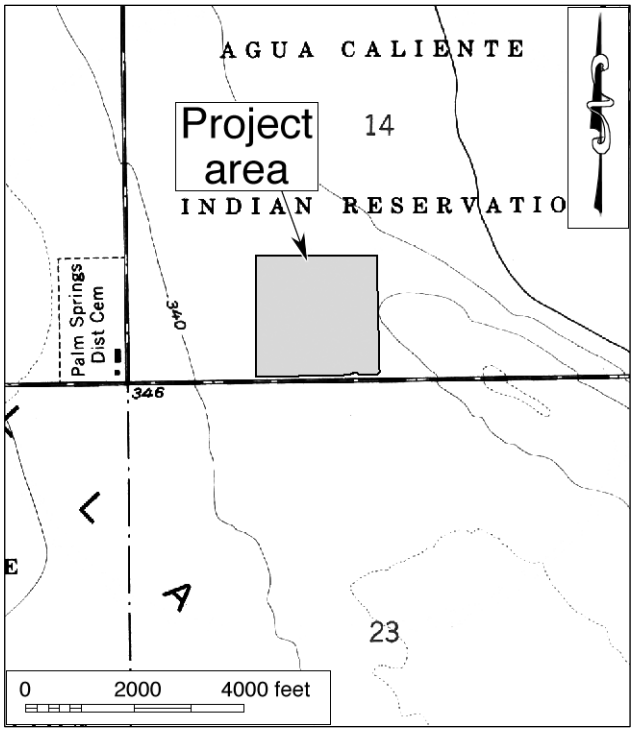


Figure 9. The project area and vicinity in 1956 (source: USGS 1958).

## FIELD SURVEY

As a result of the field survey, a previously undocumented archaeological site from the historic period was recorded in the project area and given the temporary designation of Site 3817-1H, pending assignment of an official identification number in the California Historical Resources Inventory (see App. 3). No other cultural resources, either prehistoric or historical in origin, were found during the survey. Ground surface in the project area has been disturbed by heavy equipment, as evidenced by large-tread tracks.

Site 3817-1H measures roughly 10 feet by 9 feet in size and consists of a very small refuse scatter of four crushed metal cans. Two of the cans are 12-ounce, flat-top beverage cans with church-key openings, each measuring 4-5/8 inches in height and 3 inches in diameter. One is a 16-ounce, flat-top beverage can measuring 6-1/4 inches tall and 2-3/4 inch in diameter, also with a church-key opening. The fourth is an industrial chemical can with a friction closure measuring 7 inches by 5 inches by 2 inches. The site is located on a relatively level surface among scrub brush, surrounded by vehicular intrusions.

## DISCUSSION

The purpose of this study is to identify any cultural resources within or adjacent to the project area, and to assist the City of Rancho Mirage in determining whether such resources meet the official definition of "historical resources," as provided in the California Public Resources Code, in

particular CEQA. According to PRC §5020.1(j), "'historical resource' includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). Regarding the proper criteria for the evaluation of historical significance, CEQA guidelines mandate that "generally a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

In summary of the research results outlined above, one previously undocumented historic-period archaeological site was recorded within the project area during the current study. Designated temporarily as 3718-1H, the site is evaluated below in accordance with the CEQA provisions outlined above. No other potential "historical resources" were encountered within or adjacent to the project area. In addition, the Native American Sacred Lands File does not identify any sites of traditional cultural value in the project vicinity, and no notable cultural features were known to be present in the project area throughout the historic period.

Site 3817-1H is a small refuse scatter with a total of four crushed metal cans, three of which are beverage cans and one is a chemical can. Light refuse deposits like this represent one of the most common types of historic-period archaeological remains found in the southern California desert region, typically the results of incidental trash discarding. Without an exceptional quantity or quality of artifacts, Site 3817-1H holds little promise for any new or important archaeological data. Furthermore, with an unclear historical background, this minor refuse deposit does not demonstrate a close association with any persons or events of recognized significance in history. Based on these considerations, Site 3817-1H does not appear eligible for listing in the California Register of Historical Resources and does not meet CEQA definition of a "historical resource."

## CONCLUSIONS AND RECOMMENDATIONS

CEQA establishes that "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be

impaired." As stated above, the results of the present study indicate that no "historical resources," as defined by CEQA, are present within or adjacent to the project area. Therefore, CRM TECH presents the following recommendations to the City of Rancho Mirage:

- The project as currently proposed will not cause a substantial adverse change to any known "historical resources."
- No further cultural resources investigation is necessary for the proposed project unless development plans undergo such changes as to include areas not covered by this study.
- If buried cultural materials are discovered during any earth-moving operations associated with the project, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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1958 Map: Cathedral City, Calif. (7.5', 1:24,000); aerial photographs taken in 1956.
1979 Map: Santa Ana, Calif. (120'x60', 1:250,000); 1959 edition revised.
1981 Map: Cathedral City, Calif. (7.5', 1:24,000); 1958 edition photorevised in 1978.

## APPENDIX 1:
## PERSONNEL QUALIFICATIONS

### PRINCIPAL INVESTIGATOR/HISTORIAN
### Bai "Tom" Tang, M.A.

**Education**

| | |
|---|---|
| 1988-1993 | Graduate Program in Public History/Historic Preservation, University of California, Riverside. |
| 1987 | M.A., American History, Yale University, New Haven, Connecticut. |
| 1982 | B.A., History, Northwestern University, Xi'an, China. |
| 2000 | "Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno. |
| 1994 | "Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno. |

**Professional Experience**

| | |
|---|---|
| 2002- | Principal Investigator, CRM TECH, Riverside/Colton, California. |
| 1993-2002 | Project Historian/Architectural Historian, CRM TECH, Riverside, California. |
| 1993-1997 | Project Historian, Greenwood and Associates, Pacific Palisades, California. |
| 1991-1993 | Project Historian, Archaeological Research Unit, University of California, Riverside. |
| 1990 | Intern Researcher, California State Office of Historic Preservation, Sacramento. |
| 1990-1992 | Teaching Assistant, History of Modern World, University of California, Riverside. |
| 1988-1993 | Research Assistant, American Social History, University of California, Riverside. |
| 1985-1988 | Research Assistant, Modern Chinese History, Yale University. |
| 1985-1986 | Teaching Assistant, Modern Chinese History, Yale University. |
| 1982-1985 | Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China. |

**Cultural Resources Management Reports**

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

**PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST**
**Michael Hogan, Ph.D., RPA (Registered Professional Archaeologist)**

## Education

| | |
|---|---|
| 1991 | Ph.D., Anthropology, University of California, Riverside. |
| 1981 | B.S., Anthropology, University of California, Riverside; with honors. |
| 1980-1981 | Education Abroad Program, Lima, Peru. |
| 2002 | "Section 106—National Historic Preservation Act: Federal Law at the Local Level," UCLA Extension Course #888. |
| 2002 | "Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist. |
| 2002 | "Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals. |
| 1992 | "Southern California Ceramics Workshop," presented by Jerry Schaefer. |
| 1992 | "Historic Artifact Workshop," presented by Anne Duffield-Stoll. |

## Professional Experience

| | |
|---|---|
| 2002- | Principal Investigator, CRM TECH, Riverside/Colton, California. |
| 1999-2002 | Project Archaeologist/Field Director, CRM TECH, Riverside, California. |
| 1996-1998 | Project Director and Ethnographer, Statistical Research, Inc., Redlands, California. |
| 1992-1998 | Assistant Research Anthropologist, University of California, Riverside. |
| 1992-1995 | Project Director, Archaeological Research Unit, U.C. Riverside. |
| 1993-1994 | Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College. |
| 1991-1992 | Crew Chief, Archaeological Research Unit, U.C. Riverside. |
| 1984-1998 | Project Director, Field Director, Crew Chief, and Archaeological Technician for various southern California cultural resources management firms. |

## Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

## Cultural Resources Management Reports

Principal investigator for, author or co-author of, and contributor to numerous cultural resources management study reports since 1986.

## Memberships

Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

## PROJECT ARCHAEOLOGIST/REPORT WRITER
## Deirdre Encarnación, M.A.

### Education

| | |
|---|---|
| 2003 | M.A., Anthropology, San Diego State University, California. |
| 2000 | B.A., Anthropology, minor in Biology, with honors; San Diego State University, California. |
| 2021 | Certificate of Specialization, Kumeyaay Studies, Cuyamaca College, California. |
| 2001 | Archaeological Field School, San Diego State University. |
| 2000 | Archaeological Field School, San Diego State University. |

### Professional Experience

| | |
|---|---|
| 2004- | Project Archaeologist/Report Writer, CRM TECH, Riverside/Colton, California. |
| 2001-2003 | Part-time Lecturer, San Diego State University, California. |
| 2001 | Research Assistant for Dr. Lynn Gamble, San Diego State University. |
| 2001 | Archaeological Collection Catalog, SDSU Foundation. |

## PROJECT ARCHAEOLOGIST
## Hunter C. O'Donnell, B.A.

### Education

| | |
|---|---|
| 2018 | M.A. (anticipated), Applied Archaeology, California State University, San Bernardino. |
| 2015 | B.A. (*cum laude*), Anthropology, California State University, San Bernardino. |
| 2012 | A.A., Social and Behavioral Sciences, Mt. San Antonio College, Walnut, California. |
| 2011 | A.A., Natural Sciences and Mathematics, Mt. San Antonio College, Walnut, California. |
| 2014 | Archaeological Field School, Santa Rosa Mountains; supervised by Bill Sapp of the United States Forest Service and Daniel McCarthy of the San Manuel Band of Mission Indians. |

### Professional Experience

| | |
|---|---|
| 2016- | Graduate Research Assistant, Applied Archaeology, California State University, San Bernardino. |
| 2016-2017 | Cultural Intern, Cultural Department, Pechanga Band of Luiseño Indians, Temecula, California. |
| 2015 | Archaeological Intern, U.S. Bureau of Land Management, Barstow, California. |
| 2015 | Peer Research Consultant: African Archaeology, California State University, San Bernardino. |

## APPENDIX 2

# SACRED LANDS FILE SEARCH RESULTS

# NATIVE AMERICAN HERITAGE COMMISSION



**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

February 2, 2022

Nina Gallardo
CRM TECH

Via Email to: ngallardo@crmtech.us

**Re: Proposed Subdivision Project, Riverside County**

Dear Ms. Gallardo:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
*Cultural Resources Analyst*

Attachment

**Native American Heritage Commission**
**Native American Contact List**
**Riverside County**
**2/2/2022**

***Agua Caliente Band of Cahuilla Indians***
Jeff Grubbe, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919

***Agua Caliente Band of Cahuilla Indians***
Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net

***Augustine Band of Cahuilla Mission Indians***
Amanda Vance, Chairperson
P.O. Box 846 — Cahuilla
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com

***Cabazon Band of Mission Indians***
Doug Welmas, Chairperson
84-245 Indio Springs Parkway — Cahuilla
Indio, CA, 92203
Phone: (760) 342 - 2593
Fax: (760) 347-7880
jstapp@cabazonindians-nsn.gov

***Cahuilla Band of Indians***
Daniel Salgado, Chairperson
52701 U.S. Highway 371 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net

***Los Coyotes Band of Cahuilla and Cupeño Indians***
Ray Chapparosa, Chairperson
P.O. Box 189 — Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712

***Morongo Band of Mission Indians***
Robert Martin, Chairperson
12700 Pumarra Road — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov

***Morongo Band of Mission Indians***
Ann Brierty, THPO
12700 Pumarra Road — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov

***Quechan Tribe of the Fort Yuma Reservation***
Manfred Scott, Acting Chairman
Kw'ts'an Cultural Committee
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (928) 750 - 2516
scottmanfred@yahoo.com

***Quechan Tribe of the Fort Yuma Reservation***
Jill McCormick, Historic Preservation Officer
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Subdivision Project, Riverside County.

**Native American Heritage Commission**
**Native American Contact List**
**Riverside County**
**2/2/2022**

***Ramona Band of Cahuilla***
Joseph Hamilton, Chairperson
P.O. Box 391670 Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
admin@ramona-nsn.gov

***Ramona Band of Cahuilla***
John Gomez, Environmental Coordinator
P. O. Box 391670 Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
jgomez@ramona-nsn.gov

***Santa Rosa Band of Cahuilla Indians***
Lovina Redner, Tribal Chair
P.O. Box 391820 Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
lsaul@santarosa-nsn.gov

***Soboba Band of Luiseno Indians***
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Cahuilla
San Jacinto, CA, 92581 Luiseno
Phone: (951) 663 - 5279
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

***Soboba Band of Luiseno Indians***
Isaiah Vivanco, Chairperson
P. O. Box 487 Cahuilla
San Jacinto, CA, 92581 Luiseno
Phone: (951) 654 - 5544
Fax: (951) 654-4198
ivivanco@soboba-nsn.gov

***Torres-Martinez Desert Cahuilla Indians***
Michael Mirelez, Cultural Resource Coordinator
P.O. Box 1160 Cahuilla
Thermal, CA, 92274
Phone: (760) 399 - 0022
Fax: (760) 397-8146
mmirelez@tmdci.org

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Subdivision Project, Riverside County.

**APPENDIX 3**

# CALIFORNIA HISTORICAL RESOURCES INVENTORY RECORD FORMS

**(Confidential)**

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

# PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

Page 1 of 4 *Resource Name or # (Assigned by recorder) CRM TECH 3817-1H

**P1. Other Identifier:**

***P2. Location:** √ **Not for Publication** ___ **Unrestricted**

***a. County** Riverside **and (P2c, P2e. and P2b or P2d. Attach a Location Map as necessary.)**

***b. USGS 7.5' Quad** Cathedral City, Calif. **Date** 1958; photorevised 1978
**T** 4S; **R** 5E; SE **1/4 of** SW **1/4 of Sec** 14 ; S.B. **B.M.**

**c. Address** N/A **City** Rancho Mirage **Zip**

**d. UTM:** (Give more than one for large and/or linear resources) **Zone** 11 ; 552316 **mE**/ 3742018 **mN**
**UTM Derivation:** ___ USGS Quad √ GPS (NAD 83)

**e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)** The center of the site is located approximately 325 feet north of Ramon Road, between Rattler Road and Da Vall Drive, within APN 670-230-021.

***P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)** The site measures roughly 10 x 9 feet and consists of four historic-era artifacts, specifically four cans. Two of the cans are 12-ounce, 4-5/8" x 3" flat-top beverage cans with church-key openings, one is a 16-ounce, 6-1/4" x 2-3/4" flat-top beverage can with a church key opening, and one is a 7" x 5"x 2" industrial chemical can with a friction closure. The site is located on a relatively level surface among scrub brush, surrounded by vehicular intrusions.

***P3b.Resource Attributes: (List attributes and codes)** AH4: Trash scatter

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☒Site ☐District ☐Element of District ☐Other (Isolates, etc.)

**P5b. Description of Photo** (view, date, accession #): Overview of site, view to the south; taken on March 8, 2022

***P6. Date Constructed/Age and Sources:** ☒ **Historic** ☐ **Prehistoric** ☐ **Both**

***P7. Owner and Address:**

***P8. Recorded by** (Name, affiliation, & address): Hunter O'Donnell, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

***P9. Date Recorded:** March 8, 2022

***P10. Survey Type** (describe): Intensive-level pedestrian survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Deirdre Encarnación and Hunter O'Donnell (2022): Phase I Historical/Archaeological Resources Survey: William Warren Group Project, Assessor's Parcel Number 670-230-021, City of Rancho Mirage, Riverside County, California

***Attachments:** ☐NONE ☒Location Map ☒Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☒Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐Other (List):

State of California—Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # _____
Trinomial _____

# ARCHAEOLOGICAL SITE RECORD

 *Resource Name or # (Assigned by recorder) CRM TECH 3817-1H

**A1. Dimensions:** a. Length 10 feet (N-S) x b. Width 9 feet (E-W)
**Method of Measurement**: ☐ Paced ☒ Taped ☐ Visual estimate ☐ Other: _____
**Method of Determination** (Check any that apply.): ☒ Artifacts ☐ Features ☐ Soil ☐ Vegetation ☐ Topography ☐ Cut bank ☐ Animal burrow ☐ Excavation ☐ Property boundary ☐Other (Explain): _____
**Reliability of Determination**: ☒ High ☐ Medium ☐ Low Explain: The artifacts are in a visible surface scatter
**Limitations** (Check any that apply): ☐ Restricted access ☐ Paved/built over ☐ Site limits incompletely defined ☐ Disturbances ☐ Vegetation ☐ Other (Explain): _____

**A2. Depth:** _____ ☒ None ☐ Unknown ☐ Method of Determination: _____

***A3. Human Remains:** ☐Present ☒Absent ☐Possible ☐Unknown (Explain): _____

***A4. Features:** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.) None

***A5. Cultural Constituents:** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.) The site contains a total of four cans (see Item P3a).

***A6. Were Specimens Collected?** ☒No ☐Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)

***A7. Site Condition:** ☐Good ☐Fair ☒Poor (Describe disturbances.): The artifacts are heavily degraded and partially crushed.

***A8. Nearest Water** (Type, distance, and direction.): The Whitewater River is approximately 2.45 miles to the west.

***A9. Elevation:** Approximately 335 feet above mean sea level

**A10. Environmental Setting:** (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): The site is located on the low-lying desert valley floor among rolling stabilized sand dunes and sand fields punctuated by creosote bush and herbaceous plants, and expanses of loose sand. The soil generally consists of fine to medium grain sand with a dearth of rocks. After recent rains, the vegetation is represented by blooming hairy desert sunflower, Mojave sand verbena, Palafox, primrose, and sage. The only fauna noted during site recordation was an undetermined variety of hawk though many rodent holes were noted.

**A11. Historical Information:** An extensive search of historic maps and aerial photographs produced no evidence that any buildings, structures, or roads were present on this parcel during the historic period.

***A12. Age** ☐Prehistoric ☐Protohistoric ☐1542-1769 ☐1769-1848 ☐1848-1880 ☐1880-1914 ☐1914-1945 ☒Post 1945 ☐Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:** Flat-top beverage cans are common artifacts at sites from the 1950s-1960s.

**A13. Interpretations:** (Discuss data potential, function[s], ethnic affiliation, and other interpretations): The site is likely the result of a single dumping event in the mid-20th century.

**A14. Remarks:** Multiple vehicular tracks running north-south indicate past ground disturbance, likely in an effort to clear vegetation. Without an exceptional quantity or quality of artifacts, this site holds little promise for any new or important archaeological data. Furthermore, with an unclear historical background, the minor refuse deposit does not demonstrate a close association with any persons or events of recognized significance in history. Therefore, this site does not appear eligible for listing in the National Register of Historic Places or the California Register of Historical Resources.

**A15. References:** (Documents, informants, maps, and other references.): _____

**A16. Photographs:** (List subjects, direction of view, and accession numbers or attach a Photograph Record.): _____
Original Media/Negatives Kept at: CRM TECH, Colton, California

***A17. Form Prepared by:** Hunter O'Donnell **Date:** March 9, 2022
**Affiliation and Address:** CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

State of California—Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

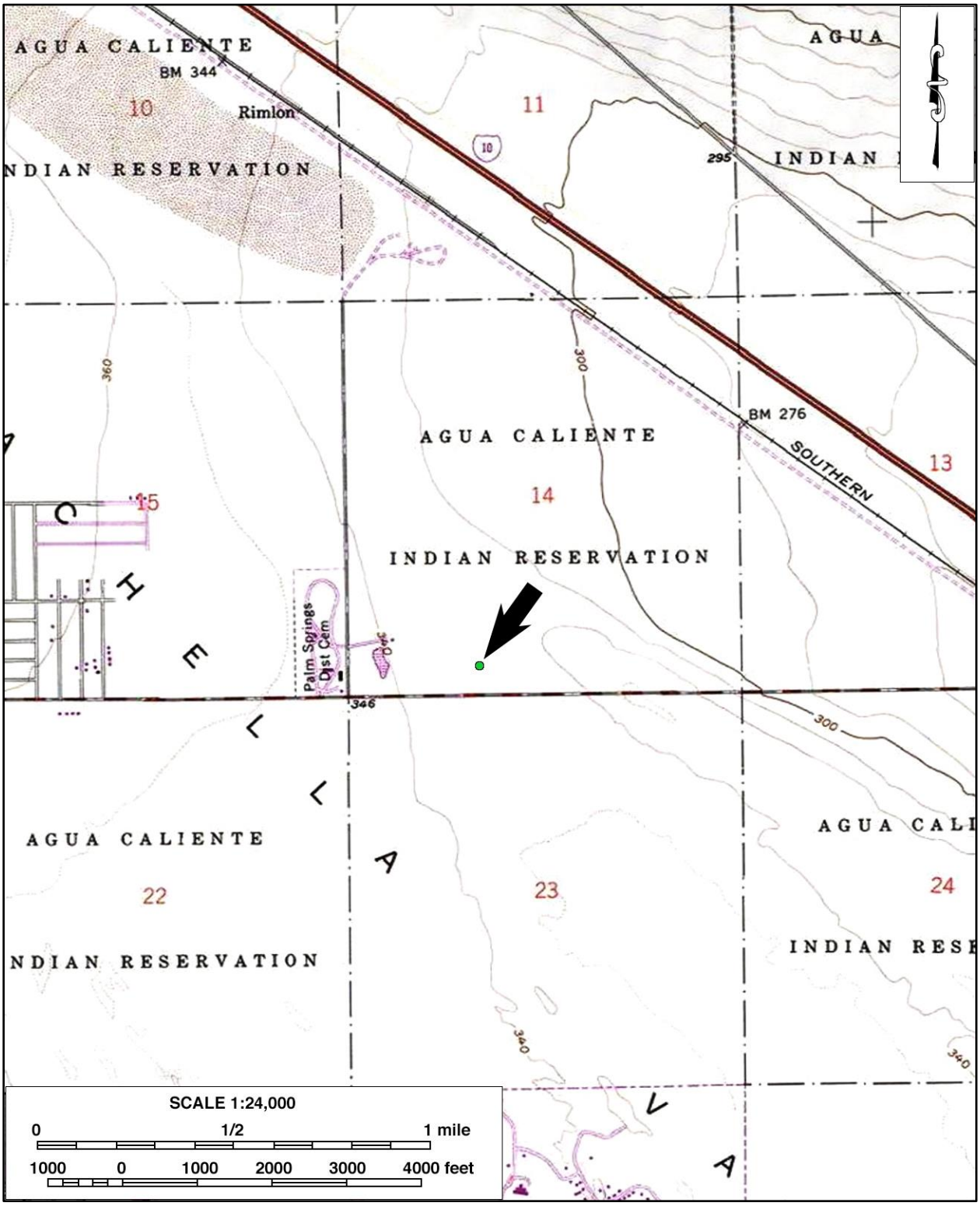
# LOCATION MAP

Primary # _____
HRI # _____
Trinomial _____



*Resource Name or # (Assigned by recorder) CRM TECH 3817-1H

*Map Name: Cathedral City, Calif. *Scale: 1:24,000 *Date of Map: 1958/1978






*Required information

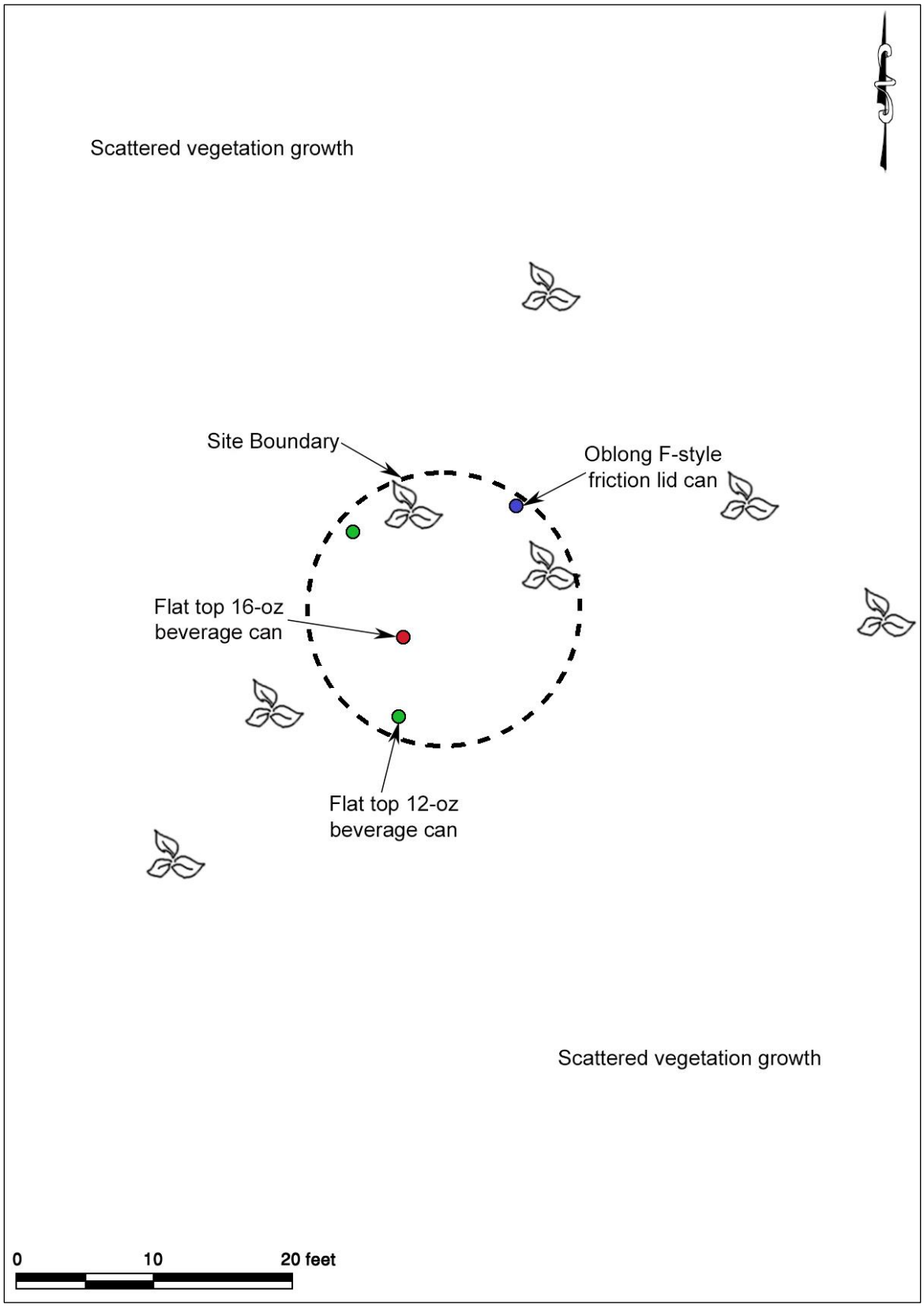
State of California—Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

# SKETCH MAP

Primary #
HRI #
Trinomial

**Page** 4 **of** 4 ***Resource Name or #** (Assigned by recorder) CRM TECH 3817-1H

***Drawn by:** Hunter O'Donnell ***Date:** March 9, 2022




**DPR 523K (Rev. 1/1995)(Word 9/2013) NOTE: Include bar scale and north arrow**

CITY OF RANCHO MIRAGE

September 20, 2023

Agua Caliente Band of Cahuilla Indians
Attn: Patricia Garcia
Director of Historic Preservation
5401 Dinah Shore Drive
Palm Springs, CA, 92264

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Ms. Garcia:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Soboba Band of Luiseno Indians
Attn: Joseph Ontiveros, Tribal Historic Preservation Officer
P.O. Box 487
San Jacinto, CA, 92581

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Ontiveros:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Soboba Band of Luiseno Indians
Attn: Jessica Valdez, Cultural Resource Specialist
P.O. Box 487
San Jacinto, CA, 92581

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Ms. Valdez:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Santa Rosa Band of Cahuilla Indians
Attn: Lovina Redner, Tribal Chair
P.O. Box 391820
Anza, CA, 92539

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Ms. Redner:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Ramona Band of Cahuilla
Attn: Joseph Hamilton, Chairperson
P.O. Box 391670
Anza, CA, 92539

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Hamilton:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Quechan Tribe of the Fort Yuma Reservation
Attn: Jordan Joaquin, President, Quechan Tribal Council
P.O. Box 1899
Yuma, AZ, 85366

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Joaquin:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Quechan Tribe of the Fort Yuma Reservation
Attn: Jill McCormick, Historic Preservation Officer
P.O. Box 1899
Yuma, AZ, 85366

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Ms. McCormick:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Quechan Tribe of the Fort Yuma Reservation
Attn: Manfred Scott, Acting Chairman - Kw'ts'an Cultural Committee
P.O. Box 1899
Yuma, AZ, 85366

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Scott:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Morongo Band of Mission Indians
Attn: Ann Brierty, THPO
12700 Pumarra Road
Banning, CA, 92220

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Ms. Brierty:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Morongo Band of Mission Indians
Attn: Robert Martin, Chairperson
12700 Pumarra Road
Banning, CA, 92220

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Martin:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Mesa Grande Band of Diegueno Mission Indians
Attn: Michael Linton, Chairperson
P.O Box 270
Santa Ysabel, CA, 92070

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Linton:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Manzanita Band of Kumeyaay Nation
Attn: Angela Elliott Santos, Chairperson
P.O. Box 1302
Boulevard, CA, 91905

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Ms. Santos:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

La Posta Band of Diegueno Mission Indians
Attn: Javaughn Miller, Tribal Administrator
8 Crestwood Road
Boulevard, CA, 91905

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Miller:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Torres-Martinez Desert Cahuilla Indians
Attn: Thomas Tortez, Chairperson
P.O. Box 1160
Thermal, CA, 92274

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Tortez:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

La Posta Band of Diegueno Mission Indians
Attn: Gwendolyn Parada, Chairperson
8 Crestwood Road
Boulevard, CA, 91905

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Ms. Parada:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Ewiiaapaayp Band of Kumeyaay Indians
Attn: Robert Pinto, Chairperson
4054 Willows Road
Alpine, CA, 91901

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Pinto:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Ewiiaapaayp Band of Kumeyaay Indians
Attn: Michael Garcia, Vice Chairperson
4054 Willows Road
Alpine, CA, 91901

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Garcia:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Los Coyotes Band of Cahuilla and Cupeño Indians
Attn: Ray Chapparosa, Chairperson
P.O. Box 189
Warner Springs, CA, 92086-0189

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Chapparosa:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Campo Band of Diegueno Mission Indians
Attn: Ralph Goff, Chairperson
36190 Church Road, Suite 1
Campo, CA, 91906

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Goff:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Cahuilla Band of Indians
Attn: BobbyRay Esparza, Cultural Director
52701 CA Highway 371
Anza, CA, 92539

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Esparza:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Cahuilla Band of Indians
Attn: Daniel Salgado, Chairperson
52701 CA Highway 371
Anza, CA, 92539

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Salgado:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Cahuilla Band of Indians
Attn: Anthony Madrigal, Tribal Historic Preservation Officer
52701 CA Highway 371
Anza, CA, 92539

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Madrigal:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Cabazon Band of Mission Indians
Attn: Doug Welmas, Chairperson
84-245 Indio Springs Parkway
Indio, CA, 92203

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Mr. Welmas:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

CITY OF RANCHO MIRAGE

September 20, 2023

Augustine Band of Cahuilla Mission Indians
Attn: Amanda Vance, Chairperson
84-001 Avenue 54
Coachella, CA, 92236

**RE: Catana Specific Plan - Environmental Assessment Case No. EA23-0006; General Plan Zoning Map Amendment Case No. GPZMA23-0002; Specific Plan Case No. SP23-0002; and Development Agreement Case No. DA23-0002**

Dear Ms. Vance:

In conformance with Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), we are sending you this letter to offer consultation to protect cultural resources that may occur within the City per your request. The project being considered is as follows:

The project site (APN:670-230-021) is located on 36± acres on the northeast corner of Ramon Road and Rattler Road. The Catana Specific Plan proposes three planning areas. The General Plan Zoning Map Amendment Case No. GPZMA23-0002 is to change the High-Density Residential (R-H) land use designation to General Commercial (C-G) for 8.3 acres fronting Ramon Road (Planning Area 3), and apply the Affordable Housing Overlay to allow a density of up to 28 units per acre to 3.3± acres in the west-central portion of the site (Planning Area 2), while preserving the High-Density Residential (R-H) designation on 24.5± acres (Planning Area 1). Planning Area 1 proposes up to 215 single-family homes with a central clubhouse and amenities. Planning Area 2 proposes up to 90 affordable housing apartments and includes a central recreation area. Planning Area 3 proposes up to 75,000 square feet of retail and office uses ranging from restaurants to medical offices and follows the development standards of the General Commercial (C-G) Zoning District. Enclosed please find Attachment 1 – Catana Site Plan and Attachment 2 – Catana Land Use Map Amendment.

If you wish to consult with the City regarding potential cultural resources within the City, or the SB 18 and AB 52 process, please contact me at 760-328-2266 or via email at pilarl@ranchomirageca.gov or at the following address within 90 days from the receipt of this letter.

Sincerely,

Pilar Lopez
Senior Planner

AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

*03-008-2023-006*

October 09, 2023

[VIA EMAIL TO:pilarl@ranchomirageca.gov]
City of Rancho Mirage
Pilar Lopez
68-825 Highway 111
Rancho Mirage, California 92270

**Re: Catana Specific Plan**

Dear Pilar Lopez,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Catana Specific Plan project. A records check of the ACBCI cultural registry revealed that the project area is within the boundaries of the ACBCI Reservation. In consultation the ACBCI THPO requests the following:

*A cultural resources inventory of the project area by a qualified archaeologist prior to any development activities in this area.

*A copy of the records search with associated survey reports and site records from the information center.

*Copies of any cultural resource documentation (report and site records) generated in connection with this project.

*The presence of an approved Agua Caliente Native American Cultural Resource Monitor(s) during any ground disturbing activities (including archaeological testing and surveys). Should buried cultural deposits be encountered, the Monitor may request that destructive construction halt and the Monitor shall notify a Qualified Archaeologist (Secretary of the Interior's Standards and Guidelines) to investigate and, if necessary, prepare a mitigation plan for submission to the State Historic Preservation Officer and the Agua Caliente Tribal Historic Preservation Office.

*Formal government to government consultion under California Assembly Bill No. 52 (AB-52).

*Formal government to government consultion under California Senate Bill 18

* Due to the close proximity of Tribal Cultural Resources, the area is highly sensitive.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760) 883-1137. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

Luz Salazar
Cultural Resources Analyst
Tribal Historic Preservation Office
AGUA CALIENTE BAND
OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION OFFICE
5401 Dinah Shore Drive
PALM SPRINGS, CA 92264
(760) 699-6800

**Agua Caliente Band of Cahuilla Indians**
**Tribal Historic Preservation Office**
**Monitoring Request Form**

Please fill out the information below. Once the Tribal Historic Preservation Office receives the request we will complete a draft contract for your review. Upon your approval our team will provide legal review and finalize the contract for signatures.

1. What is the name of the project?

2. What is the address of the project?

3. What is the name of the land owner? Please provide the owner's address, phone number, fax number, email and President and/or owner's name.

4. Please provide a brief description of your project. Include a description of ground disturbing activities.

5. What date will construction begin?

6. How many days grubbing?

7. How many days grading and pad preparation?

8. How many days utility installation?

9. Does your project have conditions of approval? Please provide our office with a copy.

10. Please provide contact information for authorized signatory. Include name, title, company name, address, phone number and email address.

11. Include a map of your project and return form and supporting documents to:

Agua Caliente Band of Cahuilla Indians
Tribal Historic Preservation Office
ACBCI-THPO@aguacaliente.net
(760) 699-6800.

Appendix D
Traffic Analysis

URBAN | CROSSROADS

# CATANA SPECIFIC PLAN

## TRAFFIC ANALYSIS


PREPARED BY: Janette Cachola | jcachola@urbanxroads.com
Marlie Whiteman, P.E. | mwhiteman@urbanxroads.com
John Kain, AICP | jkain@urbanxroads.com


| Reference Number | Agency | Date |
|---|---|---|
| 15284-03 TA Report.docx | City of Rancho Mirage | June 30, 2023 |

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## LIST OF ABBREVIATED TERMS

| | |
|---|---|
| (1) | Reference |
| ADT | Average Daily Traffic |
| CAMUTCD | California Manual on Uniform Traffic Control Devices |
| Caltrans | California Department of Transportation |
| DU | Dwelling Unit |
| HCM | Highway Capacity Manual |
| ICU | Intersection Capacity Utilization |
| ITE | Institute of Transportation Engineers |
| LI/RIRO | Left-In/Right-In/Right-Out Access Only |
| LOS | Level of Service |
| Project | Catana Specific Plan |
| RIRO | Right-In/Right-Out Access Only |
| TSF | Thousand Square Feet |
| TA | Traffic Analysis |
| TWLTL | Two-Way Left Turn Lane Striped Median |

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# 1 INTRODUCTION

This report presents the results of the traffic analysis (TA) for the proposed Catana Specific Plan ("Project"), which is located northwest corner of Ramon Avenue and Rattler Road in the City of Rancho Mirage. The Project consists of 215 single family rental homes, 90 affordable apartment dwelling units and 75,000 square feet of commercial land use. It is anticipated that the Project would be developed by year 2025. A preliminary site plan of the proposed Project is shown in Exhibit 1-1.

The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project and recommend improvements to achieve acceptable circulation system operational conditions. This TA has been prepared based in accordance with the City of Rancho Mirage Transportation Analysis Policy (Revised February 18, 2021) and County of Riverside's Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (December 2020). (1) (2)

To ensure that this TA satisfies the City of Rancho Mirage's traffic study requirements, Urban Crossroads, Inc. prepared a traffic study scoping package for review by City staff. The scope provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The Agreement approved by the City is included in Appendix 1.1. Exhibit 1-2 shows the intersection analysis locations included in this study.

## 1.1 SUMMARY OF FINDINGS

The intersection level of service (LOS) results for Existing (2023), Existing Plus Ambient Plus Project (EAP 2025), Existing Plus Ambient Plus Project Plus Cumulative (EAPC 2025), Long Range 2040 Without and With Project conditions are summarized in Table 1-1.

For Existing (2023) conditions, the Rattler Road / School Access 1 and Rattler Road / School Access 3 intersections are currently operating at an unacceptable level of service (LOS "E" or worse).

The Project is anticipated to generate a total of 5,680 external trips per day with 215 AM peak hour trips and 443 PM peak hour trips. For EAP (2025) and EAPC (2025), there are no new deficient intersections in addition to those previously identified under existing conditions.

Signal warrant analysis results indicate that the intersection of Rattler Road / School Access 1 (#4) is anticipated to meet warrants under 2025 conditions even without the addition of Project and cumulative traffic. Consideration of a traffic signal at the intersection of Rattler Road / School Access 1 (#4) should be reviewed by the City traffic engineer. Improvements are not recommended at the two deficient high school access intersections since the minor approach (eastbound) deficient delays are due to the high outbound school traffic. Providing additional capacity (adding eastbound turn lanes) are not anticipated to improve traffic conditions at these access driveways. Delays at high school parking lot driveways are a common occurrence during student arrival and departure times.

## EXHIBIT 1-1: PRELIMINARY SITE PLAN


**LEGEND:**

= RIGHT-IN/RIGHT-OUT ONLY

= LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY

N

15284 - 01 - Study Area.dwg

**TABLE 1-1: LEVEL OF SERVICE (LOS) SUMMARY**

| # | Intersection | Existing (2023) | | | EAP (2025) | | | EAPC (2025) | | | HY (2040) w/o Project | | | HY (2040) w/ Project | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM | MD | PM | AM | MD | PM | AM | MD | PM | AM | MD | PM | AM | MD | PM |
| 1 | Date Palm Dr. / Ramon Rd. | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | E | E | N/A | E |
| | - With Improvements | | | | | | | | | | A - D | N/A | A - D | A - D | N/A | A - D |
| 2 | Da Vall Dr. / Ramon Rd. | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | E | N/A | E | E | N/A | E |
| | - With Improvements | | | | | | | | | | A - D | N/A | A - D | A - D | N/A | A - D |
| 3 | Da Vall Dr. / Dinah Shore Dr. | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D |
| 4 | Rattler Rd. / School Access 1 | E | A - D | A - D | F | A - D | A - D | F | A - D | A - D | F | E | A - D | F | E | A - D |
| 5 | Rattler Rd. / Ramon Rd. | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D |
| 6 | Los Alamos Rd. / Ramon Rd. | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D |
| 7 | Bob Hope Dr. / I-10 WB Ramps | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D |
| 8 | Bob Hope Dr. / I-10 EB Ramps | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D |
| 9 | Bob Hope Dr. / Ramon Rd. | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D |
| 10 | Rattler Rd. / Access 1 | N/A | N/A | N/A | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D |
| 11 | Rattler Rd. / Access 2 | N/A | N/A | N/A | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D |
| 12 | Access 3 / Ramon Rd. | N/A | N/A | N/A | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D |
| 13 | Access 4 / Ramon Rd. | N/A | N/A | N/A | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D | A - D | N/A | A - D |
| 14 | Rattler Rd. / School Access 2 (Exit Only) | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D | A - D |
| 15 | Rattler Rd. / School Access 3 | E | F | A - D | F | F | A - D | F | F | A - D | F | F | A - D | F | F | A - D |

**Legend:**

A - D = A - D  E = E  F = F

*F:\UXRjobs_15100-15500_15200\15284\02_LOS\Excel\[15284 - Report.xlsx]1-1_LOS Summary*

At the Project access locations, improvements are recommended for near term 2025 conditions as described in section 1.4.1 of this report. The single-family rentals will have one emergency only access driveway and one full access driveway (both gated) along Rattler Road, while the affordable apartments will be accessed from the project driveway on the west side of the site, from Ramon Road.

The commercial portion of the Project will have one full access driveway along Rattler Road, and two restricted access driveways along Ramon Road. The commercial driveway located at a mid-point along Ramon Road is limited to Right-In/Right-Out (RIRO) movements.

The westerly driveway serves as the primary access to the affordable apartment, and also connects to the commercial and single-family portions of the Project. The westerly driveway is proposed as a Right-In/Right-Out with Left-In-Only (no left out) median configuration at the southwest driveway access to the site. This access provides the only eastbound left-in access opportunity from Ramon Road to the affordable apartments.

For long range future conditions (2040), cumulative LOS deficiencies are projected to occur at the following intersections without or with the Project:

| # | Intersection |
|---|---|
| 1 | Date Palm Drive / Ramon Road |
| 2 | Da Vall Drive / Ramon Road |
| 4 | Rattler Road / School Access 1 |
| 15 | Rattler Road / School Access 3 |

Similar to near term conditions, improvements at the deficient intersections along Rattler Road are Road are not recommended since these deficiencies are due to high morning school traffic activity.

For the off-site intersections along Ramon Road at Date Palm Drive and Da Vall Drive, improvements are ultimately needed to address intersection operational deficiencies for 2040 without and with Project conditions. The Project's fair share of cumulative traffic amounts to 5.7% towards the 2040 lane re-striping improvements at Date Palm Drive / Ramon Road (#1) and 8.2% towards the 2040 ultimate lane improvements and signal modification at Da Vall Drive / Ramon Road (#2).

## 1.2 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential impacts to traffic and circulation have been evaluated for each of the following conditions:

- Existing (2023) Conditions
- Existing plus Ambient Growth plus Project (EAP)
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC)
- Horizon Year (2040) Without Project Conditions
- Horizon Year (2040) With Project Conditions

All study area intersections are evaluated using the Highway Capacity Manual (HCM) 6th Edition analysis methodology.

### 1.2.1 EXISTING (2023) AND EAP (2025) CONDITIONS

Information for Existing (2023) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. For a detailed discussion on the existing traffic counts, see Section 3.5 Existing Traffic Volumes. The EAP (2025) traffic conditions analyses determine potential traffic impacts based on a comparison of the EAP traffic conditions to Existing conditions. To account for background traffic growth, an ambient growth factor from Existing conditions of 4.04% (2 percent per year over 2 years, compounded annually) for 2025 conditions is included for EAP traffic conditions. The EAP analysis is intended to identify "Opening Year" deficiencies associated with the development of the proposed Project based only on the ambient background growth.

### 1.2.2 EAPC (2025) CONDITIONS

The EAPC (2025) traffic scenario adds known cumulative developments as an overlay to ambient growth with the proposed Project. This scenario combines the traffic associated with other known cumulative development projects to an ambient growth factor from existing conditions to determine EAPC (2025) traffic conditions. The list of other projects in the area was included in the scope and reviewed by the City of Rancho Mirage.

### 1.2.3 HORIZON YEAR (2040) CONDITIONS

The Horizon Year (2040) conditions analysis is utilized to determine if General Plan improvements can accommodate the long term growth with the proposed Project. In addition, this scenario provides the basis for Project fair share contributions to cumulative circulation improvements.

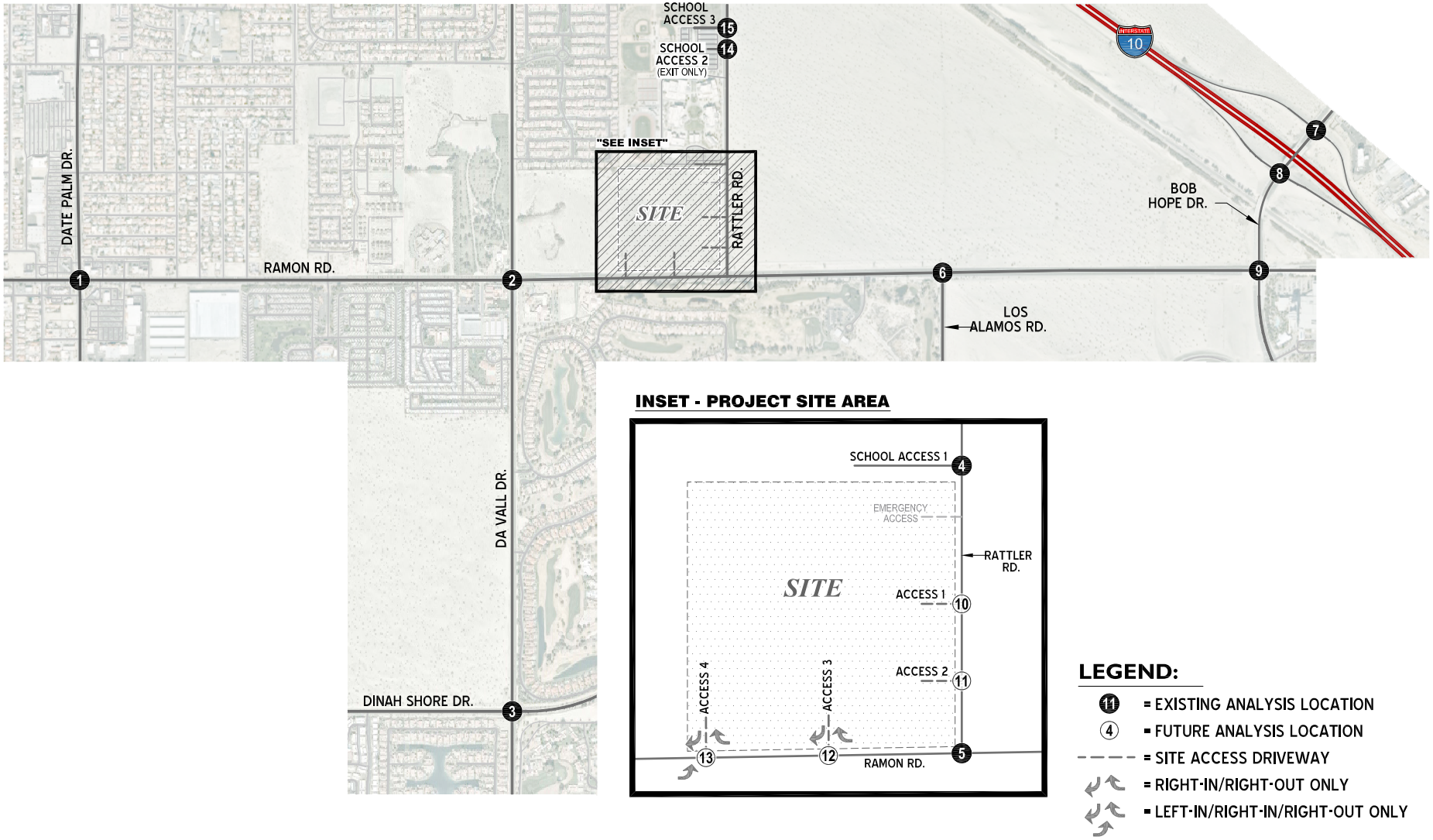
## 1.3 STUDY AREA

Exhibit 1-2 presents the study area and intersection analysis locations. The Project study area was defined in coordination with the City of Rancho Mirage, and it includes any intersection of "Collector" or higher classification street, with "Collector" or higher classification streets at which the proposed project will add 50 or more peak hour trips. The study area intersections are listed in Table 1-2.

**TABLE 1-2: INTERSECTION ANALYSIS LOCATIONS**

| # | Intersection | # | Intersection |
|---|---|---|---|
| 1 | Date Palm Dr. / Ramon Rd. | 9 | Bob Hope Dr. / Ramon Rd. |
| 2 | Da Vall Dr. / Ramon Rd. | 10 | Rattler Rd. / Access 1 |
| 3 | Da Vall Dr. / Dinah Shore Dr. | 11 | Rattler Rd. / Access 2 |
| 4 | Rattler Rd. / School Access 1 | 12 | Access 3 / Ramon Rd. |
| 5 | Rattler Rd. / Ramon Rd. | 13 | Access 4 / Ramon Rd. |
| 6 | Los Alamos Rd. / Ramon Rd. | 14 | Rattler Rd. / School Access 2 (Exit Only) |
| 7 | Bob Hope Dr. / I-10 WB Ramps | 15 | Rattler Rd. / School Access 3 |
| 8 | Bob Hope Dr. / I-10 EB Ramps | | |

## EXHIBIT 1-2: TRAFFIC ANALYSIS STUDY AREA



## 1.4 CIRCULATION IMPROVEMENTS

Exhibits 1-3 and 1-4 depict the interim year (2025) and ultimate (2040) intersection lane configurations at study area locations, respectively.

### 1.4.1 SITE ACCESS IMPROVEMENTS

The following recommendations (also shown on Exhibit 1-5) achieve acceptable peak hour operations with full occupancy of the Project.

**Rattler Road / Access 1 (#10)**

- Access 1 serves the single-family rental home neighborhood of the Project and is located approximately 335 feet north of Access 2, measured from the south curb of Access 1 to the north curb of Access 2 along Rattler Road. Northbound left turns into the site will be accommodated within the existing two-way left turn lane (TWLTL) striped median on Rattler Road.

**Rattler Road / Access 2 (#11)**

- Access 2 serves the commercial retail portion of the Project and is located approximately 280 feet north of Ramon Road, measured from the south curb of Access 2 to the north curb of Ramon Road along Rattler Road. Because the retail parcel is also served by two other direct connections to Ramon Road, northbound left turns into the site at Access 2 from Rattler Road are minimal (16 AM peak hour vehicles and 40 PM peak hour vehicles). These low left turn volumes can be accommodated in the short northbound storage length available at this location within the existing two-way left turn lane (TWLTL) striped median on Rattler Road.

**Access 3 / Ramon Road (#12)**

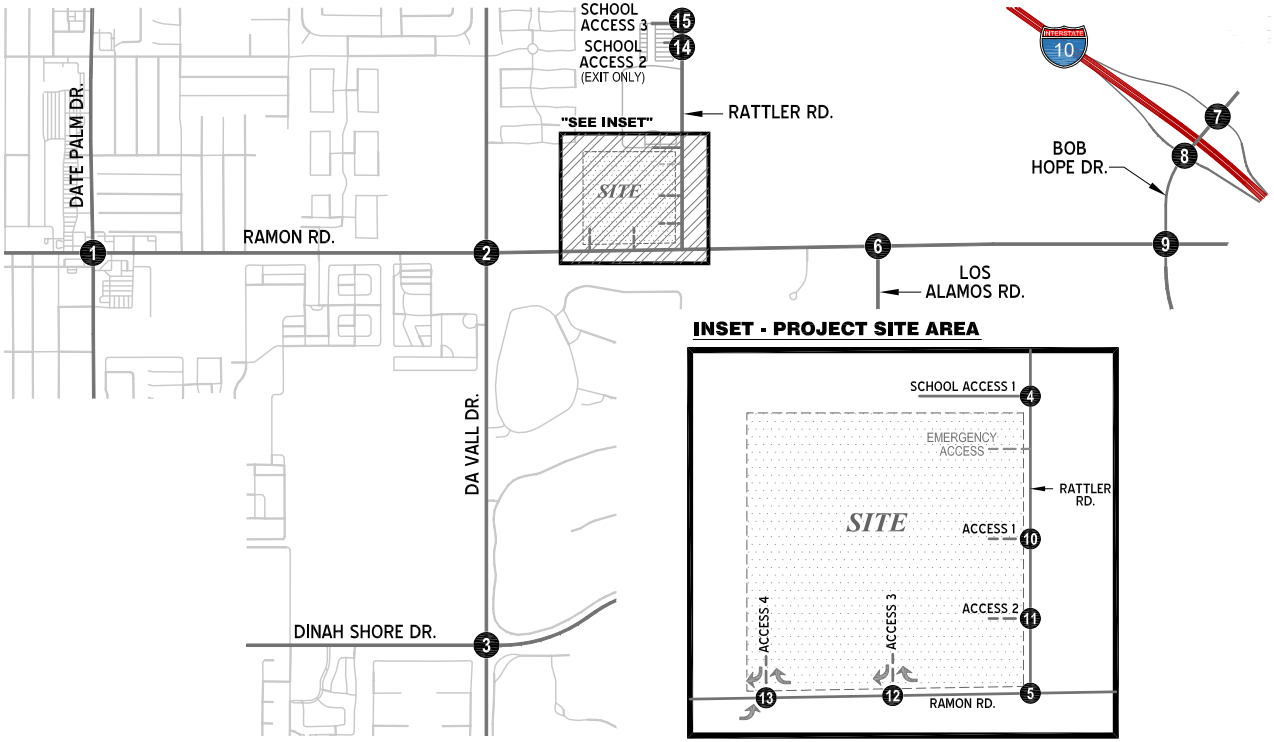
- Access 3 serves the commercial retail portion of the Project from Ramon Road and is located approximately 590 feet west of Rattler Road, measured from the east curb of Access 3 to the west curb of Rattler Road along Ramon Road. This commercial driveway location will be restricted as right-in/right-out only access (no median break on Ramon Road).

**Access 4 / Ramon Road (#13)**

- In conjunction with development of either the affordable apartment dwelling units or the commercial retail parcel, construct median improvements on Ramon Road to accommodate a 150-foot eastbound left turn pocket. Provide a Left-In-Only (no left out) median configuration which allows left-in/right-in/right-out only access at Access 4 (see Exhibit 1-6).

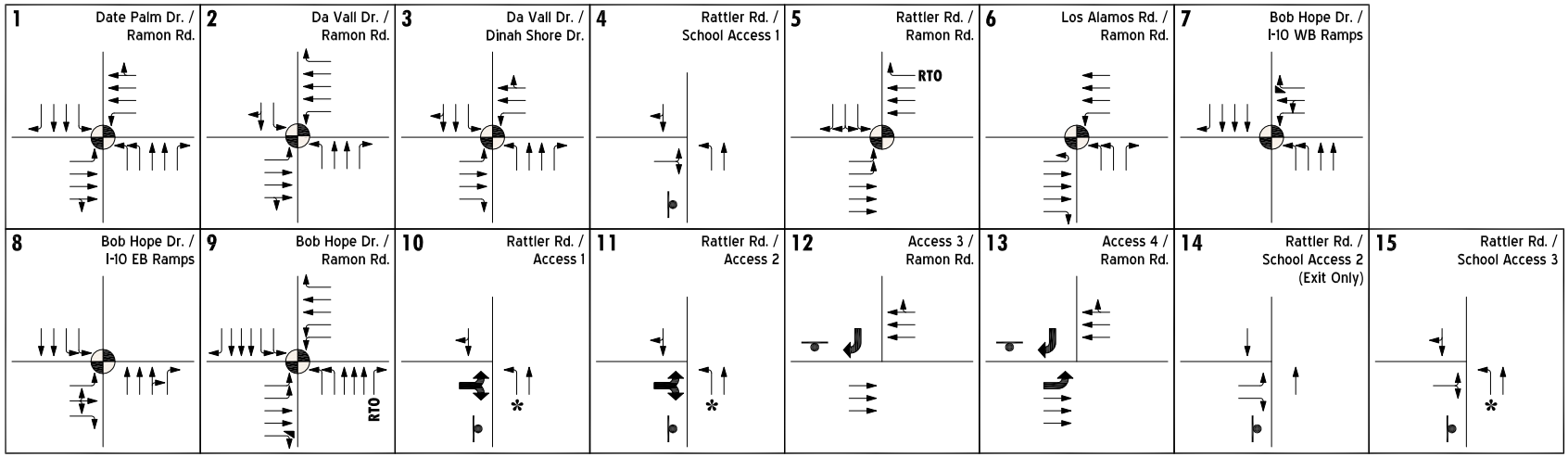
A queuing analysis was performed for Horizon Year (2040) With Project conditions to assess the adequacy of turn bay lengths to accommodate vehicle queues at the Project entries. As shown in Table 7-1 of this report, the proposed Project turn bay lengths generally provide adequate storage to accommodate the anticipated 95th percentile queues.

# EXHIBIT 1-3: RECOMMENDED IMPROVEMENTS FOR INTERIM YEAR (2025) CONDITIONS

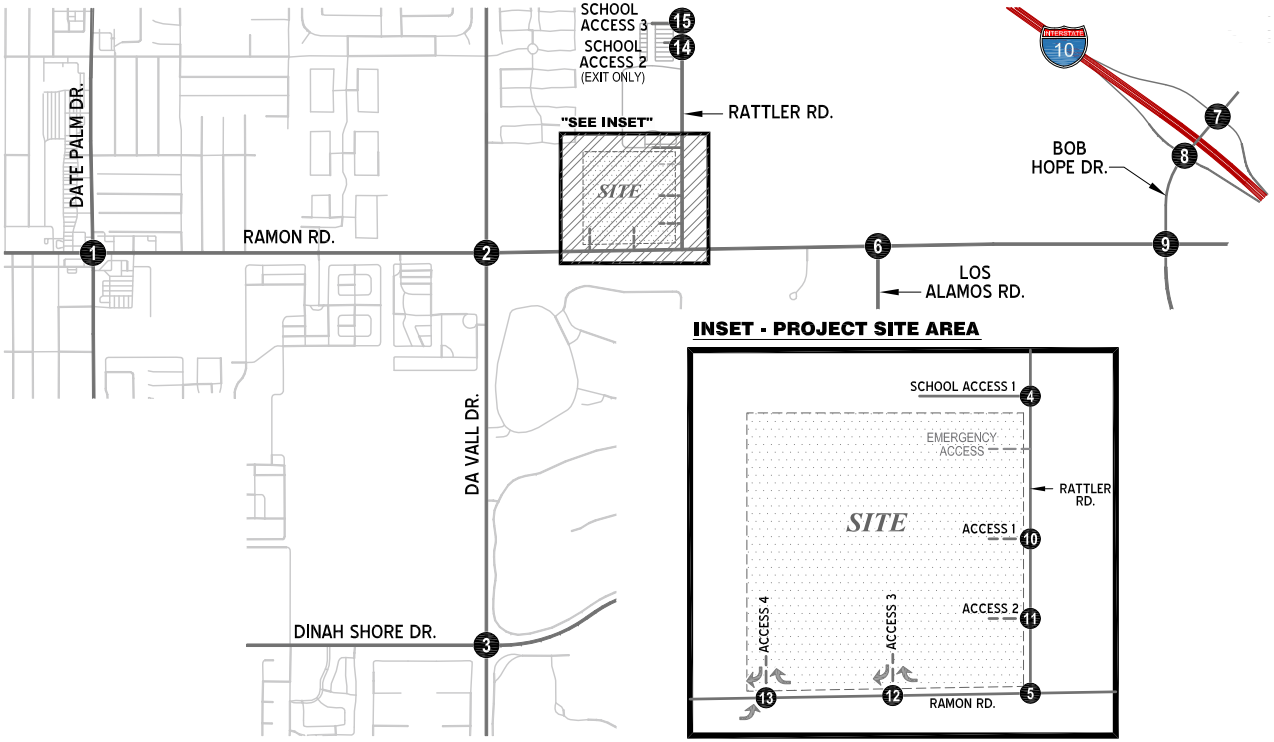



## LEGEND:

- 15 = INTERSECTION ID
- = EXISTING TRAFFIC SIGNAL
- = STOP SIGN
- = EXISTING LANE
- = EXISTING FREE RIGHT TURN LANE
- = PROJECT LANE IMPROVEMENT
- * = LEFT TURN ACCOMMODATED WITHIN TWO-WAY LEFT TURN LANE
- RTO = EXISTING RIGHT TURN OVERLAP PHASE
- = FUTURE ROADWAY
- = RIGHT-IN/RIGHT-OUT ONLY
- = LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY

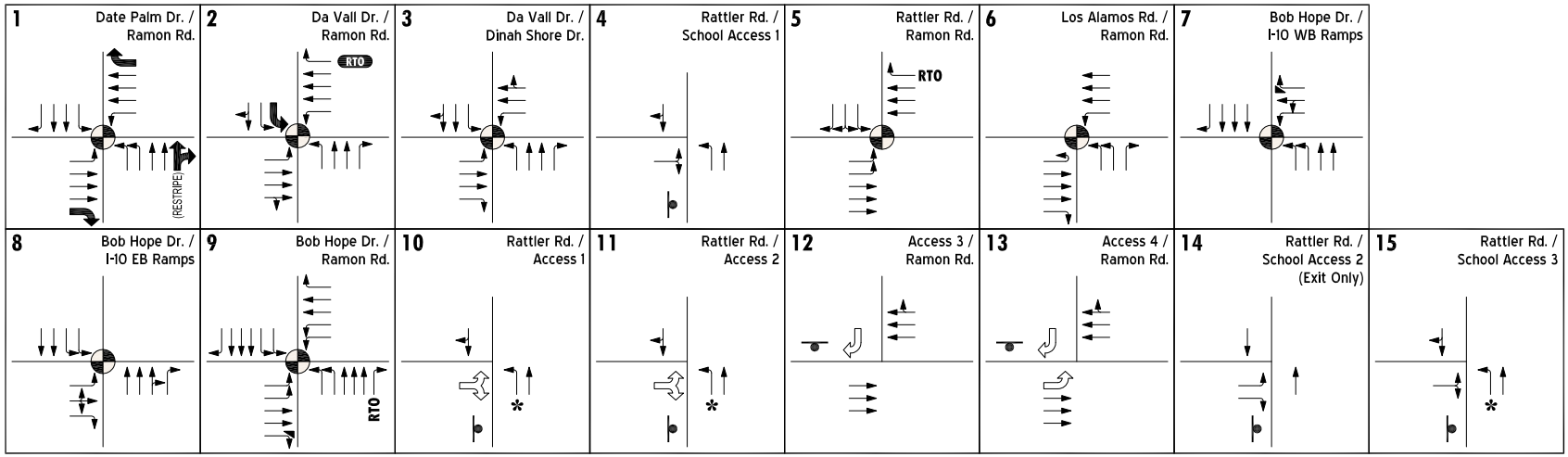


# EXHIBIT 1-4: RECOMMENDED IMPROVEMENTS FOR HORIZON YEAR (2040) CONDITIONS

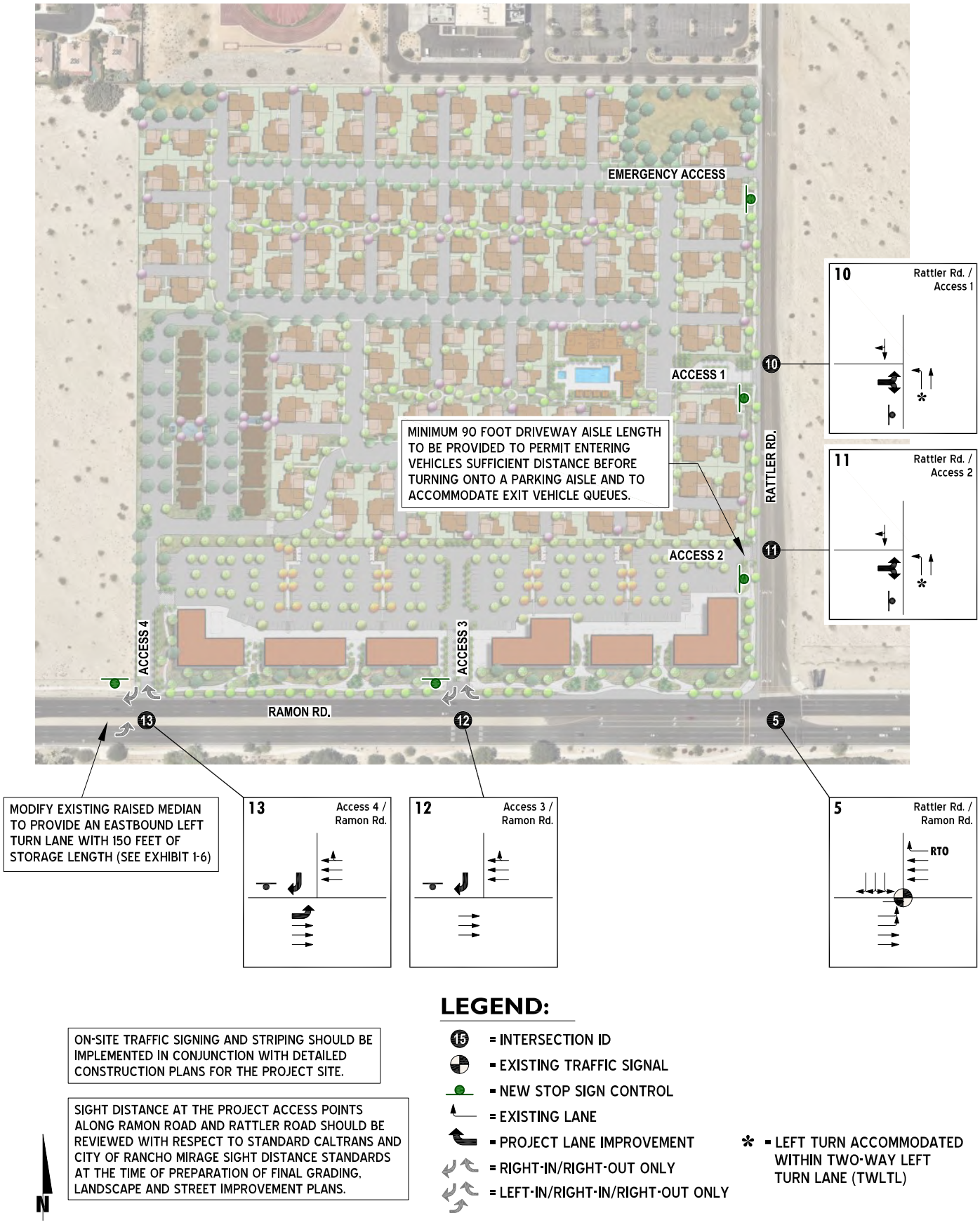



## LEGEND:

- = INTERSECTION ID
- = EXISTING TRAFFIC SIGNAL
- = STOP SIGN
- = EXISTING LANE
- = EXISTING FREE RIGHT TURN LANE
- = 2040 CUMULATIVE LANE IMPROVEMENT
- = PREVIOUS 2025 PROJECT LANE IMPROVEMENT
- * = LEFT TURN ACCOMMODATED WITHIN TWO-WAY LEFT TURN LANE
- RTO = EXISTING RIGHT TURN OVERLAP PHASE
- RTO = RIGHT TURN OVERLAP PHASING IMPROVEMENT
- = FUTURE ROADWAY
- = RIGHT-IN/RIGHT-OUT ONLY
- = LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY



## EXHIBIT 1-5: ON-SITE CIRCULATION RECOMMENDATIONS

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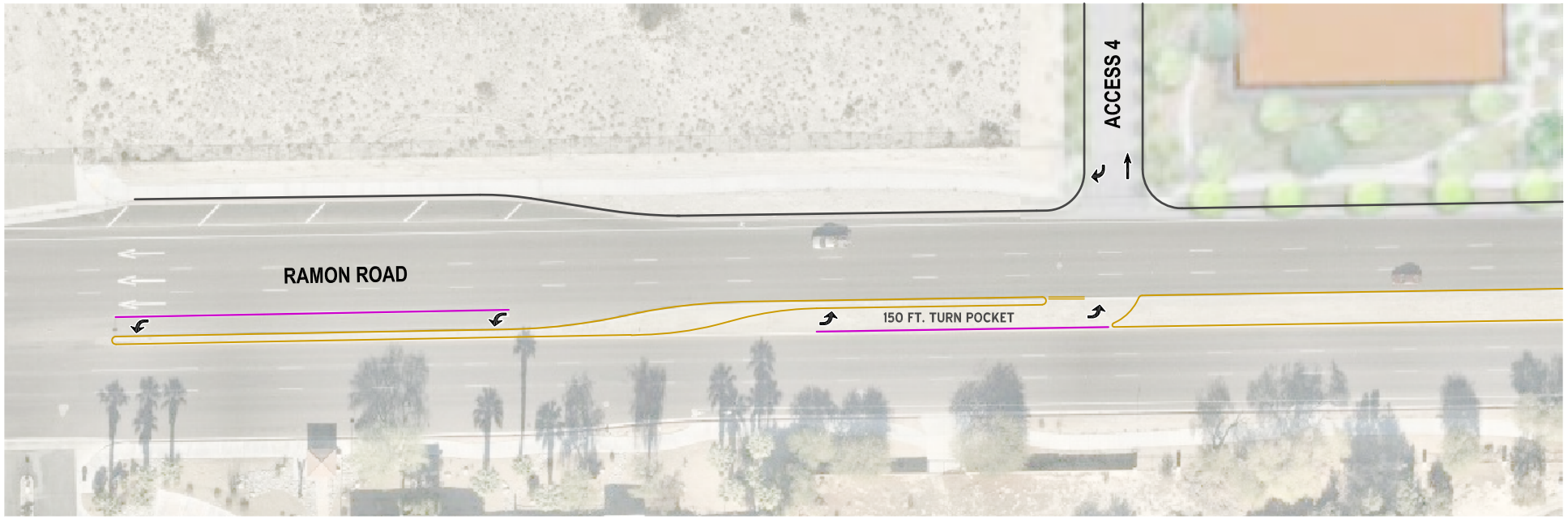
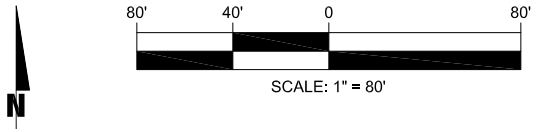
## EXHIBIT 1-6: ACCESS 4 MEDIAN LEFT-IN ONLY CONFIGURATION

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### 1.4.2 LONG RANGE FUTURE OFF-SITE INTERSECTION IMPROVEMENTS

The recommended cumulative improvements required to achieve acceptable circulation system performance without or with the Project are described in detail within Section 7 *Horizon Year (2040) Traffic Analysis* of this report. Exhibit 1-4 depicts the recommended intersection lane configurations for Horizon Year (2040) conditions at ***Date Palm Drive & Ramon Road (#1)*** and ***Da Vall Drive / Ramon Road (#2).***

Detailed fair share calculations, for each peak hour, are provided in Table 7-3 for the two study area intersections where cumulative long-term improvements are needed. Project participation may include fee payments to established programs (e.g., TUMF), payment of a fair share contribution toward future improvements, or a combination of these approaches.

# 2 METHODOLOGIES

This section documents the methodologies and assumptions used to perform this traffic assessment.

## 2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

## 2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The *Highway Capacity Manual* (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (4) The HCM uses different procedures depending on the type of intersection control.

### 2.2.1 SIGNALIZED INTERSECTIONS

The City of Rancho Mirage requires signalized intersection operations analysis based on the methodology described in the HCM 6$^{th}$ Edition (4). Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1.

Study area intersections have been evaluated using the Synchro (Version 11) analysis software package.

Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections.

Equations are used to determine measures of effectiveness in addressing such parameters as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

**TABLE 2-1: SIGNALIZED INTERSECTION DESCRIPTION OF LOS**

| Description | Average Control Delay (Seconds), V/C ≤ 1.0 | Level of Service, V/C ≤ 1.0[1] |
|---|---|---|
| Operations with very low delay occurring with favorable progression and/or short cycle length. | 0 to 10.00 | A |
| Operations with low delay occurring with good progression and/or short cycle lengths. | 10.01 to 20.00 | B |
| Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. | 20.01 to 35.00 | C |
| Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. | 35.01 to 55.00 | D |
| Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay. | 55.01 to 80.00 | E |
| Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths. | 80.01 and up | F |

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

### 2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Rancho Mirage requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM 6th Edition. (4) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. Delay for the intersection is reported for the worst individual movement at a two-way stop-controlled intersection. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (average delay).

**TABLE 2-2: UNSIGNALIZED INTERSECTION DESCRIPTION OF LOS**

| Description | Average Control Delay (Seconds), V/C ≤ 1.0 | Level of Service, V/C ≤ 1.0[1] |
|---|---|---|
| Little or no delays. | 0 to 10.00 | A |
| Short traffic delays. | 10.01 to 15.00 | B |
| Average traffic delays. | 15.01 to 25.00 | C |
| Long traffic delays. | 25.01 to 35.00 | D |
| Very long traffic delays. | 35.01 to 50.00 | E |
| Extreme traffic delays with intersection capacity exceeded. | > 50.00 | F |

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

## 2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This focused TA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD), for all study area intersections. (5)

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The CAMUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (5) Specifically, this focused TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections for all analysis scenarios. Warrant 3 is appropriate to use for this TA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

Traffic signal warrant analyses were performed for all of the following unsignalized study area intersections (see Table 2-3):

**TABLE 2-3: UNSIGNALIZED INTERSECTION LOCATIONS**

| # | Intersection |
|---|---|
| 4 | Rattler Road / School Access 1 |
| 10 | Rattler Road / Project Access 1 |
| 11 | Rattler Road / Project Access 2 |
| 15 | Rattler Road / School Access 3 |

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Existing Conditions* of this report. The traffic signal warrant analysis for future conditions is presented Section 5 *EAP (2025) Traffic Analysis*, Section 6 *EAPC (2025)*, and Section 7 *HY (2040) Traffic Analysis,* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

## 2.4 MINIMUM LEVEL OF SERVICE (LOS)

Minimum Acceptable LOS and associated definitions of intersection deficiencies has been obtained from each of the applicable surrounding jurisdictions.

The City of Rancho Mirage's General Plan recommends a LOS standard of LOS D. If during the LOS evaluations an intersection or roadway segment is found to not meet the requisite LOS standard as established by the City's General Plan, improvement modifications will be evaluated to bring the forecasted deficiency to within acceptable LOS thresholds. It is assumed that for purposes of this Project that most facilities are built to ultimate and only in limited instances would additional improvements be needed. Improvements could include signal timing changes or other that could be achieved within the existing curb to curb distance of the intersection or roadway segment.

## 2.5 DEFICIENCY CRITERIA

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies. To determine whether the addition of project traffic at a study intersection or roadway segment results in a traffic deficiency, the following thresholds will be utilized:

- A traffic deficiency occurs at a signalized study area intersection if the addition of project traffic results in the intersection operations to go from LOS "D" or better (i.e., acceptable) to LOS "E" or "F."
- A traffic deficiency occurs at an unsignalized study area intersection if the addition of project traffic results in the intersection operations to go from LOS "D" or better (i.e., acceptable) to LOS "E" or "F."

## 2.6 PROJECT FAIR SHARE CALCULATION METHODOLOGY

In cases where this TA identifies that the Project would contribute additional traffic volumes to cumulative traffic deficiencies, Project fair share costs of improvements necessary to address deficiencies have been identified. The Project's fair share cost of improvements is determined based on the following equation, which is the ratio of Project traffic to total future traffic:

Project Fair Share % = Project Traffic / (Horizon Year 2040 With Project Traffic – Existing Traffic)

The Project fair share contribution calculations are presented in Section 7.5 of this report.

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# 3 EXISTING CONDITIONS

This section provides a summary of the existing circulation network, the City of Rancho Mirage General Plan Circulation Network, and a review of existing peak hour intersection operations as well as traffic signal warrants.

## 3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Rancho Mirage staff (Appendix 1.1), the study area includes a total of 11 existing intersections as shown on Exhibit 1-2. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

## 3.2 CITY OF RANCHO MIRAGE GENERAL PLAN CIRCULATION ELEMENT

Exhibit 3-2 shows the adopted City of Rancho Mirage General Plan Circulation Element. Exhibit 3-3 shows the City of Rancho Mirage General Plan roadway cross-sections.

## 3.3 TRANSIT SERVICE

The City of Rancho Mirage is currently served by the SunLine Transit Agency (STA), a public transit agency serving various jurisdictions throughout Coachella Valley. Transit service is reviewed and updated by STA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. It should also be noted that SunDial service provides special services for the disabled and seniors (60+).

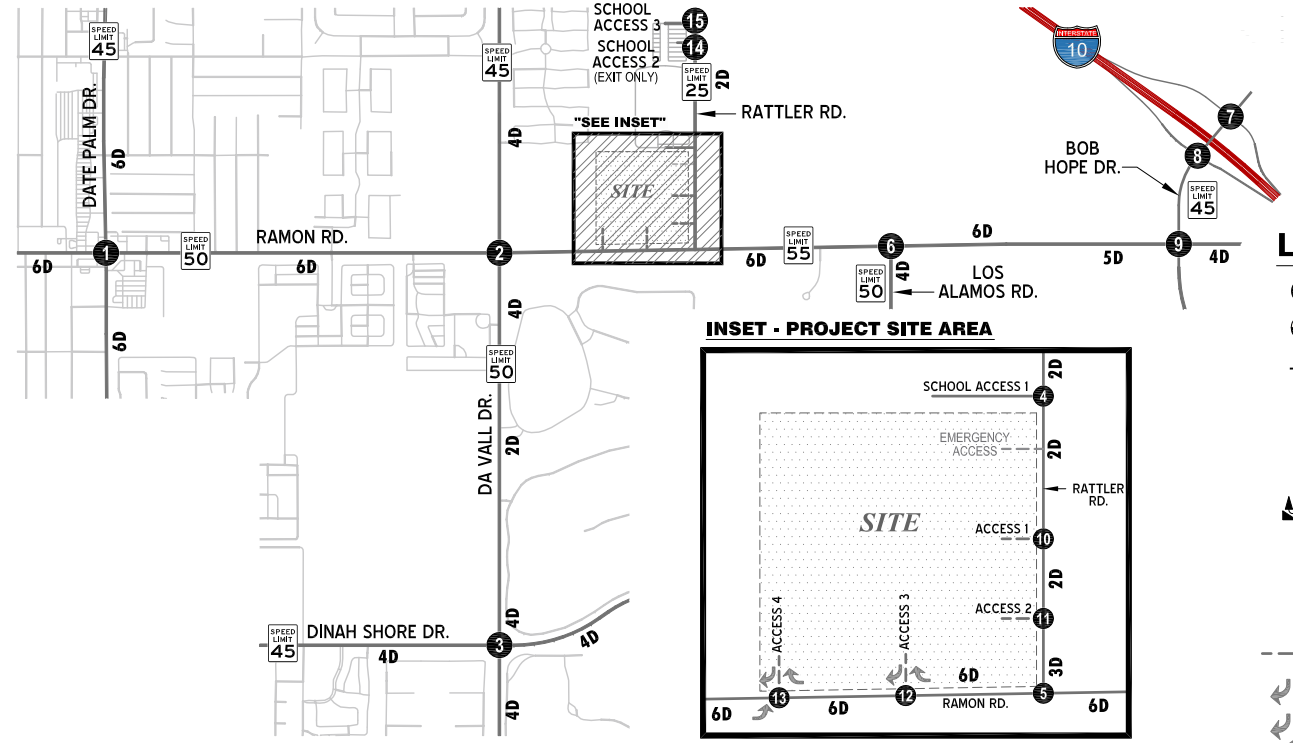
STA Route 4 runs along Date Palm Drive north of Ramon Road and Ramon Road east of Date Palm Drive within the study area. STA Route 2 runs along Ramon Road west of Date Palm Drive and Date Palm Drive south of Ramon Road within the study area.

## 3.4 PEDESTRIAN AND BICYCLE FACILITIES

The existing pedestrian facilities within the study area are shown on Exhibit 3-4. Sidewalks currently exist adjacent to the site on Rattler Road and Ramon Road.

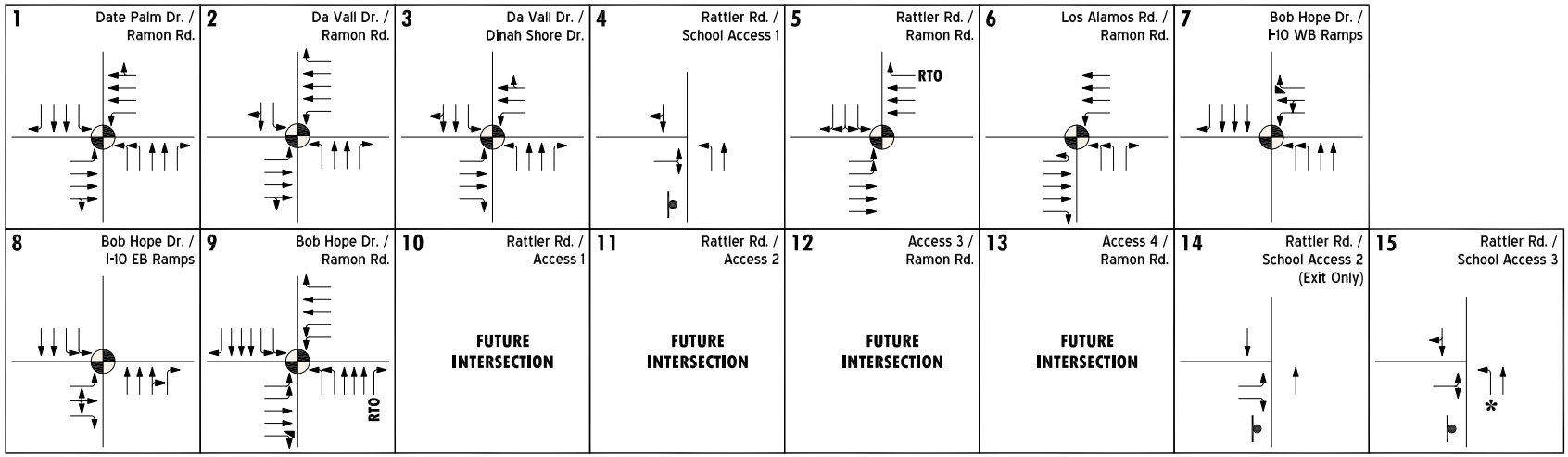
As shown on Exhibit 3-4, existing on-street bike lanes exist on both sides of Ramon Road between Da Vall Drive and Bob Hope Drive, east side of Da Vall Drive north of Ramon Road and both sides of Da Vall Drive south of Dinah Shore Drive, south side of Dinah Shore Drive west of Da Vall Drive and both sides of Dinah Shore Drive east of Da Vall Drive, both side of Los Alamos Road south of Ramon Road, and west side of Bob Hope Drive south of Ramon Road within the study area.

## EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

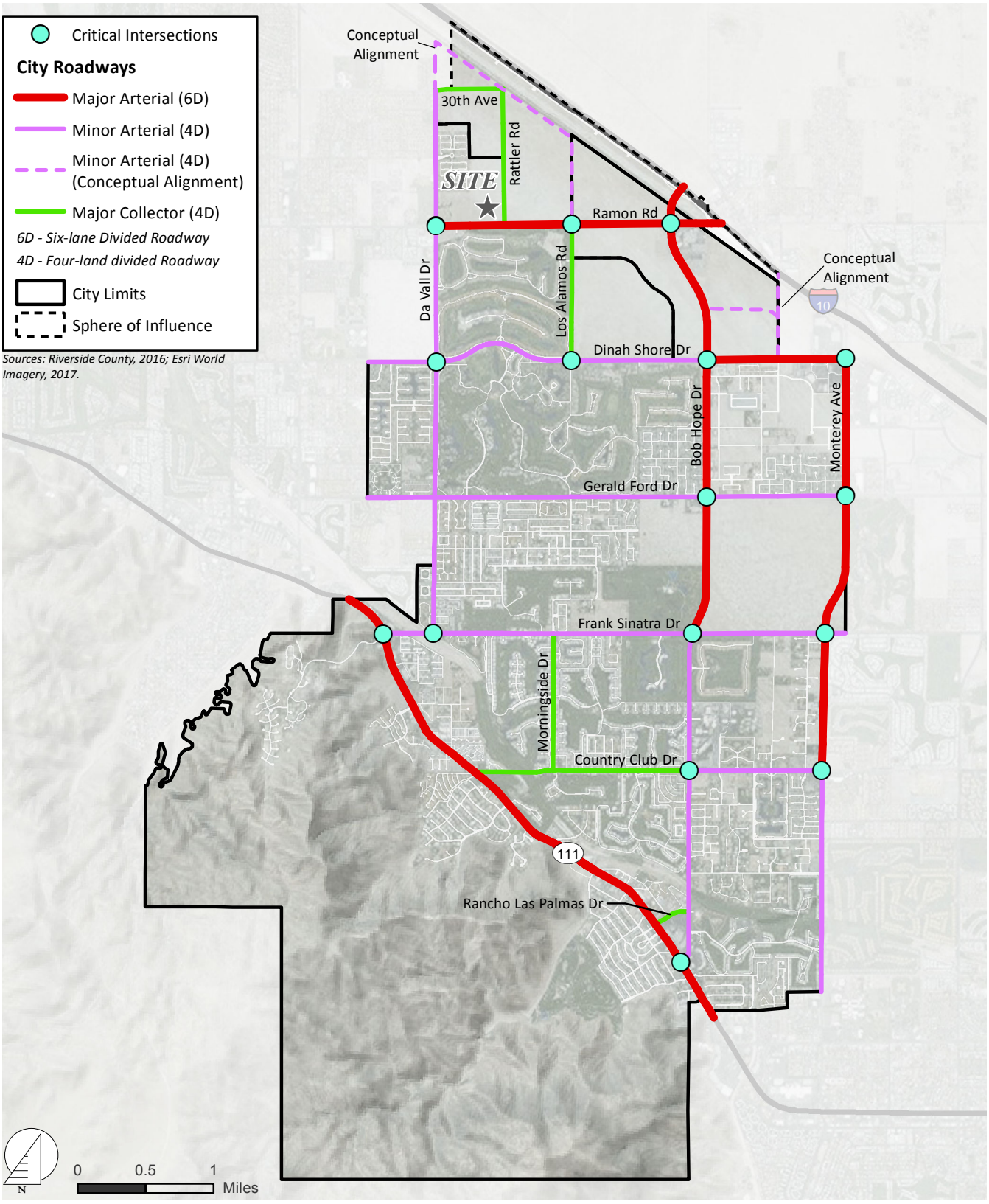



**LEGEND:**

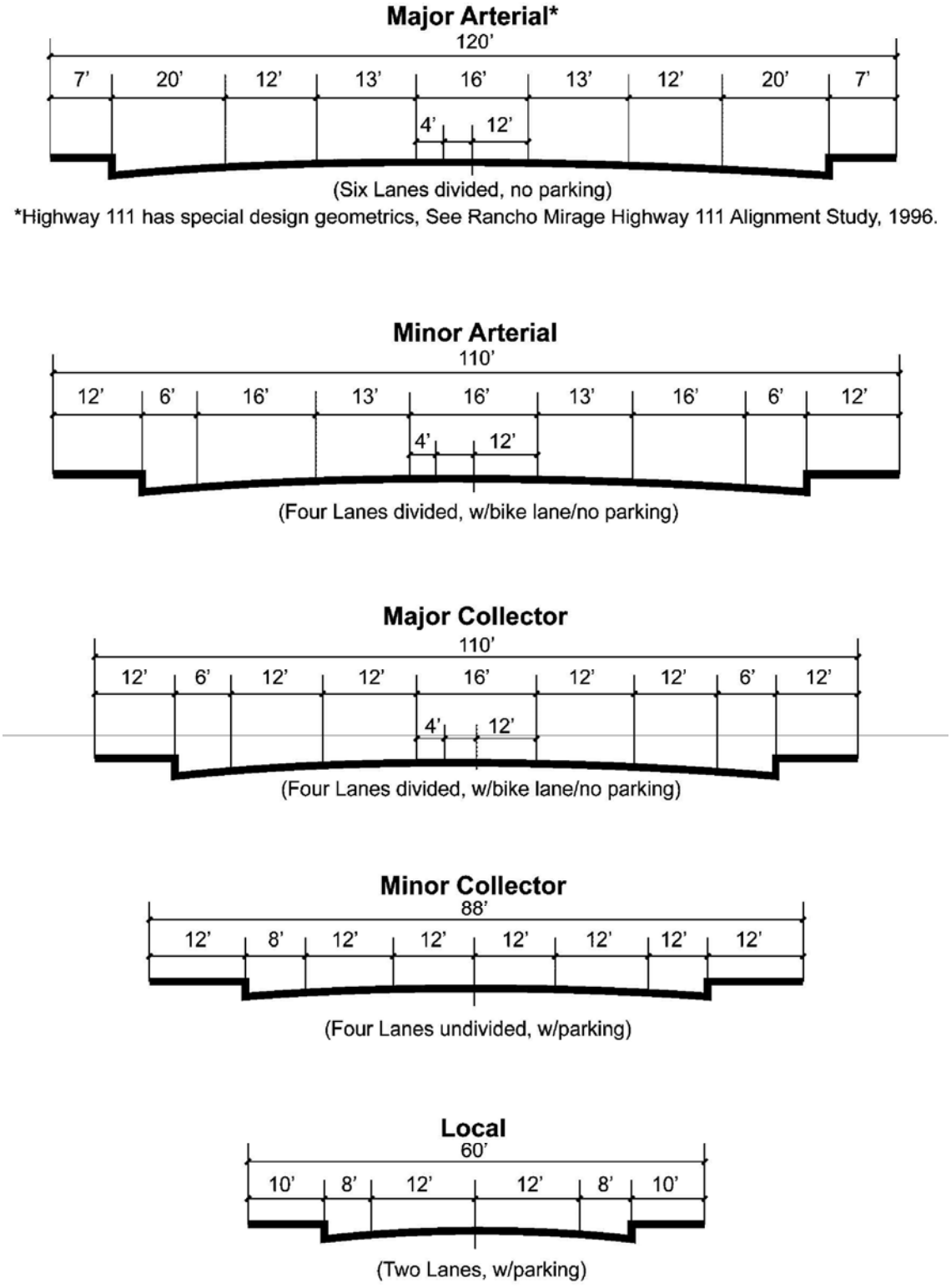
- 15 = INTERSECTION ID
- = TRAFFIC SIGNAL
- = STOP SIGN
- 4 = NUMBER OF LANES
- D = DIVIDED
- U = UNDIVIDED
- = FREE RIGHT TURN
- RTO = RIGHT TURN OVERLAP PHASE
- * = LEFT TURN ACCOMMODATED WITHIN TWO-WAY LEFT TURN LANE
- = FUTURE ROADWAY
- = RIGHT-IN/RIGHT-OUT ONLY
- = LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY



## EXHIBIT 3-2: CITY OF RANCHO MIRAGE GENERAL PLAN CIRCULATION ELEMENT

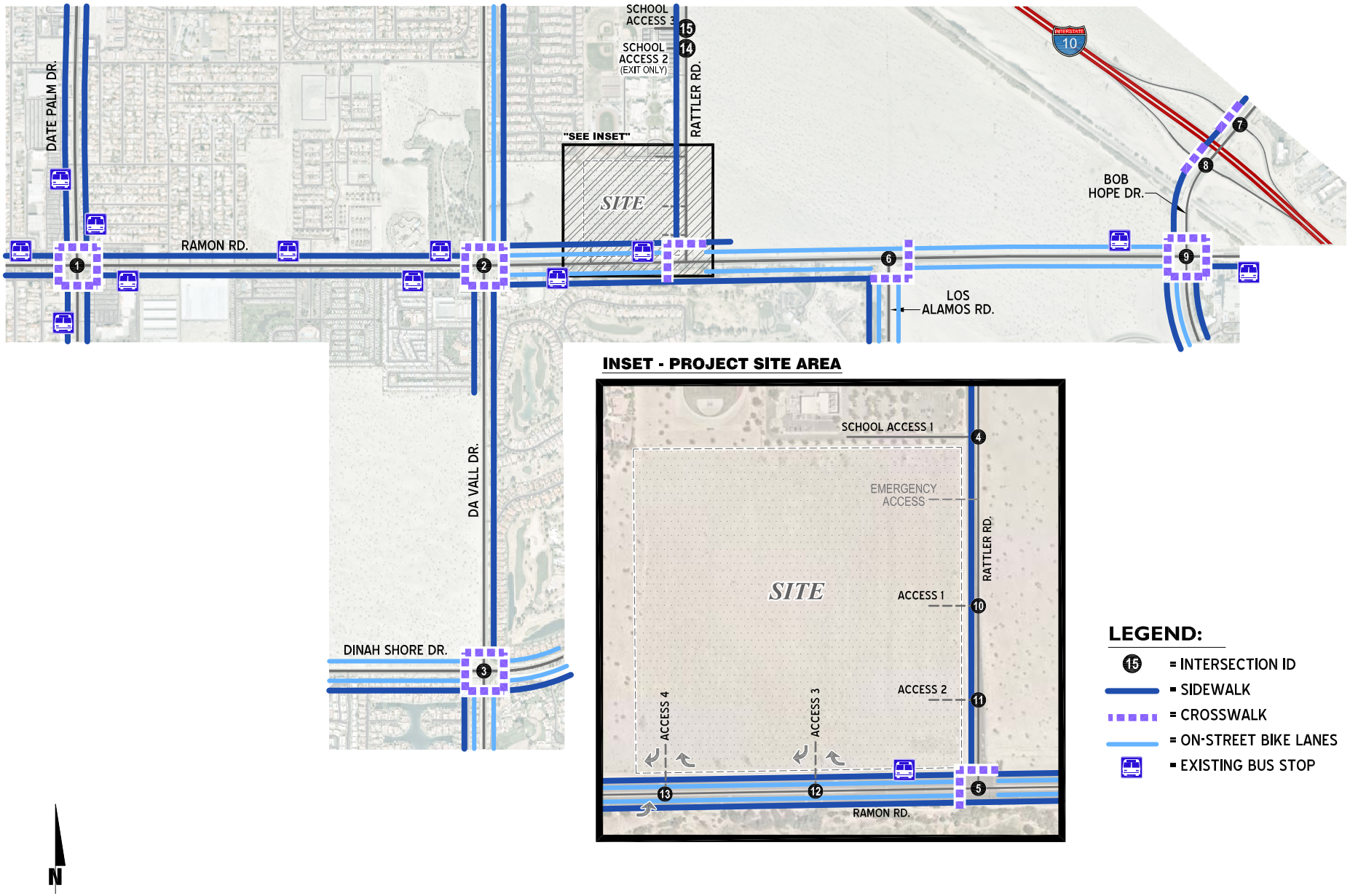


## EXHIBIT 3-3: CITY OF RANCHO MIRAGE GENERAL PLAN ROADWAY CROSS-SECTIONS




*SOURCE: CITY OF RANCHO MIRAGE*

## EXHIBIT 3-4: EXISTING PEDESTRIAN FACILITIES



Sidewalks generally exist throughout the study area roadways, with the exception of some portions of Ramon Road (east of Rattler Road), Da Vall Drive (north of Dinah Shore Drive - west side), Rattler Road (east side), and Bob Hope Dive (north of Ramon Road – east side). Crosswalks currently exist at signalized study area intersections.

## 3.5 EXISTING TRAFFIC VOLUMES

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in May 2023. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

Traffic count data were also collected in May 2023 during school afternoon peak hours (2:00 PM to 4:00 PM), specifically at the four existing study area intersections along Rattler Road where a concentration of high school traffic occurs.

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1.

The weekday AM and PM peak hour count data are representative of typical peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity that would prevent or limit roadway access and detour routes. These raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic.

Existing weekday average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 3-5. Existing ADT volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg where daily counts are unavailable:

*Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12.195 = Leg Volume*

For those roadway segments which have 24-hour tube count data available in close proximity to the study area, a comparison between the PM peak hour and daily traffic volumes indicated that the peak-to-daily relationship of approximately 8.20 percent would sufficiently estimate ADT volumes for planning-level analyses. As such, the above equation utilizing a factor of 12.195 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.80 percent (i.e., 1/0.0820 = 12.195).

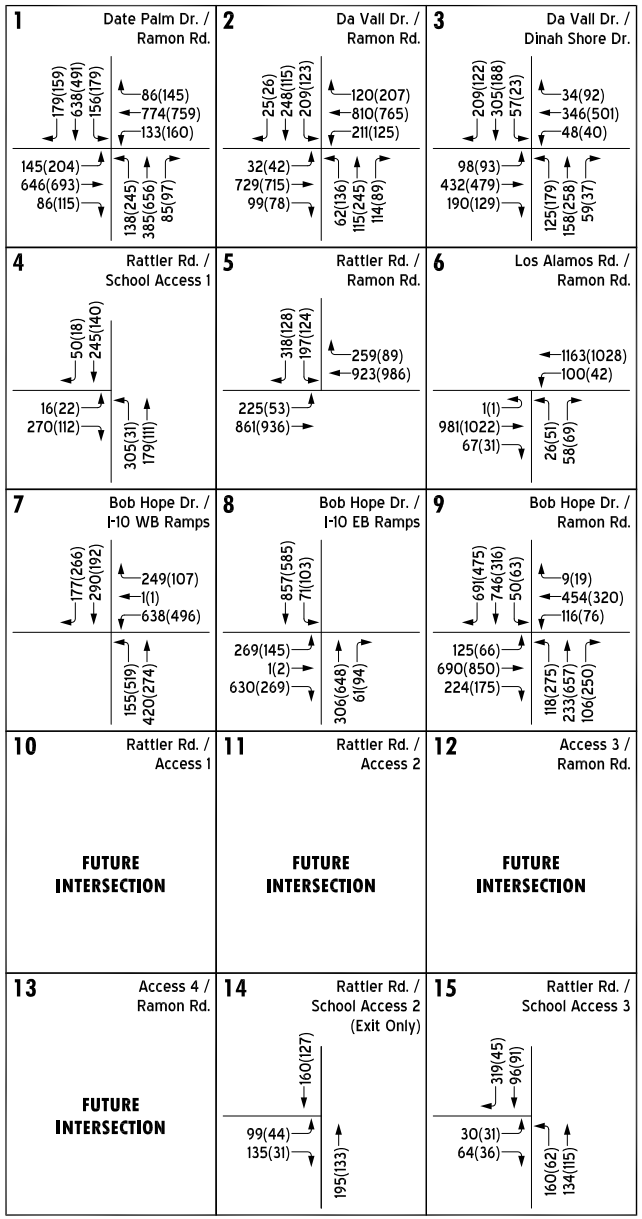
Existing weekday peak hour intersection volumes are also shown on Exhibit 3-5.

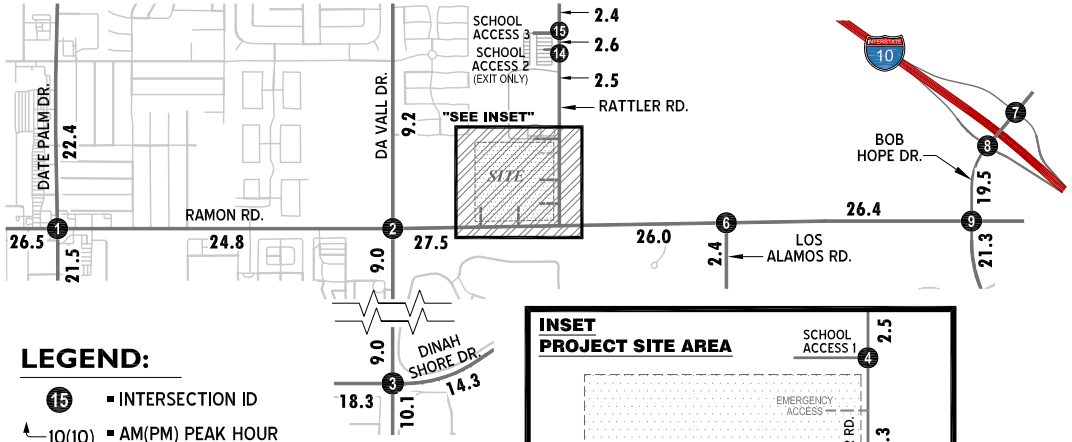
## 3.6 EXISTING CONDITIONS INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report.

# EXHIBIT 3-5: EXISTING (2023) TRAFFIC VOLUMES

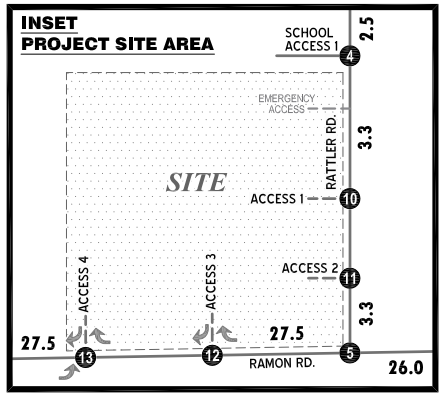
## AM & PM PEAK HOUR



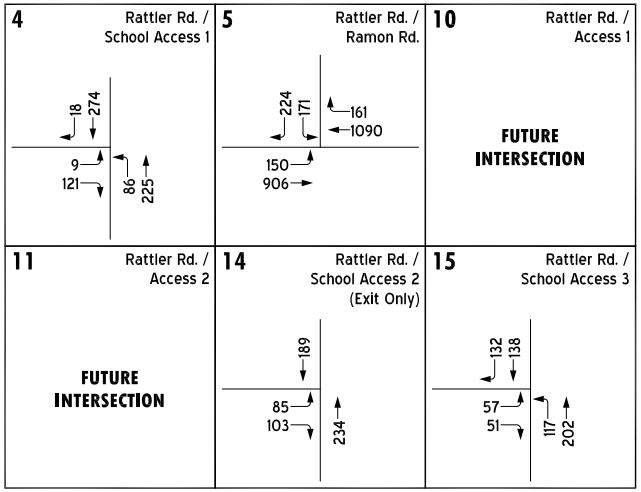




## LEGEND:

- 15 = INTERSECTION ID
- 10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES
- 10 = MID-DAY PEAK HOUR INTERSECTION VOLUMES
- 10.0 = VEHICLES PER DAY (1000'S)
- = FUTURE ROADWAY
- = RIGHT-IN/RIGHT-OUT ONLY
- = LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY




## MID-DAY PEAK HOUR




N

The intersection operations analysis results are summarized in Table 3-1 which indicates that the following study area intersections are currently operating at an unacceptable LOS during peak hours:

- Rattler Road / School Access 1
- Rattler Road / School Access 3

The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

Improvements are not recommended at the two deficient high school access intersections since the minor approach (eastbound) deficient delays are due to the high outbound school traffic. Providing additional capacity (adding eastbound turn lanes) are not anticipated to improve traffic conditions at these access driveways. Delays at high school parking lot driveways are a common occurrence during student arrival and departure times.

## 3.7 EXISTING CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. For Existing (2023) traffic conditions, there are no unsignalized study area intersections that currently warrant a traffic signal based on peak hour traffic flows (see Appendix 3.3).

**TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2023) CONDITIONS**

| # | Intersection | Traffic Control[1] | Intersection Approach Lanes[2] | | | | | | | | | | | | Delay[3] (secs.) | | | Level of Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | | | | | | |
| | | | L | T | R | L | T | R | L | T | R | L | T | R | AM | MD[4] | PM | AM | MD[4] | PM |
| 1 | Date Palm Dr. / Ramon Rd. | TS | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | 38.2 | -- | 44.5 | D | -- | D |
| 2 | Da Vall Dr. / Ramon Rd. | TS | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 1 | 29.0 | -- | 29.9 | C | -- | C |
| 3 | Da Vall Dr. / Dinah Shore Dr. | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 35.3 | -- | 33.3 | D | -- | C |
| 4 | Rattler Rd. / School Access 1 | CSS | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1! | 0 | 0 | 0 | 0 | 40.2 | 20.2 | 13.5 | E | C | B |
| 5 | Rattler Rd. / Ramon Rd. | TS | 0 | 0 | 0 | 1 | 1! | 1 | 2 | 3 | 0 | 0 | 3 | 1> | 14.2 | 14.7 | 12.2 | B | B | B |
| 6 | Los Alamos Rd. / Ramon Rd. | TS | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 1 | 1 | 3 | 0 | 15.7 | -- | 15.3 | B | -- | B |
| 7 | Bob Hope Dr. / I-10 WB Ramps | TS | 2 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1.5 | 0.5 | 1>> | 14.2 | -- | 23.6 | B | -- | C |
| 8 | Bob Hope Dr. / I-10 EB Ramps | TS | 0 | 2.5 | 1.5 | 2 | 2 | 0 | 1 | 1! | 1 | 0 | 0 | 0 | 12.2 | -- | 10.1 | B | -- | B |
| 9 | Bob Hope Dr. / Ramon Rd. | TS | 2 | 3 | 1> | 2 | 3 | 1> | 2 | 2 | 1>> | 2 | 2 | 1 | 34.3 | -- | 35.1 | C | -- | D |
| 10 | Rattler Rd. / Access 1 | | Future Intersection | | | | | | | | | | | | | | | | | |
| 11 | Rattler Rd. / Access 2 | | Future Intersection | | | | | | | | | | | | | | | | | |
| 12 | Access 3 / Ramon Rd. | | Future Intersection | | | | | | | | | | | | | | | | | |
| 13 | Access 4 / Ramon Rd. | | Future Intersection | | | | | | | | | | | | | | | | | |
| 14 | Rattler Rd. / School Access 2 (Exit Only) | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 14.1 | 17.6 | 12.0 | B | C | B |
| 15 | Rattler Rd. / School Access 3 | CSS | 1* | 1 | 0 | 0 | 1 | 0 | 0 | 1! | 0 | 0 | 0 | 0 | 41.3 | >80 | 14.4 | E | F | B |

[1] TS = Traffic Signal; CSS = Cross-street Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right-Turn Overlap Phasing; >> = Free-Right Turn; * = Turn lane accommodated within two-way left-turn lane (TWLTL) striped median

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 11 analysis software. Delay and level of service is calculated using Synchro 11 analysis software.

[4] Mid-Day analysis is only evaluated for intersections along Rattler Road where a concentration of high school traffic occurs.

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# 4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network.

The Project consists of 215 single family rental homes, 90 affordable apartment dwelling units and 75,000 square feet of commercial land use. For the purposes of this analysis, it is assumed that the Project will be constructed in its entirety with a projected Opening Year of 2025.

The single-family rentals will have one emergency only access and one full access (both gated) driveways along Rattler Road, while the affordable apartments will be accessed from the project driveway on the west side of the site, from Ramon Road. The commercial portion of the Project will have one full access driveway along Rattler Road, and two restricted access driveways along Ramon Road. The commercial driveway located at a mid-point along Ramon Road is limited to Right-In/Right-Out (RIRO) movements.

The westerly driveway serves as the primary access to the affordable apartment, and also connects to the commercial and single-family portions of the Project. The westerly driveway is proposed as a Right-In/Right-Out with Left-In-Only (no left out) median configuration at the southwest driveway access to the site. This access provides the only eastbound left-in access opportunity from Ramon Road to the affordable apartments.

## 4.1 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 used to estimate Project traffic and a summary of the Project's trip generation are shown in Table 4-1. The trip generation rates are based upon trip-generation statistics published in the Institute of Transportation Engineers (ITE) *Trip Generation* , 11$^{th}$ Edition, 2021 (3) for the following uses: Single Family Rental (ITE Land Use Code 220), Affordable Housing (ITE Land Use Code 223), and Shopping Center (ITE Land Use Code 821). As shown on Table 4-1, the proposed Project is anticipated to generate a total of 5,680 external trips per day with 215 AM peak hour trips and 443 PM peak hour trips.

## 4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. The outbound and inbound trip distribution patterns for the proposed Project are depicted on Exhibits 4-1 and 4-2, respectively.

## TABLE 4-1: PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1]

| Land Use | ITE LU Code | Quantity[2] | | AM Peak Hour In | AM Peak Hour Out | AM Peak Hour Total | PM Peak Hour In | PM Peak Hour Out | PM Peak Hour Total | Daily |
|---|---|---|---|---|---|---|---|---|---|---|
| Single Family Rental Homes | 220 | 215 | DU | 0.10 | 0.30 | 0.40 | 0.32 | 0.19 | 0.51 | 6.74 |
| Affordable Apartments | 223 | 90 | DU | 0.10 | 0.26 | 0.36 | 0.27 | 0.19 | 0.46 | 4.81 |
| Shopping Center (40-150k) | 821 | 75 | TSF | 1.07 | 0.66 | 1.73 | 2.54 | 2.65 | 5.19 | 67.52 |

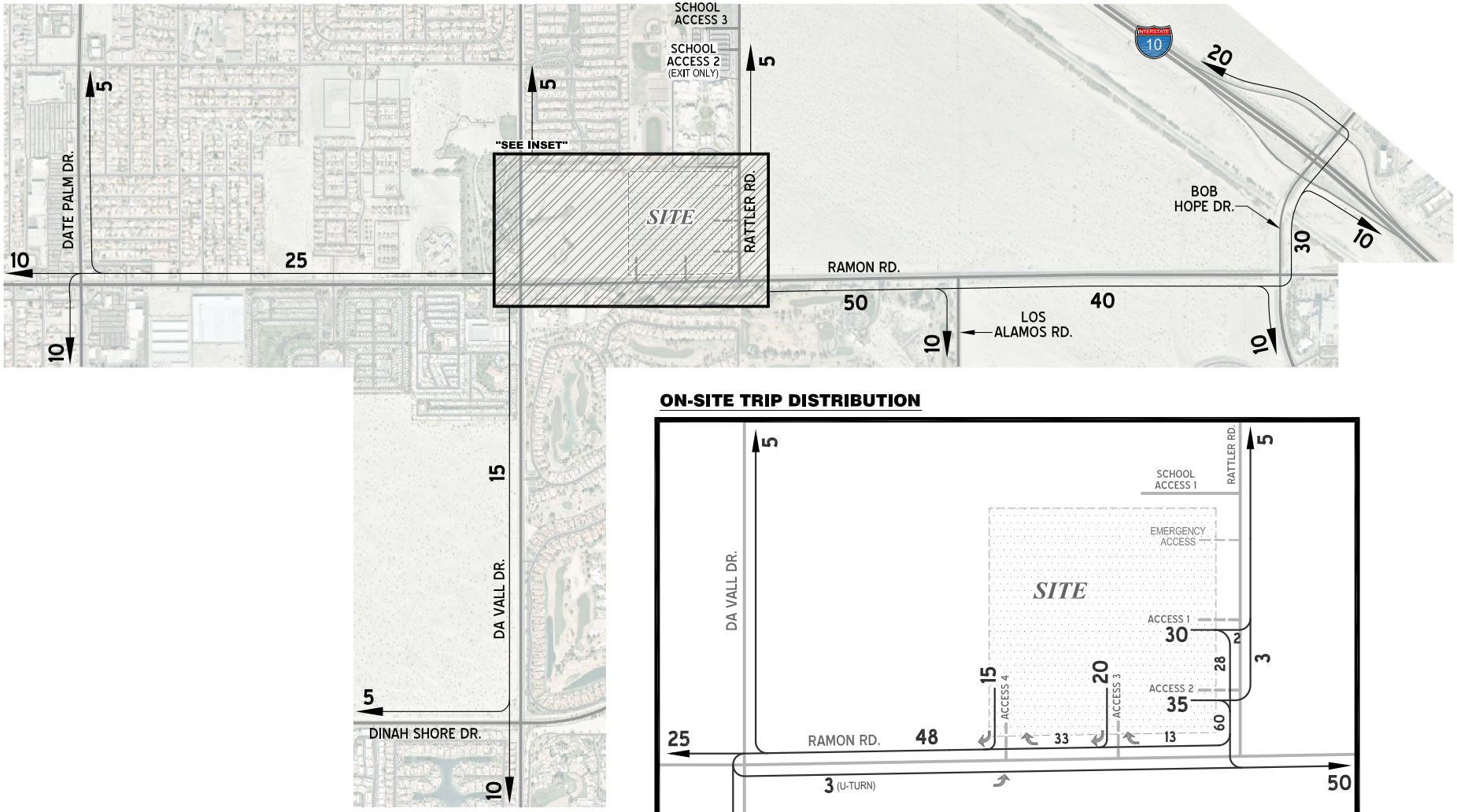
Trip Generation Results

| Land Use | ITE LU Code | Quantity[2] | | AM Peak Hour In | AM Peak Hour Out | AM Peak Hour Total | PM Peak Hour In | PM Peak Hour Out | PM Peak Hour Total | Daily |
|---|---|---|---|---|---|---|---|---|---|---|
| Single Family Rental Homes | 220 | 215 | DU | 22 | 65 | 87 | 69 | 41 | 110 | 1,449 |
| Affordable Apartments | 223 | 90 | DU | 9 | 23 | 32 | 24 | 17 | 41 | 433 |
| *Residential Interaction with Commercial* | | | | *-3* | *-4* | *-7* | *-10* | *-10* | *-20* | *-253* |
| Residential Subtotal | | | | 28 | 84 | 112 | 83 | 48 | 131 | 1,629 |
| Shopping Center (40-150k) | 821 | 75 | TSF | 80 | 50 | 130 | 191 | 199 | 390 | 5,064 |
| *Commercial Pass-By (15%)* | | | | *-10* | *-10* | *-20* | *-29* | *-29* | *-58* | *-760* |
| *Commercial Interaction with Residential (5%)* | | | | *-4* | *-3* | *-7* | *-10* | *-10* | *-20* | *-253* |
| Commercial Subtotal | | | | 66 | 38 | 104 | 152 | 160 | 312 | 4,051 |
| PROJECT TOTAL EXTERNAL TRIPS | | | | 94 | 121 | 215 | 235 | 208 | 443 | 5,680 |

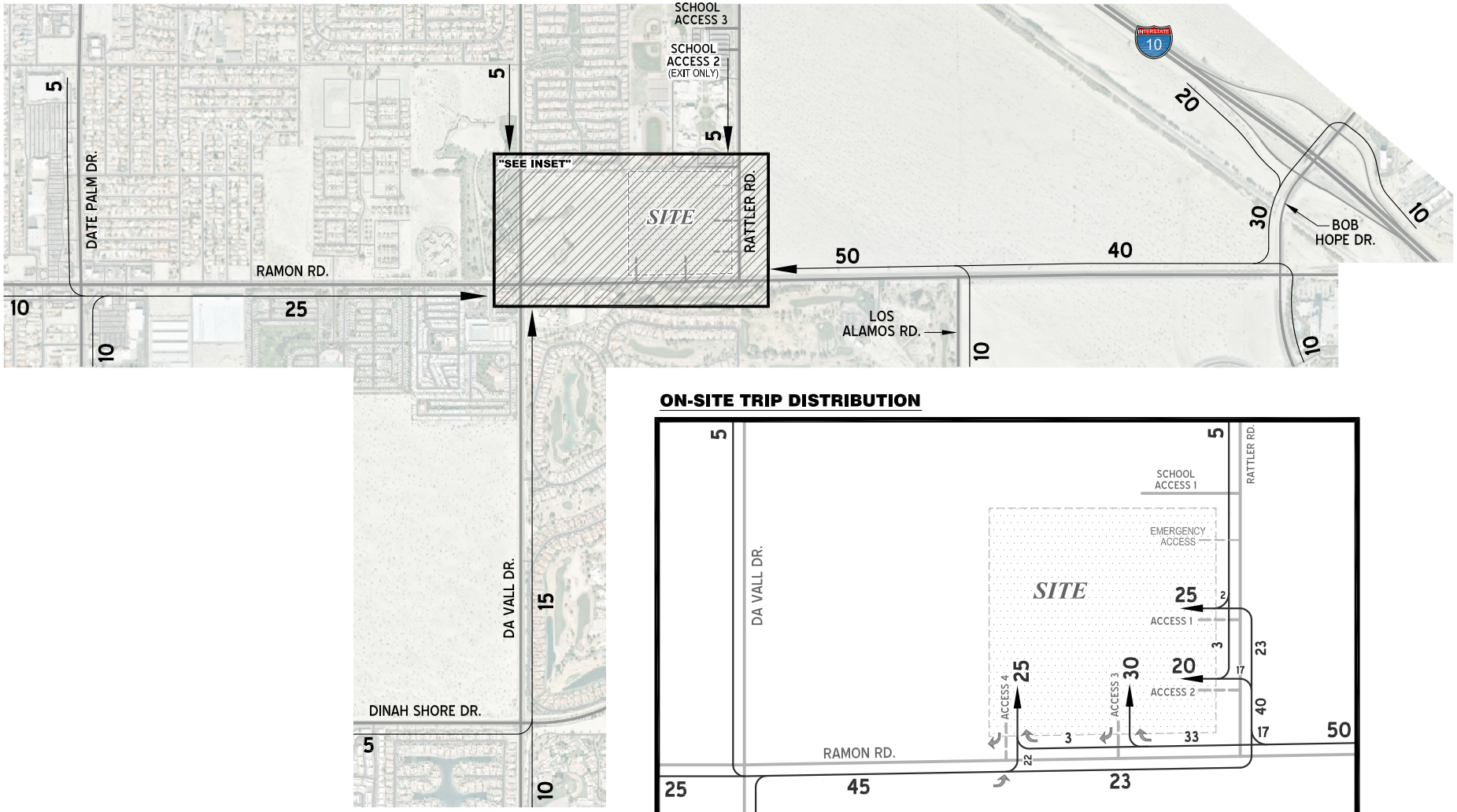
[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

[2] TSF = Thousand Square Feet; DU = Dwelling Units

## EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION (OUTBOUND)



## EXHIBIT 4-2: PROJECT TRIP DISTRIBUTION (INBOUND)

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## 4.3 MODAL SPLIT

Although the use of public transit, walking, and/or bicycling have the potential to reduce Project-related traffic, such reductions have not been taken into considerations in this traffic study to provide a conservative analysis of the Project's potential to contribute to circulation system deficiencies.

## 4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements in place by the time of initial occupancy of the Project.

Residents exiting the affordable apartments will need to utilize the existing westbound U-turn movement at the Da Vall Dr. / Ramon Rd. intersection in order to travel eastbound on Ramon Road away from the site. This is not the case for the single-family rental homes and 75,000 square feet of commercial buildings, which will predominantly use the available southbound left turn at the Rattler Rd. / Ramon Rd. intersection to travel eastbound on Ramon Road.

Based on the identified Project traffic generation and trip distribution patterns, Project AM peak hour, and PM peak hour peak hour intersection turning movement volumes are shown on Exhibit 4-3.

## 4.5 CUMULATIVE GROWTH TRAFFIC

### 4.5.1 AMBIENT GROWTH RATE

Future year traffic forecasts have been based upon background (ambient) growth at 4.04 percent (2 percent per year over 2 years) for EAP and EAPC traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects.

Ambient growth is added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications are actively underway.

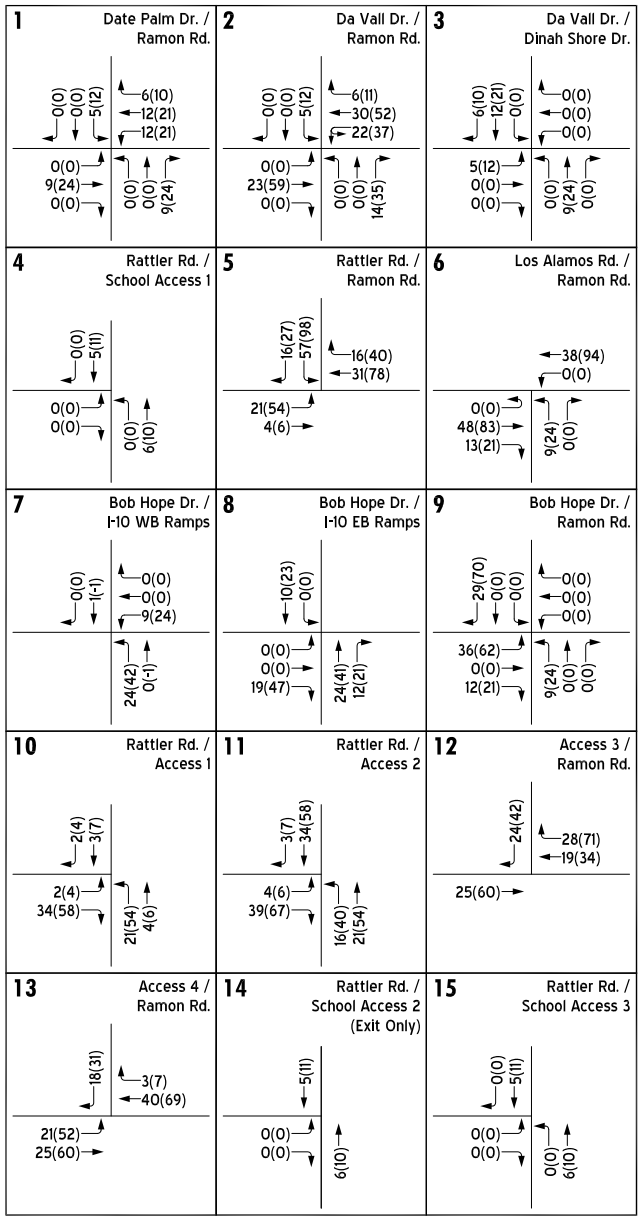
### 4.5.2 CUMULATIVE DEVELOPMENT TRAFFIC

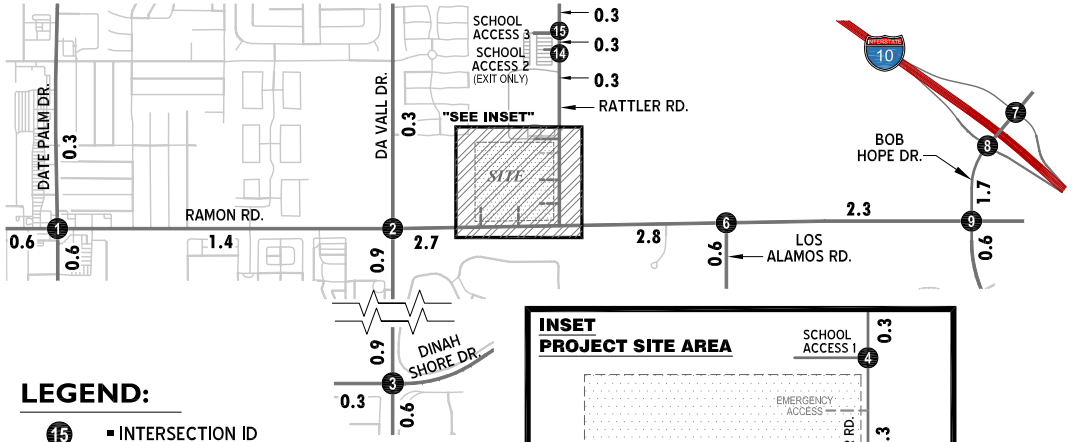
A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Rancho Mirage. Exhibit 4-4 illustrates the cumulative development locations.

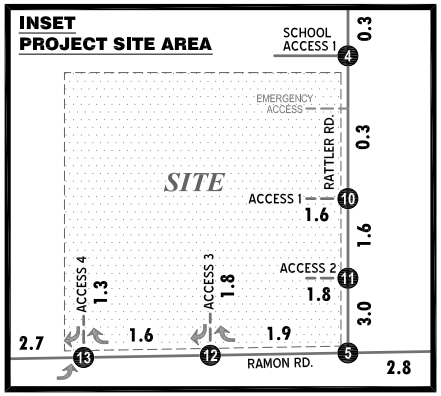
A summary of cumulative development projects and their proposed land uses are shown on Table 4-2. If applicable, the traffic volumes generated by individual cumulative projects were manually added to the Opening Year Cumulative forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-2 are reflected as part of the background traffic.

# EXHIBIT 4-3: PROJECT ONLY TRAFFIC VOLUMES

## AM & PM PEAK HOUR



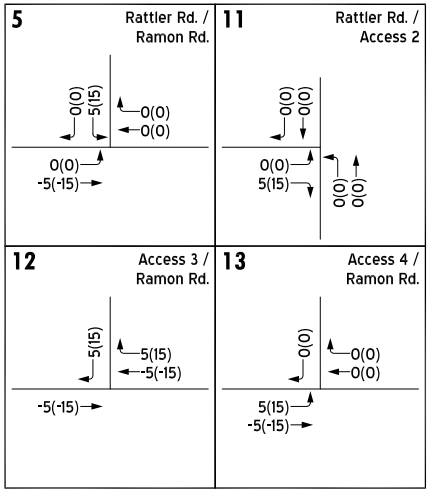




## LEGEND:

- 15 = INTERSECTION ID
- 10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES
- 10.0 = VEHICLES PER DAY (1000'S)
- = FUTURE ROADWAY
- = RIGHT-IN/RIGHT-OUT ONLY
- = LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY

## PROJECT PASS-BY ONLY



## EXHIBIT 4-4: CUMULATIVE DEVELOPMENT LOCATION MAP

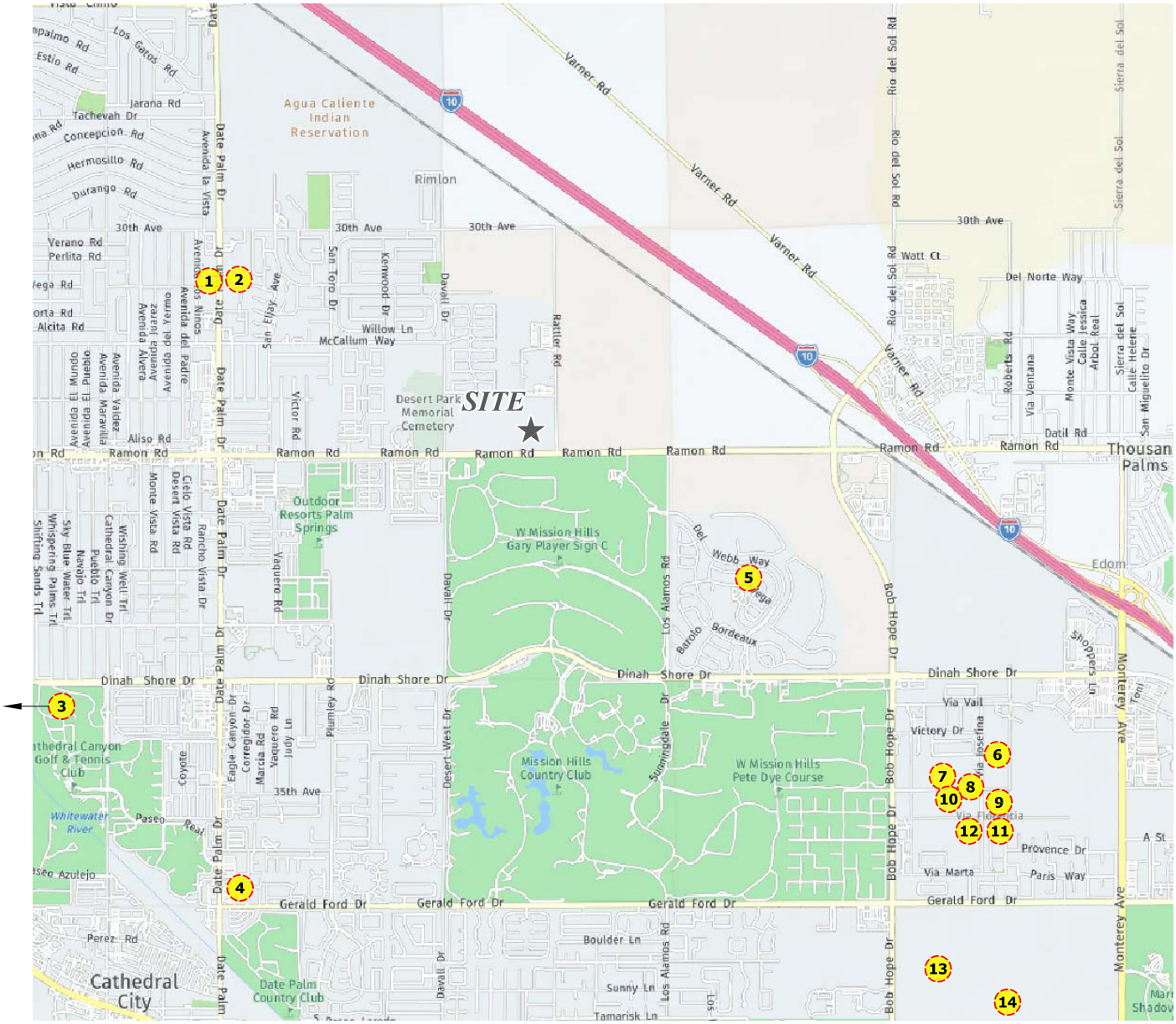



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**TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY**

| TAZ | Project | Land Use | Quantity | Units[1] |
|---|---|---|---|---|
| 1 | Isle of Capri | Multifamily Residential | 224 | DU |
| | | Single Family Residential | 8 | DU |
| 2 | Commercial Property | Commercial | 175.0 | TSF |
| 3 | Vibrante | Condominium | 41 | DU |
| 4 | Cathedral City Events Center (35900 Date Palm Dr) | Event Center | 80.0 | TSF |
| 5 | Pulte Homes/ Del Webb | Residential | 1,200 | DU |
| | | Marijuana Dispensary | 3.0 | TSF |
| 6 | Miragedunes Properties | Residential | 9 | DU |
| 7 | Estilo | Residential | 39 | DU |
| 8 | Rancho Mirage LLC | Residential | 4 | DU |
| 9 | 38 JV, LLC c/o Meriwether Companies | Residential | 10 | DU |
| 10 | GRV Mirage, LLC (ECHO) | Residential | 9 | DU |
| 11 | RM 38 JV LLC | Residential | 82 | DU |
| 12 | 38 JV, LLC c/o Meriwether Companies | Residential | 97 | DU |
| 13 | ED Rancho Mirage | Residential | 354 | DU |
| 14 | Section 31 Specific Plan Project | Hotel | 400 | Rooms |
| | | Commercial | 175.0 | TSF |
| | | Residential | 1,932 | DU |

[1] DU = Dwelling Units; TSF = Thousand Square Feet

# 5 EAP (2025) TRAFFIC CONDITIONS

This section discusses the methods used to develop Existing plus Ambient Growth plus Project (EAP) (2025) traffic conditions and the resulting peak hour intersection operations and traffic signal warrant analyses.

## 5.1 ACCESS IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for EAP conditions are consistent with existing conditions shown previously on Exhibit 3-1. In addition, the following Project driveways and those facilities assumed to be constructed by the Project to provide site access (e.g., intersection and roadway improvements at the Project's frontage and driveways) are also assumed to be in place:

**Rattler Road / Access 1 (#10)**

- Access 1 serves the single-family rental home neighborhood of the Project and is located approximately 335 feet north of Access 2, measured from the south curb of Access 1 to the north curb of Access 2 along Rattler Road. Northbound left turns into the site will be accommodated within the existing two-way left turn lane (TWLTL) striped median on Rattler Road.

**Rattler Road / Access 2 (#11)**

- Access 2 serves the commercial retail portion of the Project and is located approximately 280 feet north of Ramon Road, measured from the south curb of Access 2 to the north curb of Ramon Road along Rattler Road. Because the retail parcel is also served by two other direct connections to Ramon Road, northbound left turns into the site at Access 2 from Rattler Road are minimal (16 AM peak hour vehicles and 40 PM peak hour vehicles). These low left turn volumes can be accommodated in the short northbound storage length available at this location within the existing two-way left turn lane (TWLTL) striped median on Rattler Road.

**Access 3 / Ramon Road (#12)**

- Access 3 serves the commercial retail portion of the Project from Ramon Road and is located approximately 590 feet west of Rattler Road, measured from the east curb of Access 3 to the west curb of Rattler Road along Ramon Road. This commercial driveway location will be restricted as right-in/right-out only access (no median break on Ramon Road).

**Access 4 / Ramon Road (#13)**

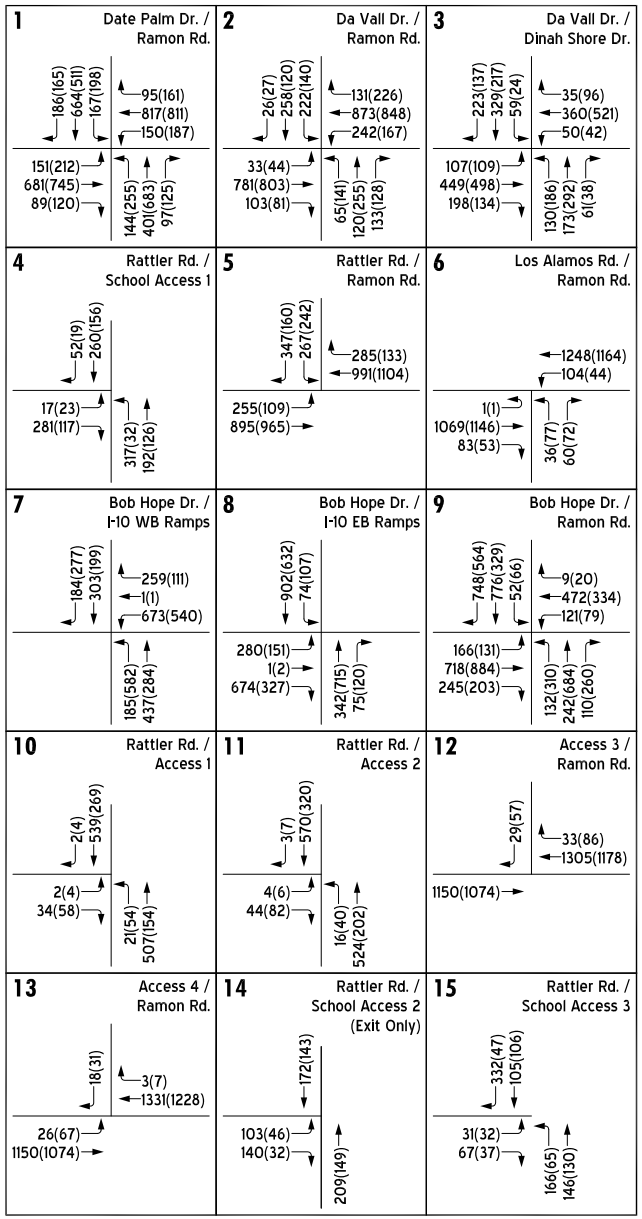
- In conjunction with development of either the affordable apartment dwelling units or the commercial retail parcel, construct median improvements on Ramon Road to accommodate a 150-foot eastbound left turn pocket. Provide a Left-In-Only (no left out) median configuration which allows left-in/right-in/right-out only access at Access 4 (see Exhibit 1-6).

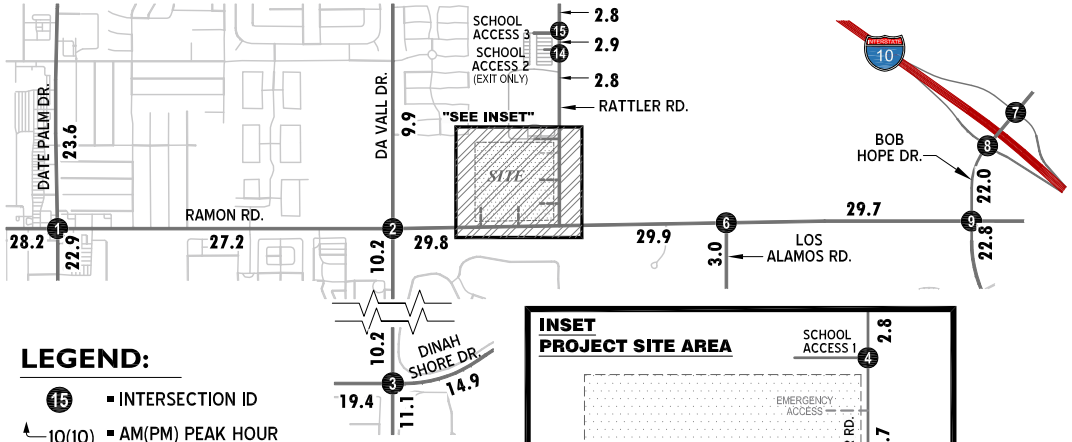
## 5.2 EAP (2025) TRAFFIC VOLUME FORECASTS

An ambient growth from Existing conditions of 4.04% (2 percent per year over 2 years, compounded annually) is included for EAP traffic conditions. Cumulative development projects are not included as part of the EAP analysis. EAP traffic volumes are shown on Exhibit 5-1.

# EXHIBIT 5-1: EAP (2025) TRAFFIC VOLUMES

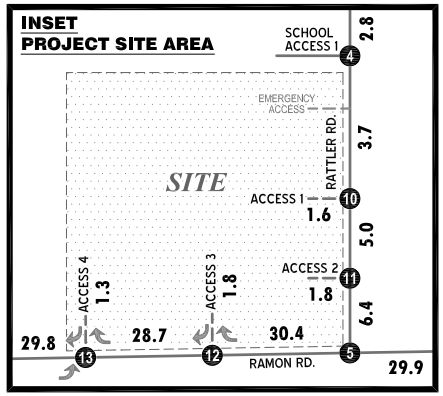
## AM & PM PEAK HOUR



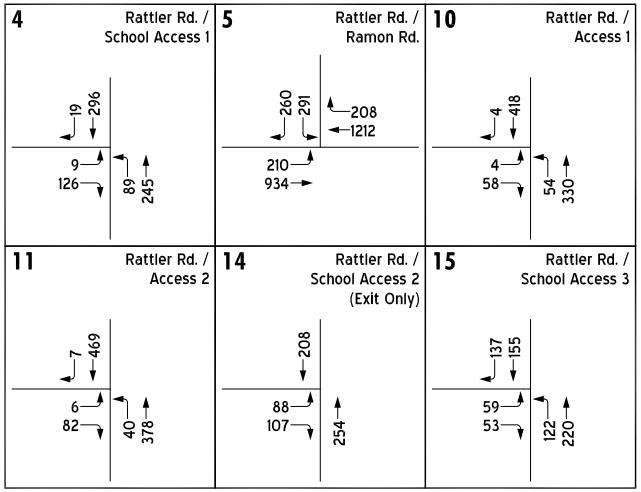




## LEGEND:

- 15 = INTERSECTION ID
- 10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES
- 10 = MID-DAY PEAK HOUR INTERSECTION VOLUMES
- 10.0 = VEHICLES PER DAY (1000'S)
- FUTURE ROADWAY
- RIGHT-IN/RIGHT-OUT ONLY
- LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY




## MID-DAY PEAK HOUR



## 5.3 EAP (2025) INTERSECTION OPERATIONS ANALYSIS

EAP peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 5-1, which indicates that there are no new intersections operating at an unacceptable LOS with the addition of Project traffic. The intersection operations analysis worksheets for EAP traffic conditions are included in Appendix 5.1 of this TA.

For the existing deficient intersections of Rattler Road / School Access 1 (#4) and Rattler Road / School Access 3 (#15), improvements are not recommended for EAP conditions since the worst movement that causes both intersections to fail are due to the high eastbound outbound school traffic (minor approach) and not anticipated to impede the flow of traffic for the northbound and southbound through traffic (major approaches). Providing additional capacity (adding eastbound turn lanes) is not anticipated to improve intersection delay at these school driveways.

## 5.4 EAP (2025) CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for EAP (2025) traffic conditions are based on EAP peak hour intersection turning volumes and ADT volumes. For EAP (2025) traffic conditions, the intersection of Rattler Road / School Access 1 (#4) is anticipated to warrant a traffic signal based on peak hour traffic flows (see Appendix 3.3). It should be noted that existing warrant analysis for this location is already close to meeting signal warrants, and slight increase in traffic by adding 2025 ambient growth will also result in warrant being met at this location even without the addition of Project traffic. As mentioned previously, meeting this condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified.

**TABLE 5-1: INTERSECTION ANALYSIS FOR EAP (2025) CONDITIONS**

| # | Intersection | Traffic Control[1] | Intersection Approach Lanes[2] Northbound L | T | R | Southbound L | T | R | Eastbound L | T | R | Westbound L | T | R | Delay[3] (secs.) AM | MD[4] | PM | Level of Service AM | MD[4] | PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Date Palm Dr. / Ramon Rd. | TS | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | 39.3 | -- | 47.1 | D | -- | D |
| 2 | Da Vall Dr. / Ramon Rd. | TS | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 1 | 30.3 | -- | 30.2 | C | -- | C |
| 3 | Da Vall Dr. / Dinah Shore Dr. | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 36.0 | -- | 34.3 | D | -- | C |
| 4 | Rattler Rd. / School Access 1 | CSS | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1! | 0 | 0 | 0 | 0 | 54.5 | 23.0 | 14.4 | F | C | B |
| 5 | Rattler Rd. / Ramon Rd. | TS | 0 | 0 | 0 | 1 | 1! | 1 | 2 | 3 | 0 | 0 | 3 | 1> | 15.3 | 17.4 | 13.9 | B | B | B |
| 6 | Los Alamos Rd. / Ramon Rd. | TS | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 1 | 1 | 3 | 0 | 16.2 | -- | 16.0 | B | -- | B |
| 7 | Bob Hope Dr. / I-10 WB Ramps | TS | 2 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1.5 | 0.5 | 1>> | 14.9 | -- | 33.5 | B | -- | C |
| 8 | Bob Hope Dr. / I-10 EB Ramps | TS | 0 | 2.5 | 1.5 | 2 | 2 | 0 | 1 | 1! | 1 | 0 | 0 | 0 | 12.5 | -- | 10.5 | B | -- | B |
| 9 | Bob Hope Dr. / Ramon Rd. | TS | 2 | 3 | 1> | 2 | 3 | 1> | 2 | 2 | 1>> | 2 | 2 | 1 | 36.6 | -- | 37.4 | D | -- | D |
| 10 | Rattler Rd. / Access 1 | **CSS** | 1* | 1 | 0 | 0 | 1 | 0 | 0 | **1!** | 0 | 0 | 0 | 0 | 12.9 | 11.9 | 10.4 | B | B | B |
| 11 | Rattler Rd. / Access 2 | **CSS** | 1* | 1 | 0 | 0 | 1 | 0 | 0 | **1!** | 0 | 0 | 0 | 0 | 13.6 | 13.0 | 11.2 | B | B | B |
| 12 | Access 3 / Ramon Rd. | **CSS** | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 3 | 0 | 0 | 3 | 0 | 17.7 | -- | 18.2 | C | -- | C |
| 13 | Access 4 / Ramon Rd. | **CSS** | 0 | 0 | 0 | 0 | 0 | **1** | **1** | 3 | 0 | 0 | 3 | 0 | 17.2 | -- | 23.6 | C | -- | C |
| 14 | Rattler Rd. / School Access 2 (Exit Only) | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 14.8 | 19.3 | 12.5 | B | C | B |
| 15 | Rattler Rd. / School Access 3 | CSS | 1* | 1 | 0 | 0 | 1 | 0 | 0 | 1! | 0 | 0 | 0 | 0 | 56.4 | >80 | 15.7 | F | F | C |

[1] TS = Traffic Signal; CSS = Cross-street Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right-Turn Overlap Phasing; >> = Free-Right Turn; * = Turn lane accommodated within two-way left-turn lane (TWLTL) striped median; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 11 analysis software.

[4] Mid-Day analysis is only evaluated for intersections along Rattler Road where a concentration of high school traffic occurs.

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# 6 EAPC (2025) TRAFFIC CONDITIONS

This section discusses the methods used to evaluate Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2025) traffic conditions and the resulting peak hour intersection operations and traffic signal warrant analyses.

## 6.1 EAPC (2025) TRAFFIC VOLUME FORECASTS

The lane configurations and traffic controls assumed to be in place for EAPC conditions are consistent with existing conditions shown previously on Exhibit 3-1, except for the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAPC conditions (e.g., intersection and roadway improvements at the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for EAPC conditions (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

EAPC traffic volumes are shown on Exhibit 6-1. Other known cumulative development projects in the study area are included in addition to 4.04% of ambient growth for EAPC traffic conditions plus traffic associated with the proposed Project.

## 6.2 EAPC (2025) INTERSECTION OPERATIONS ANALYSIS

EAPC peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 6-1, which indicates that there are no new intersections operating at an unacceptable LOS with the addition of Project and cumulative traffic under EAPC conditions. The intersection operations analysis worksheets for EAPC traffic conditions is included in Appendix 6.1 of this TA.

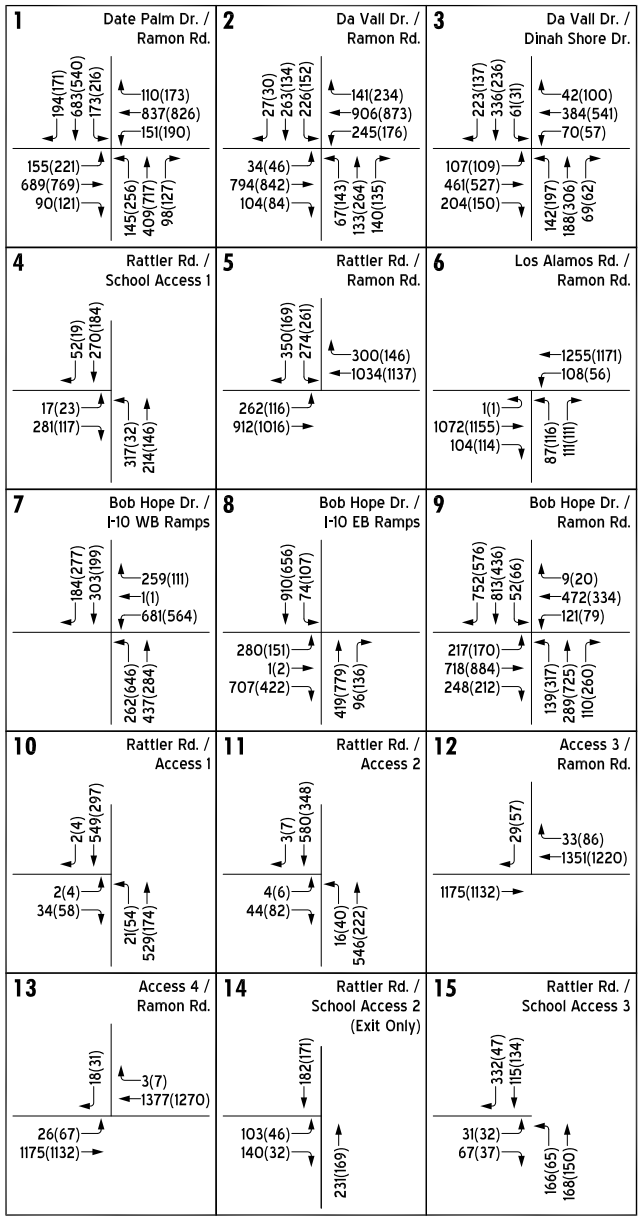
Similar to EAP conditions, for the existing deficient intersections of Rattler Road / School Access 1 (#4) and Rattler Road / School Access 3 (#15), improvements are not recommended for EAPC conditions since the worst movement that causes both intersections to fail are due to the high eastbound outbound school traffic (minor approach) and not anticipated to impede the flow of traffic for the northbound and southbound through traffic (major approaches). Providing additional capacity (adding eastbound turn lanes) is not anticipated to improve intersection delay at these school access driveways.

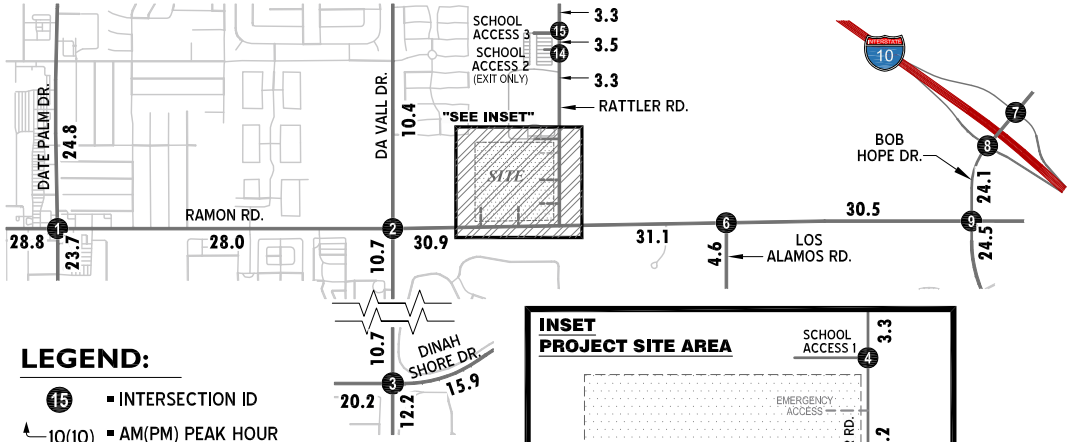
## 6.3 EAPC (2025) CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for EAPC (2025) traffic conditions are based on EAPC peak hour intersection turning volumes and ADT volumes. For EAPC (2025) traffic conditions, there are no additional unsignalized study area intersections that are projected to warrant a traffic signal based on peak hour traffic flows and ADT volumes, in comparison to EAP conditions.

# EXHIBIT 6-1: EAPC (2025) TRAFFIC VOLUMES

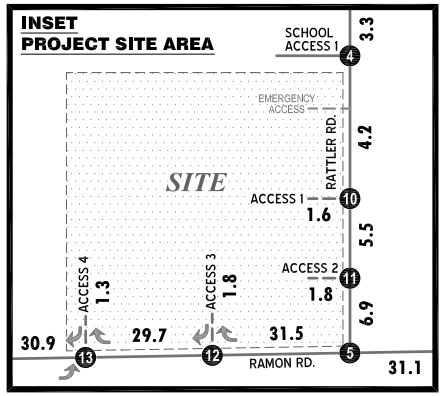
## AM & PM PEAK HOUR



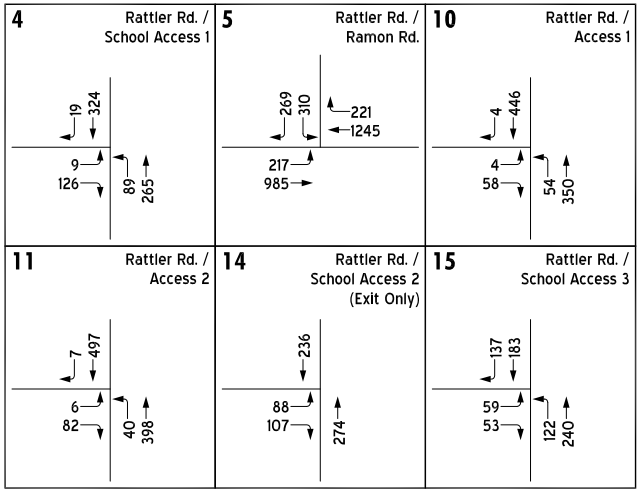




## LEGEND:

- 15 = INTERSECTION ID
- 10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES
- 10 = MID-DAY PEAK HOUR
- 10.0 = VEHICLES PER DAY (1000'S)
- = FUTURE ROADWAY
- = RIGHT-IN/RIGHT-OUT ONLY
- = LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY




## MID-DAY PEAK HOUR




N

**TABLE 6-1: INTERSECTION ANALYSIS FOR EAPC (2025) CONDITIONS**

| # | Intersection | Traffic Control[1] | Intersection Approach Lanes[2] Northbound L | T | R | Southbound L | T | R | Eastbound L | T | R | Westbound L | T | R | Delay[3] (secs.) AM | MD[4] | PM | Level of Service AM | MD[4] | PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Date Palm Dr. / Ramon Rd. | TS | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | 39.9 | -- | 49.1 | D | -- | D |
| 2 | Da Vall Dr. / Ramon Rd. | TS | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 1 | 30.4 | -- | 33.7 | C | -- | C |
| 3 | Da Vall Dr. / Dinah Shore Dr. | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 36.9 | -- | 35.2 | D | -- | D |
| 4 | Rattler Rd. / School Access 1 | CSS | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1! | 0 | 0 | 0 | 0 | 60.5 | 26.4 | 15.7 | F | D | C |
| 5 | Rattler Rd. / Ramon Rd. | TS | 0 | 0 | 0 | 1 | 1! | 1 | 2 | 3 | 0 | 0 | 3 | 1> | 15.6 | 17.9 | 14.1 | B | B | B |
| 6 | Los Alamos Rd. / Ramon Rd. | TS | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 1 | 1 | 3 | 0 | 16.4 | -- | 16.4 | B | -- | B |
| 7 | Bob Hope Dr. / I-10 WB Ramps | TS | 2 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1.5 | 0.5 | 1>> | 16.1 | -- | 48.6 | B | -- | D |
| 8 | Bob Hope Dr. / I-10 EB Ramps | TS | 0 | 2.5 | 1.5 | 2 | 2 | 0 | 1 | 1! | 1 | 0 | 0 | 0 | 12.9 | -- | 11.2 | B | -- | B |
| 9 | Bob Hope Dr. / Ramon Rd. | TS | 2 | 3 | 1> | 2 | 3 | 1> | 2 | 2 | 1>> | 2 | 2 | 1 | 36.1 | -- | 37.3 | D | -- | D |
| 10 | Rattler Rd. / Access 1 | **CSS** | 1* | 1 | 0 | 0 | 1 | 0 | 0 | **1!** | 0 | 0 | 0 | 0 | 13.0 | 12.3 | 10.7 | B | B | B |
| 11 | Rattler Rd. / Access 2 | **CSS** | 1* | 1 | 0 | 0 | 1 | 0 | 0 | **1!** | 0 | 0 | 0 | 0 | 13.8 | 13.4 | 11.5 | B | B | B |
| 12 | Access 3 / Ramon Rd. | **CSS** | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 3 | 0 | 0 | 3 | 0 | 18.3 | -- | 18.8 | C | -- | C |
| 13 | Access 4 / Ramon Rd. | **CSS** | 0 | 0 | 0 | 0 | 0 | **1** | **1** | 3 | 0 | 0 | 3 | 0 | 23.5 | -- | 24.9 | C | -- | C |
| 14 | Rattler Rd. / School Access 2 (Exit Only) | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 15.4 | 21.3 | 13.3 | C | C | B |
| 15 | Rattler Rd. / School Access 3 | CSS | 1* | 1 | 0 | 0 | 1 | 0 | 0 | 1! | 0 | 0 | 0 | 0 | 68.5 | >80 | 17.6 | F | F | C |

[1] TS = Traffic Signal; CSS = Cross-street Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right-Turn Overlap Phasing; >> = Free-Right Turn; * = Turn lane accommodated within two-way left-turn lane (TWLTL) striped median; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 11 analysis software.

[4] Mid-Day analysis is only evaluated for intersections along Rattler Road where a concentration of high school traffic occurs.

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# 7 HORIZON YEAR (2040) TRAFFIC CONDITIONS

This section discusses the evaluation of HY (2040) traffic forecasts, and the resulting intersection operations and roadway segment operations analyses.

## 7.1 HORIZON YEAR (2040) TRAFFIC VOLUMES

Future horizon year 2040 traffic projections from the City of Rancho Mirage General Plan Update Traffic Impact Analysis, 2017 (6), prepared by Urban Crossroads Inc., Draft Section 31 Specific Plan Transportation Impact Study, 2019, prepared by Fehr & Peers (7), and City of Cathedral City Draft Comprehensive General Plan, July 2019 (8), prepared by Terra Nova Planning & Research. For intersections without 2040 data, a minimum growth of 10% over existing (2023) has been applied to turn movements in addition to traffic data from known cumulative projects in the area.

The Horizon Year (2040) without and with Project traffic volumes are shown on Exhibits 7-1 and 7-2, respectively.

## 7.2 INTERSECTION OPERATIONS ANALYSIS

LOS calculations have been conducted for the study intersections to evaluate their operations under HY (2040) traffic conditions with roadway and intersection geometrics consistent with Exhibit 1-4. The intersection analysis results are summarized in Table 7-1. As shown in Table 7-1, the following intersections are operating at an unacceptable LOS (LOS "E" or worse) during peak hours for 2040 conditions without and with Project traffic.

| # | Intersection |
|---|---|
| 1 | Date Palm Drive / Ramon Road |
| 2 | Da Vall Drive / Ramon Road |
| 4 | Rattler Road / School Access 1 |
| 15 | Rattler Road / School Access 3 |

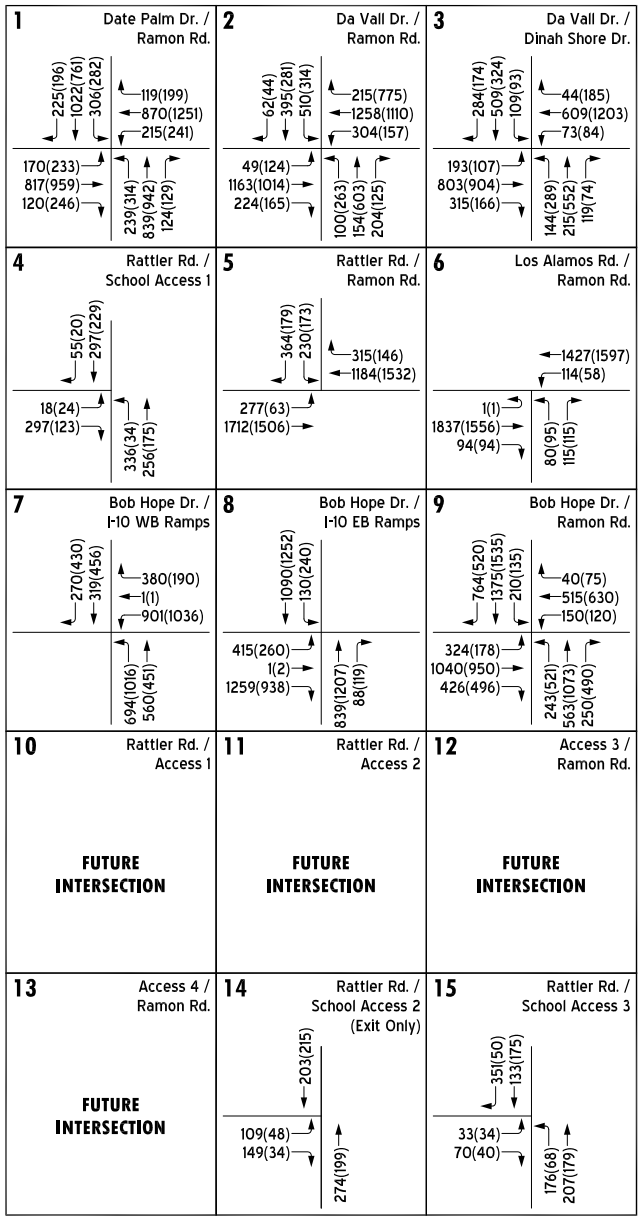
The intersection operations analysis worksheets for Horizon Year (2040) Without and With Project conditions are included in Appendices 7.1 and 7.2 of this TA, respectively.

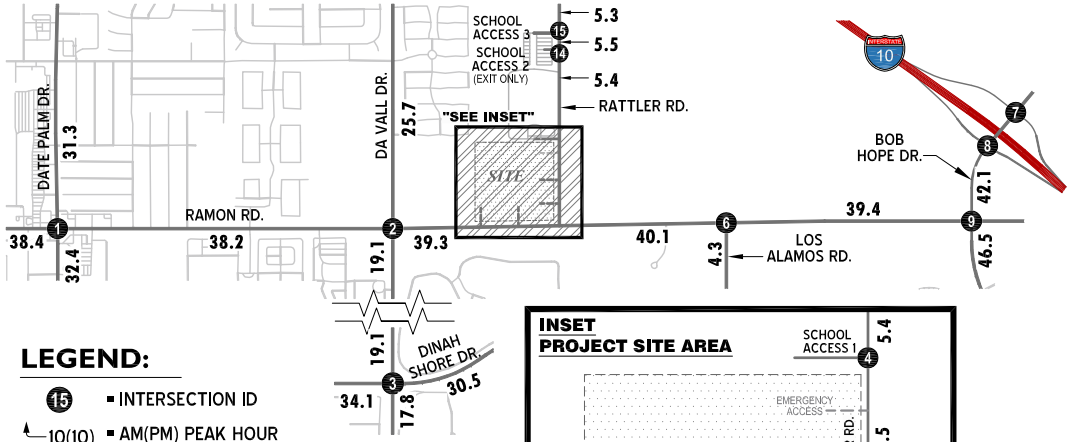
## 7.3 HORIZON YEAR (2040) CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

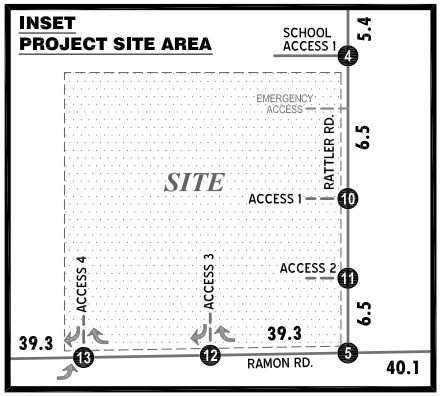
Traffic signal warrants for Horizon Year (2040) Without and With Project traffic conditions are based on peak hour intersection turning volumes and ADT volumes. For both Horizon Year (2040) scenarios, there are no additional unsignalized study area intersections that are projected to warrant a traffic signal based on peak hour traffic flows and ADT volumes, with the exception of high school access intersections where the installation of a traffic signal is not recommended.

# EXHIBIT 7-1: HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUMES

## AM & PM PEAK HOUR



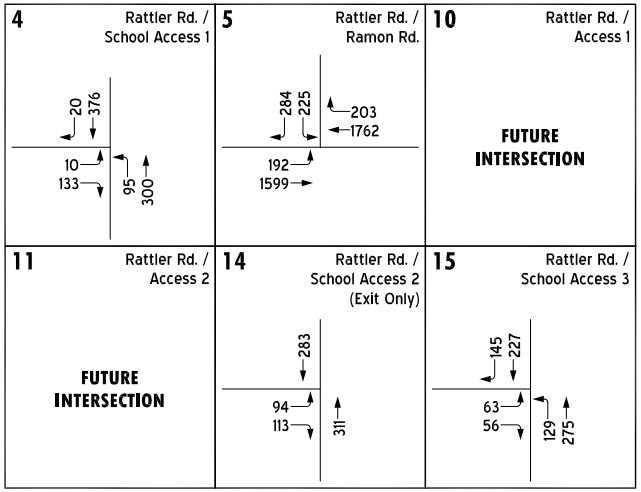




## LEGEND:

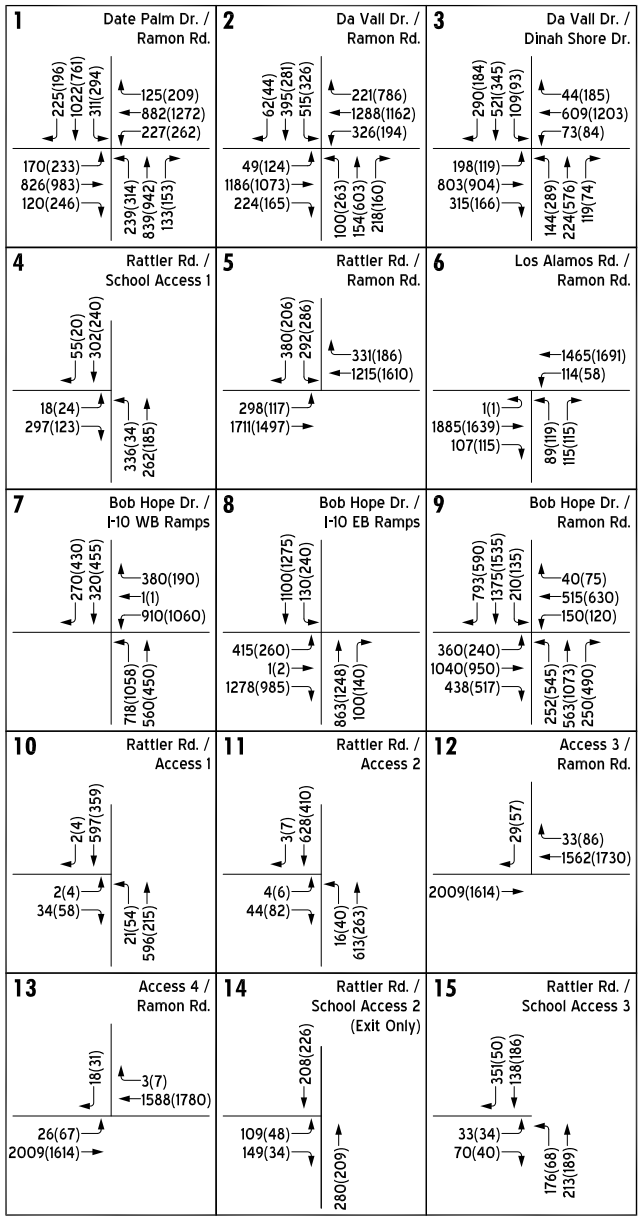
- 15 = INTERSECTION ID
- 10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES
- 10 = MID-DAY PEAK HOUR
- 10.0 = VEHICLES PER DAY (1000'S)
- = FUTURE ROADWAY
- = RIGHT-IN/RIGHT-OUT ONLY
- = LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY

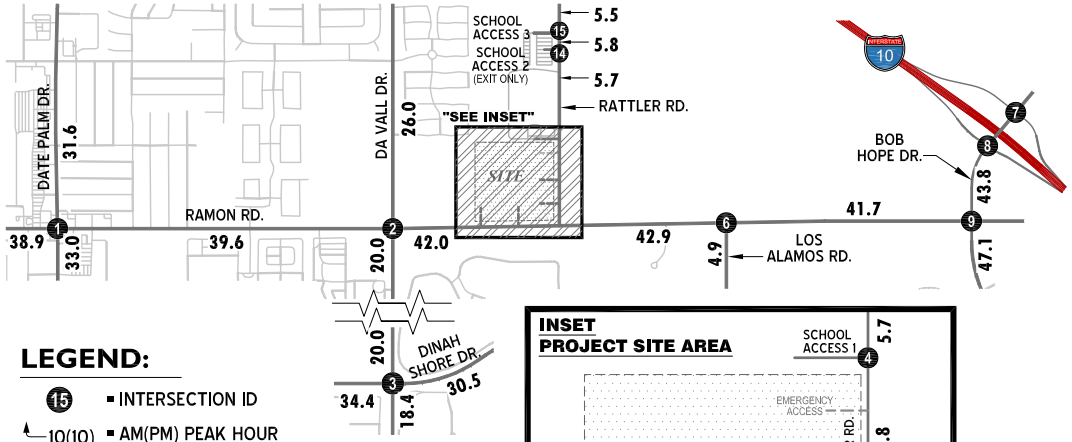
## MID-DAY PEAK HOUR

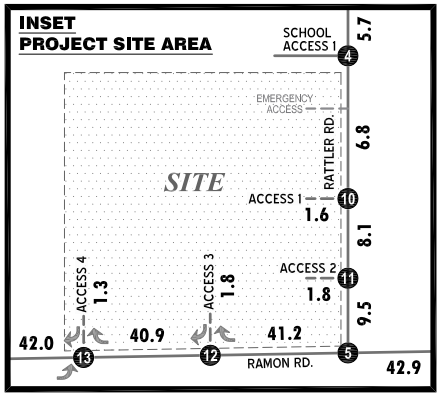


# EXHIBIT 7-2: HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUMES

## AM & PM PEAK HOUR




## LEGEND:

- 15 = INTERSECTION ID
- 10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES
- 10 = MID-DAY PEAK HOUR
- 10.0 = VEHICLES PER DAY (1000'S)
- = FUTURE ROADWAY
- = RIGHT-IN/RIGHT-OUT ONLY
- = LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY

## MID-DAY PEAK HOUR

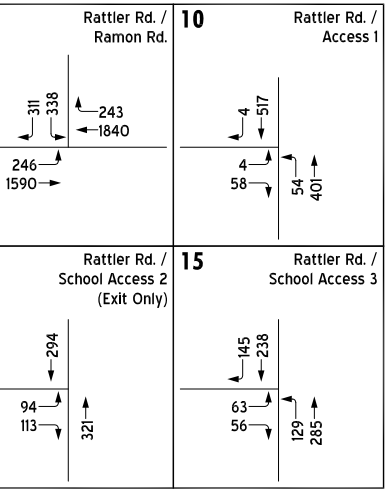


**TABLE 7-1: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS**

| # | Intersection | Traffic Control[1] | Intersection Approach Lanes[2] | | | | | | | | | | | | Without Project | | | | | | With Project | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Delay[3] (secs.) | | | Level of Service | | | Delay[3] (secs.) | | | Level of Service | | |
| | | | L | T | R | L | T | R | L | T | R | L | T | R | AM | MD[4] | PM | AM | MD[4] | PM | AM | MD[4] | PM | AM | MD[4] | PM |
| 1 | Date Palm Dr. / Ramon Rd. | | | | | | | | | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | 48.6 | -- | 62.7 | D | -- | E | 80.0 | -- | 67.2 | E | -- | E |
| | - With Improvements | TS | 2 | **3** | 0 | 1 | 2 | 1 | 1 | 3 | **1** | 1 | 3 | **1** | 45.9 | -- | 51.6 | D | -- | D | 50.0 | -- | 52.0 | D | -- | D |
| 2 | Da Vall Dr. / Ramon Rd. | | | | | | | | | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 1 | 67.2 | -- | 73.0 | E | -- | E | 68.1 | -- | 75.4 | E | -- | E |
| | - With Improvements | TS | 1 | 2 | 1 | **2** | 1 | 0 | 1 | 3 | 0 | 1 | 3 | **1>** | 38.7 | -- | 0.0 | D | -- | A | 39.9 | -- | 52.8 | D | -- | D |
| 3 | Da Vall Dr. / Dinah Shore Dr. | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 41.9 | -- | 48.5 | D | -- | D | 42.6 | -- | 51.3 | D | -- | D |
| 4 | Rattler Rd. / School Access 1 | CSS | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1! | 0 | 0 | 0 | 0 | >80 | 40.2 | 19.1 | F | E | C | >80 | 43.6 | 20.0 | F | E | C |
| 5 | Rattler Rd. / Ramon Rd. | TS | 0 | 0 | 0 | 1 | 1! | 1 | 2 | 3 | 0 | 0 | 3 | 1> | 16.4 | 18.6 | 16.4 | B | B | B | 16.9 | 21.1 | 17.5 | B | C | B |
| 6 | Los Alamos Rd. / Ramon Rd. | TS | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 1 | 1 | 3 | 0 | 22.3 | -- | 17.1 | C | -- | B | 23.4 | -- | 17.6 | C | -- | B |
| 7 | Bob Hope Dr. / I-10 WB Ramps | TS | 2 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1.5 | 0.5 | 1>> | 39.8 | -- | 44.6 | D | -- | D | 44.5 | -- | 48.0 | D | -- | D |
| 8 | Bob Hope Dr. / I-10 EB Ramps | TS | 0 | 2.5 | 1.5 | 2 | 2 | 0 | 1 | 1! | 1 | 0 | 0 | 0 | 47.2 | -- | 20.4 | D | -- | C | 49.6 | -- | 20.9 | D | -- | C |
| 9 | Bob Hope Dr. / Ramon Rd. | TS | 2 | 3 | 1> | 2 | 3 | 1> | 2 | 2 | 1>> | 2 | 2 | 1 | 43.2 | -- | 43.0 | D | -- | D | 44.3 | -- | 44.3 | D | -- | D |
| 10 | Rattler Rd. / Access 1 | **CSS** | 1* | 1 | 0 | 0 | 1 | 0 | 0 | **1!** | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | A | A | A | 13.7 | 13.1 | 11.3 | B | B | B |
| 11 | Rattler Rd. / Access 2 | **CSS** | 1* | 1 | 0 | 0 | 1 | 0 | 0 | **1!** | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | A | A | A | 14.6 | 14.5 | 12.2 | B | B | B |
| 12 | Access 3 / Ramon Rd. | **CSS** | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 3 | 0 | 0 | 3 | 0 | 0.0 | -- | 0.0 | A | -- | A | 21.2 | -- | 28.8 | C | -- | D |
| 13 | Access 4 / Ramon Rd. | **CSS** | 0 | 0 | 0 | 0 | 0 | **1** | **1** | 3 | 0 | 0 | 3 | 0 | 0.0 | -- | 0.0 | A | -- | A | 30.2 | -- | 34.8 | D | -- | D |
| 14 | Rattler Rd. / School Access 2 (Exit Only) | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 17.4 | 27.1 | 14.7 | C | D | B | 17.7 | 28.6 | 15.1 | C | D | C |
| 15 | Rattler Rd. / School Access 3 | CSS | 1* | 1 | 0 | 0 | 1 | 0 | 0 | 1! | 0 | 0 | 0 | 0 | >80 | >80 | 22.6 | F | F | C | >80 | >80 | 24.2 | F | F | C |

[1] TS = Traffic Signal; CSS = Cross-street Stop

[2] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; 0.5 = Shared Lane; 1! = Shared Left/Through/Right lane; > = Right-Turn Overlap Phasing; >> = Free-Right Turn; * = Turn lane accommodated within two-way left-turn lane (TWLTL) striped median; **1** = Improvement

[3] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 11 analysis software.

[4] Mid-Day analysis is only evaluated for intersections along Rattler Road where a concentration of high school traffic occurs.

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## 7.4 QUEUEING ANALYSIS AT PROJECT ACCESS POINTS

A queuing analysis was conducted along the Project Driveways Horizon Year (2040) with Project traffic conditions to determine the turn pocket lengths and lane geometric necessary to accommodate near-term 95th percentile queues and recommend storage lengths for the turning.

The analysis was conducted for the weekday AM and weekday PM peak hours using the SimTraffic modeling software. Queuing analysis findings are presented in Table 7-2 for Horizon Year (2040) With Project traffic conditions. Queueing analysis worksheets are provided in Appendix 7.2.

## 7.5 CONTRIBUTION TO OFF-SITE INTERSECTION IMPROVEMENTS

The recommended cumulative improvements required to achieve acceptable circulation system performance without or with the Project consist of the following:

***Date Palm Drive & Ramon Road (#1)***

- Modify existing NB right turn lane to striping to a shared through/right lane. The 3rd NB receiving lane exists.
- Provide a separate EB right turn lane.
- Provide a separate WB right turn lane.

***Da Vall Drive / Ramon Road (#2)***

- Modify traffic signal phasing to provide overlap phase to the existing WB right turn lane.
- Provide a 2nd SB left turn lane.

Exhibit 1-4 depicts the recommended intersection lane configurations for Horizon Year (2040) conditions. Detailed fair share calculations, for each peak hour, are provided in Table 7-3 for the two study area intersections where cumulative long-term future improvements are needed.

**TABLE 7-3: PROJECT FAIR SHARE CALCULATIONS**

| # | Intersection | Existing (2023) Traffic | HY 2040 With Project Traffic | Project Only Traffic | Total New Traffic[1] | Project Fair Share (%)[2] |
|---|---|---|---|---|---|---|
| 1 | Date Palm Dr. / Ramon Rd. | | | | | |
| | • AM Peak Hour | 3,451 | 5,119 | 53 | 1,668 | 3.2% |
| | • PM Peak Hour | 3,903 | 5,865 | 112 | 1,962 | **5.7%** |
| 2 | Da Vall Dr. / Ramon Rd. | | | | | |
| | • AM Peak Hour | 2,774 | 4,738 | 100 | 1,964 | 5.1% |
| | • PM Peak Hour | 2,666 | 5,181 | 206 | 2,515 | **8.2%** |

[1] Total New Traffic = (Horizon Year 2040 With Project Traffic - Existing Traffic)

[2] Project Fair Share % = (Project Only Traffic / Total New Traffic)

**TABLE 7-2: PROJECT ACCESS QUEUEING ANALYSIS FOR HORIZON YEAR (2040) WITH PROJECT CONDITIONS**

| ID | Intersection | Movement | # of Lanes | HY (2040) With Project AM | HY (2040) With Project MD | HY (2040) With Project PM | Peak | Volume | Storage Length[2] (ft.) | 95th Percentile Queue Length (ft.)[1] AM | 95th Percentile Queue Length (ft.)[1] PM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | Rattler Rd. / Ramon Rd. | | | | | | | | | | |
| | | SBL | 1.5 | 292 | 338 | 286 | MD | 338 | 200 | 87 | 102 |
| | | SBR | 1.5 | 380 | 311 | 206 | AM | 380 | 200 | 70 | 78 |
| | | EBL | 2 | 298 | 246 | 117 | AM | 298 | 300 | 226 | 107 |
| | | WBR | 1 | 331 | 243 | 186 | AM | 331 | 205 | 80 | 44 |
| 10 | Rattler Rd. / Access 1 | | | | | | | | | | |
| | | NBL[4] | 1 | 21 | 54 | 54 | MD | 54 | 100 | 30 | 36 |
| | | EBL/R | 1 | 36 | 62 | 62 | MD | 62 | >50 | 57 | 47 |
| 11 | Rattler Rd. / Access 2 | | | | | | | | | | |
| | | NBL[4] | 1 | 16 | 40 | 40 | MD | 40 | 25 | 16 | 39 [5] |
| | | EBL/R | 1 | 48 | 88 | 88 | MD | 88 | 90 | 59 | 76 |
| 12 | Access 3 / Ramon Rd. | | | | | | | | | | |
| | | SBR | 1 | 29 | 57 | 57 | MD | 57 | >100 | 44 | 56 |
| 13 | Access 4 / Ramon Rd. | | | | | | | | | | |
| | | SBR | 1 | 18 | 31 | 31 | MD | 31 | >100 | 39 | 57 |
| | | EBL | 1 | 26 | 67 | 67 | MD | 67 | 150 | 37 | 70 |

[1] Queue length calculated using SimTraffic.

[2] 100 = Existing/Proposed storage length

[3] NOM = Nominal, less than 5 feet.

[4] Left turn lane accommodated within existing two-way left turn lane.

[5] Review of SimTraffic simulation results indicate that the turn lane queue is anticipated to clear in a timely manner and that the provided pocket length is adequate to accommodate the 95th percentile queue.

# 8 SUMMARY AND RECOMMENDATIONS

## 8.1 PROJECT TRAFFIC

The proposed Project is anticipated to generate a total of 5,680 external trips per day with 215 AM peak hour trips and 443 PM peak hour trips.

The single-family rentals will have one emergency only access and one full access (both gated) driveways along Rattler Road, while the affordable apartments will be accessed from the project driveway on the west side of the site, from Ramon Road. The commercial portion of the Project will have one full access driveway along Rattler Road, and two restricted access driveways along Ramon Road. The commercial driveway located at a mid-point along Ramon Road is limited to Right-In/Right-Out (RIRO) movements.

The westerly driveway serves as the primary access to the affordable apartment, and also connects to the commercial and single-family portions of the Project. The westerly driveway is proposed as a Right-In/Right-Out with Left-In-Only (no left out) median configuration at the southwest driveway access to the site. This access provides the only eastbound left-in access opportunity from Ramon Road to the affordable apartments.

Residents exiting the affordable apartments will need to utilize the existing westbound U-turn movement at the Da Vall Dr. / Ramon Rd. intersection in order to travel eastbound on Ramon Road away from the site. This is not the case for the single-family rental homes and 75,000 square feet of commercial buildings, which will predominantly use the available southbound left turn at the Rattler Rd. / Ramon Rd. intersection to travel eastbound on Ramon Road.

## 8.2 TRAFFIC ANALYSIS RESULTS

Traffic count data were collected in May 2023 during the AM peak period of 7:00 AM to 9:00 AM and PM peak period of 4:00 PM to 6:00 PM. Traffic count data were also collected in May 2023 during school afternoon peak hours (2:00 PM to 4:00 PM), specifically at the four existing study area intersections along Rattler Road where a concentration of high school traffic occurs.

The intersection level of service (LOS) results for Existing (2023), Existing Plus Ambient Plus Project (EAP 2025), Existing Plus Ambient Plus Project Plus Cumulative (EAPC 2025), Long Range 2040 Without and With Project conditions are summarized in Table 1-1.

For Existing (2023) conditions, the Rattler Road / School Access 1 and Rattler Road / School Access 3 intersections are currently operating at an unacceptable level of service (LOS “E” or worse).

For EAP (2025) conditions, no new intersections are projected to operate at an unacceptable LOS with the addition of Project traffic. For the existing deficient intersections of Rattler Road / School Access 1 (#4) and Rattler Road / School Access 3 (#15), improvements are not recommended.

Providing additional capacity (adding eastbound turn lanes) would not improve intersection delay at these school driveways. The worst movement that causes both intersections to fail are due to the high eastbound outbound school traffic (minor approach) and not anticipated to impede the flow of traffic for the northbound and southbound through traffic (major approaches).

For long range future conditions (2040), cumulative LOS deficiencies are projected to occur at the following intersections without or with the Project:

| # | Intersection |
|---|---|
| 1 | Date Palm Drive / Ramon Road |
| 2 | Da Vall Drive / Ramon Road |
| 4 | Rattler Road / School Access 1 |
| 15 | Rattler Road / School Access 3 |

Similar to near term conditions, improvements at the deficient intersections along Rattler Road are Road are not recommended since these driveway deficiencies are due to high morning school traffic activity.

For the off-site intersections along Ramon Road at Date Palm Drive and Da Vall Drive, improvements are ultimately needed to address intersection operational deficiencies for 2040 without and with Project conditions.

An assessment of Vehicle Miles Traveled (VMT) associated with the Project has been prepared in a separate letter *"Catana Specific Plan Vehicle Miles Traveled (VMT) Screening Assessment"*, dated June 30, 2023.

## 8.3 RECOMMENDATIONS

The following recommendations (also shown on Exhibit 1-5) achieve acceptable peak hour operations with full occupancy of the Project.

**Rattler Road / Access 1 (#10)**

- Access 1 serves the single-family rental home neighborhood of the Project and is located approximately 335 feet north of Access 2, measured from the south curb of Access 1 to the north curb of Access 2 along Rattler Road. Northbound left turns into the site will be accommodated within the existing two-way left turn lane (TWLTL) striped median on Rattler Road.

**Rattler Road / Access 2 (#11)**

- Access 2 serves the commercial retail portion of the Project and is located approximately 280 feet north of Ramon Road, measured from the south curb of Access 2 to the north curb of Ramon Road along Rattler Road. Because the retail parcel is also served by two other direct connections to Ramon Road, northbound left turns into the site at Access 2 from Rattler Road are minimal (16 AM peak hour vehicles and 40 PM peak hour vehicles). These low left turn volumes can be accommodated in the short northbound storage length available at this location within the existing two-way left turn lane (TWLTL) striped median on Rattler Road.

**Access 3 / Ramon Road (#12)**

- Access 3 serves the commercial retail portion of the Project from Ramon Road and is located approximately 590 feet west of Rattler Road, measured from the east curb of Access 3 to the west curb of Rattler Road along Ramon Road. This commercial driveway location will be restricted as right-in/right-out only access (no median break on Ramon Road).

**Access 4 / Ramon Road (#13)**

- In conjunction with development of either the affordable apartment dwelling units or the commercial retail parcel, construct median improvements on Ramon Road to accommodate a 150-foot eastbound left turn pocket. Provide a Left-In-Only (no left out) median configuration which allows left-in/right-in/right-out only access at Access 4 (see Exhibit 1-6).

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project site. Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Rancho Mirage sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

Improvement strategies have been recommended for those intersections identified as deficient for 2040 traffic conditions. The following Intersection improvements are ultimately needed to address intersection operational deficiencies for 2040 without and with Project conditions:

**Date Palm Drive / Ramon Road** (#1) – Modify existing striping for the northbound right turn lane to provide a shared through/right lane (3rd northbound receiving lane exists). Provide a separate eastbound and westbound right turn lanes.

**Da Vall Drive / Ramon Road** (#2) – Improvements at this location include providing an overlap phase for the existing westbound right turn lane and providing a 2nd southbound left turn lane.

The Project's fair share of cumulative traffic amounts to 5.7% towards the 2040 lane re-striping improvements at Date Palm Drive / Ramon Road (#1) and 8.2% towards the 2040 ultimate lane improvements and signal modification at Da Vall Drive / Ramon Road (#2). Project participation may include fee payments to established programs (e.g., TUMF), payment of a fair share contribution toward future improvements, or a combination of these approaches.

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# 9 REFERENCES

1. **Riverside County Transportation Department.** *Transportation Analysis Guideines for Level of Service & Vehicle Miles Traveled.* County of Riverside : s.n., December 2020.
2. **City of Rancho Mirage.** *Transportation Analysis Policy.* (Revised February 18, 2021).
3. **Transportation Research Board.** *Highway Capacity Manual (HCM), 6th Edition.* s.l. : National Academy of Sciences, 2016.
4. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CAMUTCD).* 2014, Updated March 30, 2021 (Revision 6).
5. **Institute of Transportation Engineers.** Trip Generation Manual. 11th Edition, 2021.
6. **Urban Crossroads, Inc.** *City of Rancho Mirage General Plan Update Traffic Impact Analysis.* City of Rancho Mirage : s.n., 2017.
7. **Fehr & Peers.** *Draft Section 31 Specific Plan Transportation Impact Study.* City of Rancho Mirage : s.n., March 2019.
8. **City of Cathedral City.** *Draft Comprehensive General Plan.* City of Cathedral City : s.n., July 2019.

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# APPENDIX 1.1: TRAFFIC STUDY SCOPING AGREEMENT

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May 9, 2023

Mr. Ryan Stendell
City of Rancho Mirage, Director of Public Works
69-825 Highway 111
Rancho Mirage, CA 92270

**CATANA SPECIFIC PLAN TRAFFIC SCOPING LETTER AND VMT SCREENING SCOPE**

Dear Mr. Ryan Stendell:

Urban Crossroads, Inc. is pleased to submit this traffic analysis scope regarding the proposed Catana Specific Plan development ("Project"), which is located at the northwest corner of E. Ramon Avenue and Rattler Road in the City of Rancho Mirage. It is our understanding that the project is to consist of 215 single family rental homes, 90 affordable apartment dwelling units and 75,000 square feet of commercial land use.

The remainder of this letter describes the proposed analysis methodology, Project trip generation, trip distribution, and Project traffic assignment/project trips on the surrounding roadway network. The following scoping assumptions have been prepared in accordance with the City of Rancho Mirage Transportation Analysis Policy (Revised February 18, 2021) and County of Riverside's Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (December 2020).

A preliminary site plan for the proposed Project is shown on Exhibit 1. For analysis purposes, occupancy of the Project is anticipated to occur in year 2025. The single family rentals will have two full access (gated) driveways along Rattler Road, while the affordable apartments will be accessed from the project driveway on the west side of the site, from Ramon Road. The commercial portion of the Project will have one full access driveway along Rattler Road, and two restricted access driveways along Ramon Road. The commercial driveway located at a mid-point along Ramon Road is limited to Right-In/Right-Out (RIRO) movements. The westerly driveway serves as the primary access to the affordable apartment, and also connects to the commercial and single family portions of the Project.

Exhibit 2 shows a proposed Left-In-Only (no left out) median configuration at the southwest driveway access to the site. The turning volumes and traffic operational characteristics of this restricted median break at Project Access 5 will be evaluated in the study. Access 5 provides the only eastbound left-in access opportunity from Ramon Road to the affordable apartments.

## TRIP GENERATION

In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) *Trip Generation* (11th Edition, 2021) manual for the proposed land uses (220 – Multi-family Residential (Low Rise), 223 – Affordable Housing, and 821 – Shopping Center) are utilized. It should be noted that ITE LU code 220 (multi-family residential) is utilized to evaluate single family rental homes. Table 1 presents the trip generation rates and the resulting trip generation summary for the proposed Project.

## EXHIBIT 1: PRELIMINARY SITE PLAN

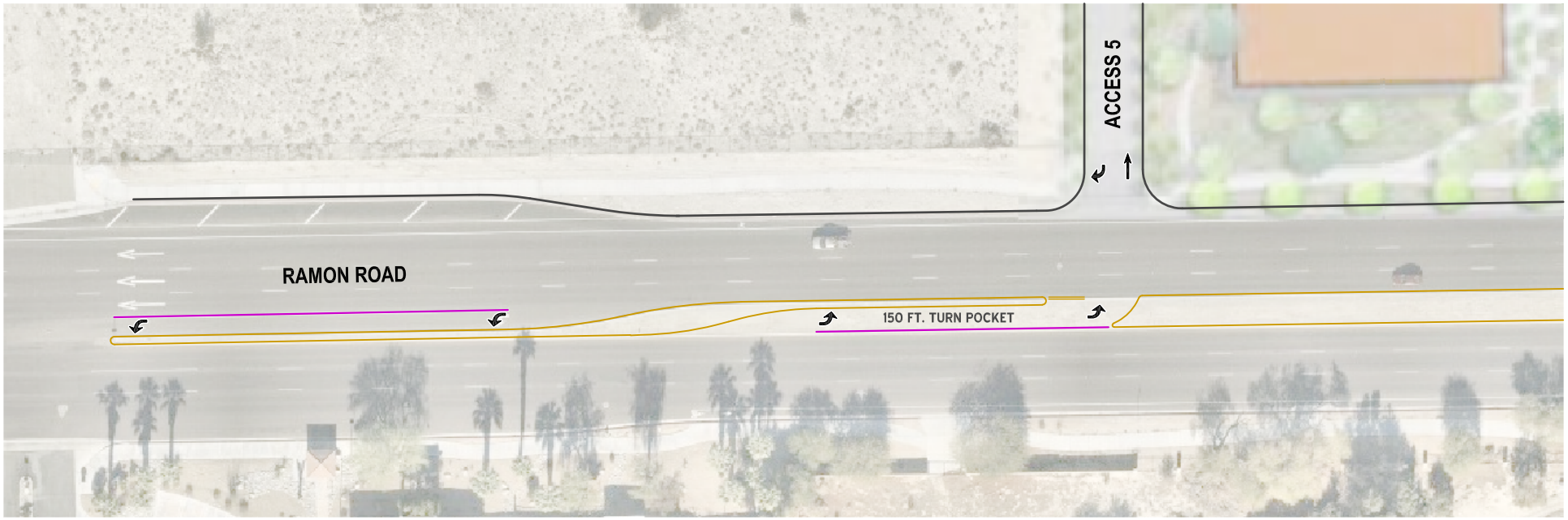

**LEGEND:**

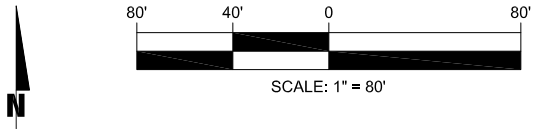
= RIGHT-IN/RIGHT-OUT ONLY

= LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY

N

## EXHIBIT 2: ACCESS 5 MEDIAN LEFT-IN ONLY CONFIGURATION



As shown in Table 1, the Project is anticipated to generate a total of 5,680 trip-ends per day with 215 AM peak hour trips and 443 PM peak hour trips.

**TABLE 1: PROJECT TRIP GENERATION SUMMARY**

Trip Generation Rates[1]

| Land Use | ITE LU Code | Quantity[2] | | AM Peak Hour | | | PM Peak Hour | | | Daily |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | In | Out | Total | In | Out | Total | |
| Single Family Rental Homes | 220 | 215 | DU | 0.10 | 0.30 | 0.40 | 0.32 | 0.19 | 0.51 | 6.74 |
| Affordable Apartments | 223 | 90 | DU | 0.10 | 0.26 | 0.36 | 0.27 | 0.19 | 0.46 | 4.81 |
| Shopping Center (40-150k) | 821 | 75 | TSF | 1.07 | 0.66 | 1.73 | 2.54 | 2.65 | 5.19 | 67.52 |

Trip Generation Results

| Land Use | ITE LU Code | Quantity[2] | | AM Peak Hour | | | PM Peak Hour | | | Daily |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | In | Out | Total | In | Out | Total | |
| Single Family Rental Homes | 220 | 215 | DU | 22 | 65 | 87 | 69 | 41 | 110 | 1,449 |
| Affordable Apartments | 223 | 90 | DU | 9 | 23 | 32 | 24 | 17 | 41 | 433 |
| *Residential Interaction with Commercial* | | | | *-3* | *-4* | *-7* | *-10* | *-10* | *-20* | *-253* |
| Residential Subtotal | | | | 28 | 84 | 112 | 83 | 48 | 131 | 1,629 |
| Shopping Center (40-150k) | 821 | 75 | TSF | 80 | 50 | 130 | 191 | 199 | 390 | 5,064 |
| *Commercial Pass-By (15%)* | | | | *-10* | *-10* | *-20* | *-29* | *-29* | *-58* | *-760* |
| *Commercial Interaction with Residential (5%)* | | | | *-4* | *-3* | *-7* | *-10* | *-10* | *-20* | *-253* |
| Commercial Subtotal | | | | 66 | 38 | 104 | 152 | 160 | 312 | 4,051 |
| PROJECT TOTAL EXTERNAL TRIPS | | | | 94 | 121 | 215 | 235 | 208 | 443 | 5,680 |

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

[2] TSF = Thousand Square Feet; DU = Dwelling Units

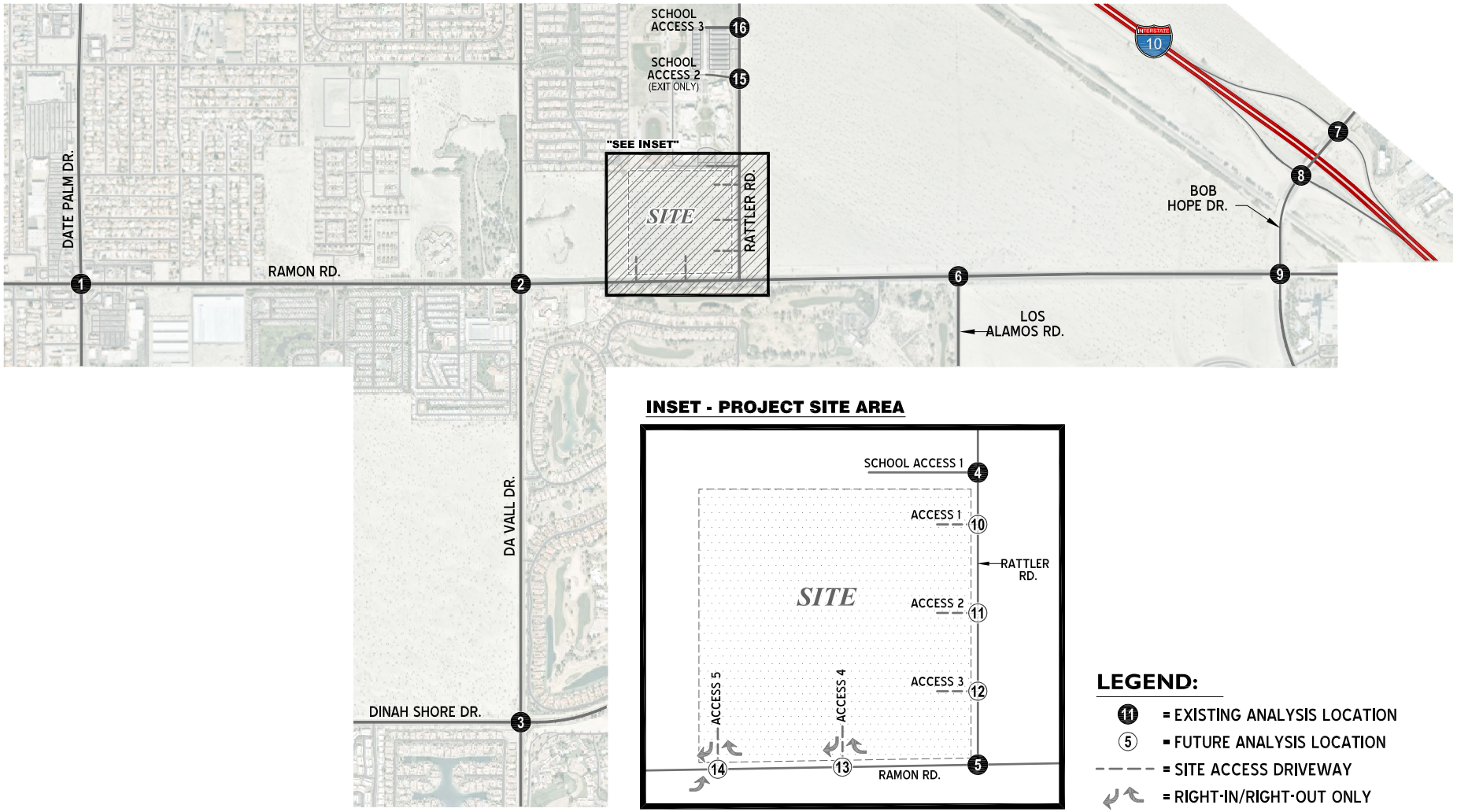
## STUDY AREA

Intersections of "Collector" or higher classification at which the proposed project will add 50 or more peak hour trips are to be evaluated in the traffic study. Table 2 lists the intersection analysis locations. Exhibit 3 identifies the proposed study area intersection analysis locations and depicts the location of the proposed project in relation to the existing roadway network.

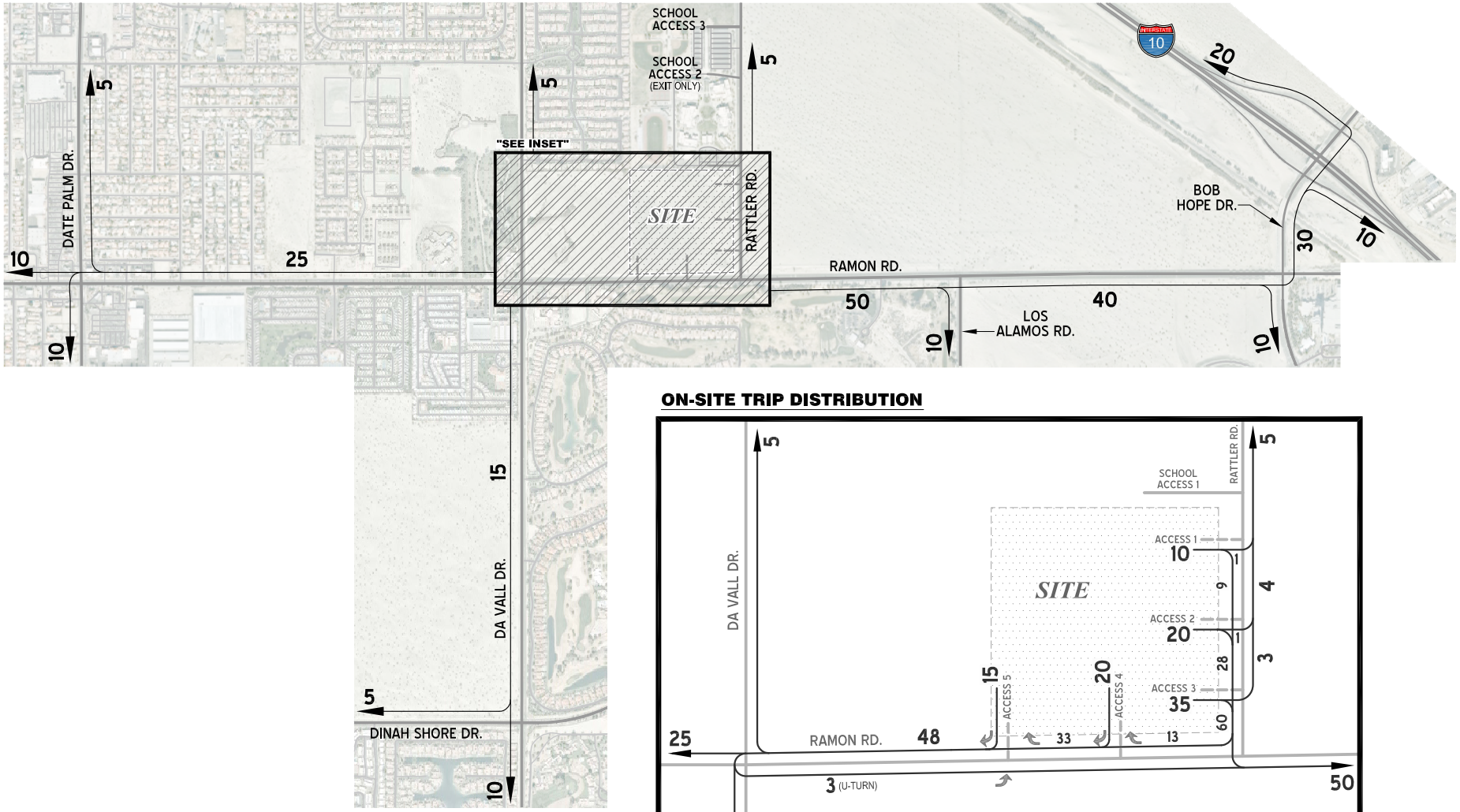
The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. Exhibits 4 and 5 presents the outbound and inbound Project distribution patterns. Based on the identified Project traffic generation and trip distribution patterns, Project ADT and peak hour intersection turning movement volumes are shown on Exhibit 6.

Residents exiting the affordable apartments will need to utilize the existing westbound U-turn movement at the Da Vall Dr. / Ramon Rd. intersection in order to travel eastbound on Ramon Road away from the site. This is not the case for the single family rental homes and 75,000 square feet of commercial buildings, which will predominantly use the available southbound left turn at the Rattler Rd. / Ramon Rd. intersection to travel eastbound on Ramon Road.

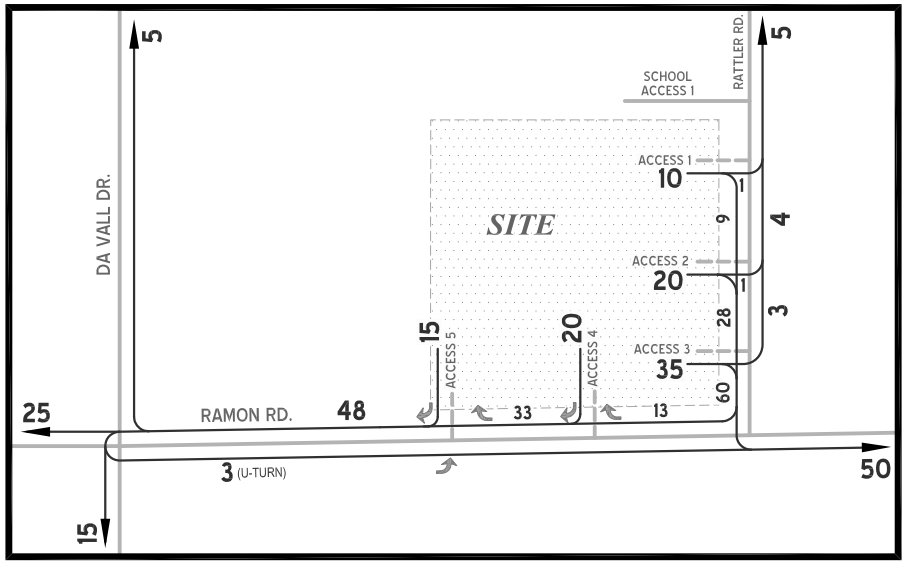
## EXHIBIT 3: TRAFFIC ANALYSIS STUDY AREA



## EXHIBIT 4: PROJECT TRIP DISTRIBUTION (OUTBOUND)




### ON-SITE TRIP DISTRIBUTION




**LEGEND:**

10 = PERCENT FROM PROJECT

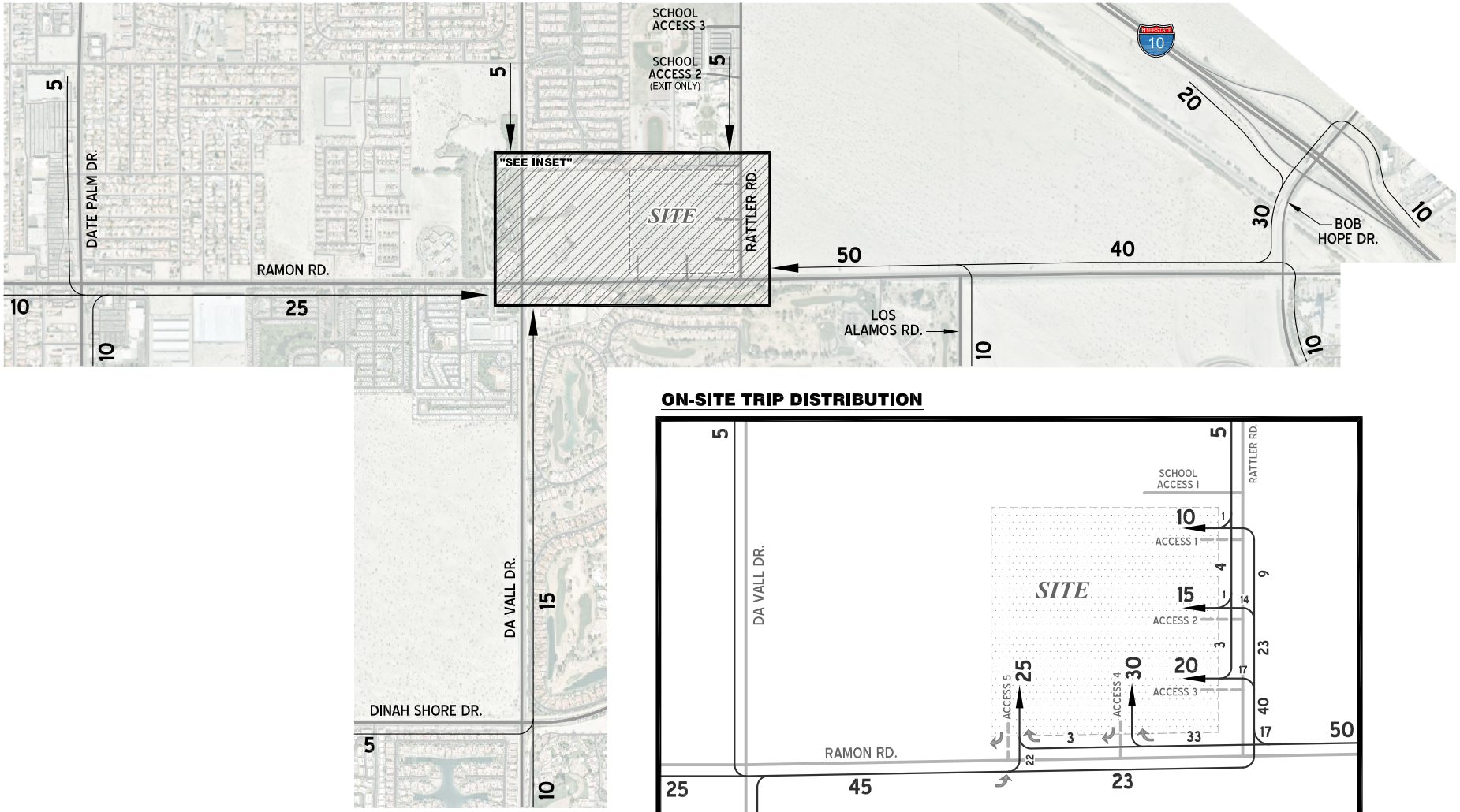
= SITE ACCESS DRIVEWAY

= RIGHT-IN/RIGHT-OUT ONLY

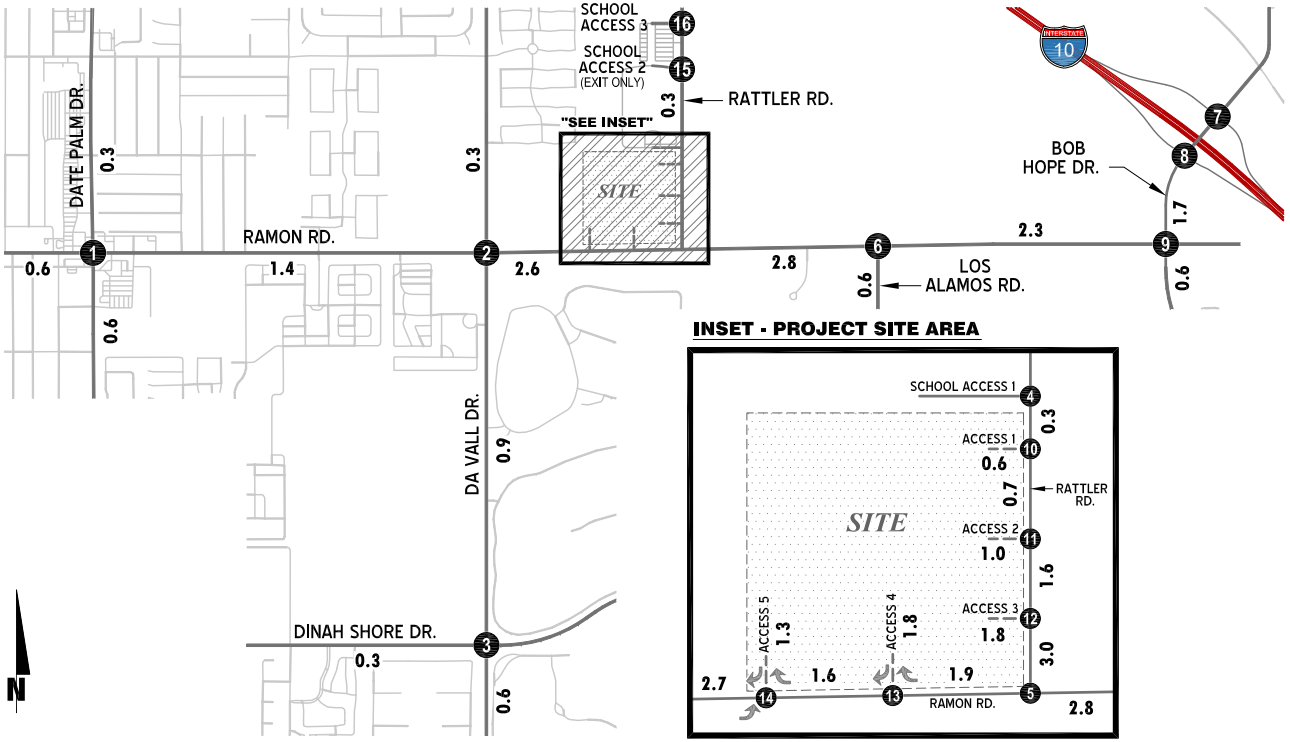
= LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY

N

## EXHIBIT 5: PROJECT TRIP DISTRIBUTION (INBOUND)



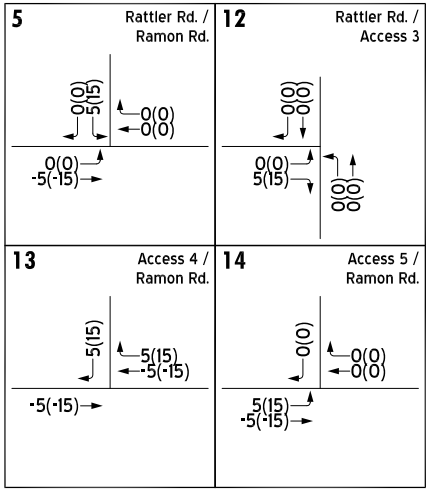
# EXHIBIT 6: PROJECT ONLY TRAFFIC VOLUMES



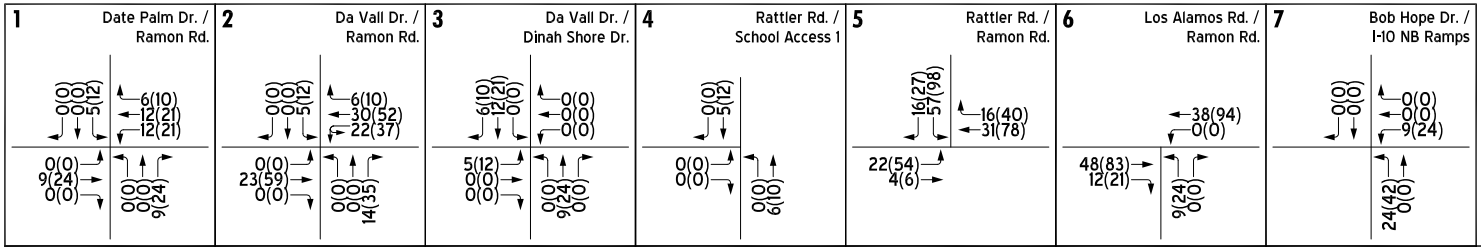

## INSET - PROJECT SITE AREA




## PROJECT PASS-BY ONLY




## PROJECT ONLY




## LEGEND:

- 16 = INTERSECTION ID
- 10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES
- 10.0 = VEHICLES PER DAY (1000'S)
- = FUTURE ROADWAY
- = RIGHT-IN/RIGHT-OUT ONLY
- = LEFT-IN/RIGHT-IN/RIGHT-OUT ONLY

**TABLE 2: STUDY AREA INTERSECTIONS**

| # | Intersection | # | Intersection |
|---|---|---|---|
| 1 | Date Palm Dr. / Ramon Rd. | 9 | Bob Hope Dr. / Ramon Rd. |
| 2 | Da Vall Dr. / Ramon Rd. | 10 | Rattler Rd. / Access 1 |
| 3 | Da Vall Dr. / Dinah Shore Dr. | 11 | Rattler Rd. / Access 2 |
| 4 | Rattler Rd. / School Access 1 | 12 | Rattler Rd. / Access 3 |
| 5 | Rattler Rd. / Ramon Rd. | 13 | Access 4 / Ramon Rd. |
| 6 | Los Alamos Rd. / Ramon Rd. | 14 | Access 5 / Ramon Rd. |
| 7 | Bob Hope Dr. / I-10 NB Ramps | 15 | Rattler Rd. / School Access 2 |
| 8 | Bob Hope Dr. / I-10 SB Ramps | 16 | Rattler Rd. / School Access 3 |

## ANALYSIS SCENARIOS

Peak hour intersection analysis will be provided for the following analysis scenarios:

- Existing (2023) Conditions
- Existing Plus Ambient Growth Plus Project (EAP) (2025)
- Existing plus Ambient plus Project plus Cumulative (EAPC) (2025)
- Horizon Year (2040) Without Project Conditions
- Horizon Year (2040) With Project Conditions

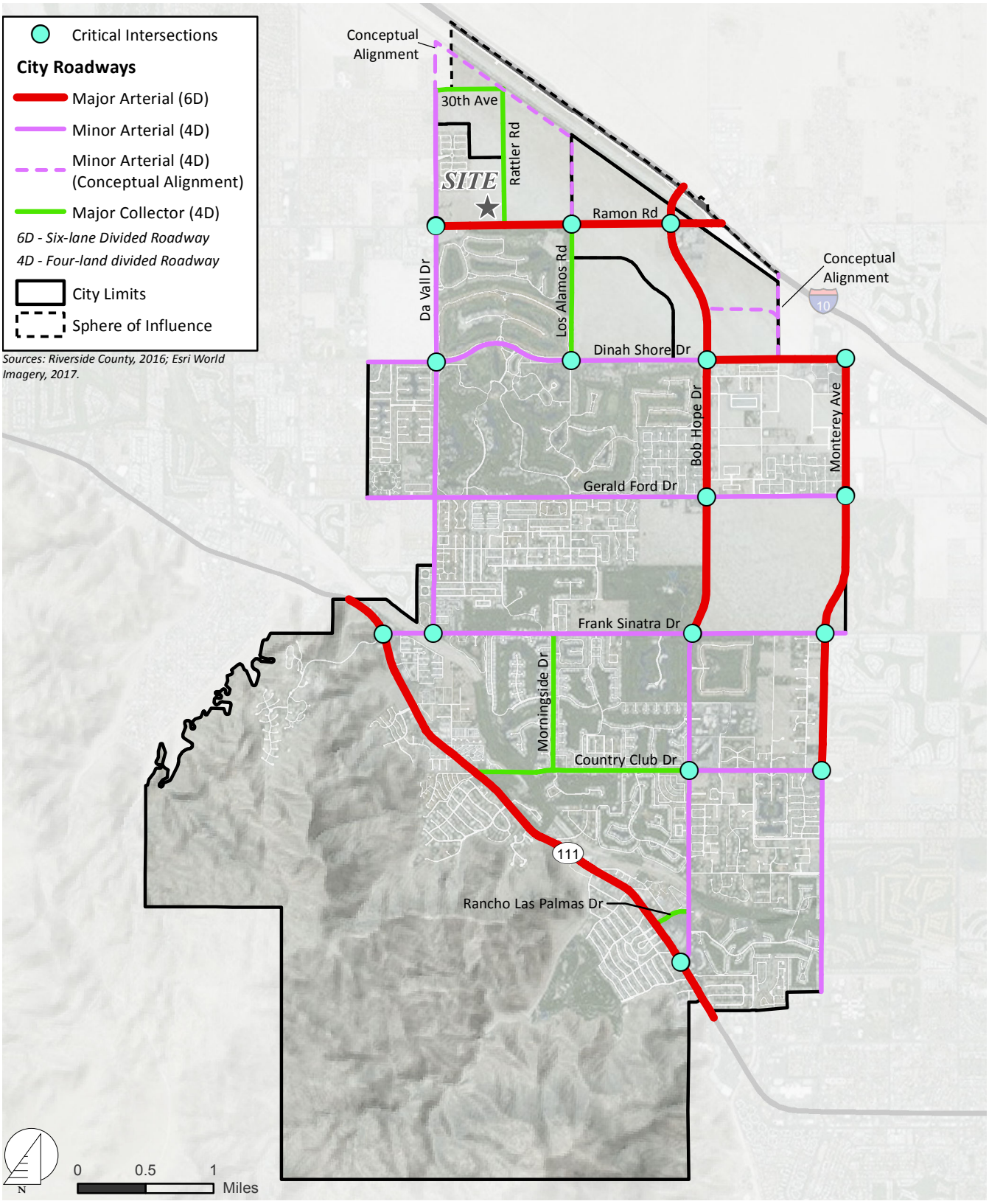
The City of Rancho Mirage General Plan Functional Roadway Classifications are depicted on Exhibit 7.

## LEVEL OF SERVICE (LOS) CRITERIA

The City of Rancho Mirage states that "While LOS C has long been considered the desirable and optimal level of traffic volume on any given roadway, it represents a standard that is progressively more difficult and less cost effective to achieve in urban areas. For peak operating periods, LOS D or a maximum volume to capacity ratio of 0.90 is now considered the generally acceptable service level."

Where the average daily traffic volume (ADT) based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis is undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. While this traffic study recognizes LOS D is the City's target LOS for roadway segments, a review of the more detailed peak hour intersection analysis is necessary to determine whether roadway widening along the segment is necessary. For the purposes of this analysis, if the peak hour intersection operations on either side of the roadway segment are anticipated to operate at LOS D or better, then additional roadway segment widening is not recommended. Therefore, for the purposes of this analysis, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

## EXHIBIT 7: CITY OF RANCHO MIRAGE GENERAL PLAN CIRCULATION ELEMENT



## TRAFFIC COUNTS

Traffic count data will be collected in May 2023 during the AM peak period of 7:00 AM to 9:00 AM and PM peak period of 4:00 PM to 6:00 PM. Traffic count data will also be collected in May 2023 during school afternoon peak hours (2:00 PM to 4:00 PM), specifically at the four existing study area intersections along Rattler Road where a concentration of high school traffic occurs.

## CUMULATIVE DEVELOPMENT TRAFFIC

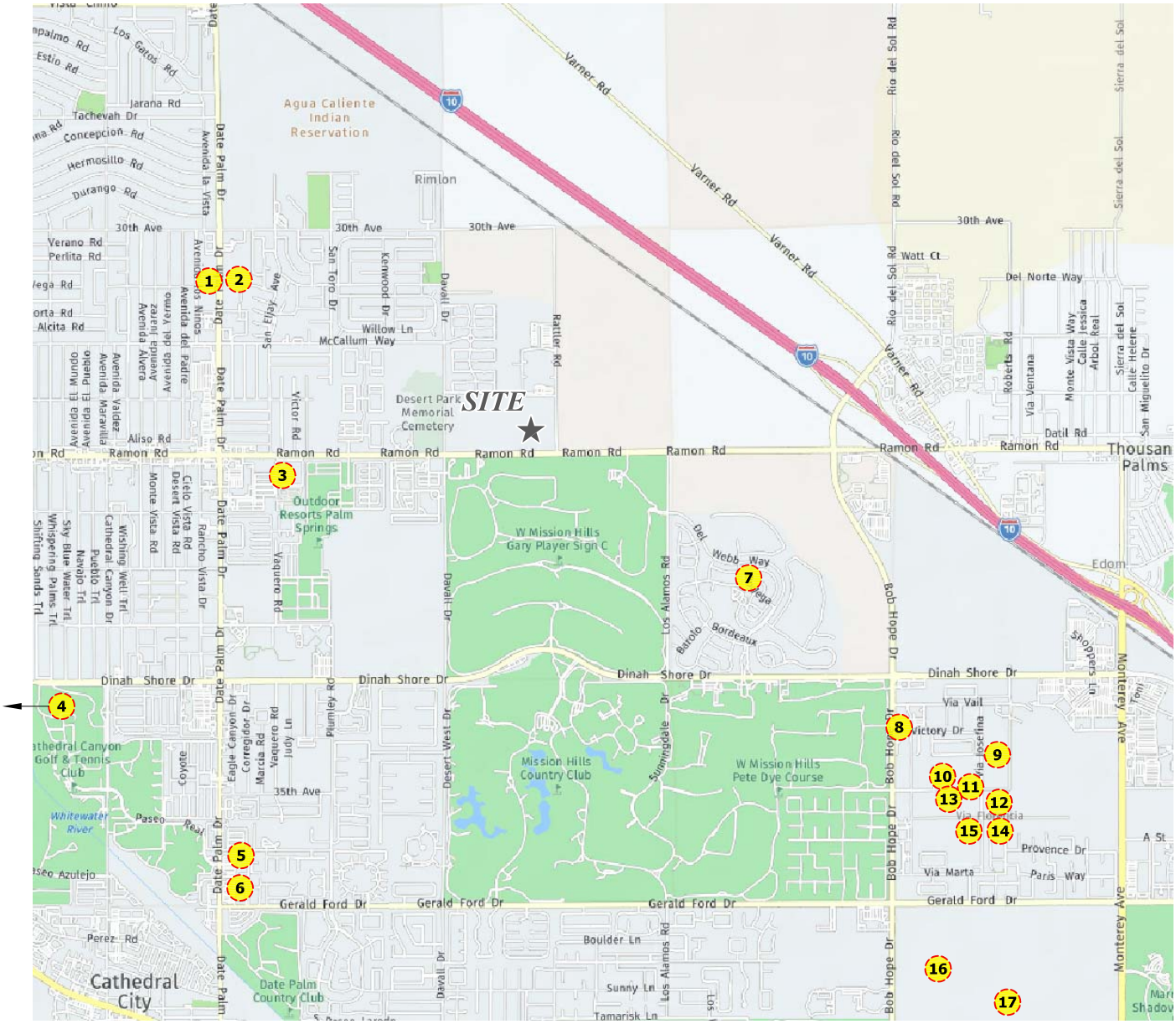
It is requested that City staff review the list of cumulative development projects (shown on Exhibit 8 and listed on Table 3) for inclusion in the traffic study. Consistent with other studies performed in the area, an ambient growth rate of 2% per year will be utilized as a minimum if necessary. The rate will be compounded over a 2-year period (i.e., 1.02^2years = 1.0404 or 4.04%) for Interim Year (2025) conditions.

**TABLE 3: CUMULATIVE DEVELOPMENT LAND USE SUMMARY**

| TAZ | Project | Land Use | Quantity | Units[1] |
|---|---|---|---|---|
| 1 | Isle of Capri | Multifamily Residential | 224 | DU |
| | | Single Family Residential | 8 | DU |
| 2 | Commercial Property | Commercial | 175.0 | TSF |
| 3 | Ramon 19 | Cannabis Cultivation | 486.0 | TSF |
| 4 | Vibrante | Condominium | 41 | DU |
| 5 | Amazon Hub Center (35780 Date Palm Dr) | High-Cube Fulfillment Center | 94.0 | TSF |
| 6 | Cathedral City Events Center (35900 Date Palm Dr) | Event Center | 80.0 | TSF |
| 7 | Pulte Homes/ Del Webb | Residential | 1,200 | DU |
| | | Marijuana Dispensary | 3.0 | TSF |
| 8 | DHO Medical Office Building | Medical Office | 13.8 | TSF |
| 9 | Miragedunes Properties | Residential | 9 | DU |
| 10 | Estilo | Residential | 39 | DU |
| 11 | Rancho Mirage LLC | Residential | 4 | DU |
| 12 | 38 JV, LLC c/o Meriwether Companies | Residential | 10 | DU |
| 13 | GRV Mirage, LLC (ECHO) | Residential | 9 | DU |
| 14 | RM 38 JV LLC | Residential | 82 | DU |
| 15 | 38 JV, LLC c/o Meriwether Companies | Residential | 97 | DU |
| 16 | ED Rancho Mirage | Residential | 354 | DU |
| 17 | Section 31 Specific Plan Project | Hotel | 400 | Rooms |
| | | Commercial | 175.0 | TSF |
| | | Residential | 1,932 | DU |

[1] DU = Dwelling Units; TSF = Thousand Square Feet

## EXHIBIT 8: CUMULATIVE DEVELOPMENT LOCATION MAP



## INTERSECTION QUEUES AT PROJECT ACCESS POINTS

The analysis will include an evaluation of traffic queues approaching the entries from Ramon Avenue and Rattler Road.

## VEHICLE MILES TRAVELED

The VMT screening assessment will be prepared under separate cover in accordance with SB743 and consistent with the methodology and thresholds outlined in the City of Rancho Mirage Transportation Analysis Policy (Revised February 18, 2021).

Please review this scoping agreement let us know if it is acceptable, or if the City requests any changes to this proposed scope of work. If you have any questions, please contact John Kain at (949) 375-2435 or Marlie Whiteman (714) 585-0574.

Respectfully submitted,

URBAN CROSSROADS, INC.

John Kain, AICP
Principal

Marlie Whiteman, PE
Senior Associate

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# APPENDIX 3.1: TRAFFIC COUNTS – MAY 2023

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Date Palm Drivve
E/W: Ramon Road
Weather: Clear

File Name : 01_RNM_DP_RAMON_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

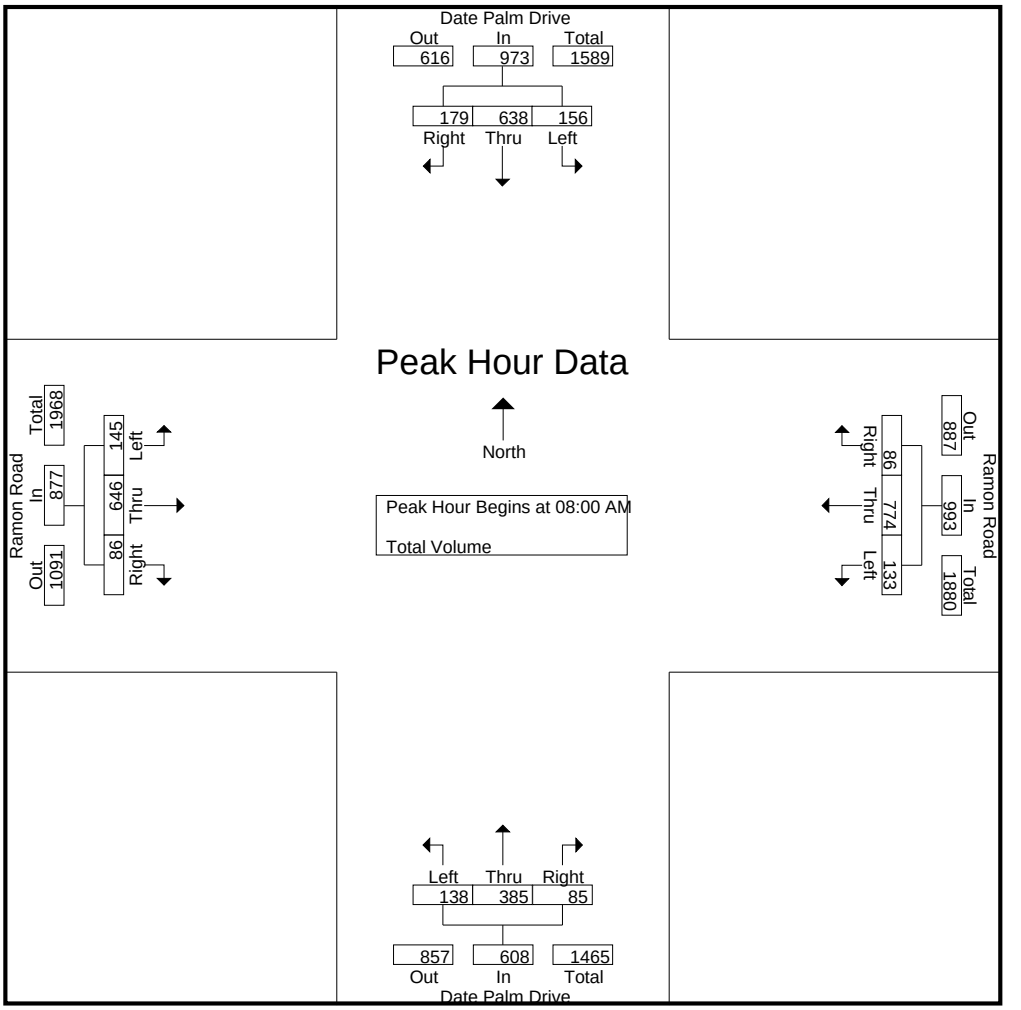
| | Date Palm Drive Southbound | | | | Ramon Road Westbound | | | | Date Palm Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 32 | 120 | 42 | 194 | 18 | 122 | 9 | 149 | 17 | 58 | 24 | 99 | 22 | 126 | 10 | 158 | 600 |
| 07:15 AM | 32 | 156 | 49 | 237 | 18 | 143 | 10 | 171 | 13 | 65 | 19 | 97 | 37 | 147 | 23 | 207 | 712 |
| 07:30 AM | 56 | 165 | 50 | 271 | 26 | 196 | 15 | 237 | 15 | 69 | 22 | 106 | 47 | 199 | 16 | 262 | 876 |
| 07:45 AM | 57 | 168 | 65 | 290 | 30 | 170 | 22 | 222 | 17 | 69 | 19 | 105 | 37 | 142 | 17 | 196 | 813 |
| Total | 177 | 609 | 206 | 992 | 92 | 631 | 56 | 779 | 62 | 261 | 84 | 407 | 143 | 614 | 66 | 823 | 3001 |
| | | | | | | | | | | | | | | | | | |
| 08:00 AM | 39 | 168 | 36 | 243 | 34 | 138 | 12 | 184 | 29 | 61 | 16 | 106 | 39 | 165 | 22 | 226 | 759 |
| 08:15 AM | 40 | 171 | 53 | 264 | 33 | 202 | 13 | 248 | 24 | 111 | 23 | 158 | 44 | 180 | 24 | 248 | 918 |
| 08:30 AM | 48 | 168 | 40 | 256 | 44 | 219 | 26 | 289 | 43 | 112 | 25 | 180 | 37 | 166 | 21 | 224 | 949 |
| 08:45 AM | 29 | 131 | 50 | 210 | 22 | 215 | 35 | 272 | 42 | 101 | 21 | 164 | 25 | 135 | 19 | 179 | 825 |
| Total | 156 | 638 | 179 | 973 | 133 | 774 | 86 | 993 | 138 | 385 | 85 | 608 | 145 | 646 | 86 | 877 | 3451 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 333 | 1247 | 385 | 1965 | 225 | 1405 | 142 | 1772 | 200 | 646 | 169 | 1015 | 288 | 1260 | 152 | 1700 | 6452 |
| Apprch % | 16.9 | 63.5 | 19.6 | | 12.7 | 79.3 | 8 | | 19.7 | 63.6 | 16.7 | | 16.9 | 74.1 | 8.9 | | |
| Total % | 5.2 | 19.3 | 6 | 30.5 | 3.5 | 21.8 | 2.2 | 27.5 | 3.1 | 10 | 2.6 | 15.7 | 4.5 | 19.5 | 2.4 | 26.3 | |

| | Date Palm Drive Southbound | | | | Ramon Road Westbound | | | | Date Palm Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | | | | | | | | |
| 08:00 AM | 39 | 168 | 36 | 243 | 34 | 138 | 12 | 184 | 29 | 61 | 16 | 106 | 39 | 165 | 22 | 226 | 759 |
| 08:15 AM | 40 | **171** | **53** | **264** | 33 | 202 | 13 | 248 | 24 | 111 | 23 | 158 | **44** | **180** | **24** | **248** | 918 |
| 08:30 AM | **48** | 168 | 40 | 256 | **44** | **219** | 26 | **289** | **43** | **112** | **25** | **180** | 37 | 166 | 21 | 224 | **949** |
| 08:45 AM | 29 | 131 | 50 | 210 | 22 | 215 | **35** | 272 | 42 | 101 | 21 | 164 | 25 | 135 | 19 | 179 | 825 |
| Total Volume | 156 | 638 | 179 | 973 | 133 | 774 | 86 | 993 | 138 | 385 | 85 | 608 | 145 | 646 | 86 | 877 | 3451 |
| % App. Total | 16 | 65.6 | 18.4 | | 13.4 | 77.9 | 8.7 | | 22.7 | 63.3 | 14 | | 16.5 | 73.7 | 9.8 | | |
| PHF | .813 | .933 | .844 | .921 | .756 | .884 | .614 | .859 | .802 | .859 | .850 | .844 | .824 | .897 | .896 | .884 | .909 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Date Palm Drivve
E/W: Ramon Road
Weather: Clear

File Name : 01_RNM_DP_RAMON_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:30 AM | | | | 08:00 AM | | | | 08:00 AM | | | | 07:30 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 56 | 165 | 50 | 271 | 34 | 138 | 12 | 184 | 29 | 61 | 16 | 106 | **47** | **199** | 16 | **262** |
| +15 mins. | **57** | 168 | **65** | **290** | 33 | 202 | 13 | 248 | 24 | 111 | 23 | 158 | 37 | 142 | 17 | 196 |
| +30 mins. | 39 | 168 | 36 | 243 | **44** | **219** | 26 | **289** | **43** | **112** | **25** | **180** | 39 | 165 | 22 | 226 |
| +45 mins. | 40 | **171** | 53 | 264 | 22 | 215 | **35** | 272 | 42 | 101 | 21 | 164 | 44 | 180 | **24** | 248 |
| Total Volume | 192 | 672 | 204 | 1068 | 133 | 774 | 86 | 993 | 138 | 385 | 85 | 608 | 167 | 686 | 79 | 932 |
| % App. Total | 18 | 62.9 | 19.1 | | 13.4 | 77.9 | 8.7 | | 22.7 | 63.3 | 14 | | 17.9 | 73.6 | 8.5 | |
| PHF | .842 | .982 | .785 | .921 | .756 | .884 | .614 | .859 | .802 | .859 | .850 | .844 | .888 | .862 | .823 | .889 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Date Palm Drivve
E/W: Ramon Road
Weather: Clear

File Name : 01_RNM_DP_RAMON_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Date Palm Drive Southbound | | | | Ramon Road Westbound | | | | Date Palm Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 41 | 129 | 42 | 212 | 55 | 247 | 39 | 341 | 72 | 188 | 15 | 275 | 54 | 182 | 23 | 259 | 1087 |
| 04:15 PM | 49 | 114 | 37 | 200 | 37 | 165 | 46 | 248 | 56 | 174 | 33 | 263 | 59 | 161 | 28 | 248 | 959 |
| 04:30 PM | 42 | 115 | 40 | 197 | 38 | 178 | 28 | 244 | 60 | 151 | 27 | 238 | 50 | 157 | 32 | 239 | 918 |
| 04:45 PM | 47 | 133 | 40 | 220 | 30 | 169 | 32 | 231 | 57 | 143 | 22 | 222 | 41 | 193 | 32 | 266 | 939 |
| Total | 179 | 491 | 159 | 829 | 160 | 759 | 145 | 1064 | 245 | 656 | 97 | 998 | 204 | 693 | 115 | 1012 | 3903 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 40 | 125 | 29 | 194 | 40 | 188 | 29 | 257 | 46 | 148 | 28 | 222 | 57 | 161 | 28 | 246 | 919 |
| 05:15 PM | 36 | 90 | 36 | 162 | 35 | 191 | 34 | 260 | 54 | 151 | 26 | 231 | 52 | 210 | 29 | 291 | 944 |
| 05:30 PM | 40 | 101 | 43 | 184 | 45 | 160 | 22 | 227 | 51 | 153 | 23 | 227 | 42 | 170 | 31 | 243 | 881 |
| 05:45 PM | 46 | 146 | 48 | 240 | 28 | 146 | 26 | 200 | 30 | 117 | 27 | 174 | 48 | 121 | 28 | 197 | 811 |
| Total | 162 | 462 | 156 | 780 | 148 | 685 | 111 | 944 | 181 | 569 | 104 | 854 | 199 | 662 | 116 | 977 | 3555 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 341 | 953 | 315 | 1609 | 308 | 1444 | 256 | 2008 | 426 | 1225 | 201 | 1852 | 403 | 1355 | 231 | 1989 | 7458 |
| Apprch % | 21.2 | 59.2 | 19.6 | | 15.3 | 71.9 | 12.7 | | 23 | 66.1 | 10.9 | | 20.3 | 68.1 | 11.6 | | |
| Total % | 4.6 | 12.8 | 4.2 | 21.6 | 4.1 | 19.4 | 3.4 | 26.9 | 5.7 | 16.4 | 2.7 | 24.8 | 5.4 | 18.2 | 3.1 | 26.7 | |

| | Date Palm Drive Southbound | | | | Ramon Road Westbound | | | | Date Palm Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 41 | 129 | **42** | 212 | **55** | **247** | 39 | **341** | **72** | **188** | 15 | **275** | 54 | 182 | 23 | 259 | **1087** |
| 04:15 PM | **49** | 114 | 37 | 200 | 37 | 165 | **46** | 248 | 56 | 174 | **33** | 263 | **59** | 161 | 28 | 248 | 959 |
| 04:30 PM | 42 | 115 | 40 | 197 | 38 | 178 | 28 | 244 | 60 | 151 | 27 | 238 | 50 | 157 | **32** | 239 | 918 |
| 04:45 PM | 47 | **133** | 40 | **220** | 30 | 169 | 32 | 231 | 57 | 143 | 22 | 222 | 41 | **193** | 32 | **266** | 939 |
| Total Volume | 179 | 491 | 159 | 829 | 160 | 759 | 145 | 1064 | 245 | 656 | 97 | 998 | 204 | 693 | 115 | 1012 | 3903 |
| % App. Total | 21.6 | 59.2 | 19.2 | | 15 | 71.3 | 13.6 | | 24.5 | 65.7 | 9.7 | | 20.2 | 68.5 | 11.4 | | |
| PHF | .913 | .923 | .946 | .942 | .727 | .768 | .788 | .780 | .851 | .872 | .735 | .907 | .864 | .898 | .898 | .951 | .898 |

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City of Rancho Mirage
N/S: Date Palm Drivve
E/W: Ramon Road
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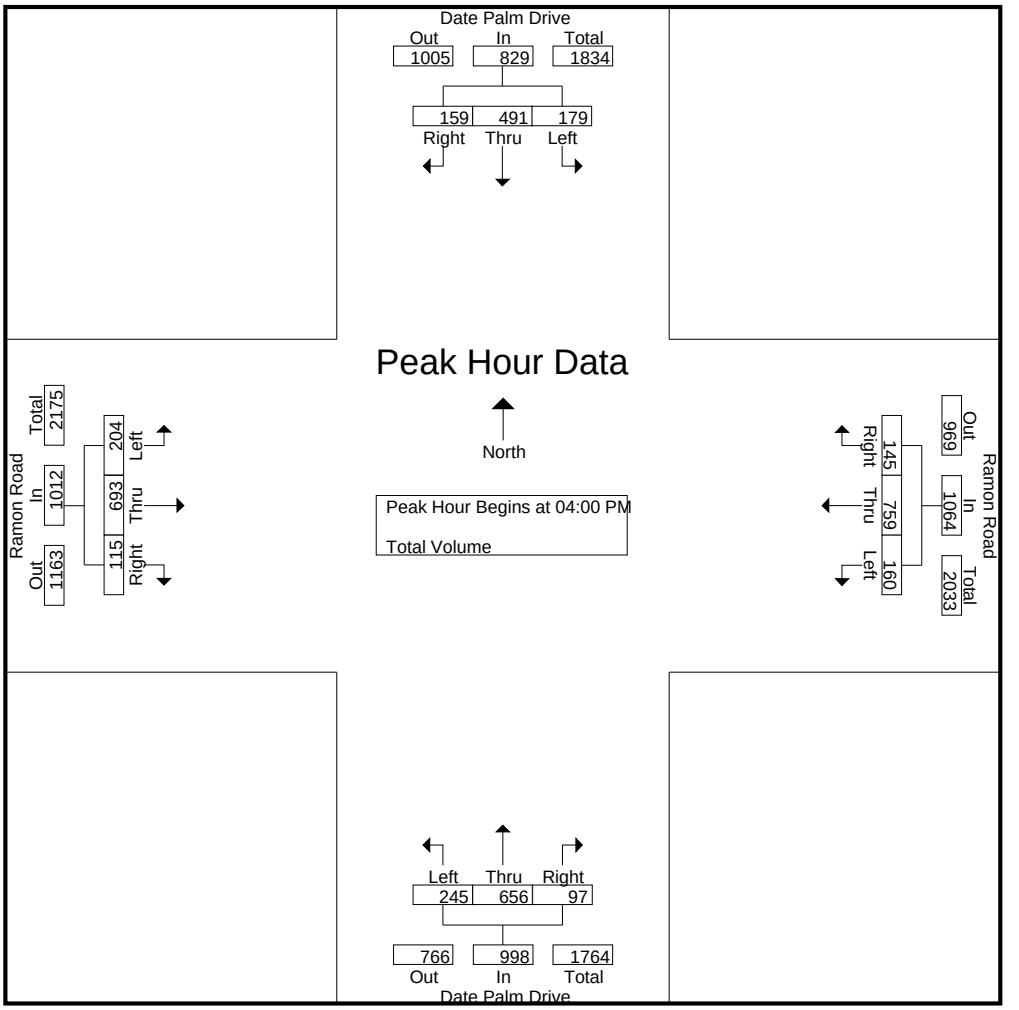
File Name : 01_RNM_DP_RAMON_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | | 04:45 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 41 | 129 | **42** | 212 | **55** | **247** | 39 | **341** | **72** | **188** | 15 | **275** | 41 | 193 | **32** | 266 |
| +15 mins. | **49** | 114 | 37 | 200 | 37 | 165 | **46** | 248 | 56 | 174 | **33** | 263 | **57** | 161 | 28 | 246 |
| +30 mins. | 42 | 115 | 40 | 197 | 38 | 178 | 28 | 244 | 60 | 151 | 27 | 238 | 52 | **210** | 29 | **291** |
| +45 mins. | 47 | **133** | 40 | **220** | 30 | 169 | 32 | 231 | 57 | 143 | 22 | 222 | 42 | 170 | 31 | 243 |
| Total Volume | 179 | 491 | 159 | 829 | 160 | 759 | 145 | 1064 | 245 | 656 | 97 | 998 | 192 | 734 | 120 | 1046 |
| % App. Total | 21.6 | 59.2 | 19.2 | | 15 | 71.3 | 13.6 | | 24.5 | 65.7 | 9.7 | | 18.4 | 70.2 | 11.5 | |
| PHF | .913 | .923 | .946 | .942 | .727 | .768 | .788 | .780 | .851 | .872 | .735 | .907 | .842 | .874 | .938 | .899 |

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City of Rancho Mirage
N/S: Da Vall Drive
E/W: Ramon Road
Weather: Clear

File Name : 02_RNM_DAVALL_RAMON_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Da Vall Drive Southbound | | | | Ramon Road Westbound | | | | Da Vall Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 30 | 42 | 7 | 79 | 23 | 102 | 15 | 140 | 8 | 11 | 19 | 38 | 5 | 155 | 24 | 184 | 441 |
| 07:15 AM | 44 | 53 | 6 | 103 | 38 | 171 | 44 | 253 | 10 | 20 | 16 | 46 | 3 | 146 | 37 | 186 | 588 |
| 07:30 AM | 78 | 71 | 11 | 160 | 29 | 186 | 36 | 251 | 14 | 28 | 24 | 66 | 5 | 186 | 31 | 222 | 699 |
| 07:45 AM | 50 | 72 | 8 | 130 | 43 | 191 | 24 | 258 | 13 | 24 | 16 | 53 | 9 | 179 | 33 | 221 | 662 |
| Total | 202 | 238 | 32 | 472 | 133 | 650 | 119 | 902 | 45 | 83 | 75 | 203 | 22 | 666 | 125 | 813 | 2390 |
| 08:00 AM | 50 | 60 | 6 | 116 | 43 | 146 | 25 | 214 | 18 | 23 | 19 | 60 | 4 | 179 | 21 | 204 | 594 |
| 08:15 AM | 45 | 53 | 6 | 104 | 69 | 224 | 33 | 326 | 17 | 41 | 44 | 102 | 10 | 183 | 19 | 212 | 744 |
| 08:30 AM | 64 | 63 | 5 | 132 | 56 | 249 | 38 | 343 | 14 | 27 | 35 | 76 | 9 | 188 | 26 | 223 | 774 |
| 08:45 AM | 34 | 46 | 6 | 86 | 23 | 221 | 20 | 264 | 18 | 16 | 28 | 62 | 6 | 141 | 23 | 170 | 582 |
| Total | 193 | 222 | 23 | 438 | 191 | 840 | 116 | 1147 | 67 | 107 | 126 | 300 | 29 | 691 | 89 | 809 | 2694 |
| Grand Total | 395 | 460 | 55 | 910 | 324 | 1490 | 235 | 2049 | 112 | 190 | 201 | 503 | 51 | 1357 | 214 | 1622 | 5084 |
| Apprch % | 43.4 | 50.5 | 6 | | 15.8 | 72.7 | 11.5 | | 22.3 | 37.8 | 40 | | 3.1 | 83.7 | 13.2 | | |
| Total % | 7.8 | 9 | 1.1 | 17.9 | 6.4 | 29.3 | 4.6 | 40.3 | 2.2 | 3.7 | 4 | 9.9 | 1 | 26.7 | 4.2 | 31.9 | |

| | Da Vall Drive Southbound | | | | Ramon Road Westbound | | | | Da Vall Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 50 | **72** | **8** | 130 | 43 | 191 | 24 | 258 | 13 | 24 | 16 | 53 | 9 | 179 | **33** | 221 | 662 |
| 08:00 AM | 50 | 60 | 6 | 116 | 43 | 146 | 25 | 214 | **18** | 23 | 19 | 60 | 4 | 179 | 21 | 204 | 594 |
| 08:15 AM | 45 | 53 | 6 | 104 | **69** | 224 | 33 | 326 | 17 | **41** | **44** | **102** | **10** | 183 | 19 | 212 | 744 |
| 08:30 AM | **64** | 63 | 5 | **132** | 56 | **249** | **38** | **343** | 14 | 27 | 35 | 76 | 9 | **188** | 26 | **223** | **774** |
| Total Volume | 209 | 248 | 25 | 482 | 211 | 810 | 120 | 1141 | 62 | 115 | 114 | 291 | 32 | 729 | 99 | 860 | 2774 |
| % App. Total | 43.4 | 51.5 | 5.2 | | 18.5 | 71 | 10.5 | | 21.3 | 39.5 | 39.2 | | 3.7 | 84.8 | 11.5 | | |
| PHF | .816 | .861 | .781 | .913 | .764 | .813 | .789 | .832 | .861 | .701 | .648 | .713 | .800 | .969 | .750 | .964 | .896 |

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City of Rancho Mirage
N/S: Da Vall Drive
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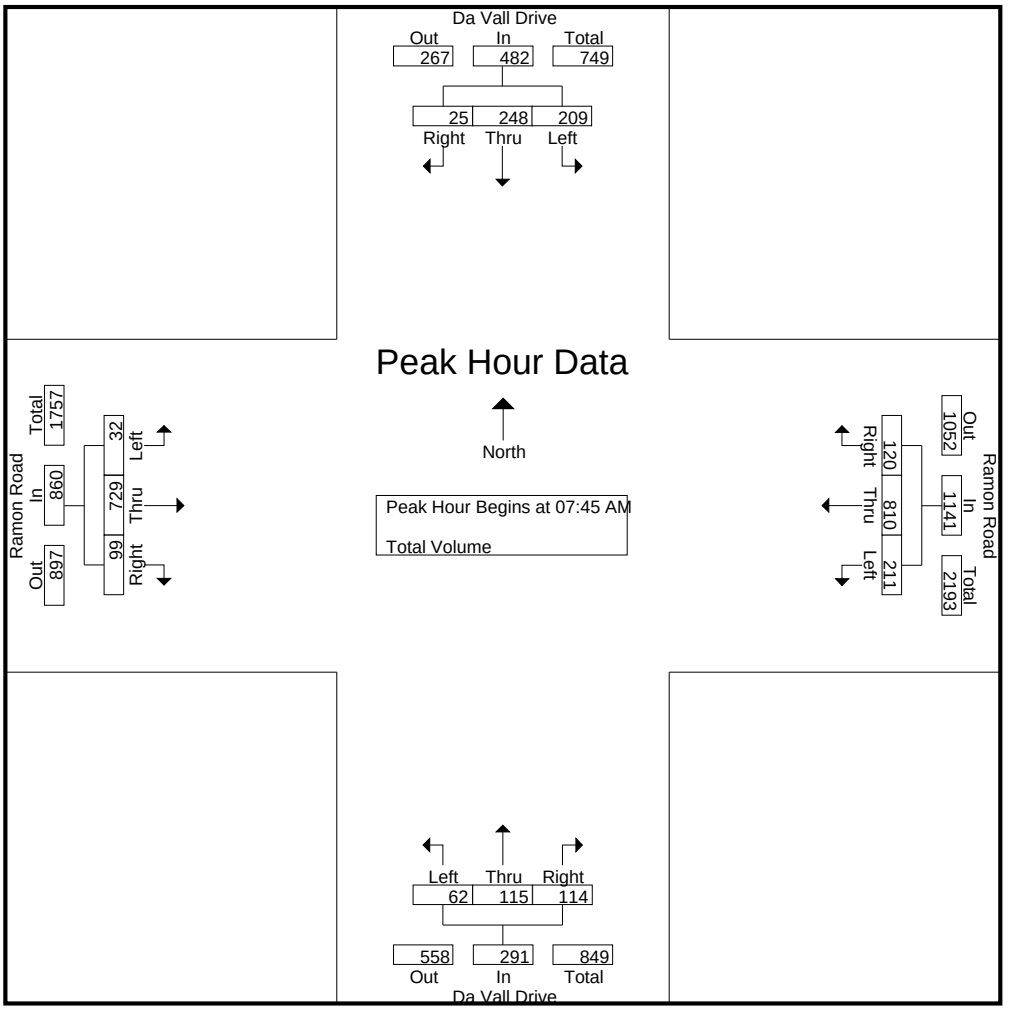
Weather: Clear

File Name : 02_RNM_DAVALL_RAMON_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:30 AM | | | | 08:00 AM | | | | 08:00 AM | | | | 07:45 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **78** | 71 | **11** | **160** | 43 | 146 | 25 | 214 | **18** | 23 | 19 | 60 | 9 | 179 | **33** | 221 |
| +15 mins. | 50 | **72** | 8 | 130 | **69** | 224 | 33 | 326 | 17 | **41** | **44** | **102** | 4 | 179 | 21 | 204 |
| +30 mins. | 50 | 60 | 6 | 116 | 56 | **249** | **38** | **343** | 14 | 27 | 35 | 76 | **10** | 183 | 19 | 212 |
| +45 mins. | 45 | 53 | 6 | 104 | 23 | 221 | 20 | 264 | 18 | 16 | 28 | 62 | 9 | **188** | 26 | **223** |
| Total Volume | 223 | 256 | 31 | 510 | 191 | 840 | 116 | 1147 | 67 | 107 | 126 | 300 | 32 | 729 | 99 | 860 |
| % App. Total | 43.7 | 50.2 | 6.1 | | 16.7 | 73.2 | 10.1 | | 22.3 | 35.7 | 42 | | 3.7 | 84.8 | 11.5 | |
| PHF | .715 | .889 | .705 | .797 | .692 | .843 | .763 | .836 | .931 | .652 | .716 | .735 | .800 | .969 | .750 | .964 |

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City of Rancho Mirage
N/S: Da Vall Drive
E/W: Ramon Road
Weather: Clear

File Name : 02_RNM_DAVALL_RAMON_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Da Vall Drive Southbound | | | | Ramon Road Westbound | | | | Da Vall Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 33 | 27 | 8 | 68 | 44 | 246 | 54 | 344 | 35 | 62 | 43 | 140 | 8 | 188 | 19 | 215 | 767 |
| 04:15 PM | 27 | 25 | 3 | 55 | 32 | 185 | 54 | 271 | 44 | 72 | 17 | 133 | 15 | 170 | 16 | 201 | 660 |
| 04:30 PM | 32 | 35 | 8 | 75 | 29 | 149 | 49 | 227 | 24 | 52 | 15 | 91 | 4 | 165 | 28 | 197 | 590 |
| 04:45 PM | 31 | 28 | 7 | 66 | 20 | 185 | 50 | 255 | 33 | 59 | 14 | 106 | 15 | 192 | 15 | 222 | 649 |
| Total | 123 | 115 | 26 | 264 | 125 | 765 | 207 | 1097 | 136 | 245 | 89 | 470 | 42 | 715 | 78 | 835 | 2666 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 23 | 23 | 10 | 56 | 19 | 176 | 29 | 224 | 30 | 61 | 21 | 112 | 9 | 176 | 17 | 202 | 594 |
| 05:15 PM | 32 | 23 | 3 | 58 | 15 | 187 | 54 | 256 | 37 | 86 | 16 | 139 | 15 | 206 | 20 | 241 | 694 |
| 05:30 PM | 40 | 21 | 5 | 66 | 19 | 164 | 54 | 237 | 24 | 47 | 20 | 91 | 10 | 180 | 15 | 205 | 599 |
| 05:45 PM | 32 | 24 | 4 | 60 | 10 | 146 | 46 | 202 | 21 | 41 | 19 | 81 | 7 | 168 | 14 | 189 | 532 |
| Total | 127 | 91 | 22 | 240 | 63 | 673 | 183 | 919 | 112 | 235 | 76 | 423 | 41 | 730 | 66 | 837 | 2419 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 250 | 206 | 48 | 504 | 188 | 1438 | 390 | 2016 | 248 | 480 | 165 | 893 | 83 | 1445 | 144 | 1672 | 5085 |
| Apprch % | 49.6 | 40.9 | 9.5 | | 9.3 | 71.3 | 19.3 | | 27.8 | 53.8 | 18.5 | | 5 | 86.4 | 8.6 | | |
| Total % | 4.9 | 4.1 | 0.9 | 9.9 | 3.7 | 28.3 | 7.7 | 39.6 | 4.9 | 9.4 | 3.2 | 17.6 | 1.6 | 28.4 | 2.8 | 32.9 | |

| | Da Vall Drive Southbound | | | | Ramon Road Westbound | | | | Da Vall Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | **33** | 27 | **8** | 68 | **44** | **246** | **54** | **344** | 35 | 62 | **43** | **140** | 8 | 188 | 19 | 215 | **767** |
| 04:15 PM | 27 | 25 | 3 | 55 | 32 | 185 | 54 | 271 | **44** | **72** | 17 | 133 | **15** | 170 | 16 | 201 | 660 |
| 04:30 PM | 32 | **35** | 8 | **75** | 29 | 149 | 49 | 227 | 24 | 52 | 15 | 91 | 4 | 165 | **28** | 197 | 590 |
| 04:45 PM | 31 | 28 | 7 | 66 | 20 | 185 | 50 | 255 | 33 | 59 | 14 | 106 | 15 | **192** | 15 | **222** | 649 |
| Total Volume | 123 | 115 | 26 | 264 | 125 | 765 | 207 | 1097 | 136 | 245 | 89 | 470 | 42 | 715 | 78 | 835 | 2666 |
| % App. Total | 46.6 | 43.6 | 9.8 | | 11.4 | 69.7 | 18.9 | | 28.9 | 52.1 | 18.9 | | 5 | 85.6 | 9.3 | | |
| PHF | .932 | .821 | .813 | .880 | .710 | .777 | .958 | .797 | .773 | .851 | .517 | .839 | .700 | .931 | .696 | .940 | .869 |

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City of Rancho Mirage
N/S: Da Vall Drive
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File Name : 02_RNM_DAVALL_RAMON_PM
Site Code : 05123425
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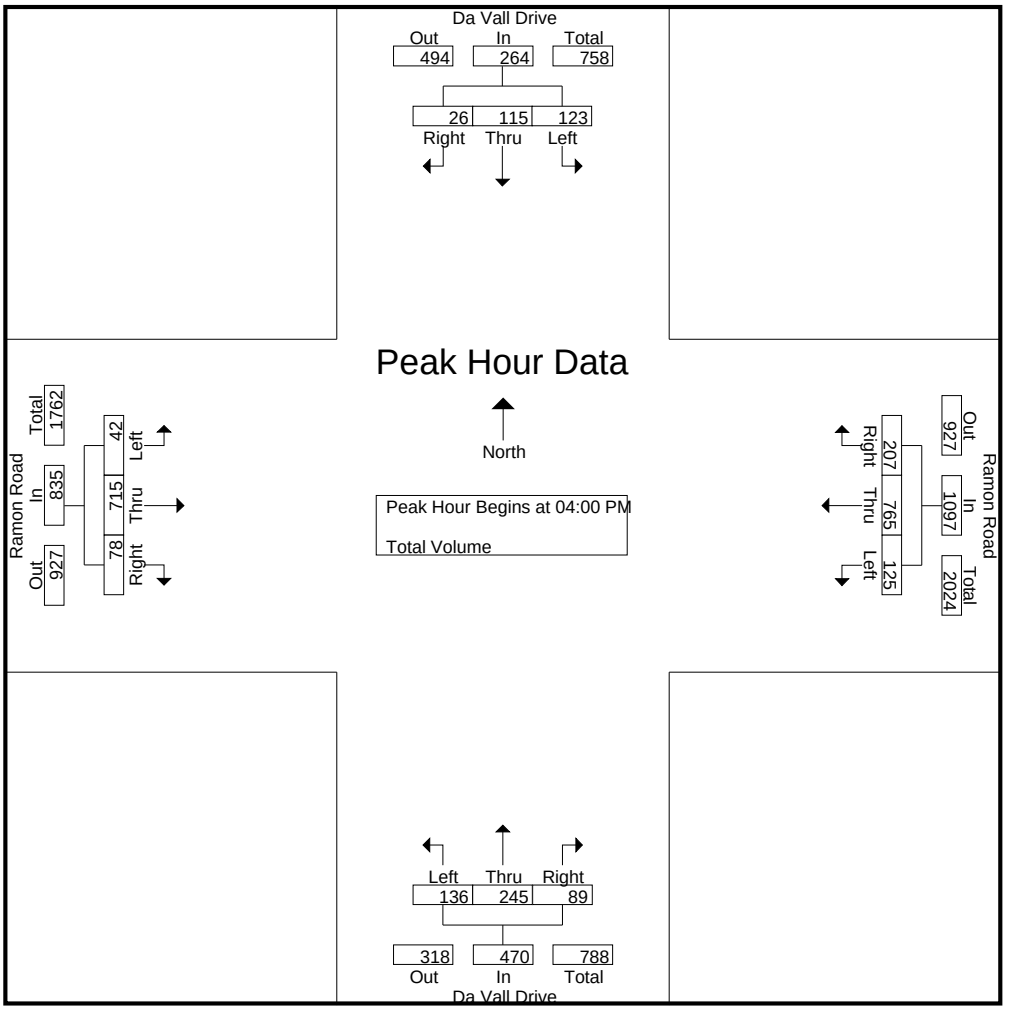
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | | 04:45 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **33** | 27 | **8** | 68 | **44** | **246** | **54** | **344** | 35 | 62 | **43** | **140** | **15** | 192 | 15 | 222 |
| +15 mins. | 27 | 25 | 3 | 55 | 32 | 185 | 54 | 271 | **44** | **72** | 17 | 133 | 9 | 176 | 17 | 202 |
| +30 mins. | 32 | **35** | 8 | **75** | 29 | 149 | 49 | 227 | 24 | 52 | 15 | 91 | 15 | **206** | **20** | **241** |
| +45 mins. | 31 | 28 | 7 | 66 | 20 | 185 | 50 | 255 | 33 | 59 | 14 | 106 | 10 | 180 | 15 | 205 |
| Total Volume | 123 | 115 | 26 | 264 | 125 | 765 | 207 | 1097 | 136 | 245 | 89 | 470 | 49 | 754 | 67 | 870 |
| % App. Total | 46.6 | 43.6 | 9.8 | | 11.4 | 69.7 | 18.9 | | 28.9 | 52.1 | 18.9 | | 5.6 | 86.7 | 7.7 | |
| PHF | .932 | .821 | .813 | .880 | .710 | .777 | .958 | .797 | .773 | .851 | .517 | .839 | .817 | .915 | .838 | .902 |

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City of Rancho Mirage
N/S: Da Vall Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 03_RNM_DAVALL_DS_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

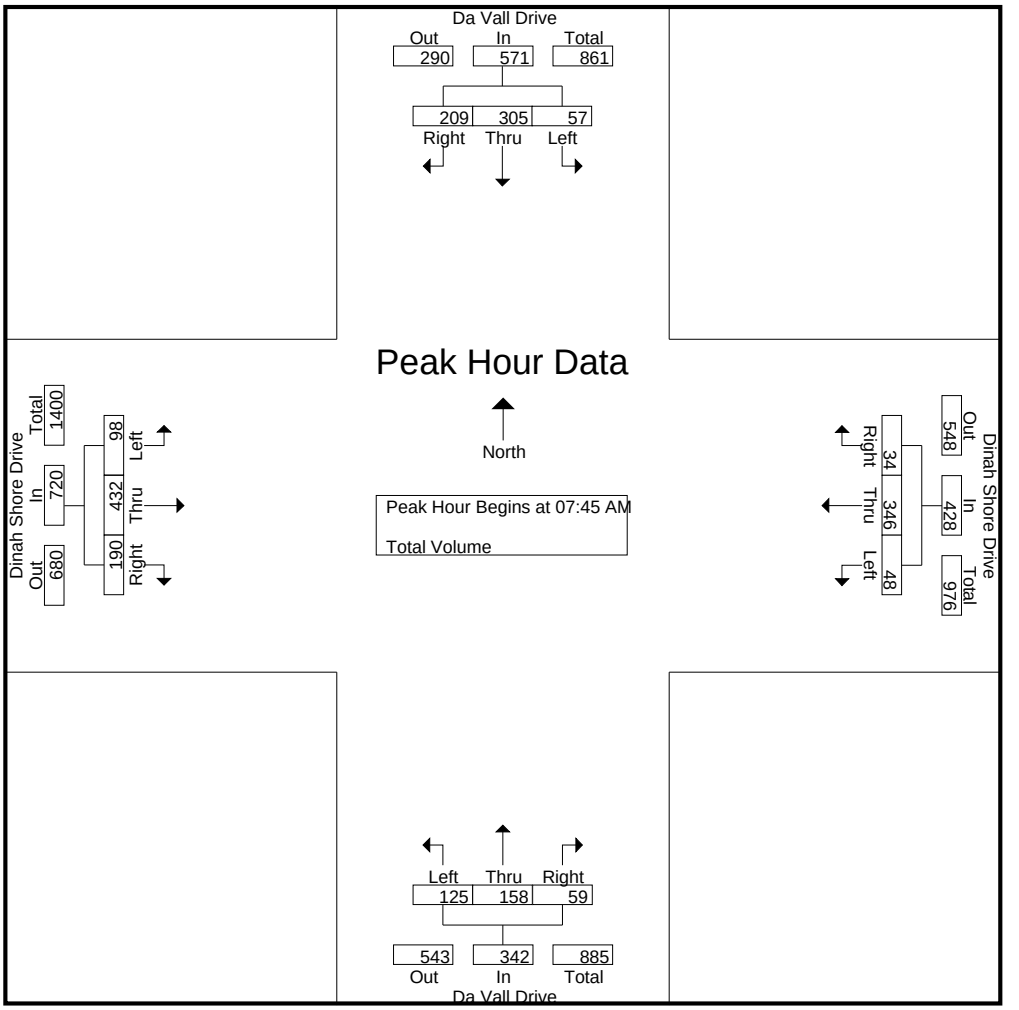
| | Da Vall Drive Southbound | | | | Dinah Shore Drive Westbound | | | | Da Vall Drive Northbound | | | | Dinah Shore Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 12 | 47 | 20 | 79 | 8 | 67 | 3 | 78 | 16 | 12 | 8 | 36 | 13 | 59 | 28 | 100 | 293 |
| 07:15 AM | 13 | 81 | 33 | 127 | 7 | 66 | 10 | 83 | 19 | 27 | 8 | 54 | 16 | 88 | 37 | 141 | 405 |
| 07:30 AM | 12 | 107 | 27 | 146 | 14 | 79 | 5 | 98 | 17 | 40 | 9 | 66 | 19 | 82 | 55 | 156 | 466 |
| 07:45 AM | 17 | 88 | 36 | 141 | 16 | 90 | 9 | 115 | 27 | 32 | 15 | 74 | 17 | 97 | 57 | 171 | 501 |
| Total | 54 | 323 | 116 | 493 | 45 | 302 | 27 | 374 | 79 | 111 | 40 | 230 | 65 | 326 | 177 | 568 | 1665 |
| | | | | | | | | | | | | | | | | | |
| 08:00 AM | 12 | 81 | 38 | 131 | 7 | 77 | 11 | 95 | 16 | 34 | 17 | 67 | 20 | 117 | 43 | 180 | 473 |
| 08:15 AM | 19 | 64 | 60 | 143 | 13 | 81 | 5 | 99 | 36 | 49 | 16 | 101 | 35 | 112 | 50 | 197 | 540 |
| 08:30 AM | 9 | 72 | 75 | 156 | 12 | 98 | 9 | 119 | 46 | 43 | 11 | 100 | 26 | 106 | 40 | 172 | 547 |
| 08:45 AM | 10 | 69 | 26 | 105 | 12 | 61 | 10 | 83 | 31 | 23 | 14 | 68 | 24 | 124 | 60 | 208 | 464 |
| Total | 50 | 286 | 199 | 535 | 44 | 317 | 35 | 396 | 129 | 149 | 58 | 336 | 105 | 459 | 193 | 757 | 2024 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 104 | 609 | 315 | 1028 | 89 | 619 | 62 | 770 | 208 | 260 | 98 | 566 | 170 | 785 | 370 | 1325 | 3689 |
| Apprch % | 10.1 | 59.2 | 30.6 | | 11.6 | 80.4 | 8.1 | | 36.7 | 45.9 | 17.3 | | 12.8 | 59.2 | 27.9 | | |
| Total % | 2.8 | 16.5 | 8.5 | 27.9 | 2.4 | 16.8 | 1.7 | 20.9 | 5.6 | 7 | 2.7 | 15.3 | 4.6 | 21.3 | 10 | 35.9 | |

| | Da Vall Drive Southbound | | | | Dinah Shore Drive Westbound | | | | Da Vall Drive Northbound | | | | Dinah Shore Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | | | | | | | | |
| 07:45 AM | 17 | **88** | 36 | 141 | **16** | 90 | 9 | 115 | 27 | 32 | 15 | 74 | 17 | 97 | **57** | 171 | 501 |
| 08:00 AM | 12 | 81 | 38 | 131 | 7 | 77 | **11** | 95 | 16 | 34 | **17** | 67 | 20 | **117** | 43 | 180 | 473 |
| 08:15 AM | **19** | 64 | 60 | 143 | 13 | 81 | 5 | 99 | 36 | **49** | 16 | **101** | **35** | 112 | 50 | **197** | 540 |
| 08:30 AM | 9 | 72 | **75** | **156** | 12 | **98** | 9 | **119** | **46** | 43 | 11 | 100 | 26 | 106 | 40 | 172 | **547** |
| Total Volume | 57 | 305 | 209 | 571 | 48 | 346 | 34 | 428 | 125 | 158 | 59 | 342 | 98 | 432 | 190 | 720 | 2061 |
| % App. Total | 10 | 53.4 | 36.6 | | 11.2 | 80.8 | 7.9 | | 36.5 | 46.2 | 17.3 | | 13.6 | 60 | 26.4 | | |
| PHF | .750 | .866 | .697 | .915 | .750 | .883 | .773 | .899 | .679 | .806 | .868 | .847 | .700 | .923 | .833 | .914 | .942 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Da Vall Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 03_RNM_DAVALL_DS_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:45 AM | | | | 07:45 AM | | | | 07:45 AM | | | | 08:00 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 17 | **88** | 36 | 141 | **16** | 90 | 9 | 115 | 27 | 32 | 15 | 74 | 20 | 117 | 43 | 180 |
| +15 mins. | 12 | 81 | 38 | 131 | 7 | 77 | **11** | 95 | 16 | 34 | **17** | 67 | **35** | 112 | 50 | 197 |
| +30 mins. | **19** | 64 | 60 | 143 | 13 | 81 | 5 | 99 | 36 | **49** | 16 | **101** | 26 | 106 | 40 | 172 |
| +45 mins. | 9 | 72 | **75** | **156** | 12 | **98** | 9 | **119** | **46** | 43 | 11 | 100 | 24 | **124** | **60** | **208** |
| Total Volume | 57 | 305 | 209 | 571 | 48 | 346 | 34 | 428 | 125 | 158 | 59 | 342 | 105 | 459 | 193 | 757 |
| % App. Total | 10 | 53.4 | 36.6 | | 11.2 | 80.8 | 7.9 | | 36.5 | 46.2 | 17.3 | | 13.9 | 60.6 | 25.5 | |
| PHF | .750 | .866 | .697 | .915 | .750 | .883 | .773 | .899 | .679 | .806 | .868 | .847 | .750 | .925 | .804 | .910 |

Counts Unlimited, Inc.
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Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Da Vall Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 03_RNM_DAVALL_DS_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Da Vall Drive Southbound | | | | Dinah Shore Drive Westbound | | | | Da Vall Drive Northbound | | | | Dinah Shore Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 5 | 45 | 49 | 99 | 11 | 122 | 23 | 156 | 41 | 71 | 8 | 120 | 40 | 116 | 34 | 190 | 565 |
| 04:15 PM | 5 | 40 | 21 | 66 | 5 | 123 | 26 | 154 | 44 | 74 | 14 | 132 | 24 | 131 | 37 | 192 | 544 |
| 04:30 PM | 8 | 58 | 32 | 98 | 12 | 131 | 23 | 166 | 35 | 53 | 3 | 91 | 16 | 113 | 32 | 161 | 516 |
| 04:45 PM | 5 | 45 | 20 | 70 | 12 | 125 | 20 | 157 | 59 | 60 | 12 | 131 | 13 | 119 | 26 | 158 | 516 |
| Total | 23 | 188 | 122 | 333 | 40 | 501 | 92 | 633 | 179 | 258 | 37 | 474 | 93 | 479 | 129 | 701 | 2141 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 6 | 47 | 16 | 69 | 16 | 113 | 7 | 136 | 33 | 84 | 8 | 125 | 17 | 105 | 26 | 148 | 478 |
| 05:15 PM | 10 | 32 | 19 | 61 | 18 | 114 | 21 | 153 | 45 | 102 | 9 | 156 | 17 | 106 | 35 | 158 | 528 |
| 05:30 PM | 7 | 35 | 14 | 56 | 10 | 110 | 7 | 127 | 38 | 51 | 9 | 98 | 26 | 97 | 28 | 151 | 432 |
| 05:45 PM | 6 | 30 | 14 | 50 | 9 | 105 | 13 | 127 | 32 | 49 | 9 | 90 | 18 | 116 | 20 | 154 | 421 |
| Total | 29 | 144 | 63 | 236 | 53 | 442 | 48 | 543 | 148 | 286 | 35 | 469 | 78 | 424 | 109 | 611 | 1859 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 52 | 332 | 185 | 569 | 93 | 943 | 140 | 1176 | 327 | 544 | 72 | 943 | 171 | 903 | 238 | 1312 | 4000 |
| Apprch % | 9.1 | 58.3 | 32.5 | | 7.9 | 80.2 | 11.9 | | 34.7 | 57.7 | 7.6 | | 13 | 68.8 | 18.1 | | |
| Total % | 1.3 | 8.3 | 4.6 | 14.2 | 2.3 | 23.6 | 3.5 | 29.4 | 8.2 | 13.6 | 1.8 | 23.6 | 4.3 | 22.6 | 5.9 | 32.8 | |

| | Da Vall Drive Southbound | | | | Dinah Shore Drive Westbound | | | | Da Vall Drive Northbound | | | | Dinah Shore Drive Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 5 | 45 | **49** | **99** | 11 | 122 | 23 | 156 | 41 | 71 | 8 | 120 | **40** | 116 | 34 | 190 | **565** |
| 04:15 PM | 5 | 40 | 21 | 66 | 5 | 123 | **26** | 154 | 44 | **74** | **14** | **132** | 24 | **131** | **37** | **192** | 544 |
| 04:30 PM | **8** | **58** | 32 | 98 | **12** | **131** | 23 | **166** | 35 | 53 | 3 | 91 | 16 | 113 | 32 | 161 | 516 |
| 04:45 PM | 5 | 45 | 20 | 70 | 12 | 125 | 20 | 157 | **59** | 60 | 12 | 131 | 13 | 119 | 26 | 158 | 516 |
| Total Volume | 23 | 188 | 122 | 333 | 40 | 501 | 92 | 633 | 179 | 258 | 37 | 474 | 93 | 479 | 129 | 701 | 2141 |
| % App. Total | 6.9 | 56.5 | 36.6 | | 6.3 | 79.1 | 14.5 | | 37.8 | 54.4 | 7.8 | | 13.3 | 68.3 | 18.4 | | |
| PHF | .719 | .810 | .622 | .841 | .833 | .956 | .885 | .953 | .758 | .872 | .661 | .898 | .581 | .914 | .872 | .913 | .947 |

Counts Unlimited, Inc.
PO Box 1178
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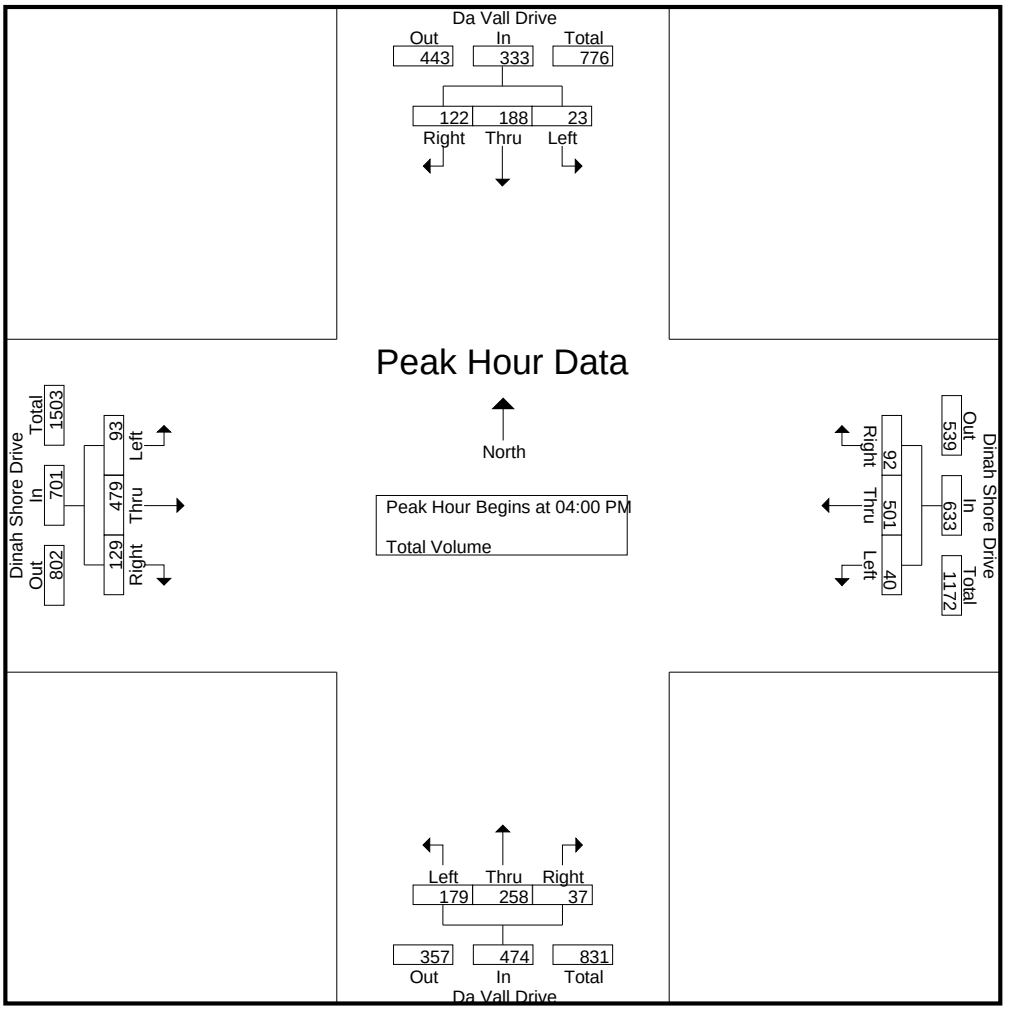
City of Rancho Mirage
N/S: Da Vall Drive
E/W: Dinah Shore Drive
Weather: Clear

File Name : 03_RNM_DAVALL_DS_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | | 04:00 PM | | | | 04:45 PM | | | | 04:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 5 | 45 | **49** | **99** | 11 | 122 | 23 | 156 | **59** | 60 | **12** | 131 | **40** | 116 | 34 | 190 |
| +15 mins. | 5 | 40 | 21 | 66 | 5 | 123 | **26** | 154 | 33 | 84 | 8 | 125 | 24 | **131** | **37** | **192** |
| +30 mins. | **8** | **58** | 32 | 98 | **12** | **131** | 23 | **166** | 45 | **102** | 9 | **156** | 16 | 113 | 32 | 161 |
| +45 mins. | 5 | 45 | 20 | 70 | 12 | 125 | 20 | 157 | 38 | 51 | 9 | 98 | 13 | 119 | 26 | 158 |
| Total Volume | 23 | 188 | 122 | 333 | 40 | 501 | 92 | 633 | 175 | 297 | 38 | 510 | 93 | 479 | 129 | 701 |
| % App. Total | 6.9 | 56.5 | 36.6 | | 6.3 | 79.1 | 14.5 | | 34.3 | 58.2 | 7.5 | | 13.3 | 68.3 | 18.4 | |
| PHF | .719 | .810 | .622 | .841 | .833 | .956 | .885 | .953 | .742 | .728 | .792 | .817 | .581 | .914 | .872 | .913 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 1
Weather: Clear

File Name : 04_RNM_RATTLER_SCH ACC 1_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 1 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 07:00 AM | 10 | 0 | 10 | 6 | 6 | 12 | 1 | 3 | 4 | 26 |
| 07:15 AM | 11 | 2 | 13 | 9 | 9 | 18 | 0 | 2 | 2 | 33 |
| 07:30 AM | 19 | 5 | 24 | 22 | 12 | 34 | 5 | 13 | 18 | 76 |
| 07:45 AM | 12 | 18 | 30 | 28 | 11 | 39 | 5 | 20 | 25 | 94 |
| Total | 52 | 25 | 77 | 65 | 38 | 103 | 11 | 38 | 49 | 229 |
| | | | | | | | | | | |
| 08:00 AM | 34 | 13 | 47 | 47 | 27 | 74 | 6 | 25 | 31 | 152 |
| 08:15 AM | 72 | 12 | 84 | 104 | 58 | 162 | 2 | 73 | 75 | 321 |
| 08:30 AM | 109 | 14 | 123 | 117 | 75 | 192 | 1 | 116 | 117 | 432 |
| 08:45 AM | 30 | 11 | 41 | 37 | 19 | 56 | 7 | 56 | 63 | 160 |
| Total | 245 | 50 | 295 | 305 | 179 | 484 | 16 | 270 | 286 | 1065 |
| | | | | | | | | | | |
| Grand Total | 297 | 75 | 372 | 370 | 217 | 587 | 27 | 308 | 335 | 1294 |
| Apprch % | 79.8 | 20.2 | | 63 | 37 | | 8.1 | 91.9 | | |
| Total % | 23 | 5.8 | 28.7 | 28.6 | 16.8 | 45.4 | 2.1 | 23.8 | 25.9 | |

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 1 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | |
| 08:00 AM | 34 | 13 | 47 | 47 | 27 | 74 | 6 | 25 | 31 | 152 |
| 08:15 AM | 72 | 12 | 84 | 104 | 58 | 162 | 2 | 73 | 75 | 321 |
| 08:30 AM | **109** | **14** | **123** | **117** | **75** | **192** | 1 | **116** | **117** | **432** |
| 08:45 AM | 30 | 11 | 41 | 37 | 19 | 56 | **7** | 56 | 63 | 160 |
| Total Volume | 245 | 50 | 295 | 305 | 179 | 484 | 16 | 270 | 286 | 1065 |
| % App. Total | 83.1 | 16.9 | | 63 | 37 | | 5.6 | 94.4 | | |
| PHF | .562 | .893 | .600 | .652 | .597 | .630 | .571 | .582 | .611 | .616 |

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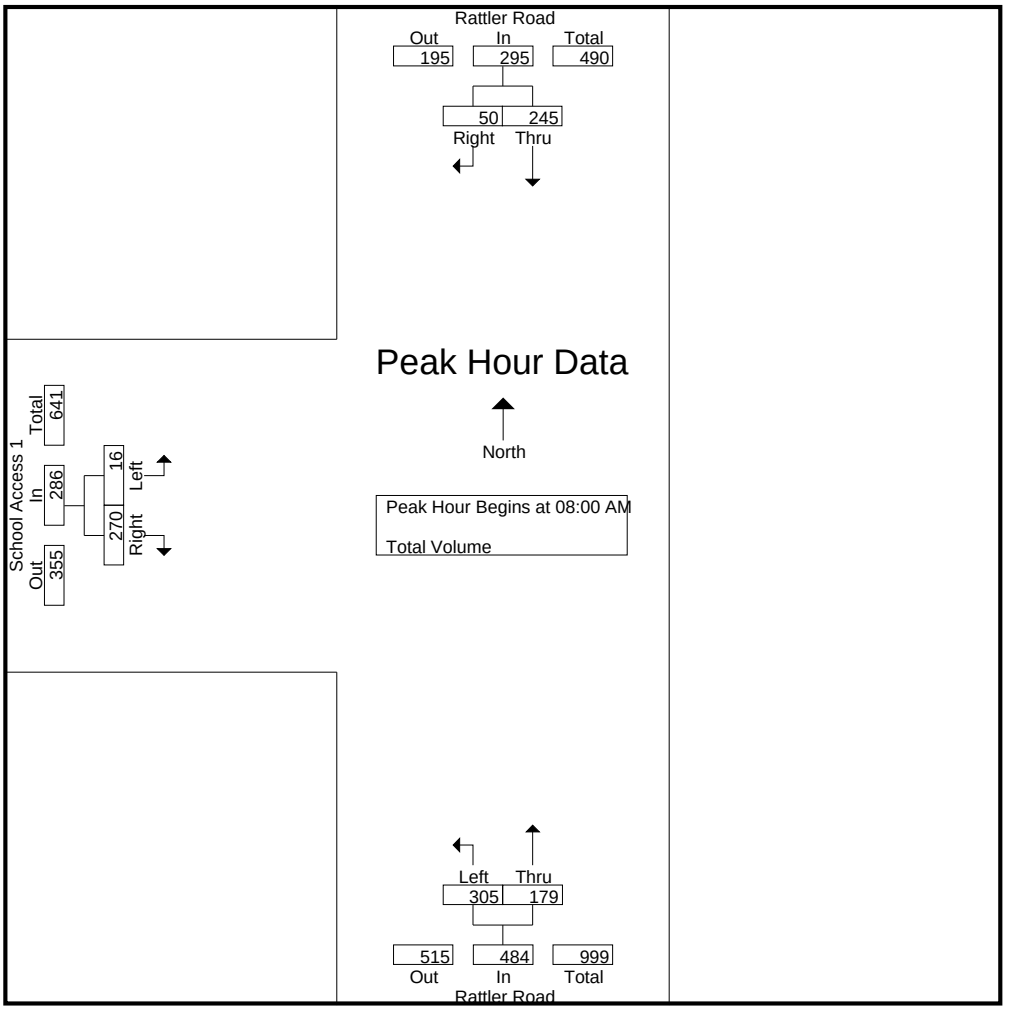
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 1
Weather: Clear

File Name : 04_RNM_RATTLER_SCH ACC 1_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 08:00 AM | | | 08:00 AM | | | 08:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 34 | 13 | 47 | 47 | 27 | 74 | 6 | 25 | 31 |
| +15 mins. | 72 | 12 | 84 | 104 | 58 | 162 | 2 | 73 | 75 |
| +30 mins. | **109** | **14** | **123** | **117** | **75** | **192** | 1 | **116** | **117** |
| +45 mins. | 30 | 11 | 41 | 37 | 19 | 56 | **7** | 56 | 63 |
| Total Volume | 245 | 50 | 295 | 305 | 179 | 484 | 16 | 270 | 286 |
| % App. Total | 83.1 | 16.9 | | 63 | 37 | | 5.6 | 94.4 | |
| PHF | .562 | .893 | .600 | .652 | .597 | .630 | .571 | .582 | .611 |

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Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 1
Weather: Clear

File Name : 04_RNM_RATTLER_SCH ACC 1_MD
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

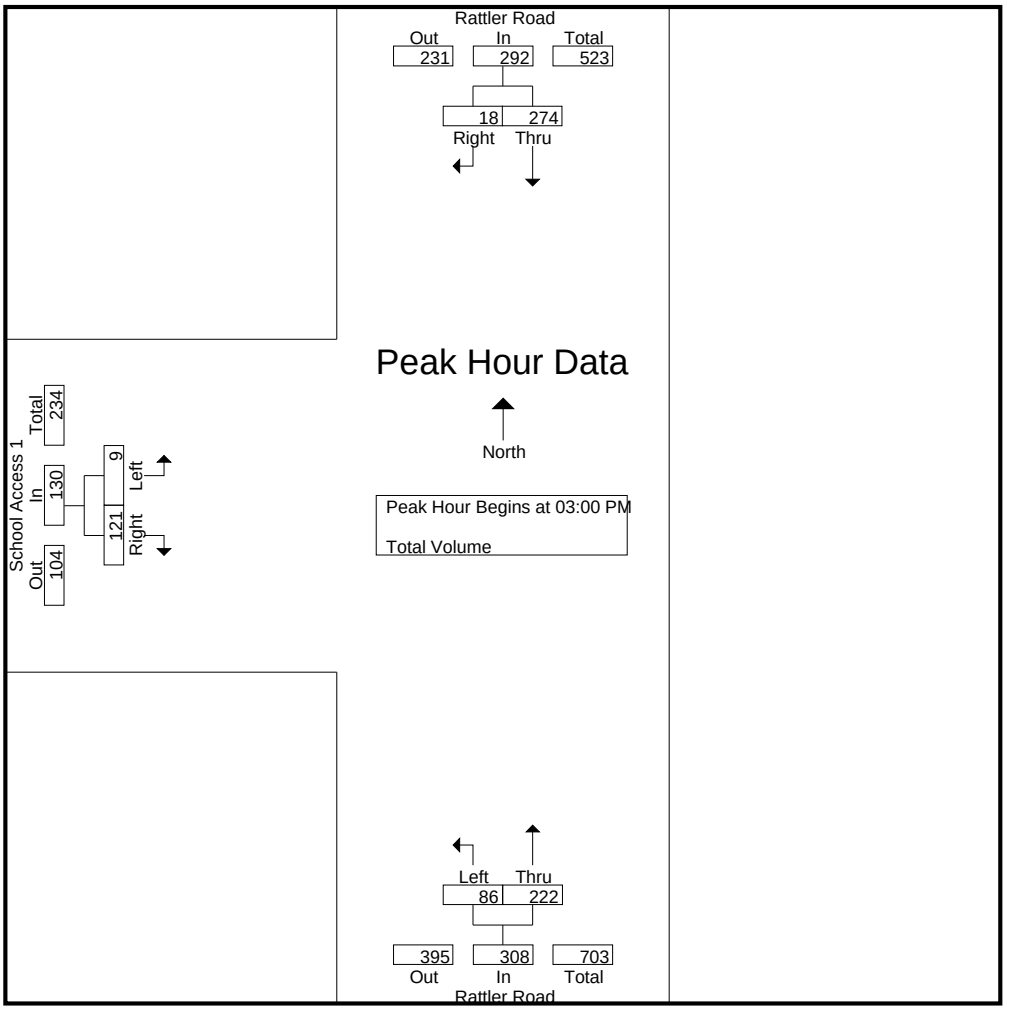
| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 1 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 02:00 PM | 5 | 5 | 10 | 3 | 4 | 7 | 4 | 5 | 9 | 26 |
| 02:15 PM | 4 | 3 | 7 | 8 | 7 | 15 | 1 | 3 | 4 | 26 |
| 02:30 PM | 20 | 2 | 22 | 0 | 7 | 7 | 4 | 15 | 19 | 48 |
| 02:45 PM | 14 | 2 | 16 | 7 | 8 | 15 | 1 | 10 | 11 | 42 |
| Total | 43 | 12 | 55 | 18 | 26 | 44 | 10 | 33 | 43 | 142 |
| | | | | | | | | | | |
| 03:00 PM | 2 | 5 | 7 | 9 | 19 | 28 | 1 | 7 | 8 | 43 |
| 03:15 PM | 3 | 4 | 7 | 13 | 53 | 66 | 1 | 7 | 8 | 81 |
| 03:30 PM | 39 | 3 | 42 | 40 | 73 | 113 | 5 | 33 | 38 | 193 |
| 03:45 PM | 230 | 6 | 236 | 24 | 77 | 101 | 2 | 74 | 76 | 413 |
| Total | 274 | 18 | 292 | 86 | 222 | 308 | 9 | 121 | 130 | 730 |
| | | | | | | | | | | |
| Grand Total | 317 | 30 | 347 | 104 | 248 | 352 | 19 | 154 | 173 | 872 |
| Apprch % | 91.4 | 8.6 | | 29.5 | 70.5 | | 11 | 89 | | |
| Total % | 36.4 | 3.4 | 39.8 | 11.9 | 28.4 | 40.4 | 2.2 | 17.7 | 19.8 | |

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 1 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 03:00 PM | | | | | | | | | | |
| 03:00 PM | 2 | 5 | 7 | 9 | 19 | 28 | 1 | 7 | 8 | 43 |
| 03:15 PM | 3 | 4 | 7 | 13 | 53 | 66 | 1 | 7 | 8 | 81 |
| 03:30 PM | 39 | 3 | 42 | **40** | 73 | **113** | **5** | 33 | 38 | 193 |
| 03:45 PM | **230** | **6** | **236** | 24 | **77** | 101 | 2 | **74** | **76** | **413** |
| Total Volume | 274 | 18 | 292 | 86 | 222 | 308 | 9 | 121 | 130 | 730 |
| % App. Total | 93.8 | 6.2 | | 27.9 | 72.1 | | 6.9 | 93.1 | | |
| PHF | .298 | .750 | .309 | .538 | .721 | .681 | .450 | .409 | .428 | .442 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 1
Weather: Clear

File Name : 04_RNM_RATTLER_SCH ACC 1_MD
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 03:00 PM | | | 03:00 PM | | | 03:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 2 | 5 | 7 | 9 | 19 | 28 | 1 | 7 | 8 |
| +15 mins. | 3 | 4 | 7 | 13 | 53 | 66 | 1 | 7 | 8 |
| +30 mins. | 39 | 3 | 42 | **40** | 73 | **113** | **5** | 33 | 38 |
| +45 mins. | **230** | **6** | **236** | 24 | **77** | 101 | 2 | **74** | **76** |
| Total Volume | 274 | 18 | 292 | 86 | 222 | 308 | 9 | 121 | 130 |
| % App. Total | 93.8 | 6.2 | | 27.9 | 72.1 | | 6.9 | 93.1 | |
| PHF | .298 | .750 | .309 | .538 | .721 | .681 | .450 | .409 | .428 |

Counts Unlimited, Inc.
PO Box 1178
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(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 1
Weather: Clear

File Name : 04_RNM_RATTLER_SCH ACC_1 PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 1 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 04:00 PM | 76 | 10 | 86 | 18 | 45 | 63 | 11 | 64 | 75 | 224 |
| 04:15 PM | 23 | 5 | 28 | 7 | 18 | 25 | 2 | 25 | 27 | 80 |
| 04:30 PM | 15 | 3 | 18 | 4 | 19 | 23 | 9 | 16 | 25 | 66 |
| 04:45 PM | 14 | 0 | 14 | 2 | 23 | 25 | 0 | 7 | 7 | 46 |
| Total | 128 | 18 | 146 | 31 | 105 | 136 | 22 | 112 | 134 | 416 |
| | | | | | | | | | | |
| 05:00 PM | 24 | 1 | 25 | 1 | 10 | 11 | 0 | 6 | 6 | 42 |
| 05:15 PM | 10 | 0 | 10 | 1 | 12 | 13 | 1 | 1 | 2 | 25 |
| 05:30 PM | 13 | 0 | 13 | 0 | 12 | 12 | 1 | 1 | 2 | 27 |
| 05:45 PM | 16 | 0 | 16 | 0 | 19 | 19 | 0 | 1 | 1 | 36 |
| Total | 63 | 1 | 64 | 2 | 53 | 55 | 2 | 9 | 11 | 130 |
| | | | | | | | | | | |
| Grand Total | 191 | 19 | 210 | 33 | 158 | 191 | 24 | 121 | 145 | 546 |
| Apprch % | 91 | 9 | | 17.3 | 82.7 | | 16.6 | 83.4 | | |
| Total % | 35 | 3.5 | 38.5 | 6 | 28.9 | 35 | 4.4 | 22.2 | 26.6 | |

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 1 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | **76** | **10** | **86** | **18** | **45** | **63** | **11** | **64** | **75** | **224** |
| 04:15 PM | 23 | 5 | 28 | 7 | 18 | 25 | 2 | 25 | 27 | 80 |
| 04:30 PM | 15 | 3 | 18 | 4 | 19 | 23 | 9 | 16 | 25 | 66 |
| 04:45 PM | 14 | 0 | 14 | 2 | 23 | 25 | 0 | 7 | 7 | 46 |
| Total Volume | 128 | 18 | 146 | 31 | 105 | 136 | 22 | 112 | 134 | 416 |
| % App. Total | 87.7 | 12.3 | | 22.8 | 77.2 | | 16.4 | 83.6 | | |
| PHF | .421 | .450 | .424 | .431 | .583 | .540 | .500 | .438 | .447 | .464 |

Counts Unlimited, Inc.
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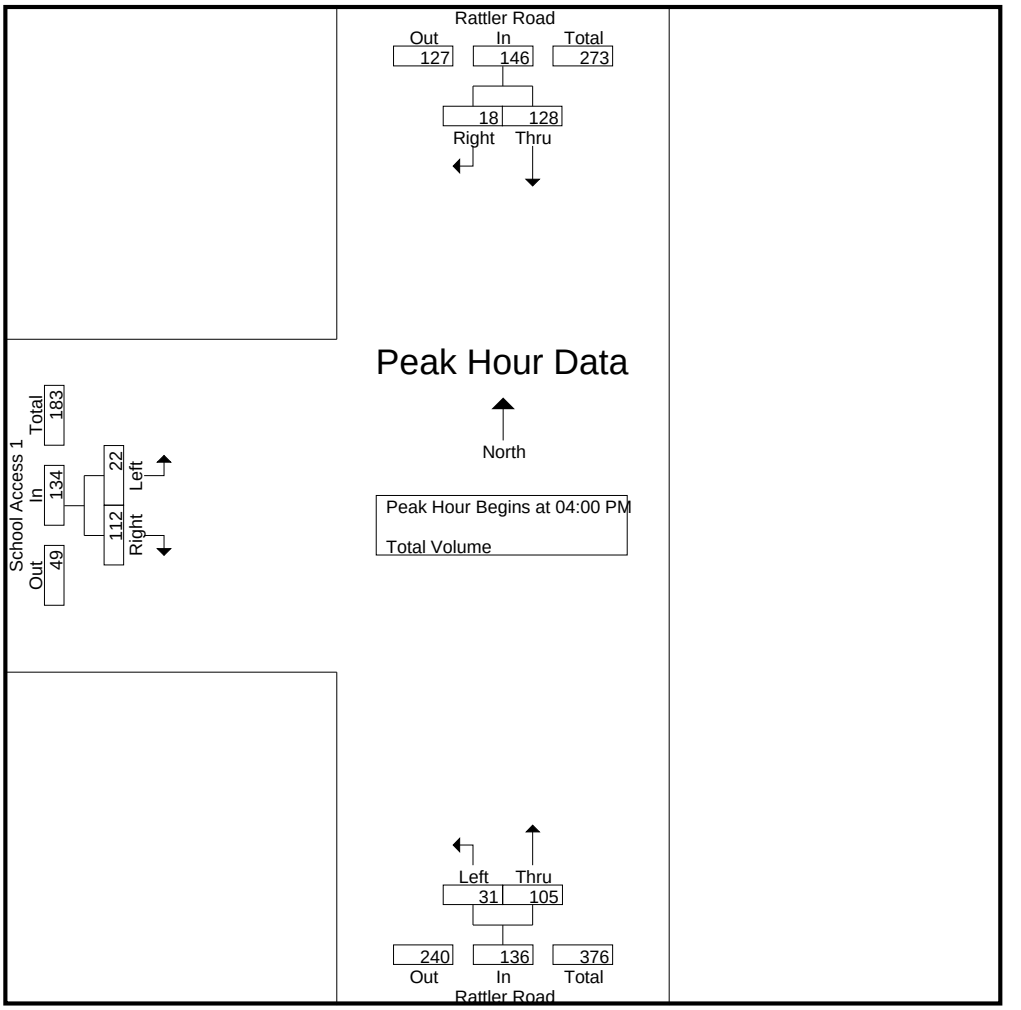
City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 1
Weather: Clear

File Name : 04_RNM_RATTLER_SCH ACC_1 PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **76** | **10** | **86** | **18** | **45** | **63** | **11** | **64** | **75** |
| +15 mins. | 23 | 5 | 28 | 7 | 18 | 25 | 2 | 25 | 27 |
| +30 mins. | 15 | 3 | 18 | 4 | 19 | 23 | 9 | 16 | 25 |
| +45 mins. | 14 | 0 | 14 | 2 | 23 | 25 | 0 | 7 | 7 |
| Total Volume | 128 | 18 | 146 | 31 | 105 | 136 | 22 | 112 | 134 |
| % App. Total | 87.7 | 12.3 | | 22.8 | 77.2 | | 16.4 | 83.6 | |
| PHF | .421 | .450 | .424 | .431 | .583 | .540 | .500 | .438 | .447 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road
Weather: Clear

File Name : 05_RNM_RATTLER_RAMON_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Rattler Road Southbound | | | Ramon Road Westbound | | | Ramon Road Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Right | App. Total | Thru | Right | App. Total | Left | Thru | App. Total | Int. Total |
| 07:00 AM | 9 | 4 | 13 | 164 | 8 | 172 | 7 | 196 | 203 | 388 |
| 07:15 AM | 6 | 7 | 13 | 247 | 10 | 257 | 7 | 202 | 209 | 479 |
| 07:30 AM | 13 | 15 | 28 | 256 | 20 | 276 | 16 | 280 | 296 | 600 |
| 07:45 AM | 20 | 12 | 32 | 243 | 30 | 273 | 8 | 244 | 252 | 557 |
| Total | 48 | 38 | 86 | 910 | 68 | 978 | 38 | 922 | 960 | 2024 |
| | | | | | | | | | | |
| 08:00 AM | 30 | 27 | 57 | 200 | 39 | 239 | 41 | 196 | 237 | 533 |
| 08:15 AM | 55 | 88 | 143 | 257 | 88 | 345 | 81 | 218 | 299 | 787 |
| 08:30 AM | 73 | 147 | 220 | 223 | 92 | 315 | 95 | 203 | 298 | 833 |
| 08:45 AM | 40 | 55 | 95 | 195 | 23 | 218 | 28 | 177 | 205 | 518 |
| Total | 198 | 317 | 515 | 875 | 242 | 1117 | 245 | 794 | 1039 | 2671 |
| | | | | | | | | | | |
| Grand Total | 246 | 355 | 601 | 1785 | 310 | 2095 | 283 | 1716 | 1999 | 4695 |
| Apprch % | 40.9 | 59.1 | | 85.2 | 14.8 | | 14.2 | 85.8 | | |
| Total % | 5.2 | 7.6 | 12.8 | 38 | 6.6 | 44.6 | 6 | 36.5 | 42.6 | |

| | Rattler Road Southbound | | | Ramon Road Westbound | | | Ramon Road Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Right | App. Total | Thru | Right | App. Total | Left | Thru | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | |
| 07:45 AM | 20 | 12 | 32 | 243 | 30 | 273 | 8 | **244** | 252 | 557 |
| 08:00 AM | 30 | 27 | 57 | 200 | 39 | 239 | 41 | 196 | 237 | 533 |
| 08:15 AM | 55 | 88 | 143 | **257** | 88 | **345** | 81 | 218 | **299** | 787 |
| 08:30 AM | **73** | **147** | **220** | 223 | **92** | 315 | **95** | 203 | 298 | **833** |
| Total Volume | 178 | 274 | 452 | 923 | 249 | 1172 | 225 | 861 | 1086 | 2710 |
| % App. Total | 39.4 | 60.6 | | 78.8 | 21.2 | | 20.7 | 79.3 | | |
| PHF | .610 | .466 | .514 | .898 | .677 | .849 | .592 | .882 | .908 | .813 |

Counts Unlimited, Inc.
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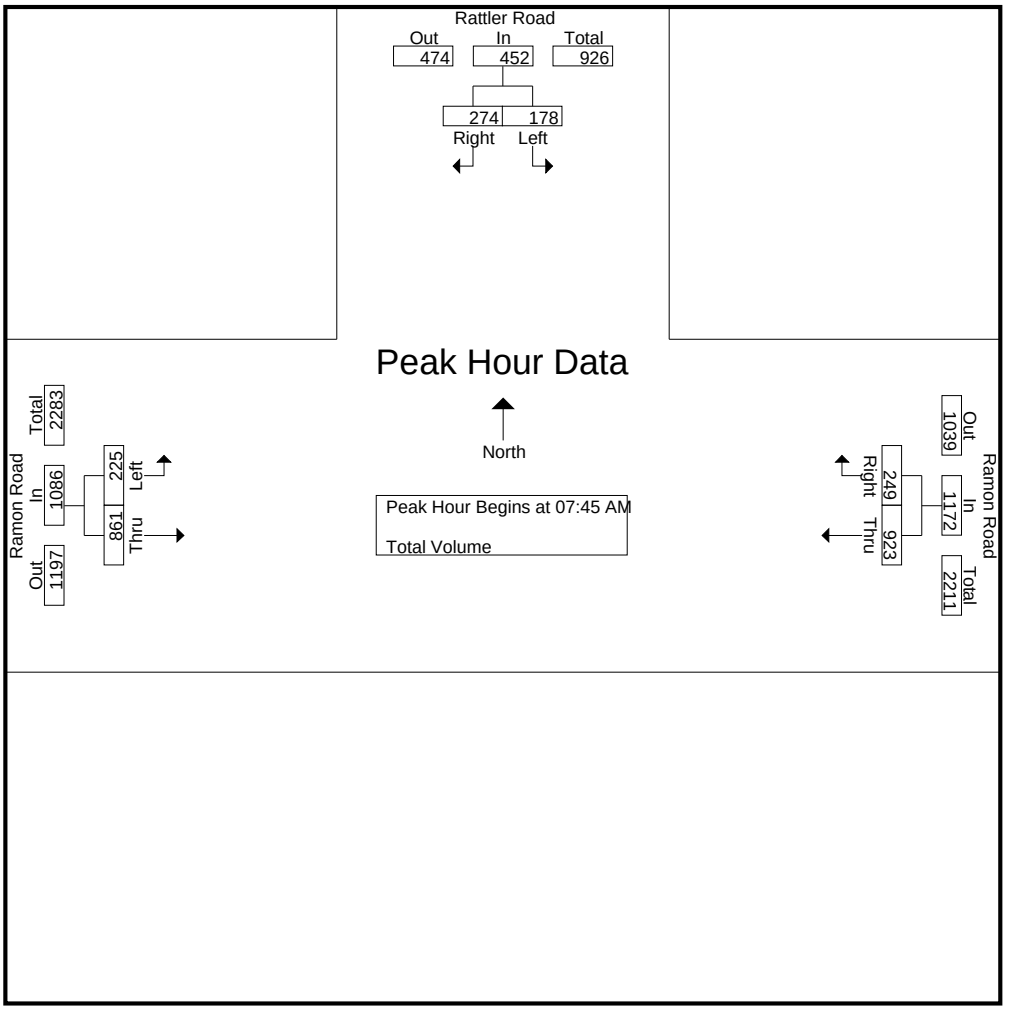
City of Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road
Weather: Clear

File Name : 05_RNM_RATTLER_RAMON_AM
Site Code : 05123425
Start Date : 5/16/2023


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 08:00 AM | | | 07:45 AM | | | 07:45 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 30 | 27 | 57 | 243 | 30 | 273 | 8 | **244** | 252 |
| +15 mins. | 55 | 88 | 143 | 200 | 39 | 239 | 41 | 196 | 237 |
| +30 mins. | **73** | **147** | **220** | **257** | 88 | **345** | 81 | 218 | **299** |
| +45 mins. | 40 | 55 | 95 | 223 | **92** | 315 | **95** | 203 | 298 |
| Total Volume | 198 | 317 | 515 | 923 | 249 | 1172 | 225 | 861 | 1086 |
| % App. Total | 38.4 | 61.6 | | 78.8 | 21.2 | | 20.7 | 79.3 | |
| PHF | .678 | .539 | .585 | .898 | .677 | .849 | .592 | .882 | .908 |

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City of Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road
Weather: Clear

File Name : 05_RNM_RATTLER_RAMON_MD
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Rattler Road Southbound | | | Ramon Road Westbound | | | Ramon Road Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Right | App. Total | Thru | Right | App. Total | Left | Thru | App. Total | Int. Total |
| 02:00 PM | 7 | 4 | 11 | 202 | 5 | 207 | 4 | 228 | 232 | 450 |
| 02:15 PM | 5 | 1 | 6 | 229 | 11 | 240 | 4 | 214 | 218 | 464 |
| 02:30 PM | 16 | 17 | 33 | 213 | 6 | 219 | 1 | 236 | 237 | 489 |
| 02:45 PM | 19 | 9 | 28 | 242 | 9 | 251 | 8 | 227 | 235 | 514 |
| Total | 47 | 31 | 78 | 886 | 31 | 917 | 17 | 905 | 922 | 1917 |
| | | | | | | | | | | |
| 03:00 PM | 7 | 2 | 9 | 272 | 14 | 286 | 14 | 272 | 286 | 581 |
| 03:15 PM | 7 | 6 | 13 | 250 | 45 | 295 | 29 | 206 | 235 | 543 |
| 03:30 PM | 28 | 33 | 61 | 314 | 57 | 371 | 52 | 211 | 263 | 695 |
| 03:45 PM | 129 | 180 | 309 | 254 | 45 | 299 | 55 | 217 | 272 | 880 |
| Total | 171 | 221 | 392 | 1090 | 161 | 1251 | 150 | 906 | 1056 | 2699 |
| | | | | | | | | | | |
| Grand Total | 218 | 252 | 470 | 1976 | 192 | 2168 | 167 | 1811 | 1978 | 4616 |
| Apprch % | 46.4 | 53.6 | | 91.1 | 8.9 | | 8.4 | 91.6 | | |
| Total % | 4.7 | 5.5 | 10.2 | 42.8 | 4.2 | 47 | 3.6 | 39.2 | 42.9 | |

| | Rattler Road Southbound | | | Ramon Road Westbound | | | Ramon Road Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Right | App. Total | Thru | Right | App. Total | Left | Thru | App. Total | Int. Total |
| Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 03:00 PM | | | | | | | | | | |
| 03:00 PM | 7 | 2 | 9 | 272 | 14 | 286 | 14 | **272** | **286** | 581 |
| 03:15 PM | 7 | 6 | 13 | 250 | 45 | 295 | 29 | 206 | 235 | 543 |
| 03:30 PM | 28 | 33 | 61 | **314** | **57** | **371** | 52 | 211 | 263 | 695 |
| 03:45 PM | **129** | **180** | **309** | 254 | 45 | 299 | **55** | 217 | 272 | **880** |
| Total Volume | 171 | 221 | 392 | 1090 | 161 | 1251 | 150 | 906 | 1056 | 2699 |
| % App. Total | 43.6 | 56.4 | | 87.1 | 12.9 | | 14.2 | 85.8 | | |
| PHF | .331 | .307 | .317 | .868 | .706 | .843 | .682 | .833 | .923 | .767 |

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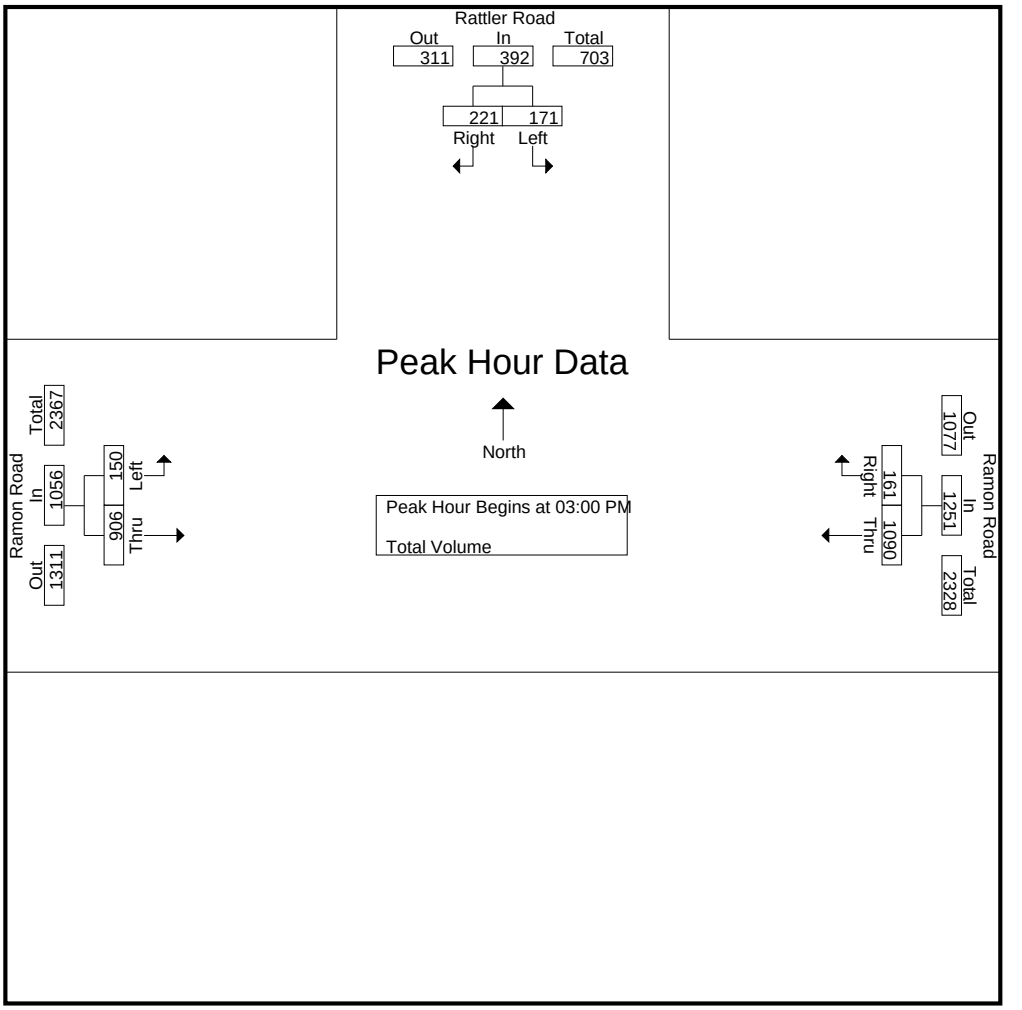
City of Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road
Weather: Clear

File Name : 05_RNM_RATTLER_RAMON_MD
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 03:00 PM | | | 03:00 PM | | | 03:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 7 | 2 | 9 | 272 | 14 | 286 | 14 | **272** | **286** |
| +15 mins. | 7 | 6 | 13 | 250 | 45 | 295 | 29 | 206 | 235 |
| +30 mins. | 28 | 33 | 61 | **314** | **57** | **371** | 52 | 211 | 263 |
| +45 mins. | **129** | **180** | **309** | 254 | 45 | 299 | **55** | 217 | 272 |
| Total Volume | 171 | 221 | 392 | 1090 | 161 | 1251 | 150 | 906 | 1056 |
| % App. Total | 43.6 | 56.4 | | 87.1 | 12.9 | | 14.2 | 85.8 | |
| PHF | .331 | .307 | .317 | .868 | .706 | .843 | .682 | .833 | .923 |

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City of Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road
Weather: Clear

File Name : 05_RNM_RATTLER_RAMON_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Rattler Road Southbound | | | Ramon Road Westbound | | | Ramon Road Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Right | App. Total | Thru | Right | App. Total | Left | Thru | App. Total | Int. Total |
| 04:00 PM | 64 | 86 | 150 | 256 | 38 | 294 | 25 | 268 | 293 | 737 |
| 04:15 PM | 27 | 22 | 49 | 242 | 15 | 257 | 10 | 197 | 207 | 513 |
| 04:30 PM | 19 | 14 | 33 | 229 | 18 | 247 | 5 | 221 | 226 | 506 |
| 04:45 PM | 14 | 6 | 20 | 259 | 18 | 277 | 6 | 250 | 256 | 553 |
| Total | 124 | 128 | 252 | 986 | 89 | 1075 | 46 | 936 | 982 | 2309 |
| | | | | | | | | | | |
| 05:00 PM | 17 | 13 | 30 | 228 | 8 | 236 | 5 | 221 | 226 | 492 |
| 05:15 PM | 8 | 5 | 13 | 268 | 8 | 276 | 7 | 254 | 261 | 550 |
| 05:30 PM | 10 | 6 | 16 | 241 | 8 | 249 | 4 | 239 | 243 | 508 |
| 05:45 PM | 12 | 3 | 15 | 198 | 14 | 212 | 5 | 204 | 209 | 436 |
| Total | 47 | 27 | 74 | 935 | 38 | 973 | 21 | 918 | 939 | 1986 |
| | | | | | | | | | | |
| Grand Total | 171 | 155 | 326 | 1921 | 127 | 2048 | 67 | 1854 | 1921 | 4295 |
| Apprch % | 52.5 | 47.5 | | 93.8 | 6.2 | | 3.5 | 96.5 | | |
| Total % | 4 | 3.6 | 7.6 | 44.7 | 3 | 47.7 | 1.6 | 43.2 | 44.7 | |

| | Rattler Road Southbound | | | Ramon Road Westbound | | | Ramon Road Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Right | App. Total | Thru | Right | App. Total | Left | Thru | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | **64** | **86** | **150** | 256 | **38** | **294** | **25** | **268** | **293** | **737** |
| 04:15 PM | 27 | 22 | 49 | 242 | 15 | 257 | 10 | 197 | 207 | 513 |
| 04:30 PM | 19 | 14 | 33 | 229 | 18 | 247 | 5 | 221 | 226 | 506 |
| 04:45 PM | 14 | 6 | 20 | **259** | 18 | 277 | 6 | 250 | 256 | 553 |
| Total Volume | 124 | 128 | 252 | 986 | 89 | 1075 | 46 | 936 | 982 | 2309 |
| % App. Total | 49.2 | 50.8 | | 91.7 | 8.3 | | 4.7 | 95.3 | | |
| PHF | .484 | .372 | .420 | .952 | .586 | .914 | .460 | .873 | .838 | .783 |

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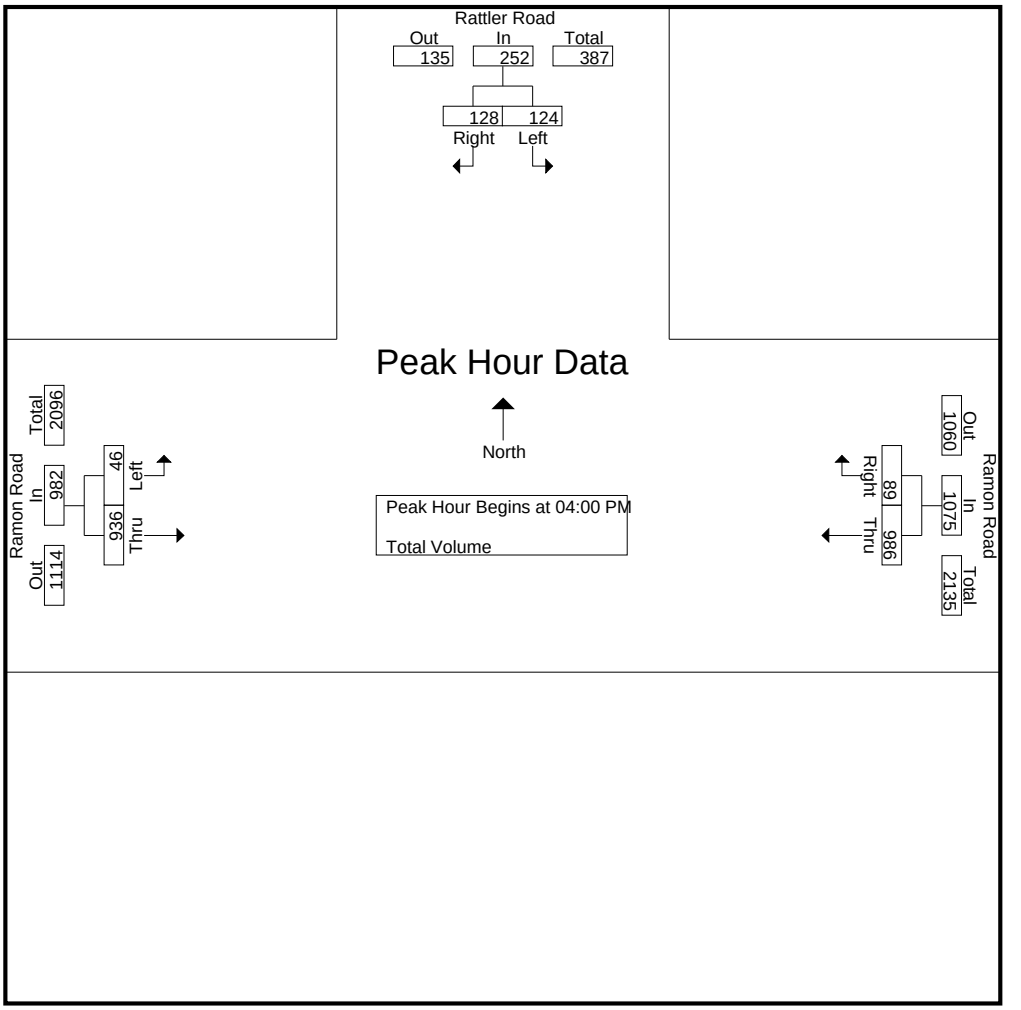
City of Rancho Mirage
N/S: Rattler Road
E/W: Ramon Road
Weather: Clear

File Name : 05_RNM_RATTLER_RAMON_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | 04:00 PM | | | 04:45 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **64** | **86** | **150** | 256 | **38** | **294** | 6 | 250 | 256 |
| +15 mins. | 27 | 22 | 49 | 242 | 15 | 257 | 5 | 221 | 226 |
| +30 mins. | 19 | 14 | 33 | 229 | 18 | 247 | **7** | **254** | **261** |
| +45 mins. | 14 | 6 | 20 | **259** | 18 | 277 | 4 | 239 | 243 |
| Total Volume | 124 | 128 | 252 | 986 | 89 | 1075 | 22 | 964 | 986 |
| % App. Total | 49.2 | 50.8 | | 91.7 | 8.3 | | 2.2 | 97.8 | |
| PHF | .484 | .372 | .420 | .952 | .586 | .914 | .786 | .949 | .944 |

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City of Rancho Mirage
N/S: Los Alamos Road
E/W: Ramon Road
Weather: Clear

File Name : 06_RNM_LOS ALAMOS_RAMON_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Ramon Road Westbound | | | Los Alamos Road Northbound | | | Ramon Road Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 47 | 177 | 224 | 9 | 11 | 20 | 209 | 6 | 215 | 459 |
| 07:15 AM | 33 | 252 | 285 | 6 | 12 | 18 | 199 | 7 | 206 | 509 |
| 07:30 AM | 22 | 272 | 294 | 8 | 11 | 19 | 275 | 14 | 289 | 602 |
| 07:45 AM | 20 | 283 | 303 | 7 | 17 | 24 | 252 | 25 | 277 | 604 |
| Total | 122 | 984 | 1106 | 30 | 51 | 81 | 935 | 52 | 987 | 2174 |
| 08:00 AM | 20 | 259 | 279 | 6 | 12 | 18 | 206 | 10 | 216 | 513 |
| 08:15 AM | 36 | 325 | 361 | 9 | 13 | 22 | 265 | 17 | 282 | 665 |
| 08:30 AM | 24 | 296 | 320 | 4 | 16 | 20 | 253 | 15 | 268 | 608 |
| 08:45 AM | 20 | 219 | 239 | 5 | 16 | 21 | 214 | 14 | 228 | 488 |
| Total | 100 | 1099 | 1199 | 24 | 57 | 81 | 938 | 56 | 994 | 2274 |
| Grand Total | 222 | 2083 | 2305 | 54 | 108 | 162 | 1873 | 108 | 1981 | 4448 |
| Apprch % | 9.6 | 90.4 | | 33.3 | 66.7 | | 94.5 | 5.5 | | |
| Total % | 5 | 46.8 | 51.8 | 1.2 | 2.4 | 3.6 | 42.1 | 2.4 | 44.5 | |

| | Ramon Road Westbound | | | Los Alamos Road Northbound | | | Ramon Road Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 AM | | | | | | | | | | |
| 07:45 AM | 20 | 283 | 303 | 7 | **17** | **24** | 252 | **25** | 277 | 604 |
| 08:00 AM | 20 | 259 | 279 | 6 | 12 | 18 | 206 | 10 | 216 | 513 |
| 08:15 AM | **36** | **325** | **361** | **9** | 13 | 22 | **265** | 17 | **282** | **665** |
| 08:30 AM | 24 | 296 | 320 | 4 | 16 | 20 | 253 | 15 | 268 | 608 |
| Total Volume | 100 | 1163 | 1263 | 26 | 58 | 84 | 976 | 67 | 1043 | 2390 |
| % App. Total | 7.9 | 92.1 | | 31 | 69 | | 93.6 | 6.4 | | |
| PHF | .694 | .895 | .875 | .722 | .853 | .875 | .921 | .670 | .925 | .898 |

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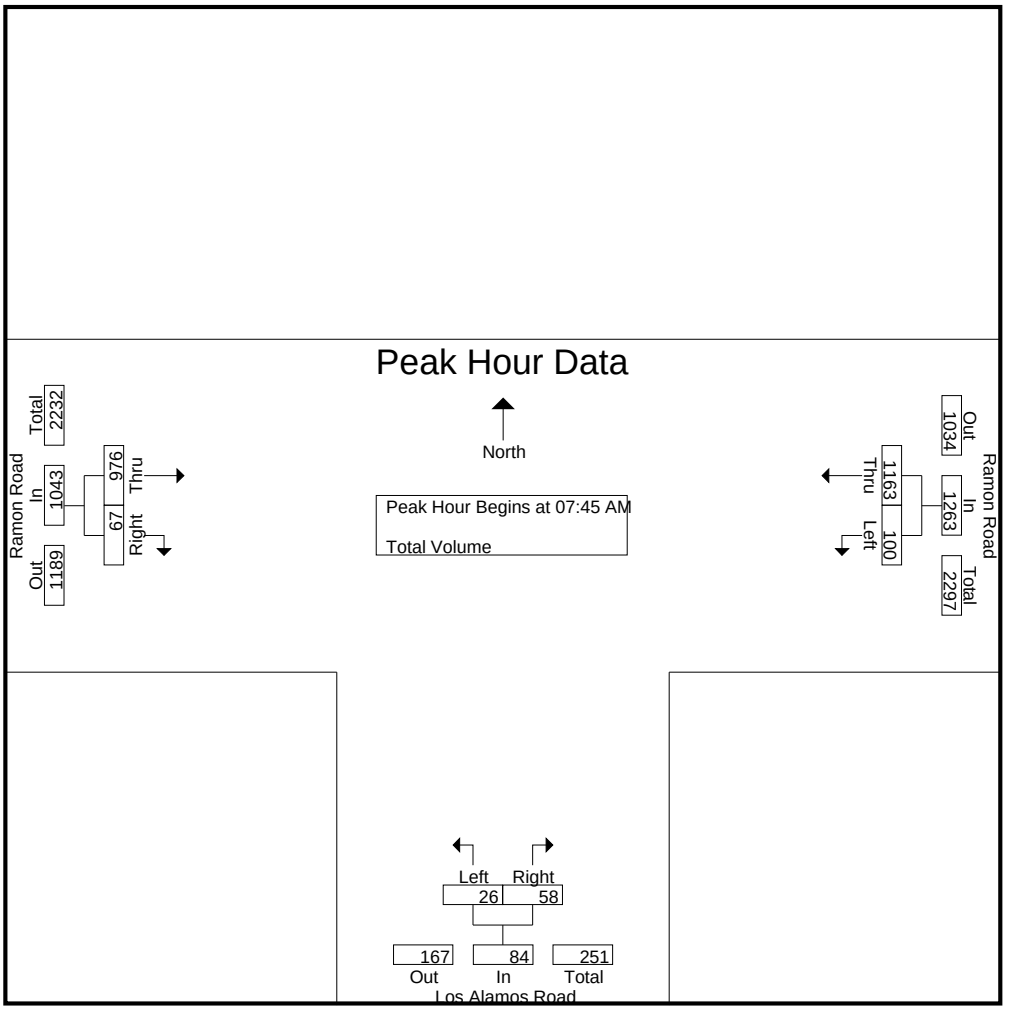
City of Rancho Mirage
N/S: Los Alamos Road
E/W: Ramon Road
Weather: Clear

File Name : 06_RNM_LOS ALAMOS_RAMON_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:45 AM | | | 07:45 AM | | | 07:30 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 20 | 283 | 303 | 7 | **17** | **24** | **275** | 14 | **289** |
| +15 mins. | 20 | 259 | 279 | 6 | 12 | 18 | 252 | **25** | 277 |
| +30 mins. | **36** | **325** | **361** | **9** | 13 | 22 | 206 | 10 | 216 |
| +45 mins. | 24 | 296 | 320 | 4 | 16 | 20 | 265 | 17 | 282 |
| Total Volume | 100 | 1163 | 1263 | 26 | 58 | 84 | 998 | 66 | 1064 |
| % App. Total | 7.9 | 92.1 | | 31 | 69 | | 93.8 | 6.2 | |
| PHF | .694 | .895 | .875 | .722 | .853 | .875 | .907 | .660 | .920 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Los Alamos Road
E/W: Ramon Road
Weather: Clear

File Name : 06_RNM_LOS ALAMOS_RAMON_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

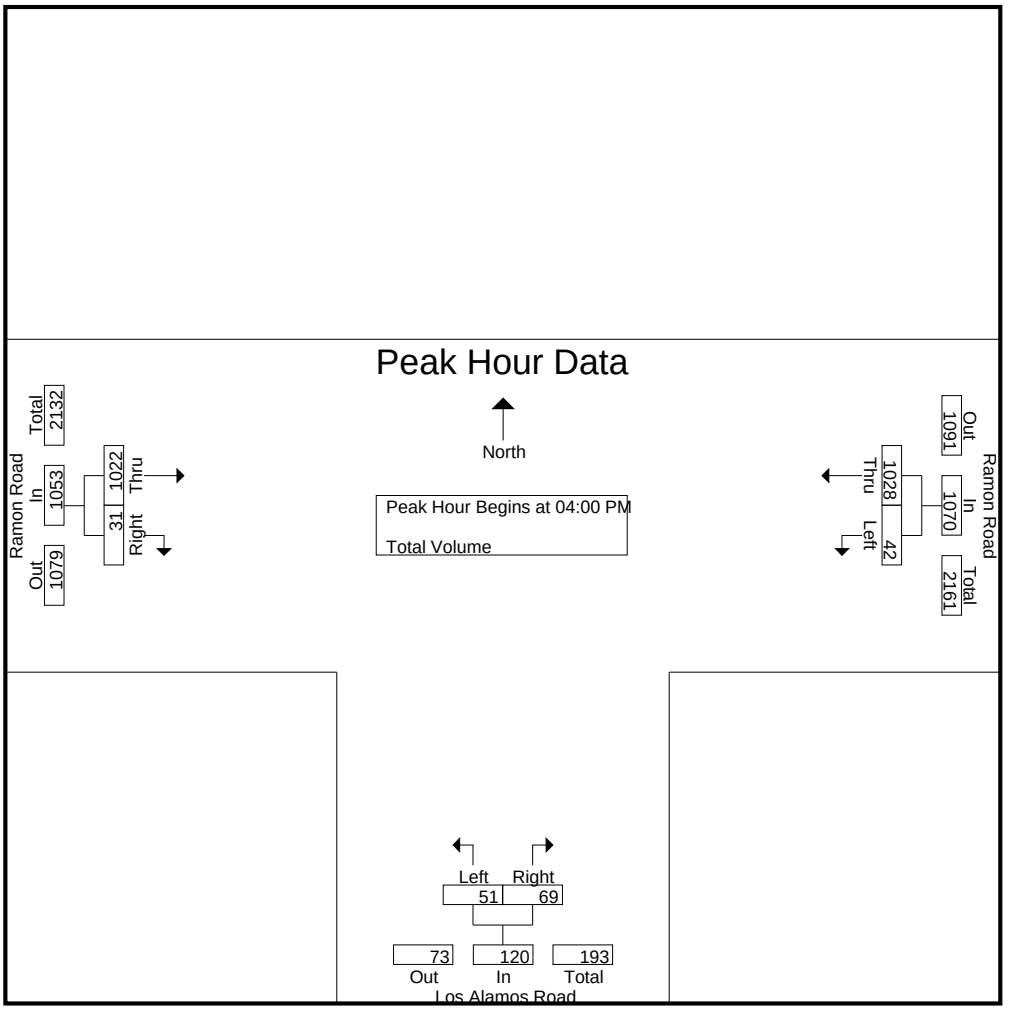
| | Ramon Road Westbound | | | Los Alamos Road Northbound | | | Ramon Road Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 12 | 285 | 297 | 13 | 26 | 39 | 316 | 14 | 330 | 666 |
| 04:15 PM | 15 | 250 | 265 | 11 | 16 | 27 | 219 | 5 | 224 | 516 |
| 04:30 PM | 8 | 240 | 248 | 13 | 10 | 23 | 243 | 6 | 249 | 520 |
| 04:45 PM | 7 | 253 | 260 | 14 | 17 | 31 | 244 | 6 | 250 | 541 |
| Total | 42 | 1028 | 1070 | 51 | 69 | 120 | 1022 | 31 | 1053 | 2243 |
| | | | | | | | | | | |
| 05:00 PM | 10 | 230 | 240 | 10 | 15 | 25 | 241 | 9 | 250 | 515 |
| 05:15 PM | 5 | 261 | 266 | 17 | 19 | 36 | 245 | 12 | 257 | 559 |
| 05:30 PM | 11 | 251 | 262 | 5 | 11 | 16 | 240 | 7 | 247 | 525 |
| 05:45 PM | 4 | 208 | 212 | 10 | 15 | 25 | 235 | 5 | 240 | 477 |
| Total | 30 | 950 | 980 | 42 | 60 | 102 | 961 | 33 | 994 | 2076 |
| | | | | | | | | | | |
| Grand Total | 72 | 1978 | 2050 | 93 | 129 | 222 | 1983 | 64 | 2047 | 4319 |
| Apprch % | 3.5 | 96.5 | | 41.9 | 58.1 | | 96.9 | 3.1 | | |
| Total % | 1.7 | 45.8 | 47.5 | 2.2 | 3 | 5.1 | 45.9 | 1.5 | 47.4 | |

| | Ramon Road Westbound | | | Los Alamos Road Northbound | | | Ramon Road Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | 12 | **285** | **297** | 13 | **26** | **39** | **316** | **14** | **330** | **666** |
| 04:15 PM | **15** | 250 | 265 | 11 | 16 | 27 | 219 | 5 | 224 | 516 |
| 04:30 PM | 8 | 240 | 248 | 13 | 10 | 23 | 243 | 6 | 249 | 520 |
| 04:45 PM | 7 | 253 | 260 | **14** | 17 | 31 | 244 | 6 | 250 | 541 |
| Total Volume | 42 | 1028 | 1070 | 51 | 69 | 120 | 1022 | 31 | 1053 | 2243 |
| % App. Total | 3.9 | 96.1 | | 42.5 | 57.5 | | 97.1 | 2.9 | | |
| PHF | .700 | .902 | .901 | .911 | .663 | .769 | .809 | .554 | .798 | .842 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Los Alamos Road
E/W: Ramon Road
Weather: Clear

File Name : 06_RNM_LOS ALAMOS_RAMON_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 12 | **285** | **297** | 13 | **26** | **39** | **316** | **14** | **330** |
| +15 mins. | **15** | 250 | 265 | 11 | 16 | 27 | 219 | 5 | 224 |
| +30 mins. | 8 | 240 | 248 | 13 | 10 | 23 | 243 | 6 | 249 |
| +45 mins. | 7 | 253 | 260 | **14** | 17 | 31 | 244 | 6 | 250 |
| Total Volume | 42 | 1028 | 1070 | 51 | 69 | 120 | 1022 | 31 | 1053 |
| % App. Total | 3.9 | 96.1 | | 42.5 | 57.5 | | 97.1 | 2.9 | |
| PHF | .700 | .902 | .901 | .911 | .663 | .769 | .809 | .554 | .798 |

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(951) 268-6268

City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 WB Ramps
Weather: Clear

File Name : 07_RNM_BOB HOPE_10 W_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Bob Hope Drive Southbound | | | | I-10 Westbound Off Ramp Westbound | | | | Bob Hope Drive Northbound | | | | I-10 Westbound On Ramp Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 0 | 55 | 38 | 93 | 129 | 0 | 59 | 188 | 21 | 88 | 0 | 109 | 0 | 0 | 0 | 0 | 390 |
| 07:15 AM | 0 | 67 | 56 | 123 | 164 | 0 | 70 | 234 | 30 | 99 | 0 | 129 | 0 | 0 | 0 | 0 | 486 |
| 07:30 AM | 0 | 73 | 42 | 115 | 174 | 0 | 60 | 234 | 45 | 97 | 0 | 142 | 0 | 0 | 0 | 0 | 491 |
| 07:45 AM | 0 | 76 | 38 | 114 | 148 | 0 | 70 | 218 | 45 | 140 | 0 | 185 | 0 | 0 | 0 | 0 | 517 |
| Total | 0 | 271 | 174 | 445 | 615 | 0 | 259 | 874 | 141 | 424 | 0 | 565 | 0 | 0 | 0 | 0 | 1884 |
| | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 74 | 41 | 115 | 152 | 0 | 49 | 201 | 35 | 84 | 0 | 119 | 0 | 0 | 0 | 0 | 435 |
| 08:15 AM | 0 | 48 | 42 | 90 | 163 | 0 | 40 | 203 | 41 | 104 | 0 | 145 | 0 | 0 | 0 | 0 | 438 |
| 08:30 AM | 0 | 64 | 52 | 116 | 136 | 0 | 50 | 186 | 50 | 67 | 0 | 117 | 0 | 0 | 0 | 0 | 419 |
| 08:45 AM | 0 | 47 | 50 | 97 | 149 | 0 | 37 | 186 | 43 | 85 | 0 | 128 | 0 | 0 | 0 | 0 | 411 |
| Total | 0 | 233 | 185 | 418 | 600 | 0 | 176 | 776 | 169 | 340 | 0 | 509 | 0 | 0 | 0 | 0 | 1703 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 504 | 359 | 863 | 1215 | 0 | 435 | 1650 | 310 | 764 | 0 | 1074 | 0 | 0 | 0 | 0 | 3587 |
| Apprch % | 0 | 58.4 | 41.6 | | 73.6 | 0 | 26.4 | | 28.9 | 71.1 | 0 | | 0 | 0 | 0 | | |
| Total % | 0 | 14.1 | 10 | 24.1 | 33.9 | 0 | 12.1 | 46 | 8.6 | 21.3 | 0 | 29.9 | 0 | 0 | 0 | 0 | |

| | Bob Hope Drive Southbound | | | | I-10 Westbound Off Ramp Westbound | | | | Bob Hope Drive Northbound | | | | I-10 Westbound On Ramp Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 AM | | | | | | | | | | | | | | | | | |
| 07:15 AM | 0 | 67 | **56** | **123** | 164 | 0 | **70** | **234** | 30 | 99 | 0 | 129 | 0 | 0 | 0 | 0 | 486 |
| 07:30 AM | 0 | 73 | 42 | 115 | **174** | 0 | 60 | 234 | **45** | 97 | 0 | 142 | 0 | 0 | 0 | 0 | 491 |
| 07:45 AM | 0 | **76** | 38 | 114 | 148 | 0 | 70 | 218 | 45 | **140** | 0 | **185** | 0 | 0 | 0 | 0 | **517** |
| 08:00 AM | 0 | 74 | 41 | 115 | 152 | 0 | 49 | 201 | 35 | 84 | 0 | 119 | 0 | 0 | 0 | 0 | 435 |
| Total Volume | 0 | 290 | 177 | 467 | 638 | 0 | 249 | 887 | 155 | 420 | 0 | 575 | 0 | 0 | 0 | 0 | 1929 |
| % App. Total | 0 | 62.1 | 37.9 | | 71.9 | 0 | 28.1 | | 27 | 73 | 0 | | 0 | 0 | 0 | | |
| PHF | .000 | .954 | .790 | .949 | .917 | .000 | .889 | .948 | .861 | .750 | .000 | .777 | .000 | .000 | .000 | .000 | .933 |

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Corona, CA 92878
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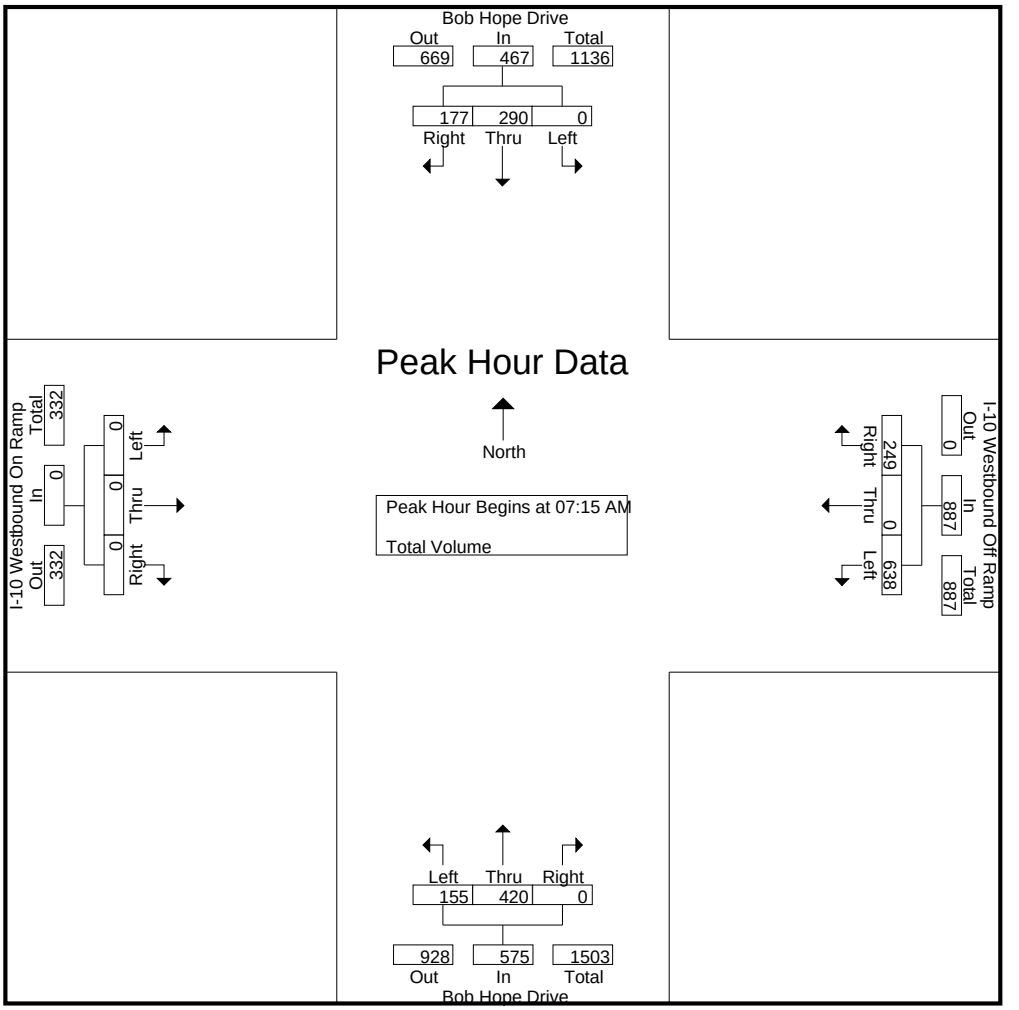
City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 WB Ramps
Weather: Clear

File Name : 07_RNM_BOB HOPE_10 W_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:15 AM | | | | 07:15 AM | | | | 07:30 AM | | | | 07:00 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 67 | **56** | **123** | 164 | 0 | **70** | **234** | **45** | 97 | 0 | 142 | 0 | 0 | 0 | 0 |
| +15 mins. | 0 | 73 | 42 | 115 | **174** | 0 | 60 | 234 | 45 | **140** | 0 | **185** | 0 | 0 | 0 | 0 |
| +30 mins. | 0 | **76** | 38 | 114 | 148 | 0 | 70 | 218 | 35 | 84 | 0 | 119 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 74 | 41 | 115 | 152 | 0 | 49 | 201 | 41 | 104 | 0 | 145 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 290 | 177 | 467 | 638 | 0 | 249 | 887 | 166 | 425 | 0 | 591 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 62.1 | 37.9 | | 71.9 | 0 | 28.1 | | 28.1 | 71.9 | 0 | | 0 | 0 | 0 | |
| PHF | .000 | .954 | .790 | .949 | .917 | .000 | .889 | .948 | .922 | .759 | .000 | .799 | .000 | .000 | .000 | .000 |

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City of Rancho Mirage
N/S: Bob Hope Drive
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Weather: Clear

File Name : 07_RNM_BOB HOPE_10 W_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Bob Hope Drive Southbound | | | | I-10 Westbound Off Ramp Westbound | | | | Bob Hope Drive Northbound | | | | I-10 Westbound On Ramp Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 0 | 71 | 76 | 147 | 117 | 2 | 23 | 142 | 106 | 80 | 0 | 186 | 0 | 0 | 0 | 0 | 475 |
| 04:15 PM | 0 | 60 | 74 | 134 | 114 | 0 | 33 | 147 | 95 | 68 | 0 | 163 | 0 | 0 | 0 | 0 | 444 |
| 04:30 PM | 0 | 55 | 60 | 115 | 105 | 1 | 32 | 138 | 135 | 72 | 0 | 207 | 0 | 0 | 0 | 0 | 460 |
| 04:45 PM | 0 | 40 | 53 | 93 | 116 | 0 | 30 | 146 | 112 | 56 | 0 | 168 | 0 | 0 | 0 | 0 | 407 |
| Total | 0 | 226 | 263 | 489 | 452 | 3 | 118 | 573 | 448 | 276 | 0 | 724 | 0 | 0 | 0 | 0 | 1786 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 70 | 92 | 162 | 131 | 0 | 21 | 152 | 129 | 67 | 0 | 196 | 0 | 0 | 0 | 0 | 510 |
| 05:15 PM | 0 | 27 | 61 | 88 | 144 | 0 | 24 | 168 | 143 | 79 | 0 | 222 | 0 | 0 | 0 | 0 | 478 |
| 05:30 PM | 0 | 31 | 47 | 78 | 135 | 0 | 26 | 161 | 85 | 59 | 0 | 144 | 0 | 0 | 0 | 0 | 383 |
| 05:45 PM | 0 | 21 | 48 | 69 | 107 | 1 | 27 | 135 | 78 | 64 | 0 | 142 | 0 | 0 | 0 | 0 | 346 |
| Total | 0 | 149 | 248 | 397 | 517 | 1 | 98 | 616 | 435 | 269 | 0 | 704 | 0 | 0 | 0 | 0 | 1717 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 375 | 511 | 886 | 969 | 4 | 216 | 1189 | 883 | 545 | 0 | 1428 | 0 | 0 | 0 | 0 | 3503 |
| Apprch % | 0 | 42.3 | 57.7 | | 81.5 | 0.3 | 18.2 | | 61.8 | 38.2 | 0 | | 0 | 0 | 0 | | |
| Total % | 0 | 10.7 | 14.6 | 25.3 | 27.7 | 0.1 | 6.2 | 33.9 | 25.2 | 15.6 | 0 | 40.8 | 0 | 0 | 0 | 0 | |

| | Bob Hope Drive Southbound | | | | I-10 Westbound Off Ramp Westbound | | | | Bob Hope Drive Northbound | | | | I-10 Westbound On Ramp Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM | 0 | 55 | 60 | 115 | 105 | **1** | **32** | 138 | 135 | 72 | 0 | 207 | 0 | 0 | 0 | 0 | 460 |
| 04:45 PM | 0 | 40 | 53 | 93 | 116 | 0 | 30 | 146 | 112 | 56 | 0 | 168 | 0 | 0 | 0 | 0 | 407 |
| 05:00 PM | 0 | **70** | **92** | **162** | 131 | 0 | 21 | 152 | 129 | 67 | 0 | 196 | 0 | 0 | 0 | 0 | **510** |
| 05:15 PM | 0 | 27 | 61 | 88 | **144** | 0 | 24 | **168** | **143** | **79** | 0 | **222** | 0 | 0 | 0 | 0 | 478 |
| Total Volume | 0 | 192 | 266 | 458 | 496 | 1 | 107 | 604 | 519 | 274 | 0 | 793 | 0 | 0 | 0 | 0 | 1855 |
| % App. Total | 0 | 41.9 | 58.1 | | 82.1 | 0.2 | 17.7 | | 65.4 | 34.6 | 0 | | 0 | 0 | 0 | | |
| PHF | .000 | .686 | .723 | .707 | .861 | .250 | .836 | .899 | .907 | .867 | .000 | .893 | .000 | .000 | .000 | .000 | .909 |

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City of Rancho Mirage
N/S: Bob Hope Drive
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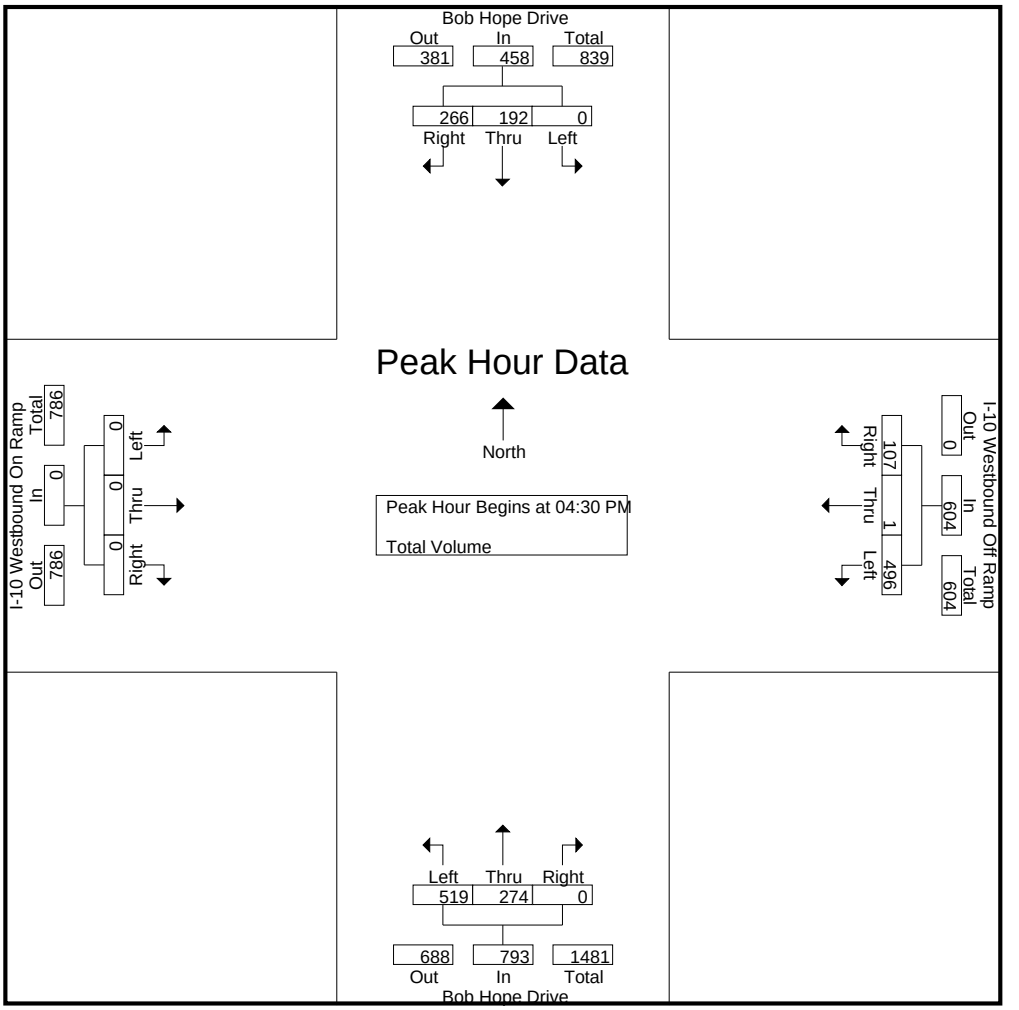
Weather: Clear

File Name : 07_RNM_BOB HOPE_10 W_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:15 PM | | | | 04:45 PM | | | | 04:30 PM | | | | 04:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 60 | 74 | 134 | 116 | 0 | **30** | 146 | 135 | 72 | 0 | 207 | 0 | 0 | 0 | 0 |
| +15 mins. | 0 | 55 | 60 | 115 | 131 | 0 | 21 | 152 | 112 | 56 | 0 | 168 | 0 | 0 | 0 | 0 |
| +30 mins. | 0 | 40 | 53 | 93 | **144** | 0 | 24 | **168** | 129 | 67 | 0 | 196 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | **70** | **92** | **162** | 135 | 0 | 26 | 161 | **143** | **79** | 0 | **222** | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 225 | 279 | 504 | 526 | 0 | 101 | 627 | 519 | 274 | 0 | 793 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 44.6 | 55.4 | | 83.9 | 0 | 16.1 | | 65.4 | 34.6 | 0 | | 0 | 0 | 0 | |
| PHF | .000 | .804 | .758 | .778 | .913 | .000 | .842 | .933 | .907 | .867 | .000 | .893 | .000 | .000 | .000 | .000 |

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 EB Ramps
Weather: Clear

File Name : 08_RNM_Bob Hope_10 E_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Bob Hope Drive Southbound | | | | I-10 Eastbound On Ramp Westbound | | | | Bob Hope Drive Northbound | | | | I-10 Eastbound Off Ramp Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 10 | 177 | 0 | 187 | 0 | 0 | 0 | 0 | 0 | 45 | 8 | 53 | 64 | 0 | 144 | 208 | 448 |
| 07:15 AM | 11 | 215 | 0 | 226 | 0 | 0 | 0 | 0 | 0 | 60 | 7 | 67 | 68 | 0 | 143 | 211 | 504 |
| 07:30 AM | 21 | 233 | 0 | 254 | 0 | 0 | 0 | 0 | 0 | 69 | 9 | 78 | 65 | 1 | 169 | 235 | 567 |
| 07:45 AM | 18 | 201 | 0 | 219 | 0 | 0 | 0 | 0 | 0 | 94 | 13 | 107 | 82 | 0 | 194 | 276 | 602 |
| Total | 60 | 826 | 0 | 886 | 0 | 0 | 0 | 0 | 0 | 268 | 37 | 305 | 279 | 1 | 650 | 930 | 2121 |
| 08:00 AM | 20 | 208 | 0 | 228 | 0 | 0 | 0 | 0 | 0 | 62 | 6 | 68 | 54 | 0 | 124 | 178 | 474 |
| 08:15 AM | 18 | 193 | 0 | 211 | 0 | 0 | 0 | 0 | 0 | 91 | 14 | 105 | 61 | 1 | 118 | 180 | 496 |
| 08:30 AM | 16 | 194 | 0 | 210 | 0 | 0 | 0 | 0 | 0 | 72 | 1 | 73 | 41 | 0 | 156 | 197 | 480 |
| 08:45 AM | 20 | 184 | 0 | 204 | 0 | 0 | 0 | 0 | 0 | 81 | 8 | 89 | 45 | 0 | 106 | 151 | 444 |
| Total | 74 | 779 | 0 | 853 | 0 | 0 | 0 | 0 | 0 | 306 | 29 | 335 | 201 | 1 | 504 | 706 | 1894 |
| Grand Total | 134 | 1605 | 0 | 1739 | 0 | 0 | 0 | 0 | 0 | 574 | 66 | 640 | 480 | 2 | 1154 | 1636 | 4015 |
| Apprch % | 7.7 | 92.3 | 0 | | 0 | 0 | 0 | | 0 | 89.7 | 10.3 | | 29.3 | 0.1 | 70.5 | | |
| Total % | 3.3 | 40 | 0 | 43.3 | 0 | 0 | 0 | 0 | 0 | 14.3 | 1.6 | 15.9 | 12 | 0 | 28.7 | 40.7 | |

| | Bob Hope Drive Southbound | | | | I-10 Eastbound On Ramp Westbound | | | | Bob Hope Drive Northbound | | | | I-10 Eastbound Off Ramp Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 AM | | | | | | | | | | | | | | | | | |
| 07:15 AM | 11 | 215 | 0 | 226 | 0 | 0 | 0 | 0 | 0 | 60 | 7 | 67 | 68 | 0 | 143 | 211 | 504 |
| 07:30 AM | 21 | 233 | 0 | 254 | 0 | 0 | 0 | 0 | 0 | 69 | 9 | 78 | 65 | 1 | 169 | 235 | 567 |
| 07:45 AM | 18 | 201 | 0 | 219 | 0 | 0 | 0 | 0 | 0 | 94 | 13 | 107 | 82 | 0 | 194 | 276 | 602 |
| 08:00 AM | 20 | 208 | 0 | 228 | 0 | 0 | 0 | 0 | 0 | 62 | 6 | 68 | 54 | 0 | 124 | 178 | 474 |
| Total Volume | 70 | 857 | 0 | 927 | 0 | 0 | 0 | 0 | 0 | 285 | 35 | 320 | 269 | 1 | 630 | 900 | 2147 |
| % App. Total | 7.6 | 92.4 | 0 | | 0 | 0 | 0 | | 0 | 89.1 | 10.9 | | 29.9 | 0.1 | 70 | | |
| PHF | .833 | .920 | .000 | .912 | .000 | .000 | .000 | .000 | .000 | .758 | .673 | .748 | .820 | .250 | .812 | .815 | .892 |

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City of Rancho Mirage
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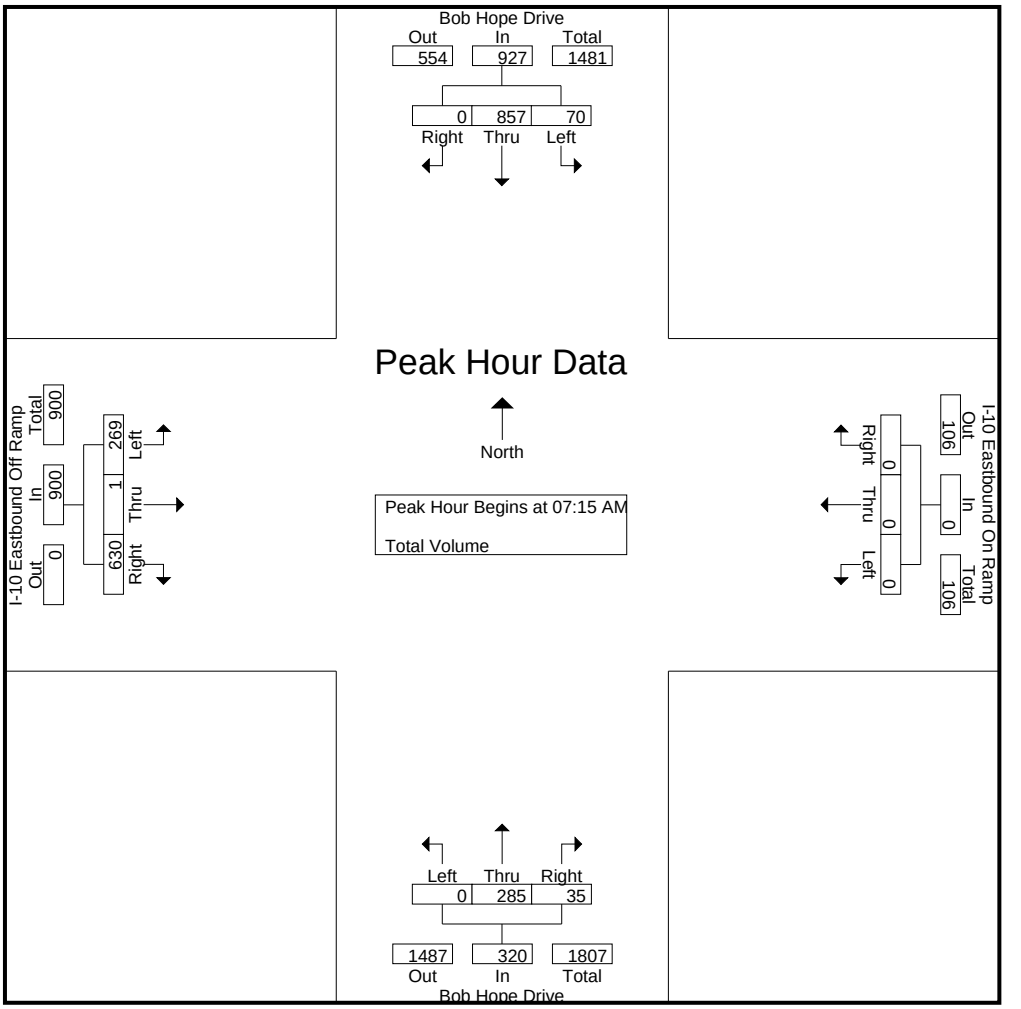
Weather: Clear

File Name : 08_RNM_Bob Hope_10 E_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:15 AM | | | | 07:00 AM | | | | 07:30 AM | | | | 07:00 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 11 | 215 | 0 | 226 | 0 | 0 | 0 | 0 | 0 | 69 | 9 | 78 | 64 | 0 | 144 | 208 |
| +15 mins. | 21 | 233 | 0 | 254 | 0 | 0 | 0 | 0 | 0 | 94 | 13 | 107 | 68 | 0 | 143 | 211 |
| +30 mins. | 18 | 201 | 0 | 219 | 0 | 0 | 0 | 0 | 0 | 62 | 6 | 68 | 65 | 1 | 169 | 235 |
| +45 mins. | 20 | 208 | 0 | 228 | 0 | 0 | 0 | 0 | 0 | 91 | 14 | 105 | 82 | 0 | 194 | 276 |
| Total Volume | 70 | 857 | 0 | 927 | 0 | 0 | 0 | 0 | 0 | 316 | 42 | 358 | 279 | 1 | 650 | 930 |
| % App. Total | 7.6 | 92.4 | 0 | | 0 | 0 | 0 | | 0 | 88.3 | 11.7 | | 30 | 0.1 | 69.9 | |
| PHF | .833 | .920 | .000 | .912 | .000 | .000 | .000 | .000 | .000 | .840 | .750 | .836 | .851 | .250 | .838 | .842 |

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: I-10 EB Ramps
Weather: Clear

File Name : 08_RNM_BOB HOPE_10 E_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Bob Hope Drive Southbound | | | | I-10 Eastbound On Ramp Westbound | | | | Bob Hope Drive Northbound | | | | I-10 Eastbound Off Ramp Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 37 | 151 | 0 | 188 | 0 | 0 | 0 | 0 | 0 | 162 | 9 | 171 | 33 | 1 | 65 | 99 | 458 |
| 04:15 PM | 21 | 164 | 0 | 185 | 0 | 0 | 0 | 0 | 0 | 139 | 18 | 157 | 27 | 2 | 60 | 89 | 431 |
| 04:30 PM | 27 | 125 | 0 | 152 | 0 | 0 | 0 | 0 | 0 | 152 | 10 | 162 | 38 | 1 | 62 | 101 | 415 |
| 04:45 PM | 21 | 142 | 0 | 163 | 0 | 0 | 0 | 0 | 0 | 144 | 20 | 164 | 33 | 0 | 64 | 97 | 424 |
| Total | 106 | 582 | 0 | 688 | 0 | 0 | 0 | 0 | 0 | 597 | 57 | 654 | 131 | 4 | 251 | 386 | 1728 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 21 | 156 | 0 | 177 | 0 | 0 | 0 | 0 | 0 | 162 | 14 | 176 | 39 | 1 | 67 | 107 | 460 |
| 05:15 PM | 16 | 162 | 0 | 178 | 0 | 0 | 0 | 0 | 0 | 190 | 21 | 211 | 35 | 0 | 76 | 111 | 500 |
| 05:30 PM | 12 | 162 | 0 | 174 | 0 | 0 | 0 | 0 | 0 | 130 | 5 | 135 | 27 | 0 | 57 | 84 | 393 |
| 05:45 PM | 6 | 113 | 0 | 119 | 0 | 0 | 0 | 0 | 0 | 99 | 5 | 104 | 35 | 1 | 61 | 97 | 320 |
| Total | 55 | 593 | 0 | 648 | 0 | 0 | 0 | 0 | 0 | 581 | 45 | 626 | 136 | 2 | 261 | 399 | 1673 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 161 | 1175 | 0 | 1336 | 0 | 0 | 0 | 0 | 0 | 1178 | 102 | 1280 | 267 | 6 | 512 | 785 | 3401 |
| Apprch % | 12.1 | 87.9 | 0 | | 0 | 0 | 0 | | 0 | 92 | 8 | | 34 | 0.8 | 65.2 | | |
| Total % | 4.7 | 34.5 | 0 | 39.3 | 0 | 0 | 0 | 0 | 0 | 34.6 | 3 | 37.6 | 7.9 | 0.2 | 15.1 | 23.1 | |

| | Bob Hope Drive Southbound | | | | I-10 Eastbound On Ramp Westbound | | | | Bob Hope Drive Northbound | | | | I-10 Eastbound Off Ramp Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM | **27** | 125 | 0 | 152 | 0 | 0 | 0 | 0 | 0 | 152 | 10 | 162 | 38 | **1** | 62 | 101 | 415 |
| 04:45 PM | 21 | 142 | 0 | 163 | 0 | 0 | 0 | 0 | 0 | 144 | 20 | 164 | 33 | 0 | 64 | 97 | 424 |
| 05:00 PM | 21 | 156 | 0 | 177 | 0 | 0 | 0 | 0 | 0 | 162 | 14 | 176 | **39** | 1 | 67 | 107 | 460 |
| 05:15 PM | 16 | **162** | 0 | **178** | 0 | 0 | 0 | 0 | 0 | **190** | **21** | **211** | 35 | 0 | **76** | **111** | **500** |
| Total Volume | 85 | 585 | 0 | 670 | 0 | 0 | 0 | 0 | 0 | 648 | 65 | 713 | 145 | 2 | 269 | 416 | 1799 |
| % App. Total | 12.7 | 87.3 | 0 | | 0 | 0 | 0 | | 0 | 90.9 | 9.1 | | 34.9 | 0.5 | 64.7 | | |
| PHF | .787 | .903 | .000 | .941 | .000 | .000 | .000 | .000 | .000 | .853 | .774 | .845 | .929 | .500 | .885 | .937 | .900 |

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City of Rancho Mirage
N/S: Bob Hope Drive
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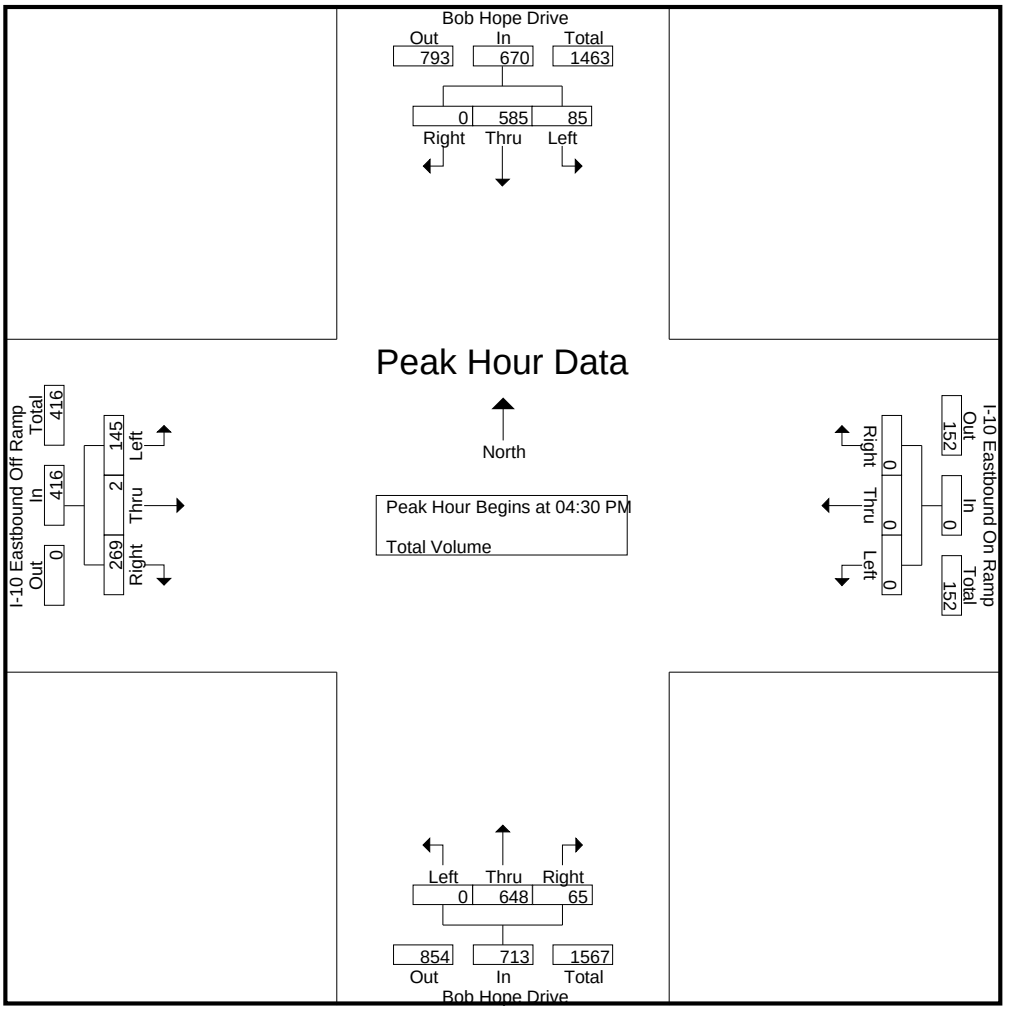
File Name : 08_RNM_BOB HOPE_10 E_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | | 04:00 PM | | | | 04:30 PM | | | | 04:30 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **21** | 142 | 0 | 163 | 0 | 0 | 0 | 0 | 0 | 152 | 10 | 162 | 38 | **1** | 62 | 101 |
| +15 mins. | 21 | 156 | 0 | 177 | 0 | 0 | 0 | 0 | 0 | 144 | 20 | 164 | 33 | 0 | 64 | 97 |
| +30 mins. | 16 | **162** | 0 | **178** | 0 | 0 | 0 | 0 | 0 | 162 | 14 | 176 | **39** | 1 | 67 | 107 |
| +45 mins. | 12 | 162 | 0 | 174 | 0 | 0 | 0 | 0 | 0 | **190** | **21** | **211** | 35 | 0 | **76** | **111** |
| Total Volume | 70 | 622 | 0 | 692 | 0 | 0 | 0 | 0 | 0 | 648 | 65 | 713 | 145 | 2 | 269 | 416 |
| % App. Total | 10.1 | 89.9 | 0 | | 0 | 0 | 0 | | 0 | 90.9 | 9.1 | | 34.9 | 0.5 | 64.7 | |
| PHF | .833 | .960 | .000 | .972 | .000 | .000 | .000 | .000 | .000 | .853 | .774 | .845 | .929 | .500 | .885 | .937 |

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: Ramon Road
Weather: Clear

File Name : 09_RNM_BOB HOPE_RAMON_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Bob Hope Drive Southbound | | | | Ramon Road Westbound | | | | Bob Hope Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 14 | 139 | 131 | 284 | 17 | 52 | 1 | 70 | 21 | 35 | 12 | 68 | 21 | 153 | 30 | 204 | 626 |
| 07:15 AM | 7 | 184 | 156 | 347 | 32 | 120 | 0 | 152 | 23 | 39 | 22 | 84 | 25 | 144 | 37 | 206 | 789 |
| 07:30 AM | 24 | 209 | 156 | 389 | 49 | 109 | 1 | 159 | 30 | 52 | 21 | 103 | 32 | 190 | 56 | 278 | 929 |
| 07:45 AM | 10 | 244 | 161 | 415 | 24 | 109 | 0 | 133 | 25 | 79 | 29 | 133 | 39 | 162 | 52 | 253 | 934 |
| Total | 55 | 776 | 604 | 1435 | 122 | 390 | 2 | 514 | 99 | 205 | 84 | 388 | 117 | 649 | 175 | 941 | 3278 |
| | | | | | | | | | | | | | | | | | |
| 08:00 AM | 9 | 155 | 159 | 323 | 27 | 97 | 4 | 128 | 31 | 36 | 25 | 92 | 24 | 157 | 54 | 235 | 778 |
| 08:15 AM | 7 | 130 | 182 | 319 | 16 | 139 | 4 | 159 | 32 | 66 | 31 | 129 | 30 | 181 | 62 | 273 | 880 |
| 08:30 AM | 12 | 143 | 172 | 327 | 19 | 114 | 3 | 136 | 45 | 49 | 24 | 118 | 23 | 189 | 51 | 263 | 844 |
| 08:45 AM | 11 | 168 | 129 | 308 | 15 | 67 | 3 | 85 | 25 | 59 | 28 | 112 | 32 | 159 | 63 | 254 | 759 |
| Total | 39 | 596 | 642 | 1277 | 77 | 417 | 14 | 508 | 133 | 210 | 108 | 451 | 109 | 686 | 230 | 1025 | 3261 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 94 | 1372 | 1246 | 2712 | 199 | 807 | 16 | 1022 | 232 | 415 | 192 | 839 | 226 | 1335 | 405 | 1966 | 6539 |
| Apprch % | 3.5 | 50.6 | 45.9 | | 19.5 | 79 | 1.6 | | 27.7 | 49.5 | 22.9 | | 11.5 | 67.9 | 20.6 | | |
| Total % | 1.4 | 21 | 19.1 | 41.5 | 3 | 12.3 | 0.2 | 15.6 | 3.5 | 6.3 | 2.9 | 12.8 | 3.5 | 20.4 | 6.2 | 30.1 | |

| | Bob Hope Drive Southbound | | | | Ramon Road Westbound | | | | Bob Hope Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM | **24** | 209 | 156 | 389 | **49** | 109 | 1 | **159** | 30 | 52 | 21 | 103 | 32 | **190** | 56 | **278** | 929 |
| 07:45 AM | 10 | **244** | 161 | **415** | 24 | 109 | 0 | 133 | 25 | **79** | 29 | **133** | **39** | 162 | 52 | 253 | **934** |
| 08:00 AM | 9 | 155 | 159 | 323 | 27 | 97 | **4** | 128 | 31 | 36 | 25 | 92 | 24 | 157 | 54 | 235 | 778 |
| 08:15 AM | 7 | 130 | **182** | 319 | 16 | **139** | 4 | 159 | **32** | 66 | **31** | 129 | 30 | 181 | **62** | 273 | 880 |
| Total Volume | 50 | 738 | 658 | 1446 | 116 | 454 | 9 | 579 | 118 | 233 | 106 | 457 | 125 | 690 | 224 | 1039 | 3521 |
| % App. Total | 3.5 | 51 | 45.5 | | 20 | 78.4 | 1.6 | | 25.8 | 51 | 23.2 | | 12 | 66.4 | 21.6 | | |
| PHF | .521 | .756 | .904 | .871 | .592 | .817 | .563 | .910 | .922 | .737 | .855 | .859 | .801 | .908 | .903 | .934 | .942 |

Counts Unlimited, Inc.
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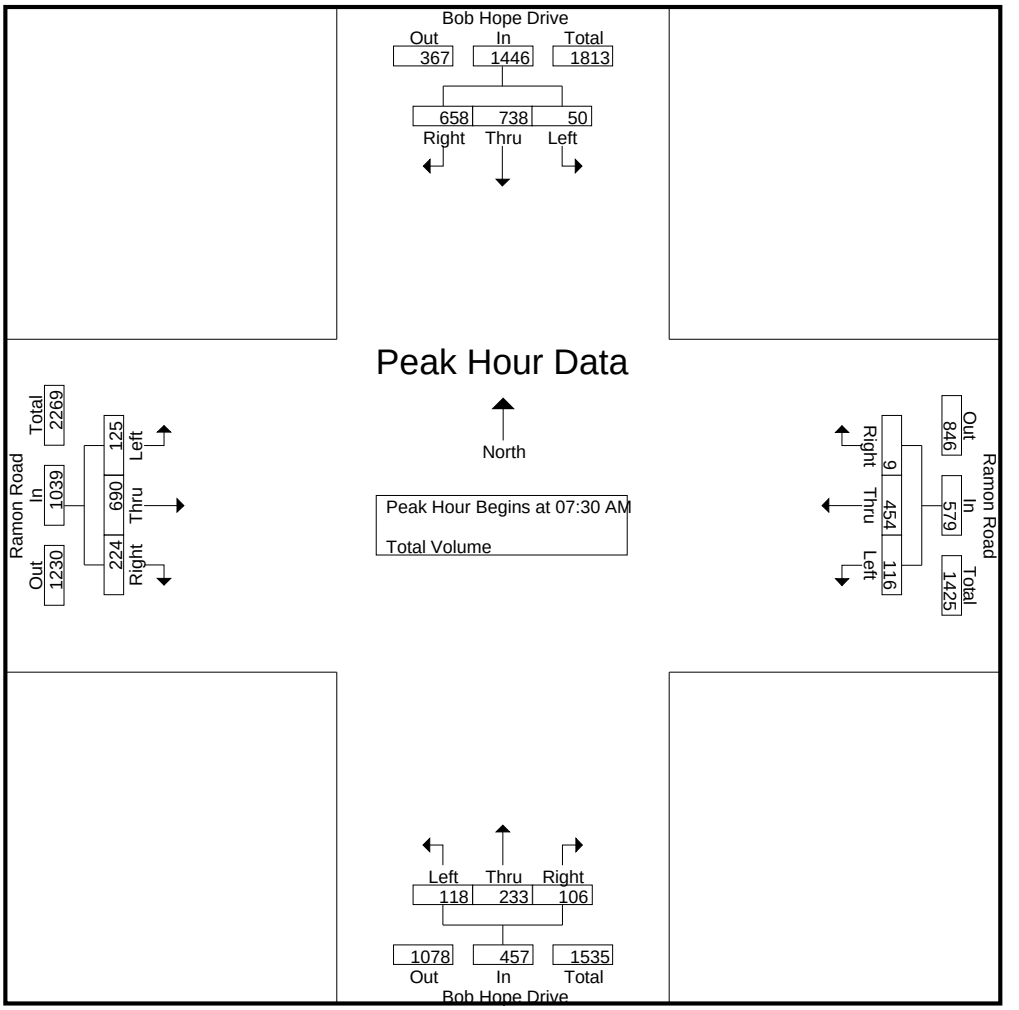
City of Rancho Mirage
N/S: Bob Hope Drive
E/W: Ramon Road
Weather: Clear

File Name : 09_RNM_BOB HOPE_RAMON_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:15 AM | | | | 07:30 AM | | | | 07:45 AM | | | | 07:30 AM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 7 | 184 | 156 | 347 | **49** | 109 | 1 | **159** | 25 | **79** | 29 | **133** | 32 | **190** | 56 | **278** |
| +15 mins. | **24** | 209 | 156 | 389 | 24 | 109 | 0 | 133 | 31 | 36 | 25 | 92 | **39** | 162 | 52 | 253 |
| +30 mins. | 10 | **244** | **161** | **415** | 27 | 97 | **4** | 128 | 32 | 66 | **31** | 129 | 24 | 157 | 54 | 235 |
| +45 mins. | 9 | 155 | 159 | 323 | 16 | **139** | 4 | 159 | **45** | 49 | 24 | 118 | 30 | 181 | **62** | 273 |
| Total Volume | 50 | 792 | 632 | 1474 | 116 | 454 | 9 | 579 | 133 | 230 | 109 | 472 | 125 | 690 | 224 | 1039 |
| % App. Total | 3.4 | 53.7 | 42.9 | | 20 | 78.4 | 1.6 | | 28.2 | 48.7 | 23.1 | | 12 | 66.4 | 21.6 | |
| PHF | .521 | .811 | .981 | .888 | .592 | .817 | .563 | .910 | .739 | .728 | .879 | .887 | .801 | .908 | .903 | .934 |

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City of Rancho Mirage
N/S: Bob Hope Drive
E/W: Ramon Road
Weather: Clear

File Name : 09_RNM_BOB HOPE_RAMON_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Bob Hope Drive Southbound | | | | Ramon Road Westbound | | | | Bob Hope Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 14 | 67 | 131 | 212 | 11 | 98 | 7 | 116 | 59 | 130 | 66 | 255 | 44 | 236 | 88 | 368 | 951 |
| 04:15 PM | 19 | 84 | 122 | 225 | 12 | 67 | 2 | 81 | 65 | 143 | 63 | 271 | 27 | 159 | 38 | 224 | 801 |
| 04:30 PM | 9 | 66 | 112 | 187 | 19 | 79 | 9 | 107 | 67 | 155 | 54 | 276 | 16 | 192 | 49 | 257 | 827 |
| 04:45 PM | 11 | 83 | 100 | 194 | 20 | 78 | 2 | 100 | 77 | 140 | 57 | 274 | 26 | 175 | 48 | 249 | 817 |
| Total | 53 | 300 | 465 | 818 | 62 | 322 | 20 | 404 | 268 | 568 | 240 | 1076 | 113 | 762 | 223 | 1098 | 3396 |
| | | | | | | | | | | | | | | | | | |
| 05:00 PM | 22 | 86 | 113 | 221 | 25 | 71 | 2 | 98 | 70 | 179 | 74 | 323 | 8 | 196 | 34 | 238 | 880 |
| 05:15 PM | 21 | 81 | 129 | 231 | 12 | 82 | 6 | 100 | 61 | 183 | 65 | 309 | 16 | 230 | 44 | 290 | 930 |
| 05:30 PM | 15 | 81 | 114 | 210 | 14 | 70 | 3 | 87 | 67 | 120 | 49 | 236 | 9 | 172 | 57 | 238 | 771 |
| 05:45 PM | 22 | 65 | 96 | 183 | 12 | 60 | 2 | 74 | 54 | 100 | 37 | 191 | 13 | 182 | 58 | 253 | 701 |
| Total | 80 | 313 | 452 | 845 | 63 | 283 | 13 | 359 | 252 | 582 | 225 | 1059 | 46 | 780 | 193 | 1019 | 3282 |
| | | | | | | | | | | | | | | | | | |
| Grand Total | 133 | 613 | 917 | 1663 | 125 | 605 | 33 | 763 | 520 | 1150 | 465 | 2135 | 159 | 1542 | 416 | 2117 | 6678 |
| Apprch % | 8 | 36.9 | 55.1 | | 16.4 | 79.3 | 4.3 | | 24.4 | 53.9 | 21.8 | | 7.5 | 72.8 | 19.7 | | |
| Total % | 2 | 9.2 | 13.7 | 24.9 | 1.9 | 9.1 | 0.5 | 11.4 | 7.8 | 17.2 | 7 | 32 | 2.4 | 23.1 | 6.2 | 31.7 | |

| | Bob Hope Drive Southbound | | | | Ramon Road Westbound | | | | Bob Hope Drive Northbound | | | | Ramon Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM | 9 | 66 | 112 | 187 | 19 | 79 | **9** | **107** | 67 | 155 | 54 | 276 | 16 | 192 | **49** | 257 | 827 |
| 04:45 PM | 11 | 83 | 100 | 194 | 20 | 78 | 2 | 100 | **77** | 140 | 57 | 274 | **26** | 175 | 48 | 249 | 817 |
| 05:00 PM | **22** | **86** | 113 | 221 | **25** | 71 | 2 | 98 | 70 | 179 | **74** | **323** | 8 | 196 | 34 | 238 | 880 |
| 05:15 PM | 21 | 81 | **129** | **231** | 12 | **82** | 6 | 100 | 61 | **183** | 65 | 309 | 16 | **230** | 44 | **290** | **930** |
| Total Volume | 63 | 316 | 454 | 833 | 76 | 310 | 19 | 405 | 275 | 657 | 250 | 1182 | 66 | 793 | 175 | 1034 | 3454 |
| % App. Total | 7.6 | 37.9 | 54.5 | | 18.8 | 76.5 | 4.7 | | 23.3 | 55.6 | 21.2 | | 6.4 | 76.7 | 16.9 | | |
| PHF | .716 | .919 | .880 | .902 | .760 | .945 | .528 | .946 | .893 | .898 | .845 | .915 | .635 | .862 | .893 | .891 | .928 |

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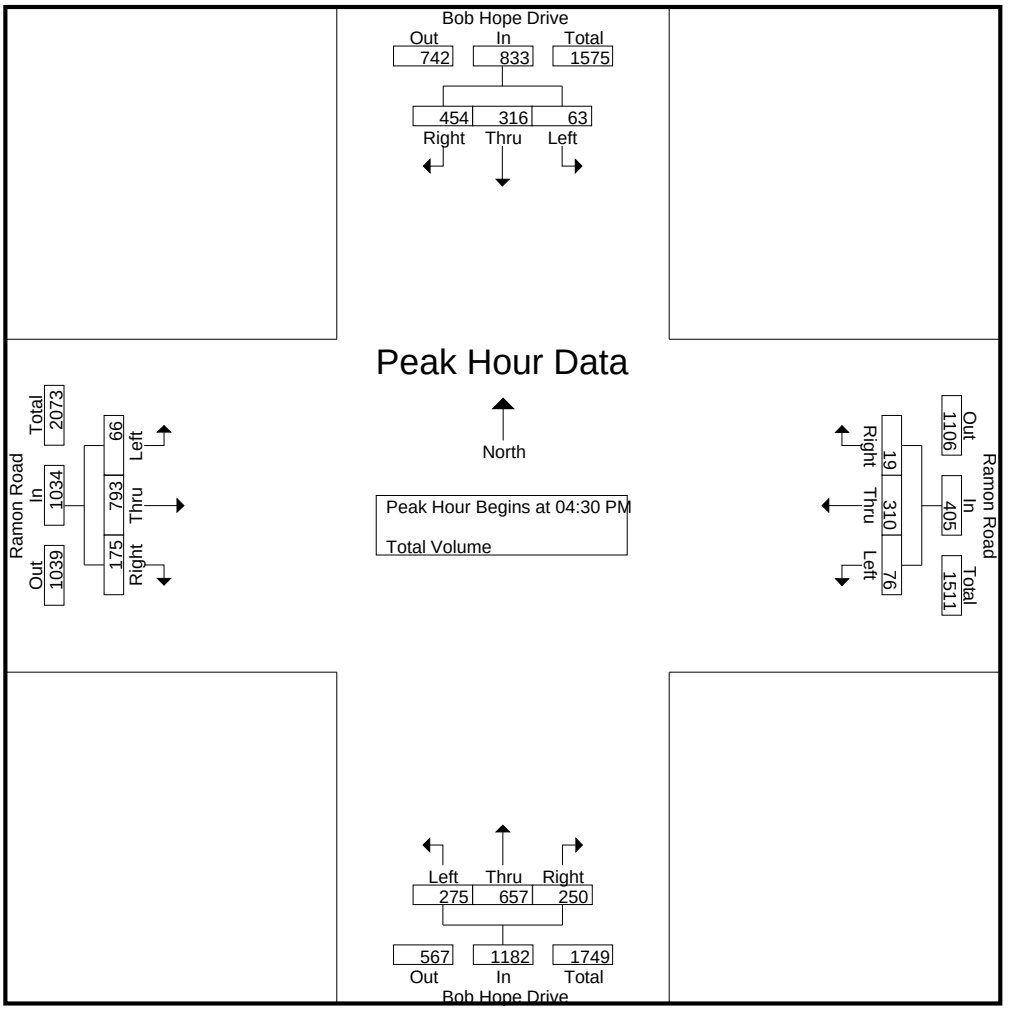
City of Rancho Mirage
N/S: Bob Hope Drive
E/W: Ramon Road
Weather: Clear

File Name : 09_RNM_BOB HOPE_RAMON_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | | 04:30 PM | | | | 04:30 PM | | | | 04:00 PM | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 11 | 83 | 100 | 194 | 19 | 79 | **9** | **107** | 67 | 155 | 54 | 276 | **44** | **236** | **88** | **368** |
| +15 mins. | **22** | **86** | 113 | 221 | 20 | 78 | 2 | 100 | **77** | 140 | 57 | 274 | 27 | 159 | 38 | 224 |
| +30 mins. | 21 | 81 | **129** | **231** | **25** | 71 | 2 | 98 | 70 | 179 | **74** | **323** | 16 | 192 | 49 | 257 |
| +45 mins. | 15 | 81 | 114 | 210 | 12 | **82** | 6 | 100 | 61 | **183** | 65 | 309 | 26 | 175 | 48 | 249 |
| Total Volume | 69 | 331 | 456 | 856 | 76 | 310 | 19 | 405 | 275 | 657 | 250 | 1182 | 113 | 762 | 223 | 1098 |
| % App. Total | 8.1 | 38.7 | 53.3 | | 18.8 | 76.5 | 4.7 | | 23.3 | 55.6 | 21.2 | | 10.3 | 69.4 | 20.3 | |
| PHF | .784 | .962 | .884 | .926 | .760 | .945 | .528 | .946 | .893 | .898 | .845 | .915 | .642 | .807 | .634 | .746 |

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City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 2
Weather: Clear

File Name : 15_RNM_RATTLER_SCH ACC 2_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 2 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 07:00 AM | 5 | 0 | 5 | 2 | 5 | 7 | 0 | 4 | 4 | 16 |
| 07:15 AM | 8 | 0 | 8 | 1 | 8 | 9 | 6 | 6 | 12 | 29 |
| 07:30 AM | 15 | 0 | 15 | 0 | 16 | 16 | 3 | 7 | 10 | 41 |
| 07:45 AM | 27 | 0 | 27 | 0 | 17 | 17 | 8 | 6 | 14 | 58 |
| Total | 55 | 0 | 55 | 3 | 46 | 49 | 17 | 23 | 40 | 144 |
| 08:00 AM | 24 | 0 | 24 | 0 | 32 | 32 | 13 | 18 | 31 | 87 |
| 08:15 AM | 45 | 0 | 45 | 1 | 61 | 62 | 18 | 41 | 59 | 166 |
| 08:30 AM | 59 | 0 | 59 | 0 | 71 | 71 | 53 | 58 | 111 | 241 |
| 08:45 AM | 19 | 0 | 19 | 0 | 26 | 26 | 15 | 18 | 33 | 78 |
| Total | 147 | 0 | 147 | 1 | 190 | 191 | 99 | 135 | 234 | 572 |
| Grand Total | 202 | 0 | 202 | 4 | 236 | 240 | 116 | 158 | 274 | 716 |
| Apprch % | 100 | 0 | | 1.7 | 98.3 | | 42.3 | 57.7 | | |
| Total % | 28.2 | 0 | 28.2 | 0.6 | 33 | 33.5 | 16.2 | 22.1 | 38.3 | |

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 2 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | |
| 08:00 AM | 24 | 0 | 24 | 0 | 32 | 32 | 13 | 18 | 31 | 87 |
| 08:15 AM | 45 | 0 | 45 | **1** | 61 | 62 | 18 | 41 | 59 | 166 |
| 08:30 AM | **59** | 0 | **59** | 0 | **71** | **71** | **53** | **58** | **111** | **241** |
| 08:45 AM | 19 | 0 | 19 | 0 | 26 | 26 | 15 | 18 | 33 | 78 |
| Total Volume | 147 | 0 | 147 | 1 | 190 | 191 | 99 | 135 | 234 | 572 |
| % App. Total | 100 | 0 | | 0.5 | 99.5 | | 42.3 | 57.7 | | |
| PHF | .623 | .000 | .623 | .250 | .669 | .673 | .467 | .582 | .527 | .593 |

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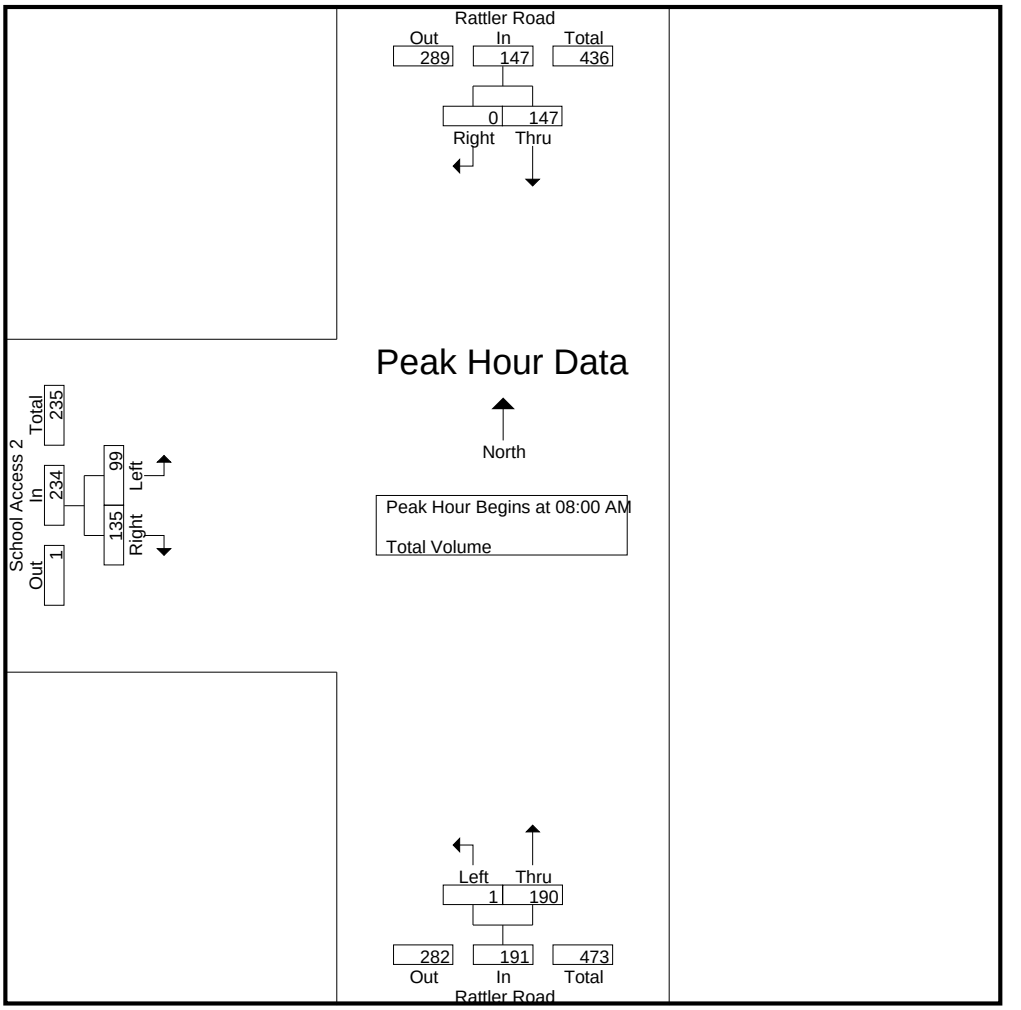
City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 2
Weather: Clear

File Name : 15_RNM_RATTLER_SCH ACC 2_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:45 AM | | | 08:00 AM | | | 08:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 27 | 0 | 27 | 0 | 32 | 32 | 13 | 18 | 31 |
| +15 mins. | 24 | 0 | 24 | **1** | 61 | 62 | 18 | 41 | 59 |
| +30 mins. | 45 | 0 | 45 | 0 | **71** | **71** | **53** | **58** | **111** |
| +45 mins. | **59** | 0 | **59** | 0 | 26 | 26 | 15 | 18 | 33 |
| Total Volume | 155 | 0 | 155 | 1 | 190 | 191 | 99 | 135 | 234 |
| % App. Total | 100 | 0 | | 0.5 | 99.5 | | 42.3 | 57.7 | |
| PHF | .657 | .000 | .657 | .250 | .669 | .673 | .467 | .582 | .527 |

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City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 2
Weather: Clear

File Name : 15_RNM_RATTLER_SCH ACC 2_MD
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 2 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 02:00 PM | 8 | 0 | 8 | 1 | 6 | 7 | 1 | 0 | 1 | 16 |
| 02:15 PM | 7 | 0 | 7 | 1 | 7 | 8 | 0 | 0 | 0 | 15 |
| 02:30 PM | 16 | 0 | 16 | 1 | 9 | 10 | 7 | 8 | 15 | 41 |
| 02:45 PM | 11 | 0 | 11 | 0 | 9 | 9 | 3 | 6 | 9 | 29 |
| Total | 42 | 0 | 42 | 3 | 31 | 34 | 11 | 14 | 25 | 101 |
| | | | | | | | | | | |
| 03:00 PM | 10 | 0 | 10 | 0 | 11 | 11 | 1 | 0 | 1 | 22 |
| 03:15 PM | 15 | 0 | 15 | 5 | 35 | 40 | 1 | 0 | 1 | 56 |
| 03:30 PM | 31 | 0 | 31 | 3 | 43 | 46 | 24 | 24 | 48 | 125 |
| 03:45 PM | 91 | 0 | 91 | 0 | 81 | 81 | 59 | 79 | 138 | 310 |
| Total | 147 | 0 | 147 | 8 | 170 | 178 | 85 | 103 | 188 | 513 |
| | | | | | | | | | | |
| Grand Total | 189 | 0 | 189 | 11 | 201 | 212 | 96 | 117 | 213 | 614 |
| Apprch % | 100 | 0 | | 5.2 | 94.8 | | 45.1 | 54.9 | | |
| Total % | 30.8 | 0 | 30.8 | 1.8 | 32.7 | 34.5 | 15.6 | 19.1 | 34.7 | |

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 2 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 03:00 PM | | | | | | | | | | |
| 03:00 PM | 10 | 0 | 10 | 0 | 11 | 11 | 1 | 0 | 1 | 22 |
| 03:15 PM | 15 | 0 | 15 | **5** | 35 | 40 | 1 | 0 | 1 | 56 |
| 03:30 PM | 31 | 0 | 31 | 3 | 43 | 46 | 24 | 24 | 48 | 125 |
| 03:45 PM | **91** | 0 | **91** | 0 | **81** | **81** | **59** | **79** | **138** | **310** |
| Total Volume | 147 | 0 | 147 | 8 | 170 | 178 | 85 | 103 | 188 | 513 |
| % App. Total | 100 | 0 | | 4.5 | 95.5 | | 45.2 | 54.8 | | |
| PHF | .404 | .000 | .404 | .400 | .525 | .549 | .360 | .326 | .341 | .414 |

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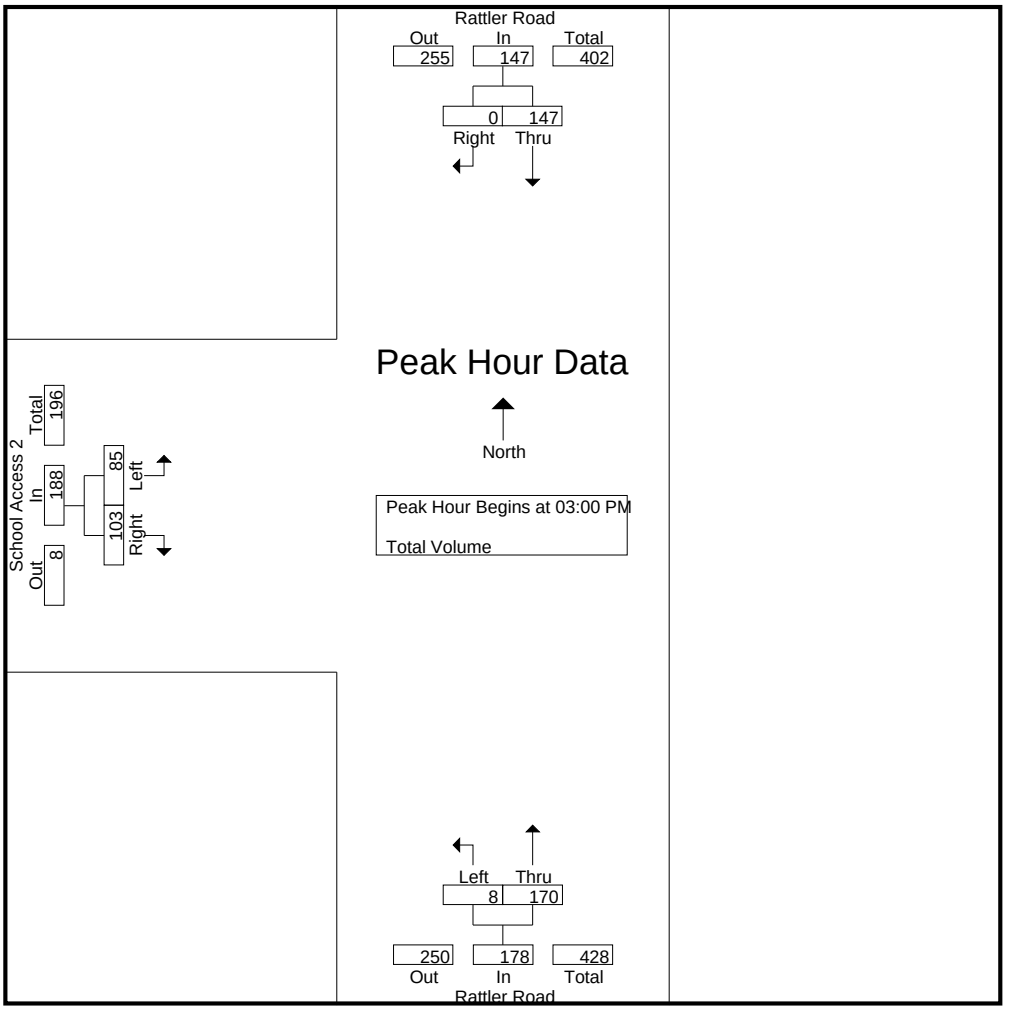
City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 2
Weather: Clear

File Name : 15_RNM_RATTLER_SCH ACC 2_MD
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 03:00 PM | | | 03:00 PM | | | 03:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 10 | 0 | 10 | 0 | 11 | 11 | 1 | 0 | 1 |
| +15 mins. | 15 | 0 | 15 | **5** | 35 | 40 | 1 | 0 | 1 |
| +30 mins. | 31 | 0 | 31 | 3 | 43 | 46 | 24 | 24 | 48 |
| +45 mins. | **91** | 0 | **91** | 0 | **81** | **81** | **59** | **79** | **138** |
| Total Volume | 147 | 0 | 147 | 8 | 170 | 178 | 85 | 103 | 188 |
| % App. Total | 100 | 0 | | 4.5 | 95.5 | | 45.2 | 54.8 | |
| PHF | .404 | .000 | .404 | .400 | .525 | .549 | .360 | .326 | .341 |

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City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 2
Weather: Clear

File Name : 15_RNM_RATTLER_SCH ACC 2_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 2 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 04:00 PM | 43 | 0 | 43 | 2 | 53 | 55 | 25 | 19 | 44 | 142 |
| 04:15 PM | 18 | 0 | 18 | 2 | 22 | 24 | 11 | 6 | 17 | 59 |
| 04:30 PM | 10 | 0 | 10 | 1 | 26 | 27 | 5 | 5 | 10 | 47 |
| 04:45 PM | 11 | 0 | 11 | 0 | 23 | 23 | 3 | 1 | 4 | 38 |
| Total | 82 | 0 | 82 | 5 | 124 | 129 | 44 | 31 | 75 | 286 |
| | | | | | | | | | | |
| 05:00 PM | 19 | 0 | 19 | 2 | 9 | 11 | 3 | 6 | 9 | 39 |
| 05:15 PM | 6 | 0 | 6 | 3 | 9 | 12 | 3 | 3 | 6 | 24 |
| 05:30 PM | 7 | 0 | 7 | 3 | 11 | 14 | 3 | 5 | 8 | 29 |
| 05:45 PM | 9 | 0 | 9 | 2 | 17 | 19 | 6 | 7 | 13 | 41 |
| Total | 41 | 0 | 41 | 10 | 46 | 56 | 15 | 21 | 36 | 133 |
| | | | | | | | | | | |
| Grand Total | 123 | 0 | 123 | 15 | 170 | 185 | 59 | 52 | 111 | 419 |
| Apprch % | 100 | 0 | | 8.1 | 91.9 | | 53.2 | 46.8 | | |
| Total % | 29.4 | 0 | 29.4 | 3.6 | 40.6 | 44.2 | 14.1 | 12.4 | 26.5 | |

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 2 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | **43** | 0 | **43** | **2** | **53** | **55** | **25** | **19** | **44** | **142** |
| 04:15 PM | 18 | 0 | 18 | 2 | 22 | 24 | 11 | 6 | 17 | 59 |
| 04:30 PM | 10 | 0 | 10 | 1 | 26 | 27 | 5 | 5 | 10 | 47 |
| 04:45 PM | 11 | 0 | 11 | 0 | 23 | 23 | 3 | 1 | 4 | 38 |
| Total Volume | 82 | 0 | 82 | 5 | 124 | 129 | 44 | 31 | 75 | 286 |
| % App. Total | 100 | 0 | | 3.9 | 96.1 | | 58.7 | 41.3 | | |
| PHF | .477 | .000 | .477 | .625 | .585 | .586 | .440 | .408 | .426 | .504 |

Counts Unlimited, Inc.
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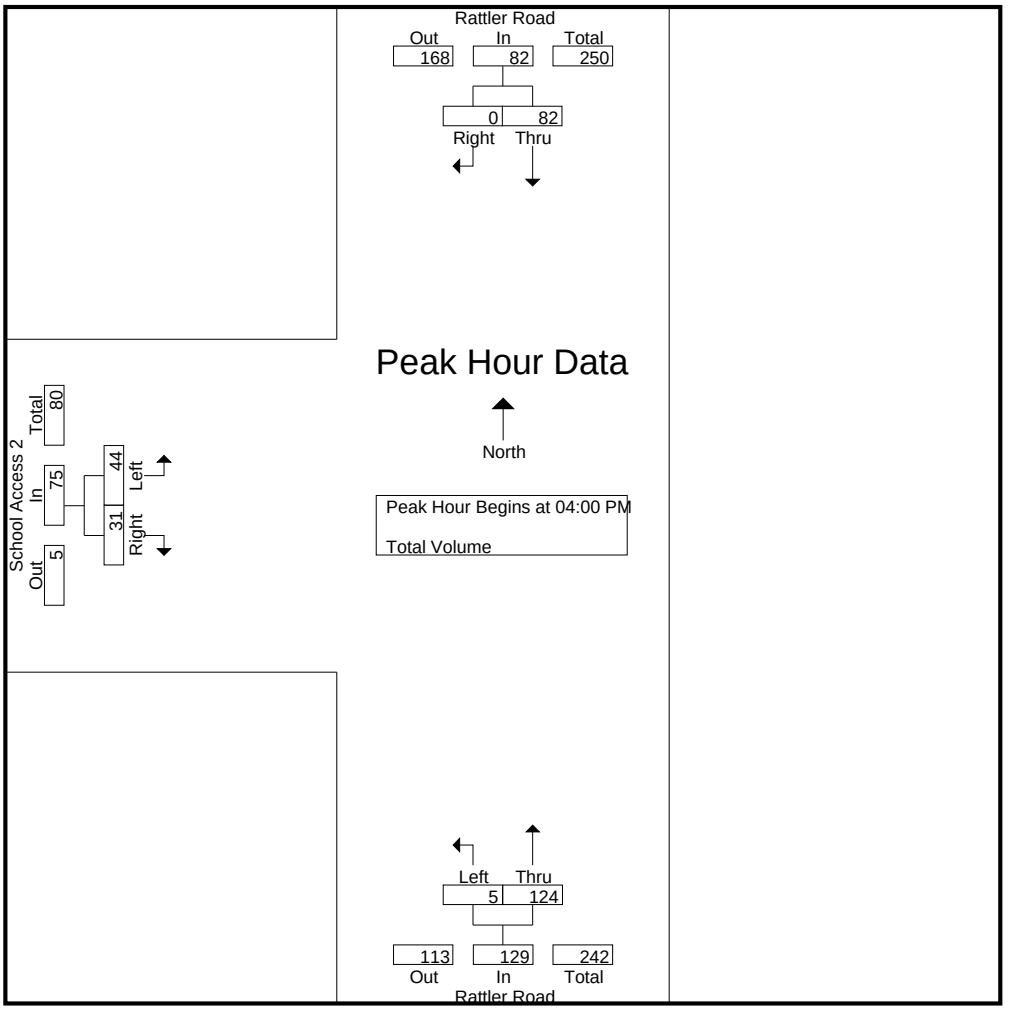
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 2
Weather: Clear

File Name : 15_RNM_RATTLER_SCH ACC 2_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **43** | 0 | **43** | **2** | **53** | **55** | **25** | **19** | **44** |
| +15 mins. | 18 | 0 | 18 | 2 | 22 | 24 | 11 | 6 | 17 |
| +30 mins. | 10 | 0 | 10 | 1 | 26 | 27 | 5 | 5 | 10 |
| +45 mins. | 11 | 0 | 11 | 0 | 23 | 23 | 3 | 1 | 4 |
| Total Volume | 82 | 0 | 82 | 5 | 124 | 129 | 44 | 31 | 75 |
| % App. Total | 100 | 0 | | 3.9 | 96.1 | | 58.7 | 41.3 | |
| PHF | .477 | .000 | .477 | .625 | .585 | .586 | .440 | .408 | .426 |

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Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 3
Weather: Clear

File Name : 16_RNM_RATTLER_SCH ACC 3_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

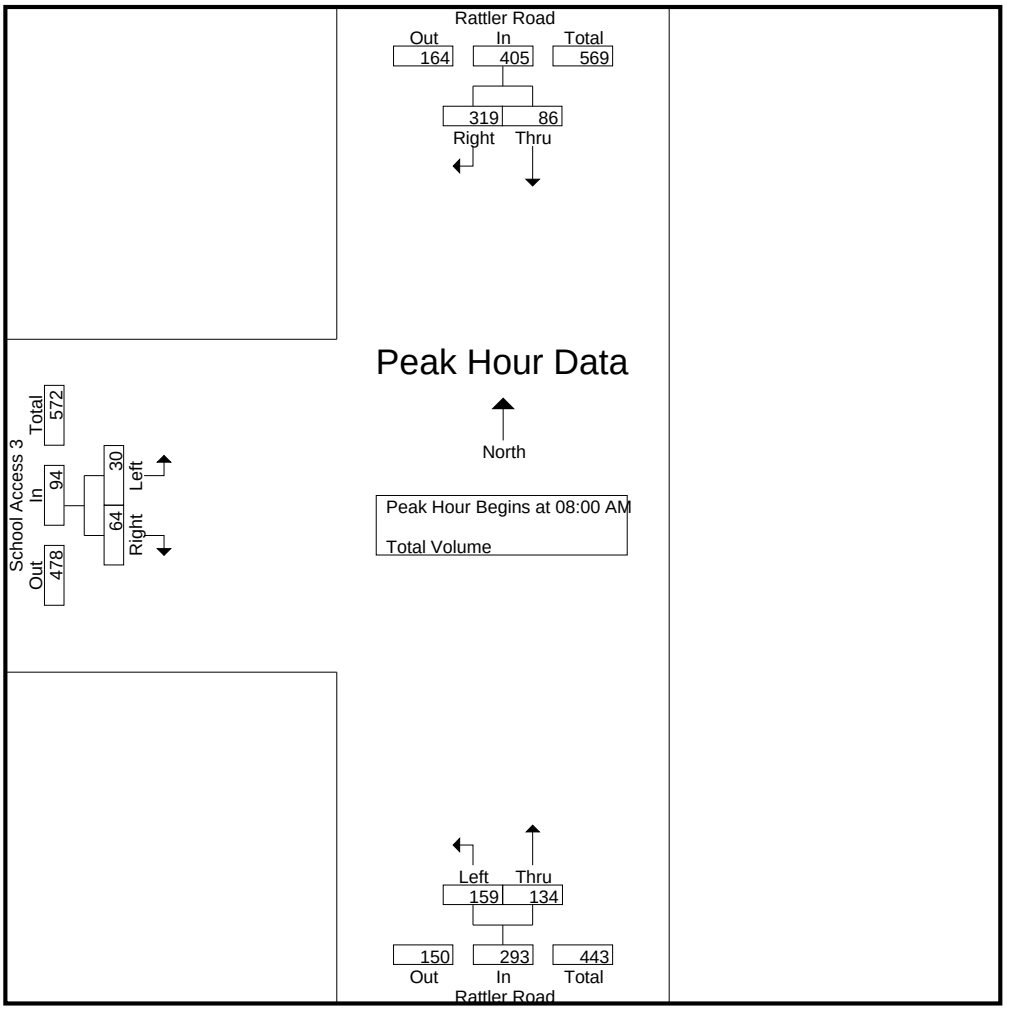
| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 3 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 07:00 AM | 5 | 2 | 7 | 2 | 3 | 5 | 0 | 0 | 0 | 12 |
| 07:15 AM | 6 | 10 | 16 | 6 | 7 | 13 | 0 | 2 | 2 | 31 |
| 07:30 AM | 13 | 13 | 26 | 10 | 8 | 18 | 1 | 3 | 4 | 48 |
| 07:45 AM | 26 | 21 | 47 | 7 | 19 | 26 | 1 | 1 | 2 | 75 |
| Total | 50 | 46 | 96 | 25 | 37 | 62 | 2 | 6 | 8 | 166 |
| | | | | | | | | | | |
| 08:00 AM | 22 | 38 | 60 | 21 | 24 | 45 | 0 | 6 | 6 | 111 |
| 08:15 AM | 25 | 86 | 111 | 53 | 25 | 78 | 6 | 19 | 25 | 214 |
| 08:30 AM | 25 | 163 | 188 | 66 | 61 | 127 | 15 | 34 | 49 | 364 |
| 08:45 AM | 14 | 32 | 46 | 19 | 24 | 43 | 9 | 5 | 14 | 103 |
| Total | 86 | 319 | 405 | 159 | 134 | 293 | 30 | 64 | 94 | 792 |
| | | | | | | | | | | |
| Grand Total | 136 | 365 | 501 | 184 | 171 | 355 | 32 | 70 | 102 | 958 |
| Apprch % | 27.1 | 72.9 | | 51.8 | 48.2 | | 31.4 | 68.6 | | |
| Total % | 14.2 | 38.1 | 52.3 | 19.2 | 17.8 | 37.1 | 3.3 | 7.3 | 10.6 | |

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 3 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 AM | | | | | | | | | | |
| 08:00 AM | 22 | 38 | 60 | 21 | 24 | 45 | 0 | 6 | 6 | 111 |
| 08:15 AM | **25** | 86 | 111 | 53 | 25 | 78 | 6 | 19 | 25 | 214 |
| 08:30 AM | 25 | **163** | **188** | **66** | **61** | **127** | **15** | **34** | **49** | **364** |
| 08:45 AM | 14 | 32 | 46 | 19 | 24 | 43 | 9 | 5 | 14 | 103 |
| Total Volume | 86 | 319 | 405 | 159 | 134 | 293 | 30 | 64 | 94 | 792 |
| % App. Total | 21.2 | 78.8 | | 54.3 | 45.7 | | 31.9 | 68.1 | | |
| PHF | .860 | .489 | .539 | .602 | .549 | .577 | .500 | .471 | .480 | .544 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 3
Weather: Clear

File Name : 16_RNM_RATTLER_SCH ACC 3_AM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:45 AM | | | 08:00 AM | | | 08:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **26** | 21 | 47 | 21 | 24 | 45 | 0 | 6 | 6 |
| +15 mins. | 22 | 38 | 60 | 53 | 25 | 78 | 6 | 19 | 25 |
| +30 mins. | 25 | 86 | 111 | **66** | **61** | **127** | **15** | **34** | **49** |
| +45 mins. | 25 | **163** | **188** | 19 | 24 | 43 | 9 | 5 | 14 |
| Total Volume | 98 | 308 | 406 | 159 | 134 | 293 | 30 | 64 | 94 |
| % App. Total | 24.1 | 75.9 | | 54.3 | 45.7 | | 31.9 | 68.1 | |
| PHF | .942 | .472 | .540 | .602 | .549 | .577 | .500 | .471 | .480 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 3
Weather: Clear

File Name : 16_RNM_RATTLER_SCH ACC 3_MD
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

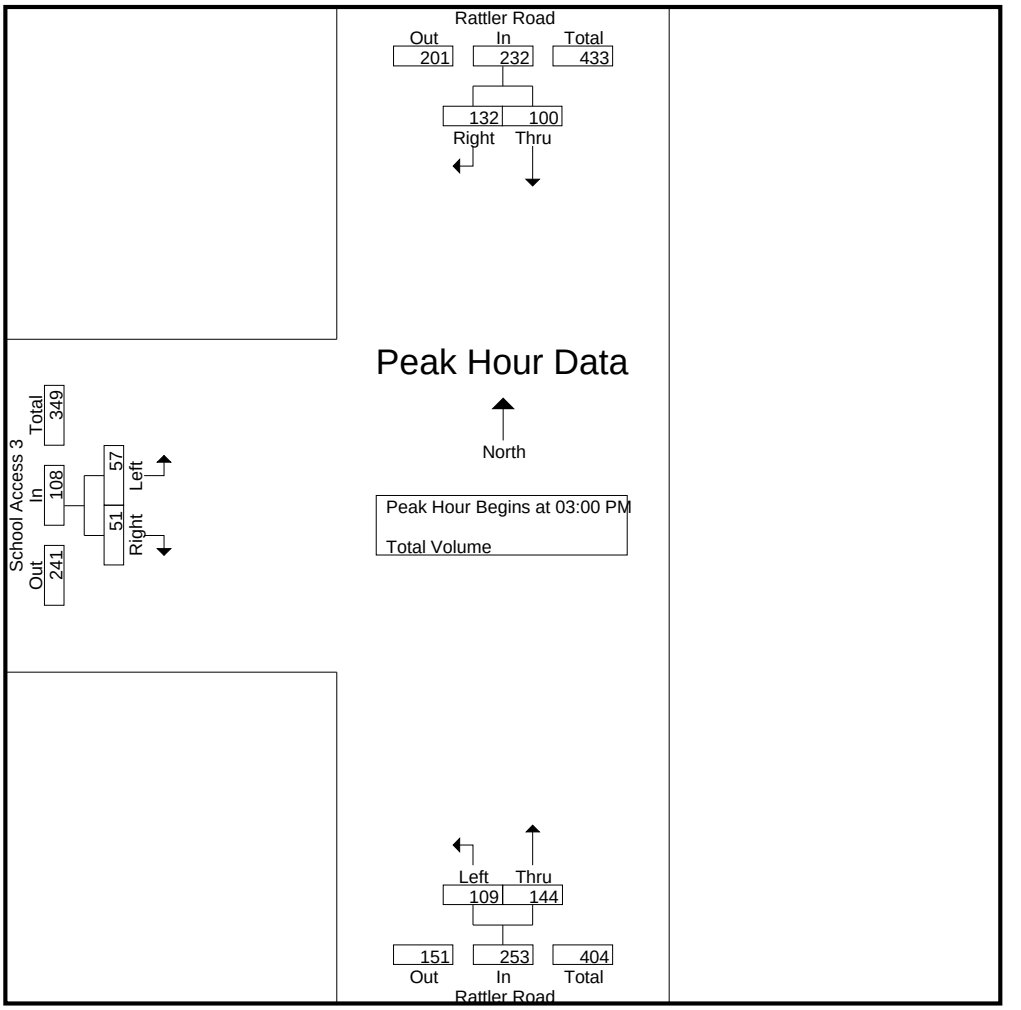
| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 3 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 02:00 PM | 6 | 0 | 6 | 0 | 7 | 7 | 0 | 2 | 2 | 15 |
| 02:15 PM | 7 | 0 | 7 | 0 | 7 | 7 | 0 | 0 | 0 | 14 |
| 02:30 PM | 6 | 5 | 11 | 1 | 15 | 16 | 6 | 10 | 16 | 43 |
| 02:45 PM | 13 | 9 | 22 | 2 | 11 | 13 | 1 | 0 | 1 | 36 |
| Total | 32 | 14 | 46 | 3 | 40 | 43 | 7 | 12 | 19 | 108 |
| | | | | | | | | | | |
| 03:00 PM | 9 | 1 | 10 | 8 | 4 | 12 | 0 | 0 | 0 | 22 |
| 03:15 PM | 17 | 15 | 32 | 25 | 10 | 35 | 1 | 1 | 2 | 69 |
| 03:30 PM | 22 | 54 | 76 | 35 | 33 | 68 | 13 | 14 | 27 | 171 |
| 03:45 PM | 52 | 62 | 114 | 41 | 97 | 138 | 43 | 36 | 79 | 331 |
| Total | 100 | 132 | 232 | 109 | 144 | 253 | 57 | 51 | 108 | 593 |
| | | | | | | | | | | |
| Grand Total | 132 | 146 | 278 | 112 | 184 | 296 | 64 | 63 | 127 | 701 |
| Apprch % | 47.5 | 52.5 | | 37.8 | 62.2 | | 50.4 | 49.6 | | |
| Total % | 18.8 | 20.8 | 39.7 | 16 | 26.2 | 42.2 | 9.1 | 9 | 18.1 | |

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 3 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 03:00 PM | | | | | | | | | | |
| 03:00 PM | 9 | 1 | 10 | 8 | 4 | 12 | 0 | 0 | 0 | 22 |
| 03:15 PM | 17 | 15 | 32 | 25 | 10 | 35 | 1 | 1 | 2 | 69 |
| 03:30 PM | 22 | 54 | 76 | 35 | 33 | 68 | 13 | 14 | 27 | 171 |
| 03:45 PM | **52** | **62** | **114** | **41** | **97** | **138** | **43** | **36** | **79** | **331** |
| Total Volume | 100 | 132 | 232 | 109 | 144 | 253 | 57 | 51 | 108 | 593 |
| % App. Total | 43.1 | 56.9 | | 43.1 | 56.9 | | 52.8 | 47.2 | | |
| PHF | .481 | .532 | .509 | .665 | .371 | .458 | .331 | .354 | .342 | .448 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 3
Weather: Clear

File Name : 16_RNM_RATTLER_SCH ACC 3_MD
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 03:00 PM | | | 03:00 PM | | | 03:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 9 | 1 | 10 | 8 | 4 | 12 | 0 | 0 | 0 |
| +15 mins. | 17 | 15 | 32 | 25 | 10 | 35 | 1 | 1 | 2 |
| +30 mins. | 22 | 54 | 76 | 35 | 33 | 68 | 13 | 14 | 27 |
| +45 mins. | **52** | **62** | **114** | **41** | **97** | **138** | **43** | **36** | **79** |
| Total Volume | 100 | 132 | 232 | 109 | 144 | 253 | 57 | 51 | 108 |
| % App. Total | 43.1 | 56.9 | | 43.1 | 56.9 | | 52.8 | 47.2 | |
| PHF | .481 | .532 | .509 | .665 | .371 | .458 | .331 | .354 | .342 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 3
Weather: Clear

File Name : 16_RNM_RATTLER_SCH ACC 3_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 1

Groups Printed- Total Volume

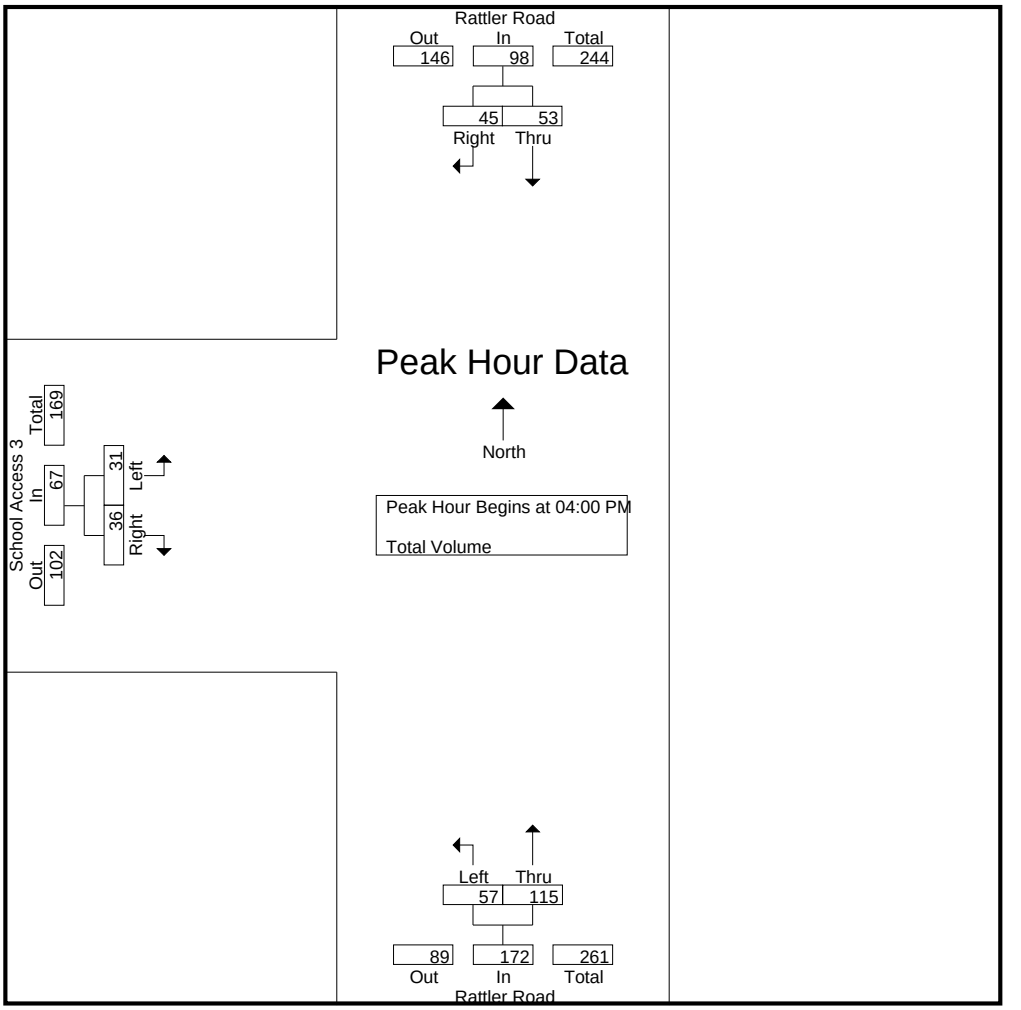
| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 3 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 04:00 PM | 24 | 24 | 48 | 25 | 56 | 81 | 21 | 23 | 44 | 173 |
| 04:15 PM | 14 | 7 | 21 | 7 | 26 | 33 | 4 | 4 | 8 | 62 |
| 04:30 PM | 8 | 7 | 15 | 9 | 23 | 32 | 2 | 2 | 4 | 51 |
| 04:45 PM | 7 | 7 | 14 | 16 | 10 | 26 | 4 | 7 | 11 | 51 |
| Total | 53 | 45 | 98 | 57 | 115 | 172 | 31 | 36 | 67 | 337 |
| | | | | | | | | | | |
| 05:00 PM | 6 | 3 | 9 | 3 | 9 | 12 | 5 | 13 | 18 | 39 |
| 05:15 PM | 4 | 3 | 7 | 2 | 9 | 11 | 4 | 2 | 6 | 24 |
| 05:30 PM | 5 | 8 | 13 | 4 | 10 | 14 | 1 | 3 | 4 | 31 |
| 05:45 PM | 9 | 17 | 26 | 11 | 12 | 23 | 0 | 1 | 1 | 50 |
| Total | 24 | 31 | 55 | 20 | 40 | 60 | 10 | 19 | 29 | 144 |
| | | | | | | | | | | |
| Grand Total | 77 | 76 | 153 | 77 | 155 | 232 | 41 | 55 | 96 | 481 |
| Apprch % | 50.3 | 49.7 | | 33.2 | 66.8 | | 42.7 | 57.3 | | |
| Total % | 16 | 15.8 | 31.8 | 16 | 32.2 | 48.2 | 8.5 | 11.4 | 20 | |

| | Rattler Road Southbound | | | Rattler Road Northbound | | | School Access 3 Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | **24** | **24** | **48** | **25** | **56** | **81** | **21** | **23** | **44** | **173** |
| 04:15 PM | 14 | 7 | 21 | 7 | 26 | 33 | 4 | 4 | 8 | 62 |
| 04:30 PM | 8 | 7 | 15 | 9 | 23 | 32 | 2 | 2 | 4 | 51 |
| 04:45 PM | 7 | 7 | 14 | 16 | 10 | 26 | 4 | 7 | 11 | 51 |
| Total Volume | 53 | 45 | 98 | 57 | 115 | 172 | 31 | 36 | 67 | 337 |
| % App. Total | 54.1 | 45.9 | | 33.1 | 66.9 | | 46.3 | 53.7 | | |
| PHF | .552 | .469 | .510 | .570 | .513 | .531 | .369 | .391 | .381 | .487 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Rancho Mirage
N/S: Rattler Road
E/W: School Access 3
Weather: Clear

File Name : 16_RNM_RATTLER_SCH ACC 3_PM
Site Code : 05123425
Start Date : 5/16/2023
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **24** | **24** | **48** | **25** | **56** | **81** | **21** | **23** | **44** |
| +15 mins. | 14 | 7 | 21 | 7 | 26 | 33 | 4 | 4 | 8 |
| +30 mins. | 8 | 7 | 15 | 9 | 23 | 32 | 2 | 2 | 4 |
| +45 mins. | 7 | 7 | 14 | 16 | 10 | 26 | 4 | 7 | 11 |
| Total Volume | 53 | 45 | 98 | 57 | 115 | 172 | 31 | 36 | 67 |
| % App. Total | 54.1 | 45.9 | | 33.1 | 66.9 | | 46.3 | 53.7 | |
| PHF | .552 | .469 | .510 | .570 | .513 | .531 | .369 | .391 | .381 |

# Counts Unlimited, Inc.

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

City of Rancho Mirage
Rattler Road
N/ Ramon Road
24 Hour Directional Volume Count

RNM001
Site Code: 051-23425

| Start Time | 5/16/23 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Southbound Morning | Southbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 1 | 10 | | | 0 | 12 | | | | |
| 12:15 | | 0 | 5 | | | 0 | 9 | | | | |
| 12:30 | | 0 | 6 | | | 2 | 10 | | | | |
| 12:45 | | 1 | 5 | 2 | 26 | 1 | 11 | 3 | 42 | 5 | 68 |
| 01:00 | | 1 | 4 | | | 0 | 10 | | | | |
| 01:15 | | 0 | 10 | | | 0 | 9 | | | | |
| 01:30 | | 1 | 11 | | | 0 | 11 | | | | |
| 01:45 | | 0 | 8 | 2 | 33 | 1 | 4 | 1 | 34 | 3 | 67 |
| 02:00 | | 0 | 9 | | | 0 | 11 | | | | |
| 02:15 | | 0 | 15 | | | 0 | 6 | | | | |
| 02:30 | | 0 | 7 | | | 0 | 33 | | | | |
| 02:45 | | 0 | 17 | 0 | 48 | 0 | 28 | 0 | 78 | 0 | 126 |
| 03:00 | | 0 | 28 | | | 0 | 9 | | | | |
| 03:15 | | 0 | **74** | | | 0 | 13 | | | | |
| 03:30 | | 0 | **109** | | | 0 | **61** | | | | |
| 03:45 | | 0 | **100** | 0 | 311 | 1 | **309** | 1 | 392 | 1 | 703 |
| 04:00 | | 0 | **63** | | | 1 | **150** | | | | |
| 04:15 | | 0 | 25 | | | 0 | **49** | | | | |
| 04:30 | | 1 | 23 | | | 1 | 33 | | | | |
| 04:45 | | 0 | 24 | 1 | 135 | 0 | 20 | 2 | 252 | 3 | 387 |
| 05:00 | | 0 | 13 | | | 2 | 30 | | | | |
| 05:15 | | 0 | 15 | | | 0 | 13 | | | | |
| 05:30 | | 2 | 12 | | | 1 | 16 | | | | |
| 05:45 | | 7 | 19 | 9 | 59 | 6 | 15 | 9 | 74 | 18 | 133 |
| 06:00 | | 6 | 18 | | | 6 | 16 | | | | |
| 06:15 | | 5 | 25 | | | 5 | 17 | | | | |
| 06:30 | | 4 | 23 | | | 6 | 21 | | | | |
| 06:45 | | 4 | 20 | 19 | 86 | 9 | 7 | 26 | 61 | 45 | 147 |
| 07:00 | | 15 | 20 | | | 13 | 15 | | | | |
| 07:15 | | 17 | 8 | | | 13 | 18 | | | | |
| 07:30 | | 36 | 7 | | | 28 | 4 | | | | |
| 07:45 | | 38 | 5 | 106 | 40 | 32 | 4 | 86 | 41 | 192 | 81 |
| 08:00 | | **80** | 5 | | | **57** | 4 | | | | |
| 08:15 | | **169** | 7 | | | **143** | 1 | | | | |
| 08:30 | | **187** | 5 | | | **220** | 2 | | | | |
| 08:45 | | **51** | 4 | 487 | 21 | **95** | 2 | 515 | 9 | 1002 | 30 |
| 09:00 | | 24 | 3 | | | 25 | 2 | | | | |
| 09:15 | | 15 | 7 | | | 9 | 0 | | | | |
| 09:30 | | 10 | 2 | | | 9 | 2 | | | | |
| 09:45 | | 11 | 1 | 60 | 13 | 15 | 1 | 58 | 5 | 118 | 18 |
| 10:00 | | 7 | 1 | | | 10 | 0 | | | | |
| 10:15 | | 6 | 2 | | | 8 | 1 | | | | |
| 10:30 | | 8 | 2 | | | 7 | 1 | | | | |
| 10:45 | | 6 | 0 | 27 | 5 | 6 | 1 | 31 | 3 | 58 | 8 |
| 11:00 | | 3 | 1 | | | 9 | 0 | | | | |
| 11:15 | | 3 | 1 | | | 3 | 2 | | | | |
| 11:30 | | 5 | 1 | | | 8 | 1 | | | | |
| 11:45 | | 3 | 2 | 14 | 5 | 5 | 0 | 25 | 3 | 39 | 8 |
| Total | | 727 | 782 | 727 | 782 | 757 | 994 | 757 | 994 | 1484 | 1776 |
| Combined Total | | 1509 | | 1509 | | 1751 | | 1751 | | 3260 | |
| AM Peak | - | 08:00 | - | - | - | 08:00 | - | - | - | - | - |
| Vol. | - | 487 | - | - | - | 515 | - | - | - | - | - |
| P.H.F. | | 0.651 | | | | 0.585 | | | | | |
| PM Peak | - | - | 03:15 | - | - | - | 03:30 | - | - | - | - |
| Vol. | - | - | 346 | - | - | - | 569 | - | - | - | - |
| P.H.F. | | | 0.794 | | | | 0.460 | | | | |
| Percentage | | 48.2% | 51.8% | | | 43.2% | 56.8% | | | | |
| ADT/AADT | | ADT 3,260 | | AADT 3,260 | | | | | | | |

# Counts Unlimited, Inc.

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

City of Rancho Mirage
Ramon Road
W/ Rattler Road
24 Hour Directional Volume Count

RNM002
Site Code: 051-23425

| Start Time | 5/16/23 Tue | Eastbound Morning | Eastbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Westbound Morning | Westbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 26 | 206 | | | 57 | 178 | | | | |
| 12:15 | | 15 | 188 | | | 62 | 176 | | | | |
| 12:30 | | 15 | 210 | | | 39 | 179 | | | | |
| 12:45 | | 13 | 201 | 69 | 805 | 24 | 174 | 182 | 707 | 251 | 1512 |
| 01:00 | | 16 | 197 | | | 26 | 188 | | | | |
| 01:15 | | 15 | 232 | | | 20 | 186 | | | | |
| 01:30 | | 16 | 223 | | | 20 | 179 | | | | |
| 01:45 | | 12 | 208 | 59 | 860 | 15 | 214 | 81 | 767 | 140 | 1627 |
| 02:00 | | 8 | 232 | | | 11 | 206 | | | | |
| 02:15 | | 5 | 218 | | | 12 | 230 | | | | |
| 02:30 | | 13 | 237 | | | 7 | 230 | | | | |
| 02:45 | | 10 | 235 | 36 | 922 | 16 | 251 | 46 | 917 | 82 | 1839 |
| 03:00 | | 10 | 286 | | | 7 | 274 | | | | |
| 03:15 | | 18 | **235** | | | 15 | 256 | | | | |
| 03:30 | | 21 | **263** | | | 13 | **347** | | | | |
| 03:45 | | 26 | **272** | 75 | 1056 | 19 | **434** | 54 | 1311 | 129 | 2367 |
| 04:00 | | 19 | **293** | | | 27 | **342** | | | | |
| 04:15 | | 44 | 207 | | | 27 | **264** | | | | |
| 04:30 | | 57 | 226 | | | 31 | 243 | | | | |
| 04:45 | | 56 | 256 | 176 | 982 | 38 | 265 | 123 | 1114 | 299 | 2096 |
| 05:00 | | 58 | 226 | | | 38 | 241 | | | | |
| 05:15 | | 68 | 261 | | | 46 | 273 | | | | |
| 05:30 | | 112 | 243 | | | 62 | 247 | | | | |
| 05:45 | | 126 | 209 | 364 | 939 | 101 | 201 | 247 | 962 | 611 | 1901 |
| 06:00 | | 163 | 176 | | | 97 | 205 | | | | |
| 06:15 | | 159 | 187 | | | 140 | 161 | | | | |
| 06:30 | | 202 | 157 | | | 164 | 146 | | | | |
| 06:45 | | 210 | 150 | 734 | 670 | 200 | 145 | 601 | 657 | 1335 | 1327 |
| 07:00 | | 203 | 118 | | | 168 | 134 | | | | |
| 07:15 | | 209 | 112 | | | 254 | 150 | | | | |
| 07:30 | | 296 | 117 | | | 271 | 141 | | | | |
| 07:45 | | **252** | 122 | 960 | 469 | **255** | 103 | 948 | 528 | 1908 | 997 |
| 08:00 | | **237** | 104 | | | **227** | 123 | | | | |
| 08:15 | | **299** | 115 | | | **345** | 131 | | | | |
| 08:30 | | **298** | 125 | | | **370** | 126 | | | | |
| 08:45 | | 205 | 106 | 1039 | 450 | 250 | 119 | 1192 | 499 | 2231 | 949 |
| 09:00 | | 179 | 114 | | | 160 | 109 | | | | |
| 09:15 | | 178 | 103 | | | 145 | 97 | | | | |
| 09:30 | | 208 | 96 | | | 175 | 97 | | | | |
| 09:45 | | 150 | 83 | 715 | 396 | 181 | 87 | 661 | 390 | 1376 | 786 |
| 10:00 | | 182 | 73 | | | 163 | 94 | | | | |
| 10:15 | | 152 | 71 | | | 137 | 84 | | | | |
| 10:30 | | 159 | 60 | | | 163 | 66 | | | | |
| 10:45 | | 183 | 54 | 676 | 258 | 138 | 69 | 601 | 313 | 1277 | 571 |
| 11:00 | | 180 | 46 | | | 173 | 58 | | | | |
| 11:15 | | 154 | 43 | | | 192 | 50 | | | | |
| 11:30 | | 193 | 48 | | | 169 | 53 | | | | |
| 11:45 | | 198 | 41 | 725 | 178 | 215 | 35 | 749 | 196 | 1474 | 374 |
| Total | | 5628 | 7985 | 5628 | 7985 | 5485 | 8361 | 5485 | 8361 | 11113 | 16346 |
| Combined Total | | 13613 | | 13613 | | 13846 | | 13846 | | 27459 | |
| AM Peak | - | 07:45 | - | - | - | 07:45 | - | - | - | - | - |
| Vol. | - | 1086 | - | - | - | 1197 | - | - | - | - | - |
| P.H.F. | | 0.908 | | | | 0.809 | | | | | |
| PM Peak | - | - | 03:15 | - | - | - | 03:30 | - | - | - | - |
| Vol. | - | - | 1063 | - | - | - | 1387 | - | - | - | - |
| P.H.F. | | | 0.907 | | | | 0.799 | | | | |
| Percentage | | 41.3% | 58.7% | | | 39.6% | 60.4% | | | | |
| ADT/AADT | | ADT 27,459 | | AADT 27,459 | | | | | | | |

# Counts Unlimited, Inc.

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

City of Rancho Mirage
Da Vall Drive
S/ Ramon Road
24 Hour Directional Volume Count

RNM003
Site Code: 051-23425

| Start Time | 5/16/23 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Southbound Morning | Southbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 7 | 87 | | | 5 | 53 | | | | |
| 12:15 | | 7 | 79 | | | 9 | 51 | | | | |
| 12:30 | | 3 | 72 | | | 3 | 54 | | | | |
| 12:45 | | 2 | 60 | 19 | 298 | 3 | 56 | 20 | 214 | 39 | 512 |
| 01:00 | | 4 | 78 | | | 1 | 58 | | | | |
| 01:15 | | 2 | 70 | | | 1 | 38 | | | | |
| 01:30 | | 1 | 82 | | | 2 | 64 | | | | |
| 01:45 | | 4 | 95 | 11 | 325 | 1 | 47 | 5 | 207 | 16 | 532 |
| 02:00 | | 1 | 76 | | | 2 | 59 | | | | |
| 02:15 | | 0 | 89 | | | 1 | 69 | | | | |
| 02:30 | | 1 | 100 | | | 0 | 73 | | | | |
| 02:45 | | 1 | 100 | 3 | 365 | 2 | 86 | 5 | 287 | 8 | 652 |
| 03:00 | | 0 | 126 | | | 1 | 79 | | | | |
| 03:15 | | 1 | 116 | | | 3 | **74** | | | | |
| 03:30 | | 3 | **104** | | | 1 | **92** | | | | |
| 03:45 | | 1 | **141** | 5 | 487 | 3 | **103** | 8 | 348 | 13 | 835 |
| 04:00 | | 1 | **140** | | | 4 | **90** | | | | |
| 04:15 | | 5 | **133** | | | 4 | 73 | | | | |
| 04:30 | | 1 | 91 | | | 12 | 92 | | | | |
| 04:45 | | 1 | 106 | 8 | 470 | 9 | 63 | 29 | 318 | 37 | 788 |
| 05:00 | | 7 | 112 | | | 17 | 59 | | | | |
| 05:15 | | 5 | 139 | | | 14 | 58 | | | | |
| 05:30 | | 10 | 91 | | | 34 | 55 | | | | |
| 05:45 | | 16 | 81 | 38 | 423 | 38 | 48 | 103 | 220 | 141 | 643 |
| 06:00 | | 25 | 80 | | | 38 | 37 | | | | |
| 06:15 | | 22 | 63 | | | 57 | 54 | | | | |
| 06:30 | | 16 | 65 | | | 58 | 49 | | | | |
| 06:45 | | 25 | 68 | 88 | 276 | 73 | 43 | 226 | 183 | 314 | 459 |
| 07:00 | | 38 | 40 | | | 89 | 44 | | | | |
| 07:15 | | 46 | 41 | | | 123 | 29 | | | | |
| 07:30 | | 63 | 41 | | | 132 | 33 | | | | |
| 07:45 | | 53 | 33 | 200 | 155 | **148** | 19 | 492 | 125 | 692 | 280 |
| 08:00 | | **60** | 38 | | | **124** | 27 | | | | |
| 08:15 | | **102** | 41 | | | **141** | 20 | | | | |
| 08:30 | | **76** | 46 | | | **145** | 21 | | | | |
| 08:45 | | **62** | 48 | 300 | 173 | 92 | 16 | 502 | 84 | 802 | 257 |
| 09:00 | | 50 | 43 | | | 73 | 19 | | | | |
| 09:15 | | 49 | 41 | | | 75 | 15 | | | | |
| 09:30 | | 40 | 43 | | | 81 | 18 | | | | |
| 09:45 | | 58 | 39 | 197 | 166 | 71 | 15 | 300 | 67 | 497 | 233 |
| 10:00 | | 65 | 35 | | | 74 | 13 | | | | |
| 10:15 | | 55 | 36 | | | 50 | 17 | | | | |
| 10:30 | | 57 | 25 | | | 63 | 12 | | | | |
| 10:45 | | 71 | 19 | 248 | 115 | 52 | 10 | 239 | 52 | 487 | 167 |
| 11:00 | | 55 | 14 | | | 66 | 8 | | | | |
| 11:15 | | 49 | 17 | | | 62 | 9 | | | | |
| 11:30 | | 80 | 12 | | | 61 | 6 | | | | |
| 11:45 | | 77 | 10 | 261 | 53 | 55 | 5 | 244 | 28 | 505 | 81 |
| Total | | 1378 | 3306 | 1378 | 3306 | 2173 | 2133 | 2173 | 2133 | 3551 | 5439 |
| Combined Total | | 4684 | | 4684 | | 4306 | | 4306 | | 8990 | |
| AM Peak | - | 08:00 | - | - | - | 07:45 | - | - | - | - | - |
| Vol. | - | 300 | - | - | - | 558 | - | - | - | - | - |
| P.H.F. | | 0.735 | | | | 0.943 | | | | | |
| PM Peak | - | - | 03:30 | - | - | - | 03:15 | - | - | - | - |
| Vol. | - | - | 518 | - | - | - | 359 | - | - | - | - |
| P.H.F. | | | 0.918 | | | | 0.871 | | | | |
| Percentage | | 29.4% | 70.6% | | | 50.5% | 49.5% | | | | |
| ADT/AADT | | ADT 8,990 | | AADT 8,990 | | | | | | | |

# Counts Unlimited, Inc.

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

City of Rancho Mirage
Bob Hope Drive
N/ Ramon Road
24 Hour Directional Volume Count

RNM004
Site Code: 051-23425

| Start Time | 5/16/23 Tue | Northbound Morning | Northbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Southbound Morning | Southbound Afternoon | Hour Totals Morning | Hour Totals Afternoon | Combined Totals Morning | Combined Totals Afternoon |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12:00 | | 26 | 113 | | | 45 | 171 | | | | |
| 12:15 | | 21 | 105 | | | 36 | 195 | | | | |
| 12:30 | | 25 | 127 | | | 17 | 198 | | | | |
| 12:45 | | 15 | 94 | 87 | 439 | 18 | 187 | 116 | 751 | 203 | 1190 |
| 01:00 | | 15 | 121 | | | 13 | 193 | | | | |
| 01:15 | | 5 | 127 | | | 12 | 191 | | | | |
| 01:30 | | 12 | 118 | | | 17 | 216 | | | | |
| 01:45 | | 5 | 115 | 37 | 481 | 12 | 207 | 54 | 807 | 91 | 1288 |
| 02:00 | | 10 | 134 | | | 5 | 191 | | | | |
| 02:15 | | 10 | 128 | | | 10 | 244 | | | | |
| 02:30 | | 11 | 138 | | | 11 | 234 | | | | |
| 02:45 | | 4 | 157 | 35 | 557 | 10 | 260 | 36 | 929 | 71 | 1486 |
| 03:00 | | 13 | 174 | | | 11 | **227** | | | | |
| 03:15 | | 11 | 146 | | | 17 | **247** | | | | |
| 03:30 | | 9 | 158 | | | 20 | **261** | | | | |
| 03:45 | | 15 | 189 | 48 | 667 | 22 | **275** | 70 | 1010 | 118 | 1677 |
| 04:00 | | 4 | 181 | | | 28 | 212 | | | | |
| 04:15 | | 8 | 172 | | | 37 | 225 | | | | |
| 04:30 | | 9 | **180** | | | 56 | 187 | | | | |
| 04:45 | | 20 | **168** | 41 | 701 | 56 | 194 | 177 | 818 | 218 | 1519 |
| 05:00 | | 15 | **203** | | | 49 | 221 | | | | |
| 05:15 | | 14 | **205** | | | 69 | 231 | | | | |
| 05:30 | | 16 | 132 | | | 122 | 210 | | | | |
| 05:45 | | 31 | 115 | 76 | 655 | 151 | 183 | 391 | 845 | 467 | 1500 |
| 06:00 | | 45 | 101 | | | 189 | 154 | | | | |
| 06:15 | | 40 | 73 | | | 225 | 158 | | | | |
| 06:30 | | 58 | 90 | | | 255 | 144 | | | | |
| 06:45 | | 61 | 73 | 204 | 337 | 273 | 143 | 942 | 599 | 1146 | 936 |
| 07:00 | | 57 | 77 | | | 284 | 112 | | | | |
| 07:15 | | 64 | 73 | | | **337** | 106 | | | | |
| 07:30 | | 85 | 67 | | | **389** | 107 | | | | |
| 07:45 | | 118 | 68 | 324 | 285 | **415** | 102 | 1425 | 427 | 1749 | 712 |
| 08:00 | | 64 | 64 | | | **323** | 97 | | | | |
| 08:15 | | 100 | 53 | | | 319 | 111 | | | | |
| 08:30 | | 75 | 62 | | | 327 | 104 | | | | |
| 08:45 | | 94 | 49 | 333 | 228 | 308 | 97 | 1277 | 409 | 1610 | 637 |
| 09:00 | | 79 | 43 | | | 176 | 88 | | | | |
| 09:15 | | 85 | 50 | | | 242 | 94 | | | | |
| 09:30 | | 87 | 46 | | | 217 | 97 | | | | |
| 09:45 | | 79 | 45 | 330 | 184 | 242 | 93 | 877 | 372 | 1207 | 556 |
| 10:00 | | 96 | 37 | | | 204 | 87 | | | | |
| 10:15 | | 99 | 34 | | | 203 | 69 | | | | |
| 10:30 | | 103 | 43 | | | 180 | 71 | | | | |
| 10:45 | | **131** | 41 | 429 | 155 | 198 | 67 | 785 | 294 | 1214 | 449 |
| 11:00 | | **99** | 36 | | | 227 | 63 | | | | |
| 11:15 | | **90** | 22 | | | 196 | 46 | | | | |
| 11:30 | | **117** | 25 | | | 196 | 49 | | | | |
| 11:45 | | 109 | 16 | 415 | 99 | 233 | 34 | 852 | 192 | 1267 | 291 |
| Total | | 2359 | 4788 | 2359 | 4788 | 7002 | 7453 | 7002 | 7453 | 9361 | 12241 |
| Combined Total | | 7147 | | 7147 | | 14455 | | 14455 | | 21602 | |
| AM Peak | - | 10:45 | - | - | - | 07:15 | - | - | - | - | - |
| Vol. | - | 437 | - | - | - | 1464 | - | - | - | - | - |
| P.H.F. | | 0.834 | | | | 0.882 | | | | | |
| PM Peak | - | - | 04:30 | - | - | - | 03:00 | - | - | - | - |
| Vol. | - | - | 756 | - | - | - | 1010 | - | - | - | - |
| P.H.F. | | | 0.922 | | | | 0.918 | | | | |
| Percentage | | 33.0% | 67.0% | | | 48.4% | 51.6% | | | | |
| ADT/AADT | | ADT 21,602 | | AADT 21,602 | | | | | | | |

# APPENDIX 3.2: EXISTING (2023) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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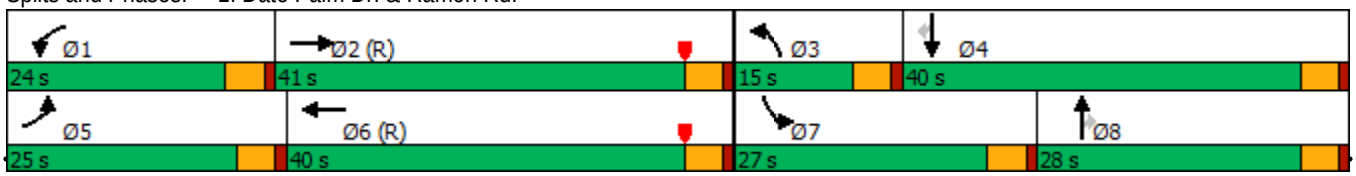
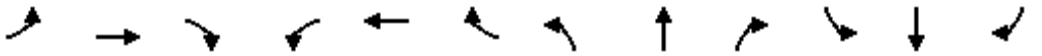
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 145 | 646 | 86 | 133 | 774 | 86 | 138 | 385 | 85 | 156 | 638 | 179 |
| Future Volume (vph) | 145 | 646 | 86 | 133 | 774 | 86 | 138 | 385 | 85 | 156 | 638 | 179 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 0 | 225 | | 0 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 25.0 | 41.0 | | 24.0 | 40.0 | | 15.0 | 28.0 | 28.0 | 27.0 | 40.0 | 40.0 |
| Total Split (%) | 20.8% | 34.2% | | 20.0% | 33.3% | | 12.5% | 23.3% | 23.3% | 22.5% | 33.3% | 33.3% |
| Maximum Green (s) | 20.5 | 36.5 | | 19.5 | 35.5 | | 10.5 | 23.5 | 23.5 | 22.5 | 35.5 | 35.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | Max | Max | None | Max | Max |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 145 | 646 | 86 | 133 | 774 | 86 | 138 | 385 | 85 | 156 | 638 | 179 |
| Future Volume (veh/h) | 145 | 646 | 86 | 133 | 774 | 86 | 138 | 385 | 85 | 156 | 638 | 179 |
| 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 | | 0.99 | 1.00 | | 0.99 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 159 | 710 | 95 | 146 | 851 | 95 | 152 | 423 | 93 | 171 | 701 | 197 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 188 | 1803 | 239 | 175 | 1808 | 201 | 209 | 866 | 384 | 201 | 1051 | 467 |
| Arrive On Green | 0.11 | 0.40 | 0.40 | 0.10 | 0.39 | 0.39 | 0.06 | 0.24 | 0.24 | 0.11 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1781 | 4558 | 604 | 1781 | 4661 | 518 | 3456 | 3554 | 1575 | 1781 | 3554 | 1577 |
| Grp Volume(v), veh/h | 159 | 529 | 276 | 146 | 620 | 326 | 152 | 423 | 93 | 171 | 701 | 197 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1759 | 1781 | 1702 | 1775 | 1728 | 1777 | 1575 | 1781 | 1777 | 1577 |
| Q Serve(g_s), s | 10.5 | 13.3 | 13.5 | 9.7 | 16.4 | 16.5 | 5.2 | 12.3 | 5.7 | 11.3 | 20.8 | 12.1 |
| Cycle Q Clear(g_c), s | 10.5 | 13.3 | 13.5 | 9.7 | 16.4 | 16.5 | 5.2 | 12.3 | 5.7 | 11.3 | 20.8 | 12.1 |
| Prop In Lane | 1.00 | | 0.34 | 1.00 | | 0.29 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 188 | 1347 | 696 | 175 | 1321 | 689 | 209 | 866 | 384 | 201 | 1051 | 467 |
| V/C Ratio(X) | 0.84 | 0.39 | 0.40 | 0.84 | 0.47 | 0.47 | 0.73 | 0.49 | 0.24 | 0.85 | 0.67 | 0.42 |
| Avail Cap(c_a), veh/h | 304 | 1347 | 696 | 289 | 1321 | 689 | 302 | 866 | 384 | 334 | 1051 | 467 |
| 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) | 1.00 | 1.00 | 1.00 | 0.92 | 0.92 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.7 | 26.0 | 26.0 | 53.2 | 27.5 | 27.5 | 55.4 | 39.0 | 36.5 | 52.2 | 37.1 | 34.0 |
| Incr Delay (d2), s/veh | 11.3 | 0.9 | 1.7 | 9.5 | 1.1 | 2.1 | 4.8 | 2.0 | 1.5 | 10.4 | 3.4 | 2.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.1 | 5.3 | 5.7 | 4.6 | 6.5 | 7.0 | 2.3 | 5.4 | 2.3 | 5.5 | 9.2 | 4.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 64.0 | 26.8 | 27.7 | 62.7 | 28.6 | 29.7 | 60.2 | 40.9 | 38.0 | 62.6 | 40.4 | 36.8 |
| LnGrp LOS | E | C | C | E | C | C | E | D | D | E | D | D |
| Approach Vol, veh/h | | 964 | | | 1092 | | | 668 | | | 1069 | |
| Approach Delay, s/veh | | 33.2 | | | 33.5 | | | 44.9 | | | 43.3 | |
| Approach LOS | | C | | | C | | | D | | | D | |

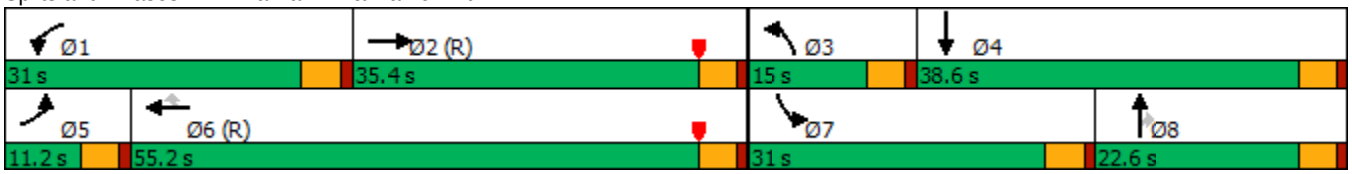
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 16.3 | 52.0 | 11.8 | 40.0 | 17.2 | 51.1 | 18.0 | 33.7 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 19.5 | 36.5 | 10.5 | 35.5 | 20.5 | 35.5 | 22.5 | 23.5 |
| Max Q Clear Time (g_c+I1), s | 11.7 | 15.5 | 7.2 | 22.8 | 12.5 | 18.5 | 13.3 | 14.3 |
| Green Ext Time (p_c), s | 0.2 | 4.6 | 0.1 | 4.1 | 0.2 | 5.1 | 0.3 | 1.9 |

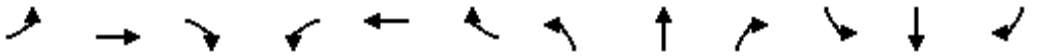
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 38.2 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 729 | 99 | 211 | 810 | 120 | 62 | 115 | 114 | 209 | 248 | 25 |
| Future Volume (vph) | 32 | 729 | 99 | 211 | 810 | 120 | 62 | 115 | 114 | 209 | 248 | 25 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 0 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 11.2 | 35.4 | | 31.0 | 55.2 | 55.2 | 15.0 | 22.6 | 22.6 | 31.0 | 38.6 | |
| Total Split (%) | 9.3% | 29.5% | | 25.8% | 46.0% | 46.0% | 12.5% | 18.8% | 18.8% | 25.8% | 32.2% | |
| Maximum Green (s) | 6.7 | 30.9 | | 26.5 | 50.7 | 50.7 | 10.5 | 18.1 | 18.1 | 26.5 | 34.1 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | C-Max | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 32 | 729 | 99 | 211 | 810 | 120 | 62 | 115 | 114 | 209 | 248 | 25 |
| Future Volume (veh/h) | 32 | 729 | 99 | 211 | 810 | 120 | 62 | 115 | 114 | 209 | 248 | 25 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 36 | 810 | 110 | 234 | 900 | 133 | 69 | 128 | 127 | 232 | 276 | 28 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 52 | 1683 | 227 | 260 | 2487 | 772 | 89 | 662 | 295 | 263 | 475 | 48 |
| Arrive On Green | 0.03 | 0.37 | 0.37 | 0.29 | 0.97 | 0.97 | 0.05 | 0.19 | 0.19 | 0.15 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1781 | 4550 | 614 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 1781 | 1670 | 169 |
| Grp Volume(v), veh/h | 36 | 605 | 315 | 234 | 900 | 133 | 69 | 128 | 127 | 232 | 0 | 304 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1760 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1781 | 0 | 1840 |
| Q Serve(g_s), s | 2.4 | 16.3 | 16.5 | 15.1 | 0.8 | 0.3 | 4.6 | 3.6 | 8.5 | 15.3 | 0.0 | 17.0 |
| Cycle Q Clear(g_c), s | 2.4 | 16.3 | 16.5 | 15.1 | 0.8 | 0.3 | 4.6 | 3.6 | 8.5 | 15.3 | 0.0 | 17.0 |
| Prop In Lane | 1.00 | | 0.35 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.09 |
| Lane Grp Cap(c), veh/h | 52 | 1259 | 651 | 260 | 2487 | 772 | 89 | 662 | 295 | 263 | 0 | 523 |
| V/C Ratio(X) | 0.69 | 0.48 | 0.48 | 0.90 | 0.36 | 0.17 | 0.78 | 0.19 | 0.43 | 0.88 | 0.00 | 0.58 |
| Avail Cap(c_a), veh/h | 99 | 1259 | 651 | 393 | 2487 | 772 | 156 | 662 | 295 | 393 | 0 | 523 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.87 | 0.87 | 0.87 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.7 | 29.0 | 29.0 | 41.6 | 0.8 | 0.8 | 56.4 | 41.2 | 43.2 | 50.1 | 0.0 | 36.8 |
| Incr Delay (d2), s/veh | 13.5 | 1.1 | 2.2 | 16.5 | 0.4 | 0.5 | 13.6 | 0.7 | 4.5 | 14.3 | 0.0 | 4.7 |
| 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 | 1.2 | 6.5 | 7.0 | 6.5 | 0.3 | 0.2 | 2.3 | 1.6 | 3.6 | 7.7 | 0.0 | 8.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 71.2 | 30.1 | 31.2 | 58.1 | 1.2 | 1.3 | 70.0 | 41.9 | 47.7 | 64.5 | 0.0 | 41.5 |
| LnGrp LOS | E | C | C | E | A | A | E | D | D | E | A | D |
| Approach Vol, veh/h | | 956 | | | 1267 | | | 324 | | | 536 | |
| Approach Delay, s/veh | | 32.0 | | | 11.7 | | | 50.2 | | | 51.4 | |
| Approach LOS | | C | | | B | | | D | | | D | |

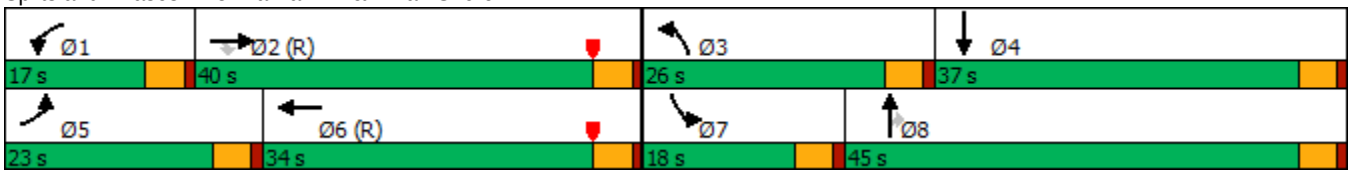
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 22.0 | 48.9 | 10.5 | 38.6 | 8.0 | 62.9 | 22.2 | 26.8 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 26.5 | 30.9 | 10.5 | 34.1 | 6.7 | 50.7 | 26.5 | 18.1 |
| Max Q Clear Time (g_c+I1), s | 17.1 | 18.5 | 6.6 | 19.0 | 4.4 | 2.8 | 17.3 | 10.5 |
| Green Ext Time (p_c), s | 0.4 | 4.3 | 0.0 | 1.4 | 0.0 | 6.9 | 0.4 | 0.6 |

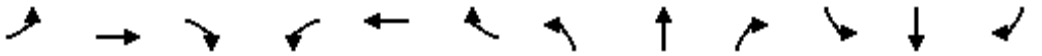
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 29.0 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 98 | 432 | 190 | 48 | 346 | 34 | 125 | 158 | 59 | 57 | 305 | 209 |
| Future Volume (vph) | 98 | 432 | 190 | 48 | 346 | 34 | 125 | 158 | 59 | 57 | 305 | 209 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 175 | | 215 | 185 | | 0 | 125 | | 125 | 135 | | 135 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 50 | | | 50 | |
| Link Distance (ft) | | 918 | | | 366 | | | 1131 | | | 331 | |
| Travel Time (s) | | 20.9 | | | 8.3 | | | 15.4 | | | 4.5 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 23.0 | 40.0 | 40.0 | 17.0 | 34.0 | | 26.0 | 45.0 | 45.0 | 18.0 | 37.0 | |
| Total Split (%) | 19.2% | 33.3% | 33.3% | 14.2% | 28.3% | | 21.7% | 37.5% | 37.5% | 15.0% | 30.8% | |
| Maximum Green (s) | 18.5 | 35.5 | 35.5 | 12.5 | 29.5 | | 21.5 | 40.5 | 40.5 | 13.5 | 32.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 3: Da Vall Dr. & Dinah Shore Dr.

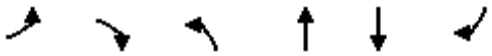




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 98 | 432 | 190 | 48 | 346 | 34 | 125 | 158 | 59 | 57 | 305 | 209 |
| Future Volume (veh/h) | 98 | 432 | 190 | 48 | 346 | 34 | 125 | 158 | 59 | 57 | 305 | 209 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 104 | 460 | 202 | 51 | 368 | 36 | 133 | 168 | 63 | 61 | 324 | 222 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 130 | 1532 | 683 | 66 | 1293 | 126 | 162 | 1199 | 535 | 79 | 593 | 397 |
| Arrive On Green | 0.07 | 0.43 | 0.43 | 0.04 | 0.40 | 0.40 | 0.09 | 0.34 | 0.34 | 0.04 | 0.29 | 0.29 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 3272 | 318 | 1781 | 3554 | 1585 | 1781 | 2037 | 1365 |
| Grp Volume(v), veh/h | 104 | 460 | 202 | 51 | 199 | 205 | 133 | 168 | 63 | 61 | 282 | 264 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1813 | 1781 | 1777 | 1585 | 1781 | 1777 | 1625 |
| Q Serve(g_s), s | 6.9 | 10.2 | 10.0 | 3.4 | 9.1 | 9.3 | 8.8 | 3.9 | 3.3 | 4.1 | 16.0 | 16.5 |
| Cycle Q Clear(g_c), s | 6.9 | 10.2 | 10.0 | 3.4 | 9.1 | 9.3 | 8.8 | 3.9 | 3.3 | 4.1 | 16.0 | 16.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.18 | 1.00 | | 1.00 | 1.00 | | 0.84 |
| Lane Grp Cap(c), veh/h | 130 | 1532 | 683 | 66 | 702 | 716 | 162 | 1199 | 535 | 79 | 517 | 473 |
| V/C Ratio(X) | 0.80 | 0.30 | 0.30 | 0.77 | 0.28 | 0.29 | 0.82 | 0.14 | 0.12 | 0.77 | 0.54 | 0.56 |
| Avail Cap(c_a), veh/h | 275 | 1532 | 683 | 186 | 702 | 716 | 319 | 1199 | 535 | 200 | 517 | 473 |
| 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) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.8 | 22.3 | 22.3 | 57.3 | 24.7 | 24.7 | 53.6 | 27.6 | 27.4 | 56.7 | 35.8 | 36.0 |
| Incr Delay (d2), s/veh | 10.7 | 0.5 | 1.1 | 17.1 | 1.0 | 1.0 | 10.0 | 0.2 | 0.4 | 14.7 | 4.1 | 4.7 |
| 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 | 3.5 | 4.4 | 3.7 | 1.8 | 4.1 | 4.2 | 4.3 | 1.7 | 1.3 | 2.1 | 7.2 | 6.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 65.4 | 22.8 | 23.4 | 74.4 | 25.7 | 25.8 | 63.6 | 27.9 | 27.9 | 71.4 | 39.9 | 40.7 |
| LnGrp LOS | E | C | C | E | C | C | E | C | C | E | D | D |
| Approach Vol, veh/h | | 766 | | | 455 | | | 364 | | | 607 | |
| Approach Delay, s/veh | | 28.7 | | | 31.2 | | | 40.9 | | | 43.4 | |
| Approach LOS | | C | | | C | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.0 | 56.2 | 15.4 | 39.4 | 13.3 | 51.9 | 9.8 | 45.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 12.5 | 35.5 | 21.5 | 32.5 | 18.5 | 29.5 | 13.5 | 40.5 |
| Max Q Clear Time (g_c+I1), s | 5.4 | 12.2 | 10.8 | 18.5 | 8.9 | 11.3 | 6.1 | 5.9 |
| Green Ext Time (p_c), s | 0.0 | 3.9 | 0.2 | 2.5 | 0.1 | 2.2 | 0.1 | 1.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 35.3 |
| HCM 6th LOS | D |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 16 | 270 | 305 | 179 | 245 | 50 |
| Future Volume (vph) | 16 | 270 | 305 | 179 | 245 | 50 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 14 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 16 | 270 | 305 | 179 | 245 | 50 |
| Future Vol, veh/h | 16 | 270 | 305 | 179 | 245 | 50 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 62 | 62 | 62 | 62 | 62 | 62 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 26 | 435 | 492 | 289 | 395 | 81 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1709 | 436 | 476 | 0 | - | 0 |
| Stage 1 | 436 | - | - | - | - | - |
| Stage 2 | 1273 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 100 | 620 | 1086 | - | - | - |
| Stage 1 | 652 | - | - | - | - | - |
| Stage 2 | 263 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 55 | 620 | 1086 | - | - | - |
| Mov Cap-2 Maneuver | 163 | - | - | - | - | - |
| Stage 1 | 357 | - | - | - | - | - |
| Stage 2 | 263 | - | - | - | - | - |

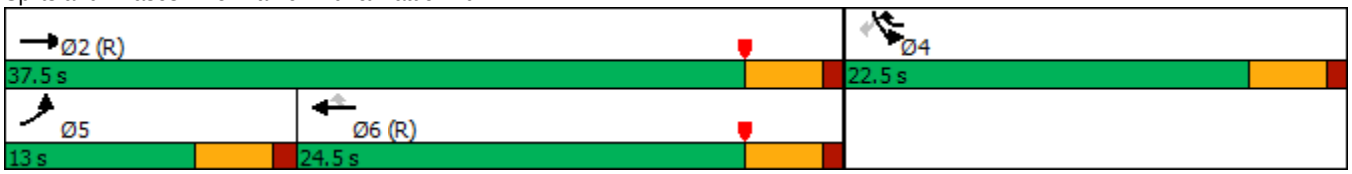
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 40.2 | 7 | 0 |
| HCM LOS | E | | |

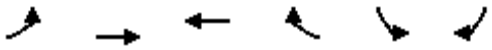
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1086 | - | 536 | - | - |
| HCM Lane V/C Ratio | 0.453 | - | 0.861 | - | - |
| HCM Control Delay (s) | 11 | - | 40.2 | - | - |
| HCM Lane LOS | B | - | E | - | - |
| HCM 95th %tile Q(veh) | 2.4 | - | 9.3 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 225 | 861 | 923 | 259 | 197 | 318 |
| Future Volume (vph) | 225 | 861 | 923 | 259 | 197 | 318 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Shared Lane Traffic (%) | | | | | | 48% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 13.0 | 37.5 | 24.5 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 21.7% | 62.5% | 40.8% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 8.5 | 33.0 | 20.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.





| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 225 | 861 | 923 | 259 | 197 | 318 |
| Future Volume (veh/h) | 225 | 861 | 923 | 259 | 197 | 318 |
| 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 278 | 1063 | 1140 | 320 | 212 | 426 |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 381 | 2808 | 1863 | 1054 | 534 | 951 |
| Arrive On Green | 0.22 | 1.00 | 0.12 | 0.12 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 1781 | 3170 |
| Grp Volume(v), veh/h | 278 | 1063 | 1140 | 320 | 212 | 426 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 4.5 | 0.0 | 12.7 | 6.0 | 5.7 | 6.5 |
| Cycle Q Clear(g_c), s | 4.5 | 0.0 | 12.7 | 6.0 | 5.7 | 6.5 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 381 | 2808 | 1863 | 1054 | 534 | 951 |
| V/C Ratio(X) | 0.73 | 0.38 | 0.61 | 0.30 | 0.40 | 0.45 |
| Avail Cap(c_a), veh/h | 490 | 2808 | 1863 | 1054 | 534 | 951 |
| HCM Platoon Ratio | 2.00 | 2.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.87 | 0.87 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.6 | 0.0 | 22.4 | 6.1 | 16.7 | 17.0 |
| Incr Delay (d2), s/veh | 4.0 | 0.4 | 1.3 | 0.6 | 2.2 | 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 | 1.6 | 0.1 | 5.3 | 4.2 | 2.3 | 6.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 26.6 | 0.4 | 23.7 | 6.7 | 18.9 | 18.5 |
| LnGrp LOS | C | A | C | A | B | B |
| Approach Vol, veh/h | | 1341 | 1460 | | 638 | |
| Approach Delay, s/veh | | 5.8 | 20.0 | | 18.6 | |
| Approach LOS | | A | B | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 11.1 | 26.4 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 8.5 | 20.0 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 8.5 | 6.5 | 14.7 |
| Green Ext Time (p_c), s | | 7.4 | | 1.7 | 0.2 | 3.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 14.2 |
| HCM 6th LOS | B |

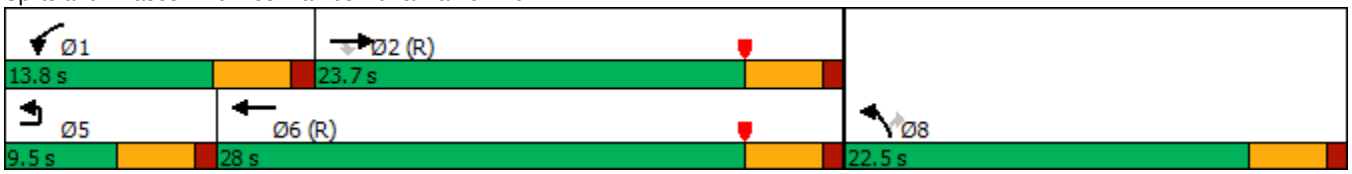
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 1 | 981 | 67 | 100 | 1163 | 26 | 58 |
| Future Volume (vph) | 1 | 981 | 67 | 100 | 1163 | 26 | 58 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 200 | 255 | | 125 | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 |
| Taper Length (ft) | 90 | | | 90 | | 90 | |
| Right Turn on Red | | | Yes | | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | 50 | |
| Link Distance (ft) | | 2660 | | | 3172 | 1424 | |
| Travel Time (s) | | 33.0 | | | 39.3 | 19.4 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | |
| Permitted Phases | | | 2 | | | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 8 | 8 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 23.7 | 23.7 | 13.8 | 28.0 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 39.5% | 39.5% | 23.0% | 46.7% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 19.2 | 19.2 | 9.3 | 23.5 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 6: Los Alamos Rd. & Ramon Rd.



| Movement | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1 | 981 | 67 | 100 | 1163 | 26 | 58 |
| Future Volume (veh/h) | 1 | 981 | 67 | 100 | 1163 | 26 | 58 |
| 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 |
| Work Zone On Approach | | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | 1090 | 74 | 111 | 1292 | 29 | 64 |
| Peak Hour Factor | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | | 2014 | 625 | 144 | 2808 | 1037 | 476 |
| Arrive On Green | | 0.13 | 0.13 | 0.08 | 0.55 | 0.30 | 0.30 |
| Sat Flow, veh/h | | 5274 | 1585 | 1781 | 5274 | 3456 | 1585 |
| Grp Volume(v), veh/h | | 1090 | 74 | 111 | 1292 | 29 | 64 |
| Grp Sat Flow(s),veh/h/ln | | 1702 | 1585 | 1781 | 1702 | 1728 | 1585 |
| Q Serve(g_s), s | | 12.0 | 2.5 | 3.7 | 9.1 | 0.4 | 1.8 |
| Cycle Q Clear(g_c), s | | 12.0 | 2.5 | 3.7 | 9.1 | 0.4 | 1.8 |
| Prop In Lane | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | | 2014 | 625 | 144 | 2808 | 1037 | 476 |
| V/C Ratio(X) | | 0.54 | 0.12 | 0.77 | 0.46 | 0.03 | 0.13 |
| Avail Cap(c_a), veh/h | | 2014 | 625 | 276 | 2808 | 1037 | 476 |
| HCM Platoon Ratio | | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | 0.93 | 0.93 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | 21.0 | 16.9 | 27.0 | 8.1 | 14.8 | 15.3 |
| Incr Delay (d2), s/veh | | 1.0 | 0.4 | 8.5 | 0.5 | 0.0 | 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 | | 4.8 | 0.8 | 1.7 | 2.1 | 0.1 | 0.6 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | | 22.0 | 17.2 | 35.6 | 8.7 | 14.9 | 15.9 |
| LnGrp LOS | | C | B | D | A | B | B |
| Approach Vol, veh/h | | 1164 | | | 1403 | 93 | |
| Approach Delay, s/veh | | 21.7 | | | 10.8 | 15.6 | |
| Approach LOS | | C | | | B | B | |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.3 | 28.2 | | | | 37.5 | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 9.3 | 19.2 | | | | 23.5 | 18.0 |
| Max Q Clear Time (g_c+I1), s | 5.7 | 14.0 | | | | 11.1 | 3.8 |
| Green Ext Time (p_c), s | 0.1 | 2.9 | | | | 6.2 | 0.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 15.7 |
| HCM 6th LOS | B |

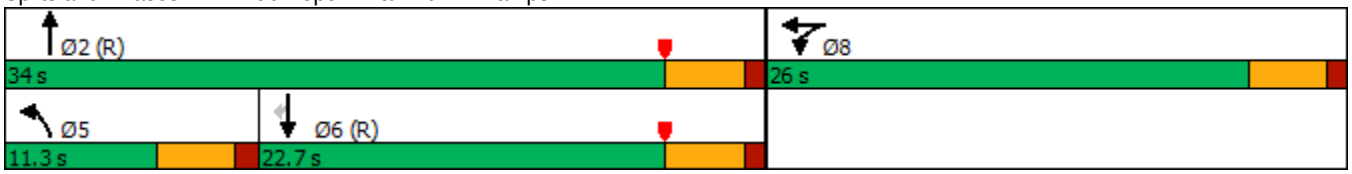
**Notes**

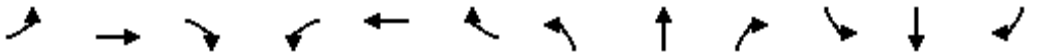
User approved ignoring U-Turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 638 | 1 | 249 | 155 | 420 | 0 | 0 | 290 | 177 |
| Future Volume (vph) | 0 | 0 | 0 | 638 | 1 | 249 | 155 | 420 | 0 | 0 | 290 | 177 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 430 | 210 | | 0 | 0 | | 205 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 2 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 581 | | | 1228 | | | 688 | | | 840 | |
| Travel Time (s) | | 11.3 | | | 23.9 | | | 10.4 | | | 12.7 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Shared Lane Traffic (%) | | | | 50% | | | | | | | | |
| Turn Type | | | | Split | NA | Free | Prot | NA | | | NA | Perm |
| Protected Phases | | | | 8 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | | | Free | | | | | | 6 |
| Detector Phase | | | | 8 | 8 | | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | 5.0 |
| Minimum Split (s) | | | | 22.5 | 22.5 | | 9.5 | 22.5 | | | 22.5 | 22.5 |
| Total Split (s) | | | | 26.0 | 26.0 | | 11.3 | 34.0 | | | 22.7 | 22.7 |
| Total Split (%) | | | | 43.3% | 43.3% | | 18.8% | 56.7% | | | 37.8% | 37.8% |
| Maximum Green (s) | | | | 21.5 | 21.5 | | 6.8 | 29.5 | | | 18.2 | 18.2 |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | 3.5 |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | 4.5 |
| Lead/Lag | | | | | | | Lead | | | | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | Yes |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | | | | None | None | | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | | | | | | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 7: Bob Hope Dr. & I-10 NB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 638 | 1 | 249 | 155 | 420 | 0 | 0 | 290 | 177 |
| Future Volume (veh/h) | 0 | 0 | 0 | 638 | 1 | 249 | 155 | 420 | 0 | 0 | 290 | 177 |
| 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 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 687 | 0 | 0 | 167 | 452 | 0 | 0 | 312 | 190 |
| Peak Hour Factor | | | | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 871 | 0 | | 270 | 2152 | 0 | 0 | 2310 | 717 |
| Arrive On Green | | | | 0.24 | 0.00 | 0.00 | 0.16 | 1.00 | 0.00 | 0.00 | 0.45 | 0.45 |
| Sat Flow, veh/h | | | | 3563 | 0 | 1585 | 3456 | 3647 | 0 | 0 | 5274 | 1585 |
| Grp Volume(v), veh/h | | | | 687 | 0 | 0 | 167 | 452 | 0 | 0 | 312 | 190 |
| Grp Sat Flow(s),veh/h/ln | | | | 1781 | 0 | 1585 | 1728 | 1777 | 0 | 0 | 1702 | 1585 |
| Q Serve(g_s), s | | | | 10.8 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 2.1 | 4.5 |
| Cycle Q Clear(g_c), s | | | | 10.8 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 2.1 | 4.5 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | | | | 871 | 0 | | 270 | 2152 | 0 | 0 | 2310 | 717 |
| V/C Ratio(X) | | | | 0.79 | 0.00 | | 0.62 | 0.21 | 0.00 | 0.00 | 0.14 | 0.26 |
| Avail Cap(c_a), veh/h | | | | 1277 | 0 | | 392 | 2152 | 0 | 0 | 2310 | 717 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 0.00 | 0.96 | 0.96 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 21.2 | 0.0 | 0.0 | 24.5 | 0.0 | 0.0 | 0.0 | 9.6 | 10.2 |
| Incr Delay (d2), s/veh | | | | 2.1 | 0.0 | 0.0 | 2.2 | 0.2 | 0.0 | 0.0 | 0.1 | 0.9 |
| 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 | | | | 4.3 | 0.0 | 0.0 | 1.0 | 0.1 | 0.0 | 0.0 | 0.6 | 1.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | 23.3 | 0.0 | 0.0 | 26.7 | 0.2 | 0.0 | 0.0 | 9.7 | 11.1 |
| LnGrp LOS | | | | C | A | | C | A | A | A | A | B |
| Approach Vol, veh/h | | | | | 687 | | | 619 | | | 502 | |
| Approach Delay, s/veh | | | | | 23.3 | | | 7.4 | | | 10.2 | |
| Approach LOS | | | | | C | | | A | | | B | |

| Timer - Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 40.8 | | | 9.2 | 31.6 | | 19.2 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 29.5 | | | 6.8 | 18.2 | | 21.5 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 4.7 | 6.5 | | 12.8 | | | | |
| Green Ext Time (p_c), s | | 2.8 | | | 0.1 | 1.9 | | 1.8 | | | | |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | 14.2 | |
| HCM 6th LOS | B | |

**Notes**

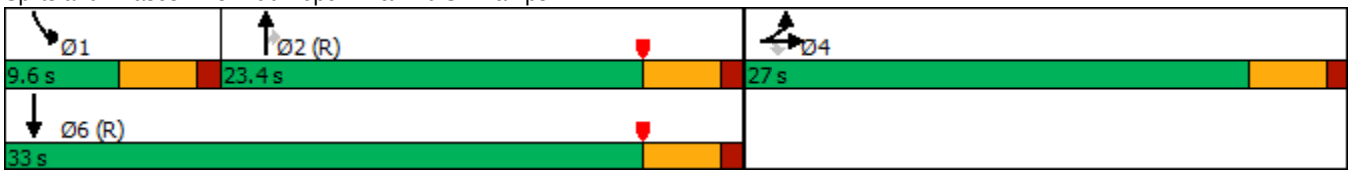
User approved volume balancing among the lanes for turning movement.

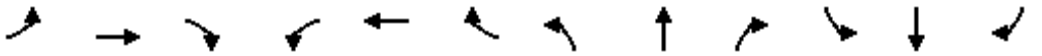
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 269 | 1 | 630 | 0 | 0 | 0 | 0 | 306 | 61 | 71 | 857 | 0 |
| Future Volume (vph) | 269 | 1 | 630 | 0 | 0 | 0 | 0 | 306 | 61 | 71 | 857 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 490 | | 135 | 0 | | 0 | 0 | | 195 | 225 | | 0 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 90 | | | 90 | | | 110 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1337 | | | 718 | | | 776 | | | 688 | |
| Travel Time (s) | | 26.0 | | | 14.0 | | | 11.8 | | | 10.4 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Shared Lane Traffic (%) | 10% | | 48% | | | | | | 10% | | | |
| Turn Type | Split | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | 4 | 4 | | | | | | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | | 2 | | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | | | | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | | | | | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 27.0 | 27.0 | 27.0 | | | | | 23.4 | 23.4 | 9.6 | 33.0 | |
| Total Split (%) | 45.0% | 45.0% | 45.0% | | | | | 39.0% | 39.0% | 16.0% | 55.0% | |
| Maximum Green (s) | 22.5 | 22.5 | 22.5 | | | | | 18.9 | 18.9 | 5.1 | 28.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | | | | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | Lag | Lag | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | None | C-Max | |
| Walk Time (s) | | | | | | | | | | | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 8: Bob Hope Dr. & I-10 SB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 269 | 1 | 630 | 0 | 0 | 0 | 0 | 306 | 61 | 71 | 857 | 0 |
| Future Volume (veh/h) | 269 | 1 | 630 | 0 | 0 | 0 | 0 | 306 | 61 | 71 | 857 | 0 |
| 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 |
| Work Zone On Approach | | No | | | | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | | | | 0 | 1870 | 1870 | 1870 | 1870 | 0 |
| Adj Flow Rate, veh/h | 202 | 0 | 816 | | | | 0 | 344 | 69 | 80 | 963 | 0 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | | | | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | | | | 0 | 2 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 555 | 0 | 987 | | | | 0 | 2257 | 638 | 212 | 1914 | 0 |
| Arrive On Green | 0.31 | 0.00 | 0.31 | | | | 0.00 | 0.40 | 0.40 | 0.12 | 1.00 | 0.00 |
| Sat Flow, veh/h | 1781 | 0 | 3170 | | | | 0 | 5611 | 1585 | 3456 | 3647 | 0 |
| Grp Volume(v), veh/h | 202 | 0 | 816 | | | | 0 | 344 | 69 | 80 | 963 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | | | | 0 | 1870 | 1585 | 1728 | 1777 | 0 |
| Q Serve(g_s), s | 5.3 | 0.0 | 14.3 | | | | 0.0 | 2.3 | 1.6 | 1.3 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 5.3 | 0.0 | 14.3 | | | | 0.0 | 2.3 | 1.6 | 1.3 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 555 | 0 | 987 | | | | 0 | 2257 | 638 | 212 | 1914 | 0 |
| V/C Ratio(X) | 0.36 | 0.00 | 0.83 | | | | 0.00 | 0.15 | 0.11 | 0.38 | 0.50 | 0.00 |
| Avail Cap(c_a), veh/h | 668 | 0 | 1189 | | | | 0 | 2257 | 638 | 294 | 1914 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.00 |
| Uniform Delay (d), s/veh | 16.0 | 0.0 | 19.2 | | | | 0.0 | 11.4 | 11.2 | 25.3 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 4.2 | | | | 0.0 | 0.1 | 0.3 | 1.0 | 0.9 | 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 | 2.0 | 0.0 | 5.2 | | | | 0.0 | 0.8 | 0.5 | 0.5 | 0.2 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 16.4 | 0.0 | 23.3 | | | | 0.0 | 11.6 | 11.6 | 26.3 | 0.9 | 0.0 |
| LnGrp LOS | B | A | C | | | | A | B | B | C | A | A |
| Approach Vol, veh/h | | 1018 | | | | | | 413 | | | 1043 | |
| Approach Delay, s/veh | | 22.0 | | | | | | 11.6 | | | 2.8 | |
| Approach LOS | | C | | | | | | B | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.2 | 28.6 | | 23.2 | | 36.8 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.1 | 18.9 | | 22.5 | | 28.5 |
| Max Q Clear Time (g_c+I1), s | 3.3 | 4.3 | | 16.3 | | 2.0 |
| Green Ext Time (p_c), s | 0.0 | 1.9 | | 2.4 | | 6.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 12.2 |
| HCM 6th LOS | B |

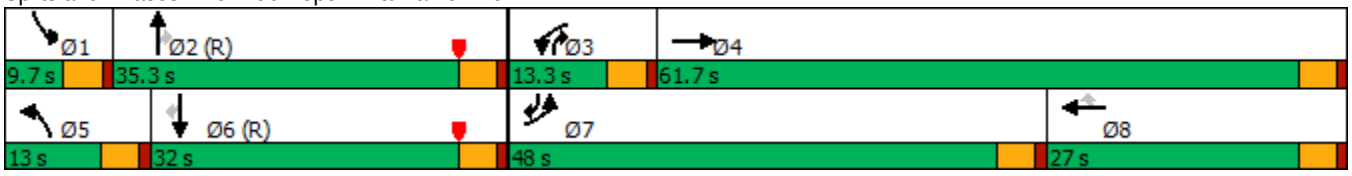
**Notes**

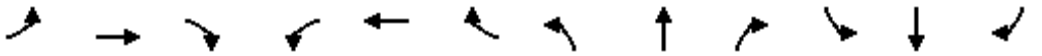
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 125 | 690 | 224 | 116 | 454 | 9 | 118 | 233 | 106 | 50 | 746 | 691 |
| Future Volume (vph) | 125 | 690 | 224 | 116 | 454 | 9 | 118 | 233 | 106 | 50 | 746 | 691 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 280 | | 470 | 240 | | 180 | 205 | | 280 | 215 | | 225 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 90 | | | 120 | | | 120 | | | 120 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | | | 45 | | | 45 | |
| Link Distance (ft) | | 676 | | | 1191 | | | 1119 | | | 476 | |
| Travel Time (s) | | 8.4 | | | 14.8 | | | 17.0 | | | 7.2 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Free | Prot | NA | Perm | Prot | NA | pm+ov | Prot | NA | pm+ov |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | Free | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | | 3 | 8 | 8 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 9.5 |
| Total Split (s) | 48.0 | 61.7 | | 13.3 | 27.0 | 27.0 | 13.0 | 35.3 | 13.3 | 9.7 | 32.0 | 48.0 |
| Total Split (%) | 40.0% | 51.4% | | 11.1% | 22.5% | 22.5% | 10.8% | 29.4% | 11.1% | 8.1% | 26.7% | 40.0% |
| Maximum Green (s) | 43.5 | 57.2 | | 8.8 | 22.5 | 22.5 | 8.5 | 30.8 | 8.8 | 5.2 | 27.5 | 43.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | None | None | C-Max | None | None | C-Max | None |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 40.1 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 9: Bob Hope Dr. & Ramon Rd.





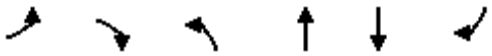
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 125 | 690 | 224 | 116 | 454 | 9 | 118 | 233 | 106 | 50 | 746 | 691 |
| Future Volume (veh/h) | 125 | 690 | 224 | 116 | 454 | 9 | 118 | 233 | 106 | 50 | 746 | 691 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 133 | 734 | 0 | 123 | 483 | 10 | 126 | 248 | 113 | 53 | 794 | 735 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 197 | 891 | | 178 | 871 | 388 | 181 | 2621 | 895 | 119 | 2530 | 876 |
| Arrive On Green | 0.06 | 0.25 | 0.00 | 0.05 | 0.25 | 0.25 | 0.05 | 0.51 | 0.51 | 0.03 | 0.50 | 0.50 |
| Sat Flow, veh/h | 3456 | 3554 | 1585 | 3456 | 3554 | 1585 | 3456 | 5106 | 1585 | 3456 | 5106 | 1585 |
| Grp Volume(v), veh/h | 133 | 734 | 0 | 123 | 483 | 10 | 126 | 248 | 113 | 53 | 794 | 735 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1585 | 1728 | 1777 | 1585 | 1728 | 1702 | 1585 | 1728 | 1702 | 1585 |
| Q Serve(g_s), s | 4.5 | 23.4 | 0.0 | 4.2 | 14.2 | 0.6 | 4.3 | 3.0 | 4.0 | 1.8 | 11.1 | 46.4 |
| Cycle Q Clear(g_c), s | 4.5 | 23.4 | 0.0 | 4.2 | 14.2 | 0.6 | 4.3 | 3.0 | 4.0 | 1.8 | 11.1 | 46.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 197 | 891 | | 178 | 871 | 388 | 181 | 2621 | 895 | 119 | 2530 | 876 |
| V/C Ratio(X) | 0.67 | 0.82 | | 0.69 | 0.55 | 0.03 | 0.70 | 0.09 | 0.13 | 0.44 | 0.31 | 0.84 |
| Avail Cap(c_a), veh/h | 1253 | 1694 | | 253 | 871 | 388 | 245 | 2621 | 895 | 150 | 2530 | 876 |
| 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) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.5 | 42.4 | 0.0 | 56.0 | 39.6 | 34.4 | 55.9 | 14.9 | 12.2 | 56.8 | 18.1 | 22.4 |
| Incr Delay (d2), s/veh | 4.0 | 2.0 | 0.0 | 4.8 | 0.8 | 0.0 | 5.3 | 0.1 | 0.3 | 2.6 | 0.3 | 9.5 |
| 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 | 2.0 | 10.0 | 0.0 | 1.9 | 6.0 | 0.2 | 2.0 | 1.1 | 1.3 | 0.8 | 4.2 | 17.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 59.4 | 44.4 | 0.0 | 60.7 | 40.3 | 34.4 | 61.2 | 15.0 | 12.5 | 59.4 | 18.4 | 31.9 |
| LnGrp LOS | E | D | | E | D | C | E | B | B | E | B | C |
| Approach Vol, veh/h | | 867 | | | 616 | | | 487 | | | 1582 | |
| Approach Delay, s/veh | | 46.7 | | | 44.3 | | | 26.4 | | | 26.0 | |
| Approach LOS | | D | | | D | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.6 | 66.1 | 10.7 | 34.6 | 10.8 | 64.0 | 11.4 | 33.9 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.2 | 30.8 | 8.8 | 57.2 | 8.5 | 27.5 | 43.5 | 22.5 |
| Max Q Clear Time (g_c+I1), s | 3.8 | 6.0 | 6.2 | 25.4 | 6.3 | 48.4 | 6.5 | 16.2 |
| Green Ext Time (p_c), s | 0.0 | 1.8 | 0.1 | 4.7 | 0.1 | 0.0 | 0.4 | 1.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 34.3 |
| HCM 6th LOS | C |

**Notes**

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 99 | 135 | 0 | 195 | 160 | 0 |
| Future Volume (vph) | 99 | 135 | 0 | 195 | 160 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

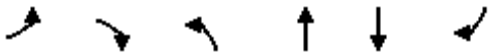
| Intersection | |
|---|---|
| Int Delay, s/veh | 5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 99 | 135 | 0 | 195 | 160 | 0 |
| Future Vol, veh/h | 99 | 135 | 0 | 195 | 160 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 60 | 60 | 60 | 60 | 60 | 60 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 165 | 225 | 0 | 325 | 267 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 592 | 267 | - | 0 | - | 0 |
| Stage 1 | 267 | - | - | - | - | - |
| Stage 2 | 325 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 469 | 772 | 0 | - | - | 0 |
| Stage 1 | 778 | - | 0 | - | - | 0 |
| Stage 2 | 732 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 469 | 772 | - | - | - | - |
| Mov Cap-2 Maneuver | 558 | - | - | - | - | - |
| Stage 1 | 778 | - | - | - | - | - |
| Stage 2 | 732 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.7 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 558 | 772 | - |
| HCM Lane V/C Ratio | - | 0.296 | 0.291 | - |
| HCM Control Delay (s) | - | 14.1 | 11.6 | - |
| HCM Lane LOS | - | B | B | - |
| HCM 95th %tile Q(veh) | - | 1.2 | 1.2 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 30 | 64 | 160 | 134 | 96 | 319 |
| Future Volume (vph) | 30 | 64 | 160 | 134 | 96 | 319 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

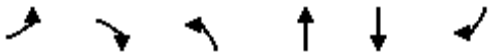
| Intersection | |
|---|---|
| Int Delay, s/veh | 7.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 30 | 64 | 160 | 134 | 96 | 319 |
| Future Vol, veh/h | 30 | 64 | 160 | 134 | 96 | 319 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 55 | 55 | 55 | 55 | 55 | 55 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 55 | 116 | 291 | 244 | 175 | 580 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1291 | 465 | 755 | 0 | - | 0 |
| Stage 1 | 465 | - | - | - | - | - |
| Stage 2 | 826 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 180 | 597 | 855 | - | - | - |
| Stage 1 | 632 | - | - | - | - | - |
| Stage 2 | 430 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 119 | 597 | 855 | - | - | - |
| Mov Cap-2 Maneuver | 119 | - | - | - | - | - |
| Stage 1 | 417 | - | - | - | - | - |
| Stage 2 | 430 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 41.3 | 6.2 | 0 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 855 | - | 262 | - | - |
| HCM Lane V/C Ratio | 0.34 | - | 0.652 | - | - |
| HCM Control Delay (s) | 11.4 | - | 41.3 | - | - |
| HCM Lane LOS | B | - | E | - | - |
| HCM 95th %tile Q(veh) | 1.5 | - | 4.1 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 9 | 121 | 86 | 225 | 274 | 18 |
| Future Volume (vph) | 9 | 121 | 86 | 225 | 274 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 9 | 121 | 86 | 225 | 274 | 18 |
| Future Vol, veh/h | 9 | 121 | 86 | 225 | 274 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 18 | 242 | 172 | 450 | 548 | 36 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1360 | 566 | 584 | 0 | - | 0 |
| Stage 1 | 566 | - | - | - | - | - |
| Stage 2 | 794 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 164 | 524 | 991 | - | - | - |
| Stage 1 | 568 | - | - | - | - | - |
| Stage 2 | 445 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 135 | 524 | 991 | - | - | - |
| Mov Cap-2 Maneuver | 270 | - | - | - | - | - |
| Stage 1 | 469 | - | - | - | - | - |
| Stage 2 | 445 | - | - | - | - | - |

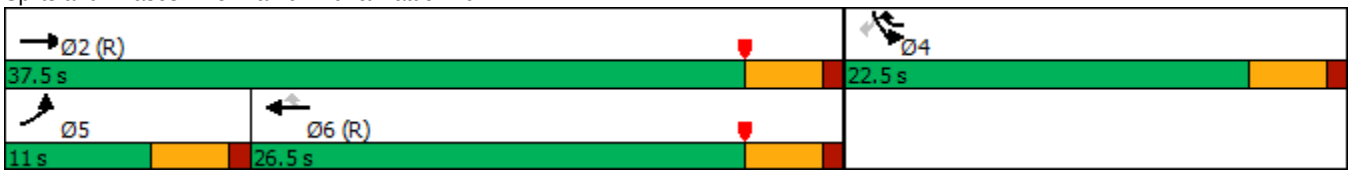
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 20.2 | 2.6 | 0 |
| HCM LOS | C | | |

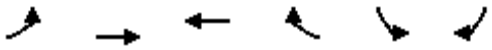
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 991 | - | 492 | - | - |
| HCM Lane V/C Ratio | 0.174 | - | 0.528 | - | - |
| HCM Control Delay (s) | 9.4 | - | 20.2 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.6 | - | 3 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 150 | 906 | 1090 | 161 | 171 | 224 |
| Future Volume (vph) | 150 | 906 | 1090 | 161 | 171 | 224 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 |
| Shared Lane Traffic (%) | | | | | | 44% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 11.0 | 37.5 | 26.5 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 18.3% | 62.5% | 44.2% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 6.5 | 33.0 | 22.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.





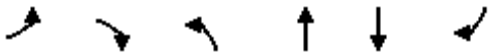
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 150 | 906 | 1090 | 161 | 171 | 224 |
| Future Volume (veh/h) | 150 | 906 | 1090 | 161 | 171 | 224 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 195 | 1177 | 1416 | 209 | 171 | 346 |
| Peak Hour Factor | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 291 | 2808 | 1996 | 1095 | 534 | 951 |
| Arrive On Green | 0.17 | 1.00 | 0.13 | 0.13 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 1781 | 3170 |
| Grp Volume(v), veh/h | 195 | 1177 | 1416 | 209 | 171 | 346 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 3.2 | 0.0 | 16.0 | 3.7 | 4.5 | 5.1 |
| Cycle Q Clear(g_c), s | 3.2 | 0.0 | 16.0 | 3.7 | 4.5 | 5.1 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 291 | 2808 | 1996 | 1095 | 534 | 951 |
| V/C Ratio(X) | 0.67 | 0.42 | 0.71 | 0.19 | 0.32 | 0.36 |
| Avail Cap(c_a), veh/h | 374 | 2808 | 1996 | 1095 | 534 | 951 |
| HCM Platoon Ratio | 2.00 | 2.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.2 | 0.0 | 22.9 | 4.9 | 16.3 | 16.5 |
| Incr Delay (d2), s/veh | 3.1 | 0.5 | 2.2 | 0.4 | 1.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.2 | 0.1 | 7.3 | 2.4 | 1.8 | 5.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 27.2 | 0.5 | 25.0 | 5.3 | 17.8 | 17.6 |
| LnGrp LOS | C | A | C | A | B | B |
| Approach Vol, veh/h | | 1372 | 1625 | | 517 | |
| Approach Delay, s/veh | | 4.3 | 22.5 | | 17.7 | |
| Approach LOS | | A | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 9.5 | 28.0 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 6.5 | 22.0 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 7.1 | 5.2 | 18.0 |
| Green Ext Time (p_c), s | | 8.5 | | 1.5 | 0.1 | 3.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 14.7 |
| HCM 6th LOS | B |

**Notes**

User approved volume balancing among the lanes for turning movement.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 85 | 103 | 0 | 234 | 189 | 0 |
| Future Volume (vph) | 85 | 103 | 0 | 234 | 189 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

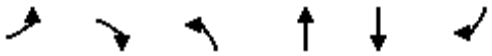
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 85 | 103 | 0 | 234 | 189 | 0 |
| Future Vol, veh/h | 85 | 103 | 0 | 234 | 189 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 170 | 206 | 0 | 468 | 378 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 846 | 378 | - | 0 | - | 0 |
| Stage 1 | 378 | - | - | - | - | - |
| Stage 2 | 468 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 333 | 669 | 0 | - | - | 0 |
| Stage 1 | 693 | - | 0 | - | - | 0 |
| Stage 2 | 630 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 333 | 669 | - | - | - | - |
| Mov Cap-2 Maneuver | 453 | - | - | - | - | - |
| Stage 1 | 693 | - | - | - | - | - |
| Stage 2 | 630 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 453 | 669 | - |
| HCM Lane V/C Ratio | - | 0.375 | 0.308 | - |
| HCM Control Delay (s) | - | 17.6 | 12.8 | - |
| HCM Lane LOS | - | C | B | - |
| HCM 95th %tile Q(veh) | - | 1.7 | 1.3 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 57 | 51 | 117 | 202 | 138 | 132 |
| Future Volume (vph) | 57 | 51 | 117 | 202 | 138 | 132 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 16.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 57 | 51 | 117 | 202 | 138 | 132 |
| Future Vol, veh/h | 57 | 51 | 117 | 202 | 138 | 132 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 114 | 102 | 234 | 404 | 276 | 264 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1280 | 408 | 540 | 0 | - | 0 |
| Stage 1 | 408 | - | - | - | - | - |
| Stage 2 | 872 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 183 | 643 | 1028 | - | - | - |
| Stage 1 | 671 | - | - | - | - | - |
| Stage 2 | 409 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 141 | 643 | 1028 | - | - | - |
| Mov Cap-2 Maneuver | 141 | - | - | - | - | - |
| Stage 1 | 518 | - | - | - | - | - |
| Stage 2 | 409 | - | - | - | - | - |

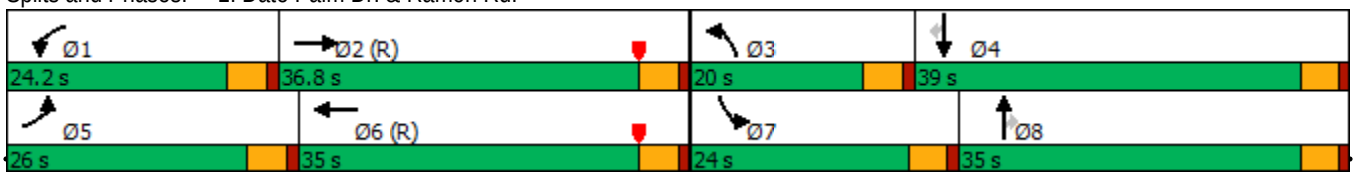
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 98.3 | 3.5 | 0 |
| HCM LOS | F | | |

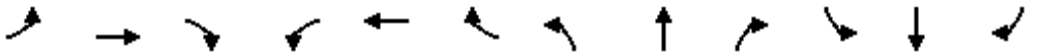
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1028 | - | 223 | - | - |
| HCM Lane V/C Ratio | 0.228 | - | 0.969 | - | - |
| HCM Control Delay (s) | 9.5 | - | 98.3 | - | - |
| HCM Lane LOS | A | - | F | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | 8.6 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 204 | 693 | 115 | 160 | 759 | 145 | 245 | 656 | 97 | 179 | 491 | 159 |
| Future Volume (vph) | 204 | 693 | 115 | 160 | 759 | 145 | 245 | 656 | 97 | 179 | 491 | 159 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 0 | 225 | | 0 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 26.0 | 36.8 | | 24.2 | 35.0 | | 20.0 | 35.0 | 35.0 | 24.0 | 39.0 | 39.0 |
| Total Split (%) | 21.7% | 30.7% | | 20.2% | 29.2% | | 16.7% | 29.2% | 29.2% | 20.0% | 32.5% | 32.5% |
| Maximum Green (s) | 21.5 | 32.3 | | 19.7 | 30.5 | | 15.5 | 30.5 | 30.5 | 19.5 | 34.5 | 34.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | Max | Max | None | Max | Max |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 204 | 693 | 115 | 160 | 759 | 145 | 245 | 656 | 97 | 179 | 491 | 159 |
| Future Volume (veh/h) | 204 | 693 | 115 | 160 | 759 | 145 | 245 | 656 | 97 | 179 | 491 | 159 |
| 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 | | 0.99 | 1.00 | | 0.99 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 227 | 770 | 128 | 178 | 843 | 161 | 272 | 729 | 108 | 199 | 546 | 177 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 256 | 1542 | 254 | 207 | 1387 | 263 | 334 | 911 | 404 | 228 | 1022 | 453 |
| Arrive On Green | 0.14 | 0.35 | 0.35 | 0.12 | 0.32 | 0.32 | 0.10 | 0.26 | 0.26 | 0.13 | 0.29 | 0.29 |
| Sat Flow, veh/h | 1781 | 4412 | 727 | 1781 | 4306 | 817 | 3456 | 3554 | 1576 | 1781 | 3554 | 1577 |
| Grp Volume(v), veh/h | 227 | 593 | 305 | 178 | 665 | 339 | 272 | 729 | 108 | 199 | 546 | 177 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1736 | 1781 | 1702 | 1719 | 1728 | 1777 | 1576 | 1781 | 1777 | 1577 |
| Q Serve(g_s), s | 15.0 | 16.5 | 16.7 | 11.8 | 19.8 | 20.0 | 9.3 | 23.0 | 6.6 | 13.2 | 15.5 | 10.8 |
| Cycle Q Clear(g_c), s | 15.0 | 16.5 | 16.7 | 11.8 | 19.8 | 20.0 | 9.3 | 23.0 | 6.6 | 13.2 | 15.5 | 10.8 |
| Prop In Lane | 1.00 | | 0.42 | 1.00 | | 0.48 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 256 | 1190 | 607 | 207 | 1096 | 554 | 334 | 911 | 404 | 228 | 1022 | 453 |
| V/C Ratio(X) | 0.89 | 0.50 | 0.50 | 0.86 | 0.61 | 0.61 | 0.81 | 0.80 | 0.27 | 0.87 | 0.53 | 0.39 |
| Avail Cap(c_a), veh/h | 319 | 1190 | 607 | 292 | 1096 | 554 | 446 | 911 | 404 | 289 | 1022 | 453 |
| 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) | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.4 | 30.7 | 30.8 | 52.1 | 34.3 | 34.3 | 53.1 | 41.7 | 35.6 | 51.4 | 36.0 | 34.3 |
| Incr Delay (d2), s/veh | 21.3 | 1.5 | 3.0 | 15.0 | 2.3 | 4.5 | 8.3 | 7.3 | 1.6 | 20.5 | 2.0 | 2.5 |
| 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 | 8.0 | 6.7 | 7.1 | 5.9 | 8.1 | 8.6 | 4.3 | 10.7 | 2.6 | 7.0 | 6.8 | 4.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 71.7 | 32.2 | 33.8 | 67.0 | 36.5 | 38.8 | 61.4 | 49.1 | 37.2 | 71.9 | 38.0 | 36.8 |
| LnGrp LOS | E | C | C | E | D | D | E | D | D | E | D | D |
| Approach Vol, veh/h | | 1125 | | | 1182 | | | 1109 | | | 922 | |
| Approach Delay, s/veh | | 40.6 | | | 41.8 | | | 50.9 | | | 45.1 | |
| Approach LOS | | D | | | D | | | D | | | D | |

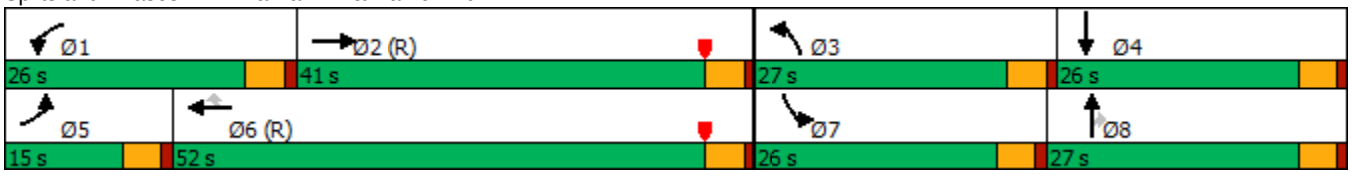
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 18.4 | 46.4 | 16.1 | 39.0 | 21.7 | 43.1 | 19.8 | 35.3 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 19.7 | 32.3 | 15.5 | 34.5 | 21.5 | 30.5 | 19.5 | 30.5 |
| Max Q Clear Time (g_c+I1), s | 13.8 | 18.7 | 11.3 | 17.5 | 17.0 | 22.0 | 15.2 | 25.0 |
| Green Ext Time (p_c), s | 0.2 | 4.4 | 0.3 | 3.6 | 0.2 | 3.8 | 0.2 | 2.3 |

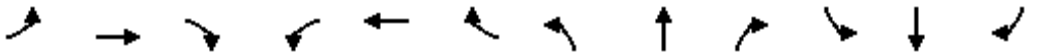
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 44.5 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 42 | 715 | 78 | 125 | 765 | 207 | 136 | 245 | 89 | 123 | 115 | 26 |
| Future Volume (vph) | 42 | 715 | 78 | 125 | 765 | 207 | 136 | 245 | 89 | 123 | 115 | 26 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 0 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 15.0 | 41.0 | | 26.0 | 52.0 | 52.0 | 27.0 | 27.0 | 27.0 | 26.0 | 26.0 | |
| Total Split (%) | 12.5% | 34.2% | | 21.7% | 43.3% | 43.3% | 22.5% | 22.5% | 22.5% | 21.7% | 21.7% | |
| Maximum Green (s) | 10.5 | 36.5 | | 21.5 | 47.5 | 47.5 | 22.5 | 22.5 | 22.5 | 21.5 | 21.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | C-Max | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 42 | 715 | 78 | 125 | 765 | 207 | 136 | 245 | 89 | 123 | 115 | 26 |
| Future Volume (veh/h) | 42 | 715 | 78 | 125 | 765 | 207 | 136 | 245 | 89 | 123 | 115 | 26 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 48 | 822 | 90 | 144 | 879 | 238 | 156 | 282 | 102 | 141 | 132 | 30 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 62 | 2195 | 239 | 173 | 2716 | 843 | 186 | 668 | 298 | 170 | 264 | 60 |
| Arrive On Green | 0.03 | 0.47 | 0.47 | 0.11 | 0.59 | 0.59 | 0.10 | 0.19 | 0.19 | 0.10 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1781 | 4674 | 509 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 1781 | 1475 | 335 |
| Grp Volume(v), veh/h | 48 | 598 | 314 | 144 | 879 | 238 | 156 | 282 | 102 | 141 | 0 | 162 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1779 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1781 | 0 | 1810 |
| Q Serve(g_s), s | 3.2 | 13.6 | 13.7 | 9.5 | 10.6 | 9.0 | 10.3 | 8.4 | 6.7 | 9.3 | 0.0 | 9.7 |
| Cycle Q Clear(g_c), s | 3.2 | 13.6 | 13.7 | 9.5 | 10.6 | 9.0 | 10.3 | 8.4 | 6.7 | 9.3 | 0.0 | 9.7 |
| Prop In Lane | 1.00 | | 0.29 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.19 |
| Lane Grp Cap(c), veh/h | 62 | 1599 | 835 | 173 | 2716 | 843 | 186 | 668 | 298 | 170 | 0 | 324 |
| V/C Ratio(X) | 0.77 | 0.37 | 0.38 | 0.83 | 0.32 | 0.28 | 0.84 | 0.42 | 0.34 | 0.83 | 0.00 | 0.50 |
| Avail Cap(c_a), veh/h | 156 | 1599 | 835 | 319 | 2716 | 843 | 334 | 668 | 298 | 319 | 0 | 324 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.10 | 1.10 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.77 | 0.77 | 0.77 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.4 | 20.5 | 20.5 | 52.7 | 13.9 | 13.5 | 52.8 | 43.0 | 42.3 | 53.3 | 0.0 | 44.4 |
| Incr Delay (d2), s/veh | 14.5 | 0.5 | 1.0 | 10.0 | 0.3 | 0.8 | 9.7 | 2.0 | 3.1 | 9.9 | 0.0 | 5.4 |
| 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 | 1.7 | 5.2 | 5.5 | 4.5 | 3.6 | 3.1 | 5.0 | 3.7 | 2.8 | 4.5 | 0.0 | 4.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 71.9 | 21.0 | 21.5 | 62.6 | 14.2 | 14.4 | 62.5 | 44.9 | 45.4 | 63.2 | 0.0 | 49.8 |
| LnGrp LOS | E | C | C | E | B | B | E | D | D | E | A | D |
| Approach Vol, veh/h | | 960 | | | 1261 | | | 540 | | | 303 | |
| Approach Delay, s/veh | | 23.7 | | | 19.7 | | | 50.1 | | | 56.0 | |
| Approach LOS | | C | | | B | | | D | | | E | |

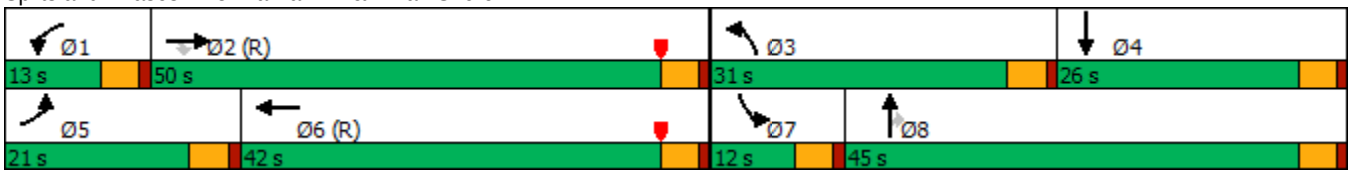
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 16.1 | 60.9 | 17.0 | 26.0 | 8.7 | 68.3 | 16.0 | 27.1 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 21.5 | 36.5 | 22.5 | 21.5 | 10.5 | 47.5 | 21.5 | 22.5 |
| Max Q Clear Time (g_c+I1), s | 11.5 | 15.7 | 12.3 | 11.7 | 5.2 | 12.6 | 11.3 | 10.4 |
| Green Ext Time (p_c), s | 0.2 | 5.3 | 0.3 | 0.5 | 0.0 | 7.0 | 0.2 | 1.5 |

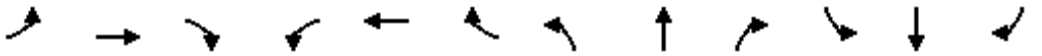
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 29.9 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 93 | 479 | 129 | 40 | 501 | 92 | 179 | 258 | 37 | 23 | 188 | 122 |
| Future Volume (vph) | 93 | 479 | 129 | 40 | 501 | 92 | 179 | 258 | 37 | 23 | 188 | 122 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 175 | | 215 | 185 | | 0 | 125 | | 125 | 135 | | 135 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 50 | | | 50 | |
| Link Distance (ft) | | 918 | | | 366 | | | 1131 | | | 331 | |
| Travel Time (s) | | 20.9 | | | 8.3 | | | 15.4 | | | 4.5 | |
| 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 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 21.0 | 50.0 | 50.0 | 13.0 | 42.0 | | 31.0 | 45.0 | 45.0 | 12.0 | 26.0 | |
| Total Split (%) | 17.5% | 41.7% | 41.7% | 10.8% | 35.0% | | 25.8% | 37.5% | 37.5% | 10.0% | 21.7% | |
| Maximum Green (s) | 16.5 | 45.5 | 45.5 | 8.5 | 37.5 | | 26.5 | 40.5 | 40.5 | 7.5 | 21.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 3: Da Vall Dr. & Dinah Shore Dr.

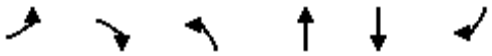




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 93 | 479 | 129 | 40 | 501 | 92 | 179 | 258 | 37 | 23 | 188 | 122 |
| Future Volume (veh/h) | 93 | 479 | 129 | 40 | 501 | 92 | 179 | 258 | 37 | 23 | 188 | 122 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 98 | 504 | 136 | 42 | 527 | 97 | 188 | 272 | 39 | 24 | 198 | 128 |
| 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 | 123 | 1628 | 726 | 56 | 1261 | 231 | 219 | 1199 | 535 | 41 | 502 | 309 |
| Arrive On Green | 0.07 | 0.46 | 0.46 | 0.03 | 0.42 | 0.42 | 0.12 | 0.34 | 0.34 | 0.02 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 2999 | 550 | 1781 | 3554 | 1585 | 1781 | 2112 | 1301 |
| Grp Volume(v), veh/h | 98 | 504 | 136 | 42 | 311 | 313 | 188 | 272 | 39 | 24 | 165 | 161 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1771 | 1781 | 1777 | 1585 | 1781 | 1777 | 1636 |
| Q Serve(g_s), s | 6.5 | 10.7 | 6.1 | 2.8 | 14.8 | 14.9 | 12.4 | 6.6 | 2.0 | 1.6 | 9.4 | 10.0 |
| Cycle Q Clear(g_c), s | 6.5 | 10.7 | 6.1 | 2.8 | 14.8 | 14.9 | 12.4 | 6.6 | 2.0 | 1.6 | 9.4 | 10.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.31 | 1.00 | | 1.00 | 1.00 | | 0.80 |
| Lane Grp Cap(c), veh/h | 123 | 1628 | 726 | 56 | 747 | 745 | 219 | 1199 | 535 | 41 | 422 | 389 |
| V/C Ratio(X) | 0.80 | 0.31 | 0.19 | 0.75 | 0.42 | 0.42 | 0.86 | 0.23 | 0.07 | 0.59 | 0.39 | 0.41 |
| Avail Cap(c_a), veh/h | 245 | 1628 | 726 | 126 | 747 | 745 | 393 | 1199 | 535 | 111 | 422 | 389 |
| 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) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.0 | 20.5 | 19.3 | 57.7 | 24.4 | 24.5 | 51.6 | 28.5 | 27.0 | 58.1 | 38.5 | 38.7 |
| Incr Delay (d2), s/veh | 11.0 | 0.5 | 0.6 | 18.1 | 1.7 | 1.7 | 9.4 | 0.4 | 0.3 | 12.7 | 2.7 | 3.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.3 | 4.6 | 2.2 | 1.5 | 6.6 | 6.6 | 5.9 | 2.8 | 0.8 | 0.8 | 4.2 | 4.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 66.0 | 21.0 | 19.8 | 75.7 | 26.1 | 26.2 | 61.0 | 29.0 | 27.3 | 70.7 | 41.2 | 41.9 |
| LnGrp LOS | E | C | B | E | C | C | E | C | C | E | D | D |
| Approach Vol, veh/h | | 738 | | | 666 | | | 499 | | | 350 | |
| Approach Delay, s/veh | | 26.8 | | | 29.3 | | | 40.9 | | | 43.5 | |
| Approach LOS | | C | | | C | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.3 | 59.5 | 19.3 | 33.0 | 12.8 | 55.0 | 7.3 | 45.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 8.5 | 45.5 | 26.5 | 21.5 | 16.5 | 37.5 | 7.5 | 40.5 |
| Max Q Clear Time (g_c+I1), s | 4.8 | 12.7 | 14.4 | 12.0 | 8.5 | 16.9 | 3.6 | 8.6 |
| Green Ext Time (p_c), s | 0.0 | 4.2 | 0.4 | 1.1 | 0.1 | 3.9 | 0.0 | 1.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 33.3 |
| HCM 6th LOS | C |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 22 | 112 | 31 | 111 | 140 | 18 |
| Future Volume (vph) | 22 | 112 | 31 | 111 | 140 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 22 | 112 | 31 | 111 | 140 | 18 |
| Future Vol, veh/h | 22 | 112 | 31 | 111 | 140 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 44 | 224 | 62 | 222 | 280 | 36 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 644 | 298 | 316 | 0 | - | 0 |
| Stage 1 | 298 | - | - | - | - | - |
| Stage 2 | 346 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 437 | 741 | 1244 | - | - | - |
| Stage 1 | 753 | - | - | - | - | - |
| Stage 2 | 716 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 415 | 741 | 1244 | - | - | - |
| Mov Cap-2 Maneuver | 516 | - | - | - | - | - |
| Stage 1 | 715 | - | - | - | - | - |
| Stage 2 | 716 | - | - | - | - | - |

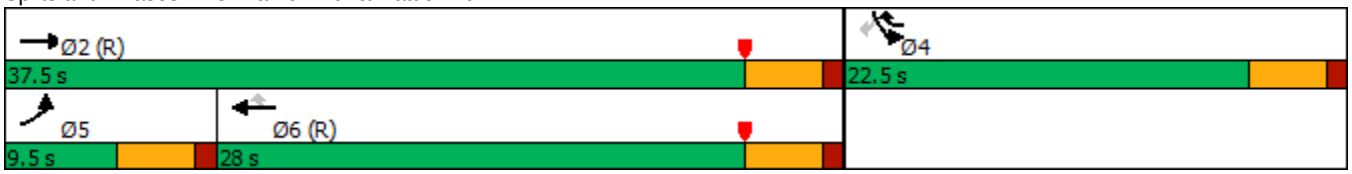
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.5 | 1.8 | 0 |
| HCM LOS | B | | |

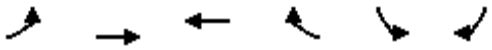
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1244 | - | 691 | - | - |
| HCM Lane V/C Ratio | 0.05 | - | 0.388 | - | - |
| HCM Control Delay (s) | 8 | - | 13.5 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 1.8 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 53 | 936 | 986 | 89 | 124 | 128 |
| Future Volume (vph) | 53 | 936 | 986 | 89 | 124 | 128 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Shared Lane Traffic (%) | | | | | | 38% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 37.5 | 28.0 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 62.5% | 46.7% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 33.0 | 23.5 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.





| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 53 | 936 | 986 | 89 | 124 | 128 |
| Future Volume (veh/h) | 53 | 936 | 986 | 89 | 124 | 128 |
| 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 68 | 1200 | 1264 | 114 | 212 | 108 |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 195 | 2808 | 2137 | 1139 | 1069 | 476 |
| Arrive On Green | 0.11 | 1.00 | 0.14 | 0.14 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 3563 | 1585 |
| Grp Volume(v), veh/h | 68 | 1200 | 1264 | 114 | 212 | 108 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 1.1 | 0.0 | 13.9 | 1.8 | 2.7 | 3.1 |
| Cycle Q Clear(g_c), s | 1.1 | 0.0 | 13.9 | 1.8 | 2.7 | 3.1 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 195 | 2808 | 2137 | 1139 | 1069 | 476 |
| V/C Ratio(X) | 0.35 | 0.43 | 0.59 | 0.10 | 0.20 | 0.23 |
| Avail Cap(c_a), veh/h | 288 | 2808 | 2137 | 1139 | 1069 | 476 |
| HCM Platoon Ratio | 2.00 | 2.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.90 | 0.90 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.6 | 0.0 | 21.0 | 3.9 | 15.6 | 15.8 |
| Incr Delay (d2), s/veh | 1.1 | 0.5 | 1.1 | 0.2 | 0.4 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.1 | 5.8 | 1.1 | 1.0 | 3.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 26.7 | 0.5 | 22.1 | 4.1 | 16.0 | 16.9 |
| LnGrp LOS | C | A | C | A | B | B |
| Approach Vol, veh/h | | 1268 | 1378 | | 320 | |
| Approach Delay, s/veh | | 1.9 | 20.6 | | 16.3 | |
| Approach LOS | | A | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 7.9 | 29.6 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 5.0 | 23.5 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 5.1 | 3.1 | 15.9 |
| Green Ext Time (p_c), s | | 8.7 | | 0.9 | 0.0 | 4.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 12.2 |
| HCM 6th LOS | B |

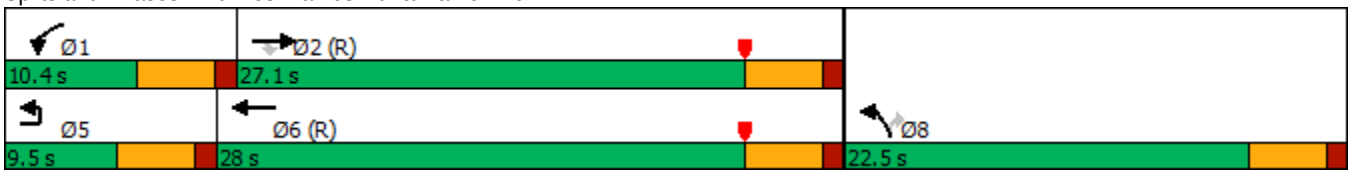
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 1 | 1022 | 31 | 42 | 1028 | 51 | 69 |
| Future Volume (vph) | 1 | 1022 | 31 | 42 | 1028 | 51 | 69 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 200 | 255 | | 125 | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 |
| Taper Length (ft) | 90 | | | 90 | | 90 | |
| Right Turn on Red | | | Yes | | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | 50 | |
| Link Distance (ft) | | 2660 | | | 3172 | 1424 | |
| Travel Time (s) | | 33.0 | | | 39.3 | 19.4 | |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Shared Lane Traffic (%) | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | |
| Permitted Phases | | | 2 | | | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 8 | 8 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 27.1 | 27.1 | 10.4 | 28.0 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 45.2% | 45.2% | 17.3% | 46.7% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 22.6 | 22.6 | 5.9 | 23.5 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 6: Los Alamos Rd. & Ramon Rd.



| Movement | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1 | 1022 | 31 | 42 | 1028 | 51 | 69 |
| Future Volume (veh/h) | 1 | 1022 | 31 | 42 | 1028 | 51 | 69 |
| 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 |
| Work Zone On Approach | | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | 1217 | 37 | 50 | 1224 | 61 | 82 |
| Peak Hour Factor | | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, % | | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | | 2185 | 678 | 84 | 2808 | 1037 | 476 |
| Arrive On Green | | 0.14 | 0.14 | 0.05 | 0.55 | 0.30 | 0.30 |
| Sat Flow, veh/h | | 5274 | 1585 | 1781 | 5274 | 3456 | 1585 |
| Grp Volume(v), veh/h | | 1217 | 37 | 50 | 1224 | 61 | 82 |
| Grp Sat Flow(s),veh/h/ln | | 1702 | 1585 | 1781 | 1702 | 1728 | 1585 |
| Q Serve(g_s), s | | 13.3 | 1.2 | 1.7 | 8.5 | 0.8 | 2.3 |
| Cycle Q Clear(g_c), s | | 13.3 | 1.2 | 1.7 | 8.5 | 0.8 | 2.3 |
| Prop In Lane | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | | 2185 | 678 | 84 | 2808 | 1037 | 476 |
| V/C Ratio(X) | | 0.56 | 0.05 | 0.60 | 0.44 | 0.06 | 0.17 |
| Avail Cap(c_a), veh/h | | 2185 | 678 | 175 | 2808 | 1037 | 476 |
| HCM Platoon Ratio | | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | 0.92 | 0.92 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | 20.5 | 15.3 | 28.0 | 8.0 | 15.0 | 15.5 |
| Incr Delay (d2), s/veh | | 0.9 | 0.1 | 6.6 | 0.5 | 0.1 | 0.8 |
| Initial Q Delay(d3),s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | 5.5 | 0.3 | 0.8 | 2.0 | 0.3 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | | 21.4 | 15.4 | 34.6 | 8.5 | 15.1 | 16.3 |
| LnGrp LOS | | C | B | C | A | B | B |
| Approach Vol, veh/h | | 1254 | | | 1274 | 143 | |
| Approach Delay, s/veh | | 21.2 | | | 9.5 | 15.8 | |
| Approach LOS | | C | | | A | B | |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.3 | 30.2 | | | | 37.5 | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.9 | 22.6 | | | | 23.5 | 18.0 |
| Max Q Clear Time (g_c+I1), s | 3.7 | 15.3 | | | | 10.5 | 4.3 |
| Green Ext Time (p_c), s | 0.0 | 4.1 | | | | 6.1 | 0.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 15.3 |
| HCM 6th LOS | B |

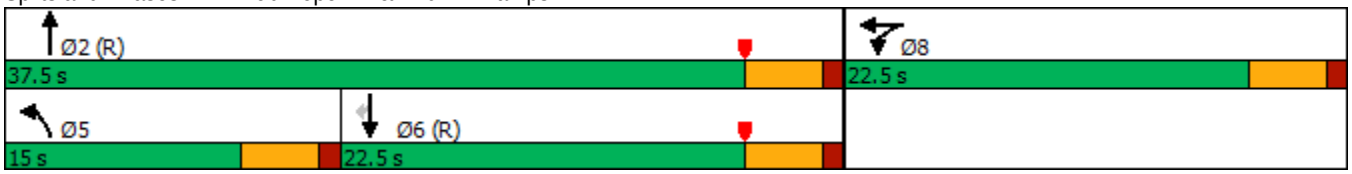
Notes

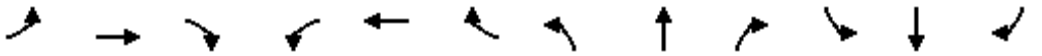
User approved ignoring U-Turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 496 | 1 | 107 | 519 | 274 | 0 | 0 | 192 | 266 |
| Future Volume (vph) | 0 | 0 | 0 | 496 | 1 | 107 | 519 | 274 | 0 | 0 | 192 | 266 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 430 | 210 | | 0 | 0 | | 205 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 2 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 581 | | | 1228 | | | 688 | | | 840 | |
| Travel Time (s) | | 11.3 | | | 23.9 | | | 10.4 | | | 12.7 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Shared Lane Traffic (%) | | | | 50% | | | | | | | | |
| Turn Type | | | | Split | NA | Free | Prot | NA | | | NA | Perm |
| Protected Phases | | | | 8 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | | | Free | | | | | | 6 |
| Detector Phase | | | | 8 | 8 | | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | 5.0 |
| Minimum Split (s) | | | | 22.5 | 22.5 | | 9.5 | 22.5 | | | 22.5 | 22.5 |
| Total Split (s) | | | | 22.5 | 22.5 | | 15.0 | 37.5 | | | 22.5 | 22.5 |
| Total Split (%) | | | | 37.5% | 37.5% | | 25.0% | 62.5% | | | 37.5% | 37.5% |
| Maximum Green (s) | | | | 18.0 | 18.0 | | 10.5 | 33.0 | | | 18.0 | 18.0 |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | 3.5 |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | 4.5 |
| Lead/Lag | | | | | | | Lead | | | | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | Yes |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | | | | None | None | | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | | | | | | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 7: Bob Hope Dr. & I-10 NB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 496 | 1 | 107 | 519 | 274 | 0 | 0 | 192 | 266 |
| Future Volume (veh/h) | 0 | 0 | 0 | 496 | 1 | 107 | 519 | 274 | 0 | 0 | 192 | 266 |
| 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 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 546 | 0 | 0 | 570 | 301 | 0 | 0 | 211 | 292 |
| Peak Hour Factor | | | | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 710 | 0 | | 605 | 2312 | 0 | 0 | 2045 | 635 |
| Arrive On Green | | | | 0.20 | 0.00 | 0.00 | 0.29 | 1.00 | 0.00 | 0.00 | 0.40 | 0.40 |
| Sat Flow, veh/h | | | | 3563 | 0 | 1585 | 3456 | 3647 | 0 | 0 | 5274 | 1585 |
| Grp Volume(v), veh/h | | | | 546 | 0 | 0 | 570 | 301 | 0 | 0 | 211 | 292 |
| Grp Sat Flow(s),veh/h/ln | | | | 1781 | 0 | 1585 | 1728 | 1777 | 0 | 0 | 1702 | 1585 |
| Q Serve(g_s), s | | | | 8.7 | 0.0 | 0.0 | 9.7 | 0.0 | 0.0 | 0.0 | 1.6 | 8.1 |
| Cycle Q Clear(g_c), s | | | | 8.7 | 0.0 | 0.0 | 9.7 | 0.0 | 0.0 | 0.0 | 1.6 | 8.1 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | | | | 710 | 0 | | 605 | 2312 | 0 | 0 | 2045 | 635 |
| V/C Ratio(X) | | | | 0.77 | 0.00 | | 0.94 | 0.13 | 0.00 | 0.00 | 0.10 | 0.46 |
| Avail Cap(c_a), veh/h | | | | 1069 | 0 | | 605 | 2312 | 0 | 0 | 2045 | 635 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 0.00 | 0.95 | 0.95 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 22.7 | 0.0 | 0.0 | 20.9 | 0.0 | 0.0 | 0.0 | 11.2 | 13.2 |
| Incr Delay (d2), s/veh | | | | 1.9 | 0.0 | 0.0 | 22.5 | 0.1 | 0.0 | 0.0 | 0.1 | 2.4 |
| Initial Q Delay(d3),s/veh | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | 3.5 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.5 | 2.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | 24.6 | 0.0 | 0.0 | 43.5 | 0.1 | 0.0 | 0.0 | 11.3 | 15.6 |
| LnGrp LOS | | | | C | A | | D | A | A | A | B | B |
| Approach Vol, veh/h | | | | | 546 | | | 871 | | | 503 | |
| Approach Delay, s/veh | | | | | 24.6 | | | 28.5 | | | 13.8 | |
| Approach LOS | | | | | C | | | C | | | B | |

| Timer - Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 43.5 | | | 15.0 | 28.5 | | 16.5 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | | 10.5 | 18.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 11.7 | 10.1 | | 10.7 | | | | |
| Green Ext Time (p_c), s | | 1.8 | | | 0.0 | 1.4 | | 1.3 | | | | |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | 23.6 | |
| HCM 6th LOS | C | |

**Notes**

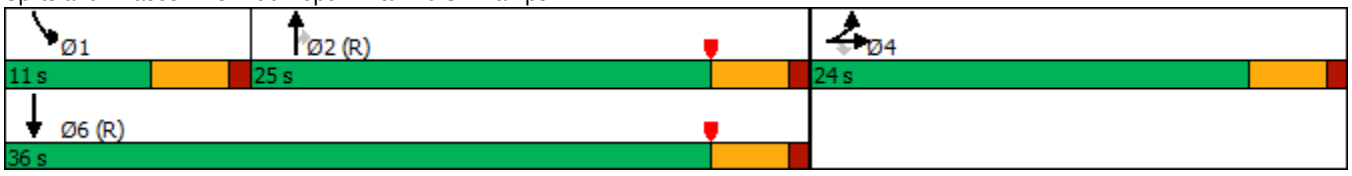
User approved volume balancing among the lanes for turning movement.

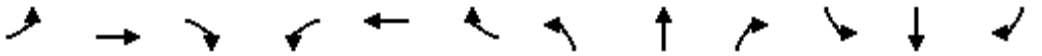
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 145 | 2 | 269 | 0 | 0 | 0 | 0 | 648 | 94 | 103 | 585 | 0 |
| Future Volume (vph) | 145 | 2 | 269 | 0 | 0 | 0 | 0 | 648 | 94 | 103 | 585 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 490 | | 135 | 0 | | 0 | 0 | | 195 | 225 | | 0 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 90 | | | 90 | | | 110 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1337 | | | 718 | | | 776 | | | 688 | |
| Travel Time (s) | | 26.0 | | | 14.0 | | | 11.8 | | | 10.4 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | 10% | | 47% | | | | | | 10% | | | |
| Turn Type | Split | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | 4 | 4 | | | | | | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | | 2 | | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | | | | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | | | | | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 24.0 | 24.0 | 24.0 | | | | | 25.0 | 25.0 | 11.0 | 36.0 | |
| Total Split (%) | 40.0% | 40.0% | 40.0% | | | | | 41.7% | 41.7% | 18.3% | 60.0% | |
| Maximum Green (s) | 19.5 | 19.5 | 19.5 | | | | | 20.5 | 20.5 | 6.5 | 31.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | | | | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | Lag | Lag | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | None | C-Max | |
| Walk Time (s) | | | | | | | | | | | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 8: Bob Hope Dr. & I-10 SB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 145 | 2 | 269 | 0 | 0 | 0 | 0 | 648 | 94 | 103 | 585 | 0 |
| Future Volume (veh/h) | 145 | 2 | 269 | 0 | 0 | 0 | 0 | 648 | 94 | 103 | 585 | 0 |
| 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 |
| Work Zone On Approach | | No | | | | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | | | | 0 | 1870 | 1870 | 1870 | 1870 | 0 |
| Adj Flow Rate, veh/h | 108 | 0 | 357 | | | | 0 | 720 | 104 | 114 | 650 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | | | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | | | | 0 | 2 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 289 | 0 | 514 | | | | 0 | 3041 | 859 | 245 | 2444 | 0 |
| Arrive On Green | 0.16 | 0.00 | 0.16 | | | | 0.00 | 0.54 | 0.54 | 0.14 | 1.00 | 0.00 |
| Sat Flow, veh/h | 1781 | 0 | 3170 | | | | 0 | 5611 | 1585 | 3456 | 3647 | 0 |
| Grp Volume(v), veh/h | 108 | 0 | 357 | | | | 0 | 720 | 104 | 114 | 650 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | | | | 0 | 1870 | 1585 | 1728 | 1777 | 0 |
| Q Serve(g_s), s | 3.2 | 0.0 | 6.4 | | | | 0.0 | 4.0 | 1.9 | 1.8 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.2 | 0.0 | 6.4 | | | | 0.0 | 4.0 | 1.9 | 1.8 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 289 | 0 | 514 | | | | 0 | 3041 | 859 | 245 | 2444 | 0 |
| V/C Ratio(X) | 0.37 | 0.00 | 0.69 | | | | 0.00 | 0.24 | 0.12 | 0.47 | 0.27 | 0.00 |
| Avail Cap(c_a), veh/h | 579 | 0 | 1030 | | | | 0 | 3041 | 859 | 374 | 2444 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.91 | 0.91 | 0.00 |
| Uniform Delay (d), s/veh | 22.4 | 0.0 | 23.7 | | | | 0.0 | 7.2 | 6.7 | 24.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 1.7 | | | | 0.0 | 0.2 | 0.3 | 1.3 | 0.2 | 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 | 1.3 | 0.0 | 2.3 | | | | 0.0 | 1.2 | 0.5 | 0.7 | 0.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 23.2 | 0.0 | 25.4 | | | | 0.0 | 7.4 | 7.0 | 26.0 | 0.2 | 0.0 |
| LnGrp LOS | C | A | C | | | | A | A | A | C | A | A |
| Approach Vol, veh/h | | 465 | | | | | | 824 | | | 764 | |
| Approach Delay, s/veh | | 24.9 | | | | | | 7.4 | | | 4.1 | |
| Approach LOS | | C | | | | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.8 | 37.0 | | 14.2 | | 45.8 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 6.5 | 20.5 | | 19.5 | | 31.5 |
| Max Q Clear Time (g_c+I1), s | 3.8 | 6.0 | | 8.4 | | 2.0 |
| Green Ext Time (p_c), s | 0.1 | 4.2 | | 1.4 | | 4.3 |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | | 10.1 |
| HCM 6th LOS | | B |

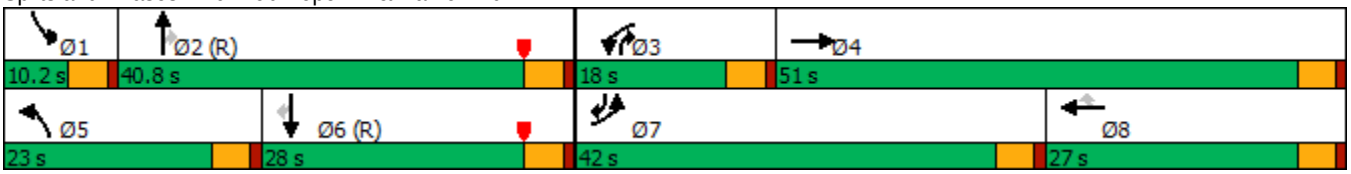
**Notes**

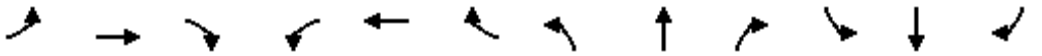
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 66 | 850 | 175 | 76 | 320 | 19 | 275 | 657 | 250 | 63 | 316 | 475 |
| Future Volume (vph) | 66 | 850 | 175 | 76 | 320 | 19 | 275 | 657 | 250 | 63 | 316 | 475 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 280 | | 470 | 240 | | 180 | 205 | | 280 | 215 | | 225 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 90 | | | 120 | | | 120 | | | 120 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | | | 45 | | | 45 | |
| Link Distance (ft) | | 676 | | | 1191 | | | 1119 | | | 476 | |
| Travel Time (s) | | 8.4 | | | 14.8 | | | 17.0 | | | 7.2 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Free | Prot | NA | Perm | Prot | NA | pm+ov | Prot | NA | pm+ov |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | Free | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | | 3 | 8 | 8 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 9.5 |
| Total Split (s) | 42.0 | 51.0 | | 18.0 | 27.0 | 27.0 | 23.0 | 40.8 | 18.0 | 10.2 | 28.0 | 42.0 |
| Total Split (%) | 35.0% | 42.5% | | 15.0% | 22.5% | 22.5% | 19.2% | 34.0% | 15.0% | 8.5% | 23.3% | 35.0% |
| Maximum Green (s) | 37.5 | 46.5 | | 13.5 | 22.5 | 22.5 | 18.5 | 36.3 | 13.5 | 5.7 | 23.5 | 37.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | None | None | C-Max | None | None | C-Max | None |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 40.1 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 9: Bob Hope Dr. & Ramon Rd.





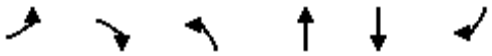
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 66 | 850 | 175 | 76 | 320 | 19 | 275 | 657 | 250 | 63 | 316 | 475 |
| Future Volume (veh/h) | 66 | 850 | 175 | 76 | 320 | 19 | 275 | 657 | 250 | 63 | 316 | 475 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 71 | 914 | 0 | 82 | 344 | 20 | 296 | 706 | 269 | 68 | 340 | 511 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 130 | 1066 | | 135 | 1071 | 478 | 363 | 2418 | 812 | 129 | 2073 | 703 |
| Arrive On Green | 0.04 | 0.30 | 0.00 | 0.04 | 0.30 | 0.30 | 0.10 | 0.47 | 0.47 | 0.04 | 0.41 | 0.41 |
| Sat Flow, veh/h | 3456 | 3554 | 1585 | 3456 | 3554 | 1585 | 3456 | 5106 | 1585 | 3456 | 5106 | 1585 |
| Grp Volume(v), veh/h | 71 | 914 | 0 | 82 | 344 | 20 | 296 | 706 | 269 | 68 | 340 | 511 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1585 | 1728 | 1777 | 1585 | 1728 | 1702 | 1585 | 1728 | 1702 | 1585 |
| Q Serve(g_s), s | 2.4 | 29.1 | 0.0 | 2.8 | 9.0 | 1.1 | 10.1 | 10.1 | 12.0 | 2.3 | 5.1 | 31.8 |
| Cycle Q Clear(g_c), s | 2.4 | 29.1 | 0.0 | 2.8 | 9.0 | 1.1 | 10.1 | 10.1 | 12.0 | 2.3 | 5.1 | 31.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 130 | 1066 | | 135 | 1071 | 478 | 363 | 2418 | 812 | 129 | 2073 | 703 |
| V/C Ratio(X) | 0.54 | 0.86 | | 0.61 | 0.32 | 0.04 | 0.82 | 0.29 | 0.33 | 0.53 | 0.16 | 0.73 |
| Avail Cap(c_a), veh/h | 1080 | 1377 | | 389 | 1071 | 478 | 533 | 2418 | 812 | 164 | 2073 | 703 |
| 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) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 56.7 | 39.6 | 0.0 | 56.8 | 32.4 | 29.7 | 52.6 | 19.3 | 17.2 | 56.7 | 22.7 | 27.4 |
| Incr Delay (d2), s/veh | 3.5 | 4.5 | 0.0 | 4.4 | 0.2 | 0.0 | 6.2 | 0.3 | 1.1 | 3.3 | 0.2 | 6.5 |
| 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 | 1.1 | 12.5 | 0.0 | 1.3 | 3.7 | 0.4 | 4.6 | 3.9 | 4.2 | 1.0 | 2.0 | 12.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 60.2 | 44.0 | 0.0 | 61.2 | 32.6 | 29.7 | 58.8 | 19.6 | 18.3 | 60.0 | 22.8 | 33.9 |
| LnGrp LOS | E | D | | E | C | C | E | B | B | E | C | C |
| Approach Vol, veh/h | | 985 | | | 446 | | | 1271 | | | 919 | |
| Approach Delay, s/veh | | 45.2 | | | 37.7 | | | 28.4 | | | 31.7 | |
| Approach LOS | | D | | | D | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.0 | 61.3 | 9.2 | 40.5 | 17.1 | 53.2 | 9.0 | 40.7 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.7 | 36.3 | 13.5 | 46.5 | 18.5 | 23.5 | 37.5 | 22.5 |
| Max Q Clear Time (g_c+I1), s | 4.3 | 14.0 | 4.8 | 31.1 | 12.1 | 33.8 | 4.4 | 11.0 |
| Green Ext Time (p_c), s | 0.0 | 5.5 | 0.1 | 4.9 | 0.5 | 0.0 | 0.2 | 1.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 35.0 |
| HCM 6th LOS | C |

**Notes**

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 142 | 252 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 142 | 252 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 470 | 524 | |
| Travel Time (s) | 6.4 | | | 8.0 | 8.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

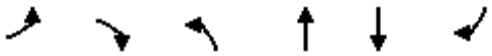
| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 142 | 252 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 142 | 252 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| 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 | 0 | 0 | 0 | 154 | 274 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 428 | 274 | 274 | 0 | - | 0 |
| Stage 1 | 274 | - | - | - | - | - |
| Stage 2 | 154 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 584 | 765 | 1289 | - | - | - |
| Stage 1 | 772 | - | - | - | - | - |
| Stage 2 | 874 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 584 | 765 | 1289 | - | - | - |
| Mov Cap-2 Maneuver | 637 | - | - | - | - | - |
| Stage 1 | 772 | - | - | - | - | - |
| Stage 2 | 874 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1289 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 142 | 252 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 142 | 252 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 25 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 10 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 82 | 470 | |
| Travel Time (s) | 6.4 | | | 1.4 | 8.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

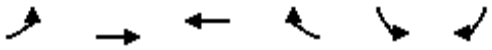
| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 142 | 252 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 142 | 252 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| 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 | 0 | 0 | 0 | 154 | 274 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 428 | 274 | 274 | 0 | - | 0 |
| Stage 1 | 274 | - | - | - | - | - |
| Stage 2 | 154 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 584 | 765 | 1289 | - | - | - |
| Stage 1 | 772 | - | - | - | - | - |
| Stage 2 | 874 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 584 | 765 | 1289 | - | - | - |
| Mov Cap-2 Maneuver | 637 | - | - | - | - | - |
| Stage 1 | 772 | - | - | - | - | - |
| Stage 2 | 874 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1289 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 989 | 1114 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 989 | 1114 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 650 | 647 | | 292 | |
| Travel Time (s) | | 8.1 | 8.0 | | 6.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized

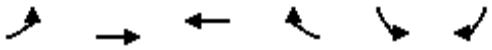
| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 989 | 1114 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 989 | 1114 | 0 | 0 | 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, # | - | 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 | 0 | 1075 | 1211 | 0 | 0 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 0 | - | 606 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 377 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | - | 377 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - |
| HCM Control Delay (s) | - | - | - | 0 |
| HCM Lane LOS | - | - | - | A |
| HCM 95th %tile Q(veh) | - | - | - | - |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 989 | 1114 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 989 | 1114 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 0 | 1 |
| Taper Length (ft) | 60 | | | | 90 | |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 1330 | 650 | | 268 | |
| Travel Time (s) | | 16.5 | 8.1 | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

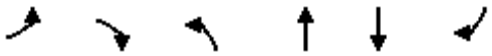
| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 989 | 1114 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 989 | 1114 | 0 | 0 | 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 | 150 | - | - | - | - | 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 | 0 | 1075 | 1211 | 0 | 0 | 0 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1211 | 0 | - | 0 | - | 606 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | 5.34 | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | 3.12 | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 309 | - | - | - | 0 | 377 |
| Stage 1 | - | - | - | - | 0 | - |
| Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 309 | - | - | - | - | 377 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 309 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | - | - | 0 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 44 | 31 | 0 | 133 | 127 | 0 |
| Future Volume (vph) | 44 | 31 | 0 | 133 | 127 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

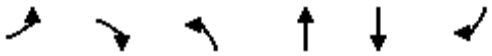
| Intersection | |
|---|---|
| Int Delay, s/veh | 2.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 44 | 31 | 0 | 133 | 127 | 0 |
| Future Vol, veh/h | 44 | 31 | 0 | 133 | 127 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 51 | 51 | 51 | 51 | 51 | 51 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 86 | 61 | 0 | 261 | 249 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 510 | 249 | - | 0 | - | 0 |
| Stage 1 | 249 | - | - | - | - | - |
| Stage 2 | 261 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 523 | 790 | 0 | - | - | 0 |
| Stage 1 | 792 | - | 0 | - | - | 0 |
| Stage 2 | 783 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 523 | 790 | - | - | - | - |
| Mov Cap-2 Maneuver | 598 | - | - | - | - | - |
| Stage 1 | 792 | - | - | - | - | - |
| Stage 2 | 783 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.1 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 598 | 790 | - |
| HCM Lane V/C Ratio | - | 0.144 | 0.077 | - |
| HCM Control Delay (s) | - | 12 | 9.9 | - |
| HCM Lane LOS | - | B | A | - |
| HCM 95th %tile Q(veh) | - | 0.5 | 0.2 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 31 | 36 | 62 | 115 | 91 | 45 |
| Future Volume (vph) | 31 | 36 | 62 | 115 | 91 | 45 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 31 | 36 | 62 | 115 | 91 | 45 |
| Future Vol, veh/h | 31 | 36 | 62 | 115 | 91 | 45 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 62 | 72 | 124 | 230 | 182 | 90 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 705 | 227 | 272 | 0 | - | 0 |
| Stage 1 | 227 | - | - | - | - | - |
| Stage 2 | 478 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 403 | 812 | 1291 | - | - | - |
| Stage 1 | 811 | - | - | - | - | - |
| Stage 2 | 624 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 364 | 812 | 1291 | - | - | - |
| Mov Cap-2 Maneuver | 364 | - | - | - | - | - |
| Stage 1 | 733 | - | - | - | - | - |
| Stage 2 | 624 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.4 | 2.8 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1291 | - | 517 | - | - |
| HCM Lane V/C Ratio | 0.096 | - | 0.259 | - | - |
| HCM Control Delay (s) | 8.1 | - | 14.4 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 1 | - | - |

# APPENDIX 3.3: TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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# EXISTING (2023)

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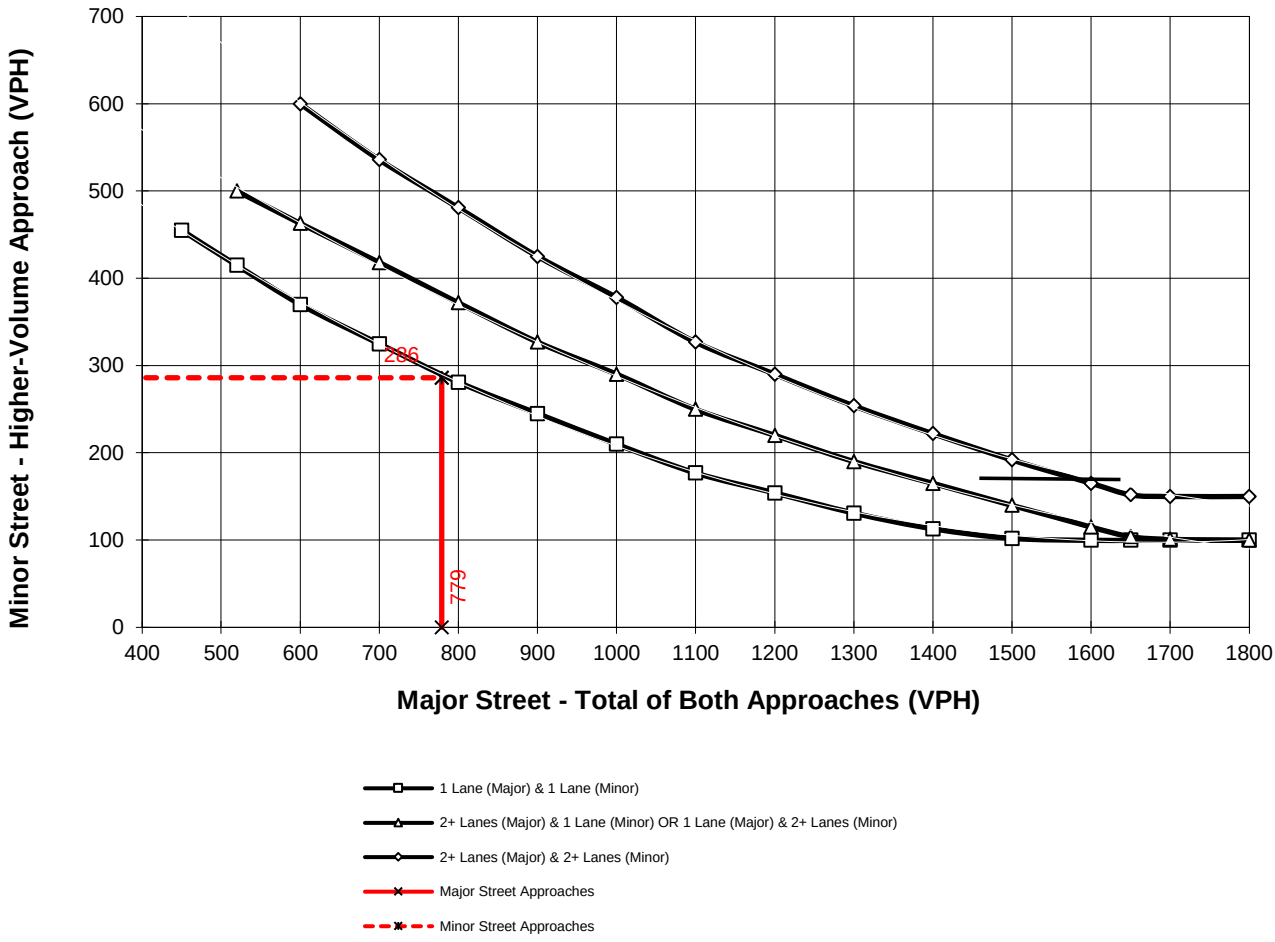
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2023) AM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **779**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 1**
High Volume Approach (VPH) = **286**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

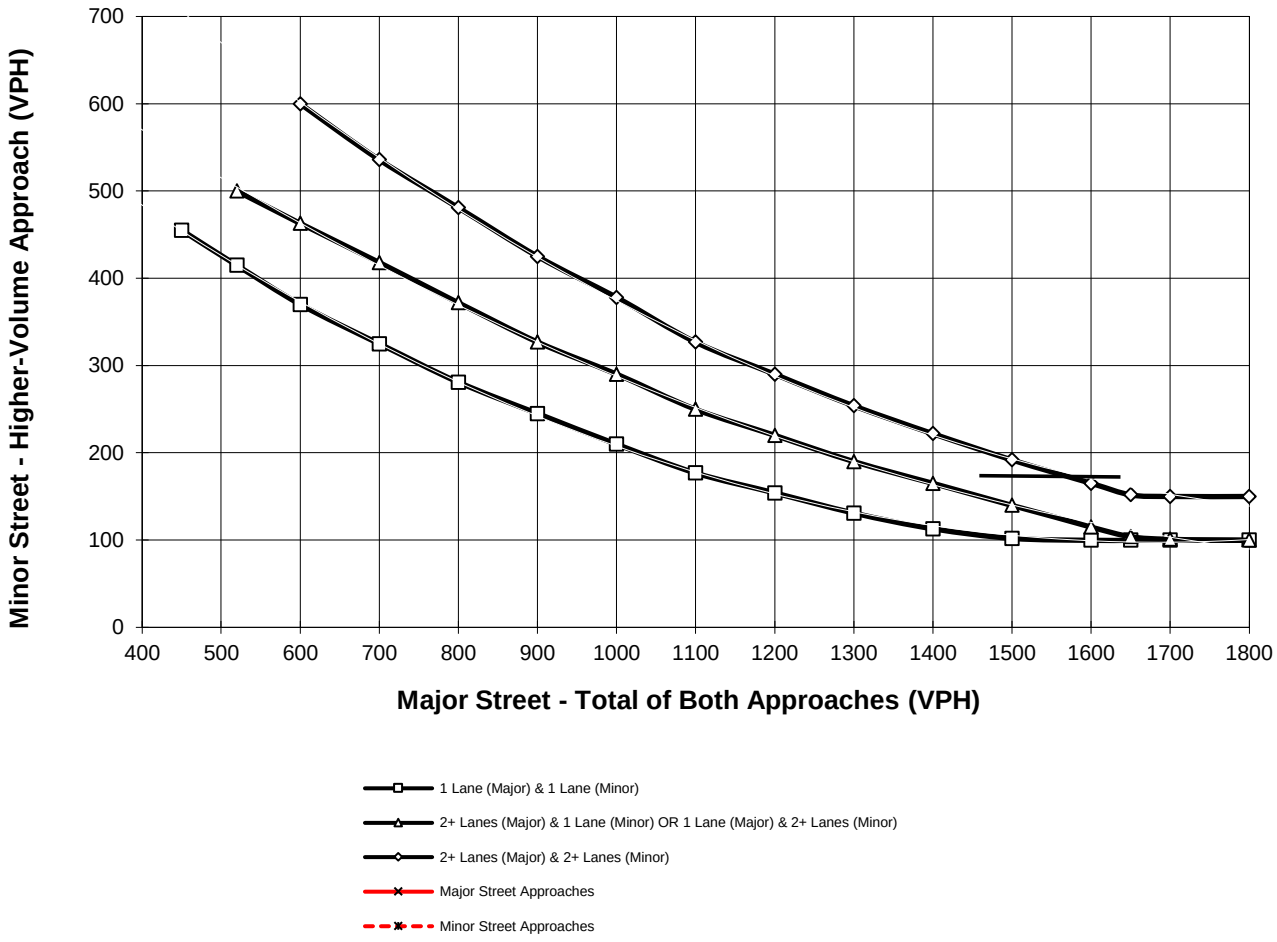
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2023) PM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **300**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 1**
High Volume Approach (VPH) = **134**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

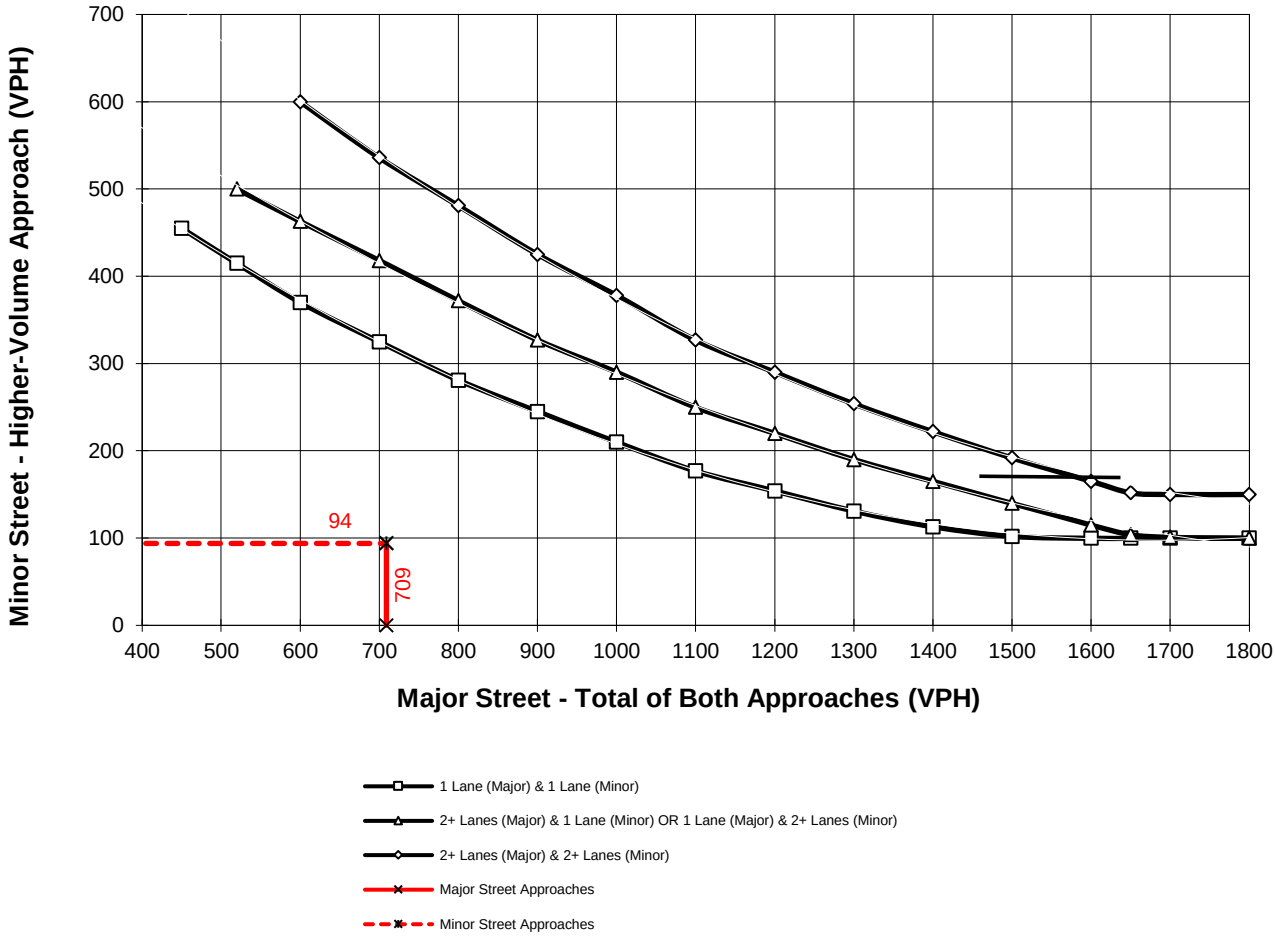
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2023) AM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **709**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 3**
High Volume Approach (VPH) = **94**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #15

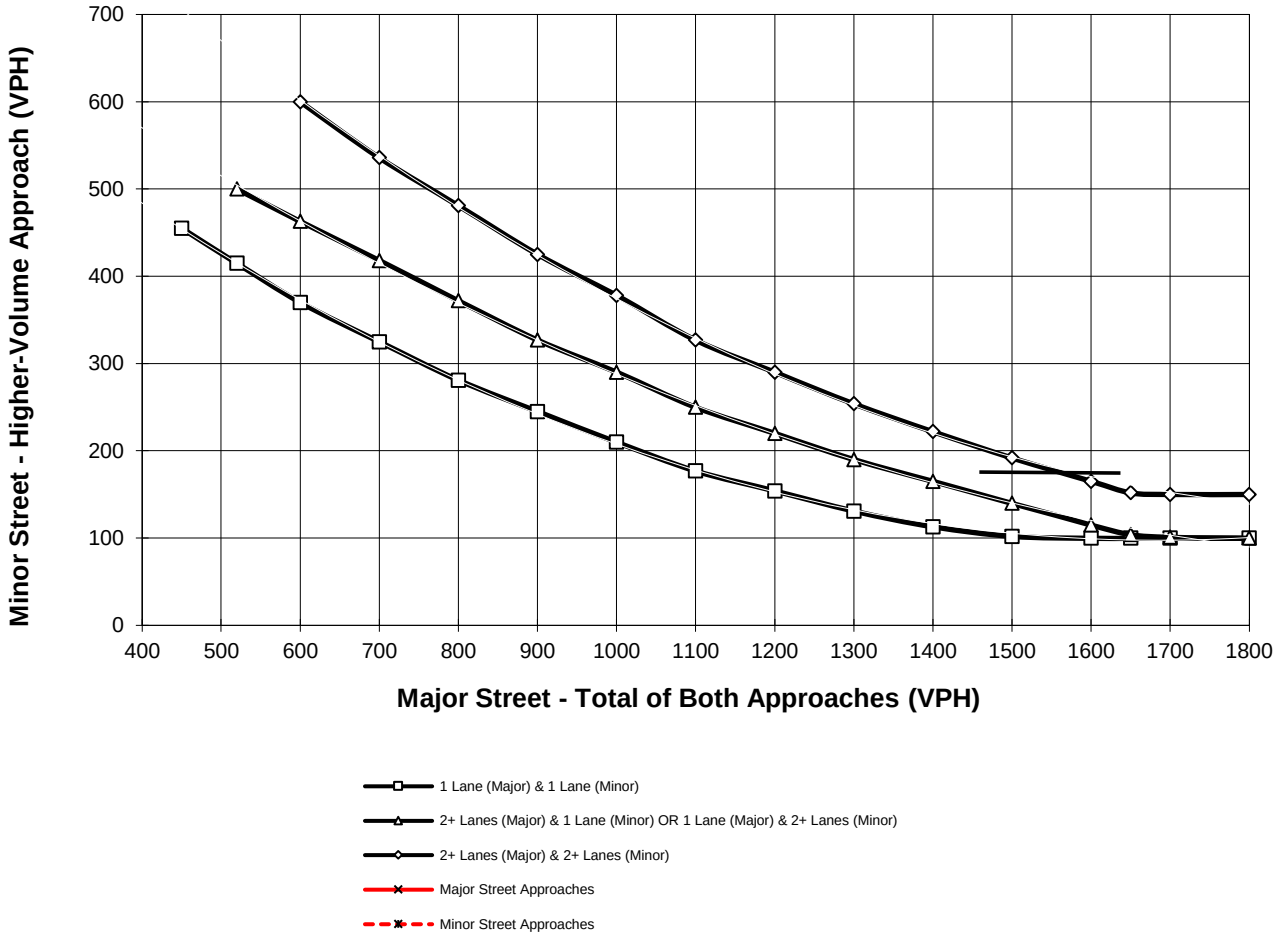
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2023) PM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **313**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 3**
High Volume Approach (VPH) = **67**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

**Intersection ID: #15**

# EAP (2025)

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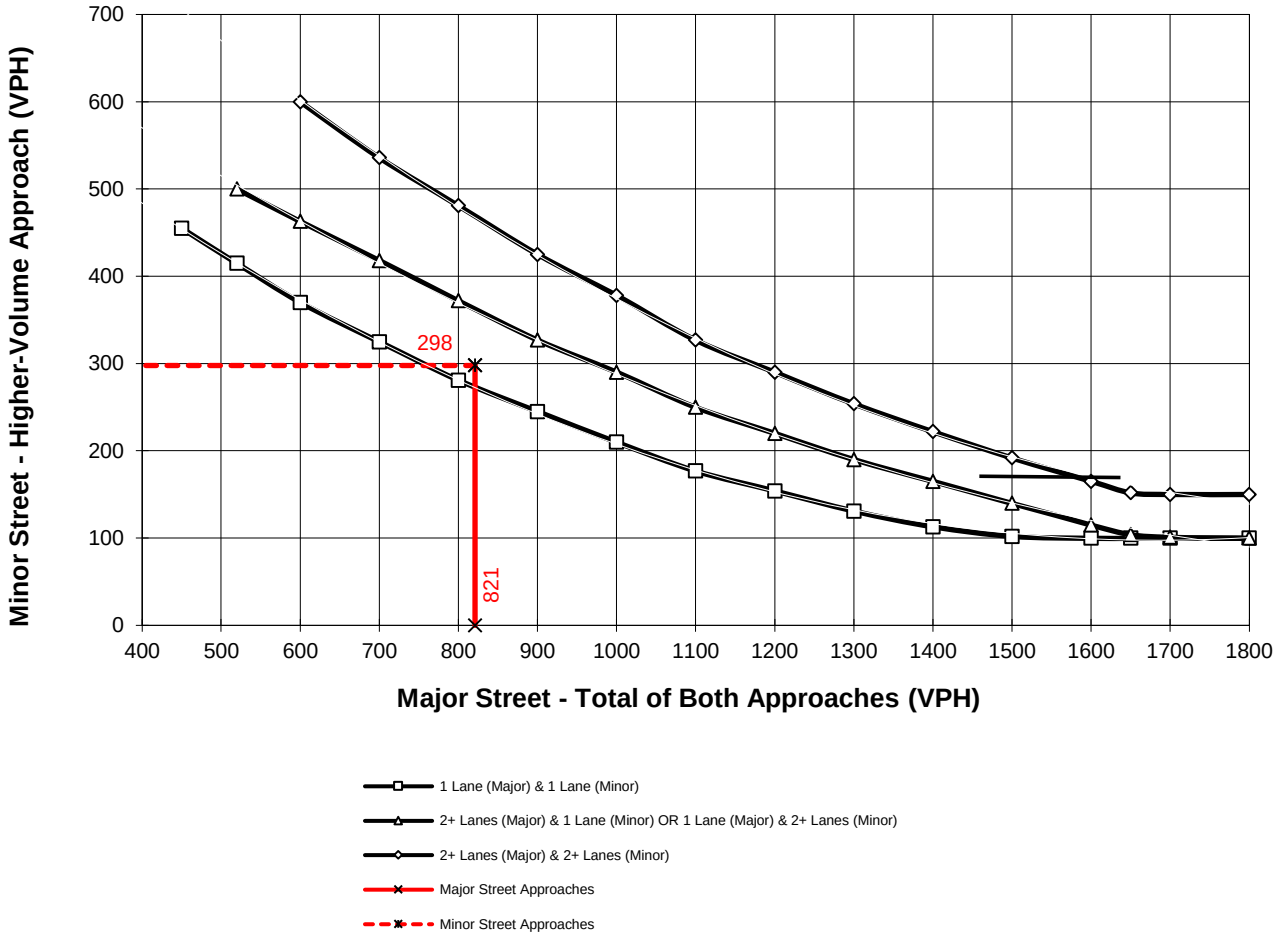
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2025) AM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **821**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 1**
High Volume Approach (VPH) = **298**
Number of Approach Lanes On Minor Street = **1**

**WARRANTED FOR A SIGNAL**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

**Intersection ID: #4**

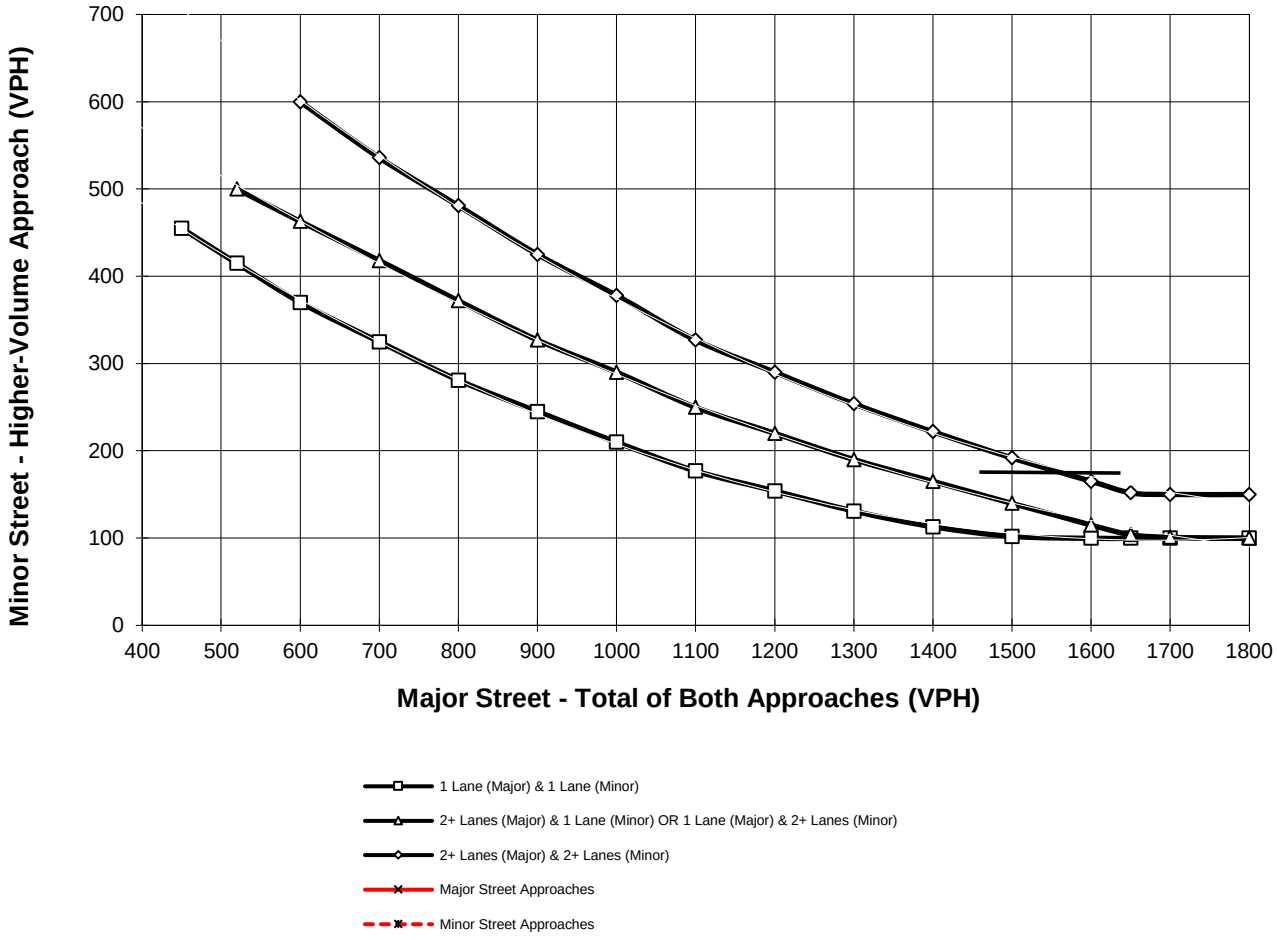
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2025) PM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **333**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 1**
High Volume Approach (VPH) = **140**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

**Intersection ID: #4**

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2025) AM PEAK HOUR WARRANTS**

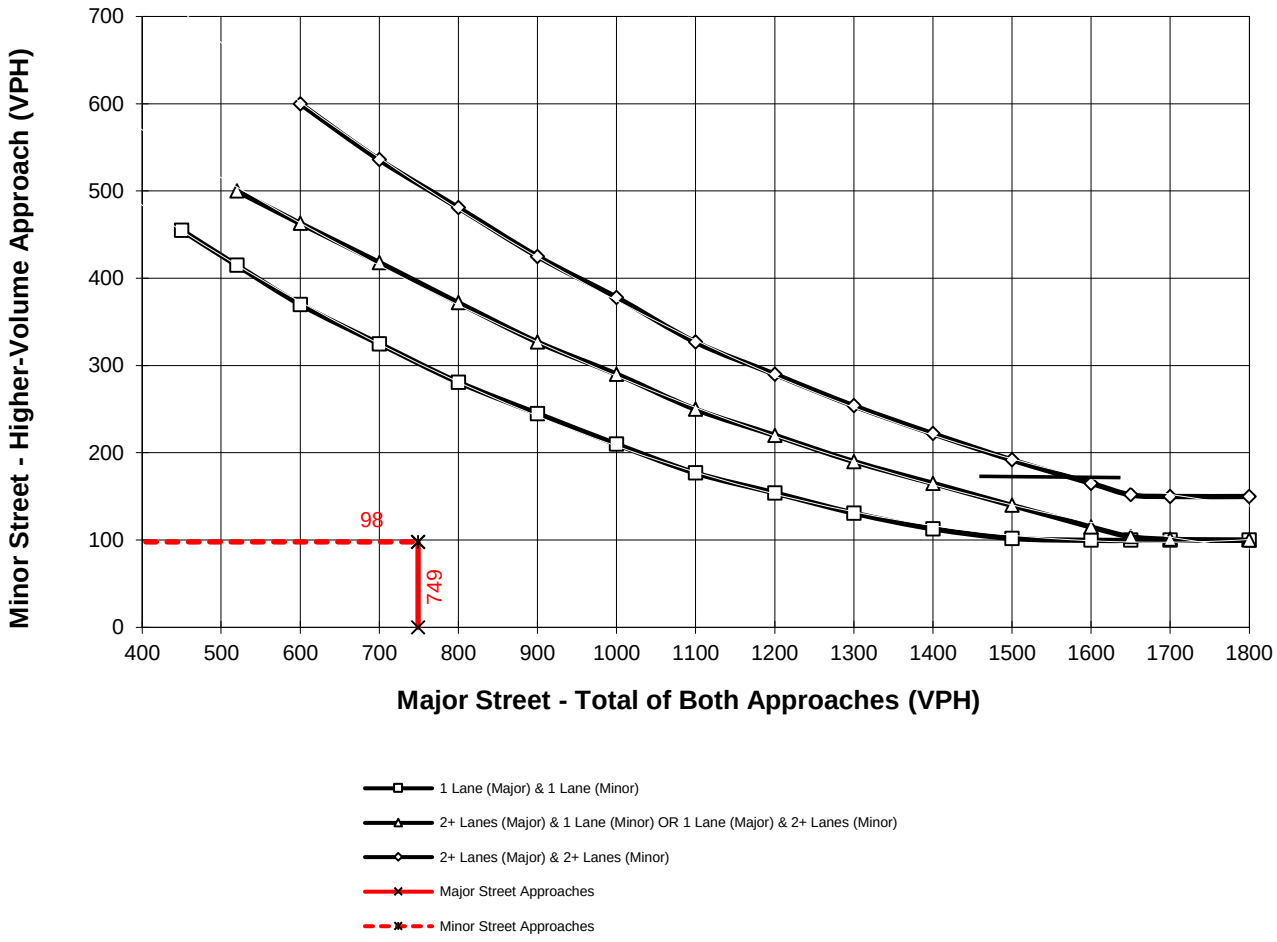
Major Street Name = **Rattler Rd.**

Total of Both Approaches (VPH) = **749**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 3**

High Volume Approach (VPH) = **98**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

**Intersection ID: #15**

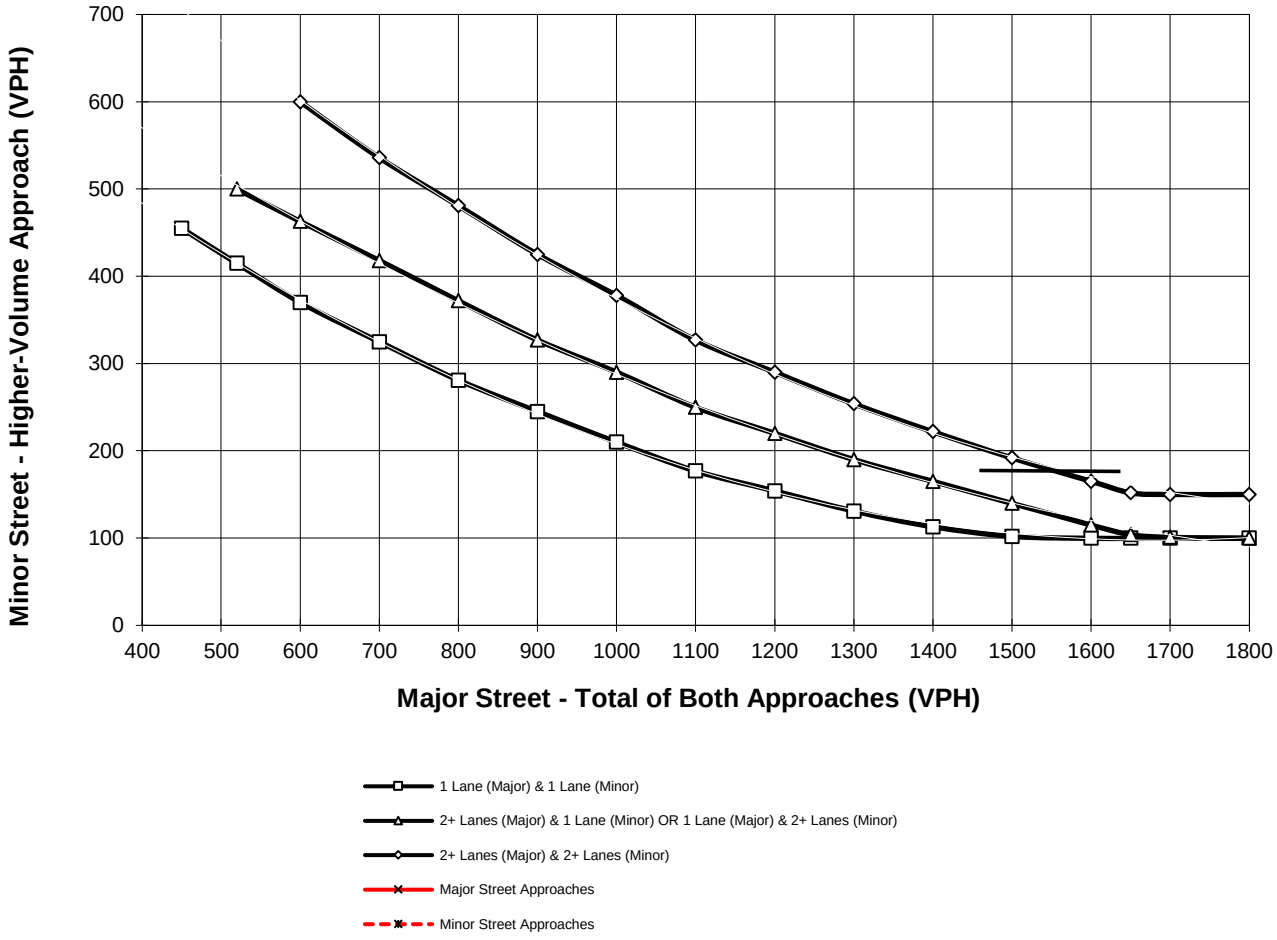
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2025) PM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **348**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 3**
High Volume Approach (VPH) = **69**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

**Intersection ID: #15**

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| DIST | CO | RTE | PM | | TRAFFIC CONDITIONS | | EAP 2025 |
|---|---|---|---|---|---|---|---|
| | | | | CALC | JC | DATE | 06/28/23 |
| Jurisdiction: | City of Rancho Mirage | | | CHK | | DATE | |
| Major Street: | Rattler Rd. | | | | Critical Approach Speed (Major) | | 35 mph |
| Minor Street: | Access 1 | | | | Critical Approach Speed (Minor) | | 35 mph |

Major Street Approach Lanes = **1** lane  Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **4,341** vpd  Minor Street Future ADT = **781** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

**URBAN (U)**

### (Based on Estimated Average Daily Traffic - See Note)

| URBAN | RURAL | Minimum Requirements ADT | | | |
|---|---|---|---|---|---|
| XX | | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **4,341** | *1* **781** | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + | *1* | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **4,341** | *1* **781** | 12,000 | 8,400 | 1,200 | 850 |
| *2* + | *1* | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 33% **B** 36% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | EAP 2025 |
|---|---|---|---|---|---|
| | | | | CALC JC | DATE 06/28/23 |
| Jurisdiction: City of Rancho Mirage | | | | CHK | DATE |
| Major Street: Rattler Rd. | | | | Critical Approach Speed (Major) | 35 mph |
| Minor Street: Access 2 | | | | Critical Approach Speed (Minor) | 35 mph |

Major Street Approach Lanes = **1** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **5,716** vpd  Minor Street Future ADT = **876** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

**URBAN (U)**

## (Based on Estimated Average Daily Traffic - See Note)

| URBAN | RURAL | Minimum Requirements ADT | | | |
|---|---|---|---|---|---|
| XX | | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **5,716** | *1* **876** | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + | *1* | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **5,716** | *1* **876** | 12,000 | 8,400 | 1,200 | 850 |
| *2* + | *1* | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 37% **B** 48% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

# EAPC (2025)

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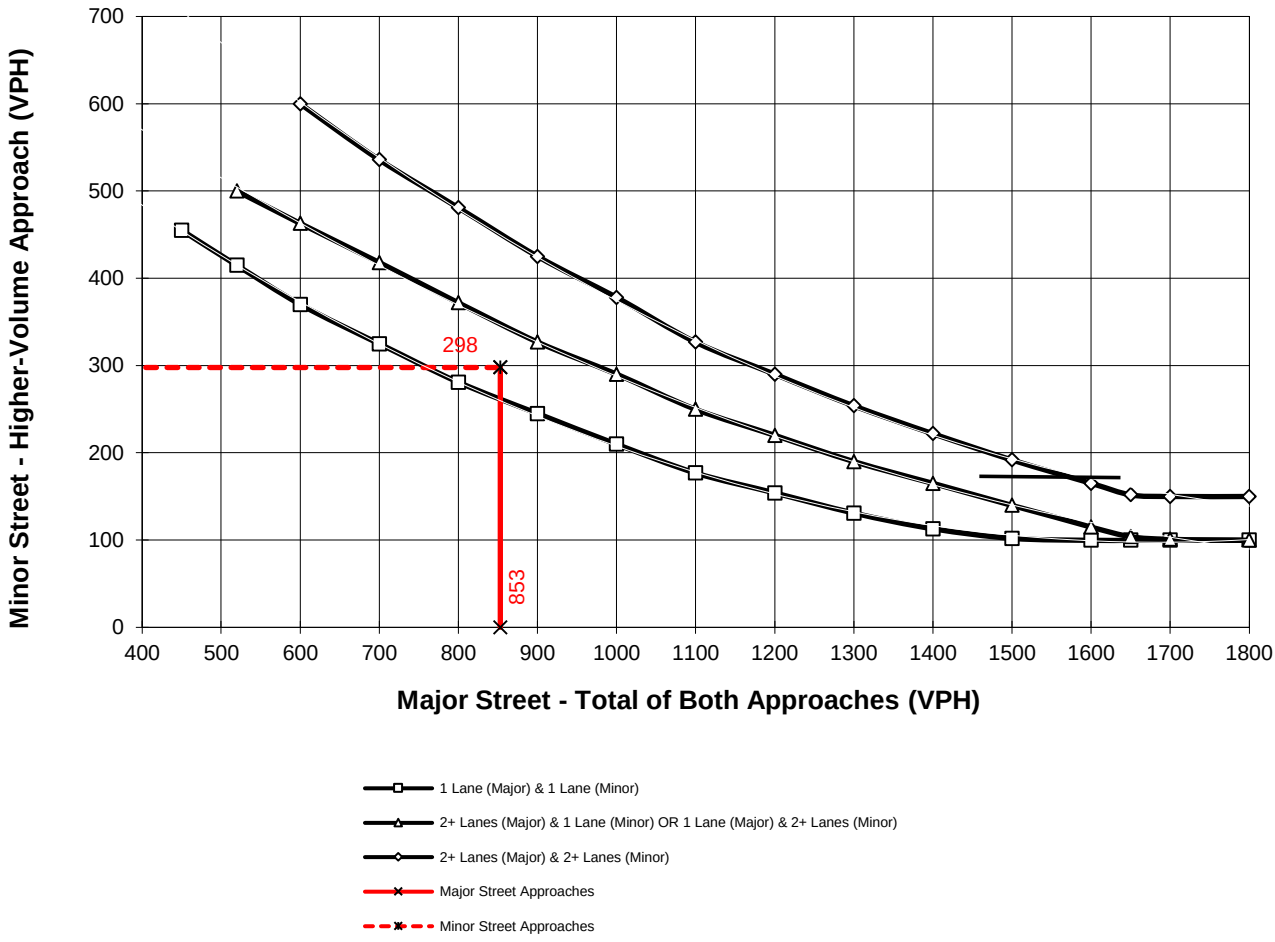
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2025) AM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **853**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 1**
High Volume Approach (VPH) = **298**
Number of Approach Lanes On Minor Street = **1**

**WARRANTED FOR A SIGNAL**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

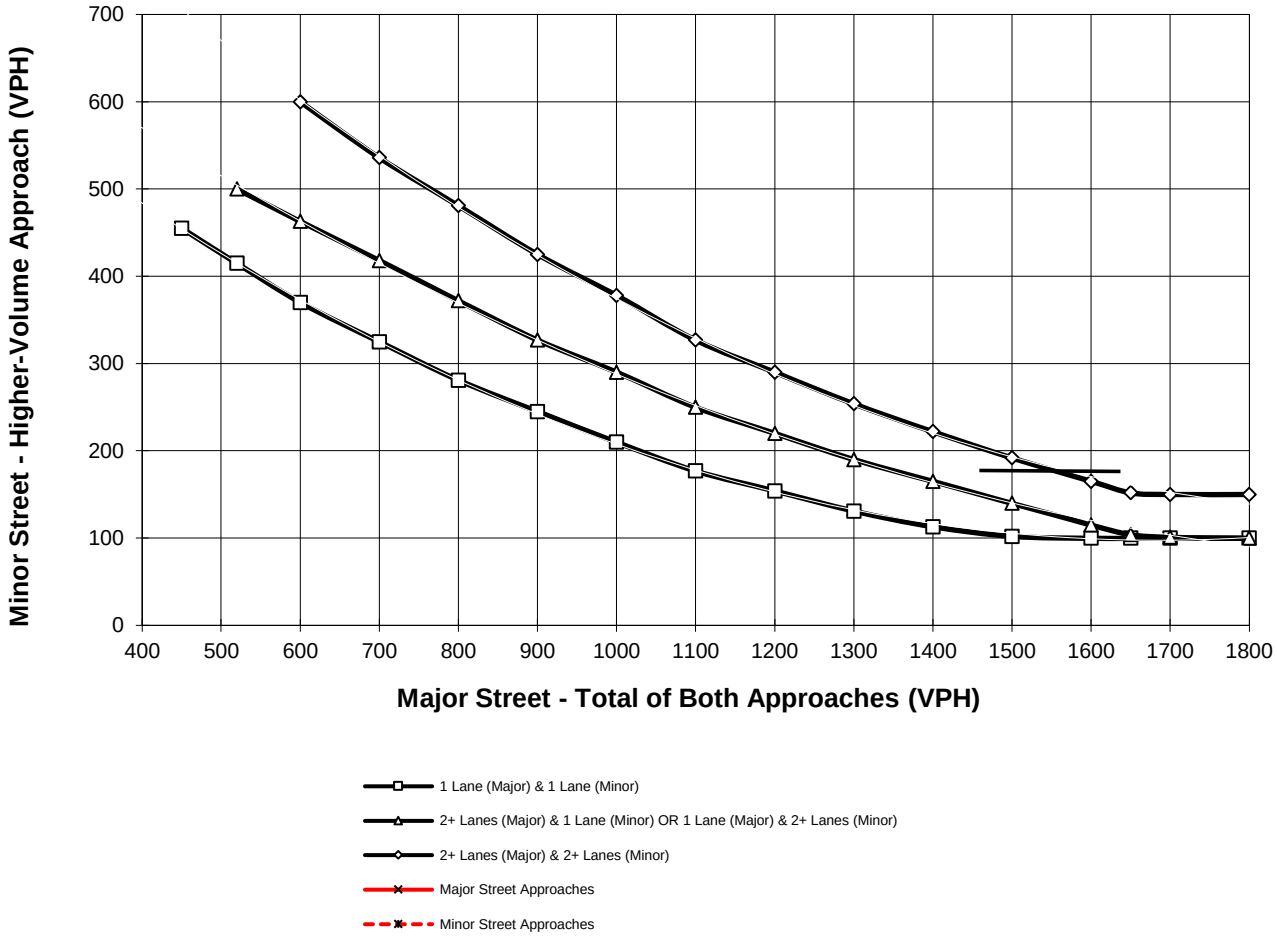
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2025) PM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **381**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 1**
High Volume Approach (VPH) = **140**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

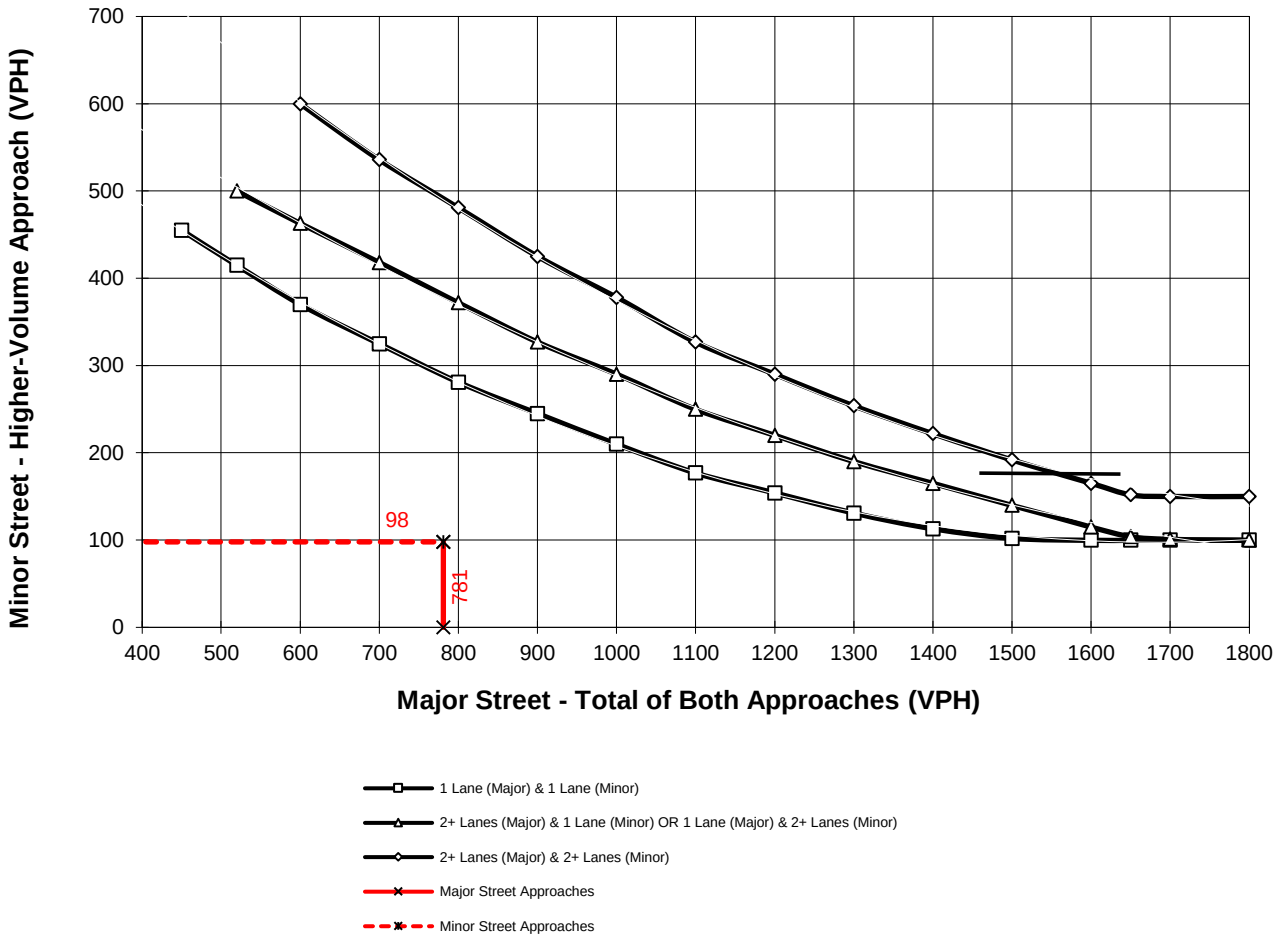
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2025) AM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **781**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 3**
High Volume Approach (VPH) = **98**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

**Intersection ID: #15**

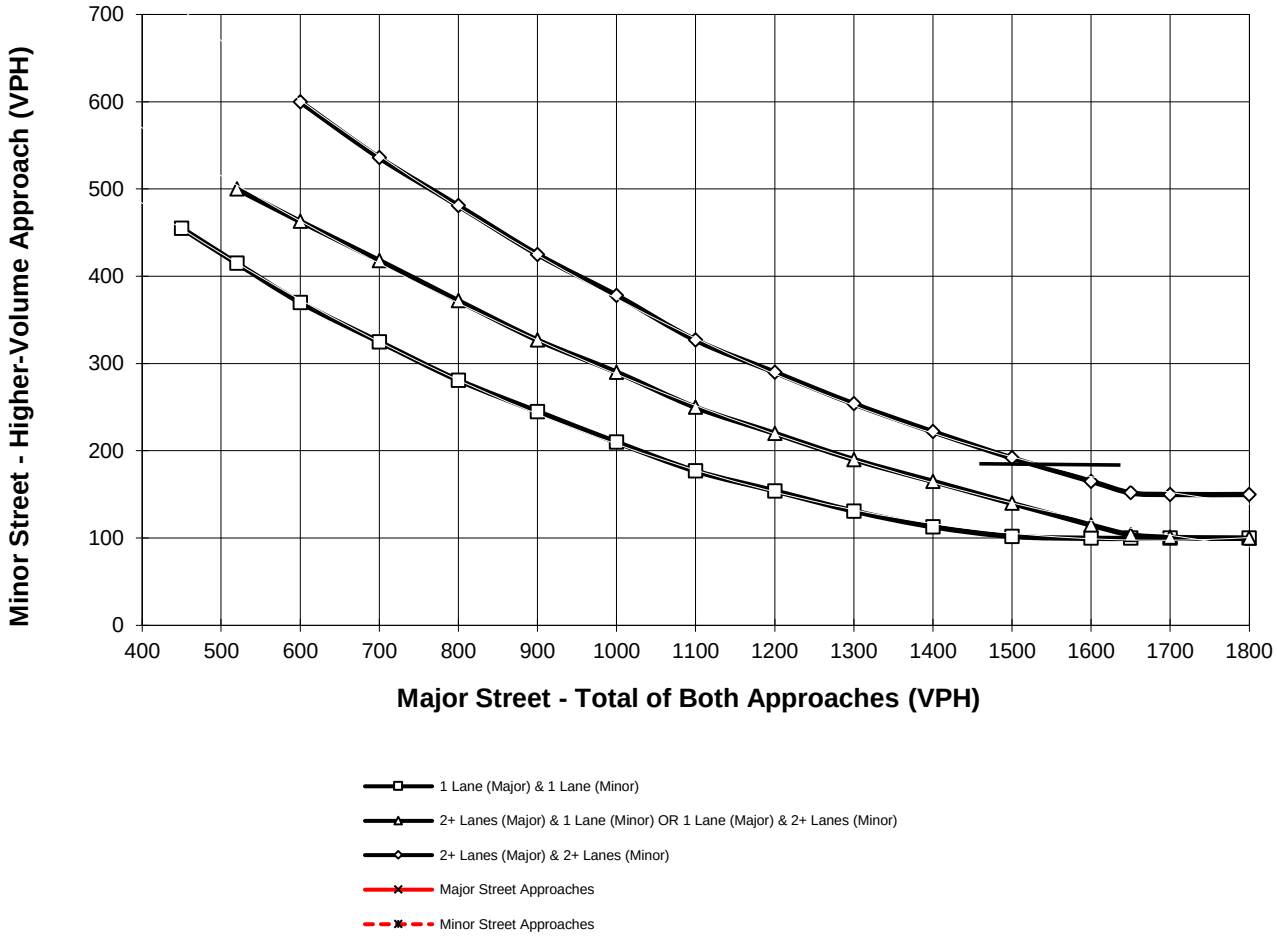
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2025) PM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **396**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 3**
High Volume Approach (VPH) = **69**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

**Intersection ID: #15**

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | EAPC 2025 |
|---|---|---|---|---|---|
| | | | | CALC JC | DATE 06/28/23 |
| Jurisdiction: City of Rancho Mirage | | | | CHK | DATE |
| Major Street: Rattler Rd. | | | | Critical Approach Speed (Major) | 35 mph |
| Minor Street: Access 1 | | | | Critical Approach Speed (Minor) | 35 mph |

Major Street Approach Lanes = **1** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **4,860** vpd  Minor Street Future ADT = **781** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

**URBAN (U)**

### (Based on Estimated Average Daily Traffic - See Note)

| URBAN | RURAL | Minimum Requirements ADT | | | |
|---|---|---|---|---|---|
| XX | | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **4,860** | *1* **781** | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + | *1* | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **4,860** | *1* **781** | 12,000 | 8,400 | 1,200 | 850 |
| *2* + | *1* | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 33% | **B** 41% | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
# (Average Traffic Estimate Form)

| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | EAPC 2025 |
|---|---|---|---|---|---|
| | | | | CALC JC | DATE 06/28/23 |
| Jurisdiction: City of Rancho Mirage | | | | CHK | DATE |
| Major Street: Rattler Rd. | | | | Critical Approach Speed (Major) | 35 mph |
| Minor Street: Access 2 | | | | Critical Approach Speed (Minor) | 35 mph |

Major Street Approach Lanes = **1** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,235** vpd  Minor Street Future ADT = **876** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

**URBAN (U)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements ADT | | | |
|---|---|---|---|---|---|
| XX | | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **6,235** | *1* **876** | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + | *1* | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **6,235** | *1* **876** | 12,000 | 8,400 | 1,200 | 850 |
| *2* + | *1* | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 37% | **B** 52% | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

# 2040 WITHOUT PROJECT

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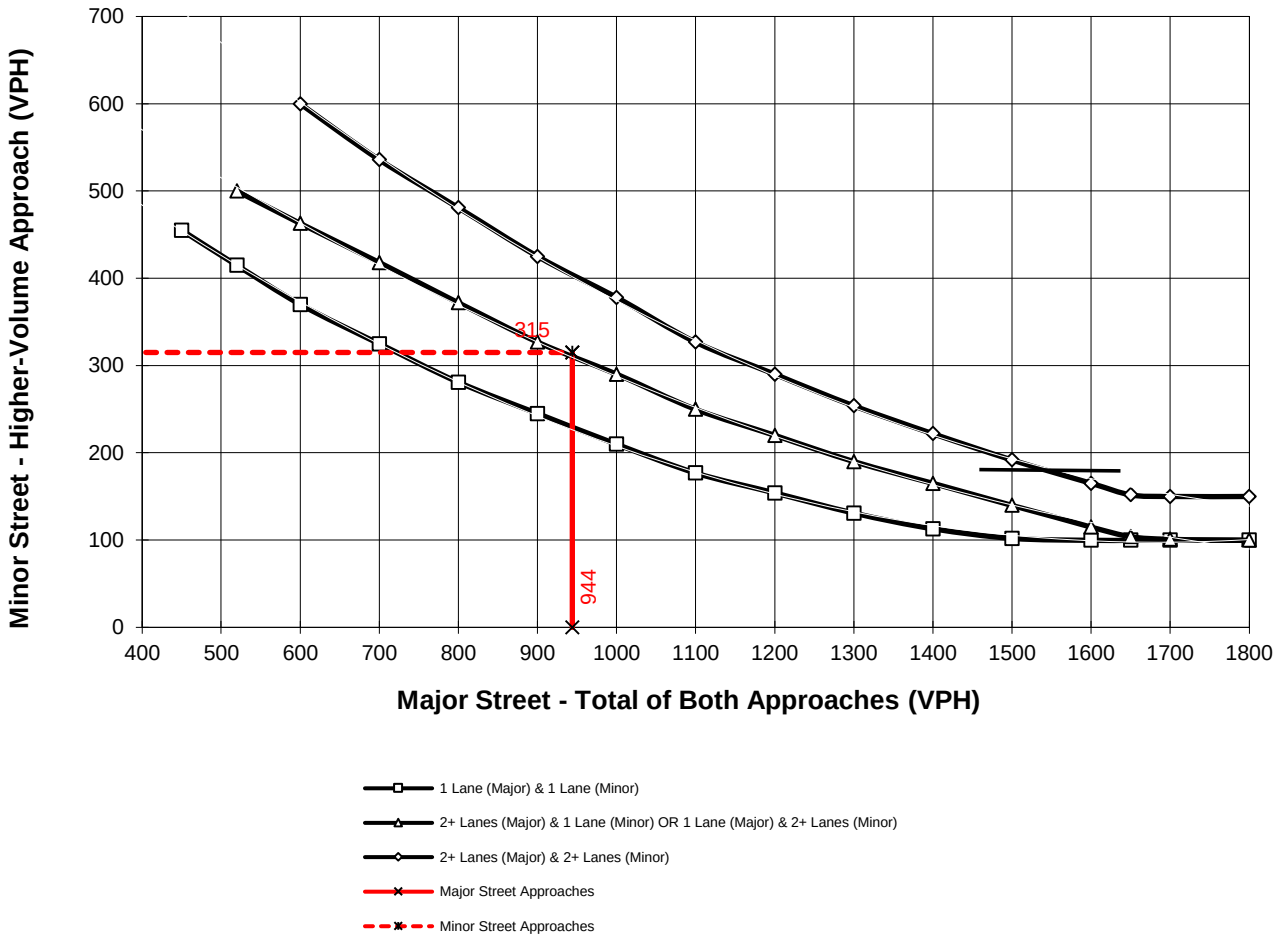
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2040NP AM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **944**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 1**
High Volume Approach (VPH) = **315**
Number of Approach Lanes On Minor Street = **1**

**WARRANTED FOR A SIGNAL**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

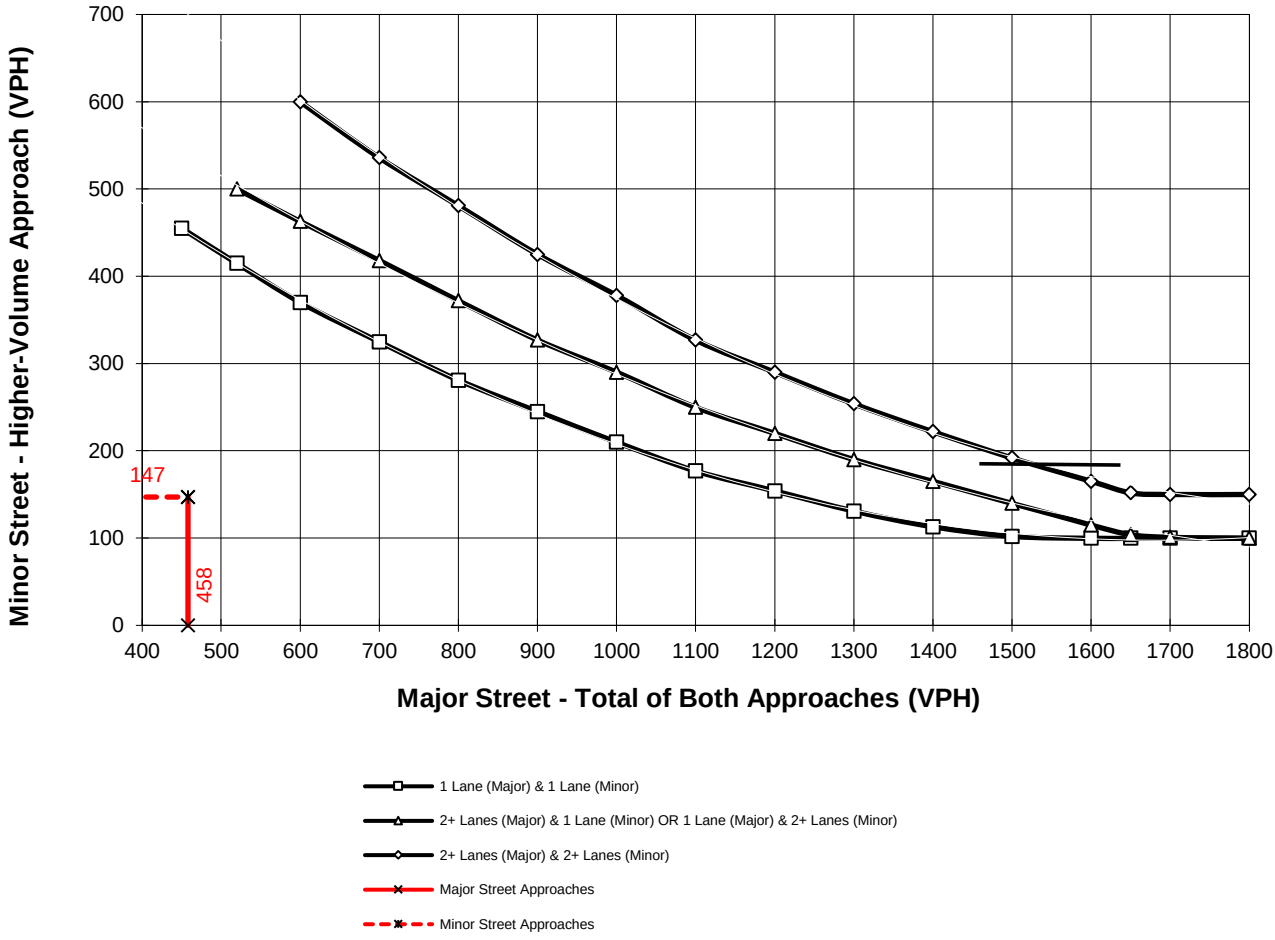
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2040NP PM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **458**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 1**
High Volume Approach (VPH) = **147**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

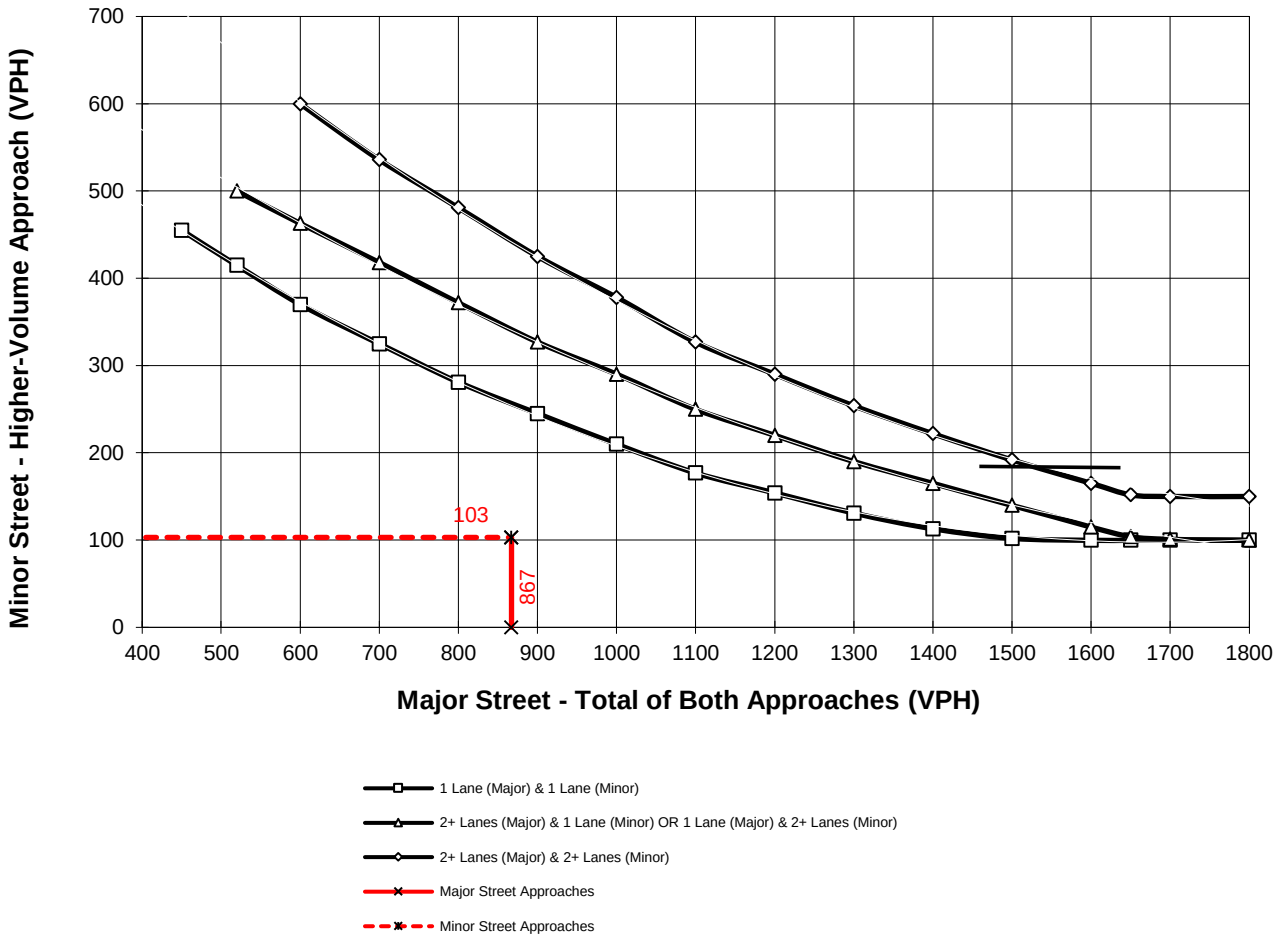
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2040NP AM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **867**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 3**
High Volume Approach (VPH) = **103**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

**Intersection ID: #15**

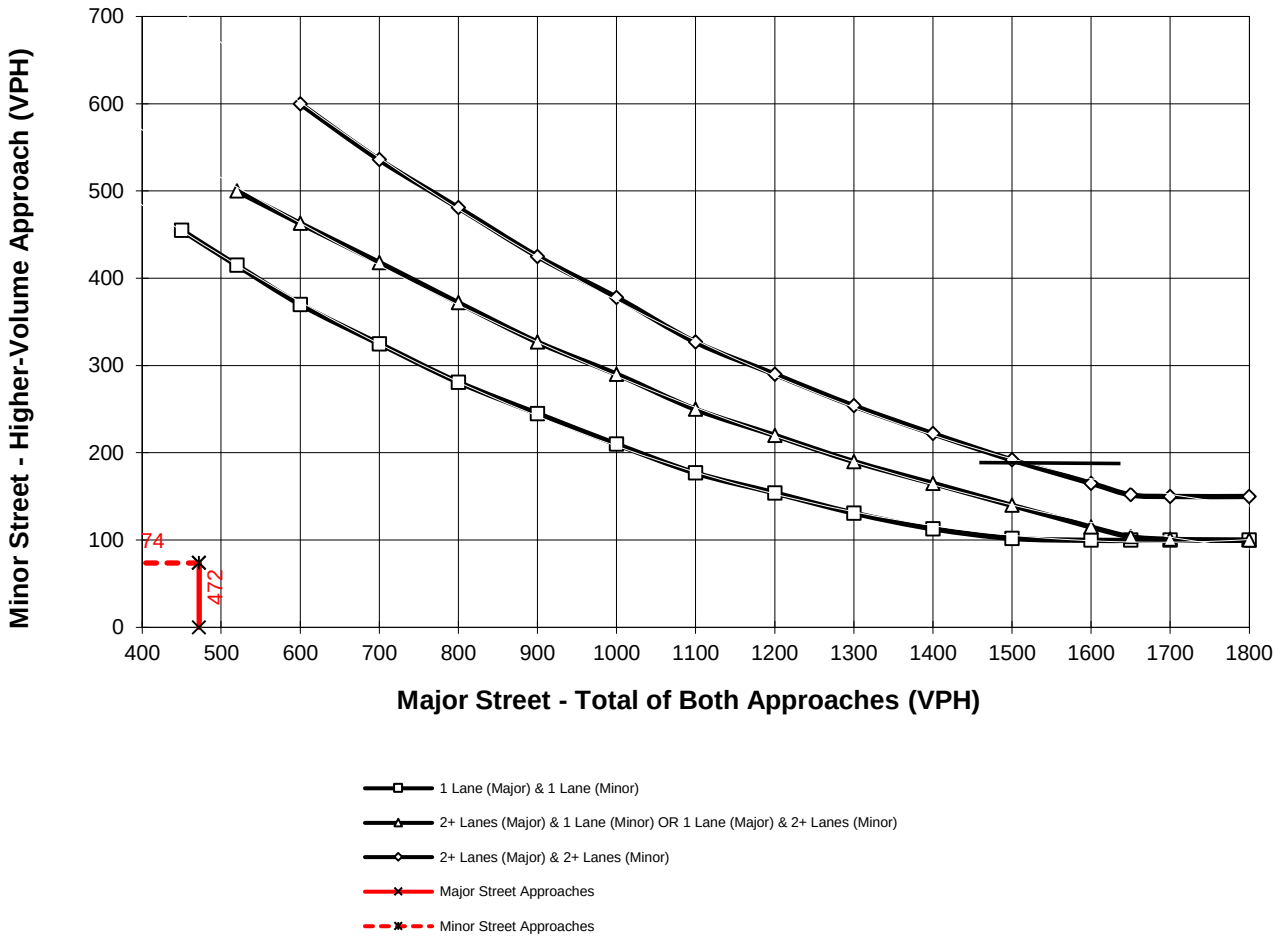
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2040NP PM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **472**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 3**
High Volume Approach (VPH) = **74**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #15

# 2040 WITH PROJECT

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## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **AM PEAK HOUR WARRANTS**

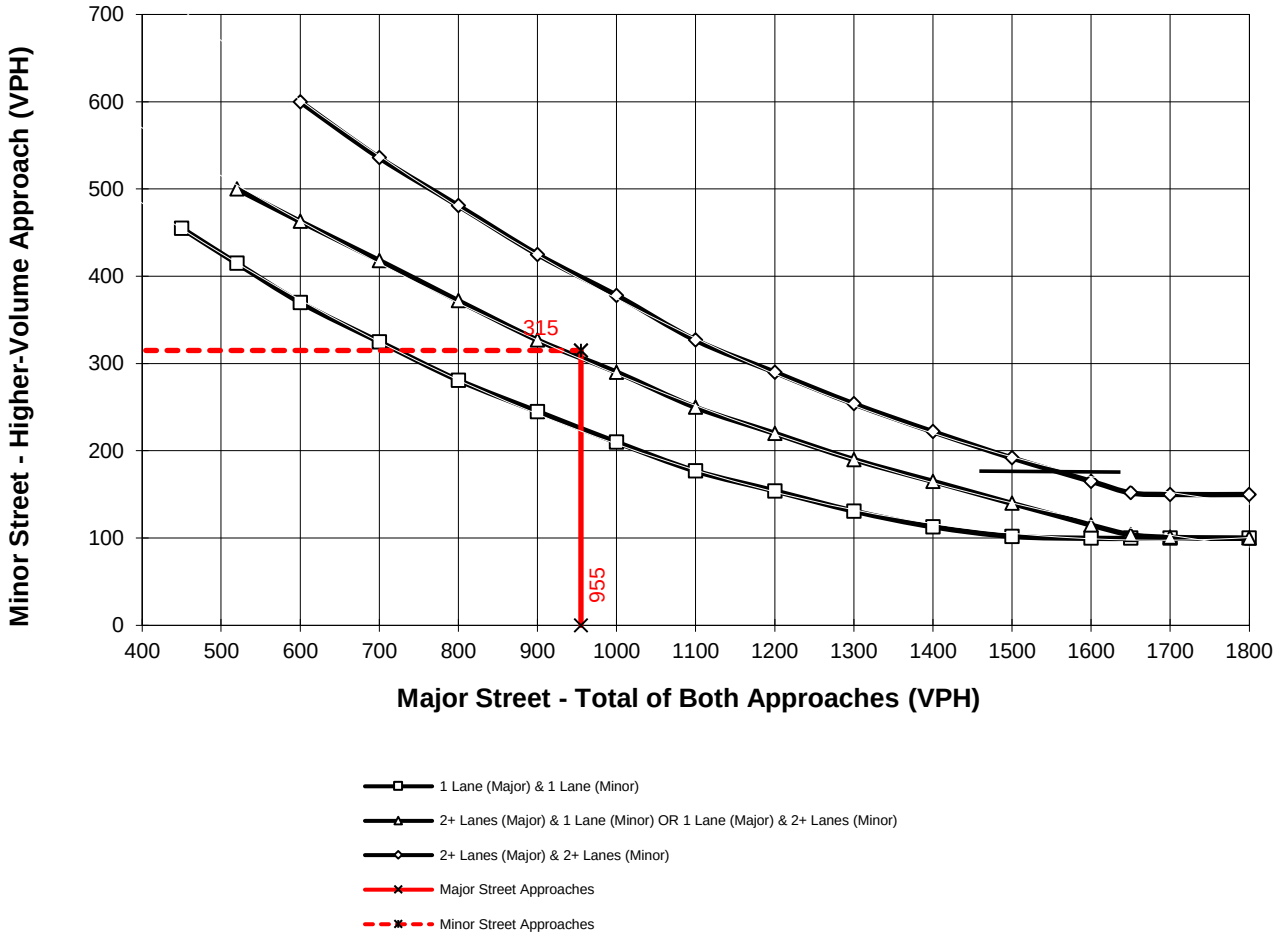
Major Street Name = **Rattler Rd.**

Total of Both Approaches (VPH) = **955**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 1**

High Volume Approach (VPH) = **315**
Number of Approach Lanes On Minor Street = **1**

**WARRANTED FOR A SIGNAL**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

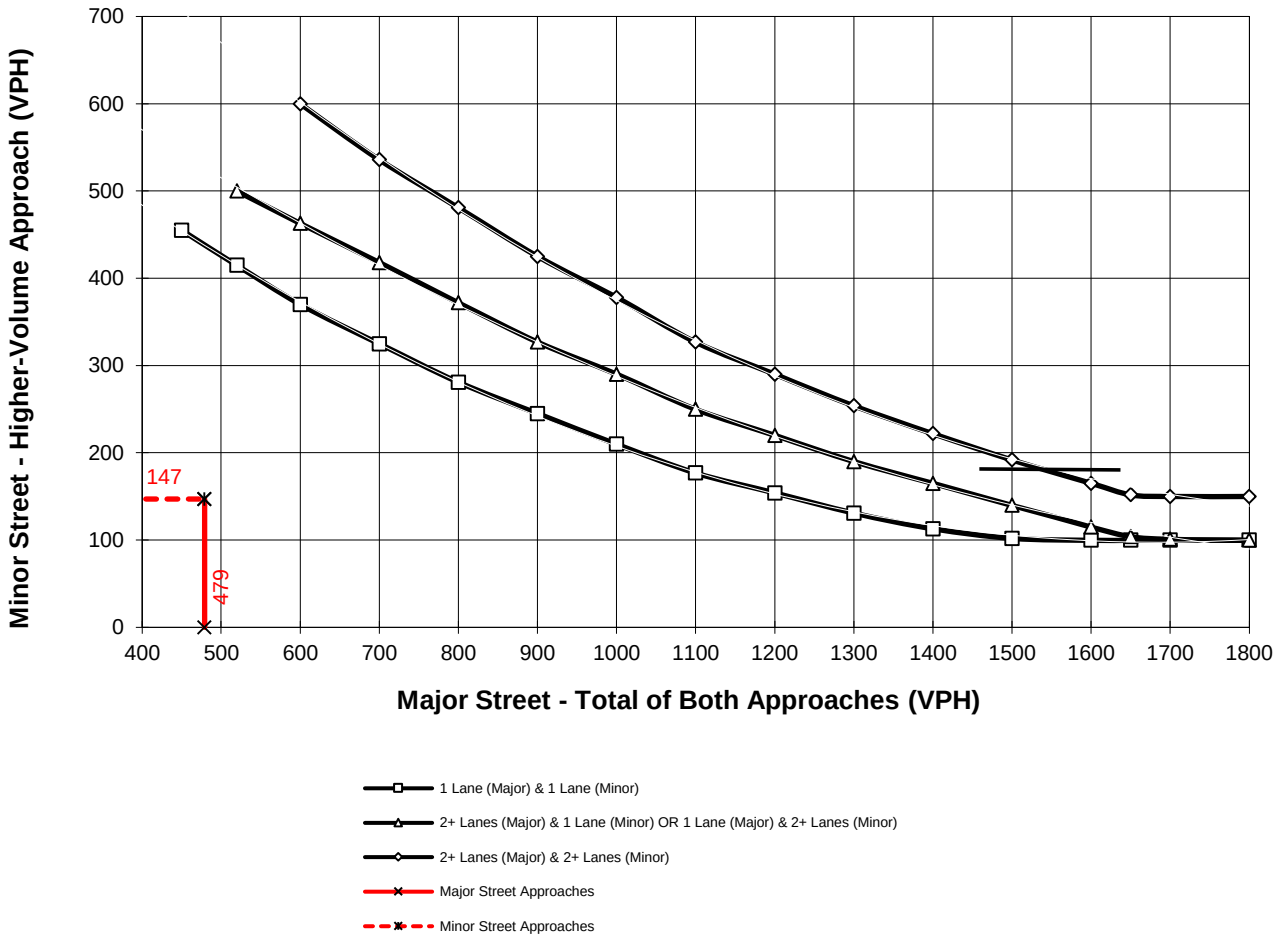
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **PM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **479**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 1**
High Volume Approach (VPH) = **147**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **AM PEAK HOUR WARRANTS**

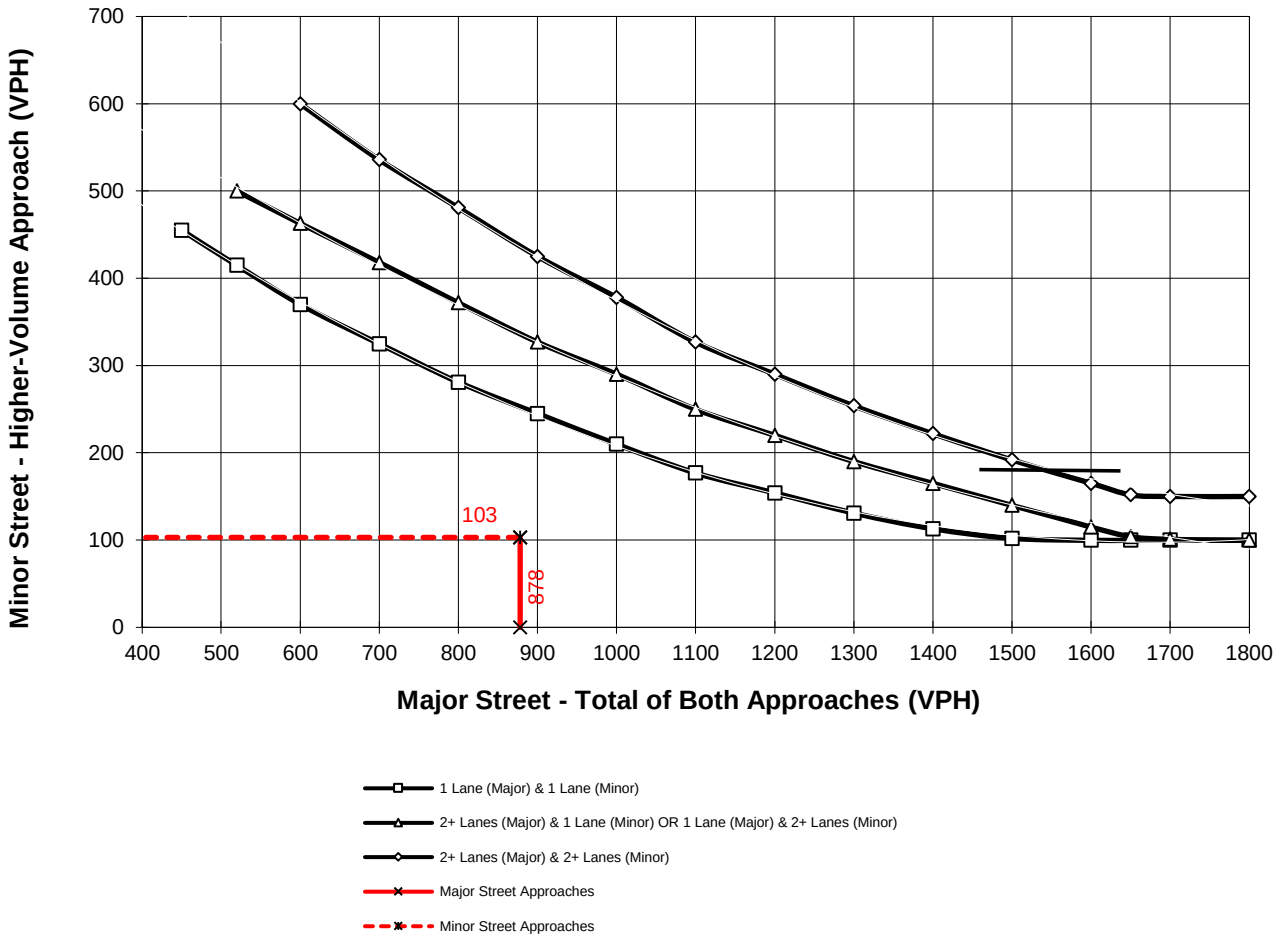
Major Street Name = **Rattler Rd.**

Total of Both Approaches (VPH) = **878**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 3**

High Volume Approach (VPH) = **103**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #15

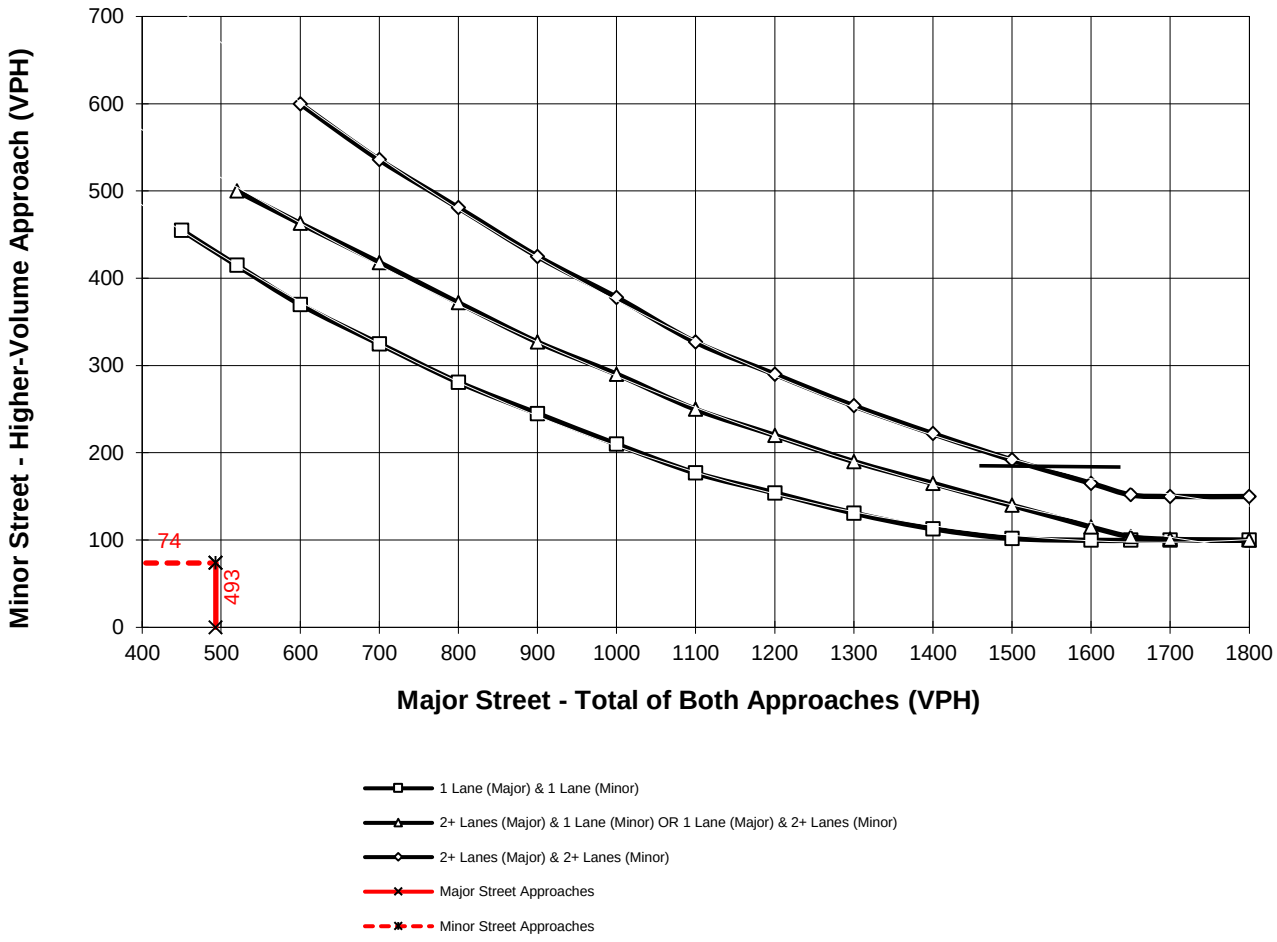
## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **PM PEAK HOUR WARRANTS**

Major Street Name = **Rattler Rd.**
Total of Both Approaches (VPH) = **493**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **School Access 3**
High Volume Approach (VPH) = **74**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

**Intersection ID: #15**

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

| DIST | CO | RTE | PM | | TRAFFIC CONDITIONS | | 2045 WP |
|---|---|---|---|---|---|---|---|
| | | | | CALC | JC | DATE | 06/28/23 |
| Jurisdiction: | City of Rancho Mirage | | | CHK | | DATE | |
| Major Street: | Rattler Rd. | | | | Critical Approach Speed (Major) | | 35 mph |
| Minor Street: | Access 1 | | | | Critical Approach Speed (Minor) | | 35 mph |

Major Street Approach Lanes = **1** lane  Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **7,459** vpd  Minor Street Future ADT = **781** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

**URBAN (U)**

## (Based on Estimated Average Daily Traffic - See Note)

| URBAN | RURAL | Minimum Requirements ADT | | | |
|---|---|---|---|---|---|
| XX | | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **7,459** | *1* **781** | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + | *1* | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **7,459** | *1* **781** | 12,000 | 8,400 | 1,200 | 850 |
| *2* + | *1* | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 33% **B** 62% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

| DIST | CO | RTE | PM | | TRAFFIC CONDITIONS | | 2045 WP |
|---|---|---|---|---|---|---|---|
| | | | | CALC | JC | DATE | 06/28/23 |
| Jurisdiction: | City of Rancho Mirage | | | CHK | | DATE | |
| Major Street: | Rattler Rd. | | | | Critical Approach Speed (Major) | | 35 mph |
| Minor Street: | Access 2 | | | | Critical Approach Speed (Minor) | | 35 mph |

Major Street Approach Lanes = **1** lane  Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **8,834** vpd  Minor Street Future ADT = **876** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

**URBAN (U)**

## (Based on Estimated Average Daily Traffic - See Note)

| URBAN | RURAL | Minimum Requirements ADT | | | |
|---|---|---|---|---|---|
| XX | | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **8,834** | *1* **876** | 8,000 * | 5,600 | 2,400 | 1,680 |
| *2* + | *1* | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* **8,834** | *1* **876** | 12,000 | 8,400 | 1,200 | 850 |
| *2* + | *1* | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 37% **B** 73% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

# APPENDIX 5.1: EAP (2025) INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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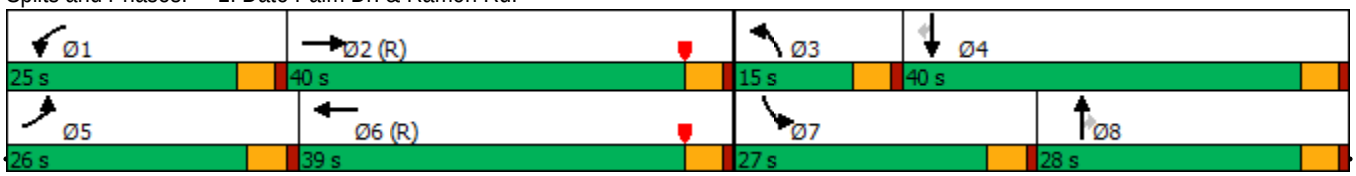
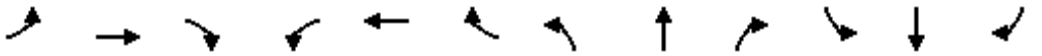
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 151 | 681 | 89 | 150 | 817 | 95 | 144 | 401 | 97 | 167 | 664 | 186 |
| Future Volume (vph) | 151 | 681 | 89 | 150 | 817 | 95 | 144 | 401 | 97 | 167 | 664 | 186 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 0 | 225 | | 0 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 26.0 | 40.0 | | 25.0 | 39.0 | | 15.0 | 28.0 | 28.0 | 27.0 | 40.0 | 40.0 |
| Total Split (%) | 21.7% | 33.3% | | 20.8% | 32.5% | | 12.5% | 23.3% | 23.3% | 22.5% | 33.3% | 33.3% |
| Maximum Green (s) | 21.5 | 35.5 | | 20.5 | 34.5 | | 10.5 | 23.5 | 23.5 | 22.5 | 35.5 | 35.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | Max | Max | None | Max | Max |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | 5 |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 151 | 681 | 89 | 150 | 817 | 95 | 144 | 401 | 97 | 167 | 664 | 186 |
| Future Volume (veh/h) | 151 | 681 | 89 | 150 | 817 | 95 | 144 | 401 | 97 | 167 | 664 | 186 |
| 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 | | 0.99 | 1.00 | | 0.99 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 166 | 748 | 98 | 165 | 898 | 104 | 158 | 441 | 107 | 184 | 730 | 204 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 196 | 1750 | 227 | 194 | 1773 | 205 | 215 | 846 | 375 | 214 | 1051 | 467 |
| Arrive On Green | 0.11 | 0.38 | 0.38 | 0.11 | 0.38 | 0.38 | 0.06 | 0.24 | 0.24 | 0.12 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1781 | 4571 | 594 | 1781 | 4640 | 535 | 3456 | 3554 | 1575 | 1781 | 3554 | 1577 |
| Grp Volume(v), veh/h | 166 | 556 | 290 | 165 | 658 | 344 | 158 | 441 | 107 | 184 | 730 | 204 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1761 | 1781 | 1702 | 1772 | 1728 | 1777 | 1575 | 1781 | 1777 | 1577 |
| Q Serve(g_s), s | 11.0 | 14.4 | 14.6 | 10.9 | 17.8 | 17.9 | 5.4 | 13.0 | 6.7 | 12.2 | 21.8 | 12.6 |
| Cycle Q Clear(g_c), s | 11.0 | 14.4 | 14.6 | 10.9 | 17.8 | 17.9 | 5.4 | 13.0 | 6.7 | 12.2 | 21.8 | 12.6 |
| Prop In Lane | 1.00 | | 0.34 | 1.00 | | 0.30 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 196 | 1303 | 674 | 194 | 1301 | 677 | 215 | 846 | 375 | 214 | 1051 | 467 |
| V/C Ratio(X) | 0.85 | 0.43 | 0.43 | 0.85 | 0.51 | 0.51 | 0.73 | 0.52 | 0.29 | 0.86 | 0.69 | 0.44 |
| Avail Cap(c_a), veh/h | 319 | 1303 | 674 | 304 | 1301 | 677 | 302 | 846 | 375 | 334 | 1051 | 467 |
| 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) | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.4 | 27.3 | 27.4 | 52.5 | 28.4 | 28.4 | 55.3 | 39.8 | 37.4 | 51.8 | 37.4 | 34.2 |
| Incr Delay (d2), s/veh | 11.0 | 1.0 | 2.0 | 11.5 | 1.3 | 2.5 | 5.5 | 2.3 | 1.9 | 12.7 | 3.8 | 3.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.3 | 5.8 | 6.2 | 5.3 | 7.1 | 7.7 | 2.5 | 5.8 | 2.7 | 6.0 | 9.7 | 5.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 63.5 | 28.3 | 29.4 | 64.0 | 29.7 | 30.9 | 60.8 | 42.1 | 39.3 | 64.5 | 41.2 | 37.1 |
| LnGrp LOS | E | C | C | E | C | C | E | D | D | E | D | D |
| Approach Vol, veh/h | | 1012 | | | 1167 | | | 706 | | | 1118 | |
| Approach Delay, s/veh | | 34.4 | | | 34.9 | | | 45.8 | | | 44.3 | |
| Approach LOS | | C | | | C | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 17.6 | 50.4 | 12.0 | 40.0 | 17.7 | 50.3 | 18.9 | 33.1 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 20.5 | 35.5 | 10.5 | 35.5 | 21.5 | 34.5 | 22.5 | 23.5 |
| Max Q Clear Time (g_c+I1), s | 12.9 | 16.6 | 7.4 | 23.8 | 13.0 | 19.9 | 14.2 | 15.0 |
| Green Ext Time (p_c), s | 0.2 | 4.7 | 0.1 | 4.1 | 0.2 | 5.1 | 0.3 | 1.9 |

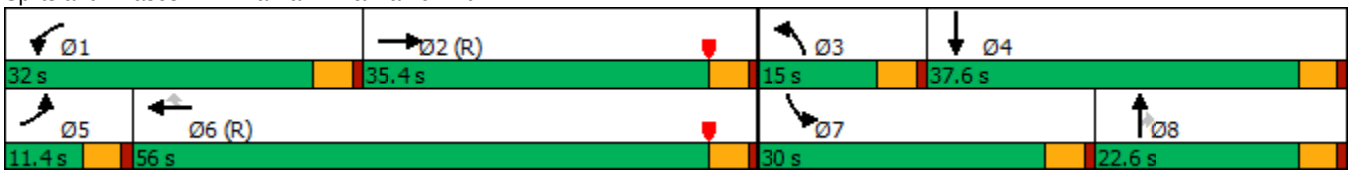
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 39.3 |
| HCM 6th LOS | D |

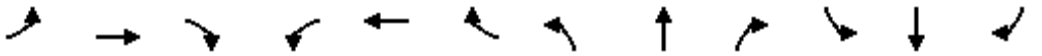
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 33 | 781 | 103 | 242 | 873 | 131 | 65 | 120 | 133 | 222 | 258 | 26 |
| Future Volume (vph) | 33 | 781 | 103 | 242 | 873 | 131 | 65 | 120 | 133 | 222 | 258 | 26 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 0 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 11.4 | 35.4 | | 32.0 | 56.0 | 56.0 | 15.0 | 22.6 | 22.6 | 30.0 | 37.6 | |
| Total Split (%) | 9.5% | 29.5% | | 26.7% | 46.7% | 46.7% | 12.5% | 18.8% | 18.8% | 25.0% | 31.3% | |
| Maximum Green (s) | 6.9 | 30.9 | | 27.5 | 51.5 | 51.5 | 10.5 | 18.1 | 18.1 | 25.5 | 33.1 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | C-Max | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 33 | 781 | 103 | 242 | 873 | 131 | 65 | 120 | 133 | 222 | 258 | 26 |
| Future Volume (veh/h) | 33 | 781 | 103 | 242 | 873 | 131 | 65 | 120 | 133 | 222 | 258 | 26 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 37 | 868 | 114 | 269 | 970 | 146 | 72 | 133 | 148 | 247 | 287 | 29 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 53 | 1632 | 213 | 294 | 2517 | 781 | 92 | 611 | 272 | 277 | 461 | 47 |
| Arrive On Green | 0.03 | 0.36 | 0.36 | 0.33 | 0.99 | 0.99 | 0.05 | 0.17 | 0.17 | 0.16 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1781 | 4569 | 597 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 1781 | 1671 | 169 |
| Grp Volume(v), veh/h | 37 | 646 | 336 | 269 | 970 | 146 | 72 | 133 | 148 | 247 | 0 | 316 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1763 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1781 | 0 | 1840 |
| Q Serve(g_s), s | 2.5 | 18.1 | 18.2 | 17.4 | 0.5 | 0.2 | 4.8 | 3.9 | 10.2 | 16.3 | 0.0 | 18.0 |
| Cycle Q Clear(g_c), s | 2.5 | 18.1 | 18.2 | 17.4 | 0.5 | 0.2 | 4.8 | 3.9 | 10.2 | 16.3 | 0.0 | 18.0 |
| Prop In Lane | 1.00 | | 0.34 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.09 |
| Lane Grp Cap(c), veh/h | 53 | 1216 | 630 | 294 | 2517 | 781 | 92 | 611 | 272 | 277 | 0 | 508 |
| V/C Ratio(X) | 0.70 | 0.53 | 0.53 | 0.91 | 0.39 | 0.19 | 0.78 | 0.22 | 0.54 | 0.89 | 0.00 | 0.62 |
| Avail Cap(c_a), veh/h | 102 | 1216 | 630 | 408 | 2517 | 781 | 156 | 611 | 272 | 379 | 0 | 508 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.85 | 0.85 | 0.85 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.7 | 30.6 | 30.6 | 39.3 | 0.4 | 0.4 | 56.2 | 42.8 | 45.4 | 49.6 | 0.0 | 38.0 |
| Incr Delay (d2), s/veh | 13.5 | 1.4 | 2.8 | 19.9 | 0.4 | 0.5 | 13.3 | 0.8 | 7.6 | 17.6 | 0.0 | 5.7 |
| 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 | 1.3 | 7.3 | 7.8 | 7.5 | 0.2 | 0.2 | 2.4 | 1.7 | 4.5 | 8.4 | 0.0 | 8.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 71.2 | 32.0 | 33.4 | 59.2 | 0.9 | 1.0 | 69.5 | 43.6 | 53.0 | 67.3 | 0.0 | 43.7 |
| LnGrp LOS | E | C | C | E | A | A | E | D | D | E | A | D |
| Approach Vol, veh/h | | 1019 | | | 1385 | | | 353 | | | 563 | |
| Approach Delay, s/veh | | 33.9 | | | 12.2 | | | 52.8 | | | 54.0 | |
| Approach LOS | | C | | | B | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 24.3 | 47.4 | 10.7 | 37.6 | 8.0 | 63.6 | 23.2 | 25.1 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 27.5 | 30.9 | 10.5 | 33.1 | 6.9 | 51.5 | 25.5 | 18.1 |
| Max Q Clear Time (g_c+I1), s | 19.4 | 20.2 | 6.8 | 20.0 | 4.5 | 2.5 | 18.3 | 12.2 |
| Green Ext Time (p_c), s | 0.5 | 4.2 | 0.0 | 1.3 | 0.0 | 7.6 | 0.4 | 0.6 |

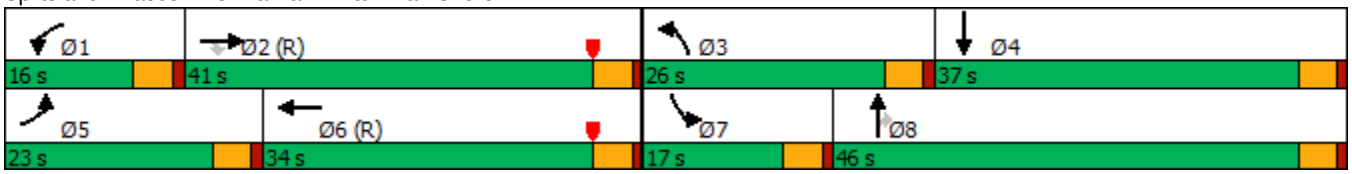
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 30.3 |
| HCM 6th LOS | C |

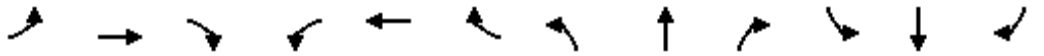
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 107 | 449 | 198 | 50 | 360 | 35 | 130 | 173 | 61 | 59 | 329 | 223 |
| Future Volume (vph) | 107 | 449 | 198 | 50 | 360 | 35 | 130 | 173 | 61 | 59 | 329 | 223 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 175 | | 215 | 185 | | 0 | 125 | | 125 | 135 | | 135 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 50 | | | 50 | |
| Link Distance (ft) | | 918 | | | 366 | | | 1131 | | | 331 | |
| Travel Time (s) | | 20.9 | | | 8.3 | | | 15.4 | | | 4.5 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 23.0 | 41.0 | 41.0 | 16.0 | 34.0 | | 26.0 | 46.0 | 46.0 | 17.0 | 37.0 | |
| Total Split (%) | 19.2% | 34.2% | 34.2% | 13.3% | 28.3% | | 21.7% | 38.3% | 38.3% | 14.2% | 30.8% | |
| Maximum Green (s) | 18.5 | 36.5 | 36.5 | 11.5 | 29.5 | | 21.5 | 41.5 | 41.5 | 12.5 | 32.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 3: Da Vall Dr. & Dinah Shore Dr.

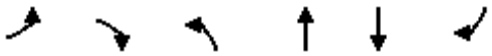




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 107 | 449 | 198 | 50 | 360 | 35 | 130 | 173 | 61 | 59 | 329 | 223 |
| Future Volume (veh/h) | 107 | 449 | 198 | 50 | 360 | 35 | 130 | 173 | 61 | 59 | 329 | 223 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 114 | 478 | 211 | 53 | 383 | 37 | 138 | 184 | 65 | 63 | 350 | 237 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 141 | 1492 | 666 | 69 | 1243 | 119 | 167 | 1229 | 548 | 81 | 609 | 405 |
| Arrive On Green | 0.08 | 0.42 | 0.42 | 0.04 | 0.38 | 0.38 | 0.09 | 0.35 | 0.35 | 0.05 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 3276 | 315 | 1781 | 3554 | 1585 | 1781 | 2044 | 1359 |
| Grp Volume(v), veh/h | 114 | 478 | 211 | 53 | 207 | 213 | 138 | 184 | 65 | 63 | 303 | 284 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1814 | 1781 | 1777 | 1585 | 1781 | 1777 | 1626 |
| Q Serve(g_s), s | 7.6 | 10.8 | 10.7 | 3.5 | 9.8 | 9.9 | 9.1 | 4.3 | 3.4 | 4.2 | 17.4 | 17.8 |
| Cycle Q Clear(g_c), s | 7.6 | 10.8 | 10.7 | 3.5 | 9.8 | 9.9 | 9.1 | 4.3 | 3.4 | 4.2 | 17.4 | 17.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.17 | 1.00 | | 1.00 | 1.00 | | 0.84 |
| Lane Grp Cap(c), veh/h | 141 | 1492 | 666 | 69 | 674 | 688 | 167 | 1229 | 548 | 81 | 529 | 484 |
| V/C Ratio(X) | 0.81 | 0.32 | 0.32 | 0.77 | 0.31 | 0.31 | 0.83 | 0.15 | 0.12 | 0.77 | 0.57 | 0.59 |
| Avail Cap(c_a), veh/h | 275 | 1492 | 666 | 171 | 674 | 688 | 319 | 1229 | 548 | 186 | 529 | 484 |
| 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) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.4 | 23.3 | 23.3 | 57.2 | 26.2 | 26.2 | 53.4 | 27.1 | 26.8 | 56.6 | 35.7 | 35.8 |
| Incr Delay (d2), s/veh | 10.4 | 0.6 | 1.2 | 16.6 | 1.2 | 1.2 | 9.9 | 0.3 | 0.4 | 14.4 | 4.5 | 5.1 |
| 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 | 3.8 | 4.7 | 4.0 | 1.9 | 4.4 | 4.5 | 4.4 | 1.8 | 1.3 | 2.2 | 7.8 | 7.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 64.7 | 23.9 | 24.5 | 73.7 | 27.3 | 27.4 | 63.3 | 27.3 | 27.2 | 71.0 | 40.1 | 40.9 |
| LnGrp LOS | E | C | C | E | C | C | E | C | C | E | D | D |
| Approach Vol, veh/h | | 803 | | | 473 | | | 387 | | | 650 | |
| Approach Delay, s/veh | | 29.9 | | | 32.5 | | | 40.2 | | | 43.5 | |
| Approach LOS | | C | | | C | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.1 | 54.9 | 15.7 | 40.2 | 14.0 | 50.0 | 10.0 | 46.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 11.5 | 36.5 | 21.5 | 32.5 | 18.5 | 29.5 | 12.5 | 41.5 |
| Max Q Clear Time (g_c+I1), s | 5.5 | 12.8 | 11.1 | 19.8 | 9.6 | 11.9 | 6.2 | 6.3 |
| Green Ext Time (p_c), s | 0.0 | 4.0 | 0.2 | 2.6 | 0.2 | 2.3 | 0.0 | 1.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 36.0 |
| HCM 6th LOS | D |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 17 | 281 | 317 | 192 | 260 | 52 |
| Future Volume (vph) | 17 | 281 | 317 | 192 | 260 | 52 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 17.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 17 | 281 | 317 | 192 | 260 | 52 |
| Future Vol, veh/h | 17 | 281 | 317 | 192 | 260 | 52 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 62 | 62 | 62 | 62 | 62 | 62 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 27 | 453 | 511 | 310 | 419 | 84 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1793 | 461 | 503 | 0 | - | 0 |
| Stage 1 | 461 | - | - | - | - | - |
| Stage 2 | 1332 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 89 | 600 | 1061 | - | - | - |
| Stage 1 | 635 | - | - | - | - | - |
| Stage 2 | 246 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 46 | 600 | 1061 | - | - | - |
| Mov Cap-2 Maneuver | 149 | - | - | - | - | - |
| Stage 1 | 329 | - | - | - | - | - |
| Stage 2 | 246 | - | - | - | - | - |

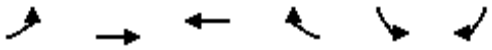
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 54.5 | 7.2 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1061 | - | 512 | - | - |
| HCM Lane V/C Ratio | 0.482 | - | 0.939 | - | - |
| HCM Control Delay (s) | 11.5 | - | 54.5 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 2.7 | - | 11.6 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 255 | 895 | 991 | 285 | 267 | 347 |
| Future Volume (vph) | 255 | 895 | 991 | 285 | 267 | 347 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Shared Lane Traffic (%) | | | | | | 44% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 13.0 | 37.5 | 24.5 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 21.7% | 62.5% | 40.8% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 8.5 | 33.0 | 20.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 255 | 895 | 991 | 285 | 267 | 347 |
| Future Volume (veh/h) | 255 | 895 | 991 | 285 | 267 | 347 |
| 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 315 | 1105 | 1223 | 352 | 253 | 511 |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 415 | 2808 | 1812 | 1038 | 534 | 951 |
| Arrive On Green | 0.24 | 1.00 | 0.12 | 0.12 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 1781 | 3170 |
| Grp Volume(v), veh/h | 315 | 1105 | 1223 | 352 | 253 | 511 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 5.1 | 0.0 | 13.8 | 6.8 | 7.0 | 8.1 |
| Cycle Q Clear(g_c), s | 5.1 | 0.0 | 13.8 | 6.8 | 7.0 | 8.1 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 415 | 2808 | 1812 | 1038 | 534 | 951 |
| V/C Ratio(X) | 0.76 | 0.39 | 0.67 | 0.34 | 0.47 | 0.54 |
| Avail Cap(c_a), veh/h | 490 | 2808 | 1812 | 1038 | 534 | 951 |
| HCM Platoon Ratio | 2.00 | 2.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.85 | 0.85 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.0 | 0.0 | 23.2 | 6.5 | 17.1 | 17.5 |
| Incr Delay (d2), s/veh | 5.7 | 0.4 | 1.7 | 0.8 | 3.0 | 2.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.9 | 0.1 | 5.9 | 4.9 | 2.9 | 7.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 27.7 | 0.4 | 24.9 | 7.2 | 20.1 | 19.7 |
| LnGrp LOS | C | A | C | A | C | B |
| Approach Vol, veh/h | | 1420 | 1575 | | 764 | |
| Approach Delay, s/veh | | 6.5 | 21.0 | | 19.8 | |
| Approach LOS | | A | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 11.7 | 25.8 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 8.5 | 20.0 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 10.1 | 7.1 | 15.8 |
| Green Ext Time (p_c), s | | 7.8 | | 1.9 | 0.2 | 3.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 15.3 |
| HCM 6th LOS | B |

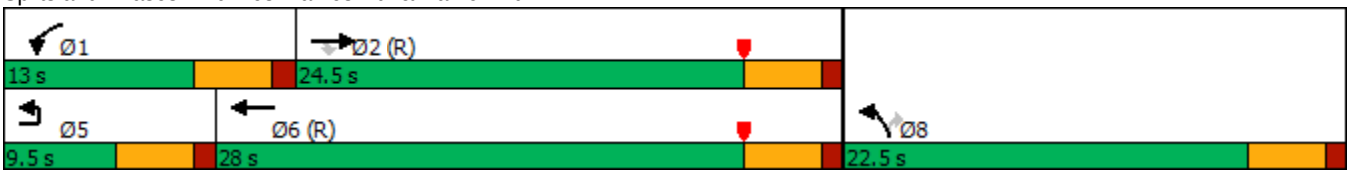
Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 1 | 1069 | 83 | 104 | 1248 | 36 | 60 |
| Future Volume (vph) | 1 | 1069 | 83 | 104 | 1248 | 36 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 200 | 255 | | 125 | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 |
| Taper Length (ft) | 90 | | | 90 | | 90 | |
| Right Turn on Red | | | Yes | | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | 50 | |
| Link Distance (ft) | | 2660 | | | 3172 | 1424 | |
| Travel Time (s) | | 33.0 | | | 39.3 | 19.4 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | |
| Permitted Phases | | | 2 | | | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 8 | 8 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 24.5 | 24.5 | 13.0 | 28.0 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 40.8% | 40.8% | 21.7% | 46.7% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 20.0 | 20.0 | 8.5 | 23.5 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 6: Los Alamos Rd. & Ramon Rd.



| Movement | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1 | 1069 | 83 | 104 | 1248 | 36 | 60 |
| Future Volume (veh/h) | 1 | 1069 | 83 | 104 | 1248 | 36 | 60 |
| 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 |
| Work Zone On Approach | | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | 1188 | 92 | 116 | 1387 | 40 | 67 |
| Peak Hour Factor | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | | 1997 | 620 | 149 | 2808 | 1037 | 476 |
| Arrive On Green | | 0.13 | 0.13 | 0.08 | 0.55 | 0.30 | 0.30 |
| Sat Flow, veh/h | | 5274 | 1585 | 1781 | 5274 | 3456 | 1585 |
| Grp Volume(v), veh/h | | 1188 | 92 | 116 | 1387 | 40 | 67 |
| Grp Sat Flow(s),veh/h/ln | | 1702 | 1585 | 1781 | 1702 | 1728 | 1585 |
| Q Serve(g_s), s | | 13.2 | 3.1 | 3.8 | 10.1 | 0.5 | 1.9 |
| Cycle Q Clear(g_c), s | | 13.2 | 3.1 | 3.8 | 10.1 | 0.5 | 1.9 |
| Prop In Lane | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | | 1997 | 620 | 149 | 2808 | 1037 | 476 |
| V/C Ratio(X) | | 0.59 | 0.15 | 0.78 | 0.49 | 0.04 | 0.14 |
| Avail Cap(c_a), veh/h | | 1997 | 620 | 252 | 2808 | 1037 | 476 |
| HCM Platoon Ratio | | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | 21.6 | 17.3 | 26.9 | 8.3 | 14.9 | 15.3 |
| Incr Delay (d2), s/veh | | 1.2 | 0.5 | 8.3 | 0.6 | 0.1 | 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 | | 5.4 | 1.0 | 1.7 | 2.4 | 0.2 | 0.6 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | | 22.8 | 17.7 | 35.3 | 9.0 | 14.9 | 16.0 |
| LnGrp LOS | | C | B | D | A | B | B |
| Approach Vol, veh/h | | 1280 | | | 1503 | 107 | |
| Approach Delay, s/veh | | 22.5 | | | 11.0 | 15.6 | |
| Approach LOS | | C | | | B | B | |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.5 | 28.0 | | | | 37.5 | | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 8.5 | 20.0 | | | | 23.5 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | 5.8 | 15.2 | | | | 12.1 | | 3.9 |
| Green Ext Time (p_c), s | 0.1 | 3.0 | | | | 6.3 | | 0.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.2 |
| HCM 6th LOS | B |

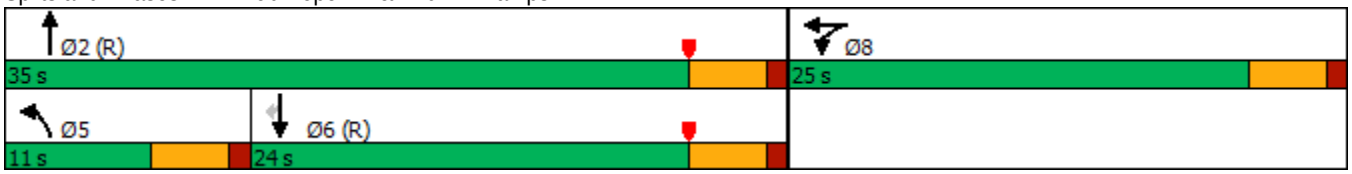
**Notes**

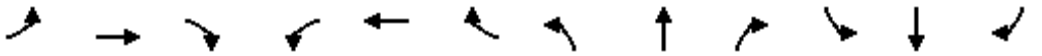
User approved ignoring U-Turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 673 | 1 | 259 | 185 | 437 | 0 | 0 | 303 | 184 |
| Future Volume (vph) | 0 | 0 | 0 | 673 | 1 | 259 | 185 | 437 | 0 | 0 | 303 | 184 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 430 | 210 | | 0 | 0 | | 205 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 2 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 581 | | | 1228 | | | 688 | | | 840 | |
| Travel Time (s) | | 11.3 | | | 23.9 | | | 10.4 | | | 12.7 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Shared Lane Traffic (%) | | | | 50% | | | | | | | | |
| Turn Type | | | | Split | NA | Free | Prot | NA | | | NA | Perm |
| Protected Phases | | | | 8 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | | | Free | | | | | | 6 |
| Detector Phase | | | | 8 | 8 | | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | 5.0 |
| Minimum Split (s) | | | | 22.5 | 22.5 | | 9.5 | 22.5 | | | 22.5 | 22.5 |
| Total Split (s) | | | | 25.0 | 25.0 | | 11.0 | 35.0 | | | 24.0 | 24.0 |
| Total Split (%) | | | | 41.7% | 41.7% | | 18.3% | 58.3% | | | 40.0% | 40.0% |
| Maximum Green (s) | | | | 20.5 | 20.5 | | 6.5 | 30.5 | | | 19.5 | 19.5 |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | 3.5 |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | 4.5 |
| Lead/Lag | | | | | | | Lead | | | | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | Yes |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | | | | None | None | | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | | | | | | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 7: Bob Hope Dr. & I-10 NB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 673 | 1 | 259 | 185 | 437 | 0 | 0 | 303 | 184 |
| Future Volume (veh/h) | 0 | 0 | 0 | 673 | 1 | 259 | 185 | 437 | 0 | 0 | 303 | 184 |
| 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 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 725 | 0 | 0 | 199 | 470 | 0 | 0 | 326 | 198 |
| Peak Hour Factor | | | | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 902 | 0 | | 295 | 2121 | 0 | 0 | 2229 | 692 |
| Arrive On Green | | | | 0.25 | 0.00 | 0.00 | 0.17 | 1.00 | 0.00 | 0.00 | 0.44 | 0.44 |
| Sat Flow, veh/h | | | | 3563 | 0 | 1585 | 3456 | 3647 | 0 | 0 | 5274 | 1585 |
| Grp Volume(v), veh/h | | | | 725 | 0 | 0 | 199 | 470 | 0 | 0 | 326 | 198 |
| Grp Sat Flow(s),veh/h/ln | | | | 1781 | 0 | 1585 | 1728 | 1777 | 0 | 0 | 1702 | 1585 |
| Q Serve(g_s), s | | | | 11.5 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 2.3 | 4.8 |
| Cycle Q Clear(g_c), s | | | | 11.5 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 2.3 | 4.8 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | | | | 902 | 0 | | 295 | 2121 | 0 | 0 | 2229 | 692 |
| V/C Ratio(X) | | | | 0.80 | 0.00 | | 0.67 | 0.22 | 0.00 | 0.00 | 0.15 | 0.29 |
| Avail Cap(c_a), veh/h | | | | 1217 | 0 | | 374 | 2121 | 0 | 0 | 2229 | 692 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 0.00 | 0.95 | 0.95 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 21.0 | 0.0 | 0.0 | 24.1 | 0.0 | 0.0 | 0.0 | 10.2 | 10.9 |
| Incr Delay (d2), s/veh | | | | 2.9 | 0.0 | 0.0 | 3.1 | 0.2 | 0.0 | 0.0 | 0.1 | 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 | | | | 4.6 | 0.0 | 0.0 | 1.2 | 0.1 | 0.0 | 0.0 | 0.7 | 1.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | 23.9 | 0.0 | 0.0 | 27.2 | 0.2 | 0.0 | 0.0 | 10.3 | 11.9 |
| LnGrp LOS | | | | C | A | | C | A | A | A | B | B |
| Approach Vol, veh/h | | | | | 725 | | | 669 | | | 524 | |
| Approach Delay, s/veh | | | | | 23.9 | | | 8.3 | | | 10.9 | |
| Approach LOS | | | | | C | | | A | | | B | |

| Timer - Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 40.3 | | | 9.6 | 30.7 | | 19.7 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 30.5 | | | 6.5 | 19.5 | | 20.5 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 5.2 | 6.8 | | 13.5 | | | | |
| Green Ext Time (p_c), s | | 2.9 | | | 0.1 | 2.1 | | 1.7 | | | | |

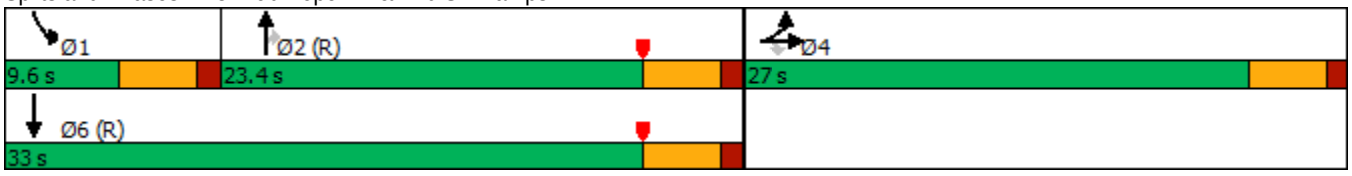
| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | 14.9 | |
| HCM 6th LOS | B | |

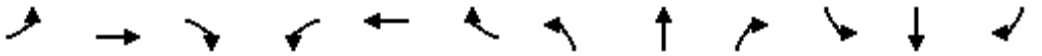
| Notes |
|---|
| User approved volume balancing among the lanes for turning movement. |
| Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay. |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 280 | 1 | 674 | 0 | 0 | 0 | 0 | 342 | 75 | 74 | 902 | 0 |
| Future Volume (vph) | 280 | 1 | 674 | 0 | 0 | 0 | 0 | 342 | 75 | 74 | 902 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 490 | | 135 | 0 | | 0 | 0 | | 195 | 225 | | 0 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 90 | | | 90 | | | 110 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1337 | | | 718 | | | 776 | | | 688 | |
| Travel Time (s) | | 26.0 | | | 14.0 | | | 11.8 | | | 10.4 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Shared Lane Traffic (%) | 10% | | 48% | | | | | | 10% | | | |
| Turn Type | Split | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | 4 | 4 | | | | | | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | | 2 | | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | | | | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | | | | | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 27.0 | 27.0 | 27.0 | | | | | 23.4 | 23.4 | 9.6 | 33.0 | |
| Total Split (%) | 45.0% | 45.0% | 45.0% | | | | | 39.0% | 39.0% | 16.0% | 55.0% | |
| Maximum Green (s) | 22.5 | 22.5 | 22.5 | | | | | 18.9 | 18.9 | 5.1 | 28.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | | | | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | Lag | Lag | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | None | C-Max | |
| Walk Time (s) | | | | | | | | | | | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 8: Bob Hope Dr. & I-10 SB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 280 | 1 | 674 | 0 | 0 | 0 | 0 | 342 | 75 | 74 | 902 | 0 |
| Future Volume (veh/h) | 280 | 1 | 674 | 0 | 0 | 0 | 0 | 342 | 75 | 74 | 902 | 0 |
| 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 |
| Work Zone On Approach | | No | | | | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | | | | 0 | 1870 | 1870 | 1870 | 1870 | 0 |
| Adj Flow Rate, veh/h | 210 | 0 | 870 | | | | 0 | 384 | 84 | 83 | 1013 | 0 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | | | | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | | | | 0 | 2 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 580 | 0 | 1032 | | | | 0 | 2172 | 614 | 216 | 1864 | 0 |
| Arrive On Green | 0.33 | 0.00 | 0.33 | | | | 0.00 | 0.39 | 0.39 | 0.12 | 1.00 | 0.00 |
| Sat Flow, veh/h | 1781 | 0 | 3170 | | | | 0 | 5611 | 1585 | 3456 | 3647 | 0 |
| Grp Volume(v), veh/h | 210 | 0 | 870 | | | | 0 | 384 | 84 | 83 | 1013 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | | | | 0 | 1870 | 1585 | 1728 | 1777 | 0 |
| Q Serve(g_s), s | 5.4 | 0.0 | 15.3 | | | | 0.0 | 2.7 | 2.1 | 1.3 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 5.4 | 0.0 | 15.3 | | | | 0.0 | 2.7 | 2.1 | 1.3 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 580 | 0 | 1032 | | | | 0 | 2172 | 614 | 216 | 1864 | 0 |
| V/C Ratio(X) | 0.36 | 0.00 | 0.84 | | | | 0.00 | 0.18 | 0.14 | 0.38 | 0.54 | 0.00 |
| Avail Cap(c_a), veh/h | 668 | 0 | 1189 | | | | 0 | 2172 | 614 | 294 | 1864 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.88 | 0.88 | 0.00 |
| Uniform Delay (d), s/veh | 15.5 | 0.0 | 18.8 | | | | 0.0 | 12.1 | 11.9 | 25.2 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 5.1 | | | | 0.0 | 0.2 | 0.5 | 1.0 | 1.0 | 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 | 2.0 | 0.0 | 5.6 | | | | 0.0 | 0.9 | 0.7 | 0.5 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 15.9 | 0.0 | 23.9 | | | | 0.0 | 12.3 | 12.4 | 26.2 | 1.0 | 0.0 |
| LnGrp LOS | B | A | C | | | | A | B | B | C | A | A |
| Approach Vol, veh/h | | 1080 | | | | | | 468 | | | 1096 | |
| Approach Delay, s/veh | | 22.3 | | | | | | 12.3 | | | 2.9 | |
| Approach LOS | | C | | | | | | B | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.2 | 27.7 | | 24.0 | | 36.0 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 5.1 | 18.9 | | 22.5 | | 28.5 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 3.3 | 4.7 | | 17.3 | | 2.0 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.2 | | 2.2 | | 7.3 | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 12.5 |
| HCM 6th LOS | | | B |

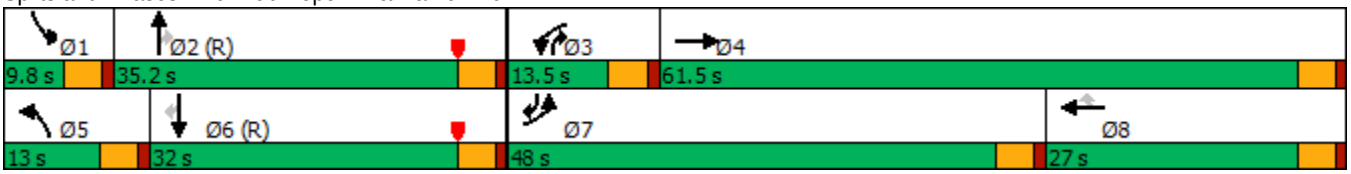
**Notes**

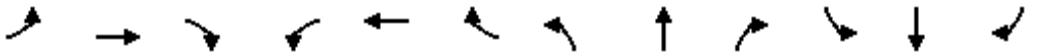
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 166 | 718 | 245 | 121 | 472 | 9 | 132 | 242 | 110 | 52 | 776 | 748 |
| Future Volume (vph) | 166 | 718 | 245 | 121 | 472 | 9 | 132 | 242 | 110 | 52 | 776 | 748 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 280 | | 470 | 240 | | 180 | 205 | | 280 | 215 | | 225 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 90 | | | 120 | | | 120 | | | 120 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | | | 45 | | | 45 | |
| Link Distance (ft) | | 676 | | | 1191 | | | 1119 | | | 476 | |
| Travel Time (s) | | 8.4 | | | 14.8 | | | 17.0 | | | 7.2 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Free | Prot | NA | Perm | Prot | NA | pm+ov | Prot | NA | pm+ov |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | Free | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | | 3 | 8 | 8 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 9.5 |
| Total Split (s) | 48.0 | 61.5 | | 13.5 | 27.0 | 27.0 | 13.0 | 35.2 | 13.5 | 9.8 | 32.0 | 48.0 |
| Total Split (%) | 40.0% | 51.3% | | 11.3% | 22.5% | 22.5% | 10.8% | 29.3% | 11.3% | 8.2% | 26.7% | 40.0% |
| Maximum Green (s) | 43.5 | 57.0 | | 9.0 | 22.5 | 22.5 | 8.5 | 30.7 | 9.0 | 5.3 | 27.5 | 43.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | None | None | C-Max | None | None | C-Max | None |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 40.1 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 9: Bob Hope Dr. & Ramon Rd.





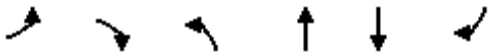
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 166 | 718 | 245 | 121 | 472 | 9 | 132 | 242 | 110 | 52 | 776 | 748 |
| Future Volume (veh/h) | 166 | 718 | 245 | 121 | 472 | 9 | 132 | 242 | 110 | 52 | 776 | 748 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 177 | 764 | 0 | 129 | 502 | 10 | 140 | 257 | 117 | 55 | 826 | 796 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 246 | 925 | | 184 | 861 | 384 | 195 | 2561 | 879 | 121 | 2451 | 874 |
| Arrive On Green | 0.07 | 0.26 | 0.00 | 0.05 | 0.24 | 0.24 | 0.06 | 0.50 | 0.50 | 0.04 | 0.48 | 0.48 |
| Sat Flow, veh/h | 3456 | 3554 | 1585 | 3456 | 3554 | 1585 | 3456 | 5106 | 1585 | 3456 | 5106 | 1585 |
| Grp Volume(v), veh/h | 177 | 764 | 0 | 129 | 502 | 10 | 140 | 257 | 117 | 55 | 826 | 796 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1585 | 1728 | 1777 | 1585 | 1728 | 1702 | 1585 | 1728 | 1702 | 1585 |
| Q Serve(g_s), s | 6.0 | 24.3 | 0.0 | 4.4 | 15.0 | 0.6 | 4.8 | 3.2 | 4.3 | 1.9 | 12.0 | 54.3 |
| Cycle Q Clear(g_c), s | 6.0 | 24.3 | 0.0 | 4.4 | 15.0 | 0.6 | 4.8 | 3.2 | 4.3 | 1.9 | 12.0 | 54.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 246 | 925 | | 184 | 861 | 384 | 195 | 2561 | 879 | 121 | 2451 | 874 |
| V/C Ratio(X) | 0.72 | 0.83 | | 0.70 | 0.58 | 0.03 | 0.72 | 0.10 | 0.13 | 0.45 | 0.34 | 0.91 |
| Avail Cap(c_a), veh/h | 1253 | 1688 | | 259 | 861 | 384 | 245 | 2561 | 879 | 153 | 2451 | 874 |
| 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) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.5 | 41.8 | 0.0 | 55.9 | 40.1 | 34.7 | 55.7 | 15.7 | 12.8 | 56.8 | 19.4 | 24.3 |
| Incr Delay (d2), s/veh | 3.9 | 2.0 | 0.0 | 4.8 | 1.0 | 0.0 | 7.3 | 0.1 | 0.3 | 2.7 | 0.4 | 15.3 |
| 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 | 2.6 | 10.3 | 0.0 | 2.0 | 6.3 | 0.2 | 2.2 | 1.2 | 1.4 | 0.8 | 4.6 | 21.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 58.5 | 43.8 | 0.0 | 60.6 | 41.1 | 34.7 | 62.9 | 15.8 | 13.2 | 59.4 | 19.7 | 39.5 |
| LnGrp LOS | E | D | | E | D | C | E | B | B | E | B | D |
| Approach Vol, veh/h | | 941 | | | 641 | | | 514 | | | 1677 | |
| Approach Delay, s/veh | | 46.5 | | | 45.0 | | | 28.0 | | | 30.4 | |
| Approach LOS | | D | | | D | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.7 | 64.7 | 10.9 | 35.7 | 11.3 | 62.1 | 13.1 | 33.6 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.3 | 30.7 | 9.0 | 57.0 | 8.5 | 27.5 | 43.5 | 22.5 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 6.3 | 6.4 | 26.3 | 6.8 | 56.3 | 8.0 | 17.0 |
| Green Ext Time (p_c), s | 0.0 | 1.9 | 0.1 | 4.9 | 0.1 | 0.0 | 0.6 | 1.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 36.6 |
| HCM 6th LOS | D |

**Notes**

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 2 | 34 | 21 | 507 | 539 | 2 |
| Future Volume (vph) | 2 | 34 | 21 | 507 | 539 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 470 | 524 | |
| Travel Time (s) | 6.4 | | | 8.0 | 8.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

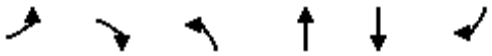
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 34 | 21 | 507 | 539 | 2 |
| Future Vol, veh/h | 2 | 34 | 21 | 507 | 539 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| 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 | 2 | 37 | 23 | 551 | 586 | 2 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1184 | 587 | 588 | 0 | - | 0 |
| Stage 1 | 587 | - | - | - | - | - |
| Stage 2 | 597 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 209 | 510 | 987 | - | - | - |
| Stage 1 | 556 | - | - | - | - | - |
| Stage 2 | 550 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 204 | 510 | 987 | - | - | - |
| Mov Cap-2 Maneuver | 343 | - | - | - | - | - |
| Stage 1 | 543 | - | - | - | - | - |
| Stage 2 | 550 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.9 | 0.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 987 | - | 497 | - | - |
| HCM Lane V/C Ratio | 0.023 | - | 0.079 | - | - |
| HCM Control Delay (s) | 8.7 | - | 12.9 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 4 | 44 | 16 | 524 | 570 | 3 |
| Future Volume (vph) | 4 | 44 | 16 | 524 | 570 | 3 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 25 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 10 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 82 | 470 | |
| Travel Time (s) | 6.4 | | | 1.4 | 8.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

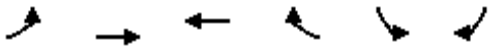
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 44 | 16 | 524 | 570 | 3 |
| Future Vol, veh/h | 4 | 44 | 16 | 524 | 570 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| 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 | 4 | 48 | 17 | 570 | 620 | 3 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1226 | 622 | 623 | 0 | - | 0 |
| Stage 1 | 622 | - | - | - | - | - |
| Stage 2 | 604 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 197 | 487 | 958 | - | - | - |
| Stage 1 | 535 | - | - | - | - | - |
| Stage 2 | 546 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 193 | 487 | 958 | - | - | - |
| Mov Cap-2 Maneuver | 332 | - | - | - | - | - |
| Stage 1 | 525 | - | - | - | - | - |
| Stage 2 | 546 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.6 | 0.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 958 | - | 469 | - | - |
| HCM Lane V/C Ratio | 0.018 | - | 0.111 | - | - |
| HCM Control Delay (s) | 8.8 | - | 13.6 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.4 | - | - |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 1150 | 1305 | 33 | 0 | 29 |
| Future Volume (vph) | 0 | 1150 | 1305 | 33 | 0 | 29 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 650 | 647 | | 292 | |
| Travel Time (s) | | 8.1 | 8.0 | | 6.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized

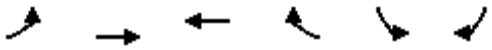
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 1150 | 1305 | 33 | 0 | 29 |
| Future Vol, veh/h | 0 | 1150 | 1305 | 33 | 0 | 29 |
| 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, # | - | 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 | 0 | 1250 | 1418 | 36 | 0 | 32 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 0 | - | 727 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 314 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | - | 314 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 17.7 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 314 |
| HCM Lane V/C Ratio | - | - | - | 0.1 |
| HCM Control Delay (s) | - | - | - | 17.7 |
| HCM Lane LOS | - | - | - | C |
| HCM 95th %tile Q(veh) | - | - | - | 0.3 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 26 | 1150 | 1331 | 3 | 0 | 18 |
| Future Volume (vph) | 26 | 1150 | 1331 | 3 | 0 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 0 | 1 |
| Taper Length (ft) | 60 | | | | 90 | |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 1330 | 650 | | 268 | |
| Travel Time (s) | | 16.5 | 8.1 | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

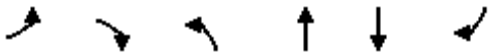
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 26 | 1150 | 1331 | 3 | 0 | 18 |
| Future Vol, veh/h | 26 | 1150 | 1331 | 3 | 0 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | - | 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 | 28 | 1250 | 1447 | 3 | 0 | 20 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1450 | 0 | - | 0 | - | 725 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | 5.34 | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | 3.12 | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 236 | - | - | - | 0 | 315 |
| Stage 1 | - | - | - | - | 0 | - |
| Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 236 | - | - | - | - | 315 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.5 | 0 | 17.2 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 236 | - | - | - | 315 |
| HCM Lane V/C Ratio | 0.12 | - | - | - | 0.062 |
| HCM Control Delay (s) | 22.3 | - | - | - | 17.2 |
| HCM Lane LOS | C | - | - | - | C |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 0.2 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 103 | 140 | 0 | 209 | 172 | 0 |
| Future Volume (vph) | 103 | 140 | 0 | 209 | 172 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

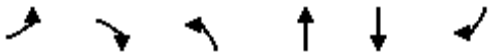
| Intersection | |
|---|---|
| Int Delay, s/veh | 5.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 103 | 140 | 0 | 209 | 172 | 0 |
| Future Vol, veh/h | 103 | 140 | 0 | 209 | 172 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 60 | 60 | 60 | 60 | 60 | 60 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 172 | 233 | 0 | 348 | 287 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 635 | 287 | - | 0 | - | 0 |
| Stage 1 | 287 | - | - | - | - | - |
| Stage 2 | 348 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 443 | 752 | 0 | - | - | 0 |
| Stage 1 | 762 | - | 0 | - | - | 0 |
| Stage 2 | 715 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 443 | 752 | - | - | - | - |
| Mov Cap-2 Maneuver | 538 | - | - | - | - | - |
| Stage 1 | 762 | - | - | - | - | - |
| Stage 2 | 715 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.1 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 538 | 752 | - |
| HCM Lane V/C Ratio | - | 0.319 | 0.31 | - |
| HCM Control Delay (s) | - | 14.8 | 11.9 | - |
| HCM Lane LOS | - | B | B | - |
| HCM 95th %tile Q(veh) | - | 1.4 | 1.3 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 31 | 67 | 166 | 146 | 105 | 332 |
| Future Volume (vph) | 31 | 67 | 166 | 146 | 105 | 332 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

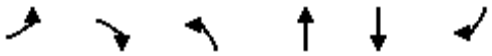
| Intersection | |
|---|---|
| Int Delay, s/veh | 8.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 31 | 67 | 166 | 146 | 105 | 332 |
| Future Vol, veh/h | 31 | 67 | 166 | 146 | 105 | 332 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 55 | 55 | 55 | 55 | 55 | 55 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 56 | 122 | 302 | 265 | 191 | 604 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1362 | 493 | 795 | 0 | - | 0 |
| Stage 1 | 493 | - | - | - | - | - |
| Stage 2 | 869 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 163 | 576 | 826 | - | - | - |
| Stage 1 | 614 | - | - | - | - | - |
| Stage 2 | 410 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 103 | 576 | 826 | - | - | - |
| Mov Cap-2 Maneuver | 103 | - | - | - | - | - |
| Stage 1 | 389 | - | - | - | - | - |
| Stage 2 | 410 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 56.4 | 6.3 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 826 | - | 235 | - | - |
| HCM Lane V/C Ratio | 0.365 | - | 0.758 | - | - |
| HCM Control Delay (s) | 11.8 | - | 56.4 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 1.7 | - | 5.4 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 9 | 126 | 89 | 245 | 296 | 19 |
| Future Volume (vph) | 9 | 126 | 89 | 245 | 296 | 19 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 9 | 126 | 89 | 245 | 296 | 19 |
| Future Vol, veh/h | 9 | 126 | 89 | 245 | 296 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 18 | 252 | 178 | 490 | 592 | 38 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1457 | 611 | 630 | 0 | - | 0 |
| Stage 1 | 611 | - | - | - | - | - |
| Stage 2 | 846 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 143 | 494 | 952 | - | - | - |
| Stage 1 | 542 | - | - | - | - | - |
| Stage 2 | 421 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 116 | 494 | 952 | - | - | - |
| Mov Cap-2 Maneuver | 250 | - | - | - | - | - |
| Stage 1 | 441 | - | - | - | - | - |
| Stage 2 | 421 | - | - | - | - | - |

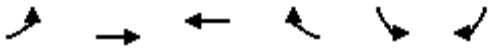
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 23 | 2.6 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 952 | - | 464 | - | - |
| HCM Lane V/C Ratio | 0.187 | - | 0.582 | - | - |
| HCM Control Delay (s) | 9.6 | - | 23 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.7 | - | 3.6 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 210 | 934 | 1212 | 208 | 291 | 260 |
| Future Volume (vph) | 210 | 934 | 1212 | 208 | 291 | 260 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 |
| Shared Lane Traffic (%) | | | | | | 33% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 11.0 | 37.5 | 26.5 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 18.3% | 62.5% | 44.2% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 6.5 | 33.0 | 22.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.



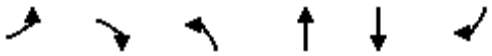
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 210 | 934 | 1212 | 208 | 291 | 260 |
| Future Volume (veh/h) | 210 | 934 | 1212 | 208 | 291 | 260 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 273 | 1213 | 1574 | 270 | 471 | 239 |
| Peak Hour Factor | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 367 | 2808 | 1883 | 1060 | 1069 | 476 |
| Arrive On Green | 0.21 | 1.00 | 0.12 | 0.12 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 3563 | 1585 |
| Grp Volume(v), veh/h | 273 | 1213 | 1574 | 270 | 471 | 239 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 4.4 | 0.0 | 18.1 | 5.0 | 6.4 | 7.5 |
| Cycle Q Clear(g_c), s | 4.4 | 0.0 | 18.1 | 5.0 | 6.4 | 7.5 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 367 | 2808 | 1883 | 1060 | 1069 | 476 |
| V/C Ratio(X) | 0.74 | 0.43 | 0.84 | 0.25 | 0.44 | 0.50 |
| Avail Cap(c_a), veh/h | 374 | 2808 | 1883 | 1060 | 1069 | 476 |
| HCM Platoon Ratio | 2.00 | 2.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.9 | 0.0 | 24.6 | 5.7 | 16.9 | 17.3 |
| Incr Delay (d2), s/veh | 7.7 | 0.5 | 4.6 | 0.6 | 1.3 | 3.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 0.1 | 8.6 | 3.4 | 2.5 | 7.3 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 30.5 | 0.5 | 29.2 | 6.3 | 18.3 | 21.1 |
| LnGrp LOS | C | A | C | A | B | C |
| Approach Vol, veh/h | | 1486 | 1844 | | 710 | |
| Approach Delay, s/veh | | 6.0 | 25.8 | | 19.2 | |
| Approach LOS | | A | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 10.9 | 26.6 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 6.5 | 22.0 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 9.5 | 6.4 | 20.1 |
| Green Ext Time (p_c), s | | 8.8 | | 1.8 | 0.0 | 1.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 17.4 |
| HCM 6th LOS | B |

Notes

User approved volume balancing among the lanes for turning movement.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 4 | 58 | 54 | 330 | 418 | 4 |
| Future Volume (vph) | 4 | 58 | 54 | 330 | 418 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 470 | 524 | |
| Travel Time (s) | 6.4 | | | 8.0 | 8.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

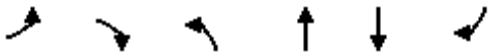
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 58 | 54 | 330 | 418 | 4 |
| Future Vol, veh/h | 4 | 58 | 54 | 330 | 418 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| 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 | 4 | 63 | 59 | 359 | 454 | 4 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 933 | 456 | 458 | 0 | - | 0 |
| Stage 1 | 456 | - | - | - | - | - |
| Stage 2 | 477 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 295 | 604 | 1103 | - | - | - |
| Stage 1 | 638 | - | - | - | - | - |
| Stage 2 | 624 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 279 | 604 | 1103 | - | - | - |
| Mov Cap-2 Maneuver | 407 | - | - | - | - | - |
| Stage 1 | 604 | - | - | - | - | - |
| Stage 2 | 624 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.9 | 1.2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1103 | - | 586 | - | - |
| HCM Lane V/C Ratio | 0.053 | - | 0.115 | - | - |
| HCM Control Delay (s) | 8.4 | - | 11.9 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.4 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 6 | 82 | 40 | 378 | 469 | 7 |
| Future Volume (vph) | 6 | 82 | 40 | 378 | 469 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 25 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 10 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 82 | 470 | |
| Travel Time (s) | 6.4 | | | 1.4 | 8.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

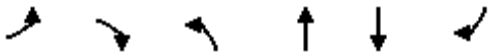
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 82 | 40 | 378 | 469 | 7 |
| Future Vol, veh/h | 6 | 82 | 40 | 378 | 469 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| 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 | 7 | 89 | 43 | 411 | 510 | 8 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1011 | 514 | 518 | 0 | - | 0 |
| Stage 1 | 514 | - | - | - | - | - |
| Stage 2 | 497 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 265 | 560 | 1048 | - | - | - |
| Stage 1 | 600 | - | - | - | - | - |
| Stage 2 | 611 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 254 | 560 | 1048 | - | - | - |
| Mov Cap-2 Maneuver | 386 | - | - | - | - | - |
| Stage 1 | 575 | - | - | - | - | - |
| Stage 2 | 611 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13 | 0.8 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1048 | - | 543 | - | - |
| HCM Lane V/C Ratio | 0.041 | - | 0.176 | - | - |
| HCM Control Delay (s) | 8.6 | - | 13 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.6 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 88 | 107 | 0 | 254 | 208 | 0 |
| Future Volume (vph) | 88 | 107 | 0 | 254 | 208 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

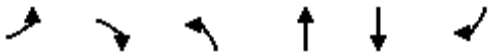
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 88 | 107 | 0 | 254 | 208 | 0 |
| Future Vol, veh/h | 88 | 107 | 0 | 254 | 208 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 176 | 214 | 0 | 508 | 416 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 924 | 416 | - | 0 | - | 0 |
| Stage 1 | 416 | - | - | - | - | - |
| Stage 2 | 508 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 299 | 637 | 0 | - | - | 0 |
| Stage 1 | 666 | - | 0 | - | - | 0 |
| Stage 2 | 604 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 299 | 637 | - | - | - | - |
| Mov Cap-2 Maneuver | 425 | - | - | - | - | - |
| Stage 1 | 666 | - | - | - | - | - |
| Stage 2 | 604 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 16.1 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 425 | 637 | - |
| HCM Lane V/C Ratio | - | 0.414 | 0.336 | - |
| HCM Control Delay (s) | - | 19.3 | 13.5 | - |
| HCM Lane LOS | - | C | B | - |
| HCM 95th %tile Q(veh) | - | 2 | 1.5 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 59 | 53 | 122 | 220 | 155 | 137 |
| Future Volume (vph) | 59 | 53 | 122 | 220 | 155 | 137 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 25.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 59 | 53 | 122 | 220 | 155 | 137 |
| Future Vol, veh/h | 59 | 53 | 122 | 220 | 155 | 137 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 118 | 106 | 244 | 440 | 310 | 274 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1375 | 447 | 584 | 0 | - | 0 |
| Stage 1 | 447 | - | - | - | - | - |
| Stage 2 | 928 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 160 | 612 | 991 | - | - | - |
| Stage 1 | 644 | - | - | - | - | - |
| Stage 2 | 385 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 121 | 612 | 991 | - | - | - |
| Mov Cap-2 Maneuver | 121 | - | - | - | - | - |
| Stage 1 | 486 | - | - | - | - | - |
| Stage 2 | 385 | - | - | - | - | - |

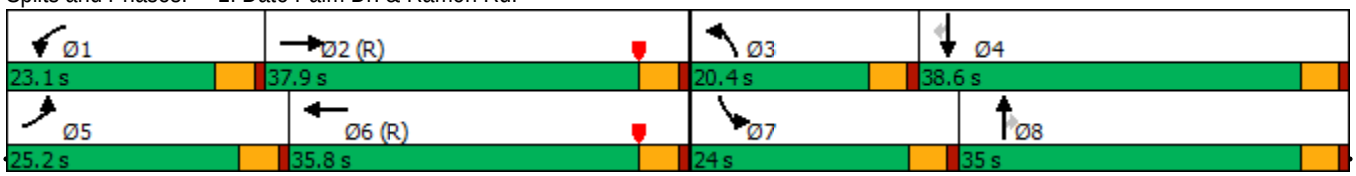
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 160.2 | 3.5 | 0 |
| HCM LOS | F | | |

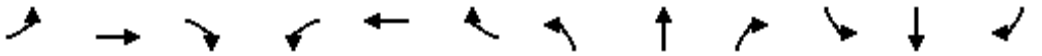
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 991 | - | 195 | - | - |
| HCM Lane V/C Ratio | 0.246 | - | 1.149 | - | - |
| HCM Control Delay (s) | 9.8 | - | 160.2 | - | - |
| HCM Lane LOS | A | - | F | - | - |
| HCM 95th %tile Q(veh) | 1 | - | 11.2 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 212 | 745 | 120 | 187 | 811 | 161 | 255 | 683 | 125 | 198 | 511 | 165 |
| Future Volume (vph) | 212 | 745 | 120 | 187 | 811 | 161 | 255 | 683 | 125 | 198 | 511 | 165 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 0 | 225 | | 0 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 25.2 | 37.9 | | 23.1 | 35.8 | | 20.4 | 35.0 | 35.0 | 24.0 | 38.6 | 38.6 |
| Total Split (%) | 21.0% | 31.6% | | 19.3% | 29.8% | | 17.0% | 29.2% | 29.2% | 20.0% | 32.2% | 32.2% |
| Maximum Green (s) | 20.7 | 33.4 | | 18.6 | 31.3 | | 15.9 | 30.5 | 30.5 | 19.5 | 34.1 | 34.1 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | Max | Max | None | Max | Max |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 212 | 745 | 120 | 187 | 811 | 161 | 255 | 683 | 125 | 198 | 511 | 165 |
| Future Volume (veh/h) | 212 | 745 | 120 | 187 | 811 | 161 | 255 | 683 | 125 | 198 | 511 | 165 |
| 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 | | 0.99 | 1.00 | | 0.99 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 236 | 828 | 133 | 208 | 901 | 179 | 283 | 759 | 139 | 220 | 568 | 183 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 264 | 1438 | 229 | 236 | 1317 | 261 | 346 | 903 | 400 | 248 | 1043 | 463 |
| Arrive On Green | 0.15 | 0.32 | 0.32 | 0.13 | 0.31 | 0.31 | 0.10 | 0.25 | 0.25 | 0.14 | 0.29 | 0.29 |
| Sat Flow, veh/h | 1781 | 4435 | 708 | 1781 | 4272 | 845 | 3456 | 3554 | 1576 | 1781 | 3554 | 1577 |
| Grp Volume(v), veh/h | 236 | 634 | 327 | 208 | 717 | 363 | 283 | 759 | 139 | 220 | 568 | 183 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1739 | 1781 | 1702 | 1713 | 1728 | 1777 | 1576 | 1781 | 1777 | 1577 |
| Q Serve(g_s), s | 15.6 | 18.6 | 18.8 | 13.8 | 22.1 | 22.3 | 9.6 | 24.3 | 8.7 | 14.6 | 16.1 | 11.1 |
| Cycle Q Clear(g_c), s | 15.6 | 18.6 | 18.8 | 13.8 | 22.1 | 22.3 | 9.6 | 24.3 | 8.7 | 14.6 | 16.1 | 11.1 |
| Prop In Lane | 1.00 | | 0.41 | 1.00 | | 0.49 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 264 | 1103 | 564 | 236 | 1049 | 528 | 346 | 903 | 400 | 248 | 1043 | 463 |
| V/C Ratio(X) | 0.89 | 0.57 | 0.58 | 0.88 | 0.68 | 0.69 | 0.82 | 0.84 | 0.35 | 0.89 | 0.54 | 0.40 |
| Avail Cap(c_a), veh/h | 307 | 1103 | 564 | 276 | 1049 | 528 | 458 | 903 | 400 | 289 | 1043 | 463 |
| 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) | 1.00 | 1.00 | 1.00 | 0.88 | 0.88 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.2 | 33.7 | 33.7 | 51.1 | 36.4 | 36.4 | 52.9 | 42.4 | 36.6 | 50.7 | 35.7 | 33.9 |
| Incr Delay (d2), s/veh | 24.2 | 2.2 | 4.3 | 21.8 | 3.2 | 6.3 | 8.5 | 9.3 | 2.4 | 24.1 | 2.0 | 2.5 |
| 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 | 8.5 | 7.6 | 8.2 | 7.3 | 9.2 | 9.8 | 4.5 | 11.4 | 3.5 | 8.0 | 7.0 | 4.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 74.4 | 35.9 | 38.1 | 72.9 | 39.6 | 42.7 | 61.5 | 51.7 | 39.0 | 74.8 | 37.7 | 36.4 |
| LnGrp LOS | E | D | D | E | D | D | E | D | D | E | D | D |
| Approach Vol, veh/h | | 1197 | | | 1288 | | | 1181 | | | 971 | |
| Approach Delay, s/veh | | 44.1 | | | 45.8 | | | 52.6 | | | 45.9 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 20.4 | 43.4 | 16.5 | 39.7 | 22.3 | 41.5 | 21.2 | 35.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.6 | 33.4 | 15.9 | 34.1 | 20.7 | 31.3 | 19.5 | 30.5 |
| Max Q Clear Time (g_c+I1), s | 15.8 | 20.8 | 11.6 | 18.1 | 17.6 | 24.3 | 16.6 | 26.3 |
| Green Ext Time (p_c), s | 0.1 | 4.6 | 0.4 | 3.7 | 0.2 | 3.5 | 0.2 | 2.0 |

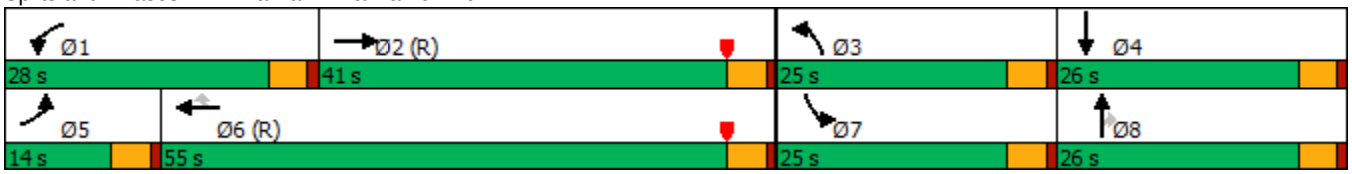
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 47.1 |
| HCM 6th LOS | D |

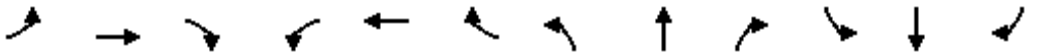
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 44 | 803 | 81 | 167 | 848 | 226 | 141 | 255 | 128 | 140 | 120 | 27 |
| Future Volume (vph) | 44 | 803 | 81 | 167 | 848 | 226 | 141 | 255 | 128 | 140 | 120 | 27 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 0 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 14.0 | 41.0 | | 28.0 | 55.0 | 55.0 | 25.0 | 26.0 | 26.0 | 25.0 | 26.0 | |
| Total Split (%) | 11.7% | 34.2% | | 23.3% | 45.8% | 45.8% | 20.8% | 21.7% | 21.7% | 20.8% | 21.7% | |
| Maximum Green (s) | 9.5 | 36.5 | | 23.5 | 50.5 | 50.5 | 20.5 | 21.5 | 21.5 | 20.5 | 21.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | C-Max | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 44 | 803 | 81 | 167 | 848 | 226 | 141 | 255 | 128 | 140 | 120 | 27 |
| Future Volume (veh/h) | 44 | 803 | 81 | 167 | 848 | 226 | 141 | 255 | 128 | 140 | 120 | 27 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 51 | 923 | 93 | 192 | 975 | 260 | 162 | 293 | 147 | 161 | 138 | 31 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 66 | 2072 | 208 | 221 | 2688 | 835 | 191 | 639 | 285 | 190 | 265 | 60 |
| Arrive On Green | 0.04 | 0.44 | 0.44 | 0.17 | 0.70 | 0.70 | 0.11 | 0.18 | 0.18 | 0.11 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1781 | 4715 | 474 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 1781 | 1478 | 332 |
| Grp Volume(v), veh/h | 51 | 666 | 350 | 192 | 975 | 260 | 162 | 293 | 147 | 161 | 0 | 169 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1785 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1781 | 0 | 1811 |
| Q Serve(g_s), s | 3.4 | 16.3 | 16.4 | 12.6 | 9.2 | 7.5 | 10.7 | 8.8 | 10.1 | 10.7 | 0.0 | 10.1 |
| Cycle Q Clear(g_c), s | 3.4 | 16.3 | 16.4 | 12.6 | 9.2 | 7.5 | 10.7 | 8.8 | 10.1 | 10.7 | 0.0 | 10.1 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 66 | 1496 | 784 | 221 | 2688 | 835 | 191 | 639 | 285 | 190 | 0 | 324 |
| V/C Ratio(X) | 0.77 | 0.44 | 0.45 | 0.87 | 0.36 | 0.31 | 0.85 | 0.46 | 0.52 | 0.85 | 0.00 | 0.52 |
| Avail Cap(c_a), veh/h | 141 | 1496 | 784 | 349 | 2688 | 835 | 304 | 639 | 285 | 304 | 0 | 324 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.33 | 1.33 | 1.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.71 | 0.71 | 0.71 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.3 | 23.4 | 23.5 | 49.1 | 9.9 | 9.6 | 52.6 | 44.0 | 44.5 | 52.6 | 0.0 | 44.6 |
| Incr Delay (d2), s/veh | 12.8 | 0.7 | 1.3 | 13.0 | 0.4 | 1.0 | 11.9 | 2.4 | 6.5 | 11.7 | 0.0 | 5.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 6.3 | 6.8 | 5.9 | 2.8 | 2.4 | 5.3 | 4.0 | 4.3 | 5.3 | 0.0 | 5.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 70.1 | 24.1 | 24.8 | 62.2 | 10.3 | 10.6 | 64.5 | 46.4 | 51.0 | 64.3 | 0.0 | 50.5 |
| LnGrp LOS | E | C | C | E | B | B | E | D | D | E | A | D |
| Approach Vol, veh/h | | 1067 | | | 1427 | | | 602 | | | 330 | |
| Approach Delay, s/veh | | 26.5 | | | 17.3 | | | 52.4 | | | 57.2 | |
| Approach LOS | | C | | | B | | | D | | | E | |

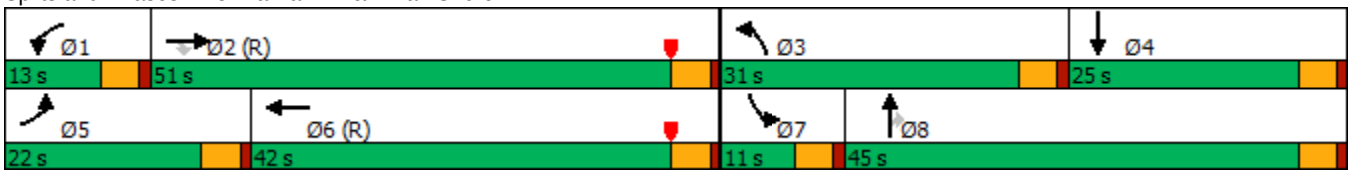
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 19.4 | 57.2 | 17.4 | 26.0 | 8.9 | 67.7 | 17.3 | 26.1 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 23.5 | 36.5 | 20.5 | 21.5 | 9.5 | 50.5 | 20.5 | 21.5 |
| Max Q Clear Time (g_c+I1), s | 14.6 | 18.4 | 12.7 | 12.1 | 5.4 | 11.2 | 12.7 | 12.1 |
| Green Ext Time (p_c), s | 0.3 | 5.7 | 0.2 | 0.5 | 0.0 | 8.1 | 0.2 | 1.5 |

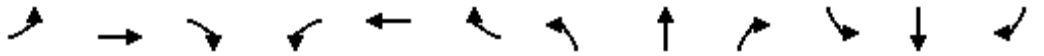
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 30.2 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 109 | 498 | 134 | 42 | 521 | 96 | 186 | 292 | 38 | 24 | 217 | 137 |
| Future Volume (vph) | 109 | 498 | 134 | 42 | 521 | 96 | 186 | 292 | 38 | 24 | 217 | 137 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 175 | | 215 | 185 | | 0 | 125 | | 125 | 135 | | 135 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 50 | | | 50 | |
| Link Distance (ft) | | 918 | | | 366 | | | 1131 | | | 331 | |
| Travel Time (s) | | 20.9 | | | 8.3 | | | 15.4 | | | 4.5 | |
| 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 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 22.0 | 51.0 | 51.0 | 13.0 | 42.0 | | 31.0 | 45.0 | 45.0 | 11.0 | 25.0 | |
| Total Split (%) | 18.3% | 42.5% | 42.5% | 10.8% | 35.0% | | 25.8% | 37.5% | 37.5% | 9.2% | 20.8% | |
| Maximum Green (s) | 17.5 | 46.5 | 46.5 | 8.5 | 37.5 | | 26.5 | 40.5 | 40.5 | 6.5 | 20.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 3: Da Vall Dr. & Dinah Shore Dr.

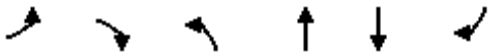




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 109 | 498 | 134 | 42 | 521 | 96 | 186 | 292 | 38 | 24 | 217 | 137 |
| Future Volume (veh/h) | 109 | 498 | 134 | 42 | 521 | 96 | 186 | 292 | 38 | 24 | 217 | 137 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 115 | 524 | 141 | 44 | 548 | 101 | 196 | 307 | 40 | 25 | 228 | 144 |
| 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 | 142 | 1624 | 724 | 57 | 1227 | 225 | 227 | 1199 | 535 | 42 | 497 | 301 |
| Arrive On Green | 0.08 | 0.46 | 0.46 | 0.03 | 0.41 | 0.41 | 0.13 | 0.34 | 0.34 | 0.02 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 2998 | 551 | 1781 | 3554 | 1585 | 1781 | 2126 | 1289 |
| Grp Volume(v), veh/h | 115 | 524 | 141 | 44 | 324 | 325 | 196 | 307 | 40 | 25 | 189 | 183 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1771 | 1781 | 1777 | 1585 | 1781 | 1777 | 1638 |
| Q Serve(g_s), s | 7.6 | 11.3 | 6.4 | 2.9 | 15.8 | 15.9 | 12.9 | 7.5 | 2.1 | 1.7 | 10.9 | 11.6 |
| Cycle Q Clear(g_c), s | 7.6 | 11.3 | 6.4 | 2.9 | 15.8 | 15.9 | 12.9 | 7.5 | 2.1 | 1.7 | 10.9 | 11.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.31 | 1.00 | | 1.00 | 1.00 | | 0.79 |
| Lane Grp Cap(c), veh/h | 142 | 1624 | 724 | 57 | 727 | 725 | 227 | 1199 | 535 | 42 | 415 | 383 |
| V/C Ratio(X) | 0.81 | 0.32 | 0.19 | 0.77 | 0.45 | 0.45 | 0.86 | 0.26 | 0.07 | 0.60 | 0.46 | 0.48 |
| Avail Cap(c_a), veh/h | 260 | 1624 | 724 | 126 | 727 | 725 | 393 | 1199 | 535 | 96 | 415 | 383 |
| 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) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.3 | 20.8 | 19.4 | 57.6 | 25.6 | 25.6 | 51.3 | 28.8 | 27.0 | 58.0 | 39.4 | 39.7 |
| Incr Delay (d2), s/veh | 10.4 | 0.5 | 0.6 | 19.3 | 2.0 | 2.0 | 9.4 | 0.5 | 0.3 | 12.8 | 3.6 | 4.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.8 | 4.8 | 2.3 | 1.6 | 7.1 | 7.1 | 6.2 | 3.2 | 0.8 | 0.9 | 5.0 | 4.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 64.8 | 21.3 | 20.0 | 76.9 | 27.6 | 27.6 | 60.7 | 29.3 | 27.3 | 70.8 | 43.0 | 43.9 |
| LnGrp LOS | E | C | C | E | C | C | E | C | C | E | D | D |
| Approach Vol, veh/h | | 780 | | | 693 | | | 543 | | | 397 | |
| Approach Delay, s/veh | | 27.5 | | | 30.7 | | | 40.5 | | | 45.2 | |
| Approach LOS | | C | | | C | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.3 | 59.3 | 19.8 | 32.5 | 14.1 | 53.6 | 7.3 | 45.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 8.5 | 46.5 | 26.5 | 20.5 | 17.5 | 37.5 | 6.5 | 40.5 |
| Max Q Clear Time (g_c+I1), s | 4.9 | 13.3 | 14.9 | 13.6 | 9.6 | 17.9 | 3.7 | 9.5 |
| Green Ext Time (p_c), s | 0.0 | 4.4 | 0.4 | 1.1 | 0.1 | 4.0 | 0.0 | 1.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 34.3 |
| HCM 6th LOS | C |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 23 | 117 | 32 | 126 | 156 | 19 |
| Future Volume (vph) | 23 | 117 | 32 | 126 | 156 | 19 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 23 | 117 | 32 | 126 | 156 | 19 |
| Future Vol, veh/h | 23 | 117 | 32 | 126 | 156 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 46 | 234 | 64 | 252 | 312 | 38 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 711 | 331 | 350 | 0 | - | 0 |
| Stage 1 | 331 | - | - | - | - | - |
| Stage 2 | 380 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 400 | 711 | 1209 | - | - | - |
| Stage 1 | 728 | - | - | - | - | - |
| Stage 2 | 691 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 379 | 711 | 1209 | - | - | - |
| Mov Cap-2 Maneuver | 488 | - | - | - | - | - |
| Stage 1 | 689 | - | - | - | - | - |
| Stage 2 | 691 | - | - | - | - | - |

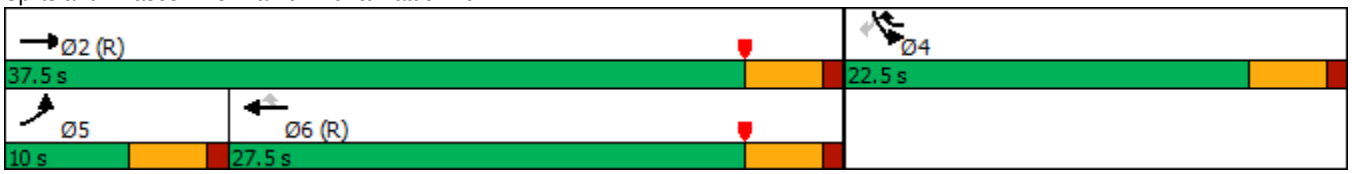
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.4 | 1.6 | 0 |
| HCM LOS | B | | |

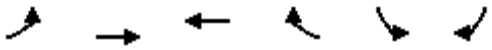
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1209 | - | 661 | - | - |
| HCM Lane V/C Ratio | 0.053 | - | 0.424 | - | - |
| HCM Control Delay (s) | 8.1 | - | 14.4 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 2.1 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 109 | 965 | 1104 | 133 | 242 | 160 |
| Future Volume (vph) | 109 | 965 | 1104 | 133 | 242 | 160 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Shared Lane Traffic (%) | | | | | | 22% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 10.0 | 37.5 | 27.5 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 16.7% | 62.5% | 45.8% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 5.5 | 33.0 | 23.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.





| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 109 | 965 | 1104 | 133 | 242 | 160 |
| Future Volume (veh/h) | 109 | 965 | 1104 | 133 | 242 | 160 |
| 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 140 | 1237 | 1415 | 171 | 341 | 172 |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 260 | 2808 | 2041 | 1109 | 1069 | 476 |
| Arrive On Green | 0.15 | 1.00 | 0.13 | 0.13 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 3563 | 1585 |
| Grp Volume(v), veh/h | 140 | 1237 | 1415 | 171 | 341 | 172 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 2.2 | 0.0 | 15.9 | 2.9 | 4.4 | 5.1 |
| Cycle Q Clear(g_c), s | 2.2 | 0.0 | 15.9 | 2.9 | 4.4 | 5.1 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 260 | 2808 | 2041 | 1109 | 1069 | 476 |
| V/C Ratio(X) | 0.54 | 0.44 | 0.69 | 0.15 | 0.32 | 0.36 |
| Avail Cap(c_a), veh/h | 317 | 2808 | 2041 | 1109 | 1069 | 476 |
| HCM Platoon Ratio | 2.00 | 2.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.86 | 0.86 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.5 | 0.0 | 22.5 | 4.5 | 16.3 | 16.5 |
| Incr Delay (d2), s/veh | 1.7 | 0.5 | 1.7 | 0.3 | 0.8 | 2.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 0.1 | 7.2 | 1.8 | 1.7 | 5.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 26.3 | 0.5 | 24.2 | 4.8 | 17.0 | 18.6 |
| LnGrp LOS | C | A | C | A | B | B |
| Approach Vol, veh/h | | 1377 | 1586 | | 513 | |
| Approach Delay, s/veh | | 3.1 | 22.1 | | 17.6 | |
| Approach LOS | | A | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 9.0 | 28.5 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 5.5 | 23.0 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 7.1 | 4.2 | 17.9 |
| Green Ext Time (p_c), s | | 9.0 | | 1.4 | 0.0 | 3.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 13.9 |
| HCM 6th LOS | B |

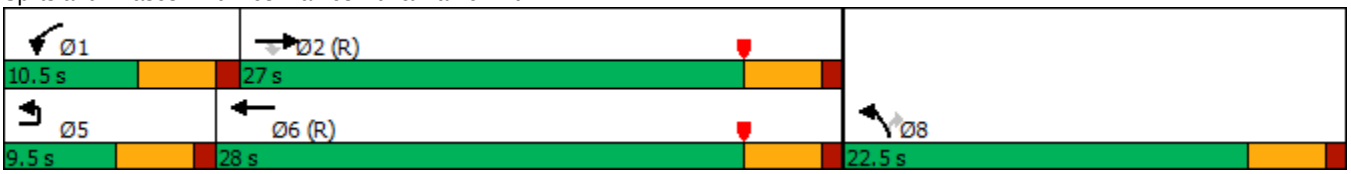
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 1 | 1146 | 53 | 44 | 1164 | 77 | 72 |
| Future Volume (vph) | 1 | 1146 | 53 | 44 | 1164 | 77 | 72 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 200 | 255 | | 125 | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 |
| Taper Length (ft) | 90 | | | 90 | | 90 | |
| Right Turn on Red | | | Yes | | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | 50 | |
| Link Distance (ft) | | 2660 | | | 3172 | 1424 | |
| Travel Time (s) | | 33.0 | | | 39.3 | 19.4 | |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Shared Lane Traffic (%) | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | |
| Permitted Phases | | | 2 | | | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 8 | 8 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 27.0 | 27.0 | 10.5 | 28.0 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 45.0% | 45.0% | 17.5% | 46.7% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 22.5 | 22.5 | 6.0 | 23.5 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 6: Los Alamos Rd. & Ramon Rd.



| Movement | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1 | 1146 | 53 | 44 | 1164 | 77 | 72 |
| Future Volume (veh/h) | 1 | 1146 | 53 | 44 | 1164 | 77 | 72 |
| 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 |
| Work Zone On Approach | | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | 1364 | 63 | 52 | 1386 | 92 | 86 |
| Peak Hour Factor | | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, % | | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | | 2179 | 676 | 86 | 2808 | 1037 | 476 |
| Arrive On Green | | 0.14 | 0.14 | 0.05 | 0.55 | 0.30 | 0.30 |
| Sat Flow, veh/h | | 5274 | 1585 | 1781 | 5274 | 3456 | 1585 |
| Grp Volume(v), veh/h | | 1364 | 63 | 52 | 1386 | 92 | 86 |
| Grp Sat Flow(s),veh/h/ln | | 1702 | 1585 | 1781 | 1702 | 1728 | 1585 |
| Q Serve(g_s), s | | 15.1 | 2.1 | 1.7 | 10.1 | 1.1 | 2.4 |
| Cycle Q Clear(g_c), s | | 15.1 | 2.1 | 1.7 | 10.1 | 1.1 | 2.4 |
| Prop In Lane | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | | 2179 | 676 | 86 | 2808 | 1037 | 476 |
| V/C Ratio(X) | | 0.63 | 0.09 | 0.60 | 0.49 | 0.09 | 0.18 |
| Avail Cap(c_a), veh/h | | 2179 | 676 | 178 | 2808 | 1037 | 476 |
| HCM Platoon Ratio | | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | 21.3 | 15.7 | 28.0 | 8.3 | 15.1 | 15.5 |
| Incr Delay (d2), s/veh | | 1.2 | 0.2 | 6.7 | 0.6 | 0.2 | 0.8 |
| Initial Q Delay(d3),s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | 6.6 | 0.6 | 0.8 | 2.4 | 0.4 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | | 22.5 | 15.9 | 34.6 | 9.0 | 15.3 | 16.4 |
| LnGrp LOS | | C | B | C | A | B | B |
| Approach Vol, veh/h | | 1427 | | | 1438 | 178 | |
| Approach Delay, s/veh | | 22.2 | | | 9.9 | 15.8 | |
| Approach LOS | | C | | | A | B | |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.4 | 30.1 | | | | 37.5 | | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 6.0 | 22.5 | | | | 23.5 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | 3.7 | 17.1 | | | | 12.1 | | 4.4 |
| Green Ext Time (p_c), s | 0.0 | 3.6 | | | | 6.3 | | 0.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.0 |
| HCM 6th LOS | B |

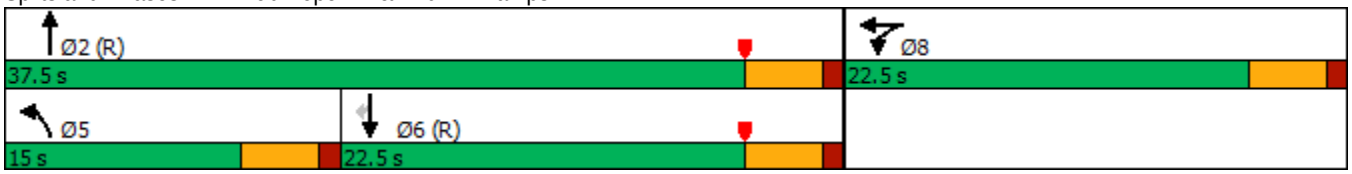
Notes

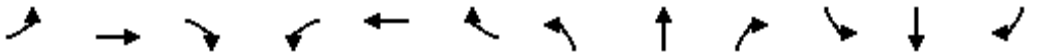
User approved ignoring U-Turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 540 | 1 | 111 | 582 | 284 | 0 | 0 | 199 | 277 |
| Future Volume (vph) | 0 | 0 | 0 | 540 | 1 | 111 | 582 | 284 | 0 | 0 | 199 | 277 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 430 | 210 | | 0 | 0 | | 205 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 2 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 581 | | | 1228 | | | 688 | | | 840 | |
| Travel Time (s) | | 11.3 | | | 23.9 | | | 10.4 | | | 12.7 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Shared Lane Traffic (%) | | | | 50% | | | | | | | | |
| Turn Type | | | | Split | NA | Free | Prot | NA | | | NA | Perm |
| Protected Phases | | | | 8 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | | | Free | | | | | | 6 |
| Detector Phase | | | | 8 | 8 | | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | 5.0 |
| Minimum Split (s) | | | | 22.5 | 22.5 | | 9.5 | 22.5 | | | 22.5 | 22.5 |
| Total Split (s) | | | | 22.5 | 22.5 | | 15.0 | 37.5 | | | 22.5 | 22.5 |
| Total Split (%) | | | | 37.5% | 37.5% | | 25.0% | 62.5% | | | 37.5% | 37.5% |
| Maximum Green (s) | | | | 18.0 | 18.0 | | 10.5 | 33.0 | | | 18.0 | 18.0 |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | 3.5 |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | 4.5 |
| Lead/Lag | | | | | | | Lead | | | | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | Yes |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | | | | None | None | | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | | | | | | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 7: Bob Hope Dr. & I-10 NB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 540 | 1 | 111 | 582 | 284 | 0 | 0 | 199 | 277 |
| Future Volume (veh/h) | 0 | 0 | 0 | 540 | 1 | 111 | 582 | 284 | 0 | 0 | 199 | 277 |
| 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 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 594 | 0 | 0 | 640 | 312 | 0 | 0 | 219 | 304 |
| Peak Hour Factor | | | | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 758 | 0 | | 605 | 2265 | 0 | 0 | 1977 | 614 |
| Arrive On Green | | | | 0.21 | 0.00 | 0.00 | 0.29 | 1.00 | 0.00 | 0.00 | 0.39 | 0.39 |
| Sat Flow, veh/h | | | | 3563 | 0 | 1585 | 3456 | 3647 | 0 | 0 | 5274 | 1585 |
| Grp Volume(v), veh/h | | | | 594 | 0 | 0 | 640 | 312 | 0 | 0 | 219 | 304 |
| Grp Sat Flow(s),veh/h/ln | | | | 1781 | 0 | 1585 | 1728 | 1777 | 0 | 0 | 1702 | 1585 |
| Q Serve(g_s), s | | | | 9.5 | 0.0 | 0.0 | 10.5 | 0.0 | 0.0 | 0.0 | 1.6 | 8.7 |
| Cycle Q Clear(g_c), s | | | | 9.5 | 0.0 | 0.0 | 10.5 | 0.0 | 0.0 | 0.0 | 1.6 | 8.7 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | | | | 758 | 0 | | 605 | 2265 | 0 | 0 | 1977 | 614 |
| V/C Ratio(X) | | | | 0.78 | 0.00 | | 1.06 | 0.14 | 0.00 | 0.00 | 0.11 | 0.50 |
| Avail Cap(c_a), veh/h | | | | 1069 | 0 | | 605 | 2265 | 0 | 0 | 1977 | 614 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 0.00 | 0.94 | 0.94 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 22.3 | 0.0 | 0.0 | 21.2 | 0.0 | 0.0 | 0.0 | 11.8 | 13.9 |
| Incr Delay (d2), s/veh | | | | 2.5 | 0.0 | 0.0 | 51.9 | 0.1 | 0.0 | 0.0 | 0.1 | 2.8 |
| 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 | | | | 3.8 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 | 0.5 | 3.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | 24.9 | 0.0 | 0.0 | 73.1 | 0.1 | 0.0 | 0.0 | 11.9 | 16.8 |
| LnGrp LOS | | | | C | A | | F | A | A | A | B | B |
| Approach Vol, veh/h | | | | | 594 | | | 952 | | | 523 | |
| Approach Delay, s/veh | | | | | 24.9 | | | 49.2 | | | 14.7 | |
| Approach LOS | | | | | C | | | D | | | B | |

| Timer - Assigned Phs | 2 | | 5 | 6 | | 8 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 42.7 | | 15.0 | 27.7 | | 17.3 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | | 4.5 | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 33.0 | | 10.5 | 18.0 | | 18.0 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | | 12.5 | 10.7 | | 11.5 | | | | | | |
| Green Ext Time (p_c), s | 1.9 | | 0.0 | 1.4 | | 1.3 | | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 33.5 |
| HCM 6th LOS | C |

**Notes**

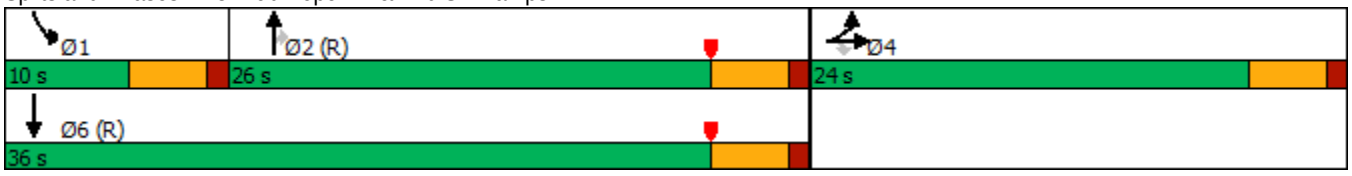
User approved volume balancing among the lanes for turning movement.

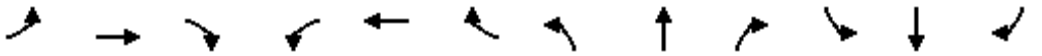
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 151 | 2 | 327 | 0 | 0 | 0 | 0 | 715 | 120 | 107 | 632 | 0 |
| Future Volume (vph) | 151 | 2 | 327 | 0 | 0 | 0 | 0 | 715 | 120 | 107 | 632 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 490 | | 135 | 0 | | 0 | 0 | | 195 | 225 | | 0 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 90 | | | 90 | | | 110 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1337 | | | 718 | | | 776 | | | 688 | |
| Travel Time (s) | | 26.0 | | | 14.0 | | | 11.8 | | | 10.4 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | 10% | | 48% | | | | | | 10% | | | |
| Turn Type | Split | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | 4 | 4 | | | | | | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | | 2 | | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | | | | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | | | | | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 24.0 | 24.0 | 24.0 | | | | | 26.0 | 26.0 | 10.0 | 36.0 | |
| Total Split (%) | 40.0% | 40.0% | 40.0% | | | | | 43.3% | 43.3% | 16.7% | 60.0% | |
| Maximum Green (s) | 19.5 | 19.5 | 19.5 | | | | | 21.5 | 21.5 | 5.5 | 31.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | | | | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | Lag | Lag | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | None | C-Max | |
| Walk Time (s) | | | | | | | | | | | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 8: Bob Hope Dr. & I-10 SB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 151 | 2 | 327 | 0 | 0 | 0 | 0 | 715 | 120 | 107 | 632 | 0 |
| Future Volume (veh/h) | 151 | 2 | 327 | 0 | 0 | 0 | 0 | 715 | 120 | 107 | 632 | 0 |
| 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 |
| Work Zone On Approach | | No | | | | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | | | | 0 | 1870 | 1870 | 1870 | 1870 | 0 |
| Adj Flow Rate, veh/h | 113 | 0 | 424 | | | | 0 | 794 | 133 | 119 | 702 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | | | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | | | | 0 | 2 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 329 | 0 | 586 | | | | 0 | 2909 | 822 | 248 | 2364 | 0 |
| Arrive On Green | 0.18 | 0.00 | 0.18 | | | | 0.00 | 0.52 | 0.52 | 0.14 | 1.00 | 0.00 |
| Sat Flow, veh/h | 1781 | 0 | 3170 | | | | 0 | 5611 | 1585 | 3456 | 3647 | 0 |
| Grp Volume(v), veh/h | 113 | 0 | 424 | | | | 0 | 794 | 133 | 119 | 702 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | | | | 0 | 1870 | 1585 | 1728 | 1777 | 0 |
| Q Serve(g_s), s | 3.3 | 0.0 | 7.6 | | | | 0.0 | 4.8 | 2.6 | 1.9 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.3 | 0.0 | 7.6 | | | | 0.0 | 4.8 | 2.6 | 1.9 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 329 | 0 | 586 | | | | 0 | 2909 | 822 | 248 | 2364 | 0 |
| V/C Ratio(X) | 0.34 | 0.00 | 0.72 | | | | 0.00 | 0.27 | 0.16 | 0.48 | 0.30 | 0.00 |
| Avail Cap(c_a), veh/h | 579 | 0 | 1030 | | | | 0 | 2909 | 822 | 317 | 2364 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.88 | 0.88 | 0.00 |
| Uniform Delay (d), s/veh | 21.3 | 0.0 | 23.0 | | | | 0.0 | 8.1 | 7.6 | 24.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.6 | 0.0 | 1.7 | | | | 0.0 | 0.2 | 0.4 | 1.3 | 0.3 | 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 | 1.3 | 0.0 | 2.7 | | | | 0.0 | 1.4 | 0.7 | 0.7 | 0.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 21.9 | 0.0 | 24.7 | | | | 0.0 | 8.3 | 8.0 | 25.9 | 0.3 | 0.0 |
| LnGrp LOS | C | A | C | | | | A | A | A | C | A | A |
| Approach Vol, veh/h | | 537 | | | | | | 927 | | | 821 | |
| Approach Delay, s/veh | | 24.1 | | | | | | 8.3 | | | 4.0 | |
| Approach LOS | | C | | | | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.8 | 35.6 | | 15.6 | | 44.4 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 5.5 | 21.5 | | 19.5 | | 31.5 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 3.9 | 6.8 | | 9.6 | | 2.0 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.8 | | 1.5 | | 4.7 | | | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 10.5 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

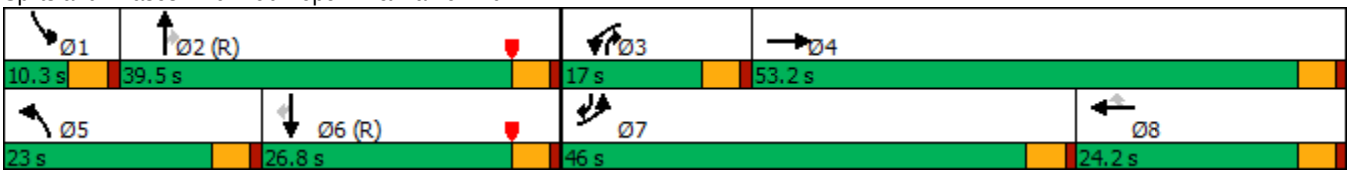
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 131 | 884 | 203 | 79 | 334 | 20 | 310 | 684 | 260 | 66 | 329 | 564 |
| Future Volume (vph) | 131 | 884 | 203 | 79 | 334 | 20 | 310 | 684 | 260 | 66 | 329 | 564 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 280 | | 470 | 240 | | 180 | 205 | | 280 | 215 | | 225 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 90 | | | 120 | | | 120 | | | 120 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | | | 45 | | | 45 | |
| Link Distance (ft) | | 676 | | | 1191 | | | 1119 | | | 476 | |
| Travel Time (s) | | 8.4 | | | 14.8 | | | 17.0 | | | 7.2 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Free | Prot | NA | Perm | Prot | NA | pm+ov | Prot | NA | pm+ov |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | Free | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | | 3 | 8 | 8 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 9.5 |
| Total Split (s) | 46.0 | 53.2 | | 17.0 | 24.2 | 24.2 | 23.0 | 39.5 | 17.0 | 10.3 | 26.8 | 46.0 |
| Total Split (%) | 38.3% | 44.3% | | 14.2% | 20.2% | 20.2% | 19.2% | 32.9% | 14.2% | 8.6% | 22.3% | 38.3% |
| Maximum Green (s) | 41.5 | 48.7 | | 12.5 | 19.7 | 19.7 | 18.5 | 35.0 | 12.5 | 5.8 | 22.3 | 41.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | None | None | C-Max | None | None | C-Max | None |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 40.1 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 9: Bob Hope Dr. & Ramon Rd.



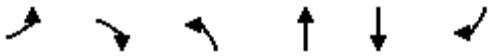
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 131 | 884 | 203 | 79 | 334 | 20 | 310 | 684 | 260 | 66 | 329 | 564 |
| Future Volume (veh/h) | 131 | 884 | 203 | 79 | 334 | 20 | 310 | 684 | 260 | 66 | 329 | 564 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 141 | 951 | 0 | 85 | 359 | 22 | 333 | 735 | 280 | 71 | 354 | 606 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 206 | 1110 | | 136 | 1037 | 463 | 399 | 2352 | 792 | 130 | 1955 | 702 |
| Arrive On Green | 0.06 | 0.31 | 0.00 | 0.04 | 0.29 | 0.29 | 0.12 | 0.46 | 0.46 | 0.04 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3456 | 3554 | 1585 | 3456 | 3554 | 1585 | 3456 | 5106 | 1585 | 3456 | 5106 | 1585 |
| Grp Volume(v), veh/h | 141 | 951 | 0 | 85 | 359 | 22 | 333 | 735 | 280 | 71 | 354 | 606 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1585 | 1728 | 1777 | 1585 | 1728 | 1702 | 1585 | 1728 | 1702 | 1585 |
| Q Serve(g_s), s | 4.8 | 30.2 | 0.0 | 2.9 | 9.5 | 1.2 | 11.3 | 10.9 | 12.9 | 2.4 | 5.5 | 41.4 |
| Cycle Q Clear(g_c), s | 4.8 | 30.2 | 0.0 | 2.9 | 9.5 | 1.2 | 11.3 | 10.9 | 12.9 | 2.4 | 5.5 | 41.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 206 | 1110 | | 136 | 1037 | 463 | 399 | 2352 | 792 | 130 | 1955 | 702 |
| V/C Ratio(X) | 0.68 | 0.86 | | 0.63 | 0.35 | 0.05 | 0.83 | 0.31 | 0.35 | 0.54 | 0.18 | 0.86 |
| Avail Cap(c_a), veh/h | 1195 | 1442 | | 360 | 1037 | 463 | 533 | 2352 | 792 | 167 | 1955 | 702 |
| 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) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.3 | 38.7 | 0.0 | 56.8 | 33.5 | 30.5 | 52.0 | 20.4 | 18.2 | 56.7 | 24.5 | 30.2 |
| Incr Delay (d2), s/veh | 4.0 | 4.2 | 0.0 | 4.7 | 0.2 | 0.0 | 8.4 | 0.3 | 1.2 | 3.5 | 0.2 | 13.3 |
| 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 | 2.1 | 13.0 | 0.0 | 1.3 | 3.9 | 0.4 | 5.2 | 4.2 | 4.6 | 1.1 | 2.2 | 16.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 59.3 | 43.0 | 0.0 | 61.4 | 33.7 | 30.6 | 60.4 | 20.7 | 19.5 | 60.2 | 24.7 | 43.5 |
| LnGrp LOS | E | D | | E | C | C | E | C | B | E | C | D |
| Approach Vol, veh/h | | 1092 | | | 466 | | | 1348 | | | 1031 | |
| Approach Delay, s/veh | | 45.1 | | | 38.6 | | | 30.3 | | | 38.2 | |
| Approach LOS | | D | | | D | | | C | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.0 | 59.8 | 9.2 | 42.0 | 18.4 | 50.5 | 11.7 | 39.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.8 | 35.0 | 12.5 | 48.7 | 18.5 | 22.3 | 41.5 | 19.7 |
| Max Q Clear Time (g_c+I1), s | 4.4 | 14.9 | 4.9 | 32.2 | 13.3 | 43.4 | 6.8 | 11.5 |
| Green Ext Time (p_c), s | 0.0 | 5.6 | 0.1 | 5.3 | 0.5 | 0.0 | 0.4 | 1.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 37.4 |
| HCM 6th LOS | D |

**Notes**

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 4 | 58 | 54 | 154 | 269 | 4 |
| Future Volume (vph) | 4 | 58 | 54 | 154 | 269 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 470 | 524 | |
| Travel Time (s) | 6.4 | | | 8.0 | 8.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

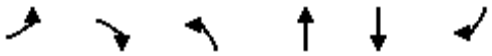
| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 58 | 54 | 154 | 269 | 4 |
| Future Vol, veh/h | 4 | 58 | 54 | 154 | 269 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| 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 | 4 | 63 | 59 | 167 | 292 | 4 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 579 | 294 | 296 | 0 | - | 0 |
| Stage 1 | 294 | - | - | - | - | - |
| Stage 2 | 285 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 477 | 745 | 1265 | - | - | - |
| Stage 1 | 756 | - | - | - | - | - |
| Stage 2 | 763 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 455 | 745 | 1265 | - | - | - |
| Mov Cap-2 Maneuver | 545 | - | - | - | - | - |
| Stage 1 | 720 | - | - | - | - | - |
| Stage 2 | 763 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.4 | 2.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1265 | - | 728 | - | - |
| HCM Lane V/C Ratio | 0.046 | - | 0.093 | - | - |
| HCM Control Delay (s) | 8 | - | 10.4 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 6 | 82 | 40 | 202 | 320 | 7 |
| Future Volume (vph) | 6 | 82 | 40 | 202 | 320 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 25 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 10 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 82 | 470 | |
| Travel Time (s) | 6.4 | | | 1.4 | 8.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

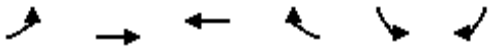
| Intersection | |
|---|---|
| Int Delay, s/veh | 2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 82 | 40 | 202 | 320 | 7 |
| Future Vol, veh/h | 6 | 82 | 40 | 202 | 320 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| 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 | 7 | 89 | 43 | 220 | 348 | 8 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 658 | 352 | 356 | 0 | - | 0 |
| Stage 1 | 352 | - | - | - | - | - |
| Stage 2 | 306 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 429 | 692 | 1203 | - | - | - |
| Stage 1 | 712 | - | - | - | - | - |
| Stage 2 | 747 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 414 | 692 | 1203 | - | - | - |
| Mov Cap-2 Maneuver | 515 | - | - | - | - | - |
| Stage 1 | 686 | - | - | - | - | - |
| Stage 2 | 747 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.2 | 1.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1203 | - | 676 | - | - |
| HCM Lane V/C Ratio | 0.036 | - | 0.141 | - | - |
| HCM Control Delay (s) | 8.1 | - | 11.2 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.5 | - | - |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 1074 | 1178 | 86 | 0 | 57 |
| Future Volume (vph) | 0 | 1074 | 1178 | 86 | 0 | 57 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 650 | 647 | | 292 | |
| Travel Time (s) | | 8.1 | 8.0 | | 6.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized

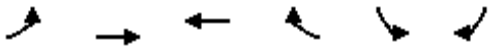
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 1074 | 1178 | 86 | 0 | 57 |
| Future Vol, veh/h | 0 | 1074 | 1178 | 86 | 0 | 57 |
| 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, # | - | 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 | 0 | 1167 | 1280 | 93 | 0 | 62 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 0 | - | 687 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 334 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | - | 334 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 18.2 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 334 |
| HCM Lane V/C Ratio | - | - | - | 0.185 |
| HCM Control Delay (s) | - | - | - | 18.2 |
| HCM Lane LOS | - | - | - | C |
| HCM 95th %tile Q(veh) | - | - | - | 0.7 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 67 | 1074 | 1228 | 7 | 0 | 31 |
| Future Volume (vph) | 67 | 1074 | 1228 | 7 | 0 | 31 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 0 | 1 |
| Taper Length (ft) | 60 | | | | 90 | |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 1330 | 650 | | 268 | |
| Travel Time (s) | | 16.5 | 8.1 | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

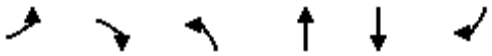
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 67 | 1074 | 1228 | 7 | 0 | 31 |
| Future Vol, veh/h | 67 | 1074 | 1228 | 7 | 0 | 31 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | - | 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 | 1167 | 1335 | 8 | 0 | 34 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1343 | 0 | - | 0 | - | 672 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | 5.34 | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | 3.12 | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 266 | - | - | - | 0 | 342 |
| Stage 1 | - | - | - | - | 0 | - |
| Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 266 | - | - | - | - | 342 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1.4 | 0 | 16.7 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 266 | - | - | - | 342 |
| HCM Lane V/C Ratio | 0.274 | - | - | - | 0.099 |
| HCM Control Delay (s) | 23.6 | - | - | - | 16.7 |
| HCM Lane LOS | C | - | - | - | C |
| HCM 95th %tile Q(veh) | 1.1 | - | - | - | 0.3 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 46 | 32 | 0 | 149 | 143 | 0 |
| Future Volume (vph) | 46 | 32 | 0 | 149 | 143 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

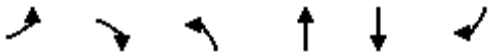
| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 46 | 32 | 0 | 149 | 143 | 0 |
| Future Vol, veh/h | 46 | 32 | 0 | 149 | 143 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 51 | 51 | 51 | 51 | 51 | 51 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 90 | 63 | 0 | 292 | 280 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 572 | 280 | - | 0 | - | 0 |
| Stage 1 | 280 | - | - | - | - | - |
| Stage 2 | 292 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 482 | 759 | 0 | - | - | 0 |
| Stage 1 | 767 | - | 0 | - | - | 0 |
| Stage 2 | 758 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 482 | 759 | - | - | - | - |
| Mov Cap-2 Maneuver | 568 | - | - | - | - | - |
| Stage 1 | 767 | - | - | - | - | - |
| Stage 2 | 758 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.6 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 568 | 759 | - |
| HCM Lane V/C Ratio | - | 0.159 | 0.083 | - |
| HCM Control Delay (s) | - | 12.5 | 10.2 | - |
| HCM Lane LOS | - | B | B | - |
| HCM 95th %tile Q(veh) | - | 0.6 | 0.3 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 32 | 37 | 65 | 130 | 106 | 47 |
| Future Volume (vph) | 32 | 37 | 65 | 130 | 106 | 47 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 32 | 37 | 65 | 130 | 106 | 47 |
| Future Vol, veh/h | 32 | 37 | 65 | 130 | 106 | 47 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 64 | 74 | 130 | 260 | 212 | 94 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 779 | 259 | 306 | 0 | - | 0 |
| Stage 1 | 259 | - | - | - | - | - |
| Stage 2 | 520 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 364 | 780 | 1255 | - | - | - |
| Stage 1 | 784 | - | - | - | - | - |
| Stage 2 | 597 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 326 | 780 | 1255 | - | - | - |
| Mov Cap-2 Maneuver | 326 | - | - | - | - | - |
| Stage 1 | 702 | - | - | - | - | - |
| Stage 2 | 597 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15.7 | 2.7 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1255 | - | 474 | - | - |
| HCM Lane V/C Ratio | 0.104 | - | 0.291 | - | - |
| HCM Control Delay (s) | 8.2 | - | 15.7 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 1.2 | - | - |

# APPENDIX 6.1: EAPC (2025) INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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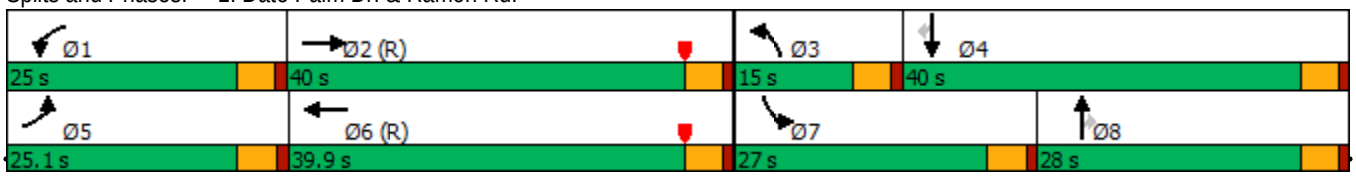
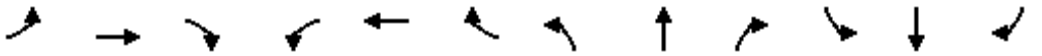
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 155 | 689 | 90 | 151 | 837 | 110 | 145 | 409 | 98 | 173 | 683 | 194 |
| Future Volume (vph) | 155 | 689 | 90 | 151 | 837 | 110 | 145 | 409 | 98 | 173 | 683 | 194 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 0 | 225 | | 0 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 25.1 | 40.0 | | 25.0 | 39.9 | | 15.0 | 28.0 | 28.0 | 27.0 | 40.0 | 40.0 |
| Total Split (%) | 20.9% | 33.3% | | 20.8% | 33.3% | | 12.5% | 23.3% | 23.3% | 22.5% | 33.3% | 33.3% |
| Maximum Green (s) | 20.6 | 35.5 | | 20.5 | 35.4 | | 10.5 | 23.5 | 23.5 | 22.5 | 35.5 | 35.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | Max | Max | None | Max | Max |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | 5 |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 155 | 689 | 90 | 151 | 837 | 110 | 145 | 409 | 98 | 173 | 683 | 194 |
| Future Volume (veh/h) | 155 | 689 | 90 | 151 | 837 | 110 | 145 | 409 | 98 | 173 | 683 | 194 |
| 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 | | 0.99 | 1.00 | | 0.99 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 170 | 757 | 99 | 166 | 920 | 121 | 159 | 449 | 108 | 190 | 751 | 213 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 199 | 1746 | 227 | 195 | 1733 | 227 | 216 | 835 | 370 | 220 | 1051 | 467 |
| Arrive On Green | 0.11 | 0.38 | 0.38 | 0.11 | 0.38 | 0.38 | 0.06 | 0.23 | 0.23 | 0.12 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1781 | 4571 | 593 | 1781 | 4566 | 598 | 3456 | 3554 | 1575 | 1781 | 3554 | 1577 |
| Grp Volume(v), veh/h | 170 | 562 | 294 | 166 | 685 | 356 | 159 | 449 | 108 | 190 | 751 | 213 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1761 | 1781 | 1702 | 1760 | 1728 | 1777 | 1575 | 1781 | 1777 | 1577 |
| Q Serve(g_s), s | 11.2 | 14.7 | 14.9 | 11.0 | 18.8 | 18.9 | 5.4 | 13.3 | 6.8 | 12.6 | 22.6 | 13.2 |
| Cycle Q Clear(g_c), s | 11.2 | 14.7 | 14.9 | 11.0 | 18.8 | 18.9 | 5.4 | 13.3 | 6.8 | 12.6 | 22.6 | 13.2 |
| Prop In Lane | 1.00 | | 0.34 | 1.00 | | 0.34 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 199 | 1300 | 672 | 195 | 1292 | 668 | 216 | 835 | 370 | 220 | 1051 | 467 |
| V/C Ratio(X) | 0.85 | 0.43 | 0.44 | 0.85 | 0.53 | 0.53 | 0.73 | 0.54 | 0.29 | 0.86 | 0.71 | 0.46 |
| Avail Cap(c_a), veh/h | 306 | 1300 | 672 | 304 | 1292 | 668 | 302 | 835 | 370 | 334 | 1051 | 467 |
| 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) | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.3 | 27.5 | 27.5 | 52.5 | 28.9 | 28.9 | 55.3 | 40.2 | 37.7 | 51.6 | 37.7 | 34.4 |
| Incr Delay (d2), s/veh | 13.2 | 1.1 | 2.1 | 11.5 | 1.4 | 2.7 | 5.7 | 2.5 | 2.0 | 13.7 | 4.1 | 3.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.6 | 5.8 | 6.3 | 5.4 | 7.5 | 8.0 | 2.5 | 5.9 | 2.7 | 6.3 | 10.1 | 5.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 65.6 | 28.5 | 29.6 | 64.0 | 30.3 | 31.7 | 60.9 | 42.7 | 39.7 | 65.3 | 41.9 | 37.6 |
| LnGrp LOS | E | C | C | E | C | C | E | D | D | E | D | D |
| Approach Vol, veh/h | | 1026 | | | 1207 | | | 716 | | | 1154 | |
| Approach Delay, s/veh | | 34.9 | | | 35.3 | | | 46.3 | | | 44.9 | |
| Approach LOS | | C | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 17.7 | 50.3 | 12.0 | 40.0 | 17.9 | 50.1 | 19.3 | 32.7 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 20.5 | 35.5 | 10.5 | 35.5 | 20.6 | 35.4 | 22.5 | 23.5 |
| Max Q Clear Time (g_c+I1), s | 13.0 | 16.9 | 7.4 | 24.6 | 13.2 | 20.9 | 14.6 | 15.3 |
| Green Ext Time (p_c), s | 0.2 | 4.8 | 0.1 | 4.1 | 0.2 | 5.3 | 0.3 | 1.9 |

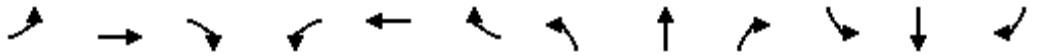
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 39.9 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 34 | 794 | 104 | 245 | 906 | 141 | 67 | 133 | 140 | 226 | 263 | 27 |
| Future Volume (vph) | 34 | 794 | 104 | 245 | 906 | 141 | 67 | 133 | 140 | 226 | 263 | 27 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 0 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 11.4 | 35.4 | | 32.0 | 56.0 | 56.0 | 15.2 | 22.6 | 22.6 | 30.0 | 37.4 | |
| Total Split (%) | 9.5% | 29.5% | | 26.7% | 46.7% | 46.7% | 12.7% | 18.8% | 18.8% | 25.0% | 31.2% | |
| Maximum Green (s) | 6.9 | 30.9 | | 27.5 | 51.5 | 51.5 | 10.7 | 18.1 | 18.1 | 25.5 | 32.9 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | C-Max | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 34 | 794 | 104 | 245 | 906 | 141 | 67 | 133 | 140 | 226 | 263 | 27 |
| Future Volume (veh/h) | 34 | 794 | 104 | 245 | 906 | 141 | 67 | 133 | 140 | 226 | 263 | 27 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 38 | 882 | 116 | 272 | 1007 | 157 | 74 | 148 | 156 | 251 | 292 | 30 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 53 | 1626 | 213 | 297 | 2516 | 781 | 95 | 602 | 268 | 281 | 457 | 47 |
| Arrive On Green | 0.03 | 0.36 | 0.36 | 0.33 | 0.99 | 0.99 | 0.05 | 0.17 | 0.17 | 0.16 | 0.27 | 0.27 |
| Sat Flow, veh/h | 1781 | 4568 | 598 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 1781 | 1668 | 171 |
| Grp Volume(v), veh/h | 38 | 656 | 342 | 272 | 1007 | 157 | 74 | 148 | 156 | 251 | 0 | 322 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1763 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1781 | 0 | 1840 |
| Q Serve(g_s), s | 2.5 | 18.5 | 18.6 | 17.6 | 0.6 | 0.2 | 4.9 | 4.3 | 10.9 | 16.6 | 0.0 | 18.5 |
| Cycle Q Clear(g_c), s | 2.5 | 18.5 | 18.6 | 17.6 | 0.6 | 0.2 | 4.9 | 4.3 | 10.9 | 16.6 | 0.0 | 18.5 |
| Prop In Lane | 1.00 | | 0.34 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.09 |
| Lane Grp Cap(c), veh/h | 53 | 1211 | 627 | 297 | 2516 | 781 | 95 | 602 | 268 | 281 | 0 | 504 |
| V/C Ratio(X) | 0.71 | 0.54 | 0.54 | 0.91 | 0.40 | 0.20 | 0.78 | 0.25 | 0.58 | 0.89 | 0.00 | 0.64 |
| Avail Cap(c_a), veh/h | 102 | 1211 | 627 | 408 | 2516 | 781 | 159 | 602 | 268 | 379 | 0 | 504 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.84 | 0.84 | 0.84 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.7 | 30.8 | 30.9 | 39.2 | 0.4 | 0.4 | 56.1 | 43.2 | 45.9 | 49.5 | 0.0 | 38.3 |
| Incr Delay (d2), s/veh | 13.7 | 1.5 | 2.8 | 20.3 | 0.5 | 0.6 | 13.0 | 1.0 | 8.9 | 18.1 | 0.0 | 6.1 |
| 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 | 1.3 | 7.4 | 8.0 | 7.6 | 0.2 | 0.2 | 2.5 | 1.9 | 4.8 | 8.6 | 0.0 | 8.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 71.4 | 32.3 | 33.7 | 59.4 | 0.9 | 1.0 | 69.2 | 44.2 | 54.8 | 67.7 | 0.0 | 44.4 |
| LnGrp LOS | E | C | C | E | A | A | E | D | D | E | A | D |
| Approach Vol, veh/h | | 1036 | | | 1436 | | | 378 | | | 573 | |
| Approach Delay, s/veh | | 34.2 | | | 12.0 | | | 53.5 | | | 54.6 | |
| Approach LOS | | C | | | B | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 24.5 | 47.2 | 10.9 | 37.4 | 8.1 | 63.6 | 23.5 | 24.8 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 27.5 | 30.9 | 10.7 | 32.9 | 6.9 | 51.5 | 25.5 | 18.1 |
| Max Q Clear Time (g_c+I1), s | 19.6 | 20.6 | 6.9 | 20.5 | 4.5 | 2.6 | 18.6 | 12.9 |
| Green Ext Time (p_c), s | 0.5 | 4.2 | 0.0 | 1.3 | 0.0 | 8.1 | 0.4 | 0.6 |

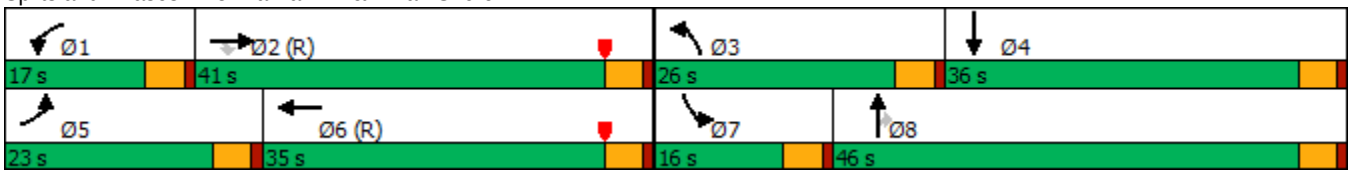
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 30.4 |
| HCM 6th LOS | C |

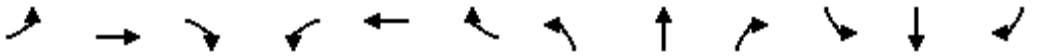
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 107 | 461 | 204 | 70 | 384 | 42 | 142 | 188 | 69 | 61 | 336 | 223 |
| Future Volume (vph) | 107 | 461 | 204 | 70 | 384 | 42 | 142 | 188 | 69 | 61 | 336 | 223 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 175 | | 215 | 185 | | 0 | 125 | | 125 | 135 | | 135 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 50 | | | 50 | |
| Link Distance (ft) | | 918 | | | 366 | | | 1131 | | | 331 | |
| Travel Time (s) | | 20.9 | | | 8.3 | | | 15.4 | | | 4.5 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 23.0 | 41.0 | 41.0 | 17.0 | 35.0 | | 26.0 | 46.0 | 46.0 | 16.0 | 36.0 | |
| Total Split (%) | 19.2% | 34.2% | 34.2% | 14.2% | 29.2% | | 21.7% | 38.3% | 38.3% | 13.3% | 30.0% | |
| Maximum Green (s) | 18.5 | 36.5 | 36.5 | 12.5 | 30.5 | | 21.5 | 41.5 | 41.5 | 11.5 | 31.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 3: Da Vall Dr. & Dinah Shore Dr.

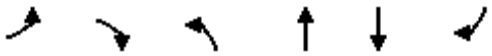




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 107 | 461 | 204 | 70 | 384 | 42 | 142 | 188 | 69 | 61 | 336 | 223 |
| Future Volume (veh/h) | 107 | 461 | 204 | 70 | 384 | 42 | 142 | 188 | 69 | 61 | 336 | 223 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 114 | 490 | 217 | 74 | 409 | 45 | 151 | 200 | 73 | 65 | 357 | 237 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 141 | 1435 | 640 | 95 | 1221 | 134 | 180 | 1229 | 548 | 84 | 601 | 392 |
| Arrive On Green | 0.08 | 0.40 | 0.40 | 0.05 | 0.38 | 0.38 | 0.10 | 0.35 | 0.35 | 0.05 | 0.29 | 0.29 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 3230 | 353 | 1781 | 3554 | 1585 | 1781 | 2060 | 1345 |
| Grp Volume(v), veh/h | 114 | 490 | 217 | 74 | 224 | 230 | 151 | 200 | 73 | 65 | 307 | 287 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1807 | 1781 | 1777 | 1585 | 1781 | 1777 | 1628 |
| Q Serve(g_s), s | 7.6 | 11.4 | 11.3 | 4.9 | 10.8 | 10.9 | 10.0 | 4.7 | 3.8 | 4.3 | 17.8 | 18.2 |
| Cycle Q Clear(g_c), s | 7.6 | 11.4 | 11.3 | 4.9 | 10.8 | 10.9 | 10.0 | 4.7 | 3.8 | 4.3 | 17.8 | 18.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.20 | 1.00 | | 1.00 | 1.00 | | 0.83 |
| Lane Grp Cap(c), veh/h | 141 | 1435 | 640 | 95 | 672 | 683 | 180 | 1229 | 548 | 84 | 518 | 475 |
| V/C Ratio(X) | 0.81 | 0.34 | 0.34 | 0.78 | 0.33 | 0.34 | 0.84 | 0.16 | 0.13 | 0.78 | 0.59 | 0.60 |
| Avail Cap(c_a), veh/h | 275 | 1435 | 640 | 186 | 672 | 683 | 319 | 1229 | 548 | 171 | 518 | 475 |
| 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) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.4 | 24.7 | 24.7 | 56.1 | 26.6 | 26.6 | 53.0 | 27.2 | 26.9 | 56.6 | 36.4 | 36.5 |
| Incr Delay (d2), s/veh | 10.4 | 0.6 | 1.4 | 12.9 | 1.3 | 1.3 | 9.8 | 0.3 | 0.5 | 14.1 | 4.9 | 5.6 |
| 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 | 3.8 | 5.0 | 4.3 | 2.6 | 4.8 | 5.0 | 4.8 | 2.0 | 1.5 | 2.2 | 8.1 | 7.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 64.7 | 25.4 | 26.1 | 69.0 | 27.9 | 27.9 | 62.8 | 27.5 | 27.4 | 70.7 | 41.3 | 42.2 |
| LnGrp LOS | E | C | C | E | C | C | E | C | C | E | D | D |
| Approach Vol, veh/h | | 821 | | | 528 | | | 424 | | | 659 | |
| Approach Delay, s/veh | | 31.0 | | | 33.7 | | | 40.0 | | | 44.6 | |
| Approach LOS | | C | | | C | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.9 | 53.0 | 16.6 | 39.5 | 14.0 | 49.9 | 10.1 | 46.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 12.5 | 36.5 | 21.5 | 31.5 | 18.5 | 30.5 | 11.5 | 41.5 |
| Max Q Clear Time (g_c+I1), s | 6.9 | 13.4 | 12.0 | 20.2 | 9.6 | 12.9 | 6.3 | 6.7 |
| Green Ext Time (p_c), s | 0.1 | 4.1 | 0.2 | 2.5 | 0.2 | 2.5 | 0.0 | 1.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 36.9 |
| HCM 6th LOS | D |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 17 | 281 | 317 | 214 | 270 | 52 |
| Future Volume (vph) | 17 | 281 | 317 | 214 | 270 | 52 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 18.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 17 | 281 | 317 | 214 | 270 | 52 |
| Future Vol, veh/h | 17 | 281 | 317 | 214 | 270 | 52 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 62 | 62 | 62 | 62 | 62 | 62 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 27 | 453 | 511 | 345 | 435 | 84 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1844 | 477 | 519 | 0 | - | 0 |
| Stage 1 | 477 | - | - | - | - | - |
| Stage 2 | 1367 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 82 | 588 | 1047 | - | - | - |
| Stage 1 | 624 | - | - | - | - | - |
| Stage 2 | 237 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 42 | 588 | 1047 | - | - | - |
| Mov Cap-2 Maneuver | 143 | - | - | - | - | - |
| Stage 1 | 319 | - | - | - | - | - |
| Stage 2 | 237 | - | - | - | - | - |

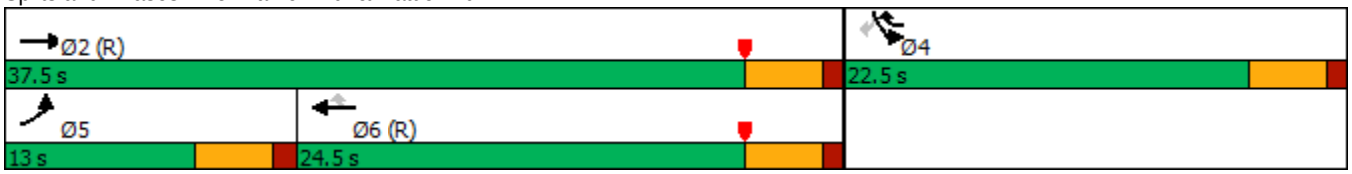
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 60.5 | 7 | 0 |
| HCM LOS | F | | |

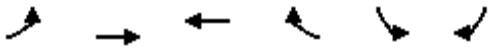
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1047 | - | 499 | - | - |
| HCM Lane V/C Ratio | 0.488 | - | 0.963 | - | - |
| HCM Control Delay (s) | 11.7 | - | 60.5 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 2.8 | - | 12.3 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 262 | 912 | 1034 | 300 | 274 | 350 |
| Future Volume (vph) | 262 | 912 | 1034 | 300 | 274 | 350 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Shared Lane Traffic (%) | | | | | | 43% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 13.0 | 37.5 | 24.5 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 21.7% | 62.5% | 40.8% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 8.5 | 33.0 | 20.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.





| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 262 | 912 | 1034 | 300 | 274 | 350 |
| Future Volume (veh/h) | 262 | 912 | 1034 | 300 | 274 | 350 |
| 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 323 | 1126 | 1277 | 370 | 257 | 519 |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 422 | 2808 | 1801 | 1035 | 534 | 951 |
| Arrive On Green | 0.24 | 1.00 | 0.12 | 0.12 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 1781 | 3170 |
| Grp Volume(v), veh/h | 323 | 1126 | 1277 | 370 | 257 | 519 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 5.2 | 0.0 | 14.5 | 7.2 | 7.1 | 8.2 |
| Cycle Q Clear(g_c), s | 5.2 | 0.0 | 14.5 | 7.2 | 7.1 | 8.2 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 422 | 2808 | 1801 | 1035 | 534 | 951 |
| V/C Ratio(X) | 0.76 | 0.40 | 0.71 | 0.36 | 0.48 | 0.55 |
| Avail Cap(c_a), veh/h | 490 | 2808 | 1801 | 1035 | 534 | 951 |
| HCM Platoon Ratio | 2.00 | 2.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.86 | 0.86 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.9 | 0.0 | 23.5 | 6.6 | 17.2 | 17.6 |
| Incr Delay (d2), s/veh | 6.1 | 0.4 | 2.1 | 0.8 | 3.1 | 2.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 0.1 | 6.3 | 5.3 | 3.0 | 7.6 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 28.0 | 0.4 | 25.6 | 7.5 | 20.3 | 19.8 |
| LnGrp LOS | C | A | C | A | C | B |
| Approach Vol, veh/h | | 1449 | 1647 | | 776 | |
| Approach Delay, s/veh | | 6.6 | 21.5 | | 20.0 | |
| Approach LOS | | A | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 11.8 | 25.7 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 8.5 | 20.0 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 10.2 | 7.2 | 16.5 |
| Green Ext Time (p_c), s | | 8.0 | | 1.9 | 0.2 | 2.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 15.6 |
| HCM 6th LOS | B |

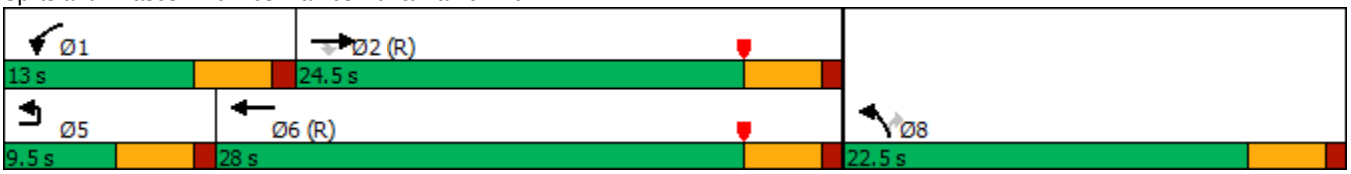
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 1 | 1072 | 104 | 108 | 1255 | 87 | 111 |
| Future Volume (vph) | 1 | 1072 | 104 | 108 | 1255 | 87 | 111 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 200 | 255 | | 125 | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 |
| Taper Length (ft) | 90 | | | 90 | | 90 | |
| Right Turn on Red | | | Yes | | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | 50 | |
| Link Distance (ft) | | 2660 | | | 3172 | 1424 | |
| Travel Time (s) | | 33.0 | | | 39.3 | 19.4 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | |
| Permitted Phases | | | 2 | | | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 8 | 8 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 24.5 | 24.5 | 13.0 | 28.0 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 40.8% | 40.8% | 21.7% | 46.7% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 20.0 | 20.0 | 8.5 | 23.5 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 6: Los Alamos Rd. & Ramon Rd.



| Movement | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1 | 1072 | 104 | 108 | 1255 | 87 | 111 |
| Future Volume (veh/h) | 1 | 1072 | 104 | 108 | 1255 | 87 | 111 |
| 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 |
| Work Zone On Approach | | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | 1191 | 116 | 120 | 1394 | 97 | 123 |
| Peak Hour Factor | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | | 1983 | 615 | 154 | 2808 | 1037 | 476 |
| Arrive On Green | | 0.13 | 0.13 | 0.09 | 0.55 | 0.30 | 0.30 |
| Sat Flow, veh/h | | 5274 | 1585 | 1781 | 5274 | 3456 | 1585 |
| Grp Volume(v), veh/h | | 1191 | 116 | 120 | 1394 | 97 | 123 |
| Grp Sat Flow(s),veh/h/ln | | 1702 | 1585 | 1781 | 1702 | 1728 | 1585 |
| Q Serve(g_s), s | | 13.2 | 3.9 | 4.0 | 10.1 | 1.2 | 3.5 |
| Cycle Q Clear(g_c), s | | 13.2 | 3.9 | 4.0 | 10.1 | 1.2 | 3.5 |
| Prop In Lane | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | | 1983 | 615 | 154 | 2808 | 1037 | 476 |
| V/C Ratio(X) | | 0.60 | 0.19 | 0.78 | 0.50 | 0.09 | 0.26 |
| Avail Cap(c_a), veh/h | | 1983 | 615 | 252 | 2808 | 1037 | 476 |
| HCM Platoon Ratio | | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | 21.8 | 17.7 | 26.8 | 8.4 | 15.1 | 15.9 |
| Incr Delay (d2), s/veh | | 1.2 | 0.6 | 8.1 | 0.6 | 0.2 | 1.3 |
| Initial Q Delay(d3),s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | 5.5 | 1.3 | 1.8 | 2.4 | 0.4 | 1.2 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | | 23.0 | 18.3 | 35.0 | 9.0 | 15.3 | 17.3 |
| LnGrp LOS | | C | B | C | A | B | B |
| Approach Vol, veh/h | | 1307 | | | 1514 | 220 | |
| Approach Delay, s/veh | | 22.6 | | | 11.0 | 16.4 | |
| Approach LOS | | C | | | B | B | |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.7 | 27.8 | | | | 37.5 | | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 8.5 | 20.0 | | | | 23.5 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | 6.0 | 15.2 | | | | 12.1 | | 5.5 |
| Green Ext Time (p_c), s | 0.1 | 3.0 | | | | 6.3 | | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.4 |
| HCM 6th LOS | B |

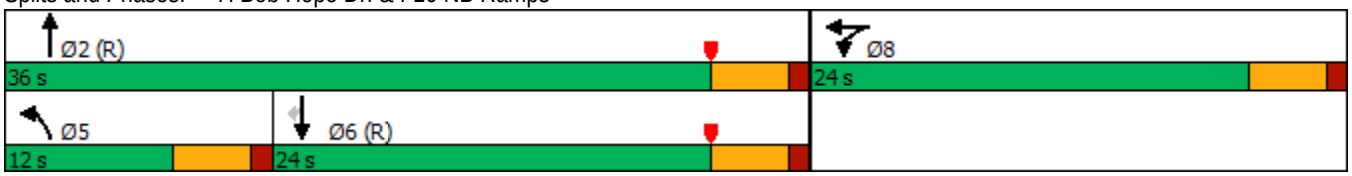
**Notes**

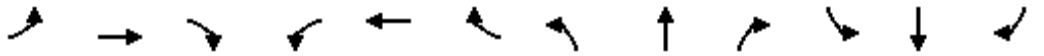
User approved ignoring U-Turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 681 | 1 | 259 | 262 | 437 | 0 | 0 | 303 | 184 |
| Future Volume (vph) | 0 | 0 | 0 | 681 | 1 | 259 | 262 | 437 | 0 | 0 | 303 | 184 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 430 | 210 | | 0 | 0 | | 205 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 2 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 581 | | | 1228 | | | 688 | | | 840 | |
| Travel Time (s) | | 11.3 | | | 23.9 | | | 10.4 | | | 12.7 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Shared Lane Traffic (%) | | | | 50% | | | | | | | | |
| Turn Type | | | | Split | NA | Free | Prot | NA | | | NA | Perm |
| Protected Phases | | | | 8 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | | | Free | | | | | | 6 |
| Detector Phase | | | | 8 | 8 | | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | 5.0 |
| Minimum Split (s) | | | | 22.5 | 22.5 | | 9.5 | 22.5 | | | 22.5 | 22.5 |
| Total Split (s) | | | | 24.0 | 24.0 | | 12.0 | 36.0 | | | 24.0 | 24.0 |
| Total Split (%) | | | | 40.0% | 40.0% | | 20.0% | 60.0% | | | 40.0% | 40.0% |
| Maximum Green (s) | | | | 19.5 | 19.5 | | 7.5 | 31.5 | | | 19.5 | 19.5 |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | 3.5 |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | 4.5 |
| Lead/Lag | | | | | | | Lead | | | | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | Yes |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | | | | None | None | | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | | | | | | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 7: Bob Hope Dr. & I-10 NB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 681 | 1 | 259 | 262 | 437 | 0 | 0 | 303 | 184 |
| Future Volume (veh/h) | 0 | 0 | 0 | 681 | 1 | 259 | 262 | 437 | 0 | 0 | 303 | 184 |
| 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 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 733 | 0 | 0 | 282 | 470 | 0 | 0 | 326 | 198 |
| Peak Hour Factor | | | | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 901 | 0 | | 380 | 2122 | 0 | 0 | 2104 | 653 |
| Arrive On Green | | | | 0.25 | 0.00 | 0.00 | 0.22 | 1.00 | 0.00 | 0.00 | 0.41 | 0.41 |
| Sat Flow, veh/h | | | | 3563 | 0 | 1585 | 3456 | 3647 | 0 | 0 | 5274 | 1585 |
| Grp Volume(v), veh/h | | | | 733 | 0 | 0 | 282 | 470 | 0 | 0 | 326 | 198 |
| Grp Sat Flow(s),veh/h/ln | | | | 1781 | 0 | 1585 | 1728 | 1777 | 0 | 0 | 1702 | 1585 |
| Q Serve(g_s), s | | | | 11.6 | 0.0 | 0.0 | 4.6 | 0.0 | 0.0 | 0.0 | 2.4 | 5.0 |
| Cycle Q Clear(g_c), s | | | | 11.6 | 0.0 | 0.0 | 4.6 | 0.0 | 0.0 | 0.0 | 2.4 | 5.0 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | | | | 901 | 0 | | 380 | 2122 | 0 | 0 | 2104 | 653 |
| V/C Ratio(X) | | | | 0.81 | 0.00 | | 0.74 | 0.22 | 0.00 | 0.00 | 0.15 | 0.30 |
| Avail Cap(c_a), veh/h | | | | 1158 | 0 | | 432 | 2122 | 0 | 0 | 2104 | 653 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 0.00 | 0.94 | 0.94 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 21.1 | 0.0 | 0.0 | 22.6 | 0.0 | 0.0 | 0.0 | 11.1 | 11.9 |
| Incr Delay (d2), s/veh | | | | 3.5 | 0.0 | 0.0 | 5.6 | 0.2 | 0.0 | 0.0 | 0.2 | 1.2 |
| 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 | | | | 4.8 | 0.0 | 0.0 | 1.8 | 0.1 | 0.0 | 0.0 | 0.8 | 1.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | 24.6 | 0.0 | 0.0 | 28.2 | 0.2 | 0.0 | 0.0 | 11.2 | 13.0 |
| LnGrp LOS | | | | C | A | | C | A | A | A | B | B |
| Approach Vol, veh/h | | | | | 733 | | | 752 | | | 524 | |
| Approach Delay, s/veh | | | | | 24.6 | | | 10.7 | | | 11.9 | |
| Approach LOS | | | | | C | | | B | | | B | |

| Timer - Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 40.3 | | | 11.1 | 29.2 | | 19.7 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 31.5 | | | 7.5 | 19.5 | | 19.5 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 6.6 | 7.0 | | 13.6 | | | | |
| Green Ext Time (p_c), s | | 3.0 | | | 0.1 | 2.1 | | 1.6 | | | | |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | 16.1 | |
| HCM 6th LOS | B | |

**Notes**

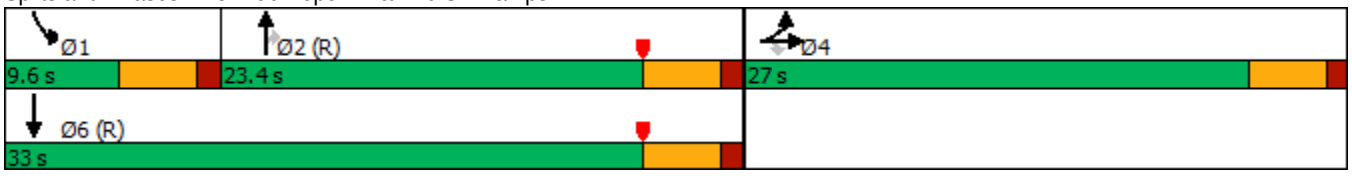
User approved volume balancing among the lanes for turning movement.

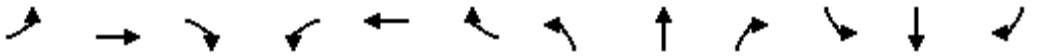
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 280 | 1 | 707 | 0 | 0 | 0 | 0 | 419 | 96 | 74 | 910 | 0 |
| Future Volume (vph) | 280 | 1 | 707 | 0 | 0 | 0 | 0 | 419 | 96 | 74 | 910 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 490 | | 135 | 0 | | 0 | 0 | | 195 | 225 | | 0 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 90 | | | 90 | | | 110 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1337 | | | 718 | | | 776 | | | 688 | |
| Travel Time (s) | | 26.0 | | | 14.0 | | | 11.8 | | | 10.4 | |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Shared Lane Traffic (%) | 10% | | 48% | | | | | | 10% | | | |
| Turn Type | Split | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | 4 | 4 | | | | | | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | | 2 | | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | | | | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | | | | | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 27.0 | 27.0 | 27.0 | | | | | 23.4 | 23.4 | 9.6 | 33.0 | |
| Total Split (%) | 45.0% | 45.0% | 45.0% | | | | | 39.0% | 39.0% | 16.0% | 55.0% | |
| Maximum Green (s) | 22.5 | 22.5 | 22.5 | | | | | 18.9 | 18.9 | 5.1 | 28.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | | | | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | Lag | Lag | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | None | C-Max | |
| Walk Time (s) | | | | | | | | | | | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 8: Bob Hope Dr. & I-10 SB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 280 | 1 | 707 | 0 | 0 | 0 | 0 | 419 | 96 | 74 | 910 | 0 |
| Future Volume (veh/h) | 280 | 1 | 707 | 0 | 0 | 0 | 0 | 419 | 96 | 74 | 910 | 0 |
| 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 |
| Work Zone On Approach | | No | | | | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | | | | 0 | 1870 | 1870 | 1870 | 1870 | 0 |
| Adj Flow Rate, veh/h | 210 | 0 | 907 | | | | 0 | 471 | 108 | 83 | 1022 | 0 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | | | | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | | | | 0 | 2 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 596 | 0 | 1060 | | | | 0 | 2122 | 599 | 216 | 1832 | 0 |
| Arrive On Green | 0.33 | 0.00 | 0.33 | | | | 0.00 | 0.38 | 0.38 | 0.12 | 1.00 | 0.00 |
| Sat Flow, veh/h | 1781 | 0 | 3170 | | | | 0 | 5611 | 1585 | 3456 | 3647 | 0 |
| Grp Volume(v), veh/h | 210 | 0 | 907 | | | | 0 | 471 | 108 | 83 | 1022 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | | | | 0 | 1870 | 1585 | 1728 | 1777 | 0 |
| Q Serve(g_s), s | 5.3 | 0.0 | 16.0 | | | | 0.0 | 3.4 | 2.7 | 1.3 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 5.3 | 0.0 | 16.0 | | | | 0.0 | 3.4 | 2.7 | 1.3 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 596 | 0 | 1060 | | | | 0 | 2122 | 599 | 216 | 1832 | 0 |
| V/C Ratio(X) | 0.35 | 0.00 | 0.86 | | | | 0.00 | 0.22 | 0.18 | 0.38 | 0.56 | 0.00 |
| Avail Cap(c_a), veh/h | 668 | 0 | 1189 | | | | 0 | 2122 | 599 | 294 | 1832 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.87 | 0.87 | 0.00 |
| Uniform Delay (d), s/veh | 15.1 | 0.0 | 18.6 | | | | 0.0 | 12.7 | 12.5 | 25.2 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 5.8 | | | | 0.0 | 0.2 | 0.7 | 1.0 | 1.1 | 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 | 2.0 | 0.0 | 5.9 | | | | 0.0 | 1.2 | 0.9 | 0.5 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 15.4 | 0.0 | 24.4 | | | | 0.0 | 12.9 | 13.1 | 26.2 | 1.1 | 0.0 |
| LnGrp LOS | B | A | C | | | | A | B | B | C | A | A |
| Approach Vol, veh/h | | 1117 | | | | | | 579 | | | 1105 | |
| Approach Delay, s/veh | | 22.7 | | | | | | 12.9 | | | 3.0 | |
| Approach LOS | | C | | | | | | B | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.2 | 27.2 | | 24.6 | | 35.4 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.1 | 18.9 | | 22.5 | | 28.5 |
| Max Q Clear Time (g_c+I1), s | 3.3 | 5.4 | | 18.0 | | 2.0 |
| Green Ext Time (p_c), s | 0.0 | 2.7 | | 2.1 | | 7.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 12.9 |
| HCM 6th LOS | B |

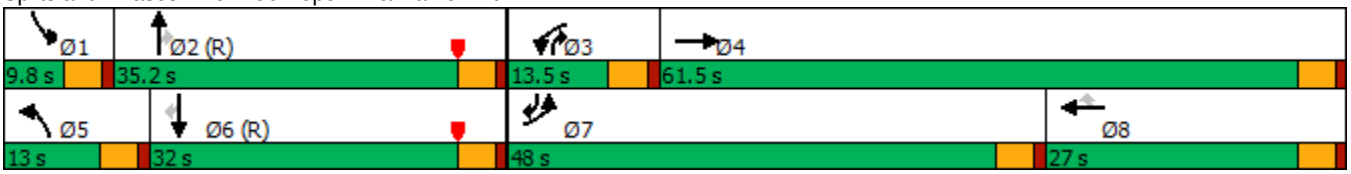
**Notes**

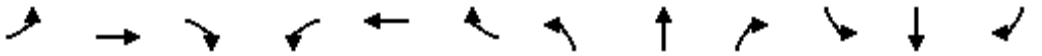
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 217 | 718 | 248 | 121 | 472 | 9 | 139 | 289 | 110 | 52 | 813 | 752 |
| Future Volume (vph) | 217 | 718 | 248 | 121 | 472 | 9 | 139 | 289 | 110 | 52 | 813 | 752 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 280 | | 470 | 240 | | 180 | 205 | | 280 | 215 | | 225 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 90 | | | 120 | | | 120 | | | 120 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | | | 45 | | | 45 | |
| Link Distance (ft) | | 676 | | | 1191 | | | 1119 | | | 476 | |
| Travel Time (s) | | 8.4 | | | 14.8 | | | 17.0 | | | 7.2 | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Free | Prot | NA | Perm | Prot | NA | pm+ov | Prot | NA | pm+ov |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | Free | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | | 3 | 8 | 8 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 9.5 |
| Total Split (s) | 48.0 | 61.5 | | 13.5 | 27.0 | 27.0 | 13.0 | 35.2 | 13.5 | 9.8 | 32.0 | 48.0 |
| Total Split (%) | 40.0% | 51.3% | | 11.3% | 22.5% | 22.5% | 10.8% | 29.3% | 11.3% | 8.2% | 26.7% | 40.0% |
| Maximum Green (s) | 43.5 | 57.0 | | 9.0 | 22.5 | 22.5 | 8.5 | 30.7 | 9.0 | 5.3 | 27.5 | 43.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | None | None | C-Max | None | None | C-Max | None |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 40.1 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 9: Bob Hope Dr. & Ramon Rd.





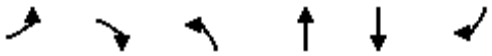
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 217 | 718 | 248 | 121 | 472 | 9 | 139 | 289 | 110 | 52 | 813 | 752 |
| Future Volume (veh/h) | 217 | 718 | 248 | 121 | 472 | 9 | 139 | 289 | 110 | 52 | 813 | 752 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 231 | 764 | 0 | 129 | 502 | 10 | 148 | 307 | 117 | 55 | 865 | 800 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 305 | 925 | | 184 | 801 | 357 | 203 | 2561 | 879 | 121 | 2439 | 897 |
| Arrive On Green | 0.09 | 0.26 | 0.00 | 0.05 | 0.23 | 0.23 | 0.06 | 0.50 | 0.50 | 0.04 | 0.48 | 0.48 |
| Sat Flow, veh/h | 3456 | 3554 | 1585 | 3456 | 3554 | 1585 | 3456 | 5106 | 1585 | 3456 | 5106 | 1585 |
| Grp Volume(v), veh/h | 231 | 764 | 0 | 129 | 502 | 10 | 148 | 307 | 117 | 55 | 865 | 800 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1585 | 1728 | 1777 | 1585 | 1728 | 1702 | 1585 | 1728 | 1702 | 1585 |
| Q Serve(g_s), s | 7.8 | 24.3 | 0.0 | 4.4 | 15.3 | 0.6 | 5.1 | 3.8 | 4.3 | 1.9 | 12.8 | 53.1 |
| Cycle Q Clear(g_c), s | 7.8 | 24.3 | 0.0 | 4.4 | 15.3 | 0.6 | 5.1 | 3.8 | 4.3 | 1.9 | 12.8 | 53.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 305 | 925 | | 184 | 801 | 357 | 203 | 2561 | 879 | 121 | 2439 | 897 |
| V/C Ratio(X) | 0.76 | 0.83 | | 0.70 | 0.63 | 0.03 | 0.73 | 0.12 | 0.13 | 0.45 | 0.35 | 0.89 |
| Avail Cap(c_a), veh/h | 1253 | 1688 | | 259 | 801 | 357 | 245 | 2561 | 879 | 153 | 2439 | 897 |
| 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) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.5 | 41.8 | 0.0 | 55.9 | 41.9 | 36.2 | 55.5 | 15.9 | 12.8 | 56.8 | 19.7 | 22.8 |
| Incr Delay (d2), s/veh | 3.9 | 2.0 | 0.0 | 4.8 | 1.6 | 0.0 | 8.4 | 0.1 | 0.3 | 2.7 | 0.4 | 13.1 |
| 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 | 3.4 | 10.3 | 0.0 | 2.0 | 6.6 | 0.2 | 2.4 | 1.4 | 1.4 | 0.8 | 4.9 | 20.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 57.3 | 43.8 | 0.0 | 60.6 | 43.5 | 36.3 | 64.0 | 16.0 | 13.2 | 59.4 | 20.1 | 35.9 |
| LnGrp LOS | E | D | | E | D | D | E | B | B | E | C | D |
| Approach Vol, veh/h | | 995 | | | 641 | | | 572 | | | 1720 | |
| Approach Delay, s/veh | | 46.9 | | | 46.8 | | | 27.8 | | | 28.7 | |
| Approach LOS | | D | | | D | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.7 | 64.7 | 10.9 | 35.7 | 11.6 | 61.8 | 15.1 | 31.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.3 | 30.7 | 9.0 | 57.0 | 8.5 | 27.5 | 43.5 | 22.5 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 6.3 | 6.4 | 26.3 | 7.1 | 55.1 | 9.8 | 17.3 |
| Green Ext Time (p_c), s | 0.0 | 2.2 | 0.1 | 4.9 | 0.1 | 0.0 | 0.7 | 1.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 36.1 |
| HCM 6th LOS | D |

**Notes**

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 2 | 34 | 21 | 529 | 549 | 2 |
| Future Volume (vph) | 2 | 34 | 21 | 529 | 549 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 470 | 524 | |
| Travel Time (s) | 6.4 | | | 8.0 | 8.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

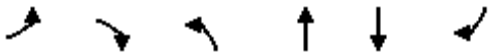
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 34 | 21 | 529 | 549 | 2 |
| Future Vol, veh/h | 2 | 34 | 21 | 529 | 549 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| 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 | 2 | 37 | 23 | 575 | 597 | 2 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1219 | 598 | 599 | 0 | - | 0 |
| Stage 1 | 598 | - | - | - | - | - |
| Stage 2 | 621 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 199 | 502 | 978 | - | - | - |
| Stage 1 | 549 | - | - | - | - | - |
| Stage 2 | 536 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 194 | 502 | 978 | - | - | - |
| Mov Cap-2 Maneuver | 333 | - | - | - | - | - |
| Stage 1 | 536 | - | - | - | - | - |
| Stage 2 | 536 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13 | 0.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 978 | - | 488 | - | - |
| HCM Lane V/C Ratio | 0.023 | - | 0.08 | - | - |
| HCM Control Delay (s) | 8.8 | - | 13 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 4 | 44 | 16 | 546 | 580 | 3 |
| Future Volume (vph) | 4 | 44 | 16 | 546 | 580 | 3 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 25 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 10 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 82 | 470 | |
| Travel Time (s) | 6.4 | | | 1.4 | 8.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

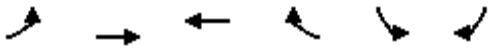
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 44 | 16 | 546 | 580 | 3 |
| Future Vol, veh/h | 4 | 44 | 16 | 546 | 580 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| 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 | 4 | 48 | 17 | 593 | 630 | 3 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1259 | 632 | 633 | 0 | - | 0 |
| Stage 1 | 632 | - | - | - | - | - |
| Stage 2 | 627 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 188 | 480 | 950 | - | - | - |
| Stage 1 | 530 | - | - | - | - | - |
| Stage 2 | 532 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 185 | 480 | 950 | - | - | - |
| Mov Cap-2 Maneuver | 324 | - | - | - | - | - |
| Stage 1 | 520 | - | - | - | - | - |
| Stage 2 | 532 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.8 | 0.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 950 | - | 461 | - | - |
| HCM Lane V/C Ratio | 0.018 | - | 0.113 | - | - |
| HCM Control Delay (s) | 8.9 | - | 13.8 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.4 | - | - |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 1175 | 1351 | 33 | 0 | 29 |
| Future Volume (vph) | 0 | 1175 | 1351 | 33 | 0 | 29 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 650 | 647 | | 292 | |
| Travel Time (s) | | 8.1 | 8.0 | | 6.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized

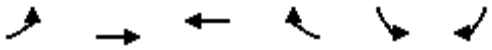
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 1175 | 1351 | 33 | 0 | 29 |
| Future Vol, veh/h | 0 | 1175 | 1351 | 33 | 0 | 29 |
| 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, # | - | 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 | 0 | 1277 | 1468 | 36 | 0 | 32 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 0 | - | 752 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 303 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | - | 303 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 18.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 303 |
| HCM Lane V/C Ratio | - | - | - | 0.104 |
| HCM Control Delay (s) | - | - | - | 18.3 |
| HCM Lane LOS | - | - | - | C |
| HCM 95th %tile Q(veh) | - | - | - | 0.3 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 26 | 1175 | 1377 | 3 | 0 | 18 |
| Future Volume (vph) | 26 | 1175 | 1377 | 3 | 0 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 0 | 1 |
| Taper Length (ft) | 60 | | | | 90 | |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 1330 | 650 | | 268 | |
| Travel Time (s) | | 16.5 | 8.1 | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

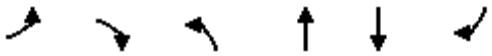
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 26 | 1175 | 1377 | 3 | 0 | 18 |
| Future Vol, veh/h | 26 | 1175 | 1377 | 3 | 0 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | - | 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 | 28 | 1277 | 1497 | 3 | 0 | 20 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1500 | 0 | - | 0 | - | 750 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | 5.34 | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | 3.12 | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 223 | - | - | - | 0 | 304 |
| Stage 1 | - | - | - | - | 0 | - |
| Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 223 | - | - | - | - | 304 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.5 | 0 | 17.7 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 223 | - | - | - | 304 |
| HCM Lane V/C Ratio | 0.127 | - | - | - | 0.064 |
| HCM Control Delay (s) | 23.5 | - | - | - | 17.7 |
| HCM Lane LOS | C | - | - | - | C |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 0.2 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 103 | 140 | 0 | 231 | 182 | 0 |
| Future Volume (vph) | 103 | 140 | 0 | 231 | 182 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

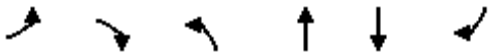
| Intersection | |
|---|---|
| Int Delay, s/veh | 5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 103 | 140 | 0 | 231 | 182 | 0 |
| Future Vol, veh/h | 103 | 140 | 0 | 231 | 182 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 60 | 60 | 60 | 60 | 60 | 60 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 172 | 233 | 0 | 385 | 303 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 688 | 303 | - | 0 | - | 0 |
| Stage 1 | 303 | - | - | - | - | - |
| Stage 2 | 385 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 412 | 737 | 0 | - | - | 0 |
| Stage 1 | 749 | - | 0 | - | - | 0 |
| Stage 2 | 688 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 412 | 737 | - | - | - | - |
| Mov Cap-2 Maneuver | 515 | - | - | - | - | - |
| Stage 1 | 749 | - | - | - | - | - |
| Stage 2 | 688 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.5 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 515 | 737 | - |
| HCM Lane V/C Ratio | - | 0.333 | 0.317 | - |
| HCM Control Delay (s) | - | 15.4 | 12.1 | - |
| HCM Lane LOS | - | C | B | - |
| HCM 95th %tile Q(veh) | - | 1.5 | 1.4 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 31 | 67 | 166 | 168 | 115 | 332 |
| Future Volume (vph) | 31 | 67 | 166 | 168 | 115 | 332 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

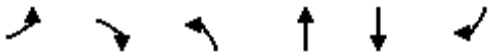
| Intersection | |
|---|---|
| Int Delay, s/veh | 9.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 31 | 67 | 166 | 168 | 115 | 332 |
| Future Vol, veh/h | 31 | 67 | 166 | 168 | 115 | 332 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 55 | 55 | 55 | 55 | 55 | 55 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 56 | 122 | 302 | 305 | 209 | 604 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1420 | 511 | 813 | 0 | - | 0 |
| Stage 1 | 511 | - | - | - | - | - |
| Stage 2 | 909 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 150 | 563 | 814 | - | - | - |
| Stage 1 | 602 | - | - | - | - | - |
| Stage 2 | 393 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 94 | 563 | 814 | - | - | - |
| Mov Cap-2 Maneuver | 94 | - | - | - | - | - |
| Stage 1 | 379 | - | - | - | - | - |
| Stage 2 | 393 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 68.5 | 6 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 814 | - | 218 | - | - |
| HCM Lane V/C Ratio | 0.371 | - | 0.817 | - | - |
| HCM Control Delay (s) | 12 | - | 68.5 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 1.7 | - | 6.1 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 9 | 126 | 89 | 265 | 324 | 19 |
| Future Volume (vph) | 9 | 126 | 89 | 265 | 324 | 19 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 9 | 126 | 89 | 265 | 324 | 19 |
| Future Vol, veh/h | 9 | 126 | 89 | 265 | 324 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 18 | 252 | 178 | 530 | 648 | 38 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1553 | 667 | 686 | 0 | - | 0 |
| Stage 1 | 667 | - | - | - | - | - |
| Stage 2 | 886 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 125 | 459 | 908 | - | - | - |
| Stage 1 | 510 | - | - | - | - | - |
| Stage 2 | 403 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 101 | 459 | 908 | - | - | - |
| Mov Cap-2 Maneuver | 232 | - | - | - | - | - |
| Stage 1 | 410 | - | - | - | - | - |
| Stage 2 | 403 | - | - | - | - | - |

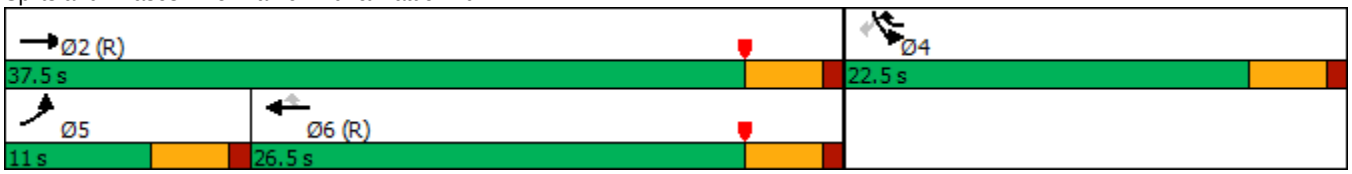
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 26.4 | 2.5 | 0 |
| HCM LOS | D | | |

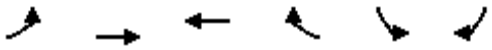
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 908 | - | 431 | - | - |
| HCM Lane V/C Ratio | 0.196 | - | 0.626 | - | - |
| HCM Control Delay (s) | 9.9 | - | 26.4 | - | - |
| HCM Lane LOS | A | - | D | - | - |
| HCM 95th %tile Q(veh) | 0.7 | - | 4.2 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 217 | 985 | 1245 | 221 | 310 | 269 |
| Future Volume (vph) | 217 | 985 | 1245 | 221 | 310 | 269 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 |
| Shared Lane Traffic (%) | | | | | | 32% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 11.0 | 37.5 | 26.5 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 18.3% | 62.5% | 44.2% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 6.5 | 33.0 | 22.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.





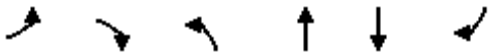
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 217 | 985 | 1245 | 221 | 310 | 269 |
| Future Volume (veh/h) | 217 | 985 | 1245 | 221 | 310 | 269 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 282 | 1279 | 1617 | 287 | 495 | 251 |
| Peak Hour Factor | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 374 | 2808 | 1872 | 1057 | 1069 | 476 |
| Arrive On Green | 0.22 | 1.00 | 0.12 | 0.12 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 3563 | 1585 |
| Grp Volume(v), veh/h | 282 | 1279 | 1617 | 287 | 495 | 251 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 4.6 | 0.0 | 18.7 | 5.3 | 6.8 | 7.9 |
| Cycle Q Clear(g_c), s | 4.6 | 0.0 | 18.7 | 5.3 | 6.8 | 7.9 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 374 | 2808 | 1872 | 1057 | 1069 | 476 |
| V/C Ratio(X) | 0.75 | 0.46 | 0.86 | 0.27 | 0.46 | 0.53 |
| Avail Cap(c_a), veh/h | 374 | 2808 | 1872 | 1057 | 1069 | 476 |
| HCM Platoon Ratio | 2.00 | 2.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.7 | 0.0 | 24.9 | 5.9 | 17.1 | 17.5 |
| Incr Delay (d2), s/veh | 8.4 | 0.5 | 5.6 | 0.6 | 1.4 | 4.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.9 | 0.1 | 9.0 | 3.7 | 2.6 | 7.7 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 31.1 | 0.5 | 30.5 | 6.5 | 18.5 | 21.6 |
| LnGrp LOS | C | A | C | A | B | C |
| Approach Vol, veh/h | | 1561 | 1904 | | 746 | |
| Approach Delay, s/veh | | 6.1 | 26.9 | | 19.6 | |
| Approach LOS | | A | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 11.0 | 26.5 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 6.5 | 22.0 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 9.9 | 6.6 | 20.7 |
| Green Ext Time (p_c), s | | 9.5 | | 1.8 | 0.0 | 1.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 17.9 |
| HCM 6th LOS | B |

Notes

User approved volume balancing among the lanes for turning movement.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 4 | 58 | 54 | 350 | 446 | 4 |
| Future Volume (vph) | 4 | 58 | 54 | 350 | 446 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 470 | 524 | |
| Travel Time (s) | 6.4 | | | 8.0 | 8.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

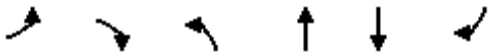
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 58 | 54 | 350 | 446 | 4 |
| Future Vol, veh/h | 4 | 58 | 54 | 350 | 446 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| 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 | 4 | 63 | 59 | 380 | 485 | 4 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 985 | 487 | 489 | 0 | - | 0 |
| Stage 1 | 487 | - | - | - | - | - |
| Stage 2 | 498 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 275 | 581 | 1074 | - | - | - |
| Stage 1 | 618 | - | - | - | - | - |
| Stage 2 | 611 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 260 | 581 | 1074 | - | - | - |
| Mov Cap-2 Maneuver | 391 | - | - | - | - | - |
| Stage 1 | 584 | - | - | - | - | - |
| Stage 2 | 611 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.3 | 1.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1074 | - | 563 | - | - |
| HCM Lane V/C Ratio | 0.055 | - | 0.12 | - | - |
| HCM Control Delay (s) | 8.5 | - | 12.3 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.4 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 6 | 82 | 40 | 398 | 497 | 7 |
| Future Volume (vph) | 6 | 82 | 40 | 398 | 497 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 25 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 10 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 82 | 470 | |
| Travel Time (s) | 6.4 | | | 1.4 | 8.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

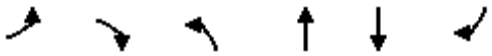
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 82 | 40 | 398 | 497 | 7 |
| Future Vol, veh/h | 6 | 82 | 40 | 398 | 497 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| 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 | 7 | 89 | 43 | 433 | 540 | 8 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1063 | 544 | 548 | 0 | - | 0 |
| Stage 1 | 544 | - | - | - | - | - |
| Stage 2 | 519 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 247 | 539 | 1021 | - | - | - |
| Stage 1 | 582 | - | - | - | - | - |
| Stage 2 | 597 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 237 | 539 | 1021 | - | - | - |
| Mov Cap-2 Maneuver | 371 | - | - | - | - | - |
| Stage 1 | 558 | - | - | - | - | - |
| Stage 2 | 597 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.4 | 0.8 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1021 | - | 523 | - | - |
| HCM Lane V/C Ratio | 0.043 | - | 0.183 | - | - |
| HCM Control Delay (s) | 8.7 | - | 13.4 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.7 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 88 | 107 | 0 | 274 | 236 | 0 |
| Future Volume (vph) | 88 | 107 | 0 | 274 | 236 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

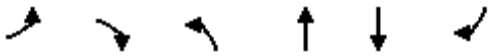
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 88 | 107 | 0 | 274 | 236 | 0 |
| Future Vol, veh/h | 88 | 107 | 0 | 274 | 236 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 176 | 214 | 0 | 548 | 472 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1020 | 472 | - | 0 | - | 0 |
| Stage 1 | 472 | - | - | - | - | - |
| Stage 2 | 548 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 262 | 592 | 0 | - | - | 0 |
| Stage 1 | 628 | - | 0 | - | - | 0 |
| Stage 2 | 579 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 262 | 592 | - | - | - | - |
| Mov Cap-2 Maneuver | 394 | - | - | - | - | - |
| Stage 1 | 628 | - | - | - | - | - |
| Stage 2 | 579 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 17.6 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 394 | 592 | - |
| HCM Lane V/C Ratio | - | 0.447 | 0.361 | - |
| HCM Control Delay (s) | - | 21.3 | 14.5 | - |
| HCM Lane LOS | - | C | B | - |
| HCM 95th %tile Q(veh) | - | 2.2 | 1.6 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 59 | 53 | 122 | 240 | 183 | 137 |
| Future Volume (vph) | 59 | 53 | 122 | 240 | 183 | 137 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 34.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 59 | 53 | 122 | 240 | 183 | 137 |
| Future Vol, veh/h | 59 | 53 | 122 | 240 | 183 | 137 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 118 | 106 | 244 | 480 | 366 | 274 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1471 | 503 | 640 | 0 | - | 0 |
| Stage 1 | 503 | - | - | - | - | - |
| Stage 2 | 968 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 140 | 569 | 944 | - | - | - |
| Stage 1 | 607 | - | - | - | - | - |
| Stage 2 | 368 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 104 | 569 | 944 | - | - | - |
| Mov Cap-2 Maneuver | ~ 104 | - | - | - | - | - |
| Stage 1 | 450 | - | - | - | - | - |
| Stage 2 | 368 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 230.6 | 3.4 | 0 |
| HCM LOS | F | | |

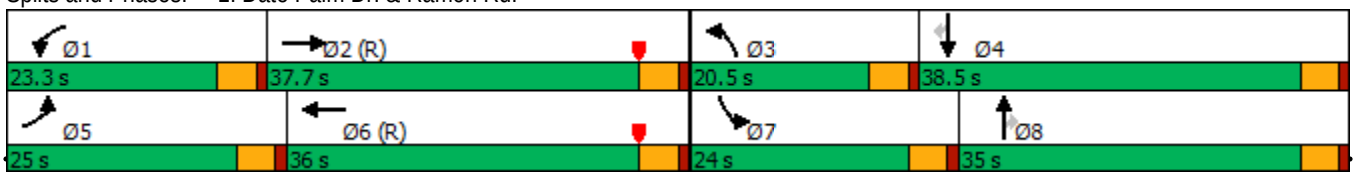
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 944 | - | 170 | - | - |
| HCM Lane V/C Ratio | 0.258 | - | 1.318 | - | - |
| HCM Control Delay (s) | 10.1 | - | 230.6 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 1 | - | 13.1 | - | - |

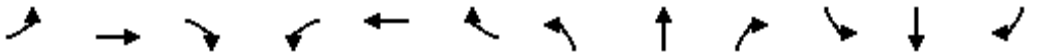
| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 221 | 769 | 121 | 190 | 826 | 173 | 256 | 717 | 127 | 216 | 540 | 171 |
| Future Volume (vph) | 221 | 769 | 121 | 190 | 826 | 173 | 256 | 717 | 127 | 216 | 540 | 171 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 0 | 225 | | 0 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 25.0 | 37.7 | | 23.3 | 36.0 | | 20.5 | 35.0 | 35.0 | 24.0 | 38.5 | 38.5 |
| Total Split (%) | 20.8% | 31.4% | | 19.4% | 30.0% | | 17.1% | 29.2% | 29.2% | 20.0% | 32.1% | 32.1% |
| Maximum Green (s) | 20.5 | 33.2 | | 18.8 | 31.5 | | 16.0 | 30.5 | 30.5 | 19.5 | 34.0 | 34.0 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | Max | Max | None | Max | Max |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 221 | 769 | 121 | 190 | 826 | 173 | 256 | 717 | 127 | 216 | 540 | 171 |
| Future Volume (veh/h) | 221 | 769 | 121 | 190 | 826 | 173 | 256 | 717 | 127 | 216 | 540 | 171 |
| 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 | | 0.99 | 1.00 | | 0.99 | 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 246 | 854 | 134 | 211 | 918 | 192 | 284 | 797 | 141 | 240 | 600 | 190 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 273 | 1388 | 217 | 239 | 1237 | 258 | 347 | 903 | 400 | 267 | 1079 | 479 |
| Arrive On Green | 0.15 | 0.31 | 0.31 | 0.13 | 0.29 | 0.29 | 0.10 | 0.25 | 0.25 | 0.15 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1781 | 4451 | 695 | 1781 | 4229 | 881 | 3456 | 3554 | 1576 | 1781 | 3554 | 1577 |
| Grp Volume(v), veh/h | 246 | 652 | 336 | 211 | 738 | 372 | 284 | 797 | 141 | 240 | 600 | 190 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1741 | 1781 | 1702 | 1706 | 1728 | 1777 | 1576 | 1781 | 1777 | 1577 |
| Q Serve(g_s), s | 16.3 | 19.6 | 19.7 | 14.0 | 23.5 | 23.7 | 9.7 | 25.9 | 8.8 | 15.9 | 17.0 | 11.4 |
| Cycle Q Clear(g_c), s | 16.3 | 19.6 | 19.7 | 14.0 | 23.5 | 23.7 | 9.7 | 25.9 | 8.8 | 15.9 | 17.0 | 11.4 |
| Prop In Lane | 1.00 | | 0.40 | 1.00 | | 0.52 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 273 | 1061 | 543 | 239 | 995 | 499 | 347 | 903 | 400 | 267 | 1079 | 479 |
| V/C Ratio(X) | 0.90 | 0.61 | 0.62 | 0.88 | 0.74 | 0.75 | 0.82 | 0.88 | 0.35 | 0.90 | 0.56 | 0.40 |
| Avail Cap(c_a), veh/h | 304 | 1061 | 543 | 279 | 995 | 499 | 461 | 903 | 400 | 289 | 1079 | 479 |
| 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) | 1.00 | 1.00 | 1.00 | 0.88 | 0.88 | 0.88 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 49.9 | 35.2 | 35.2 | 51.0 | 38.4 | 38.4 | 52.9 | 43.0 | 36.7 | 50.1 | 35.0 | 33.1 |
| Incr Delay (d2), s/veh | 26.1 | 2.7 | 5.2 | 21.8 | 4.4 | 8.6 | 8.5 | 12.2 | 2.4 | 27.4 | 2.1 | 2.4 |
| 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 | 9.0 | 8.1 | 8.8 | 7.5 | 9.9 | 10.6 | 4.5 | 12.5 | 3.6 | 8.9 | 7.4 | 4.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 76.0 | 37.8 | 40.4 | 72.9 | 42.8 | 47.1 | 61.4 | 55.2 | 39.1 | 77.5 | 37.1 | 35.5 |
| LnGrp LOS | E | D | D | E | D | D | E | E | D | E | D | D |
| Approach Vol, veh/h | | 1234 | | | 1321 | | | 1222 | | | 1030 | |
| Approach Delay, s/veh | | 46.1 | | | 48.8 | | | 54.8 | | | 46.2 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 20.6 | 41.9 | 16.5 | 40.9 | 22.9 | 39.6 | 22.5 | 35.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.8 | 33.2 | 16.0 | 34.0 | 20.5 | 31.5 | 19.5 | 30.5 |
| Max Q Clear Time (g_c+I1), s | 16.0 | 21.7 | 11.7 | 19.0 | 18.3 | 25.7 | 17.9 | 27.9 |
| Green Ext Time (p_c), s | 0.2 | 4.4 | 0.4 | 3.8 | 0.2 | 3.1 | 0.1 | 1.4 |

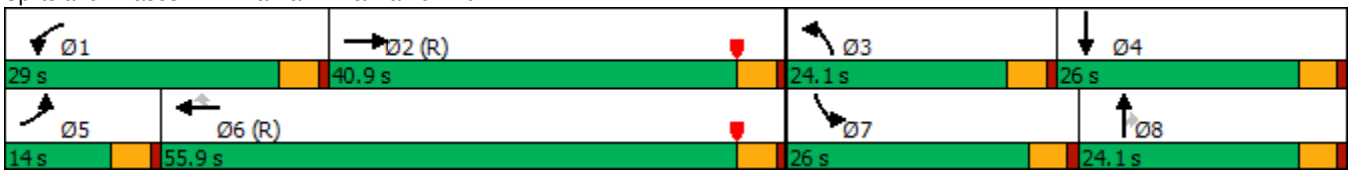
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 49.1 |
| HCM 6th LOS | D |

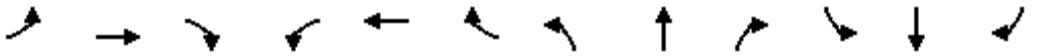
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 46 | 842 | 84 | 176 | 873 | 234 | 143 | 264 | 135 | 152 | 134 | 30 |
| Future Volume (vph) | 46 | 842 | 84 | 176 | 873 | 234 | 143 | 264 | 135 | 152 | 134 | 30 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 0 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 14.0 | 40.9 | | 29.0 | 55.9 | 55.9 | 24.1 | 24.1 | 24.1 | 26.0 | 26.0 | |
| Total Split (%) | 11.7% | 34.1% | | 24.2% | 46.6% | 46.6% | 20.1% | 20.1% | 20.1% | 21.7% | 21.7% | |
| Maximum Green (s) | 9.5 | 36.4 | | 24.5 | 51.4 | 51.4 | 19.6 | 19.6 | 19.6 | 21.5 | 21.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | C-Max | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 46 | 842 | 84 | 176 | 873 | 234 | 143 | 264 | 135 | 152 | 134 | 30 |
| Future Volume (veh/h) | 46 | 842 | 84 | 176 | 873 | 234 | 143 | 264 | 135 | 152 | 134 | 30 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 53 | 968 | 97 | 202 | 1003 | 269 | 164 | 303 | 155 | 175 | 154 | 34 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 68 | 2038 | 204 | 232 | 2676 | 831 | 193 | 613 | 274 | 205 | 266 | 59 |
| Arrive On Green | 0.04 | 0.43 | 0.43 | 0.13 | 0.52 | 0.52 | 0.11 | 0.17 | 0.17 | 0.11 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1781 | 4718 | 472 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 1781 | 1484 | 328 |
| Grp Volume(v), veh/h | 53 | 698 | 367 | 202 | 1003 | 269 | 164 | 303 | 155 | 175 | 0 | 188 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1785 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1781 | 0 | 1811 |
| Q Serve(g_s), s | 3.5 | 17.6 | 17.6 | 13.3 | 14.0 | 11.7 | 10.8 | 9.3 | 10.8 | 11.6 | 0.0 | 11.4 |
| Cycle Q Clear(g_c), s | 3.5 | 17.6 | 17.6 | 13.3 | 14.0 | 11.7 | 10.8 | 9.3 | 10.8 | 11.6 | 0.0 | 11.4 |
| Prop In Lane | 1.00 | | 0.26 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 68 | 1470 | 771 | 232 | 2676 | 831 | 193 | 613 | 274 | 205 | 0 | 325 |
| V/C Ratio(X) | 0.77 | 0.47 | 0.48 | 0.87 | 0.37 | 0.32 | 0.85 | 0.49 | 0.57 | 0.85 | 0.00 | 0.58 |
| Avail Cap(c_a), veh/h | 141 | 1470 | 771 | 364 | 2676 | 831 | 291 | 613 | 274 | 319 | 0 | 325 |
| 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) | 0.68 | 0.68 | 0.68 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.2 | 24.4 | 24.4 | 51.2 | 16.9 | 16.4 | 52.5 | 44.9 | 45.5 | 52.1 | 0.0 | 45.1 |
| Incr Delay (d2), s/veh | 11.9 | 0.7 | 1.4 | 12.8 | 0.4 | 1.0 | 13.8 | 2.8 | 8.2 | 12.7 | 0.0 | 7.4 |
| 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 | 1.8 | 6.8 | 7.3 | 6.5 | 5.0 | 4.1 | 5.4 | 4.2 | 4.7 | 5.8 | 0.0 | 5.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 69.0 | 25.1 | 25.8 | 63.9 | 17.3 | 17.4 | 66.4 | 47.7 | 53.8 | 64.8 | 0.0 | 52.5 |
| LnGrp LOS | E | C | C | E | B | B | E | D | D | E | A | D |
| Approach Vol, veh/h | | 1118 | | | 1474 | | | 622 | | | 363 | |
| Approach Delay, s/veh | | 27.4 | | | 23.7 | | | 54.2 | | | 58.4 | |
| Approach LOS | | C | | | C | | | D | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 20.2 | 56.3 | 17.5 | 26.0 | 9.1 | 67.4 | 18.3 | 25.2 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 24.5 | 36.4 | 19.6 | 21.5 | 9.5 | 51.4 | 21.5 | 19.6 |
| Max Q Clear Time (g_c+I1), s | 15.3 | 19.6 | 12.8 | 13.4 | 5.5 | 16.0 | 13.6 | 12.8 |
| Green Ext Time (p_c), s | 0.3 | 5.8 | 0.2 | 0.5 | 0.0 | 8.3 | 0.3 | 1.2 |

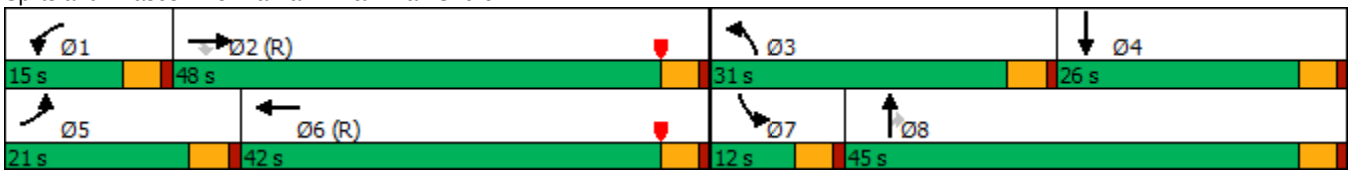
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 33.7 |
| HCM 6th LOS | C |

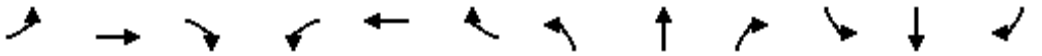
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 109 | 527 | 150 | 57 | 541 | 100 | 197 | 306 | 62 | 31 | 236 | 137 |
| Future Volume (vph) | 109 | 527 | 150 | 57 | 541 | 100 | 197 | 306 | 62 | 31 | 236 | 137 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 175 | | 215 | 185 | | 0 | 125 | | 125 | 135 | | 135 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 50 | | | 50 | |
| Link Distance (ft) | | 918 | | | 366 | | | 1131 | | | 331 | |
| Travel Time (s) | | 20.9 | | | 8.3 | | | 15.4 | | | 4.5 | |
| 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 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 21.0 | 48.0 | 48.0 | 15.0 | 42.0 | | 31.0 | 45.0 | 45.0 | 12.0 | 26.0 | |
| Total Split (%) | 17.5% | 40.0% | 40.0% | 12.5% | 35.0% | | 25.8% | 37.5% | 37.5% | 10.0% | 21.7% | |
| Maximum Green (s) | 16.5 | 43.5 | 43.5 | 10.5 | 37.5 | | 26.5 | 40.5 | 40.5 | 7.5 | 21.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 3: Da Vall Dr. & Dinah Shore Dr.

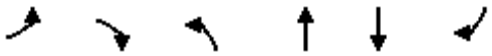




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 109 | 527 | 150 | 57 | 541 | 100 | 197 | 306 | 62 | 31 | 236 | 137 |
| Future Volume (veh/h) | 109 | 527 | 150 | 57 | 541 | 100 | 197 | 306 | 62 | 31 | 236 | 137 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 115 | 555 | 158 | 60 | 569 | 105 | 207 | 322 | 65 | 33 | 248 | 144 |
| 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 | 142 | 1568 | 699 | 77 | 1214 | 223 | 238 | 1199 | 535 | 50 | 508 | 285 |
| Arrive On Green | 0.08 | 0.44 | 0.44 | 0.04 | 0.41 | 0.41 | 0.13 | 0.34 | 0.34 | 0.03 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 2997 | 551 | 1781 | 3554 | 1585 | 1781 | 2195 | 1231 |
| Grp Volume(v), veh/h | 115 | 555 | 158 | 60 | 337 | 337 | 207 | 322 | 65 | 33 | 199 | 193 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1771 | 1781 | 1777 | 1585 | 1781 | 1777 | 1649 |
| Q Serve(g_s), s | 7.6 | 12.4 | 7.4 | 4.0 | 16.7 | 16.8 | 13.7 | 7.9 | 3.4 | 2.2 | 11.6 | 12.2 |
| Cycle Q Clear(g_c), s | 7.6 | 12.4 | 7.4 | 4.0 | 16.7 | 16.8 | 13.7 | 7.9 | 3.4 | 2.2 | 11.6 | 12.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.31 | 1.00 | | 1.00 | 1.00 | | 0.75 |
| Lane Grp Cap(c), veh/h | 142 | 1568 | 699 | 77 | 720 | 718 | 238 | 1199 | 535 | 50 | 412 | 382 |
| V/C Ratio(X) | 0.81 | 0.35 | 0.23 | 0.77 | 0.47 | 0.47 | 0.87 | 0.27 | 0.12 | 0.67 | 0.48 | 0.51 |
| Avail Cap(c_a), veh/h | 245 | 1568 | 699 | 156 | 720 | 718 | 393 | 1199 | 535 | 111 | 412 | 382 |
| 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) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.3 | 22.2 | 20.8 | 56.8 | 26.2 | 26.2 | 51.0 | 29.0 | 27.5 | 57.8 | 39.9 | 40.1 |
| Incr Delay (d2), s/veh | 10.5 | 0.6 | 0.7 | 15.0 | 2.2 | 2.2 | 10.9 | 0.5 | 0.5 | 14.3 | 4.0 | 4.7 |
| 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 | 3.8 | 5.3 | 2.7 | 2.1 | 7.5 | 7.5 | 6.6 | 3.3 | 1.3 | 1.2 | 5.4 | 5.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 64.9 | 22.8 | 21.6 | 71.8 | 28.4 | 28.4 | 61.9 | 29.5 | 27.9 | 72.1 | 43.9 | 44.8 |
| LnGrp LOS | E | C | C | E | C | C | E | C | C | E | D | D |
| Approach Vol, veh/h | | 828 | | | 734 | | | 594 | | | 425 | |
| Approach Delay, s/veh | | 28.4 | | | 32.0 | | | 40.6 | | | 46.5 | |
| Approach LOS | | C | | | C | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.7 | 57.4 | 20.5 | 32.3 | 14.0 | 53.1 | 7.8 | 45.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 10.5 | 43.5 | 26.5 | 21.5 | 16.5 | 37.5 | 7.5 | 40.5 |
| Max Q Clear Time (g_c+I1), s | 6.0 | 14.4 | 15.7 | 14.2 | 9.6 | 18.8 | 4.2 | 9.9 |
| Green Ext Time (p_c), s | 0.0 | 4.7 | 0.4 | 1.2 | 0.1 | 4.1 | 0.0 | 2.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 35.2 |
| HCM 6th LOS | D |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 23 | 117 | 32 | 146 | 184 | 19 |
| Future Volume (vph) | 23 | 117 | 32 | 146 | 184 | 19 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 23 | 117 | 32 | 146 | 184 | 19 |
| Future Vol, veh/h | 23 | 117 | 32 | 146 | 184 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 46 | 234 | 64 | 292 | 368 | 38 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 807 | 387 | 406 | 0 | - | 0 |
| Stage 1 | 387 | - | - | - | - | - |
| Stage 2 | 420 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 351 | 661 | 1153 | - | - | - |
| Stage 1 | 686 | - | - | - | - | - |
| Stage 2 | 663 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 331 | 661 | 1153 | - | - | - |
| Mov Cap-2 Maneuver | 450 | - | - | - | - | - |
| Stage 1 | 648 | - | - | - | - | - |
| Stage 2 | 663 | - | - | - | - | - |

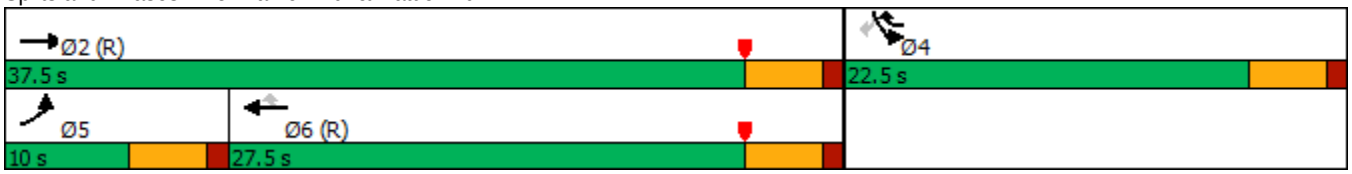
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15.7 | 1.5 | 0 |
| HCM LOS | C | | |

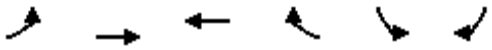
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1153 | - | 614 | - | - |
| HCM Lane V/C Ratio | 0.056 | - | 0.456 | - | - |
| HCM Control Delay (s) | 8.3 | - | 15.7 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 2.4 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 116 | 1016 | 1137 | 146 | 261 | 169 |
| Future Volume (vph) | 116 | 1016 | 1137 | 146 | 261 | 169 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Shared Lane Traffic (%) | | | | | | 21% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 10.0 | 37.5 | 27.5 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 16.7% | 62.5% | 45.8% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 5.5 | 33.0 | 23.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.





| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 116 | 1016 | 1137 | 146 | 261 | 169 |
| Future Volume (veh/h) | 116 | 1016 | 1137 | 146 | 261 | 169 |
| 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 149 | 1303 | 1458 | 187 | 366 | 184 |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 264 | 2808 | 2035 | 1107 | 1069 | 476 |
| Arrive On Green | 0.15 | 1.00 | 0.13 | 0.13 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 3563 | 1585 |
| Grp Volume(v), veh/h | 149 | 1303 | 1458 | 187 | 366 | 184 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 2.4 | 0.0 | 16.4 | 3.2 | 4.8 | 5.5 |
| Cycle Q Clear(g_c), s | 2.4 | 0.0 | 16.4 | 3.2 | 4.8 | 5.5 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 264 | 2808 | 2035 | 1107 | 1069 | 476 |
| V/C Ratio(X) | 0.56 | 0.46 | 0.72 | 0.17 | 0.34 | 0.39 |
| Avail Cap(c_a), veh/h | 317 | 2808 | 2035 | 1107 | 1069 | 476 |
| HCM Platoon Ratio | 2.00 | 2.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.86 | 0.86 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.5 | 0.0 | 22.8 | 4.6 | 16.4 | 16.6 |
| Incr Delay (d2), s/veh | 1.9 | 0.6 | 1.9 | 0.3 | 0.9 | 2.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.1 | 7.4 | 2.0 | 1.8 | 5.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 26.4 | 0.6 | 24.7 | 4.9 | 17.3 | 19.0 |
| LnGrp LOS | C | A | C | A | B | B |
| Approach Vol, veh/h | | 1452 | 1645 | | 550 | |
| Approach Delay, s/veh | | 3.2 | 22.4 | | 17.8 | |
| Approach LOS | | A | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 9.1 | 28.4 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 5.5 | 23.0 |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | 7.5 | 4.4 | 18.4 |
| Green Ext Time (p_c), s | | 9.7 | | 1.5 | 0.0 | 3.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 14.1 |
| HCM 6th LOS | B |

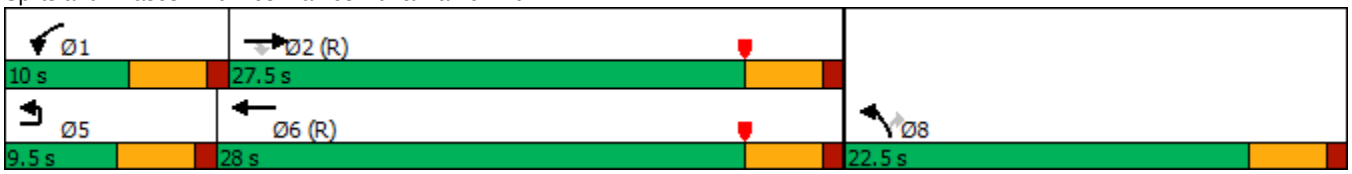
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 1 | 1155 | 114 | 56 | 1171 | 116 | 111 |
| Future Volume (vph) | 1 | 1155 | 114 | 56 | 1171 | 116 | 111 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 200 | 255 | | 125 | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 |
| Taper Length (ft) | 90 | | | 90 | | 90 | |
| Right Turn on Red | | | Yes | | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | 50 | |
| Link Distance (ft) | | 2660 | | | 3172 | 1424 | |
| Travel Time (s) | | 33.0 | | | 39.3 | 19.4 | |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Shared Lane Traffic (%) | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | |
| Permitted Phases | | | 2 | | | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 8 | 8 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 27.5 | 27.5 | 10.0 | 28.0 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 45.8% | 45.8% | 16.7% | 46.7% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 23.0 | 23.0 | 5.5 | 23.5 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 6: Los Alamos Rd. & Ramon Rd.



| Movement | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1 | 1155 | 114 | 56 | 1171 | 116 | 111 |
| Future Volume (veh/h) | 1 | 1155 | 114 | 56 | 1171 | 116 | 111 |
| 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 |
| Work Zone On Approach | | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | 1375 | 136 | 67 | 1394 | 138 | 132 |
| Peak Hour Factor | | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, % | | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | | 2139 | 664 | 100 | 2808 | 1037 | 476 |
| Arrive On Green | | 0.14 | 0.14 | 0.06 | 0.55 | 0.30 | 0.30 |
| Sat Flow, veh/h | | 5274 | 1585 | 1781 | 5274 | 3456 | 1585 |
| Grp Volume(v), veh/h | | 1375 | 136 | 67 | 1394 | 138 | 132 |
| Grp Sat Flow(s),veh/h/ln | | 1702 | 1585 | 1781 | 1702 | 1728 | 1585 |
| Q Serve(g_s), s | | 15.3 | 4.6 | 2.2 | 10.1 | 1.7 | 3.8 |
| Cycle Q Clear(g_c), s | | 15.3 | 4.6 | 2.2 | 10.1 | 1.7 | 3.8 |
| Prop In Lane | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | | 2139 | 664 | 100 | 2808 | 1037 | 476 |
| V/C Ratio(X) | | 0.64 | 0.20 | 0.67 | 0.50 | 0.13 | 0.28 |
| Avail Cap(c_a), veh/h | | 2139 | 664 | 163 | 2808 | 1037 | 476 |
| HCM Platoon Ratio | | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | 0.90 | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | 21.6 | 17.0 | 27.8 | 8.4 | 15.3 | 16.0 |
| Incr Delay (d2), s/veh | | 1.4 | 0.6 | 7.6 | 0.6 | 0.3 | 1.4 |
| 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 | 1.4 | 1.0 | 2.4 | 0.6 | 1.3 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | | 23.0 | 17.6 | 35.3 | 9.0 | 15.6 | 17.5 |
| LnGrp LOS | | C | B | D | A | B | B |
| Approach Vol, veh/h | | 1511 | | | 1461 | 270 | |
| Approach Delay, s/veh | | 22.5 | | | 10.2 | 16.5 | |
| Approach LOS | | C | | | B | B | |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.9 | 29.6 | | | | 37.5 | | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.5 | 23.0 | | | | 23.5 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | 4.2 | 17.3 | | | | 12.1 | | 5.8 |
| Green Ext Time (p_c), s | 0.0 | 3.9 | | | | 6.3 | | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.4 |
| HCM 6th LOS | B |

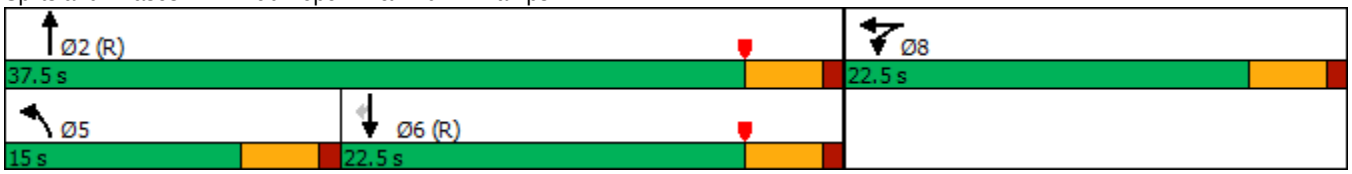
Notes

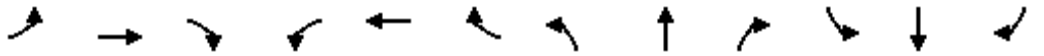
User approved ignoring U-Turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 564 | 1 | 111 | 646 | 284 | 0 | 0 | 199 | 277 |
| Future Volume (vph) | 0 | 0 | 0 | 564 | 1 | 111 | 646 | 284 | 0 | 0 | 199 | 277 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 430 | 210 | | 0 | 0 | | 205 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 2 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 581 | | | 1228 | | | 688 | | | 840 | |
| Travel Time (s) | | 11.3 | | | 23.9 | | | 10.4 | | | 12.7 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Shared Lane Traffic (%) | | | | 50% | | | | | | | | |
| Turn Type | | | | Split | NA | Free | Prot | NA | | | NA | Perm |
| Protected Phases | | | | 8 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | | | Free | | | | | | 6 |
| Detector Phase | | | | 8 | 8 | | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | 5.0 |
| Minimum Split (s) | | | | 22.5 | 22.5 | | 9.5 | 22.5 | | | 22.5 | 22.5 |
| Total Split (s) | | | | 22.5 | 22.5 | | 15.0 | 37.5 | | | 22.5 | 22.5 |
| Total Split (%) | | | | 37.5% | 37.5% | | 25.0% | 62.5% | | | 37.5% | 37.5% |
| Maximum Green (s) | | | | 18.0 | 18.0 | | 10.5 | 33.0 | | | 18.0 | 18.0 |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | 3.5 |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | 4.5 |
| Lead/Lag | | | | | | | Lead | | | | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | Yes |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | | | | None | None | | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | | | | | | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 7: Bob Hope Dr. & I-10 NB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 564 | 1 | 111 | 646 | 284 | 0 | 0 | 199 | 277 |
| Future Volume (veh/h) | 0 | 0 | 0 | 564 | 1 | 111 | 646 | 284 | 0 | 0 | 199 | 277 |
| 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 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 621 | 0 | 0 | 710 | 312 | 0 | 0 | 219 | 304 |
| Peak Hour Factor | | | | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 784 | 0 | | 605 | 2239 | 0 | 0 | 1940 | 602 |
| Arrive On Green | | | | 0.22 | 0.00 | 0.00 | 0.29 | 1.00 | 0.00 | 0.00 | 0.38 | 0.38 |
| Sat Flow, veh/h | | | | 3563 | 0 | 1585 | 3456 | 3647 | 0 | 0 | 5274 | 1585 |
| Grp Volume(v), veh/h | | | | 621 | 0 | 0 | 710 | 312 | 0 | 0 | 219 | 304 |
| Grp Sat Flow(s),veh/h/ln | | | | 1781 | 0 | 1585 | 1728 | 1777 | 0 | 0 | 1702 | 1585 |
| Q Serve(g_s), s | | | | 9.9 | 0.0 | 0.0 | 10.5 | 0.0 | 0.0 | 0.0 | 1.7 | 8.8 |
| Cycle Q Clear(g_c), s | | | | 9.9 | 0.0 | 0.0 | 10.5 | 0.0 | 0.0 | 0.0 | 1.7 | 8.8 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | | | | 784 | 0 | | 605 | 2239 | 0 | 0 | 1940 | 602 |
| V/C Ratio(X) | | | | 0.79 | 0.00 | | 1.17 | 0.14 | 0.00 | 0.00 | 0.11 | 0.50 |
| Avail Cap(c_a), veh/h | | | | 1069 | 0 | | 605 | 2239 | 0 | 0 | 1940 | 602 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 0.00 | 0.93 | 0.93 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 22.1 | 0.0 | 0.0 | 21.2 | 0.0 | 0.0 | 0.0 | 12.1 | 14.3 |
| Incr Delay (d2), s/veh | | | | 2.9 | 0.0 | 0.0 | 93.9 | 0.1 | 0.0 | 0.0 | 0.1 | 3.0 |
| 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 | | | | 4.0 | 0.0 | 0.0 | 11.0 | 0.0 | 0.0 | 0.0 | 0.5 | 3.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | 25.0 | 0.0 | 0.0 | 115.1 | 0.1 | 0.0 | 0.0 | 12.2 | 17.3 |
| LnGrp LOS | | | | C | A | | F | A | A | A | B | B |
| Approach Vol, veh/h | | | | | 621 | | | 1022 | | | 523 | |
| Approach Delay, s/veh | | | | | 25.0 | | | 80.0 | | | 15.1 | |
| Approach LOS | | | | | C | | | F | | | B | |

| Timer - Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 42.3 | | | 15.0 | 27.3 | | 17.7 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | | 10.5 | 18.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 12.5 | 10.8 | | 11.9 | | | | |
| Green Ext Time (p_c), s | | 1.9 | | | 0.0 | 1.4 | | 1.3 | | | | |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | 48.6 | |
| HCM 6th LOS | D | |

**Notes**

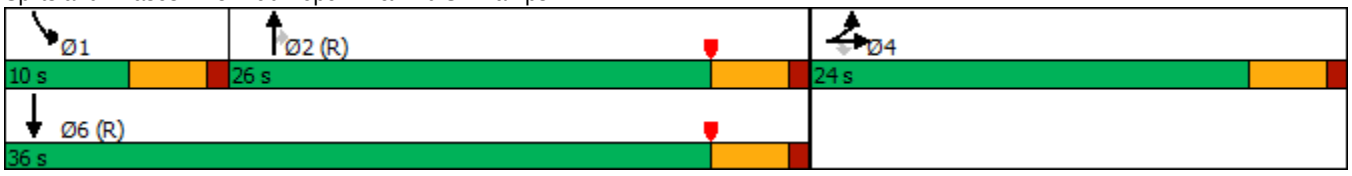
User approved volume balancing among the lanes for turning movement.

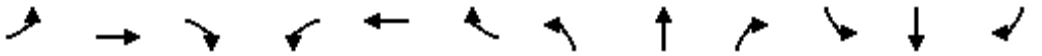
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 151 | 2 | 422 | 0 | 0 | 0 | 0 | 779 | 136 | 107 | 656 | 0 |
| Future Volume (vph) | 151 | 2 | 422 | 0 | 0 | 0 | 0 | 779 | 136 | 107 | 656 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 490 | | 135 | 0 | | 0 | 0 | | 195 | 225 | | 0 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 90 | | | 90 | | | 110 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1337 | | | 718 | | | 776 | | | 688 | |
| Travel Time (s) | | 26.0 | | | 14.0 | | | 11.8 | | | 10.4 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Shared Lane Traffic (%) | 10% | | 48% | | | | | | 10% | | | |
| Turn Type | Split | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | 4 | 4 | | | | | | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | | 2 | | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | | | | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | | | | | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 24.0 | 24.0 | 24.0 | | | | | 26.0 | 26.0 | 10.0 | 36.0 | |
| Total Split (%) | 40.0% | 40.0% | 40.0% | | | | | 43.3% | 43.3% | 16.7% | 60.0% | |
| Maximum Green (s) | 19.5 | 19.5 | 19.5 | | | | | 21.5 | 21.5 | 5.5 | 31.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | | | | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | Lag | Lag | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | None | C-Max | |
| Walk Time (s) | | | | | | | | | | | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 8: Bob Hope Dr. & I-10 SB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 151 | 2 | 422 | 0 | 0 | 0 | 0 | 779 | 136 | 107 | 656 | 0 |
| Future Volume (veh/h) | 151 | 2 | 422 | 0 | 0 | 0 | 0 | 779 | 136 | 107 | 656 | 0 |
| 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 |
| Work Zone On Approach | | No | | | | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | | | | 0 | 1870 | 1870 | 1870 | 1870 | 0 |
| Adj Flow Rate, veh/h | 113 | 0 | 530 | | | | 0 | 866 | 151 | 119 | 729 | 0 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | | | | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | | | | 0 | 2 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 389 | 0 | 693 | | | | 0 | 2719 | 768 | 248 | 2244 | 0 |
| Arrive On Green | 0.22 | 0.00 | 0.22 | | | | 0.00 | 0.48 | 0.48 | 0.14 | 1.00 | 0.00 |
| Sat Flow, veh/h | 1781 | 0 | 3170 | | | | 0 | 5611 | 1585 | 3456 | 3647 | 0 |
| Grp Volume(v), veh/h | 113 | 0 | 530 | | | | 0 | 866 | 151 | 119 | 729 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | | | | 0 | 1870 | 1585 | 1728 | 1777 | 0 |
| Q Serve(g_s), s | 3.2 | 0.0 | 9.4 | | | | 0.0 | 5.6 | 3.3 | 1.9 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.2 | 0.0 | 9.4 | | | | 0.0 | 5.6 | 3.3 | 1.9 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 389 | 0 | 693 | | | | 0 | 2719 | 768 | 248 | 2244 | 0 |
| V/C Ratio(X) | 0.29 | 0.00 | 0.76 | | | | 0.00 | 0.32 | 0.20 | 0.48 | 0.32 | 0.00 |
| Avail Cap(c_a), veh/h | 579 | 0 | 1030 | | | | 0 | 2719 | 768 | 317 | 2244 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.87 | 0.87 | 0.00 |
| Uniform Delay (d), s/veh | 19.6 | 0.0 | 22.0 | | | | 0.0 | 9.4 | 8.8 | 24.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 2.0 | | | | 0.0 | 0.3 | 0.6 | 1.2 | 0.3 | 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 | 1.2 | 0.0 | 3.3 | | | | 0.0 | 1.8 | 1.0 | 0.7 | 0.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 20.0 | 0.0 | 24.0 | | | | 0.0 | 9.7 | 9.4 | 25.9 | 0.3 | 0.0 |
| LnGrp LOS | B | A | C | | | | A | A | A | C | A | A |
| Approach Vol, veh/h | | 643 | | | | | | 1017 | | | 848 | |
| Approach Delay, s/veh | | 23.3 | | | | | | 9.7 | | | 3.9 | |
| Approach LOS | | C | | | | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.8 | 33.6 | | 17.6 | | 42.4 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.5 | 21.5 | | 19.5 | | 31.5 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 7.6 | | 11.4 | | 2.0 |
| Green Ext Time (p_c), s | 0.0 | 5.1 | | 1.7 | | 5.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 11.2 |
| HCM 6th LOS | B |

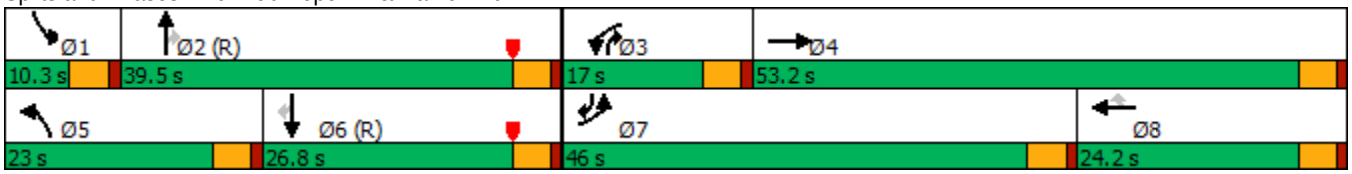
**Notes**

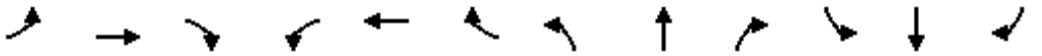
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 170 | 884 | 212 | 79 | 334 | 20 | 317 | 725 | 260 | 66 | 436 | 576 |
| Future Volume (vph) | 170 | 884 | 212 | 79 | 334 | 20 | 317 | 725 | 260 | 66 | 436 | 576 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 280 | | 470 | 240 | | 180 | 205 | | 280 | 215 | | 225 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 90 | | | 120 | | | 120 | | | 120 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | | | 45 | | | 45 | |
| Link Distance (ft) | | 676 | | | 1191 | | | 1119 | | | 476 | |
| Travel Time (s) | | 8.4 | | | 14.8 | | | 17.0 | | | 7.2 | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Free | Prot | NA | Perm | Prot | NA | pm+ov | Prot | NA | pm+ov |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | Free | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | | 3 | 8 | 8 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 9.5 |
| Total Split (s) | 46.0 | 53.2 | | 17.0 | 24.2 | 24.2 | 23.0 | 39.5 | 17.0 | 10.3 | 26.8 | 46.0 |
| Total Split (%) | 38.3% | 44.3% | | 14.2% | 20.2% | 20.2% | 19.2% | 32.9% | 14.2% | 8.6% | 22.3% | 38.3% |
| Maximum Green (s) | 41.5 | 48.7 | | 12.5 | 19.7 | 19.7 | 18.5 | 35.0 | 12.5 | 5.8 | 22.3 | 41.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | None | None | C-Max | None | None | C-Max | None |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 40.1 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 9: Bob Hope Dr. & Ramon Rd.





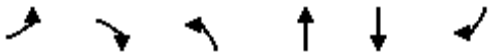
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 170 | 884 | 212 | 79 | 334 | 20 | 317 | 725 | 260 | 66 | 436 | 576 |
| Future Volume (veh/h) | 170 | 884 | 212 | 79 | 334 | 20 | 317 | 725 | 260 | 66 | 436 | 576 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 183 | 951 | 0 | 85 | 359 | 22 | 341 | 780 | 280 | 71 | 469 | 619 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 253 | 1110 | | 136 | 990 | 441 | 407 | 2352 | 792 | 130 | 1944 | 719 |
| Arrive On Green | 0.07 | 0.31 | 0.00 | 0.04 | 0.28 | 0.28 | 0.12 | 0.46 | 0.46 | 0.04 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3456 | 3554 | 1585 | 3456 | 3554 | 1585 | 3456 | 5106 | 1585 | 3456 | 5106 | 1585 |
| Grp Volume(v), veh/h | 183 | 951 | 0 | 85 | 359 | 22 | 341 | 780 | 280 | 71 | 469 | 619 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1585 | 1728 | 1777 | 1585 | 1728 | 1702 | 1585 | 1728 | 1702 | 1585 |
| Q Serve(g_s), s | 6.2 | 30.2 | 0.0 | 2.9 | 9.7 | 1.2 | 11.6 | 11.7 | 12.9 | 2.4 | 7.5 | 42.0 |
| Cycle Q Clear(g_c), s | 6.2 | 30.2 | 0.0 | 2.9 | 9.7 | 1.2 | 11.6 | 11.7 | 12.9 | 2.4 | 7.5 | 42.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 253 | 1110 | | 136 | 990 | 441 | 407 | 2352 | 792 | 130 | 1944 | 719 |
| V/C Ratio(X) | 0.72 | 0.86 | | 0.63 | 0.36 | 0.05 | 0.84 | 0.33 | 0.35 | 0.54 | 0.24 | 0.86 |
| Avail Cap(c_a), veh/h | 1195 | 1442 | | 360 | 990 | 441 | 533 | 2352 | 792 | 167 | 1944 | 719 |
| 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) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.4 | 38.7 | 0.0 | 56.8 | 34.7 | 31.7 | 51.8 | 20.6 | 18.2 | 56.7 | 25.3 | 29.4 |
| Incr Delay (d2), s/veh | 3.9 | 4.2 | 0.0 | 4.7 | 0.2 | 0.0 | 8.9 | 0.4 | 1.2 | 3.5 | 0.3 | 12.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.7 | 13.0 | 0.0 | 1.3 | 4.0 | 0.5 | 5.4 | 4.5 | 4.6 | 1.1 | 3.0 | 17.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 58.3 | 43.0 | 0.0 | 61.4 | 35.0 | 31.7 | 60.8 | 21.0 | 19.5 | 60.2 | 25.6 | 42.2 |
| LnGrp LOS | E | D | | E | C | C | E | C | B | E | C | D |
| Approach Vol, veh/h | | 1134 | | | 466 | | | 1401 | | | 1159 | |
| Approach Delay, s/veh | | 45.5 | | | 39.6 | | | 30.4 | | | 36.6 | |
| Approach LOS | | D | | | D | | | C | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.0 | 59.8 | 9.2 | 42.0 | 18.6 | 50.2 | 13.3 | 37.9 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.8 | 35.0 | 12.5 | 48.7 | 18.5 | 22.3 | 41.5 | 19.7 |
| Max Q Clear Time (g_c+I1), s | 4.4 | 14.9 | 4.9 | 32.2 | 13.6 | 44.0 | 8.2 | 11.7 |
| Green Ext Time (p_c), s | 0.0 | 5.9 | 0.1 | 5.3 | 0.5 | 0.0 | 0.6 | 1.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 37.3 |
| HCM 6th LOS | D |

**Notes**

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 4 | 58 | 54 | 174 | 297 | 4 |
| Future Volume (vph) | 4 | 58 | 54 | 174 | 297 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 470 | 524 | |
| Travel Time (s) | 6.4 | | | 8.0 | 8.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

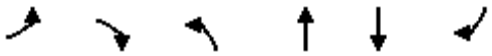
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 58 | 54 | 174 | 297 | 4 |
| Future Vol, veh/h | 4 | 58 | 54 | 174 | 297 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| 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 | 4 | 63 | 59 | 189 | 323 | 4 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 632 | 325 | 327 | 0 | - | 0 |
| Stage 1 | 325 | - | - | - | - | - |
| Stage 2 | 307 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 444 | 716 | 1233 | - | - | - |
| Stage 1 | 732 | - | - | - | - | - |
| Stage 2 | 746 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 423 | 716 | 1233 | - | - | - |
| Mov Cap-2 Maneuver | 521 | - | - | - | - | - |
| Stage 1 | 697 | - | - | - | - | - |
| Stage 2 | 746 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.7 | 1.9 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1233 | - | 699 | - | - |
| HCM Lane V/C Ratio | 0.048 | - | 0.096 | - | - |
| HCM Control Delay (s) | 8.1 | - | 10.7 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 6 | 82 | 40 | 222 | 348 | 7 |
| Future Volume (vph) | 6 | 82 | 40 | 222 | 348 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 25 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 10 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 82 | 470 | |
| Travel Time (s) | 6.4 | | | 1.4 | 8.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

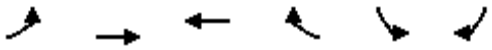
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 82 | 40 | 222 | 348 | 7 |
| Future Vol, veh/h | 6 | 82 | 40 | 222 | 348 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| 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 | 7 | 89 | 43 | 241 | 378 | 8 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 709 | 382 | 386 | 0 | - | 0 |
| Stage 1 | 382 | - | - | - | - | - |
| Stage 2 | 327 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 401 | 665 | 1172 | - | - | - |
| Stage 1 | 690 | - | - | - | - | - |
| Stage 2 | 731 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 386 | 665 | 1172 | - | - | - |
| Mov Cap-2 Maneuver | 493 | - | - | - | - | - |
| Stage 1 | 664 | - | - | - | - | - |
| Stage 2 | 731 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.5 | 1.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1172 | - | 650 | - | - |
| HCM Lane V/C Ratio | 0.037 | - | 0.147 | - | - |
| HCM Control Delay (s) | 8.2 | - | 11.5 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.5 | - | - |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 1132 | 1220 | 86 | 0 | 57 |
| Future Volume (vph) | 0 | 1132 | 1220 | 86 | 0 | 57 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 650 | 647 | | 292 | |
| Travel Time (s) | | 8.1 | 8.0 | | 6.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized

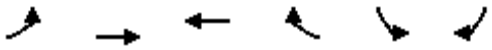
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 1132 | 1220 | 86 | 0 | 57 |
| Future Vol, veh/h | 0 | 1132 | 1220 | 86 | 0 | 57 |
| 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, # | - | 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 | 0 | 1230 | 1326 | 93 | 0 | 62 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 0 | - | 710 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 323 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | - | 323 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 18.8 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 323 |
| HCM Lane V/C Ratio | - | - | - | 0.192 |
| HCM Control Delay (s) | - | - | - | 18.8 |
| HCM Lane LOS | - | - | - | C |
| HCM 95th %tile Q(veh) | - | - | - | 0.7 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 67 | 1132 | 1270 | 7 | 0 | 31 |
| Future Volume (vph) | 67 | 1132 | 1270 | 7 | 0 | 31 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 0 | 1 |
| Taper Length (ft) | 60 | | | | 90 | |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 1330 | 650 | | 268 | |
| Travel Time (s) | | 16.5 | 8.1 | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

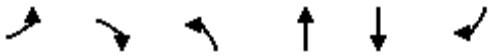
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 67 | 1132 | 1270 | 7 | 0 | 31 |
| Future Vol, veh/h | 67 | 1132 | 1270 | 7 | 0 | 31 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | - | 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 | 1230 | 1380 | 8 | 0 | 34 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1388 | 0 | - | 0 | - | 694 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | 5.34 | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | 3.12 | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 253 | - | - | - | 0 | 330 |
| Stage 1 | - | - | - | - | 0 | - |
| Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 253 | - | - | - | - | 330 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1.4 | 0 | 17.1 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 253 | - | - | - | 330 |
| HCM Lane V/C Ratio | 0.288 | - | - | - | 0.102 |
| HCM Control Delay (s) | 24.9 | - | - | - | 17.1 |
| HCM Lane LOS | C | - | - | - | C |
| HCM 95th %tile Q(veh) | 1.2 | - | - | - | 0.3 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 46 | 32 | 0 | 169 | 171 | 0 |
| Future Volume (vph) | 46 | 32 | 0 | 169 | 171 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

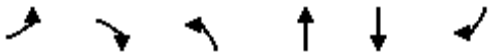
| Intersection | |
|---|---|
| Int Delay, s/veh | 2.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 46 | 32 | 0 | 169 | 171 | 0 |
| Future Vol, veh/h | 46 | 32 | 0 | 169 | 171 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 51 | 51 | 51 | 51 | 51 | 51 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 90 | 63 | 0 | 331 | 335 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 666 | 335 | - | 0 | - | 0 |
| Stage 1 | 335 | - | - | - | - | - |
| Stage 2 | 331 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 425 | 707 | 0 | - | - | 0 |
| Stage 1 | 725 | - | 0 | - | - | 0 |
| Stage 2 | 728 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 425 | 707 | - | - | - | - |
| Mov Cap-2 Maneuver | 526 | - | - | - | - | - |
| Stage 1 | 725 | - | - | - | - | - |
| Stage 2 | 728 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.2 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 526 | 707 | - |
| HCM Lane V/C Ratio | - | 0.171 | 0.089 | - |
| HCM Control Delay (s) | - | 13.3 | 10.6 | - |
| HCM Lane LOS | - | B | B | - |
| HCM 95th %tile Q(veh) | - | 0.6 | 0.3 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 32 | 37 | 65 | 150 | 134 | 47 |
| Future Volume (vph) | 32 | 37 | 65 | 150 | 134 | 47 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 32 | 37 | 65 | 150 | 134 | 47 |
| Future Vol, veh/h | 32 | 37 | 65 | 150 | 134 | 47 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 64 | 74 | 130 | 300 | 268 | 94 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 875 | 315 | 362 | 0 | - | 0 |
| Stage 1 | 315 | - | - | - | - | - |
| Stage 2 | 560 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 320 | 725 | 1197 | - | - | - |
| Stage 1 | 740 | - | - | - | - | - |
| Stage 2 | 572 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 285 | 725 | 1197 | - | - | - |
| Mov Cap-2 Maneuver | 285 | - | - | - | - | - |
| Stage 1 | 659 | - | - | - | - | - |
| Stage 2 | 572 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 17.6 | 2.5 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1197 | - | 422 | - | - |
| HCM Lane V/C Ratio | 0.109 | - | 0.327 | - | - |
| HCM Control Delay (s) | 8.4 | - | 17.6 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.4 | - | 1.4 | - | - |

# APPENDIX 7.1: HORIZON YEAR (2040) WITHOUT PROJECT INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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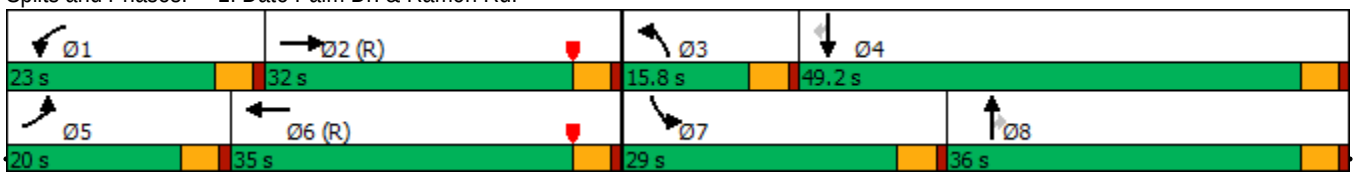
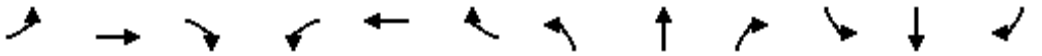
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 839 | 124 | 306 | 1022 | 225 |
| Future Volume (vph) | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 839 | 124 | 306 | 1022 | 225 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 0 | 225 | | 0 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 20.0 | 32.0 | | 23.0 | 35.0 | | 15.8 | 36.0 | 36.0 | 29.0 | 49.2 | 49.2 |
| Total Split (%) | 16.7% | 26.7% | | 19.2% | 29.2% | | 13.2% | 30.0% | 30.0% | 24.2% | 41.0% | 41.0% |
| Maximum Green (s) | 15.5 | 27.5 | | 18.5 | 30.5 | | 11.3 | 31.5 | 31.5 | 24.5 | 44.7 | 44.7 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | Max | Max | None | Max | Max |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | 5 |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 839 | 124 | 306 | 1022 | 225 |
| Future Volume (veh/h) | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 839 | 124 | 306 | 1022 | 225 |
| 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 | | 0.99 | 1.00 | | 0.99 | 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 839 | 124 | 306 | 1022 | 225 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 197 | 1151 | 168 | 243 | 1277 | 174 | 295 | 962 | 427 | 333 | 1324 | 588 |
| Arrive On Green | 0.11 | 0.26 | 0.26 | 0.14 | 0.28 | 0.28 | 0.09 | 0.27 | 0.27 | 0.19 | 0.37 | 0.37 |
| Sat Flow, veh/h | 1781 | 4496 | 656 | 1781 | 4541 | 618 | 3456 | 3554 | 1576 | 1781 | 3554 | 1579 |
| Grp Volume(v), veh/h | 170 | 617 | 320 | 215 | 651 | 338 | 239 | 839 | 124 | 306 | 1022 | 225 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1748 | 1781 | 1702 | 1755 | 1728 | 1777 | 1576 | 1781 | 1777 | 1579 |
| Q Serve(g_s), s | 11.3 | 19.8 | 20.0 | 14.2 | 20.4 | 20.6 | 8.2 | 27.0 | 7.5 | 20.2 | 30.4 | 12.5 |
| Cycle Q Clear(g_c), s | 11.3 | 19.8 | 20.0 | 14.2 | 20.4 | 20.6 | 8.2 | 27.0 | 7.5 | 20.2 | 30.4 | 12.5 |
| Prop In Lane | 1.00 | | 0.38 | 1.00 | | 0.35 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 197 | 871 | 447 | 243 | 958 | 494 | 295 | 962 | 427 | 333 | 1324 | 588 |
| V/C Ratio(X) | 0.86 | 0.71 | 0.71 | 0.89 | 0.68 | 0.68 | 0.81 | 0.87 | 0.29 | 0.92 | 0.77 | 0.38 |
| Avail Cap(c_a), veh/h | 230 | 871 | 447 | 275 | 958 | 494 | 325 | 962 | 427 | 364 | 1324 | 588 |
| 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) | 1.00 | 1.00 | 1.00 | 0.71 | 0.71 | 0.71 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.4 | 40.6 | 40.7 | 50.9 | 38.3 | 38.4 | 53.9 | 41.8 | 34.6 | 47.9 | 33.2 | 27.6 |
| Incr Delay (d2), s/veh | 24.1 | 4.8 | 9.4 | 19.6 | 2.8 | 5.4 | 13.2 | 10.7 | 1.7 | 26.5 | 4.4 | 1.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.2 | 8.5 | 9.4 | 7.4 | 8.5 | 9.2 | 4.0 | 12.8 | 3.0 | 11.1 | 13.3 | 4.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 76.5 | 45.4 | 50.0 | 70.5 | 41.1 | 43.8 | 67.1 | 52.5 | 36.3 | 74.4 | 37.6 | 29.4 |
| LnGrp LOS | E | D | D | E | D | D | E | D | D | E | D | C |
| Approach Vol, veh/h | | 1107 | | | 1204 | | | 1202 | | | 1553 | |
| Approach Delay, s/veh | | 51.5 | | | 47.1 | | | 53.7 | | | 43.7 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 20.8 | 35.2 | 14.7 | 49.2 | 17.8 | 38.3 | 26.9 | 37.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.5 | 27.5 | 11.3 | 44.7 | 15.5 | 30.5 | 24.5 | 31.5 |
| Max Q Clear Time (g_c+I1), s | 16.2 | 22.0 | 10.2 | 32.4 | 13.3 | 22.6 | 22.2 | 29.0 |
| Green Ext Time (p_c), s | 0.1 | 2.6 | 0.1 | 5.8 | 0.1 | 3.5 | 0.2 | 1.3 |

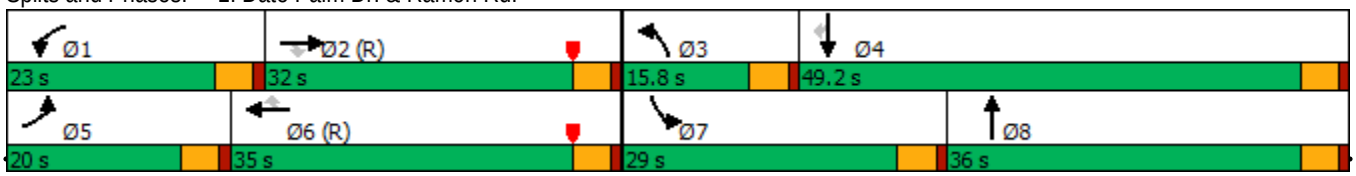
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 48.6 |
| HCM 6th LOS | D |

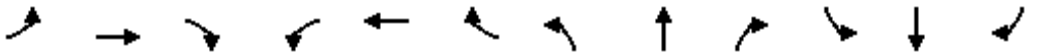
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 839 | 124 | 306 | 1022 | 225 |
| Future Volume (vph) | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 839 | 124 | 306 | 1022 | 225 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 150 | 225 | | 150 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | 6 | | | | | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 20.0 | 32.0 | 32.0 | 23.0 | 35.0 | 35.0 | 15.8 | 36.0 | | 29.0 | 49.2 | 49.2 |
| Total Split (%) | 16.7% | 26.7% | 26.7% | 19.2% | 29.2% | 29.2% | 13.2% | 30.0% | | 24.2% | 41.0% | 41.0% |
| Maximum Green (s) | 15.5 | 27.5 | 27.5 | 18.5 | 30.5 | 30.5 | 11.3 | 31.5 | | 24.5 | 44.7 | 44.7 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | Max | | None | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | | 5 | | | 5 | 5 |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 839 | 124 | 306 | 1022 | 225 |
| Future Volume (veh/h) | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 839 | 124 | 306 | 1022 | 225 |
| 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 | | 0.99 | 1.00 | | 0.99 | 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 839 | 124 | 306 | 1022 | 225 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 197 | 1307 | 403 | 243 | 1436 | 444 | 295 | 1216 | 179 | 333 | 1324 | 588 |
| Arrive On Green | 0.11 | 0.26 | 0.26 | 0.14 | 0.28 | 0.28 | 0.09 | 0.27 | 0.27 | 0.19 | 0.37 | 0.37 |
| Sat Flow, veh/h | 1781 | 5106 | 1576 | 1781 | 5106 | 1577 | 3456 | 4491 | 660 | 1781 | 3554 | 1579 |
| Grp Volume(v), veh/h | 170 | 817 | 120 | 215 | 870 | 119 | 239 | 635 | 328 | 306 | 1022 | 225 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1576 | 1781 | 1702 | 1577 | 1728 | 1702 | 1747 | 1781 | 1777 | 1579 |
| Q Serve(g_s), s | 11.3 | 17.0 | 7.4 | 14.2 | 17.7 | 7.0 | 8.2 | 20.1 | 20.2 | 20.2 | 30.4 | 12.5 |
| Cycle Q Clear(g_c), s | 11.3 | 17.0 | 7.4 | 14.2 | 17.7 | 7.0 | 8.2 | 20.1 | 20.2 | 20.2 | 30.4 | 12.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.38 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 197 | 1307 | 403 | 243 | 1436 | 444 | 295 | 922 | 473 | 333 | 1324 | 588 |
| V/C Ratio(X) | 0.86 | 0.63 | 0.30 | 0.89 | 0.61 | 0.27 | 0.81 | 0.69 | 0.69 | 0.92 | 0.77 | 0.38 |
| Avail Cap(c_a), veh/h | 230 | 1307 | 403 | 275 | 1436 | 444 | 325 | 922 | 473 | 364 | 1324 | 588 |
| 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) | 1.00 | 1.00 | 1.00 | 0.82 | 0.82 | 0.82 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.4 | 39.5 | 36.0 | 50.9 | 37.4 | 33.5 | 53.9 | 39.2 | 39.3 | 47.9 | 33.2 | 27.6 |
| Incr Delay (d2), s/veh | 24.1 | 2.3 | 1.9 | 21.9 | 1.6 | 1.2 | 13.2 | 4.2 | 8.1 | 26.5 | 4.4 | 1.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.2 | 7.1 | 3.0 | 7.6 | 7.3 | 2.8 | 4.0 | 8.6 | 9.5 | 11.1 | 13.3 | 4.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 76.5 | 41.8 | 37.8 | 72.8 | 38.9 | 34.7 | 67.1 | 43.4 | 47.4 | 74.4 | 37.6 | 29.4 |
| LnGrp LOS | E | D | D | E | D | C | E | D | D | E | D | C |
| Approach Vol, veh/h | | 1107 | | | 1204 | | | 1202 | | | 1553 | |
| Approach Delay, s/veh | | 46.7 | | | 44.6 | | | 49.2 | | | 43.7 | |
| Approach LOS | | D | | | D | | | D | | | D | |

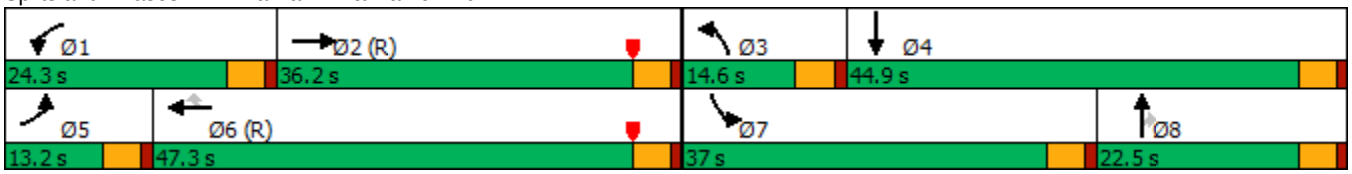
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 20.8 | 35.2 | 14.7 | 49.2 | 17.8 | 38.3 | 26.9 | 37.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.5 | 27.5 | 11.3 | 44.7 | 15.5 | 30.5 | 24.5 | 31.5 |
| Max Q Clear Time (g_c+I1), s | 16.2 | 19.0 | 10.2 | 32.4 | 13.3 | 19.7 | 22.2 | 22.2 |
| Green Ext Time (p_c), s | 0.1 | 3.5 | 0.1 | 5.8 | 0.1 | 4.2 | 0.2 | 3.9 |

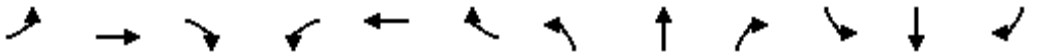
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 45.9 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 49 | 1163 | 224 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 395 | 62 |
| Future Volume (vph) | 49 | 1163 | 224 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 395 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 0 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 13.2 | 36.2 | | 24.3 | 47.3 | 47.3 | 14.6 | 22.5 | 22.5 | 37.0 | 44.9 | |
| Total Split (%) | 11.0% | 30.2% | | 20.3% | 39.4% | 39.4% | 12.2% | 18.8% | 18.8% | 30.8% | 37.4% | |
| Maximum Green (s) | 8.7 | 31.7 | | 19.8 | 42.8 | 42.8 | 10.1 | 18.0 | 18.0 | 32.5 | 40.4 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | C-Max | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 49 | 1163 | 224 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 395 | 62 |
| Future Volume (veh/h) | 49 | 1163 | 224 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 395 | 62 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 49 | 1163 | 224 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 395 | 62 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 63 | 1135 | 219 | 294 | 2010 | 624 | 124 | 533 | 238 | 482 | 554 | 87 |
| Arrive On Green | 0.04 | 0.26 | 0.26 | 0.05 | 0.13 | 0.13 | 0.07 | 0.15 | 0.15 | 0.27 | 0.35 | 0.35 |
| Sat Flow, veh/h | 1781 | 4298 | 828 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 1781 | 1578 | 248 |
| Grp Volume(v), veh/h | 49 | 921 | 466 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 0 | 457 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1721 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1781 | 0 | 1826 |
| Q Serve(g_s), s | 3.3 | 31.7 | 31.7 | 19.8 | 28.0 | 14.8 | 6.6 | 4.6 | 15.1 | 32.5 | 0.0 | 26.0 |
| Cycle Q Clear(g_c), s | 3.3 | 31.7 | 31.7 | 19.8 | 28.0 | 14.8 | 6.6 | 4.6 | 15.1 | 32.5 | 0.0 | 26.0 |
| Prop In Lane | 1.00 | | 0.48 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 63 | 899 | 455 | 294 | 2010 | 624 | 124 | 533 | 238 | 482 | 0 | 641 |
| V/C Ratio(X) | 0.78 | 1.02 | 1.02 | 1.03 | 0.63 | 0.34 | 0.81 | 0.29 | 0.86 | 1.06 | 0.00 | 0.71 |
| Avail Cap(c_a), veh/h | 129 | 899 | 455 | 294 | 2010 | 624 | 150 | 533 | 238 | 482 | 0 | 641 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.57 | 0.57 | 0.57 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.4 | 44.1 | 44.1 | 56.7 | 43.8 | 38.1 | 55.0 | 45.3 | 49.8 | 43.7 | 0.0 | 33.7 |
| Incr Delay (d2), s/veh | 10.9 | 29.0 | 38.2 | 61.7 | 1.5 | 1.5 | 22.8 | 1.4 | 30.9 | 56.9 | 0.0 | 6.6 |
| 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 | 1.6 | 16.3 | 17.6 | 14.4 | 12.9 | 6.5 | 3.7 | 2.1 | 7.8 | 21.3 | 0.0 | 12.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 68.3 | 73.2 | 82.4 | 118.4 | 45.3 | 39.6 | 77.9 | 46.7 | 80.6 | 100.7 | 0.0 | 40.3 |
| LnGrp LOS | E | F | F | F | D | D | E | D | F | F | A | D |
| Approach Vol, veh/h | | 1436 | | | 1777 | | | 458 | | | 967 | |
| Approach Delay, s/veh | | 76.0 | | | 57.1 | | | 68.6 | | | 72.1 | |
| Approach LOS | | E | | | E | | | E | | | E | |

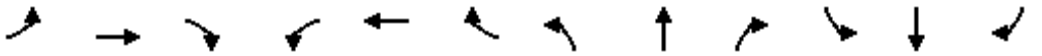
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 24.3 | 36.2 | 12.9 | 46.6 | 8.8 | 51.7 | 37.0 | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 19.8 | 31.7 | 10.1 | 40.4 | 8.7 | 42.8 | 32.5 | 18.0 |
| Max Q Clear Time (g_c+I1), s | 21.8 | 33.7 | 8.6 | 28.0 | 5.3 | 30.0 | 34.5 | 17.1 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | 6.8 | 0.0 | 0.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 67.2 |
| HCM 6th LOS | E |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 49 | 1163 | 224 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 395 | 62 |
| Future Volume (vph) | 49 | 1163 | 224 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 395 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 2 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | 7 | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 7 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 13.4 | 43.0 | | 28.0 | 57.6 | 26.2 | 13.0 | 22.8 | 22.8 | 26.2 | 36.0 | |
| Total Split (%) | 11.2% | 35.8% | | 23.3% | 48.0% | 21.8% | 10.8% | 19.0% | 19.0% | 21.8% | 30.0% | |
| Maximum Green (s) | 8.9 | 38.5 | | 23.5 | 53.1 | 21.7 | 8.5 | 18.3 | 18.3 | 21.7 | 31.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lead | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | None | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 49 | 1163 | 224 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 395 | 62 |
| Future Volume (veh/h) | 49 | 1163 | 224 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 395 | 62 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 49 | 1163 | 224 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 395 | 62 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 63 | 1442 | 278 | 325 | 2464 | 1027 | 124 | 592 | 264 | 571 | 414 | 65 |
| Arrive On Green | 0.04 | 0.34 | 0.34 | 0.37 | 0.97 | 0.97 | 0.07 | 0.17 | 0.17 | 0.17 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1781 | 4298 | 828 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 3456 | 1578 | 248 |
| Grp Volume(v), veh/h | 49 | 921 | 466 | 304 | 1258 | 215 | 100 | 154 | 204 | 510 | 0 | 457 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1721 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1728 | 0 | 1826 |
| Q Serve(g_s), s | 3.3 | 29.6 | 29.6 | 19.7 | 2.0 | 0.5 | 6.6 | 4.5 | 14.8 | 17.3 | 0.0 | 29.5 |
| Cycle Q Clear(g_c), s | 3.3 | 29.6 | 29.6 | 19.7 | 2.0 | 0.5 | 6.6 | 4.5 | 14.8 | 17.3 | 0.0 | 29.5 |
| Prop In Lane | 1.00 | | 0.48 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 63 | 1142 | 578 | 325 | 2464 | 1027 | 124 | 592 | 264 | 571 | 0 | 479 |
| V/C Ratio(X) | 0.78 | 0.81 | 0.81 | 0.93 | 0.51 | 0.21 | 0.81 | 0.26 | 0.77 | 0.89 | 0.00 | 0.95 |
| Avail Cap(c_a), veh/h | 132 | 1142 | 578 | 349 | 2464 | 1027 | 126 | 592 | 264 | 625 | 0 | 479 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.60 | 0.60 | 0.60 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.4 | 36.3 | 36.3 | 37.4 | 1.1 | 0.5 | 55.0 | 43.6 | 47.8 | 49.0 | 0.0 | 43.5 |
| Incr Delay (d2), s/veh | 11.4 | 3.8 | 7.2 | 30.9 | 0.8 | 0.5 | 30.6 | 1.1 | 19.4 | 14.4 | 0.0 | 31.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 12.2 | 12.9 | 9.1 | 0.6 | 0.2 | 3.9 | 2.0 | 7.0 | 8.4 | 0.0 | 16.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 68.8 | 40.1 | 43.5 | 68.3 | 1.9 | 1.0 | 85.6 | 44.6 | 67.2 | 63.4 | 0.0 | 74.6 |
| LnGrp LOS | E | D | D | E | A | A | F | D | E | E | A | E |
| Approach Vol, veh/h | | 1436 | | | 1777 | | | 458 | | | 967 | |
| Approach Delay, s/veh | | 42.2 | | | 13.1 | | | 63.6 | | | 68.7 | |
| Approach LOS | | D | | | B | | | E | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 26.4 | 44.8 | 12.8 | 36.0 | 8.8 | 62.4 | 24.3 | 24.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 23.5 | 38.5 | 8.5 | 31.5 | 8.9 | 53.1 | 21.7 | 18.3 |
| Max Q Clear Time (g_c+I1), s | 21.7 | 31.6 | 8.6 | 31.5 | 5.3 | 4.0 | 19.3 | 16.8 |
| Green Ext Time (p_c), s | 0.2 | 4.3 | 0.0 | 0.0 | 0.0 | 11.3 | 0.5 | 0.2 |

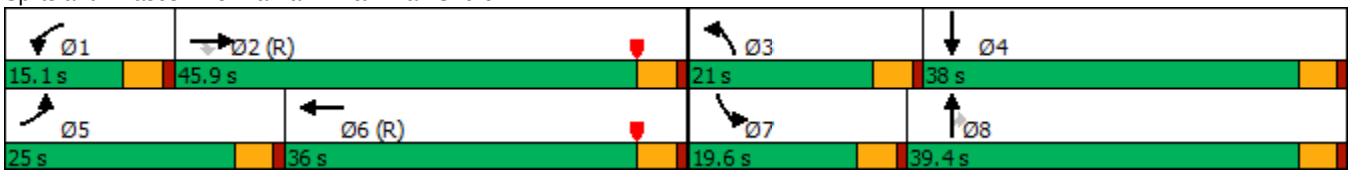
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 38.7 |
| HCM 6th LOS | D |

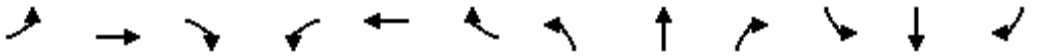
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 193 | 803 | 315 | 73 | 609 | 44 | 144 | 215 | 119 | 109 | 509 | 284 |
| Future Volume (vph) | 193 | 803 | 315 | 73 | 609 | 44 | 144 | 215 | 119 | 109 | 509 | 284 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 175 | | 215 | 185 | | 0 | 125 | | 125 | 135 | | 135 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 50 | | | 50 | |
| Link Distance (ft) | | 918 | | | 366 | | | 1131 | | | 331 | |
| Travel Time (s) | | 20.9 | | | 8.3 | | | 15.4 | | | 4.5 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 25.0 | 45.9 | 45.9 | 15.1 | 36.0 | | 21.0 | 39.4 | 39.4 | 19.6 | 38.0 | |
| Total Split (%) | 20.8% | 38.3% | 38.3% | 12.6% | 30.0% | | 17.5% | 32.8% | 32.8% | 16.3% | 31.7% | |
| Maximum Green (s) | 20.5 | 41.4 | 41.4 | 10.6 | 31.5 | | 16.5 | 34.9 | 34.9 | 15.1 | 33.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 3: Da Vall Dr. & Dinah Shore Dr.

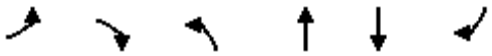




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 193 | 803 | 315 | 73 | 609 | 44 | 144 | 215 | 119 | 109 | 509 | 284 |
| Future Volume (veh/h) | 193 | 803 | 315 | 73 | 609 | 44 | 144 | 215 | 119 | 109 | 509 | 284 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 193 | 803 | 315 | 73 | 609 | 44 | 144 | 215 | 119 | 109 | 509 | 284 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 222 | 1499 | 669 | 93 | 1175 | 85 | 172 | 1066 | 475 | 135 | 615 | 342 |
| Arrive On Green | 0.12 | 0.42 | 0.42 | 0.05 | 0.35 | 0.35 | 0.10 | 0.30 | 0.30 | 0.08 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 3361 | 243 | 1781 | 3554 | 1585 | 1781 | 2202 | 1225 |
| Grp Volume(v), veh/h | 193 | 803 | 315 | 73 | 322 | 331 | 144 | 215 | 119 | 109 | 410 | 383 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1827 | 1781 | 1777 | 1585 | 1781 | 1777 | 1650 |
| Q Serve(g_s), s | 12.8 | 20.3 | 17.2 | 4.9 | 17.2 | 17.3 | 9.5 | 5.4 | 6.8 | 7.2 | 26.0 | 26.1 |
| Cycle Q Clear(g_c), s | 12.8 | 20.3 | 17.2 | 4.9 | 17.2 | 17.3 | 9.5 | 5.4 | 6.8 | 7.2 | 26.0 | 26.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.13 | 1.00 | | 1.00 | 1.00 | | 0.74 |
| Lane Grp Cap(c), veh/h | 222 | 1499 | 669 | 93 | 621 | 638 | 172 | 1066 | 475 | 135 | 496 | 461 |
| V/C Ratio(X) | 0.87 | 0.54 | 0.47 | 0.78 | 0.52 | 0.52 | 0.84 | 0.20 | 0.25 | 0.81 | 0.83 | 0.83 |
| Avail Cap(c_a), veh/h | 304 | 1499 | 669 | 157 | 621 | 638 | 245 | 1066 | 475 | 224 | 496 | 461 |
| 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) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.5 | 25.9 | 25.0 | 56.2 | 31.0 | 31.0 | 53.3 | 31.3 | 31.8 | 54.6 | 40.5 | 40.6 |
| Incr Delay (d2), s/veh | 17.5 | 1.4 | 2.4 | 13.1 | 3.1 | 3.0 | 15.8 | 0.4 | 1.3 | 10.8 | 14.6 | 15.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.8 | 8.8 | 6.5 | 2.5 | 7.9 | 8.1 | 4.9 | 2.3 | 2.7 | 3.5 | 12.8 | 12.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 69.0 | 27.3 | 27.4 | 69.3 | 34.1 | 34.0 | 69.1 | 31.7 | 33.1 | 65.4 | 55.2 | 56.5 |
| LnGrp LOS | E | C | C | E | C | C | E | C | C | E | E | E |
| Approach Vol, veh/h | | 1311 | | | 726 | | | 478 | | | 902 | |
| Approach Delay, s/veh | | 33.5 | | | 37.6 | | | 43.3 | | | 57.0 | |
| Approach LOS | | C | | | D | | | D | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.8 | 55.1 | 16.1 | 38.0 | 19.5 | 46.4 | 13.6 | 40.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 10.6 | 41.4 | 16.5 | 33.5 | 20.5 | 31.5 | 15.1 | 34.9 |
| Max Q Clear Time (g_c+I1), s | 6.9 | 22.3 | 11.5 | 28.1 | 14.8 | 19.3 | 9.2 | 8.8 |
| Green Ext Time (p_c), s | 0.0 | 6.8 | 0.1 | 2.1 | 0.2 | 3.2 | 0.1 | 1.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 41.9 |
| HCM 6th LOS | D |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 18 | 297 | 336 | 256 | 297 | 55 |
| Future Volume (vph) | 18 | 297 | 336 | 256 | 297 | 55 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 29.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 18 | 297 | 336 | 256 | 297 | 55 |
| Future Vol, veh/h | 18 | 297 | 336 | 256 | 297 | 55 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 62 | 62 | 62 | 62 | 62 | 62 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 29 | 479 | 542 | 413 | 479 | 89 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 2021 | 524 | 568 | 0 | - | 0 |
| Stage 1 | 524 | - | - | - | - | - |
| Stage 2 | 1497 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 64 | 553 | 1004 | - | - | - |
| Stage 1 | 594 | - | - | - | - | - |
| Stage 2 | 205 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 29 | 553 | 1004 | - | - | - |
| Mov Cap-2 Maneuver | 120 | - | - | - | - | - |
| Stage 1 | 273 | - | - | - | - | - |
| Stage 2 | 205 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 104.8 | 7.2 | 0 |
| HCM LOS | F | | |

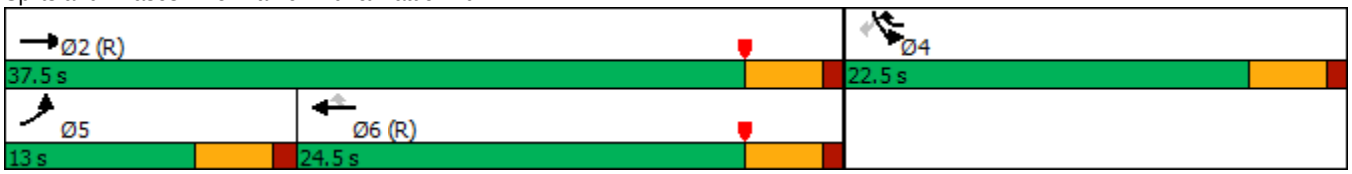
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1004 | - | 458 | - | - |
| HCM Lane V/C Ratio | 0.54 | - | 1.109 | - | - |
| HCM Control Delay (s) | 12.7 | - | 104.8 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 3.3 | - | 17.3 | - | - |

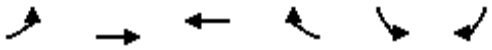
| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 277 | 1712 | 1184 | 315 | 230 | 364 |
| Future Volume (vph) | 277 | 1712 | 1184 | 315 | 230 | 364 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | 48% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 13.0 | 37.5 | 24.5 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 21.7% | 62.5% | 40.8% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 8.5 | 33.0 | 20.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.





| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 277 | 1712 | 1184 | 315 | 230 | 364 |
| Future Volume (veh/h) | 277 | 1712 | 1184 | 315 | 230 | 364 |
| 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 277 | 1712 | 1184 | 315 | 198 | 398 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 389 | 2808 | 1851 | 1050 | 534 | 951 |
| Arrive On Green | 0.11 | 0.55 | 0.12 | 0.12 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 1781 | 3170 |
| Grp Volume(v), veh/h | 277 | 1712 | 1184 | 315 | 198 | 398 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 4.6 | 13.6 | 13.3 | 5.9 | 5.3 | 6.0 |
| Cycle Q Clear(g_c), s | 4.6 | 13.6 | 13.3 | 5.9 | 5.3 | 6.0 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 389 | 2808 | 1851 | 1050 | 534 | 951 |
| V/C Ratio(X) | 0.71 | 0.61 | 0.64 | 0.30 | 0.37 | 0.42 |
| Avail Cap(c_a), veh/h | 490 | 2808 | 1851 | 1050 | 534 | 951 |
| HCM Platoon Ratio | 1.00 | 1.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.85 | 0.85 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.7 | 9.1 | 22.7 | 6.1 | 16.5 | 16.8 |
| Incr Delay (d2), s/veh | 3.6 | 1.0 | 1.5 | 0.6 | 2.0 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 3.3 | 5.6 | 4.2 | 2.1 | 5.8 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 29.3 | 10.1 | 24.1 | 6.7 | 18.5 | 18.2 |
| LnGrp LOS | C | B | C | A | B | B |
| Approach Vol, veh/h | | 1989 | 1499 | | 596 | |
| Approach Delay, s/veh | | 12.8 | 20.5 | | 18.3 | |
| Approach LOS | | B | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 11.2 | 26.3 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 8.5 | 20.0 |
| Max Q Clear Time (g_c+I1), s | | 15.6 | | 8.0 | 6.6 | 15.3 |
| Green Ext Time (p_c), s | | 10.3 | | 1.6 | 0.2 | 3.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.4 |
| HCM 6th LOS | B |

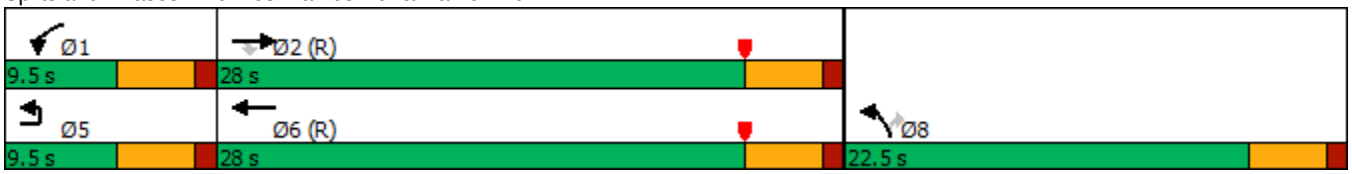
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 1 | 1837 | 94 | 114 | 1427 | 80 | 115 |
| Future Volume (vph) | 1 | 1837 | 94 | 114 | 1427 | 80 | 115 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 200 | 255 | | 125 | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 |
| Taper Length (ft) | 90 | | | 90 | | 90 | |
| Right Turn on Red | | | Yes | | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | 50 | |
| Link Distance (ft) | | 2660 | | | 3172 | 1424 | |
| Travel Time (s) | | 33.0 | | | 39.3 | 19.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | |
| Permitted Phases | | | 2 | | | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 8 | 8 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 28.0 | 28.0 | 9.5 | 28.0 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 46.7% | 46.7% | 15.8% | 46.7% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 23.5 | 23.5 | 5.0 | 23.5 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 6: Los Alamos Rd. & Ramon Rd.



| Movement | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1 | 1837 | 94 | 114 | 1427 | 80 | 115 |
| Future Volume (veh/h) | 1 | 1837 | 94 | 114 | 1427 | 80 | 115 |
| 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 |
| Work Zone On Approach | | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | 1837 | 94 | 114 | 1427 | 80 | 115 |
| Peak Hour Factor | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | | 2008 | 623 | 146 | 2808 | 1037 | 476 |
| Arrive On Green | | 0.13 | 0.13 | 0.08 | 0.55 | 0.30 | 0.30 |
| Sat Flow, veh/h | | 5274 | 1585 | 1781 | 5274 | 3456 | 1585 |
| Grp Volume(v), veh/h | | 1837 | 94 | 114 | 1427 | 80 | 115 |
| Grp Sat Flow(s),veh/h/ln | | 1702 | 1585 | 1781 | 1702 | 1728 | 1585 |
| Q Serve(g_s), s | | 21.3 | 3.2 | 3.8 | 10.5 | 1.0 | 3.3 |
| Cycle Q Clear(g_c), s | | 21.3 | 3.2 | 3.8 | 10.5 | 1.0 | 3.3 |
| Prop In Lane | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | | 2008 | 623 | 146 | 2808 | 1037 | 476 |
| V/C Ratio(X) | | 0.91 | 0.15 | 0.78 | 0.51 | 0.08 | 0.24 |
| Avail Cap(c_a), veh/h | | 2008 | 623 | 148 | 2808 | 1037 | 476 |
| HCM Platoon Ratio | | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | 0.80 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | 25.1 | 17.2 | 27.0 | 8.4 | 15.0 | 15.8 |
| Incr Delay (d2), s/veh | | 6.6 | 0.4 | 23.0 | 0.7 | 0.1 | 1.2 |
| Initial Q Delay(d3),s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | 10.4 | 1.0 | 2.3 | 2.5 | 0.3 | 1.1 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | | 31.7 | 17.6 | 50.0 | 9.1 | 15.2 | 17.1 |
| LnGrp LOS | | C | B | D | A | B | B |
| Approach Vol, veh/h | | 1931 | | | 1541 | 195 | |
| Approach Delay, s/veh | | 31.0 | | | 12.1 | 16.3 | |
| Approach LOS | | C | | | B | B | |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.4 | 28.1 | | | | 37.5 | | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 23.5 | | | | 23.5 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | 5.8 | 23.3 | | | | 12.5 | | 5.3 |
| Green Ext Time (p_c), s | 0.0 | 0.2 | | | | 6.3 | | 0.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 22.3 |
| HCM 6th LOS | C |

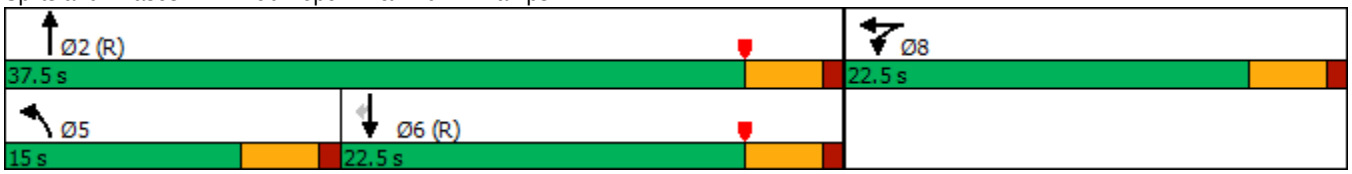
**Notes**

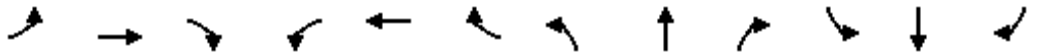
User approved ignoring U-Turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 901 | 1 | 380 | 694 | 560 | 0 | 0 | 319 | 270 |
| Future Volume (vph) | 0 | 0 | 0 | 901 | 1 | 380 | 694 | 560 | 0 | 0 | 319 | 270 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 430 | 210 | | 0 | 0 | | 205 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 2 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 581 | | | 1228 | | | 688 | | | 840 | |
| Travel Time (s) | | 11.3 | | | 23.9 | | | 10.4 | | | 12.7 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | 50% | | | | | | | | |
| Turn Type | | | | Split | NA | Free | Prot | NA | | | NA | Perm |
| Protected Phases | | | | 8 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | | | Free | | | | | | 6 |
| Detector Phase | | | | 8 | 8 | | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | 5.0 |
| Minimum Split (s) | | | | 22.5 | 22.5 | | 9.5 | 22.5 | | | 22.5 | 22.5 |
| Total Split (s) | | | | 22.5 | 22.5 | | 15.0 | 37.5 | | | 22.5 | 22.5 |
| Total Split (%) | | | | 37.5% | 37.5% | | 25.0% | 62.5% | | | 37.5% | 37.5% |
| Maximum Green (s) | | | | 18.0 | 18.0 | | 10.5 | 33.0 | | | 18.0 | 18.0 |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | 3.5 |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | 4.5 |
| Lead/Lag | | | | | | | Lead | | | | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | Yes |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | | | | None | None | | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | | | | | | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 7: Bob Hope Dr. & I-10 NB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 901 | 1 | 380 | 694 | 560 | 0 | 0 | 319 | 270 |
| Future Volume (veh/h) | 0 | 0 | 0 | 901 | 1 | 380 | 694 | 560 | 0 | 0 | 319 | 270 |
| 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 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 902 | 0 | 0 | 694 | 560 | 0 | 0 | 319 | 270 |
| Peak Hour Factor | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 1019 | 0 | | 605 | 2004 | 0 | 0 | 1603 | 498 |
| Arrive On Green | | | | 0.29 | 0.00 | 0.00 | 0.29 | 0.94 | 0.00 | 0.00 | 0.31 | 0.31 |
| Sat Flow, veh/h | | | | 3563 | 0 | 1585 | 3456 | 3647 | 0 | 0 | 5274 | 1585 |
| Grp Volume(v), veh/h | | | | 902 | 0 | 0 | 694 | 560 | 0 | 0 | 319 | 270 |
| Grp Sat Flow(s),veh/h/ln | | | | 1781 | 0 | 1585 | 1728 | 1777 | 0 | 0 | 1702 | 1585 |
| Q Serve(g_s), s | | | | 14.5 | 0.0 | 0.0 | 10.5 | 0.7 | 0.0 | 0.0 | 2.7 | 8.5 |
| Cycle Q Clear(g_c), s | | | | 14.5 | 0.0 | 0.0 | 10.5 | 0.7 | 0.0 | 0.0 | 2.7 | 8.5 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | | | | 1019 | 0 | | 605 | 2004 | 0 | 0 | 1603 | 498 |
| V/C Ratio(X) | | | | 0.89 | 0.00 | | 1.15 | 0.28 | 0.00 | 0.00 | 0.20 | 0.54 |
| Avail Cap(c_a), veh/h | | | | 1069 | 0 | | 605 | 2004 | 0 | 0 | 1603 | 498 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 0.00 | 0.83 | 0.83 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 20.5 | 0.0 | 0.0 | 21.2 | 0.8 | 0.0 | 0.0 | 15.1 | 17.0 |
| Incr Delay (d2), s/veh | | | | 8.8 | 0.0 | 0.0 | 82.0 | 0.3 | 0.0 | 0.0 | 0.3 | 4.2 |
| 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 | | | | 6.6 | 0.0 | 0.0 | 10.0 | 0.2 | 0.0 | 0.0 | 0.9 | 3.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | 29.3 | 0.0 | 0.0 | 103.2 | 1.1 | 0.0 | 0.0 | 15.3 | 21.2 |
| LnGrp LOS | | | | C | A | | F | A | A | A | B | C |
| Approach Vol, veh/h | | | | | 902 | | | 1254 | | | 589 | |
| Approach Delay, s/veh | | | | | 29.3 | | | 57.6 | | | 18.0 | |
| Approach LOS | | | | | C | | | E | | | B | |

| Timer - Assigned Phs | 2 | | 5 | 6 | | 8 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 38.3 | | 15.0 | 23.3 | | 21.7 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | | 4.5 | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 33.0 | | 10.5 | 18.0 | | 18.0 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 2.7 | | 12.5 | 10.5 | | 16.5 | | | | | | |
| Green Ext Time (p_c), s | 3.6 | | 0.0 | 1.7 | | 0.6 | | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 39.8 |
| HCM 6th LOS | D |

**Notes**

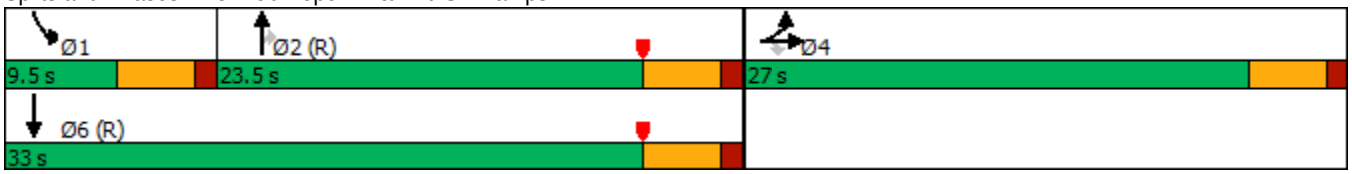
User approved volume balancing among the lanes for turning movement.

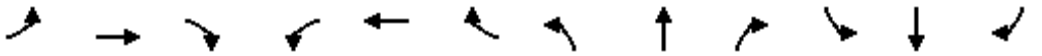
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 415 | 1 | 1259 | 0 | 0 | 0 | 0 | 839 | 88 | 130 | 1090 | 0 |
| Future Volume (vph) | 415 | 1 | 1259 | 0 | 0 | 0 | 0 | 839 | 88 | 130 | 1090 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 490 | | 135 | 0 | | 0 | 0 | | 195 | 225 | | 0 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 90 | | | 90 | | | 110 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1337 | | | 718 | | | 776 | | | 688 | |
| Travel Time (s) | | 26.0 | | | 14.0 | | | 11.8 | | | 10.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | 10% | | 48% | | | | | | 10% | | | |
| Turn Type | Split | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | 4 | 4 | | | | | | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | | 2 | | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | | | | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | | | | | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 27.0 | 27.0 | 27.0 | | | | | 23.5 | 23.5 | 9.5 | 33.0 | |
| Total Split (%) | 45.0% | 45.0% | 45.0% | | | | | 39.2% | 39.2% | 15.8% | 55.0% | |
| Maximum Green (s) | 22.5 | 22.5 | 22.5 | | | | | 19.0 | 19.0 | 5.0 | 28.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | | | | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | Lag | Lag | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | None | C-Max | |
| Walk Time (s) | | | | | | | | | | | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 8: Bob Hope Dr. & I-10 SB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 415 | 1 | 1259 | 0 | 0 | 0 | 0 | 839 | 88 | 130 | 1090 | 0 |
| Future Volume (veh/h) | 415 | 1 | 1259 | 0 | 0 | 0 | 0 | 839 | 88 | 130 | 1090 | 0 |
| 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 |
| Work Zone On Approach | | No | | | | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | | | | 0 | 1870 | 1870 | 1870 | 1870 | 0 |
| Adj Flow Rate, veh/h | 277 | 0 | 1408 | | | | 0 | 839 | 88 | 130 | 1090 | 0 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | | | | 0 | 2 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 668 | 0 | 1189 | | | | 0 | 1830 | 517 | 255 | 1688 | 0 |
| Arrive On Green | 0.38 | 0.00 | 0.38 | | | | 0.00 | 0.33 | 0.33 | 0.15 | 0.95 | 0.00 |
| Sat Flow, veh/h | 1781 | 0 | 3170 | | | | 0 | 5611 | 1585 | 3456 | 3647 | 0 |
| Grp Volume(v), veh/h | 277 | 0 | 1408 | | | | 0 | 839 | 88 | 130 | 1090 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | | | | 0 | 1870 | 1585 | 1728 | 1777 | 0 |
| Q Serve(g_s), s | 6.9 | 0.0 | 22.5 | | | | 0.0 | 7.1 | 2.4 | 2.1 | 2.4 | 0.0 |
| Cycle Q Clear(g_c), s | 6.9 | 0.0 | 22.5 | | | | 0.0 | 7.1 | 2.4 | 2.1 | 2.4 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 668 | 0 | 1189 | | | | 0 | 1830 | 517 | 255 | 1688 | 0 |
| V/C Ratio(X) | 0.41 | 0.00 | 1.18 | | | | 0.00 | 0.46 | 0.17 | 0.51 | 0.65 | 0.00 |
| Avail Cap(c_a), veh/h | 668 | 0 | 1189 | | | | 0 | 1830 | 517 | 288 | 1688 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.75 | 0.75 | 0.00 |
| Uniform Delay (d), s/veh | 13.9 | 0.0 | 18.8 | | | | 0.0 | 16.0 | 14.4 | 24.6 | 0.8 | 0.0 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 91.8 | | | | 0.0 | 0.8 | 0.7 | 1.2 | 1.4 | 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 | 2.5 | 0.0 | 22.1 | | | | 0.0 | 2.7 | 0.8 | 0.8 | 0.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 14.3 | 0.0 | 110.5 | | | | 0.0 | 16.8 | 15.1 | 25.8 | 2.3 | 0.0 |
| LnGrp LOS | B | A | F | | | | A | B | B | C | A | A |
| Approach Vol, veh/h | | 1685 | | | | | | 927 | | | 1220 | |
| Approach Delay, s/veh | | 94.7 | | | | | | 16.7 | | | 4.8 | |
| Approach LOS | | F | | | | | | B | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.9 | 24.1 | | 27.0 | | 33.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 19.0 | | 22.5 | | 28.5 |
| Max Q Clear Time (g_c+I1), s | 4.1 | 9.1 | | 24.5 | | 4.4 |
| Green Ext Time (p_c), s | 0.0 | 3.9 | | 0.0 | | 7.8 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 47.2 |
| HCM 6th LOS | D |

**Notes**

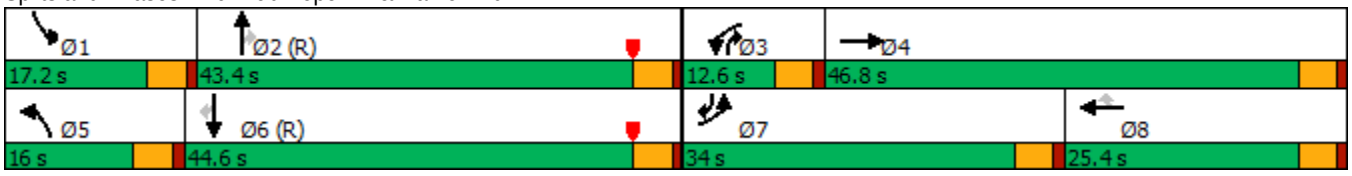
User approved volume balancing among the lanes for turning movement.

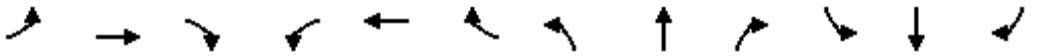
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 324 | 1040 | 426 | 150 | 515 | 40 | 243 | 563 | 250 | 210 | 1375 | 764 |
| Future Volume (vph) | 324 | 1040 | 426 | 150 | 515 | 40 | 243 | 563 | 250 | 210 | 1375 | 764 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 280 | | 470 | 240 | | 180 | 205 | | 280 | 215 | | 225 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 90 | | | 120 | | | 120 | | | 120 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | | | 45 | | | 45 | |
| Link Distance (ft) | | 676 | | | 1191 | | | 1119 | | | 476 | |
| Travel Time (s) | | 8.4 | | | 14.8 | | | 17.0 | | | 7.2 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Free | Prot | NA | Perm | Prot | NA | pm+ov | Prot | NA | pm+ov |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | Free | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | | 3 | 8 | 8 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 9.5 |
| Total Split (s) | 34.0 | 46.8 | | 12.6 | 25.4 | 25.4 | 16.0 | 43.4 | 12.6 | 17.2 | 44.6 | 34.0 |
| Total Split (%) | 28.3% | 39.0% | | 10.5% | 21.2% | 21.2% | 13.3% | 36.2% | 10.5% | 14.3% | 37.2% | 28.3% |
| Maximum Green (s) | 29.5 | 42.3 | | 8.1 | 20.9 | 20.9 | 11.5 | 38.9 | 8.1 | 12.7 | 40.1 | 29.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | None | None | C-Max | None | None | C-Max | None |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 40.1 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 9: Bob Hope Dr. & Ramon Rd.





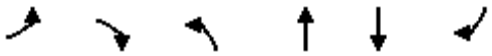
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 324 | 1040 | 426 | 150 | 515 | 40 | 243 | 563 | 250 | 210 | 1375 | 764 |
| Future Volume (veh/h) | 324 | 1040 | 426 | 150 | 515 | 40 | 243 | 563 | 250 | 210 | 1375 | 764 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 324 | 1040 | 0 | 150 | 515 | 40 | 243 | 563 | 250 | 210 | 1375 | 764 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 401 | 1153 | | 205 | 951 | 424 | 299 | 1983 | 709 | 270 | 1939 | 786 |
| Arrive On Green | 0.12 | 0.32 | 0.00 | 0.06 | 0.27 | 0.27 | 0.09 | 0.39 | 0.39 | 0.08 | 0.38 | 0.38 |
| Sat Flow, veh/h | 3456 | 3554 | 1585 | 3456 | 3554 | 1585 | 3456 | 5106 | 1585 | 3456 | 5106 | 1585 |
| Grp Volume(v), veh/h | 324 | 1040 | 0 | 150 | 515 | 40 | 243 | 563 | 250 | 210 | 1375 | 764 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1585 | 1728 | 1777 | 1585 | 1728 | 1702 | 1585 | 1728 | 1702 | 1585 |
| Q Serve(g_s), s | 11.0 | 33.5 | 0.0 | 5.1 | 14.9 | 2.3 | 8.3 | 9.1 | 12.4 | 7.2 | 27.4 | 45.6 |
| Cycle Q Clear(g_c), s | 11.0 | 33.5 | 0.0 | 5.1 | 14.9 | 2.3 | 8.3 | 9.1 | 12.4 | 7.2 | 27.4 | 45.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 401 | 1153 | | 205 | 951 | 424 | 299 | 1983 | 709 | 270 | 1939 | 786 |
| V/C Ratio(X) | 0.81 | 0.90 | | 0.73 | 0.54 | 0.09 | 0.81 | 0.28 | 0.35 | 0.78 | 0.71 | 0.97 |
| Avail Cap(c_a), veh/h | 850 | 1253 | | 233 | 951 | 424 | 331 | 1983 | 709 | 366 | 1939 | 786 |
| 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) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.7 | 38.7 | 0.0 | 55.5 | 37.6 | 33.0 | 53.8 | 25.2 | 21.7 | 54.3 | 31.6 | 29.5 |
| Incr Delay (d2), s/veh | 3.9 | 8.8 | 0.0 | 9.8 | 0.6 | 0.1 | 13.1 | 0.4 | 1.4 | 7.3 | 2.2 | 26.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.8 | 15.0 | 0.0 | 2.4 | 6.2 | 0.8 | 4.1 | 3.6 | 4.5 | 3.3 | 11.1 | 24.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 55.7 | 47.5 | 0.0 | 65.3 | 38.3 | 33.1 | 67.0 | 25.6 | 23.1 | 61.6 | 33.8 | 55.5 |
| LnGrp LOS | E | D | | E | D | C | E | C | C | E | C | E |
| Approach Vol, veh/h | | 1364 | | | 705 | | | 1056 | | | 2349 | |
| Approach Delay, s/veh | | 49.5 | | | 43.7 | | | 34.5 | | | 43.3 | |
| Approach LOS | | D | | | D | | | C | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 13.9 | 51.1 | 11.6 | 43.4 | 14.9 | 50.1 | 18.4 | 36.6 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 12.7 | 38.9 | 8.1 | 42.3 | 11.5 | 40.1 | 29.5 | 20.9 |
| Max Q Clear Time (g_c+I1), s | 9.2 | 14.4 | 7.1 | 35.5 | 10.3 | 47.6 | 13.0 | 16.9 |
| Green Ext Time (p_c), s | 0.2 | 4.5 | 0.0 | 3.4 | 0.1 | 0.0 | 0.9 | 1.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 43.2 |
| HCM 6th LOS | D |

**Notes**

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 109 | 149 | 0 | 274 | 203 | 0 |
| Future Volume (vph) | 109 | 149 | 0 | 274 | 203 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

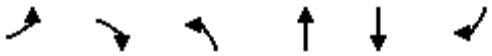
| Intersection | |
|---|---|
| Int Delay, s/veh | 5.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 109 | 149 | 0 | 274 | 203 | 0 |
| Future Vol, veh/h | 109 | 149 | 0 | 274 | 203 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 60 | 60 | 60 | 60 | 60 | 60 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 182 | 248 | 0 | 457 | 338 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 795 | 338 | - | 0 | - | 0 |
| Stage 1 | 338 | - | - | - | - | - |
| Stage 2 | 457 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 357 | 704 | 0 | - | - | 0 |
| Stage 1 | 722 | - | 0 | - | - | 0 |
| Stage 2 | 638 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 357 | 704 | - | - | - | - |
| Mov Cap-2 Maneuver | 471 | - | - | - | - | - |
| Stage 1 | 722 | - | - | - | - | - |
| Stage 2 | 638 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.8 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 471 | 704 | - |
| HCM Lane V/C Ratio | - | 0.386 | 0.353 | - |
| HCM Control Delay (s) | - | 17.4 | 12.9 | - |
| HCM Lane LOS | - | C | B | - |
| HCM 95th %tile Q(veh) | - | 1.8 | 1.6 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 33 | 70 | 176 | 207 | 133 | 351 |
| Future Volume (vph) | 33 | 70 | 176 | 207 | 133 | 351 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

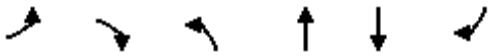
| Intersection | |
|---|---|
| Int Delay, s/veh | 18.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 33 | 70 | 176 | 207 | 133 | 351 |
| Future Vol, veh/h | 33 | 70 | 176 | 207 | 133 | 351 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 55 | 55 | 55 | 55 | 55 | 55 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 60 | 127 | 320 | 376 | 242 | 638 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1577 | 561 | 880 | 0 | - | 0 |
| Stage 1 | 561 | - | - | - | - | - |
| Stage 2 | 1016 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 121 | 527 | 768 | - | - | - |
| Stage 1 | 571 | - | - | - | - | - |
| Stage 2 | 350 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 71 | 527 | 768 | - | - | - |
| Mov Cap-2 Maneuver | 71 | - | - | - | - | - |
| Stage 1 | 333 | - | - | - | - | - |
| Stage 2 | 350 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 149.1 | 6 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 768 | - | 172 | - | - |
| HCM Lane V/C Ratio | 0.417 | - | 1.089 | - | - |
| HCM Control Delay (s) | 13 | - | 149.1 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 2.1 | - | 9.4 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 10 | 133 | 95 | 300 | 376 | 20 |
| Future Volume (vph) | 10 | 133 | 95 | 300 | 376 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 10 | 133 | 95 | 300 | 376 | 20 |
| Future Vol, veh/h | 10 | 133 | 95 | 300 | 376 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 266 | 190 | 600 | 752 | 40 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1752 | 772 | 792 | 0 | - | 0 |
| Stage 1 | 772 | - | - | - | - | - |
| Stage 2 | 980 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 94 | 400 | 829 | - | - | - |
| Stage 1 | 456 | - | - | - | - | - |
| Stage 2 | 364 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 72 | 400 | 829 | - | - | - |
| Mov Cap-2 Maneuver | 196 | - | - | - | - | - |
| Stage 1 | 352 | - | - | - | - | - |
| Stage 2 | 364 | - | - | - | - | - |

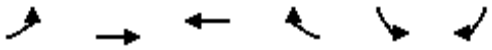
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 40.2 | 2.6 | 0 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 829 | - | 373 | - | - |
| HCM Lane V/C Ratio | 0.229 | - | 0.767 | - | - |
| HCM Control Delay (s) | 10.6 | - | 40.2 | - | - |
| HCM Lane LOS | B | - | E | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | 6.3 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 192 | 1599 | 1762 | 203 | 225 | 284 |
| Future Volume (vph) | 192 | 1599 | 1762 | 203 | 225 | 284 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | 43% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 37.5 | 28.0 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 62.5% | 46.7% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 33.0 | 23.5 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.



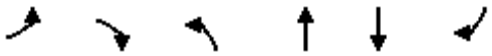
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 192 | 1599 | 1762 | 203 | 225 | 284 |
| Future Volume (veh/h) | 192 | 1599 | 1762 | 203 | 225 | 284 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 192 | 1599 | 1762 | 203 | 170 | 343 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 287 | 2808 | 2001 | 1097 | 534 | 951 |
| Arrive On Green | 0.11 | 0.73 | 0.13 | 0.13 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 1781 | 3170 |
| Grp Volume(v), veh/h | 192 | 1599 | 1762 | 203 | 170 | 343 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 3.2 | 8.6 | 20.3 | 3.5 | 4.4 | 5.1 |
| Cycle Q Clear(g_c), s | 3.2 | 8.6 | 20.3 | 3.5 | 4.4 | 5.1 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 287 | 2808 | 2001 | 1097 | 534 | 951 |
| V/C Ratio(X) | 0.67 | 0.57 | 0.88 | 0.19 | 0.32 | 0.36 |
| Avail Cap(c_a), veh/h | 288 | 2808 | 2001 | 1097 | 534 | 951 |
| HCM Platoon Ratio | 1.33 | 1.33 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.9 | 4.8 | 24.7 | 4.9 | 16.3 | 16.5 |
| Incr Delay (d2), s/veh | 5.8 | 0.8 | 6.0 | 0.4 | 1.6 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 1.6 | 9.8 | 2.3 | 1.8 | 5.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 31.7 | 5.6 | 30.7 | 5.2 | 17.8 | 17.5 |
| LnGrp LOS | C | A | C | A | B | B |
| Approach Vol, veh/h | | 1791 | 1965 | | 513 | |
| Approach Delay, s/veh | | 8.4 | 28.1 | | 17.6 | |
| Approach LOS | | A | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 9.5 | 28.0 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 5.0 | 23.5 |
| Max Q Clear Time (g_c+I1), s | | 10.6 | | 7.1 | 5.2 | 22.3 |
| Green Ext Time (p_c), s | | 11.1 | | 1.4 | 0.0 | 1.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 18.6 |
| HCM 6th LOS | B |

**Notes**

User approved volume balancing among the lanes for turning movement.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 94 | 113 | 0 | 311 | 283 | 0 |
| Future Volume (vph) | 94 | 113 | 0 | 311 | 283 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

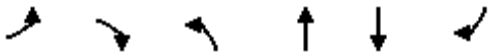
| Intersection | |
|---|---|
| Int Delay, s/veh | 5.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 94 | 113 | 0 | 311 | 283 | 0 |
| Future Vol, veh/h | 94 | 113 | 0 | 311 | 283 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 188 | 226 | 0 | 622 | 566 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1188 | 566 | - | 0 | - | 0 |
| Stage 1 | 566 | - | - | - | - | - |
| Stage 2 | 622 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 208 | 524 | 0 | - | - | 0 |
| Stage 1 | 568 | - | 0 | - | - | 0 |
| Stage 2 | 535 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 208 | 524 | - | - | - | - |
| Mov Cap-2 Maneuver | 346 | - | - | - | - | - |
| Stage 1 | 568 | - | - | - | - | - |
| Stage 2 | 535 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 21.6 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 346 | 524 | - |
| HCM Lane V/C Ratio | - | 0.543 | 0.431 | - |
| HCM Control Delay (s) | - | 27.1 | 17 | - |
| HCM Lane LOS | - | D | C | - |
| HCM 95th %tile Q(veh) | - | 3.1 | 2.2 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 63 | 56 | 129 | 275 | 227 | 145 |
| Future Volume (vph) | 63 | 56 | 129 | 275 | 227 | 145 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 68.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 63 | 56 | 129 | 275 | 227 | 145 |
| Future Vol, veh/h | 63 | 56 | 129 | 275 | 227 | 145 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 126 | 112 | 258 | 550 | 454 | 290 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1665 | 599 | 744 | 0 | - | 0 |
| Stage 1 | 599 | - | - | - | - | - |
| Stage 2 | 1066 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | ~ 106 | 502 | 864 | - | - | - |
| Stage 1 | 549 | - | - | - | - | - |
| Stage 2 | 331 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 74 | 502 | 864 | - | - | - |
| Mov Cap-2 Maneuver | ~ 74 | - | - | - | - | - |
| Stage 1 | 385 | - | - | - | - | - |
| Stage 2 | 331 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | $ 501.4 | 3.5 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 864 | - | 124 | - | - |
| HCM Lane V/C Ratio | 0.299 | - | 1.919 | - | - |
| HCM Control Delay (s) | 10.9 | - | $ 501.4 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 1.3 | - | 19 | - | - |

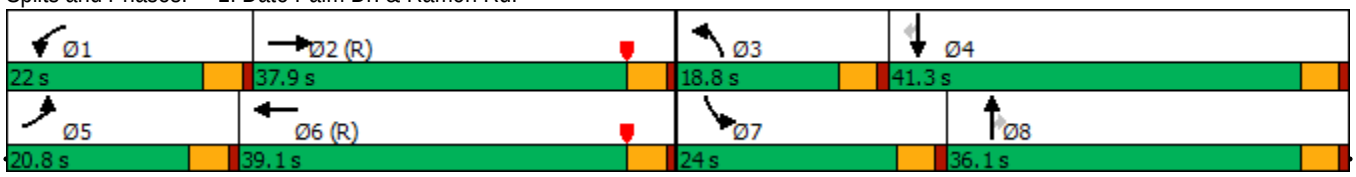
| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

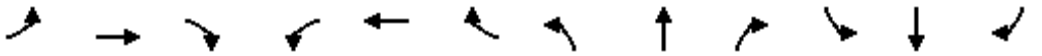
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 942 | 129 | 282 | 761 | 196 |
| Future Volume (vph) | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 942 | 129 | 282 | 761 | 196 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 0 | 225 | | 0 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 20.8 | 37.9 | | 22.0 | 39.1 | | 18.8 | 36.1 | 36.1 | 24.0 | 41.3 | 41.3 |
| Total Split (%) | 17.3% | 31.6% | | 18.3% | 32.6% | | 15.7% | 30.1% | 30.1% | 20.0% | 34.4% | 34.4% |
| Maximum Green (s) | 16.3 | 33.4 | | 17.5 | 34.6 | | 14.3 | 31.6 | 31.6 | 19.5 | 36.8 | 36.8 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | Max | Max | None | Max | Max |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | 5 |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 942 | 129 | 282 | 761 | 196 |
| Future Volume (veh/h) | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 942 | 129 | 282 | 761 | 196 |
| 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 | | 0.99 | 1.00 | | 0.99 | 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 942 | 129 | 282 | 761 | 196 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 242 | 1126 | 288 | 260 | 1279 | 204 | 371 | 936 | 415 | 289 | 1132 | 502 |
| Arrive On Green | 0.14 | 0.28 | 0.28 | 0.15 | 0.29 | 0.29 | 0.11 | 0.26 | 0.26 | 0.16 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1781 | 4046 | 1035 | 1781 | 4437 | 706 | 3456 | 3554 | 1576 | 1781 | 3554 | 1578 |
| Grp Volume(v), veh/h | 233 | 806 | 399 | 241 | 960 | 490 | 314 | 942 | 129 | 282 | 761 | 196 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1677 | 1781 | 1702 | 1739 | 1728 | 1777 | 1576 | 1781 | 1777 | 1578 |
| Q Serve(g_s), s | 15.6 | 26.9 | 27.0 | 16.0 | 33.5 | 33.5 | 10.7 | 31.6 | 7.9 | 18.9 | 22.3 | 11.6 |
| Cycle Q Clear(g_c), s | 15.6 | 26.9 | 27.0 | 16.0 | 33.5 | 33.5 | 10.7 | 31.6 | 7.9 | 18.9 | 22.3 | 11.6 |
| Prop In Lane | 1.00 | | 0.62 | 1.00 | | 0.41 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 242 | 947 | 467 | 260 | 982 | 501 | 371 | 936 | 415 | 289 | 1132 | 502 |
| V/C Ratio(X) | 0.96 | 0.85 | 0.85 | 0.93 | 0.98 | 0.98 | 0.85 | 1.01 | 0.31 | 0.97 | 0.67 | 0.39 |
| Avail Cap(c_a), veh/h | 242 | 947 | 467 | 260 | 982 | 501 | 412 | 936 | 415 | 289 | 1132 | 502 |
| 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) | 1.00 | 1.00 | 1.00 | 0.72 | 0.72 | 0.72 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.5 | 40.9 | 41.0 | 50.6 | 42.3 | 42.3 | 52.6 | 44.2 | 35.5 | 50.0 | 35.5 | 31.8 |
| Incr Delay (d2), s/veh | 47.4 | 9.5 | 17.7 | 29.7 | 19.6 | 29.1 | 13.9 | 31.0 | 1.9 | 45.7 | 3.2 | 2.3 |
| 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 | 9.9 | 12.0 | 12.9 | 9.0 | 16.0 | 17.6 | 5.2 | 17.4 | 3.2 | 11.8 | 9.8 | 4.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 98.9 | 50.5 | 58.7 | 80.3 | 61.9 | 71.4 | 66.5 | 75.2 | 37.4 | 95.7 | 38.7 | 34.1 |
| LnGrp LOS | F | D | E | F | E | E | E | F | D | F | D | C |
| Approach Vol, veh/h | | 1438 | | | 1691 | | | 1385 | | | 1239 | |
| Approach Delay, s/veh | | 60.6 | | | 67.3 | | | 69.7 | | | 50.9 | |
| Approach LOS | | E | | | E | | | E | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 22.0 | 37.9 | 17.4 | 42.7 | 20.8 | 39.1 | 24.0 | 36.1 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 17.5 | 33.4 | 14.3 | 36.8 | 16.3 | 34.6 | 19.5 | 31.6 |
| Max Q Clear Time (g_c+I1), s | 18.0 | 29.0 | 12.7 | 24.3 | 17.6 | 35.5 | 20.9 | 33.6 |
| Green Ext Time (p_c), s | 0.0 | 2.7 | 0.2 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 |

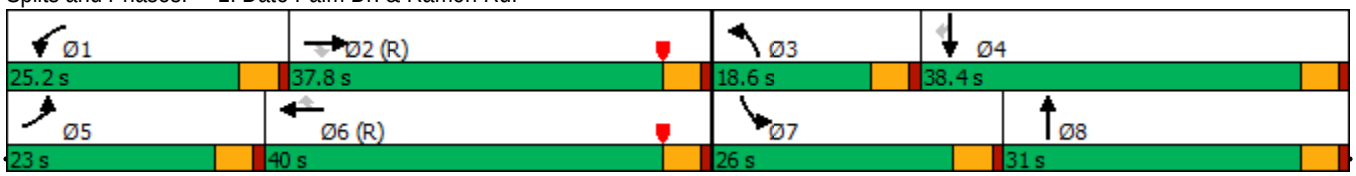
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 62.7 |
| HCM 6th LOS | E |

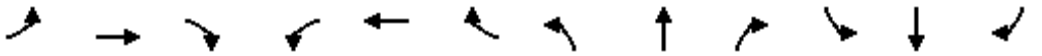
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 942 | 129 | 282 | 761 | 196 |
| Future Volume (vph) | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 942 | 129 | 282 | 761 | 196 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 150 | 225 | | 150 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | 6 | | | | | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 23.0 | 37.8 | 37.8 | 25.2 | 40.0 | 40.0 | 18.6 | 31.0 | | 26.0 | 38.4 | 38.4 |
| Total Split (%) | 19.2% | 31.5% | 31.5% | 21.0% | 33.3% | 33.3% | 15.5% | 25.8% | | 21.7% | 32.0% | 32.0% |
| Maximum Green (s) | 18.5 | 33.3 | 33.3 | 20.7 | 35.5 | 35.5 | 14.1 | 26.5 | | 21.5 | 33.9 | 33.9 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | Max | | None | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | | 5 | | | 5 | 5 |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 942 | 129 | 282 | 761 | 196 |
| Future Volume (veh/h) | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 942 | 129 | 282 | 761 | 196 |
| 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 | | 0.99 | 1.00 | | 0.99 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 942 | 129 | 282 | 761 | 196 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 260 | 1559 | 482 | 269 | 1586 | 490 | 371 | 1002 | 137 | 308 | 1018 | 452 |
| Arrive On Green | 0.15 | 0.31 | 0.31 | 0.15 | 0.31 | 0.31 | 0.11 | 0.22 | 0.22 | 0.17 | 0.29 | 0.29 |
| Sat Flow, veh/h | 1781 | 5106 | 1577 | 1781 | 5106 | 1577 | 3456 | 4538 | 619 | 1781 | 3554 | 1577 |
| Grp Volume(v), veh/h | 233 | 959 | 246 | 241 | 1251 | 199 | 314 | 706 | 365 | 282 | 761 | 196 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1577 | 1781 | 1702 | 1577 | 1728 | 1702 | 1754 | 1781 | 1777 | 1577 |
| Q Serve(g_s), s | 15.4 | 19.3 | 15.4 | 15.9 | 26.8 | 11.9 | 10.7 | 24.5 | 24.6 | 18.7 | 23.3 | 12.2 |
| Cycle Q Clear(g_c), s | 15.4 | 19.3 | 15.4 | 15.9 | 26.8 | 11.9 | 10.7 | 24.5 | 24.6 | 18.7 | 23.3 | 12.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.35 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 260 | 1559 | 482 | 269 | 1586 | 490 | 371 | 752 | 387 | 308 | 1018 | 452 |
| V/C Ratio(X) | 0.90 | 0.62 | 0.51 | 0.90 | 0.79 | 0.41 | 0.85 | 0.94 | 0.94 | 0.92 | 0.75 | 0.43 |
| Avail Cap(c_a), veh/h | 275 | 1559 | 482 | 307 | 1586 | 490 | 406 | 752 | 387 | 319 | 1018 | 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) | 1.00 | 1.00 | 1.00 | 0.56 | 0.56 | 0.56 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.4 | 35.6 | 34.3 | 50.0 | 37.8 | 32.6 | 52.6 | 46.0 | 46.0 | 48.8 | 38.9 | 34.9 |
| Incr Delay (d2), s/veh | 28.6 | 1.8 | 3.8 | 16.0 | 2.3 | 1.4 | 14.4 | 20.9 | 33.4 | 29.3 | 5.0 | 3.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.7 | 7.9 | 6.2 | 8.0 | 10.9 | 4.6 | 5.3 | 12.2 | 13.9 | 10.6 | 10.5 | 4.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 78.9 | 37.5 | 38.1 | 66.0 | 40.1 | 34.0 | 67.0 | 66.8 | 79.4 | 78.1 | 43.9 | 37.9 |
| LnGrp LOS | E | D | D | E | D | C | E | E | E | E | D | D |
| Approach Vol, veh/h | | 1438 | | | 1691 | | | 1385 | | | 1239 | |
| Approach Delay, s/veh | | 44.3 | | | 43.1 | | | 70.2 | | | 50.7 | |
| Approach LOS | | D | | | D | | | E | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 22.6 | 41.1 | 17.4 | 38.9 | 22.0 | 41.8 | 25.2 | 31.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 20.7 | 33.3 | 14.1 | 33.9 | 18.5 | 35.5 | 21.5 | 26.5 |
| Max Q Clear Time (g_c+I1), s | 17.9 | 21.3 | 12.7 | 25.3 | 17.4 | 28.8 | 20.7 | 26.6 |
| Green Ext Time (p_c), s | 0.2 | 5.3 | 0.2 | 3.5 | 0.1 | 4.2 | 0.1 | 0.0 |

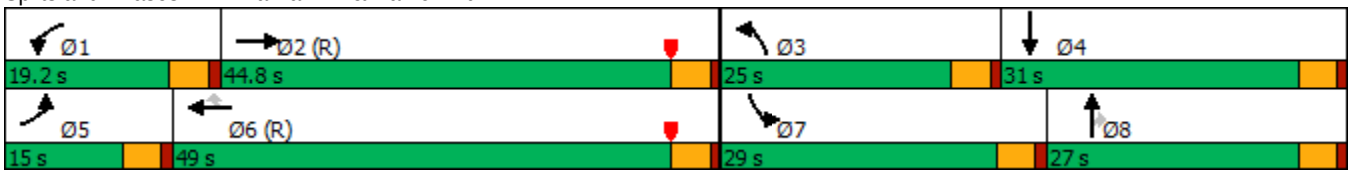
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 51.6 |
| HCM 6th LOS | D |

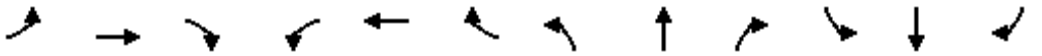
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 124 | 1014 | 165 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 281 | 44 |
| Future Volume (vph) | 124 | 1014 | 165 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 281 | 44 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 0 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 15.0 | 44.8 | | 19.2 | 49.0 | 49.0 | 25.0 | 27.0 | 27.0 | 29.0 | 31.0 | |
| Total Split (%) | 12.5% | 37.3% | | 16.0% | 40.8% | 40.8% | 20.8% | 22.5% | 22.5% | 24.2% | 25.8% | |
| Maximum Green (s) | 10.5 | 40.3 | | 14.7 | 44.5 | 44.5 | 20.5 | 22.5 | 22.5 | 24.5 | 26.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | C-Max | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 124 | 1014 | 165 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 281 | 44 |
| Future Volume (veh/h) | 124 | 1014 | 165 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 281 | 44 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 124 | 1014 | 165 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 281 | 44 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 149 | 1604 | 260 | 186 | 1955 | 607 | 289 | 683 | 304 | 341 | 349 | 55 |
| Arrive On Green | 0.08 | 0.36 | 0.36 | 0.03 | 0.13 | 0.13 | 0.16 | 0.19 | 0.19 | 0.19 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1781 | 4426 | 719 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 1781 | 1579 | 247 |
| Grp Volume(v), veh/h | 124 | 779 | 400 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 0 | 325 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1741 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1781 | 0 | 1826 |
| Q Serve(g_s), s | 8.2 | 22.7 | 22.8 | 10.5 | 24.6 | 45.9 | 17.4 | 19.8 | 8.3 | 20.8 | 0.0 | 20.2 |
| Cycle Q Clear(g_c), s | 8.2 | 22.7 | 22.8 | 10.5 | 24.6 | 45.9 | 17.4 | 19.8 | 8.3 | 20.8 | 0.0 | 20.2 |
| Prop In Lane | 1.00 | | 0.41 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 149 | 1233 | 631 | 186 | 1955 | 607 | 289 | 683 | 304 | 341 | 0 | 403 |
| V/C Ratio(X) | 0.83 | 0.63 | 0.63 | 0.84 | 0.57 | 1.28 | 0.91 | 0.88 | 0.41 | 0.92 | 0.00 | 0.81 |
| Avail Cap(c_a), veh/h | 156 | 1233 | 631 | 218 | 1955 | 607 | 304 | 683 | 304 | 364 | 0 | 403 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.44 | 0.44 | 0.44 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.1 | 31.6 | 31.7 | 57.0 | 43.1 | 52.4 | 49.4 | 47.2 | 42.5 | 47.6 | 0.0 | 44.3 |
| Incr Delay (d2), s/veh | 14.7 | 1.1 | 2.1 | 22.3 | 1.2 | 137.2 | 28.7 | 15.4 | 4.1 | 27.5 | 0.0 | 15.7 |
| 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 | 4.2 | 9.0 | 9.4 | 6.0 | 11.3 | 42.5 | 9.8 | 9.9 | 3.5 | 11.5 | 0.0 | 10.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 68.8 | 32.7 | 33.8 | 79.3 | 44.3 | 189.6 | 78.1 | 62.6 | 46.6 | 75.2 | 0.0 | 60.0 |
| LnGrp LOS | E | C | C | E | D | F | E | E | D | E | A | E |
| Approach Vol, veh/h | | 1303 | | | 2042 | | | 991 | | | 639 | |
| Approach Delay, s/veh | | 36.5 | | | 102.1 | | | 64.7 | | | 67.5 | |
| Approach LOS | | D | | | F | | | E | | | E | |

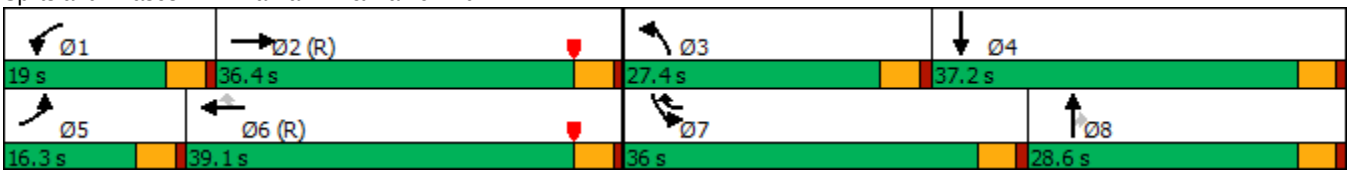
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 17.0 | 48.0 | 24.0 | 31.0 | 14.6 | 50.4 | 27.4 | 27.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 14.7 | 40.3 | 20.5 | 26.5 | 10.5 | 44.5 | 24.5 | 22.5 |
| Max Q Clear Time (g_c+I1), s | 12.5 | 24.8 | 19.4 | 22.2 | 10.2 | 47.9 | 22.8 | 21.8 |
| Green Ext Time (p_c), s | 0.1 | 6.3 | 0.1 | 0.7 | 0.0 | 0.0 | 0.2 | 0.3 |

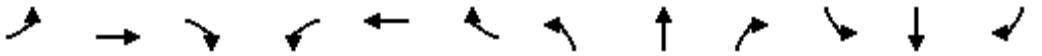
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 73.0 |
| HCM 6th LOS | E |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 124 | 1014 | 165 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 281 | 44 |
| Future Volume (vph) | 124 | 1014 | 165 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 281 | 44 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 2 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | 7 | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 7 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 16.3 | 36.4 | | 19.0 | 39.1 | 36.0 | 27.4 | 28.6 | 28.6 | 36.0 | 37.2 | |
| Total Split (%) | 13.6% | 30.3% | | 15.8% | 32.6% | 30.0% | 22.8% | 23.8% | 23.8% | 30.0% | 31.0% | |
| Maximum Green (s) | 11.8 | 31.9 | | 14.5 | 34.6 | 31.5 | 22.9 | 24.1 | 24.1 | 31.5 | 32.7 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lead | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | None | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 124 | 1014 | 165 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 281 | 44 |
| Future Volume (veh/h) | 124 | 1014 | 165 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 281 | 44 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 124 | 1014 | 165 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 281 | 44 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 150 | 1375 | 223 | 184 | 1684 | 702 | 291 | 1147 | 512 | 392 | 430 | 67 |
| Arrive On Green | 0.08 | 0.31 | 0.31 | 0.11 | 0.36 | 0.36 | 0.16 | 0.32 | 0.32 | 0.11 | 0.27 | 0.27 |
| Sat Flow, veh/h | 1781 | 4426 | 719 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 3456 | 1579 | 247 |
| Grp Volume(v), veh/h | 124 | 779 | 400 | 157 | 1110 | 775 | 263 | 603 | 125 | 314 | 0 | 325 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1741 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1728 | 0 | 1826 |
| Q Serve(g_s), s | 8.2 | 24.6 | 24.6 | 10.4 | 21.8 | 39.6 | 17.4 | 16.6 | 7.0 | 10.6 | 0.0 | 18.9 |
| Cycle Q Clear(g_c), s | 8.2 | 24.6 | 24.6 | 10.4 | 21.8 | 39.6 | 17.4 | 16.6 | 7.0 | 10.6 | 0.0 | 18.9 |
| Prop In Lane | 1.00 | | 0.41 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 150 | 1058 | 541 | 184 | 1684 | 702 | 291 | 1147 | 512 | 392 | 0 | 498 |
| V/C Ratio(X) | 0.83 | 0.74 | 0.74 | 0.85 | 0.66 | 1.10 | 0.90 | 0.53 | 0.24 | 0.80 | 0.00 | 0.65 |
| Avail Cap(c_a), veh/h | 175 | 1058 | 541 | 215 | 1684 | 702 | 340 | 1147 | 512 | 907 | 0 | 498 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.10 | 1.10 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.63 | 0.63 | 0.63 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.1 | 37.0 | 37.0 | 52.3 | 32.6 | 32.1 | 49.2 | 33.1 | 29.9 | 51.9 | 0.0 | 38.6 |
| Incr Delay (d2), s/veh | 16.2 | 2.9 | 5.7 | 24.1 | 2.0 | 65.9 | 23.9 | 1.7 | 1.1 | 3.8 | 0.0 | 6.5 |
| 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 | 4.2 | 10.1 | 10.8 | 5.6 | 8.5 | 31.3 | 9.4 | 7.1 | 2.7 | 4.7 | 0.0 | 9.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 70.3 | 39.9 | 42.7 | 76.4 | 34.6 | 98.0 | 73.1 | 34.9 | 31.0 | 55.7 | 0.0 | 45.2 |
| LnGrp LOS | E | D | D | E | C | F | E | C | C | E | A | D |
| Approach Vol, veh/h | | 1303 | | | 2042 | | | 991 | | | 639 | |
| Approach Delay, s/veh | | 43.6 | | | 61.9 | | | 44.5 | | | 50.4 | |
| Approach LOS | | D | | | E | | | D | | | D | |

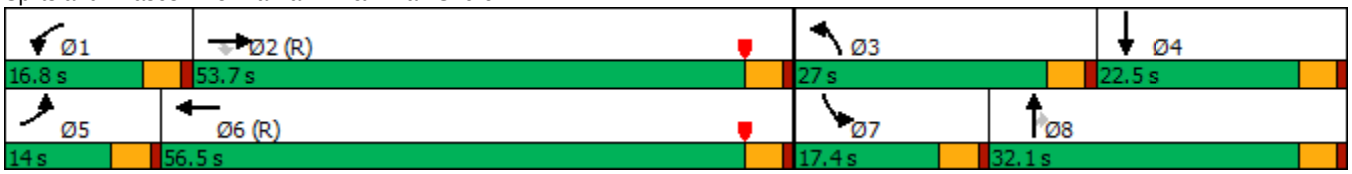
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 16.9 | 41.8 | 24.1 | 37.2 | 14.6 | 44.1 | 18.1 | 43.2 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 14.5 | 31.9 | 22.9 | 32.7 | 11.8 | 34.6 | 31.5 | 24.1 |
| Max Q Clear Time (g_c+I1), s | 12.4 | 26.6 | 19.4 | 20.9 | 10.2 | 41.6 | 12.6 | 18.6 |
| Green Ext Time (p_c), s | 0.1 | 3.0 | 0.2 | 1.3 | 0.0 | 0.0 | 1.0 | 1.9 |

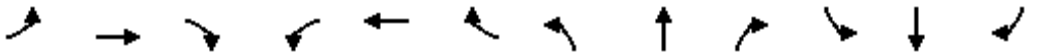
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 52.2 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 107 | 904 | 166 | 84 | 1203 | 185 | 289 | 552 | 74 | 93 | 324 | 174 |
| Future Volume (vph) | 107 | 904 | 166 | 84 | 1203 | 185 | 289 | 552 | 74 | 93 | 324 | 174 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 175 | | 215 | 185 | | 0 | 125 | | 125 | 135 | | 135 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 50 | | | 50 | |
| Link Distance (ft) | | 918 | | | 366 | | | 1131 | | | 331 | |
| Travel Time (s) | | 20.9 | | | 8.3 | | | 15.4 | | | 4.5 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 14.0 | 53.7 | 53.7 | 16.8 | 56.5 | | 27.0 | 32.1 | 32.1 | 17.4 | 22.5 | |
| Total Split (%) | 11.7% | 44.8% | 44.8% | 14.0% | 47.1% | | 22.5% | 26.8% | 26.8% | 14.5% | 18.8% | |
| Maximum Green (s) | 9.5 | 49.2 | 49.2 | 12.3 | 52.0 | | 22.5 | 27.6 | 27.6 | 12.9 | 18.0 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 3: Da Vall Dr. & Dinah Shore Dr.

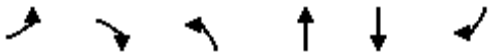




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 107 | 904 | 166 | 84 | 1203 | 185 | 289 | 552 | 74 | 93 | 324 | 174 |
| Future Volume (veh/h) | 107 | 904 | 166 | 84 | 1203 | 185 | 289 | 552 | 74 | 93 | 324 | 174 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 107 | 904 | 166 | 84 | 1203 | 185 | 289 | 552 | 74 | 93 | 324 | 174 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 131 | 1646 | 734 | 107 | 1388 | 212 | 315 | 929 | 414 | 117 | 338 | 177 |
| Arrive On Green | 0.07 | 0.46 | 0.46 | 0.06 | 0.45 | 0.45 | 0.18 | 0.26 | 0.26 | 0.07 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 3089 | 473 | 1781 | 3554 | 1585 | 1781 | 2251 | 1183 |
| Grp Volume(v), veh/h | 107 | 904 | 166 | 84 | 689 | 699 | 289 | 552 | 74 | 93 | 254 | 244 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1785 | 1781 | 1777 | 1585 | 1781 | 1777 | 1657 |
| Q Serve(g_s), s | 7.1 | 22.0 | 7.5 | 5.6 | 41.9 | 42.5 | 19.1 | 16.3 | 4.3 | 6.2 | 17.0 | 17.6 |
| Cycle Q Clear(g_c), s | 7.1 | 22.0 | 7.5 | 5.6 | 41.9 | 42.5 | 19.1 | 16.3 | 4.3 | 6.2 | 17.0 | 17.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.26 | 1.00 | | 1.00 | 1.00 | | 0.71 |
| Lane Grp Cap(c), veh/h | 131 | 1646 | 734 | 107 | 798 | 802 | 315 | 929 | 414 | 117 | 267 | 249 |
| V/C Ratio(X) | 0.81 | 0.55 | 0.23 | 0.79 | 0.86 | 0.87 | 0.92 | 0.59 | 0.18 | 0.80 | 0.95 | 0.98 |
| Avail Cap(c_a), veh/h | 141 | 1646 | 734 | 183 | 798 | 802 | 334 | 929 | 414 | 191 | 267 | 249 |
| 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) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.8 | 23.2 | 19.3 | 55.7 | 29.8 | 29.9 | 48.5 | 38.7 | 34.3 | 55.3 | 50.6 | 50.8 |
| Incr Delay (d2), s/veh | 27.9 | 1.3 | 0.7 | 12.1 | 12.0 | 12.5 | 28.2 | 2.8 | 0.9 | 11.5 | 44.5 | 52.3 |
| 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 | 4.2 | 9.4 | 2.8 | 2.9 | 20.1 | 20.6 | 10.6 | 7.2 | 1.7 | 3.1 | 10.6 | 10.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 82.7 | 24.5 | 20.0 | 67.7 | 41.7 | 42.4 | 76.7 | 41.5 | 35.3 | 66.8 | 95.0 | 103.1 |
| LnGrp LOS | F | C | C | E | D | D | E | D | D | E | F | F |
| Approach Vol, veh/h | | 1177 | | | 1472 | | | 915 | | | 591 | |
| Approach Delay, s/veh | | 29.2 | | | 43.5 | | | 52.1 | | | 93.9 | |
| Approach LOS | | C | | | D | | | D | | | F | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.7 | 60.1 | 25.7 | 22.5 | 13.4 | 58.4 | 12.4 | 35.9 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 12.3 | 49.2 | 22.5 | 18.0 | 9.5 | 52.0 | 12.9 | 27.6 |
| Max Q Clear Time (g_c+I1), s | 7.6 | 24.0 | 21.1 | 19.6 | 9.1 | 44.5 | 8.2 | 18.3 |
| Green Ext Time (p_c), s | 0.1 | 7.8 | 0.1 | 0.0 | 0.0 | 5.1 | 0.1 | 2.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 48.5 |
| HCM 6th LOS | D |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 24 | 123 | 34 | 175 | 229 | 20 |
| Future Volume (vph) | 24 | 123 | 34 | 175 | 229 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 24 | 123 | 34 | 175 | 229 | 20 |
| Future Vol, veh/h | 24 | 123 | 34 | 175 | 229 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 48 | 246 | 68 | 350 | 458 | 40 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 964 | 478 | 498 | 0 | - | 0 |
| Stage 1 | 478 | - | - | - | - | - |
| Stage 2 | 486 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 283 | 587 | 1066 | - | - | - |
| Stage 1 | 624 | - | - | - | - | - |
| Stage 2 | 618 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 265 | 587 | 1066 | - | - | - |
| Mov Cap-2 Maneuver | 395 | - | - | - | - | - |
| Stage 1 | 584 | - | - | - | - | - |
| Stage 2 | 618 | - | - | - | - | - |

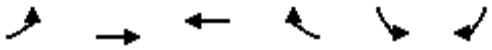
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 19.1 | 1.4 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1066 | - | 544 | - | - |
| HCM Lane V/C Ratio | 0.064 | - | 0.54 | - | - |
| HCM Control Delay (s) | 8.6 | - | 19.1 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 3.2 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 63 | 1506 | 1532 | 146 | 173 | 179 |
| Future Volume (vph) | 63 | 1506 | 1532 | 146 | 173 | 179 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | 38% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 37.5 | 28.0 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 62.5% | 46.7% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 33.0 | 23.5 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 63 | 1506 | 1532 | 146 | 173 | 179 |
| Future Volume (veh/h) | 63 | 1506 | 1532 | 146 | 173 | 179 |
| 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 63 | 1506 | 1532 | 146 | 231 | 117 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 187 | 2808 | 2149 | 1143 | 1069 | 476 |
| Arrive On Green | 0.05 | 0.55 | 0.14 | 0.14 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 3563 | 1585 |
| Grp Volume(v), veh/h | 63 | 1506 | 1532 | 146 | 231 | 117 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 1.1 | 11.3 | 17.2 | 2.4 | 2.9 | 3.3 |
| Cycle Q Clear(g_c), s | 1.1 | 11.3 | 17.2 | 2.4 | 2.9 | 3.3 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 187 | 2808 | 2149 | 1143 | 1069 | 476 |
| V/C Ratio(X) | 0.34 | 0.54 | 0.71 | 0.13 | 0.22 | 0.25 |
| Avail Cap(c_a), veh/h | 288 | 2808 | 2149 | 1143 | 1069 | 476 |
| HCM Platoon Ratio | 1.00 | 1.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.79 | 0.79 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 27.3 | 8.6 | 22.4 | 4.0 | 15.7 | 15.9 |
| Incr Delay (d2), s/veh | 1.1 | 0.7 | 1.6 | 0.2 | 0.5 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 2.7 | 7.7 | 1.5 | 1.1 | 3.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 28.4 | 9.4 | 24.0 | 4.1 | 16.2 | 17.1 |
| LnGrp LOS | C | A | C | A | B | B |
| Approach Vol, veh/h | | 1569 | 1678 | | 348 | |
| Approach Delay, s/veh | | 10.1 | 22.3 | | 16.5 | |
| Approach LOS | | B | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 7.8 | 29.7 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 5.0 | 23.5 |
| Max Q Clear Time (g_c+I1), s | | 13.3 | | 5.3 | 3.1 | 19.2 |
| Green Ext Time (p_c), s | | 9.6 | | 0.9 | 0.0 | 3.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.4 |
| HCM 6th LOS | B |

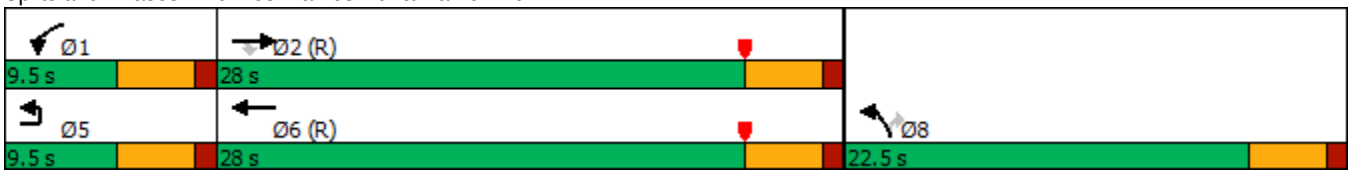
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 1 | 1556 | 94 | 58 | 1597 | 95 | 115 |
| Future Volume (vph) | 1 | 1556 | 94 | 58 | 1597 | 95 | 115 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 200 | 255 | | 125 | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 |
| Taper Length (ft) | 90 | | | 90 | | 90 | |
| Right Turn on Red | | | Yes | | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | 50 | |
| Link Distance (ft) | | 2660 | | | 3172 | 1424 | |
| Travel Time (s) | | 33.0 | | | 39.3 | 19.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | |
| Permitted Phases | | | 2 | | | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 8 | 8 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 28.0 | 28.0 | 9.5 | 28.0 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 46.7% | 46.7% | 15.8% | 46.7% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 23.5 | 23.5 | 5.0 | 23.5 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 6: Los Alamos Rd. & Ramon Rd.



| Movement | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1 | 1556 | 94 | 58 | 1597 | 95 | 115 |
| Future Volume (veh/h) | 1 | 1556 | 94 | 58 | 1597 | 95 | 115 |
| 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 |
| Work Zone On Approach | | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | 1556 | 94 | 58 | 1597 | 95 | 115 |
| Peak Hour Factor | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | | 2162 | 671 | 92 | 2808 | 1037 | 476 |
| Arrive On Green | | 0.14 | 0.14 | 0.05 | 0.55 | 0.30 | 0.30 |
| Sat Flow, veh/h | | 5274 | 1585 | 1781 | 5274 | 3456 | 1585 |
| Grp Volume(v), veh/h | | 1556 | 94 | 58 | 1597 | 95 | 115 |
| Grp Sat Flow(s),veh/h/ln | | 1702 | 1585 | 1781 | 1702 | 1728 | 1585 |
| Q Serve(g_s), s | | 17.5 | 3.1 | 1.9 | 12.3 | 1.2 | 3.3 |
| Cycle Q Clear(g_c), s | | 17.5 | 3.1 | 1.9 | 12.3 | 1.2 | 3.3 |
| Prop In Lane | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | | 2162 | 671 | 92 | 2808 | 1037 | 476 |
| V/C Ratio(X) | | 0.72 | 0.14 | 0.63 | 0.57 | 0.09 | 0.24 |
| Avail Cap(c_a), veh/h | | 2162 | 671 | 148 | 2808 | 1037 | 476 |
| HCM Platoon Ratio | | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | 0.86 | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | 22.4 | 16.2 | 27.9 | 8.8 | 15.1 | 15.8 |
| Incr Delay (d2), s/veh | | 1.8 | 0.4 | 6.9 | 0.8 | 0.2 | 1.2 |
| Initial Q Delay(d3),s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | 7.9 | 0.9 | 0.9 | 2.9 | 0.4 | 1.1 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | | 24.2 | 16.6 | 34.8 | 9.7 | 15.3 | 17.1 |
| LnGrp LOS | | C | B | C | A | B | B |
| Approach Vol, veh/h | | 1650 | | | 1655 | 210 | |
| Approach Delay, s/veh | | 23.8 | | | 10.6 | 16.3 | |
| Approach LOS | | C | | | B | B | |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.6 | 29.9 | | | | 37.5 | | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 23.5 | | | | 23.5 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 19.5 | | | | 14.3 | | 5.3 |
| Green Ext Time (p_c), s | 0.0 | 3.0 | | | | 6.1 | | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 17.1 |
| HCM 6th LOS | B |

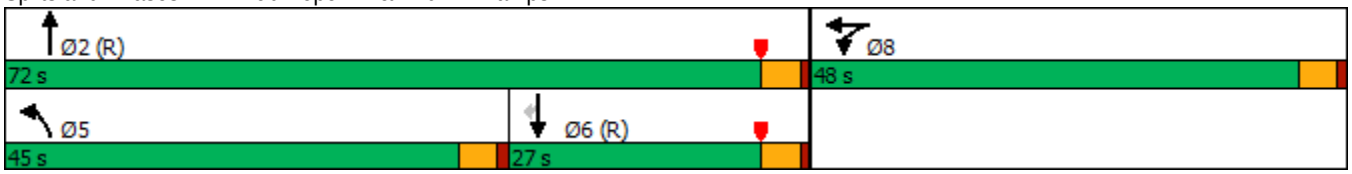
**Notes**

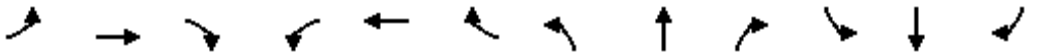
User approved ignoring U-Turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 1036 | 1 | 190 | 1016 | 451 | 0 | 0 | 456 | 430 |
| Future Volume (vph) | 0 | 0 | 0 | 1036 | 1 | 190 | 1016 | 451 | 0 | 0 | 456 | 430 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 430 | 210 | | 0 | 0 | | 205 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 2 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 581 | | | 1228 | | | 688 | | | 840 | |
| Travel Time (s) | | 11.3 | | | 23.9 | | | 10.4 | | | 12.7 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | 50% | | | | | | | | |
| Turn Type | | | | Split | NA | Free | Prot | NA | | | NA | Perm |
| Protected Phases | | | | 8 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | | | Free | | | | | | 6 |
| Detector Phase | | | | 8 | 8 | | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | 5.0 |
| Minimum Split (s) | | | | 22.5 | 22.5 | | 9.5 | 22.5 | | | 22.5 | 22.5 |
| Total Split (s) | | | | 48.0 | 48.0 | | 45.0 | 72.0 | | | 27.0 | 27.0 |
| Total Split (%) | | | | 40.0% | 40.0% | | 37.5% | 60.0% | | | 22.5% | 22.5% |
| Maximum Green (s) | | | | 43.5 | 43.5 | | 40.5 | 67.5 | | | 22.5 | 22.5 |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | 3.5 |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | 4.5 |
| Lead/Lag | | | | | | | Lead | | | | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | Yes |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | | | | None | None | | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | | | | | | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 7: Bob Hope Dr. & I-10 NB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 1036 | 1 | 190 | 1016 | 451 | 0 | 0 | 456 | 430 |
| Future Volume (veh/h) | 0 | 0 | 0 | 1036 | 1 | 190 | 1016 | 451 | 0 | 0 | 456 | 430 |
| 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 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 1037 | 0 | 0 | 1016 | 451 | 0 | 0 | 456 | 430 |
| Peak Hour Factor | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 1138 | 0 | | 1075 | 2152 | 0 | 0 | 1313 | 408 |
| Arrive On Green | | | | 0.32 | 0.00 | 0.00 | 0.52 | 1.00 | 0.00 | 0.00 | 0.26 | 0.26 |
| Sat Flow, veh/h | | | | 3563 | 0 | 1585 | 3456 | 3647 | 0 | 0 | 5274 | 1585 |
| Grp Volume(v), veh/h | | | | 1037 | 0 | 0 | 1016 | 451 | 0 | 0 | 456 | 430 |
| Grp Sat Flow(s),veh/h/ln | | | | 1781 | 0 | 1585 | 1728 | 1777 | 0 | 0 | 1702 | 1585 |
| Q Serve(g_s), s | | | | 33.5 | 0.0 | 0.0 | 33.3 | 0.0 | 0.0 | 0.0 | 8.7 | 30.9 |
| Cycle Q Clear(g_c), s | | | | 33.5 | 0.0 | 0.0 | 33.3 | 0.0 | 0.0 | 0.0 | 8.7 | 30.9 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | | | | 1138 | 0 | | 1075 | 2152 | 0 | 0 | 1313 | 408 |
| V/C Ratio(X) | | | | 0.91 | 0.00 | | 0.95 | 0.21 | 0.00 | 0.00 | 0.35 | 1.06 |
| Avail Cap(c_a), veh/h | | | | 1291 | 0 | | 1166 | 2152 | 0 | 0 | 1313 | 408 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 0.00 | 0.66 | 0.66 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 39.2 | 0.0 | 0.0 | 27.9 | 0.0 | 0.0 | 0.0 | 36.4 | 44.6 |
| Incr Delay (d2), s/veh | | | | 9.1 | 0.0 | 0.0 | 10.7 | 0.1 | 0.0 | 0.0 | 0.7 | 59.8 |
| 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 | | | | 15.8 | 0.0 | 0.0 | 11.6 | 0.0 | 0.0 | 0.0 | 3.6 | 18.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | 48.3 | 0.0 | 0.0 | 38.5 | 0.1 | 0.0 | 0.0 | 37.1 | 104.4 |
| LnGrp LOS | | | | D | A | | D | A | A | A | D | F |
| Approach Vol, veh/h | | | | | 1037 | | | 1467 | | | 886 | |
| Approach Delay, s/veh | | | | | 48.3 | | | 26.7 | | | 69.8 | |
| Approach LOS | | | | | D | | | C | | | E | |

| Timer - Assigned Phs | 2 | | 5 | 6 | | 8 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 77.2 | | 41.8 | 35.4 | | 42.8 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | | 4.5 | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 67.5 | | 40.5 | 22.5 | | 43.5 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | | 35.3 | 32.9 | | 35.5 | | | | | | |
| Green Ext Time (p_c), s | 3.0 | | 2.0 | 0.0 | | 2.8 | | | | | | |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | 44.6 | |
| HCM 6th LOS | D | |

**Notes**

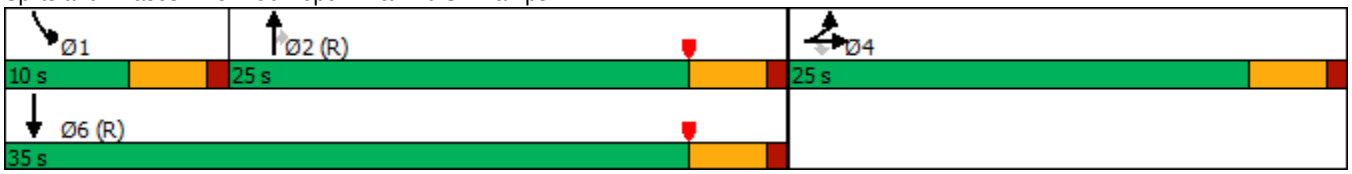
User approved volume balancing among the lanes for turning movement.

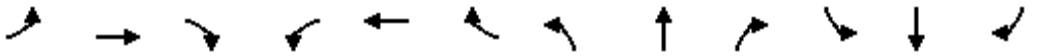
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 260 | 2 | 938 | 0 | 0 | 0 | 0 | 1207 | 119 | 240 | 1252 | 0 |
| Future Volume (vph) | 260 | 2 | 938 | 0 | 0 | 0 | 0 | 1207 | 119 | 240 | 1252 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 490 | | 135 | 0 | | 0 | 0 | | 195 | 225 | | 0 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 90 | | | 90 | | | 110 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1337 | | | 718 | | | 776 | | | 688 | |
| Travel Time (s) | | 26.0 | | | 14.0 | | | 11.8 | | | 10.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | 10% | | 49% | | | | | | 10% | | | |
| Turn Type | Split | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | 4 | 4 | | | | | | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | | 2 | | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | | | | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | | | | | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 25.0 | 25.0 | 25.0 | | | | | 25.0 | 25.0 | 10.0 | 35.0 | |
| Total Split (%) | 41.7% | 41.7% | 41.7% | | | | | 41.7% | 41.7% | 16.7% | 58.3% | |
| Maximum Green (s) | 20.5 | 20.5 | 20.5 | | | | | 20.5 | 20.5 | 5.5 | 30.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | | | | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | Lag | Lag | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | None | C-Max | |
| Walk Time (s) | | | | | | | | | | | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 8: Bob Hope Dr. & I-10 SB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 260 | 2 | 938 | 0 | 0 | 0 | 0 | 1207 | 119 | 240 | 1252 | 0 |
| Future Volume (veh/h) | 260 | 2 | 938 | 0 | 0 | 0 | 0 | 1207 | 119 | 240 | 1252 | 0 |
| 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 |
| Work Zone On Approach | | No | | | | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | | | | 0 | 1870 | 1870 | 1870 | 1870 | 0 |
| Adj Flow Rate, veh/h | 174 | 0 | 1031 | | | | 0 | 1207 | 119 | 240 | 1252 | 0 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | | | | 0 | 2 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 609 | 0 | 1083 | | | | 0 | 1917 | 542 | 317 | 1806 | 0 |
| Arrive On Green | 0.34 | 0.00 | 0.34 | | | | 0.00 | 0.34 | 0.34 | 0.12 | 0.68 | 0.00 |
| Sat Flow, veh/h | 1781 | 0 | 3170 | | | | 0 | 5611 | 1585 | 3456 | 3647 | 0 |
| Grp Volume(v), veh/h | 174 | 0 | 1031 | | | | 0 | 1207 | 119 | 240 | 1252 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | | | | 0 | 1870 | 1585 | 1728 | 1777 | 0 |
| Q Serve(g_s), s | 4.3 | 0.0 | 19.0 | | | | 0.0 | 10.8 | 3.2 | 4.0 | 12.9 | 0.0 |
| Cycle Q Clear(g_c), s | 4.3 | 0.0 | 19.0 | | | | 0.0 | 10.8 | 3.2 | 4.0 | 12.9 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 609 | 0 | 1083 | | | | 0 | 1917 | 542 | 317 | 1806 | 0 |
| V/C Ratio(X) | 0.29 | 0.00 | 0.95 | | | | 0.00 | 0.63 | 0.22 | 0.76 | 0.69 | 0.00 |
| Avail Cap(c_a), veh/h | 609 | 0 | 1083 | | | | 0 | 1917 | 542 | 317 | 1806 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.33 | 1.33 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.69 | 0.69 | 0.00 |
| Uniform Delay (d), s/veh | 14.4 | 0.0 | 19.3 | | | | 0.0 | 16.6 | 14.1 | 25.7 | 6.9 | 0.0 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 17.0 | | | | 0.0 | 1.6 | 0.9 | 7.1 | 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 | 1.6 | 0.0 | 8.6 | | | | 0.0 | 4.1 | 1.1 | 1.8 | 2.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 14.7 | 0.0 | 36.3 | | | | 0.0 | 18.1 | 15.0 | 32.8 | 8.4 | 0.0 |
| LnGrp LOS | B | A | D | | | | A | B | B | C | A | A |
| Approach Vol, veh/h | | 1205 | | | | | | 1326 | | | 1492 | |
| Approach Delay, s/veh | | 33.2 | | | | | | 17.9 | | | 12.3 | |
| Approach LOS | | C | | | | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.0 | 25.0 | | 25.0 | | 35.0 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 5.5 | 20.5 | | 20.5 | | 30.5 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 12.8 | | 21.0 | | 14.9 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.6 | | 0.0 | | 7.5 | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 20.4 |
| HCM 6th LOS | | | C |

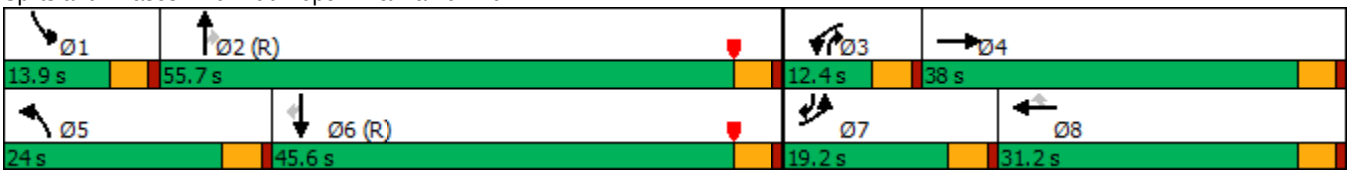
**Notes**

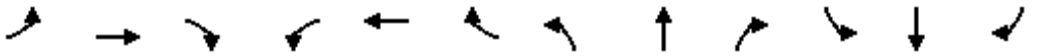
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 178 | 950 | 496 | 120 | 630 | 75 | 521 | 1073 | 490 | 135 | 1535 | 520 |
| Future Volume (vph) | 178 | 950 | 496 | 120 | 630 | 75 | 521 | 1073 | 490 | 135 | 1535 | 520 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 280 | | 470 | 240 | | 180 | 205 | | 280 | 215 | | 225 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 90 | | | 120 | | | 120 | | | 120 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | | | 45 | | | 45 | |
| Link Distance (ft) | | 676 | | | 1191 | | | 1119 | | | 476 | |
| Travel Time (s) | | 8.4 | | | 14.8 | | | 17.0 | | | 7.2 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Free | Prot | NA | Perm | Prot | NA | pm+ov | Prot | NA | pm+ov |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | Free | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | | 3 | 8 | 8 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 9.5 |
| Total Split (s) | 19.2 | 38.0 | | 12.4 | 31.2 | 31.2 | 24.0 | 55.7 | 12.4 | 13.9 | 45.6 | 19.2 |
| Total Split (%) | 16.0% | 31.7% | | 10.3% | 26.0% | 26.0% | 20.0% | 46.4% | 10.3% | 11.6% | 38.0% | 16.0% |
| Maximum Green (s) | 14.7 | 33.5 | | 7.9 | 26.7 | 26.7 | 19.5 | 51.2 | 7.9 | 9.4 | 41.1 | 14.7 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | None | None | C-Max | None | None | C-Max | None |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 40.1 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 9: Bob Hope Dr. & Ramon Rd.





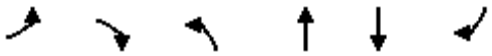
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 178 | 950 | 496 | 120 | 630 | 75 | 521 | 1073 | 490 | 135 | 1535 | 520 |
| Future Volume (veh/h) | 178 | 950 | 496 | 120 | 630 | 75 | 521 | 1073 | 490 | 135 | 1535 | 520 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 178 | 950 | 0 | 120 | 630 | 75 | 521 | 1073 | 490 | 135 | 1535 | 520 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 239 | 992 | | 174 | 925 | 412 | 562 | 2376 | 817 | 191 | 1828 | 677 |
| Arrive On Green | 0.07 | 0.28 | 0.00 | 0.05 | 0.26 | 0.26 | 0.16 | 0.47 | 0.47 | 0.06 | 0.36 | 0.36 |
| Sat Flow, veh/h | 3456 | 3554 | 1585 | 3456 | 3554 | 1585 | 3456 | 5106 | 1585 | 3456 | 5106 | 1585 |
| Grp Volume(v), veh/h | 178 | 950 | 0 | 120 | 630 | 75 | 521 | 1073 | 490 | 135 | 1535 | 520 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1585 | 1728 | 1777 | 1585 | 1728 | 1702 | 1585 | 1728 | 1702 | 1585 |
| Q Serve(g_s), s | 6.1 | 31.6 | 0.0 | 4.1 | 19.1 | 4.4 | 17.8 | 17.1 | 26.0 | 4.6 | 33.1 | 33.6 |
| Cycle Q Clear(g_c), s | 6.1 | 31.6 | 0.0 | 4.1 | 19.1 | 4.4 | 17.8 | 17.1 | 26.0 | 4.6 | 33.1 | 33.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 239 | 992 | | 174 | 925 | 412 | 562 | 2376 | 817 | 191 | 1828 | 677 |
| V/C Ratio(X) | 0.74 | 0.96 | | 0.69 | 0.68 | 0.18 | 0.93 | 0.45 | 0.60 | 0.71 | 0.84 | 0.77 |
| Avail Cap(c_a), veh/h | 423 | 992 | | 228 | 925 | 412 | 562 | 2376 | 817 | 271 | 1828 | 677 |
| 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) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.8 | 42.6 | 0.0 | 56.1 | 39.9 | 34.5 | 49.6 | 21.7 | 20.4 | 55.7 | 35.4 | 29.3 |
| Incr Delay (d2), s/veh | 4.5 | 19.1 | 0.0 | 5.7 | 2.1 | 0.2 | 21.8 | 0.6 | 3.2 | 4.8 | 4.8 | 8.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.7 | 15.6 | 0.0 | 1.9 | 8.2 | 1.6 | 9.2 | 6.6 | 9.3 | 2.1 | 13.9 | 13.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 59.3 | 61.7 | 0.0 | 61.8 | 42.0 | 34.7 | 71.4 | 22.3 | 23.6 | 60.5 | 40.2 | 37.4 |
| LnGrp LOS | E | E | | E | D | C | E | C | C | E | D | D |
| Approach Vol, veh/h | | 1128 | | | 825 | | | 2084 | | | 2190 | |
| Approach Delay, s/veh | | 61.3 | | | 44.2 | | | 34.9 | | | 40.8 | |
| Approach LOS | | E | | | D | | | C | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.1 | 60.3 | 10.5 | 38.0 | 24.0 | 47.5 | 12.8 | 35.7 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 9.4 | 51.2 | 7.9 | 33.5 | 19.5 | 41.1 | 14.7 | 26.7 |
| Max Q Clear Time (g_c+I1), s | 6.6 | 28.0 | 6.1 | 33.6 | 19.8 | 35.6 | 8.1 | 21.1 |
| Green Ext Time (p_c), s | 0.1 | 9.6 | 0.0 | 0.0 | 0.0 | 4.5 | 0.3 | 1.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 43.0 |
| HCM 6th LOS | D |

**Notes**

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 48 | 34 | 0 | 199 | 215 | 0 |
| Future Volume (vph) | 48 | 34 | 0 | 199 | 215 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

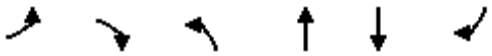
| Intersection | |
|---|---|
| Int Delay, s/veh | 2.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 48 | 34 | 0 | 199 | 215 | 0 |
| Future Vol, veh/h | 48 | 34 | 0 | 199 | 215 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 51 | 51 | 51 | 51 | 51 | 51 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 94 | 67 | 0 | 390 | 422 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 812 | 422 | - | 0 | - | 0 |
| Stage 1 | 422 | - | - | - | - | - |
| Stage 2 | 390 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 348 | 632 | 0 | - | - | 0 |
| Stage 1 | 662 | - | 0 | - | - | 0 |
| Stage 2 | 684 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 348 | 632 | - | - | - | - |
| Mov Cap-2 Maneuver | 466 | - | - | - | - | - |
| Stage 1 | 662 | - | - | - | - | - |
| Stage 2 | 684 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.3 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 466 | 632 | - |
| HCM Lane V/C Ratio | - | 0.202 | 0.105 | - |
| HCM Control Delay (s) | - | 14.7 | 11.4 | - |
| HCM Lane LOS | - | B | B | - |
| HCM 95th %tile Q(veh) | - | 0.7 | 0.4 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 34 | 40 | 68 | 179 | 175 | 50 |
| Future Volume (vph) | 34 | 40 | 68 | 179 | 175 | 50 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 34 | 40 | 68 | 179 | 175 | 50 |
| Future Vol, veh/h | 34 | 40 | 68 | 179 | 175 | 50 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 68 | 80 | 136 | 358 | 350 | 100 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1030 | 400 | 450 | 0 | - | 0 |
| Stage 1 | 400 | - | - | - | - | - |
| Stage 2 | 630 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 259 | 650 | 1110 | - | - | - |
| Stage 1 | 677 | - | - | - | - | - |
| Stage 2 | 531 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 227 | 650 | 1110 | - | - | - |
| Mov Cap-2 Maneuver | 227 | - | - | - | - | - |
| Stage 1 | 594 | - | - | - | - | - |
| Stage 2 | 531 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 22.6 | 2.4 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1110 | - | 350 | - | - |
| HCM Lane V/C Ratio | 0.123 | - | 0.423 | - | - |
| HCM Control Delay (s) | 8.7 | - | 22.6 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.4 | - | 2 | - | - |

# APPENDIX 7.2: HORIZON YEAR (2040) WITH PROJECT INTERSECTION OPERATIONS ANALYSIS WORKSHEETS AND QUEUEING ANALYSIS WORKSHEETS

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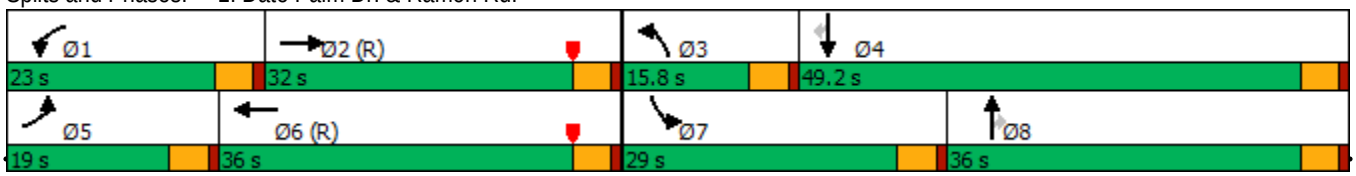
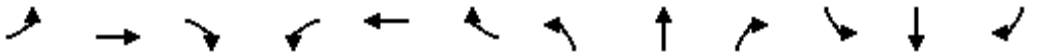
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 839 | 133 | 311 | 1022 | 225 |
| Future Volume (vph) | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 839 | 133 | 311 | 1022 | 225 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 0 | 225 | | 0 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 19.0 | 32.0 | | 23.0 | 36.0 | | 15.8 | 36.0 | 36.0 | 29.0 | 49.2 | 49.2 |
| Total Split (%) | 15.8% | 26.7% | | 19.2% | 30.0% | | 13.2% | 30.0% | 30.0% | 24.2% | 41.0% | 41.0% |
| Maximum Green (s) | 14.5 | 27.5 | | 18.5 | 31.5 | | 11.3 | 31.5 | 31.5 | 24.5 | 44.7 | 44.7 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | Max | Max | None | Max | Max |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 839 | 133 | 311 | 1022 | 225 |
| Future Volume (veh/h) | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 839 | 133 | 311 | 1022 | 225 |
| 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 | | 0.99 | 1.00 | | 0.99 | 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 839 | 133 | 311 | 1022 | 225 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 197 | 1124 | 162 | 254 | 1272 | 179 | 295 | 953 | 423 | 338 | 1324 | 588 |
| Arrive On Green | 0.11 | 0.25 | 0.25 | 0.14 | 0.28 | 0.28 | 0.09 | 0.27 | 0.27 | 0.19 | 0.37 | 0.37 |
| Sat Flow, veh/h | 1781 | 4503 | 650 | 1781 | 4518 | 637 | 3456 | 3554 | 1576 | 1781 | 3554 | 1579 |
| Grp Volume(v), veh/h | 170 | 623 | 323 | 227 | 663 | 344 | 239 | 839 | 133 | 311 | 1022 | 225 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1749 | 1781 | 1702 | 1752 | 1728 | 1777 | 1576 | 1781 | 1777 | 1579 |
| Q Serve(g_s), s | 11.3 | 20.2 | 20.4 | 15.0 | 20.9 | 21.0 | 8.2 | 27.1 | 8.1 | 20.6 | 30.4 | 12.5 |
| Cycle Q Clear(g_c), s | 11.3 | 20.2 | 20.4 | 15.0 | 20.9 | 21.0 | 8.2 | 27.1 | 8.1 | 20.6 | 30.4 | 12.5 |
| Prop In Lane | 1.00 | | 0.37 | 1.00 | | 0.36 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 197 | 849 | 436 | 254 | 959 | 493 | 295 | 953 | 423 | 338 | 1324 | 588 |
| V/C Ratio(X) | 0.86 | 0.73 | 0.74 | 0.89 | 0.69 | 0.70 | 0.81 | 0.88 | 0.31 | 0.92 | 0.77 | 0.38 |
| Avail Cap(c_a), veh/h | 215 | 849 | 436 | 275 | 959 | 493 | 325 | 953 | 423 | 364 | 1324 | 588 |
| 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) | 1.00 | 1.00 | 1.00 | 0.71 | 0.71 | 0.71 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.5 | 41.4 | 41.4 | 50.6 | 38.5 | 38.5 | 53.9 | 42.1 | 35.1 | 47.7 | 33.2 | 27.6 |
| Incr Delay (d2), s/veh | 26.9 | 5.6 | 10.7 | 21.3 | 2.9 | 5.7 | 13.2 | 11.5 | 1.9 | 27.1 | 4.4 | 1.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.3 | 8.8 | 9.7 | 8.0 | 8.7 | 9.4 | 4.0 | 13.0 | 3.3 | 11.4 | 13.3 | 4.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 79.4 | 46.9 | 52.2 | 71.9 | 41.4 | 44.2 | 67.1 | 53.5 | 37.0 | 74.9 | 37.6 | 29.4 |
| LnGrp LOS | E | D | D | E | D | D | E | D | D | E | D | C |
| Approach Vol, veh/h | | 1116 | | | 1234 | | | 1211 | | | 1558 | |
| Approach Delay, s/veh | | 53.4 | | | 47.8 | | | 54.4 | | | 43.8 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 21.6 | 34.4 | 14.7 | 49.2 | 17.8 | 38.3 | 27.3 | 36.7 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.5 | 27.5 | 11.3 | 44.7 | 14.5 | 31.5 | 24.5 | 31.5 |
| Max Q Clear Time (g_c+I1), s | 17.0 | 22.4 | 10.2 | 32.4 | 13.3 | 23.0 | 22.6 | 29.1 |
| Green Ext Time (p_c), s | 0.1 | 2.4 | 0.1 | 5.8 | 0.1 | 3.7 | 0.2 | 1.3 |

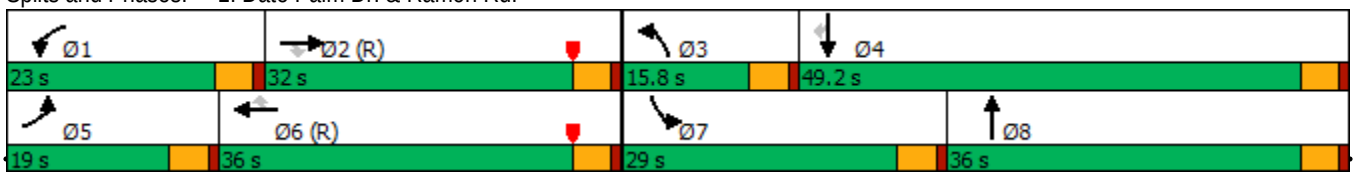
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 49.4 |
| HCM 6th LOS | D |

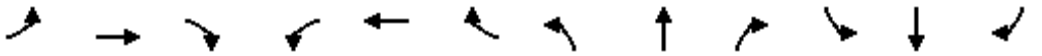
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 839 | 133 | 311 | 1022 | 225 |
| Future Volume (vph) | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 839 | 133 | 311 | 1022 | 225 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 150 | 225 | | 150 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | 6 | | | | | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 19.0 | 32.0 | 32.0 | 23.0 | 36.0 | 36.0 | 15.8 | 36.0 | | 29.0 | 49.2 | 49.2 |
| Total Split (%) | 15.8% | 26.7% | 26.7% | 19.2% | 30.0% | 30.0% | 13.2% | 30.0% | | 24.2% | 41.0% | 41.0% |
| Maximum Green (s) | 14.5 | 27.5 | 27.5 | 18.5 | 31.5 | 31.5 | 11.3 | 31.5 | | 24.5 | 44.7 | 44.7 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | Max | | None | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | | 5 | | | 5 | 5 |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 839 | 133 | 311 | 1022 | 225 |
| Future Volume (veh/h) | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 839 | 133 | 311 | 1022 | 225 |
| 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 | | 0.99 | 1.00 | | 0.99 | 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 839 | 133 | 311 | 1022 | 225 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 197 | 1274 | 393 | 254 | 1438 | 444 | 295 | 1192 | 188 | 338 | 1324 | 588 |
| Arrive On Green | 0.11 | 0.25 | 0.25 | 0.14 | 0.28 | 0.28 | 0.09 | 0.27 | 0.27 | 0.19 | 0.37 | 0.37 |
| Sat Flow, veh/h | 1781 | 5106 | 1576 | 1781 | 5106 | 1577 | 3456 | 4444 | 700 | 1781 | 3554 | 1579 |
| Grp Volume(v), veh/h | 170 | 826 | 120 | 227 | 882 | 125 | 239 | 642 | 330 | 311 | 1022 | 225 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1576 | 1781 | 1702 | 1577 | 1728 | 1702 | 1740 | 1781 | 1777 | 1579 |
| Q Serve(g_s), s | 11.3 | 17.4 | 7.4 | 15.0 | 18.0 | 7.4 | 8.2 | 20.4 | 20.6 | 20.6 | 30.4 | 12.5 |
| Cycle Q Clear(g_c), s | 11.3 | 17.4 | 7.4 | 15.0 | 18.0 | 7.4 | 8.2 | 20.4 | 20.6 | 20.6 | 30.4 | 12.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.40 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 197 | 1274 | 393 | 254 | 1438 | 444 | 295 | 913 | 467 | 338 | 1324 | 588 |
| V/C Ratio(X) | 0.86 | 0.65 | 0.31 | 0.89 | 0.61 | 0.28 | 0.81 | 0.70 | 0.71 | 0.92 | 0.77 | 0.38 |
| Avail Cap(c_a), veh/h | 215 | 1274 | 393 | 275 | 1438 | 444 | 325 | 913 | 467 | 364 | 1324 | 588 |
| 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) | 1.00 | 1.00 | 1.00 | 0.81 | 0.81 | 0.81 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.5 | 40.3 | 36.6 | 50.6 | 37.4 | 33.6 | 53.9 | 39.6 | 39.7 | 47.7 | 33.2 | 27.6 |
| Incr Delay (d2), s/veh | 26.9 | 2.6 | 2.0 | 23.5 | 1.6 | 1.3 | 13.2 | 4.5 | 8.8 | 27.1 | 4.4 | 1.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.3 | 7.3 | 3.0 | 8.1 | 7.4 | 2.9 | 4.0 | 8.8 | 9.6 | 11.4 | 13.3 | 4.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 79.4 | 42.9 | 38.6 | 74.1 | 39.0 | 34.9 | 67.1 | 44.1 | 48.4 | 74.9 | 37.6 | 29.4 |
| LnGrp LOS | E | D | D | E | D | C | E | D | D | E | D | C |
| Approach Vol, veh/h | | 1116 | | | 1234 | | | 1211 | | | 1558 | |
| Approach Delay, s/veh | | 48.0 | | | 45.1 | | | 49.8 | | | 43.8 | |
| Approach LOS | | D | | | D | | | D | | | D | |

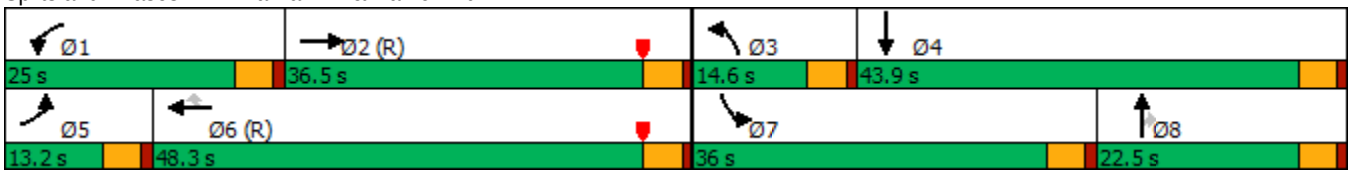
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 21.6 | 34.4 | 14.7 | 49.2 | 17.8 | 38.3 | 27.3 | 36.7 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.5 | 27.5 | 11.3 | 44.7 | 14.5 | 31.5 | 24.5 | 31.5 |
| Max Q Clear Time (g_c+I1), s | 17.0 | 19.4 | 10.2 | 32.4 | 13.3 | 20.0 | 22.6 | 22.6 |
| Green Ext Time (p_c), s | 0.1 | 3.4 | 0.1 | 5.8 | 0.1 | 4.5 | 0.2 | 3.8 |

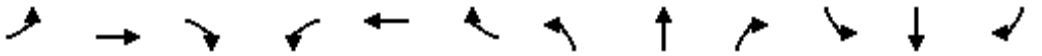
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 46.5 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 49 | 1186 | 224 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 395 | 62 |
| Future Volume (vph) | 49 | 1186 | 224 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 395 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 0 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 13.2 | 36.5 | | 25.0 | 48.3 | 48.3 | 14.6 | 22.5 | 22.5 | 36.0 | 43.9 | |
| Total Split (%) | 11.0% | 30.4% | | 20.8% | 40.3% | 40.3% | 12.2% | 18.8% | 18.8% | 30.0% | 36.6% | |
| Maximum Green (s) | 8.7 | 32.0 | | 20.5 | 43.8 | 43.8 | 10.1 | 18.0 | 18.0 | 31.5 | 39.4 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | C-Max | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 49 | 1186 | 224 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 395 | 62 |
| Future Volume (veh/h) | 49 | 1186 | 224 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 395 | 62 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 49 | 1186 | 224 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 395 | 62 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 63 | 1150 | 217 | 304 | 2053 | 637 | 124 | 533 | 238 | 468 | 541 | 85 |
| Arrive On Green | 0.04 | 0.27 | 0.27 | 0.11 | 0.27 | 0.27 | 0.07 | 0.15 | 0.15 | 0.26 | 0.34 | 0.34 |
| Sat Flow, veh/h | 1781 | 4313 | 815 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 1781 | 1578 | 248 |
| Grp Volume(v), veh/h | 49 | 936 | 474 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 0 | 457 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1724 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1781 | 0 | 1826 |
| Q Serve(g_s), s | 3.3 | 32.0 | 32.0 | 20.5 | 26.6 | 13.5 | 6.6 | 4.6 | 16.3 | 31.5 | 0.0 | 26.3 |
| Cycle Q Clear(g_c), s | 3.3 | 32.0 | 32.0 | 20.5 | 26.6 | 13.5 | 6.6 | 4.6 | 16.3 | 31.5 | 0.0 | 26.3 |
| Prop In Lane | 1.00 | | 0.47 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 63 | 908 | 460 | 304 | 2053 | 637 | 124 | 533 | 238 | 468 | 0 | 626 |
| V/C Ratio(X) | 0.78 | 1.03 | 1.03 | 1.07 | 0.63 | 0.35 | 0.81 | 0.29 | 0.92 | 1.10 | 0.00 | 0.73 |
| Avail Cap(c_a), veh/h | 129 | 908 | 460 | 304 | 2053 | 637 | 150 | 533 | 238 | 468 | 0 | 626 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 0.67 | 0.67 | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.55 | 0.55 | 0.55 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.4 | 44.0 | 44.0 | 53.1 | 35.9 | 31.1 | 55.0 | 45.3 | 50.3 | 44.3 | 0.0 | 34.6 |
| Incr Delay (d2), s/veh | 10.6 | 30.6 | 39.4 | 71.8 | 1.5 | 1.5 | 22.8 | 1.4 | 40.2 | 72.1 | 0.0 | 7.3 |
| 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 | 1.6 | 16.6 | 18.0 | 15.3 | 11.5 | 5.5 | 3.7 | 2.1 | 8.9 | 22.7 | 0.0 | 12.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 68.0 | 74.6 | 83.4 | 124.9 | 37.4 | 32.6 | 77.9 | 46.7 | 90.5 | 116.3 | 0.0 | 41.9 |
| LnGrp LOS | E | F | F | F | D | C | E | D | F | F | A | D |
| Approach Vol, veh/h | | 1459 | | | 1835 | | | 472 | | | 972 | |
| Approach Delay, s/veh | | 77.2 | | | 52.4 | | | 73.5 | | | 81.3 | |
| Approach LOS | | E | | | D | | | E | | | F | |

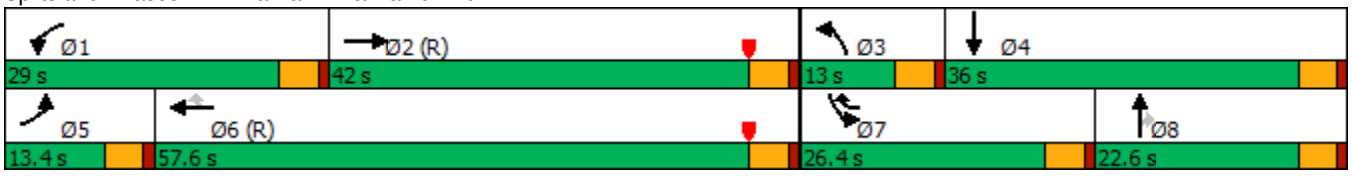
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 25.0 | 36.5 | 12.9 | 45.6 | 8.8 | 52.7 | 36.0 | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 20.5 | 32.0 | 10.1 | 39.4 | 8.7 | 43.8 | 31.5 | 18.0 |
| Max Q Clear Time (g_c+I1), s | 22.5 | 34.0 | 8.6 | 28.3 | 5.3 | 28.6 | 33.5 | 18.3 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 7.7 | 0.0 | 0.0 |

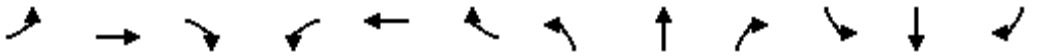
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 68.1 |
| HCM 6th LOS | E |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 49 | 1186 | 224 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 395 | 62 |
| Future Volume (vph) | 49 | 1186 | 224 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 395 | 62 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 2 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | 7 | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 7 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 13.4 | 42.0 | | 29.0 | 57.6 | 26.4 | 13.0 | 22.6 | 22.6 | 26.4 | 36.0 | |
| Total Split (%) | 11.2% | 35.0% | | 24.2% | 48.0% | 22.0% | 10.8% | 18.8% | 18.8% | 22.0% | 30.0% | |
| Maximum Green (s) | 8.9 | 37.5 | | 24.5 | 53.1 | 21.9 | 8.5 | 18.1 | 18.1 | 21.9 | 31.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lead | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | None | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 49 | 1186 | 224 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 395 | 62 |
| Future Volume (veh/h) | 49 | 1186 | 224 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 395 | 62 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 49 | 1186 | 224 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 395 | 62 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 63 | 1396 | 264 | 346 | 2464 | 1029 | 124 | 587 | 262 | 576 | 414 | 65 |
| Arrive On Green | 0.04 | 0.32 | 0.32 | 0.39 | 0.97 | 0.97 | 0.07 | 0.17 | 0.17 | 0.17 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1781 | 4313 | 815 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 3456 | 1578 | 248 |
| Grp Volume(v), veh/h | 49 | 936 | 474 | 326 | 1288 | 221 | 100 | 154 | 218 | 515 | 0 | 457 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1724 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1728 | 0 | 1826 |
| Q Serve(g_s), s | 3.3 | 30.8 | 30.8 | 21.2 | 2.1 | 0.5 | 6.6 | 4.5 | 16.0 | 17.5 | 0.0 | 29.5 |
| Cycle Q Clear(g_c), s | 3.3 | 30.8 | 30.8 | 21.2 | 2.1 | 0.5 | 6.6 | 4.5 | 16.0 | 17.5 | 0.0 | 29.5 |
| Prop In Lane | 1.00 | | 0.47 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 63 | 1102 | 558 | 346 | 2464 | 1029 | 124 | 587 | 262 | 576 | 0 | 479 |
| V/C Ratio(X) | 0.78 | 0.85 | 0.85 | 0.94 | 0.52 | 0.21 | 0.81 | 0.26 | 0.83 | 0.89 | 0.00 | 0.95 |
| Avail Cap(c_a), veh/h | 132 | 1102 | 558 | 364 | 2464 | 1029 | 126 | 587 | 262 | 631 | 0 | 479 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.58 | 0.58 | 0.58 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.4 | 37.8 | 37.8 | 36.0 | 1.1 | 0.5 | 55.0 | 43.7 | 48.5 | 49.0 | 0.0 | 43.5 |
| Incr Delay (d2), s/veh | 11.1 | 5.0 | 9.3 | 31.8 | 0.8 | 0.5 | 30.6 | 1.1 | 25.5 | 14.4 | 0.0 | 31.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 12.9 | 13.7 | 9.6 | 0.6 | 0.3 | 3.9 | 2.0 | 7.9 | 8.5 | 0.0 | 16.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 68.5 | 42.8 | 47.1 | 67.8 | 1.9 | 1.0 | 85.6 | 44.8 | 74.0 | 63.3 | 0.0 | 74.6 |
| LnGrp LOS | E | D | D | E | A | A | F | D | E | E | A | E |
| Approach Vol, veh/h | | 1459 | | | 1835 | | | 472 | | | 972 | |
| Approach Delay, s/veh | | 45.1 | | | 13.5 | | | 66.9 | | | 68.6 | |
| Approach LOS | | D | | | B | | | E | | | E | |

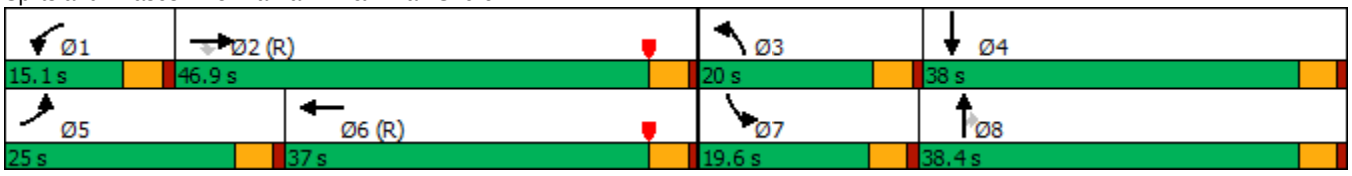
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 27.8 | 43.3 | 12.8 | 36.0 | 8.8 | 62.4 | 24.5 | 24.3 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 24.5 | 37.5 | 8.5 | 31.5 | 8.9 | 53.1 | 21.9 | 18.1 |
| Max Q Clear Time (g_c+I1), s | 23.2 | 32.8 | 8.6 | 31.5 | 5.3 | 4.1 | 19.5 | 18.0 |
| Green Ext Time (p_c), s | 0.1 | 3.2 | 0.0 | 0.0 | 0.0 | 11.8 | 0.5 | 0.0 |

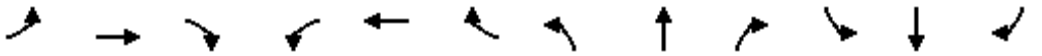
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 39.9 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 198 | 803 | 315 | 73 | 609 | 44 | 144 | 224 | 119 | 109 | 521 | 290 |
| Future Volume (vph) | 198 | 803 | 315 | 73 | 609 | 44 | 144 | 224 | 119 | 109 | 521 | 290 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 175 | | 215 | 185 | | 0 | 125 | | 125 | 135 | | 135 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 50 | | | 50 | |
| Link Distance (ft) | | 918 | | | 366 | | | 1131 | | | 331 | |
| Travel Time (s) | | 20.9 | | | 8.3 | | | 15.4 | | | 4.5 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 25.0 | 46.9 | 46.9 | 15.1 | 37.0 | | 20.0 | 38.4 | 38.4 | 19.6 | 38.0 | |
| Total Split (%) | 20.8% | 39.1% | 39.1% | 12.6% | 30.8% | | 16.7% | 32.0% | 32.0% | 16.3% | 31.7% | |
| Maximum Green (s) | 20.5 | 42.4 | 42.4 | 10.6 | 32.5 | | 15.5 | 33.9 | 33.9 | 15.1 | 33.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 3: Da Vall Dr. & Dinah Shore Dr.

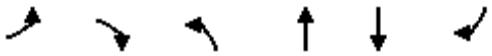




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 198 | 803 | 315 | 73 | 609 | 44 | 144 | 224 | 119 | 109 | 521 | 290 |
| Future Volume (veh/h) | 198 | 803 | 315 | 73 | 609 | 44 | 144 | 224 | 119 | 109 | 521 | 290 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 198 | 803 | 315 | 73 | 609 | 44 | 144 | 224 | 119 | 109 | 521 | 290 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 227 | 1500 | 669 | 93 | 1166 | 84 | 172 | 1065 | 475 | 135 | 615 | 342 |
| Arrive On Green | 0.13 | 0.42 | 0.42 | 0.05 | 0.35 | 0.35 | 0.10 | 0.30 | 0.30 | 0.08 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 3361 | 243 | 1781 | 3554 | 1585 | 1781 | 2204 | 1223 |
| Grp Volume(v), veh/h | 198 | 803 | 315 | 73 | 322 | 331 | 144 | 224 | 119 | 109 | 420 | 391 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1827 | 1781 | 1777 | 1585 | 1781 | 1777 | 1650 |
| Q Serve(g_s), s | 13.1 | 20.2 | 17.2 | 4.9 | 17.3 | 17.4 | 9.5 | 5.7 | 6.8 | 7.2 | 26.8 | 26.9 |
| Cycle Q Clear(g_c), s | 13.1 | 20.2 | 17.2 | 4.9 | 17.3 | 17.4 | 9.5 | 5.7 | 6.8 | 7.2 | 26.8 | 26.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.13 | 1.00 | | 1.00 | 1.00 | | 0.74 |
| Lane Grp Cap(c), veh/h | 227 | 1500 | 669 | 93 | 616 | 634 | 172 | 1065 | 475 | 135 | 496 | 461 |
| V/C Ratio(X) | 0.87 | 0.54 | 0.47 | 0.78 | 0.52 | 0.52 | 0.84 | 0.21 | 0.25 | 0.81 | 0.85 | 0.85 |
| Avail Cap(c_a), veh/h | 304 | 1500 | 669 | 157 | 616 | 634 | 230 | 1065 | 475 | 224 | 496 | 461 |
| 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) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.4 | 25.9 | 25.0 | 56.2 | 31.2 | 31.3 | 53.3 | 31.4 | 31.8 | 54.6 | 40.8 | 40.9 |
| Incr Delay (d2), s/veh | 18.3 | 1.4 | 2.4 | 13.1 | 3.1 | 3.1 | 18.1 | 0.4 | 1.3 | 10.8 | 16.2 | 17.5 |
| 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 | 7.0 | 8.8 | 6.5 | 2.5 | 8.0 | 8.2 | 5.0 | 2.4 | 2.7 | 3.5 | 13.3 | 12.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 69.7 | 27.3 | 27.4 | 69.3 | 34.4 | 34.3 | 71.5 | 31.9 | 33.1 | 65.4 | 57.0 | 58.4 |
| LnGrp LOS | E | C | C | E | C | C | E | C | C | E | E | E |
| Approach Vol, veh/h | | 1316 | | | 726 | | | 487 | | | 920 | |
| Approach Delay, s/veh | | 33.7 | | | 37.9 | | | 43.9 | | | 58.6 | |
| Approach LOS | | C | | | D | | | D | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.8 | 55.2 | 16.1 | 38.0 | 19.8 | 46.1 | 13.6 | 40.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 10.6 | 42.4 | 15.5 | 33.5 | 20.5 | 32.5 | 15.1 | 33.9 |
| Max Q Clear Time (g_c+I1), s | 6.9 | 22.2 | 11.5 | 28.9 | 15.1 | 19.4 | 9.2 | 8.8 |
| Green Ext Time (p_c), s | 0.0 | 6.9 | 0.1 | 1.9 | 0.2 | 3.3 | 0.1 | 1.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 42.6 |
| HCM 6th LOS | D |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 18 | 297 | 336 | 262 | 302 | 55 |
| Future Volume (vph) | 18 | 297 | 336 | 262 | 302 | 55 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 30.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 18 | 297 | 336 | 262 | 302 | 55 |
| Future Vol, veh/h | 18 | 297 | 336 | 262 | 302 | 55 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 62 | 62 | 62 | 62 | 62 | 62 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 29 | 479 | 542 | 423 | 487 | 89 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 2039 | 532 | 576 | 0 | - | 0 |
| Stage 1 | 532 | - | - | - | - | - |
| Stage 2 | 1507 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 62 | 547 | 997 | - | - | - |
| Stage 1 | 589 | - | - | - | - | - |
| Stage 2 | 202 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 28 | 547 | 997 | - | - | - |
| Mov Cap-2 Maneuver | 118 | - | - | - | - | - |
| Stage 1 | 269 | - | - | - | - | - |
| Stage 2 | 202 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 109.3 | 7.2 | 0 |
| HCM LOS | F | | |

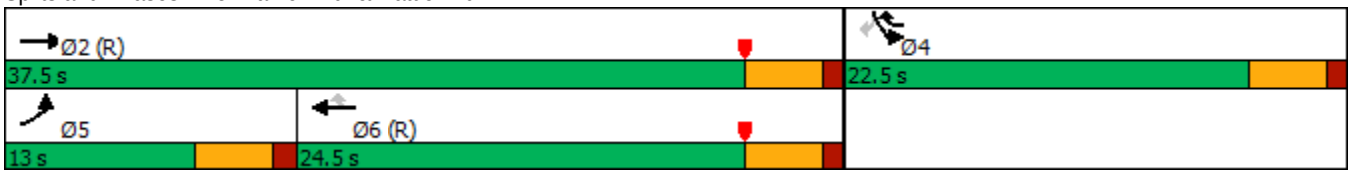
| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 997 | - | 453 | - | - |
| HCM Lane V/C Ratio | 0.544 | - | 1.122 | - | - |
| HCM Control Delay (s) | 12.8 | - | 109.3 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 3.4 | - | 17.7 | - | - |

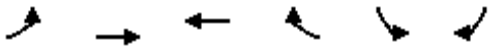
| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 298 | 1711 | 1215 | 331 | 292 | 380 |
| Future Volume (vph) | 298 | 1711 | 1215 | 331 | 292 | 380 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | 44% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 13.0 | 37.5 | 24.5 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 21.7% | 62.5% | 40.8% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 8.5 | 33.0 | 20.0 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.





| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 298 | 1711 | 1215 | 331 | 292 | 380 |
| Future Volume (veh/h) | 298 | 1711 | 1215 | 331 | 292 | 380 |
| 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 298 | 1711 | 1215 | 331 | 224 | 453 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 409 | 2808 | 1821 | 1041 | 534 | 951 |
| Arrive On Green | 0.12 | 0.55 | 0.12 | 0.12 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 1781 | 3170 |
| Grp Volume(v), veh/h | 298 | 1711 | 1215 | 331 | 224 | 453 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 5.0 | 13.6 | 13.7 | 6.3 | 6.0 | 7.0 |
| Cycle Q Clear(g_c), s | 5.0 | 13.6 | 13.7 | 6.3 | 6.0 | 7.0 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 409 | 2808 | 1821 | 1041 | 534 | 951 |
| V/C Ratio(X) | 0.73 | 0.61 | 0.67 | 0.32 | 0.42 | 0.48 |
| Avail Cap(c_a), veh/h | 490 | 2808 | 1821 | 1041 | 534 | 951 |
| HCM Platoon Ratio | 1.00 | 1.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.84 | 0.84 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.5 | 9.1 | 23.1 | 6.3 | 16.8 | 17.2 |
| Incr Delay (d2), s/veh | 4.4 | 1.0 | 1.6 | 0.7 | 2.4 | 1.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 3.2 | 5.8 | 4.5 | 2.5 | 6.6 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 29.9 | 10.1 | 24.7 | 7.0 | 19.2 | 18.9 |
| LnGrp LOS | C | B | C | A | B | B |
| Approach Vol, veh/h | | 2009 | 1546 | | 677 | |
| Approach Delay, s/veh | | 13.1 | 20.9 | | 19.0 | |
| Approach LOS | | B | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 11.6 | 25.9 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 8.5 | 20.0 |
| Max Q Clear Time (g_c+I1), s | | 15.6 | | 9.0 | 7.0 | 15.7 |
| Green Ext Time (p_c), s | | 10.3 | | 1.8 | 0.2 | 3.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.9 |
| HCM 6th LOS | B |

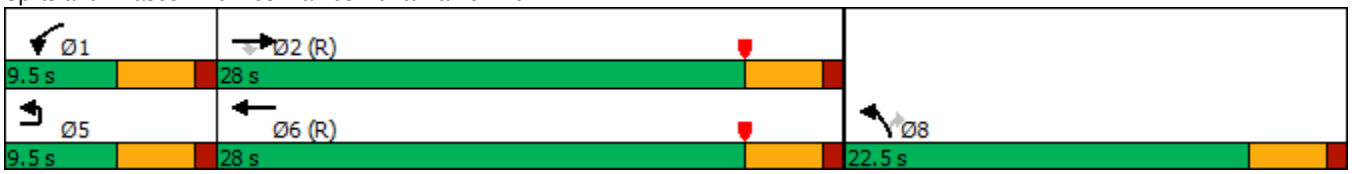
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 1 | 1885 | 107 | 114 | 1465 | 89 | 115 |
| Future Volume (vph) | 1 | 1885 | 107 | 114 | 1465 | 89 | 115 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 200 | 255 | | 125 | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 |
| Taper Length (ft) | 90 | | | 90 | | 90 | |
| Right Turn on Red | | | Yes | | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | 50 | |
| Link Distance (ft) | | 2660 | | | 3172 | 1424 | |
| Travel Time (s) | | 33.0 | | | 39.3 | 19.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | |
| Permitted Phases | | | 2 | | | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 8 | 8 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 28.0 | 28.0 | 9.5 | 28.0 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 46.7% | 46.7% | 15.8% | 46.7% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 23.5 | 23.5 | 5.0 | 23.5 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 6: Los Alamos Rd. & Ramon Rd.



| Movement | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1 | 1885 | 107 | 114 | 1465 | 89 | 115 |
| Future Volume (veh/h) | 1 | 1885 | 107 | 114 | 1465 | 89 | 115 |
| 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 |
| Work Zone On Approach | | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | 1885 | 107 | 114 | 1465 | 89 | 115 |
| Peak Hour Factor | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | | 2008 | 623 | 146 | 2808 | 1037 | 476 |
| Arrive On Green | | 0.13 | 0.13 | 0.08 | 0.55 | 0.30 | 0.30 |
| Sat Flow, veh/h | | 5274 | 1585 | 1781 | 5274 | 3456 | 1585 |
| Grp Volume(v), veh/h | | 1885 | 107 | 114 | 1465 | 89 | 115 |
| Grp Sat Flow(s),veh/h/ln | | 1702 | 1585 | 1781 | 1702 | 1728 | 1585 |
| Q Serve(g_s), s | | 21.9 | 3.6 | 3.8 | 10.9 | 1.1 | 3.3 |
| Cycle Q Clear(g_c), s | | 21.9 | 3.6 | 3.8 | 10.9 | 1.1 | 3.3 |
| Prop In Lane | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | | 2008 | 623 | 146 | 2808 | 1037 | 476 |
| V/C Ratio(X) | | 0.94 | 0.17 | 0.78 | 0.52 | 0.09 | 0.24 |
| Avail Cap(c_a), veh/h | | 2008 | 623 | 148 | 2808 | 1037 | 476 |
| HCM Platoon Ratio | | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | 0.80 | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | 25.4 | 17.4 | 27.0 | 8.5 | 15.1 | 15.8 |
| Incr Delay (d2), s/veh | | 8.4 | 0.5 | 23.0 | 0.7 | 0.2 | 1.2 |
| Initial Q Delay(d3),s/veh | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | 11.0 | 1.1 | 2.3 | 2.6 | 0.4 | 1.1 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | | 33.8 | 17.9 | 50.0 | 9.2 | 15.3 | 17.1 |
| LnGrp LOS | | C | B | D | A | B | B |
| Approach Vol, veh/h | | 1992 | | | 1579 | 204 | |
| Approach Delay, s/veh | | 33.0 | | | 12.2 | 16.3 | |
| Approach LOS | | C | | | B | B | |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.4 | 28.1 | | | | 37.5 | | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 23.5 | | | | 23.5 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | 5.8 | 23.9 | | | | 12.9 | | 5.3 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | | | 6.3 | | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 23.4 |
| HCM 6th LOS | C |

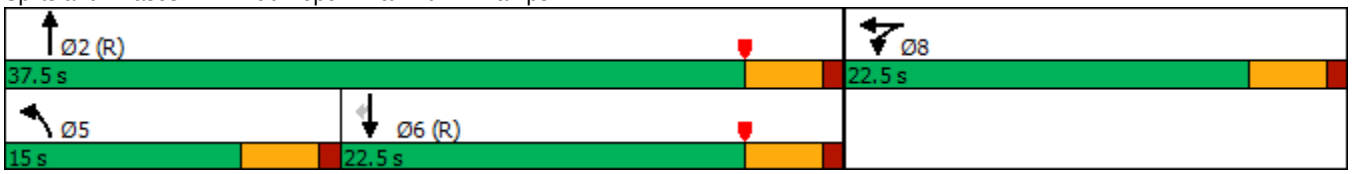
Notes

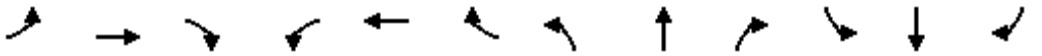
User approved ignoring U-Turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 910 | 1 | 380 | 718 | 560 | 0 | 0 | 320 | 270 |
| Future Volume (vph) | 0 | 0 | 0 | 910 | 1 | 380 | 718 | 560 | 0 | 0 | 320 | 270 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 430 | 210 | | 0 | 0 | | 205 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 2 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 581 | | | 1228 | | | 688 | | | 840 | |
| Travel Time (s) | | 11.3 | | | 23.9 | | | 10.4 | | | 12.7 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | 50% | | | | | | | | |
| Turn Type | | | | Split | NA | Free | Prot | NA | | | NA | Perm |
| Protected Phases | | | | 8 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | | | Free | | | | | | 6 |
| Detector Phase | | | | 8 | 8 | | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | 5.0 |
| Minimum Split (s) | | | | 22.5 | 22.5 | | 9.5 | 22.5 | | | 22.5 | 22.5 |
| Total Split (s) | | | | 22.5 | 22.5 | | 15.0 | 37.5 | | | 22.5 | 22.5 |
| Total Split (%) | | | | 37.5% | 37.5% | | 25.0% | 62.5% | | | 37.5% | 37.5% |
| Maximum Green (s) | | | | 18.0 | 18.0 | | 10.5 | 33.0 | | | 18.0 | 18.0 |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | 3.5 |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | 4.5 |
| Lead/Lag | | | | | | | Lead | | | | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | Yes |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | | | | None | None | | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | | | | | | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 7: Bob Hope Dr. & I-10 NB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 910 | 1 | 380 | 718 | 560 | 0 | 0 | 320 | 270 |
| Future Volume (veh/h) | 0 | 0 | 0 | 910 | 1 | 380 | 718 | 560 | 0 | 0 | 320 | 270 |
| 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 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 911 | 0 | 0 | 718 | 560 | 0 | 0 | 320 | 270 |
| Peak Hour Factor | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 1025 | 0 | | 605 | 1998 | 0 | 0 | 1595 | 495 |
| Arrive On Green | | | | 0.29 | 0.00 | 0.00 | 0.29 | 0.94 | 0.00 | 0.00 | 0.31 | 0.31 |
| Sat Flow, veh/h | | | | 3563 | 0 | 1585 | 3456 | 3647 | 0 | 0 | 5274 | 1585 |
| Grp Volume(v), veh/h | | | | 911 | 0 | 0 | 718 | 560 | 0 | 0 | 320 | 270 |
| Grp Sat Flow(s),veh/h/ln | | | | 1781 | 0 | 1585 | 1728 | 1777 | 0 | 0 | 1702 | 1585 |
| Q Serve(g_s), s | | | | 14.7 | 0.0 | 0.0 | 10.5 | 0.8 | 0.0 | 0.0 | 2.8 | 8.5 |
| Cycle Q Clear(g_c), s | | | | 14.7 | 0.0 | 0.0 | 10.5 | 0.8 | 0.0 | 0.0 | 2.8 | 8.5 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | | | | 1025 | 0 | | 605 | 1998 | 0 | 0 | 1595 | 495 |
| V/C Ratio(X) | | | | 0.89 | 0.00 | | 1.19 | 0.28 | 0.00 | 0.00 | 0.20 | 0.55 |
| Avail Cap(c_a), veh/h | | | | 1069 | 0 | | 605 | 1998 | 0 | 0 | 1595 | 495 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 0.00 | 0.82 | 0.82 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 20.5 | 0.0 | 0.0 | 21.2 | 0.8 | 0.0 | 0.0 | 15.1 | 17.1 |
| Incr Delay (d2), s/veh | | | | 9.1 | 0.0 | 0.0 | 97.6 | 0.3 | 0.0 | 0.0 | 0.3 | 4.3 |
| Initial Q Delay(d3),s/veh | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | 6.7 | 0.0 | 0.0 | 11.3 | 0.2 | 0.0 | 0.0 | 0.9 | 3.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | 29.6 | 0.0 | 0.0 | 118.9 | 1.1 | 0.0 | 0.0 | 15.4 | 21.4 |
| LnGrp LOS | | | | C | A | | F | A | A | A | B | C |
| Approach Vol, veh/h | | | | | 911 | | | 1278 | | | 590 | |
| Approach Delay, s/veh | | | | | 29.6 | | | 67.3 | | | 18.1 | |
| Approach LOS | | | | | C | | | E | | | B | |

| Timer - Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 38.2 | | | 15.0 | 23.2 | | 21.8 | | | | |
| Change Period (Y+Rc), s | | 4.5 | | | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | | 10.5 | 18.0 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.8 | | | 12.5 | 10.5 | | 16.7 | | | | |
| Green Ext Time (p_c), s | | 3.6 | | | 0.0 | 1.7 | | 0.6 | | | | |

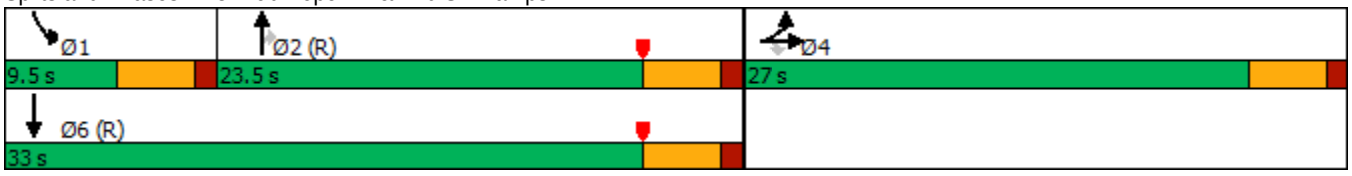
| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | 44.5 | |
| HCM 6th LOS | D | |

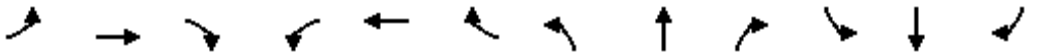
| Notes |
|---|
| User approved volume balancing among the lanes for turning movement. |
| Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay. |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 415 | 1 | 1278 | 0 | 0 | 0 | 0 | 863 | 100 | 130 | 1100 | 0 |
| Future Volume (vph) | 415 | 1 | 1278 | 0 | 0 | 0 | 0 | 863 | 100 | 130 | 1100 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 490 | | 135 | 0 | | 0 | 0 | | 195 | 225 | | 0 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 90 | | | 90 | | | 110 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1337 | | | 718 | | | 776 | | | 688 | |
| Travel Time (s) | | 26.0 | | | 14.0 | | | 11.8 | | | 10.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | 10% | | 49% | | | | | | 10% | | | |
| Turn Type | Split | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | 4 | 4 | | | | | | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | | 2 | | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | | | | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | | | | | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 27.0 | 27.0 | 27.0 | | | | | 23.5 | 23.5 | 9.5 | 33.0 | |
| Total Split (%) | 45.0% | 45.0% | 45.0% | | | | | 39.2% | 39.2% | 15.8% | 55.0% | |
| Maximum Green (s) | 22.5 | 22.5 | 22.5 | | | | | 19.0 | 19.0 | 5.0 | 28.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | | | | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | Lag | Lag | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | None | C-Max | |
| Walk Time (s) | | | | | | | | | | | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 8: Bob Hope Dr. & I-10 SB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 415 | 1 | 1278 | 0 | 0 | 0 | 0 | 863 | 100 | 130 | 1100 | 0 |
| Future Volume (veh/h) | 415 | 1 | 1278 | 0 | 0 | 0 | 0 | 863 | 100 | 130 | 1100 | 0 |
| 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 |
| Work Zone On Approach | | No | | | | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | | | | 0 | 1870 | 1870 | 1870 | 1870 | 0 |
| Adj Flow Rate, veh/h | 277 | 0 | 1427 | | | | 0 | 863 | 100 | 130 | 1100 | 0 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | | | | 0 | 2 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 668 | 0 | 1189 | | | | 0 | 1830 | 517 | 255 | 1688 | 0 |
| Arrive On Green | 0.38 | 0.00 | 0.38 | | | | 0.00 | 0.33 | 0.33 | 0.15 | 0.95 | 0.00 |
| Sat Flow, veh/h | 1781 | 0 | 3170 | | | | 0 | 5611 | 1585 | 3456 | 3647 | 0 |
| Grp Volume(v), veh/h | 277 | 0 | 1427 | | | | 0 | 863 | 100 | 130 | 1100 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | | | | 0 | 1870 | 1585 | 1728 | 1777 | 0 |
| Q Serve(g_s), s | 6.9 | 0.0 | 22.5 | | | | 0.0 | 7.3 | 2.7 | 2.1 | 2.4 | 0.0 |
| Cycle Q Clear(g_c), s | 6.9 | 0.0 | 22.5 | | | | 0.0 | 7.3 | 2.7 | 2.1 | 2.4 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 668 | 0 | 1189 | | | | 0 | 1830 | 517 | 255 | 1688 | 0 |
| V/C Ratio(X) | 0.41 | 0.00 | 1.20 | | | | 0.00 | 0.47 | 0.19 | 0.51 | 0.65 | 0.00 |
| Avail Cap(c_a), veh/h | 668 | 0 | 1189 | | | | 0 | 1830 | 517 | 288 | 1688 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.74 | 0.74 | 0.00 |
| Uniform Delay (d), s/veh | 13.9 | 0.0 | 18.8 | | | | 0.0 | 16.1 | 14.5 | 24.6 | 0.8 | 0.0 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 98.5 | | | | 0.0 | 0.9 | 0.8 | 1.2 | 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 | 2.5 | 0.0 | 23.2 | | | | 0.0 | 2.8 | 0.9 | 0.8 | 0.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 14.3 | 0.0 | 117.2 | | | | 0.0 | 17.0 | 15.4 | 25.7 | 2.3 | 0.0 |
| LnGrp LOS | B | A | F | | | | A | B | B | C | A | A |
| Approach Vol, veh/h | | 1704 | | | | | | 963 | | | 1230 | |
| Approach Delay, s/veh | | 100.5 | | | | | | 16.8 | | | 4.8 | |
| Approach LOS | | F | | | | | | B | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.9 | 24.1 | | 27.0 | | 33.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 19.0 | | 22.5 | | 28.5 |
| Max Q Clear Time (g_c+I1), s | 4.1 | 9.3 | | 24.5 | | 4.4 |
| Green Ext Time (p_c), s | 0.0 | 4.0 | | 0.0 | | 7.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 49.6 |
| HCM 6th LOS | D |

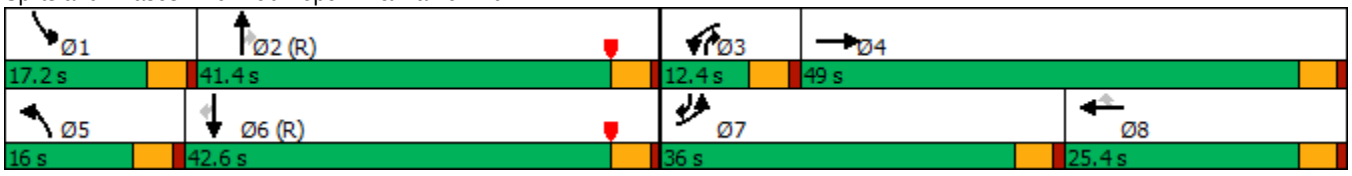
**Notes**

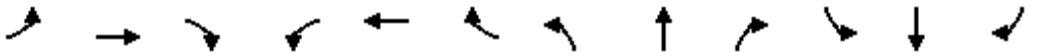
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 360 | 1040 | 438 | 150 | 515 | 40 | 252 | 563 | 250 | 210 | 1375 | 793 |
| Future Volume (vph) | 360 | 1040 | 438 | 150 | 515 | 40 | 252 | 563 | 250 | 210 | 1375 | 793 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 280 | | 470 | 240 | | 180 | 205 | | 280 | 215 | | 225 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 90 | | | 120 | | | 120 | | | 120 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | | | 45 | | | 45 | |
| Link Distance (ft) | | 676 | | | 1191 | | | 1119 | | | 476 | |
| Travel Time (s) | | 8.4 | | | 14.8 | | | 17.0 | | | 7.2 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Free | Prot | NA | Perm | Prot | NA | pm+ov | Prot | NA | pm+ov |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | Free | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | | 3 | 8 | 8 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 9.5 |
| Total Split (s) | 36.0 | 49.0 | | 12.4 | 25.4 | 25.4 | 16.0 | 41.4 | 12.4 | 17.2 | 42.6 | 36.0 |
| Total Split (%) | 30.0% | 40.8% | | 10.3% | 21.2% | 21.2% | 13.3% | 34.5% | 10.3% | 14.3% | 35.5% | 30.0% |
| Maximum Green (s) | 31.5 | 44.5 | | 7.9 | 20.9 | 20.9 | 11.5 | 36.9 | 7.9 | 12.7 | 38.1 | 31.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | None | None | C-Max | None | None | C-Max | None |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 40.1 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 9: Bob Hope Dr. & Ramon Rd.





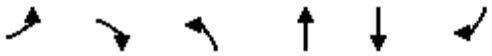
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 360 | 1040 | 438 | 150 | 515 | 40 | 252 | 563 | 250 | 210 | 1375 | 793 |
| Future Volume (veh/h) | 360 | 1040 | 438 | 150 | 515 | 40 | 252 | 563 | 250 | 210 | 1375 | 793 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 360 | 1040 | 0 | 150 | 515 | 40 | 252 | 563 | 250 | 210 | 1375 | 793 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 439 | 1170 | | 205 | 929 | 414 | 307 | 1958 | 702 | 270 | 1902 | 792 |
| Arrive On Green | 0.13 | 0.33 | 0.00 | 0.06 | 0.26 | 0.26 | 0.09 | 0.38 | 0.38 | 0.08 | 0.37 | 0.37 |
| Sat Flow, veh/h | 3456 | 3554 | 1585 | 3456 | 3554 | 1585 | 3456 | 5106 | 1585 | 3456 | 5106 | 1585 |
| Grp Volume(v), veh/h | 360 | 1040 | 0 | 150 | 515 | 40 | 252 | 563 | 250 | 210 | 1375 | 793 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1585 | 1728 | 1777 | 1585 | 1728 | 1702 | 1585 | 1728 | 1702 | 1585 |
| Q Serve(g_s), s | 12.2 | 33.3 | 0.0 | 5.1 | 15.0 | 2.3 | 8.6 | 9.2 | 12.5 | 7.2 | 27.7 | 44.7 |
| Cycle Q Clear(g_c), s | 12.2 | 33.3 | 0.0 | 5.1 | 15.0 | 2.3 | 8.6 | 9.2 | 12.5 | 7.2 | 27.7 | 44.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 439 | 1170 | | 205 | 929 | 414 | 307 | 1958 | 702 | 270 | 1902 | 792 |
| V/C Ratio(X) | 0.82 | 0.89 | | 0.73 | 0.55 | 0.10 | 0.82 | 0.29 | 0.36 | 0.78 | 0.72 | 1.00 |
| Avail Cap(c_a), veh/h | 907 | 1318 | | 228 | 929 | 414 | 331 | 1958 | 702 | 366 | 1902 | 792 |
| 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) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.0 | 38.2 | 0.0 | 55.5 | 38.3 | 33.6 | 53.7 | 25.6 | 22.1 | 54.3 | 32.3 | 30.0 |
| Incr Delay (d2), s/veh | 3.8 | 7.2 | 0.0 | 10.4 | 0.7 | 0.1 | 14.2 | 0.4 | 1.4 | 7.3 | 2.4 | 32.3 |
| 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 | 5.3 | 14.6 | 0.0 | 2.4 | 6.3 | 0.9 | 4.2 | 3.6 | 4.6 | 3.3 | 11.3 | 27.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.9 | 45.3 | 0.0 | 65.9 | 39.0 | 33.7 | 67.9 | 26.0 | 23.5 | 61.6 | 34.8 | 62.3 |
| LnGrp LOS | D | D | | E | D | C | E | C | C | E | C | F |
| Approach Vol, veh/h | | 1400 | | | 705 | | | 1065 | | | 2378 | |
| Approach Delay, s/veh | | 47.8 | | | 44.4 | | | 35.3 | | | 46.3 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 13.9 | 50.5 | 11.6 | 44.0 | 15.2 | 49.2 | 19.8 | 35.9 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 12.7 | 36.9 | 7.9 | 44.5 | 11.5 | 38.1 | 31.5 | 20.9 |
| Max Q Clear Time (g_c+I1), s | 9.2 | 14.5 | 7.1 | 35.3 | 10.6 | 46.7 | 14.2 | 17.0 |
| Green Ext Time (p_c), s | 0.2 | 4.4 | 0.0 | 4.2 | 0.1 | 0.0 | 1.1 | 1.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 44.3 |
| HCM 6th LOS | D |

**Notes**

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 2 | 34 | 21 | 596 | 597 | 2 |
| Future Volume (vph) | 2 | 34 | 21 | 596 | 597 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 470 | 524 | |
| Travel Time (s) | 6.4 | | | 8.0 | 8.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

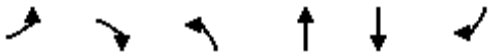
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 34 | 21 | 596 | 597 | 2 |
| Future Vol, veh/h | 2 | 34 | 21 | 596 | 597 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| 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 | 2 | 37 | 23 | 648 | 649 | 2 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1344 | 650 | 651 | 0 | - | 0 |
| Stage 1 | 650 | - | - | - | - | - |
| Stage 2 | 694 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 167 | 469 | 935 | - | - | - |
| Stage 1 | 520 | - | - | - | - | - |
| Stage 2 | 496 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 163 | 469 | 935 | - | - | - |
| Mov Cap-2 Maneuver | 303 | - | - | - | - | - |
| Stage 1 | 507 | - | - | - | - | - |
| Stage 2 | 496 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.7 | 0.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 935 | - | 455 | - | - |
| HCM Lane V/C Ratio | 0.024 | - | 0.086 | - | - |
| HCM Control Delay (s) | 8.9 | - | 13.7 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 4 | 44 | 16 | 613 | 628 | 3 |
| Future Volume (vph) | 4 | 44 | 16 | 613 | 628 | 3 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 25 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 10 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 82 | 470 | |
| Travel Time (s) | 6.4 | | | 1.4 | 8.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

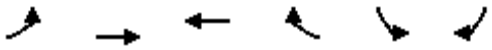
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 44 | 16 | 613 | 628 | 3 |
| Future Vol, veh/h | 4 | 44 | 16 | 613 | 628 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| 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 | 4 | 48 | 17 | 666 | 683 | 3 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1385 | 685 | 686 | 0 | - | 0 |
| Stage 1 | 685 | - | - | - | - | - |
| Stage 2 | 700 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 158 | 448 | 908 | - | - | - |
| Stage 1 | 500 | - | - | - | - | - |
| Stage 2 | 493 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 155 | 448 | 908 | - | - | - |
| Mov Cap-2 Maneuver | 295 | - | - | - | - | - |
| Stage 1 | 491 | - | - | - | - | - |
| Stage 2 | 493 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.6 | 0.2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 908 | - | 429 | - | - |
| HCM Lane V/C Ratio | 0.019 | - | 0.122 | - | - |
| HCM Control Delay (s) | 9 | - | 14.6 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.4 | - | - |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 2009 | 1562 | 33 | 0 | 29 |
| Future Volume (vph) | 0 | 2009 | 1562 | 33 | 0 | 29 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 650 | 647 | | 292 | |
| Travel Time (s) | | 8.1 | 8.0 | | 6.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized

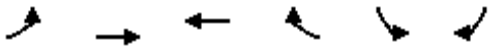
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 2009 | 1562 | 33 | 0 | 29 |
| Future Vol, veh/h | 0 | 2009 | 1562 | 33 | 0 | 29 |
| 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, # | - | 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 | 0 | 2184 | 1698 | 36 | 0 | 32 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 0 | - | 867 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 254 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | - | 254 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 21.2 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 254 |
| HCM Lane V/C Ratio | - | - | - | 0.124 |
| HCM Control Delay (s) | - | - | - | 21.2 |
| HCM Lane LOS | - | - | - | C |
| HCM 95th %tile Q(veh) | - | - | - | 0.4 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 26 | 2009 | 1588 | 3 | 0 | 18 |
| Future Volume (vph) | 26 | 2009 | 1588 | 3 | 0 | 18 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 0 | 1 |
| Taper Length (ft) | 60 | | | | 90 | |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 1330 | 650 | | 268 | |
| Travel Time (s) | | 16.5 | 8.1 | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

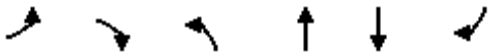
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 26 | 2009 | 1588 | 3 | 0 | 18 |
| Future Vol, veh/h | 26 | 2009 | 1588 | 3 | 0 | 18 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | - | 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 | 28 | 2184 | 1726 | 3 | 0 | 20 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1729 | 0 | - | 0 | - | 865 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | 5.34 | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | 3.12 | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 171 | - | - | - | 0 | 255 |
| Stage 1 | - | - | - | - | 0 | - |
| Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 171 | - | - | - | - | 255 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.4 | 0 | 20.3 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 171 | - | - | - | 255 |
| HCM Lane V/C Ratio | 0.165 | - | - | - | 0.077 |
| HCM Control Delay (s) | 30.2 | - | - | - | 20.3 |
| HCM Lane LOS | D | - | - | - | C |
| HCM 95th %tile Q(veh) | 0.6 | - | - | - | 0.2 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 109 | 149 | 0 | 280 | 208 | 0 |
| Future Volume (vph) | 109 | 149 | 0 | 280 | 208 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

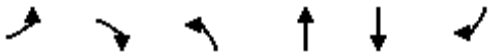
| Intersection | |
|---|---|
| Int Delay, s/veh | 5.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 109 | 149 | 0 | 280 | 208 | 0 |
| Future Vol, veh/h | 109 | 149 | 0 | 280 | 208 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 60 | 60 | 60 | 60 | 60 | 60 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 182 | 248 | 0 | 467 | 347 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 814 | 347 | - | 0 | - | 0 |
| Stage 1 | 347 | - | - | - | - | - |
| Stage 2 | 467 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 347 | 696 | 0 | - | - | 0 |
| Stage 1 | 716 | - | 0 | - | - | 0 |
| Stage 2 | 631 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 347 | 696 | - | - | - | - |
| Mov Cap-2 Maneuver | 463 | - | - | - | - | - |
| Stage 1 | 716 | - | - | - | - | - |
| Stage 2 | 631 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 15 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 463 | 696 | - |
| HCM Lane V/C Ratio | - | 0.392 | 0.357 | - |
| HCM Control Delay (s) | - | 17.7 | 13 | - |
| HCM Lane LOS | - | C | B | - |
| HCM 95th %tile Q(veh) | - | 1.8 | 1.6 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 33 | 70 | 176 | 213 | 138 | 351 |
| Future Volume (vph) | 33 | 70 | 176 | 213 | 138 | 351 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

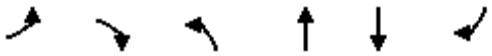
| Intersection | |
|---|---|
| Int Delay, s/veh | 19.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 33 | 70 | 176 | 213 | 138 | 351 |
| Future Vol, veh/h | 33 | 70 | 176 | 213 | 138 | 351 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 55 | 55 | 55 | 55 | 55 | 55 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 60 | 127 | 320 | 387 | 251 | 638 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1597 | 570 | 889 | 0 | - | 0 |
| Stage 1 | 570 | - | - | - | - | - |
| Stage 2 | 1027 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 117 | 521 | 762 | - | - | - |
| Stage 1 | 566 | - | - | - | - | - |
| Stage 2 | 345 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 68 | 521 | 762 | - | - | - |
| Mov Cap-2 Maneuver | 68 | - | - | - | - | - |
| Stage 1 | 328 | - | - | - | - | - |
| Stage 2 | 345 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 164.3 | 5.9 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 762 | - | 166 | - | - |
| HCM Lane V/C Ratio | 0.42 | - | 1.128 | - | - |
| HCM Control Delay (s) | 13.1 | - | 164.3 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 2.1 | - | 9.8 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 10 | 133 | 95 | 310 | 387 | 20 |
| Future Volume (vph) | 10 | 133 | 95 | 310 | 387 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 10 | 133 | 95 | 310 | 387 | 20 |
| Future Vol, veh/h | 10 | 133 | 95 | 310 | 387 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 266 | 190 | 620 | 774 | 40 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1794 | 794 | 814 | 0 | - | 0 |
| Stage 1 | 794 | - | - | - | - | - |
| Stage 2 | 1000 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 89 | 388 | 813 | - | - | - |
| Stage 1 | 445 | - | - | - | - | - |
| Stage 2 | 356 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 68 | 388 | 813 | - | - | - |
| Mov Cap-2 Maneuver | 190 | - | - | - | - | - |
| Stage 1 | 341 | - | - | - | - | - |
| Stage 2 | 356 | - | - | - | - | - |

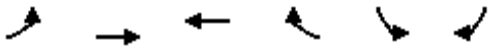
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 43.6 | 2.5 | 0 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 813 | - | 362 | - | - |
| HCM Lane V/C Ratio | 0.234 | - | 0.79 | - | - |
| HCM Control Delay (s) | 10.8 | - | 43.6 | - | - |
| HCM Lane LOS | B | - | E | - | - |
| HCM 95th %tile Q(veh) | 0.9 | - | 6.6 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 246 | 1590 | 1840 | 243 | 338 | 311 |
| Future Volume (vph) | 246 | 1590 | 1840 | 243 | 338 | 311 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | 34% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.8 | 37.5 | 27.7 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 16.3% | 62.5% | 46.2% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 5.3 | 33.0 | 23.2 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.



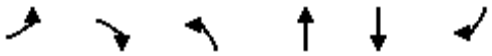
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 246 | 1590 | 1840 | 243 | 338 | 311 |
| Future Volume (veh/h) | 246 | 1590 | 1840 | 243 | 338 | 311 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 246 | 1590 | 1840 | 243 | 426 | 216 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 305 | 2808 | 1974 | 1088 | 1069 | 476 |
| Arrive On Green | 0.12 | 0.73 | 0.13 | 0.13 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 3563 | 1585 |
| Grp Volume(v), veh/h | 246 | 1590 | 1840 | 243 | 426 | 216 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 4.2 | 8.6 | 21.4 | 4.3 | 5.7 | 6.6 |
| Cycle Q Clear(g_c), s | 4.2 | 8.6 | 21.4 | 4.3 | 5.7 | 6.6 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 305 | 2808 | 1974 | 1088 | 1069 | 476 |
| V/C Ratio(X) | 0.81 | 0.57 | 0.93 | 0.22 | 0.40 | 0.45 |
| Avail Cap(c_a), veh/h | 305 | 2808 | 1974 | 1088 | 1069 | 476 |
| HCM Platoon Ratio | 1.33 | 1.33 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.0 | 4.8 | 25.4 | 5.2 | 16.7 | 17.0 |
| Incr Delay (d2), s/veh | 14.6 | 0.8 | 9.5 | 0.5 | 1.1 | 3.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 1.6 | 10.9 | 2.9 | 2.2 | 6.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 40.6 | 5.6 | 34.9 | 5.6 | 17.8 | 20.1 |
| LnGrp LOS | D | A | C | A | B | C |
| Approach Vol, veh/h | | 1836 | 2083 | | 642 | |
| Approach Delay, s/veh | | 10.3 | 31.5 | | 18.6 | |
| Approach LOS | | B | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 9.8 | 27.7 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 5.3 | 23.2 |
| Max Q Clear Time (g_c+I1), s | | 10.6 | | 8.6 | 6.2 | 23.4 |
| Green Ext Time (p_c), s | | 11.0 | | 1.7 | 0.0 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 21.1 |
| HCM 6th LOS | C |

**Notes**

User approved volume balancing among the lanes for turning movement.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 4 | 58 | 54 | 401 | 517 | 4 |
| Future Volume (vph) | 4 | 58 | 54 | 401 | 517 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 470 | 524 | |
| Travel Time (s) | 6.4 | | | 8.0 | 8.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

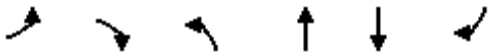
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 58 | 54 | 401 | 517 | 4 |
| Future Vol, veh/h | 4 | 58 | 54 | 401 | 517 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| 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 | 4 | 63 | 59 | 436 | 562 | 4 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1118 | 564 | 566 | 0 | - | 0 |
| Stage 1 | 564 | - | - | - | - | - |
| Stage 2 | 554 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 229 | 525 | 1006 | - | - | - |
| Stage 1 | 569 | - | - | - | - | - |
| Stage 2 | 575 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 215 | 525 | 1006 | - | - | - |
| Mov Cap-2 Maneuver | 351 | - | - | - | - | - |
| Stage 1 | 535 | - | - | - | - | - |
| Stage 2 | 575 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.1 | 1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1006 | - | 509 | - | - |
| HCM Lane V/C Ratio | 0.058 | - | 0.132 | - | - |
| HCM Control Delay (s) | 8.8 | - | 13.1 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.5 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 6 | 82 | 40 | 449 | 567 | 7 |
| Future Volume (vph) | 6 | 82 | 40 | 449 | 567 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 25 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 10 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 82 | 470 | |
| Travel Time (s) | 6.4 | | | 1.4 | 8.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

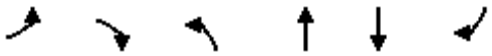
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 82 | 40 | 449 | 567 | 7 |
| Future Vol, veh/h | 6 | 82 | 40 | 449 | 567 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| 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 | 7 | 89 | 43 | 488 | 616 | 8 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1194 | 620 | 624 | 0 | - | 0 |
| Stage 1 | 620 | - | - | - | - | - |
| Stage 2 | 574 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 206 | 488 | 957 | - | - | - |
| Stage 1 | 536 | - | - | - | - | - |
| Stage 2 | 563 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 197 | 488 | 957 | - | - | - |
| Mov Cap-2 Maneuver | 334 | - | - | - | - | - |
| Stage 1 | 512 | - | - | - | - | - |
| Stage 2 | 563 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 14.5 | 0.7 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 957 | - | 473 | - | - |
| HCM Lane V/C Ratio | 0.045 | - | 0.202 | - | - |
| HCM Control Delay (s) | 8.9 | - | 14.5 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.7 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 94 | 113 | 0 | 321 | 294 | 0 |
| Future Volume (vph) | 94 | 113 | 0 | 321 | 294 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

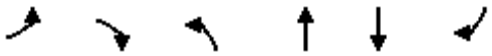
| Intersection | |
|---|---|
| Int Delay, s/veh | 5.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 94 | 113 | 0 | 321 | 294 | 0 |
| Future Vol, veh/h | 94 | 113 | 0 | 321 | 294 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 188 | 226 | 0 | 642 | 588 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1230 | 588 | - | 0 | - | 0 |
| Stage 1 | 588 | - | - | - | - | - |
| Stage 2 | 642 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 196 | 509 | 0 | - | - | 0 |
| Stage 1 | 555 | - | 0 | - | - | 0 |
| Stage 2 | 524 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 196 | 509 | - | - | - | - |
| Mov Cap-2 Maneuver | 335 | - | - | - | - | - |
| Stage 1 | 555 | - | - | - | - | - |
| Stage 2 | 524 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 22.6 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 335 | 509 | - |
| HCM Lane V/C Ratio | - | 0.561 | 0.444 | - |
| HCM Control Delay (s) | - | 28.6 | 17.6 | - |
| HCM Lane LOS | - | D | C | - |
| HCM 95th %tile Q(veh) | - | 3.3 | 2.3 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 63 | 56 | 129 | 285 | 238 | 145 |
| Future Volume (vph) | 63 | 56 | 129 | 285 | 238 | 145 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 73.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 63 | 56 | 129 | 285 | 238 | 145 |
| Future Vol, veh/h | 63 | 56 | 129 | 285 | 238 | 145 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 126 | 112 | 258 | 570 | 476 | 290 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1707 | 621 | 766 | 0 | - | 0 |
| Stage 1 | 621 | - | - | - | - | - |
| Stage 2 | 1086 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | ~ 100 | 487 | 847 | - | - | - |
| Stage 1 | 536 | - | - | - | - | - |
| Stage 2 | 324 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 70 | 487 | 847 | - | - | - |
| Mov Cap-2 Maneuver | ~ 70 | - | - | - | - | - |
| Stage 1 | 373 | - | - | - | - | - |
| Stage 2 | 324 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | $ 555.4 | 3.5 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 847 | - | 117 | - | - |
| HCM Lane V/C Ratio | 0.305 | - | 2.034 | - | - |
| HCM Control Delay (s) | 11.1 | - | $ 555.4 | - | - |
| HCM Lane LOS | B | - | F | - | - |
| HCM 95th %tile Q(veh) | 1.3 | - | 19.7 | - | - |

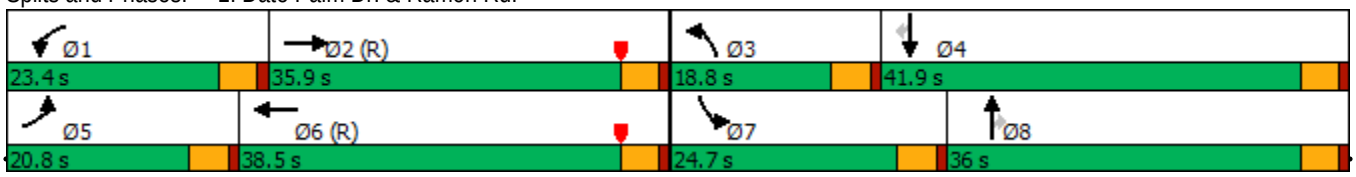
| Notes | | | |
|---|---|---|---|
| ~: Volume exceeds capacity | $: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |

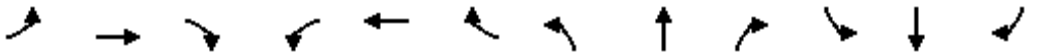
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 942 | 153 | 294 | 761 | 196 |
| Future Volume (vph) | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 942 | 153 | 294 | 761 | 196 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 0 | 225 | | 0 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 20.8 | 35.9 | | 23.4 | 38.5 | | 18.8 | 36.0 | 36.0 | 24.7 | 41.9 | 41.9 |
| Total Split (%) | 17.3% | 29.9% | | 19.5% | 32.1% | | 15.7% | 30.0% | 30.0% | 20.6% | 34.9% | 34.9% |
| Maximum Green (s) | 16.3 | 31.4 | | 18.9 | 34.0 | | 14.3 | 31.5 | 31.5 | 20.2 | 37.4 | 37.4 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | Max | Max | None | Max | Max |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | 5 |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 942 | 153 | 294 | 761 | 196 |
| Future Volume (veh/h) | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 942 | 153 | 294 | 761 | 196 |
| 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 | | 0.99 | 1.00 | | 0.99 | 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 942 | 153 | 294 | 761 | 196 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 242 | 1065 | 266 | 281 | 1251 | 205 | 371 | 933 | 414 | 300 | 1149 | 510 |
| Arrive On Green | 0.14 | 0.26 | 0.26 | 0.16 | 0.28 | 0.28 | 0.11 | 0.26 | 0.26 | 0.17 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1781 | 4069 | 1016 | 1781 | 4414 | 725 | 3456 | 3554 | 1576 | 1781 | 3554 | 1578 |
| Grp Volume(v), veh/h | 233 | 822 | 407 | 262 | 981 | 500 | 314 | 942 | 153 | 294 | 761 | 196 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1681 | 1781 | 1702 | 1735 | 1728 | 1777 | 1576 | 1781 | 1777 | 1578 |
| Q Serve(g_s), s | 15.6 | 28.2 | 28.3 | 17.4 | 34.0 | 34.0 | 10.7 | 31.5 | 9.5 | 19.7 | 22.1 | 11.5 |
| Cycle Q Clear(g_c), s | 15.6 | 28.2 | 28.3 | 17.4 | 34.0 | 34.0 | 10.7 | 31.5 | 9.5 | 19.7 | 22.1 | 11.5 |
| Prop In Lane | 1.00 | | 0.60 | 1.00 | | 0.42 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 242 | 891 | 440 | 281 | 964 | 492 | 371 | 933 | 414 | 300 | 1149 | 510 |
| V/C Ratio(X) | 0.96 | 0.92 | 0.93 | 0.93 | 1.02 | 1.02 | 0.85 | 1.01 | 0.37 | 0.98 | 0.66 | 0.38 |
| Avail Cap(c_a), veh/h | 242 | 891 | 440 | 281 | 964 | 492 | 412 | 933 | 414 | 300 | 1149 | 510 |
| 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) | 1.00 | 1.00 | 1.00 | 0.69 | 0.69 | 0.69 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.5 | 43.1 | 43.2 | 49.9 | 43.0 | 43.0 | 52.6 | 44.3 | 36.1 | 49.7 | 34.9 | 31.4 |
| Incr Delay (d2), s/veh | 47.4 | 16.4 | 27.8 | 28.6 | 28.4 | 38.1 | 13.9 | 31.9 | 2.5 | 46.5 | 3.0 | 2.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 9.9 | 13.3 | 14.6 | 9.7 | 17.3 | 19.0 | 5.2 | 17.4 | 3.9 | 12.4 | 9.7 | 4.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 98.9 | 59.5 | 70.9 | 78.5 | 71.4 | 81.1 | 66.5 | 76.2 | 38.7 | 96.2 | 38.0 | 33.5 |
| LnGrp LOS | F | E | E | E | F | F | E | F | D | F | D | C |
| Approach Vol, veh/h | | 1462 | | | 1743 | | | 1409 | | | 1251 | |
| Approach Delay, s/veh | | 69.0 | | | 75.3 | | | 69.9 | | | 50.9 | |
| Approach LOS | | E | | | E | | | E | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 23.4 | 35.9 | 17.4 | 43.3 | 20.8 | 38.5 | 24.7 | 36.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.9 | 31.4 | 14.3 | 37.4 | 16.3 | 34.0 | 20.2 | 31.5 |
| Max Q Clear Time (g_c+I1), s | 19.4 | 30.3 | 12.7 | 24.1 | 17.6 | 36.0 | 21.7 | 33.5 |
| Green Ext Time (p_c), s | 0.0 | 0.8 | 0.2 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 |

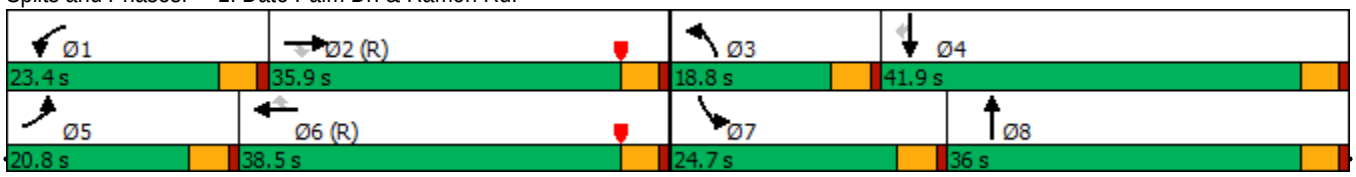
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 67.2 |
| HCM 6th LOS | E |

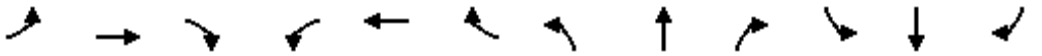
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 942 | 153 | 294 | 761 | 196 |
| Future Volume (vph) | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 942 | 153 | 294 | 761 | 196 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 345 | | 150 | 225 | | 150 | 215 | | 85 | 180 | | 120 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 50 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1038 | | | 5274 | | | 701 | | | 1076 | |
| Travel Time (s) | | 14.2 | | | 71.9 | | | 10.6 | | | 16.3 | |
| Confl. Peds. (#/hr) | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | 6 | | | | | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | | 7 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 20.8 | 35.9 | 35.9 | 23.4 | 38.5 | 38.5 | 18.8 | 36.0 | | 24.7 | 41.9 | 41.9 |
| Total Split (%) | 17.3% | 29.9% | 29.9% | 19.5% | 32.1% | 32.1% | 15.7% | 30.0% | | 20.6% | 34.9% | 34.9% |
| Maximum Green (s) | 16.3 | 31.4 | 31.4 | 18.9 | 34.0 | 34.0 | 14.3 | 31.5 | | 20.2 | 37.4 | 37.4 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | Max | | None | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | | 5 | | | 5 | 5 |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 57 (48%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 1: Date Palm Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 942 | 153 | 294 | 761 | 196 |
| Future Volume (veh/h) | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 942 | 153 | 294 | 761 | 196 |
| 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 | | 0.99 | 1.00 | | 0.99 | 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 942 | 153 | 294 | 761 | 196 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 242 | 1336 | 412 | 281 | 1447 | 447 | 371 | 1161 | 188 | 300 | 1149 | 510 |
| Arrive On Green | 0.14 | 0.26 | 0.26 | 0.16 | 0.28 | 0.28 | 0.11 | 0.26 | 0.26 | 0.17 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1781 | 5106 | 1576 | 1781 | 5106 | 1577 | 3456 | 4424 | 716 | 1781 | 3554 | 1578 |
| Grp Volume(v), veh/h | 233 | 983 | 246 | 262 | 1272 | 209 | 314 | 724 | 371 | 294 | 761 | 196 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1576 | 1781 | 1702 | 1577 | 1728 | 1702 | 1737 | 1781 | 1777 | 1578 |
| Q Serve(g_s), s | 15.6 | 21.1 | 16.4 | 17.4 | 28.5 | 13.1 | 10.7 | 23.9 | 24.0 | 19.7 | 22.1 | 11.5 |
| Cycle Q Clear(g_c), s | 15.6 | 21.1 | 16.4 | 17.4 | 28.5 | 13.1 | 10.7 | 23.9 | 24.0 | 19.7 | 22.1 | 11.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.41 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 242 | 1336 | 412 | 281 | 1447 | 447 | 371 | 894 | 456 | 300 | 1149 | 510 |
| V/C Ratio(X) | 0.96 | 0.74 | 0.60 | 0.93 | 0.88 | 0.47 | 0.85 | 0.81 | 0.81 | 0.98 | 0.66 | 0.38 |
| Avail Cap(c_a), veh/h | 242 | 1336 | 412 | 281 | 1447 | 447 | 412 | 894 | 456 | 300 | 1149 | 510 |
| 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) | 1.00 | 1.00 | 1.00 | 0.63 | 0.63 | 0.63 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.5 | 40.5 | 38.8 | 49.9 | 41.0 | 35.5 | 52.6 | 41.5 | 41.5 | 49.7 | 34.9 | 31.4 |
| Incr Delay (d2), s/veh | 47.4 | 3.6 | 6.2 | 26.9 | 5.2 | 2.2 | 13.9 | 7.9 | 14.7 | 46.5 | 3.0 | 2.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 9.9 | 8.9 | 6.9 | 9.6 | 12.1 | 5.2 | 5.2 | 10.6 | 11.8 | 12.4 | 9.7 | 4.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 98.9 | 44.1 | 45.0 | 76.8 | 46.2 | 37.7 | 66.5 | 49.3 | 56.2 | 96.2 | 38.0 | 33.5 |
| LnGrp LOS | F | D | D | E | D | D | E | D | E | F | D | C |
| Approach Vol, veh/h | | 1462 | | | 1743 | | | 1409 | | | 1251 | |
| Approach Delay, s/veh | | 53.0 | | | 49.8 | | | 55.0 | | | 50.9 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 23.4 | 35.9 | 17.4 | 43.3 | 20.8 | 38.5 | 24.7 | 36.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.9 | 31.4 | 14.3 | 37.4 | 16.3 | 34.0 | 20.2 | 31.5 |
| Max Q Clear Time (g_c+I1), s | 19.4 | 23.1 | 12.7 | 24.1 | 17.6 | 30.5 | 21.7 | 26.0 |
| Green Ext Time (p_c), s | 0.0 | 4.3 | 0.2 | 4.5 | 0.0 | 2.5 | 0.0 | 3.0 |

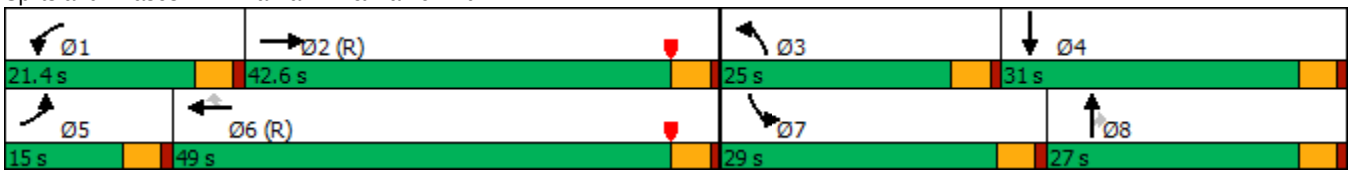
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 52.1 |
| HCM 6th LOS | D |

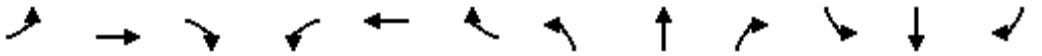
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 124 | 1073 | 165 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 281 | 44 |
| Future Volume (vph) | 124 | 1073 | 165 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 281 | 44 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 0 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 15.0 | 42.6 | | 21.4 | 49.0 | 49.0 | 25.0 | 27.0 | 27.0 | 29.0 | 31.0 | |
| Total Split (%) | 12.5% | 35.5% | | 17.8% | 40.8% | 40.8% | 20.8% | 22.5% | 22.5% | 24.2% | 25.8% | |
| Maximum Green (s) | 10.5 | 38.1 | | 16.9 | 44.5 | 44.5 | 20.5 | 22.5 | 22.5 | 24.5 | 26.5 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | C-Max | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 124 | 1073 | 165 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 281 | 44 |
| Future Volume (veh/h) | 124 | 1073 | 165 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 281 | 44 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 124 | 1073 | 165 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 281 | 44 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 149 | 1517 | 233 | 224 | 1947 | 604 | 289 | 666 | 297 | 352 | 351 | 55 |
| Arrive On Green | 0.08 | 0.34 | 0.34 | 0.04 | 0.13 | 0.13 | 0.16 | 0.19 | 0.19 | 0.20 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1781 | 4465 | 686 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 1781 | 1579 | 247 |
| Grp Volume(v), veh/h | 124 | 818 | 420 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 0 | 325 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1747 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1781 | 0 | 1826 |
| Q Serve(g_s), s | 8.2 | 25.1 | 25.1 | 13.0 | 25.8 | 45.8 | 17.4 | 19.9 | 10.9 | 21.6 | 0.0 | 20.2 |
| Cycle Q Clear(g_c), s | 8.2 | 25.1 | 25.1 | 13.0 | 25.8 | 45.8 | 17.4 | 19.9 | 10.9 | 21.6 | 0.0 | 20.2 |
| Prop In Lane | 1.00 | | 0.39 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 149 | 1156 | 593 | 224 | 1947 | 604 | 289 | 666 | 297 | 352 | 0 | 406 |
| V/C Ratio(X) | 0.83 | 0.71 | 0.71 | 0.87 | 0.60 | 1.30 | 0.91 | 0.90 | 0.54 | 0.93 | 0.00 | 0.80 |
| Avail Cap(c_a), veh/h | 156 | 1156 | 593 | 251 | 1947 | 604 | 304 | 666 | 297 | 364 | 0 | 406 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.35 | 0.35 | 0.35 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.1 | 34.4 | 34.5 | 56.5 | 43.7 | 52.5 | 49.4 | 47.7 | 44.1 | 47.3 | 0.0 | 44.1 |
| Incr Delay (d2), s/veh | 12.1 | 1.3 | 2.5 | 24.2 | 1.4 | 147.1 | 28.7 | 18.1 | 6.8 | 29.0 | 0.0 | 15.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.1 | 10.0 | 10.5 | 7.6 | 11.9 | 44.0 | 9.8 | 10.1 | 4.7 | 12.1 | 0.0 | 10.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 66.2 | 35.7 | 37.0 | 80.7 | 45.1 | 199.6 | 78.1 | 65.8 | 50.9 | 76.3 | 0.0 | 59.3 |
| LnGrp LOS | E | D | D | F | D | F | E | E | D | E | A | E |
| Approach Vol, veh/h | | 1362 | | | 2142 | | | 1026 | | | 651 | |
| Approach Delay, s/veh | | 38.9 | | | 105.0 | | | 66.6 | | | 67.9 | |
| Approach LOS | | D | | | F | | | E | | | E | |

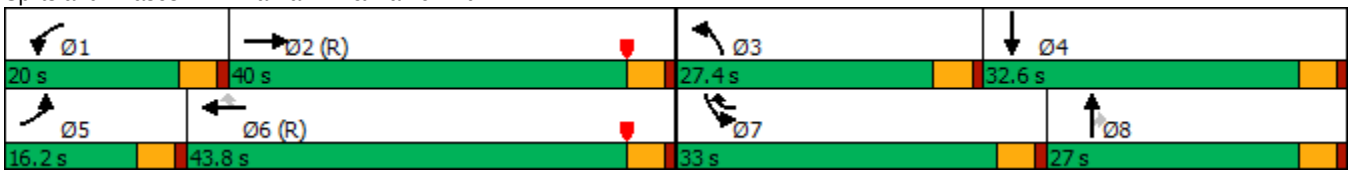
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 19.6 | 45.3 | 24.0 | 31.2 | 14.6 | 50.3 | 28.2 | 27.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 16.9 | 38.1 | 20.5 | 26.5 | 10.5 | 44.5 | 24.5 | 22.5 |
| Max Q Clear Time (g_c+I1), s | 15.0 | 27.1 | 19.4 | 22.2 | 10.2 | 47.8 | 23.6 | 21.9 |
| Green Ext Time (p_c), s | 0.1 | 5.4 | 0.1 | 0.7 | 0.0 | 0.0 | 0.1 | 0.3 |

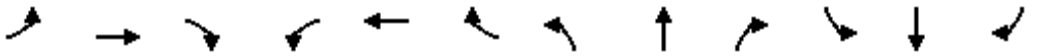
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 75.4 |
| HCM 6th LOS | E |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 124 | 1073 | 165 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 281 | 44 |
| Future Volume (vph) | 124 | 1073 | 165 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 281 | 44 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | 0 | 180 | | 215 | 120 | | 215 | 200 | | 0 |
| Storage Lanes | 1 | | 0 | 1 | | 1 | 1 | | 1 | 2 | | 0 |
| Taper Length (ft) | 90 | | | 90 | | | 105 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 50 | | | 55 | | | 50 | | | 45 | |
| Link Distance (ft) | | 5274 | | | 1330 | | | 1673 | | | 1048 | |
| Travel Time (s) | | 71.9 | | | 16.5 | | | 22.8 | | | 15.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | | Prot | NA | pm+ov | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | 7 | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | | | | 6 | | | 8 | | | |
| Detector Phase | 5 | 2 | | 1 | 6 | 7 | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 16.2 | 40.0 | | 20.0 | 43.8 | 33.0 | 27.4 | 27.0 | 27.0 | 33.0 | 32.6 | |
| Total Split (%) | 13.5% | 33.3% | | 16.7% | 36.5% | 27.5% | 22.8% | 22.5% | 22.5% | 27.5% | 27.2% | |
| Maximum Green (s) | 11.7 | 35.5 | | 15.5 | 39.3 | 28.5 | 22.9 | 22.5 | 22.5 | 28.5 | 28.1 | |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lead | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | | None | C-Max | None | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | | | 5 | 5 | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 2: Da Vall Dr. & Ramon Rd.





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 124 | 1073 | 165 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 281 | 44 |
| Future Volume (veh/h) | 124 | 1073 | 165 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 281 | 44 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 124 | 1073 | 165 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 281 | 44 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 150 | 1461 | 224 | 223 | 1880 | 768 | 291 | 999 | 446 | 403 | 370 | 58 |
| Arrive On Green | 0.08 | 0.33 | 0.33 | 0.04 | 0.12 | 0.12 | 0.16 | 0.28 | 0.28 | 0.12 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1781 | 4465 | 686 | 1781 | 5106 | 1585 | 1781 | 3554 | 1585 | 3456 | 1579 | 247 |
| Grp Volume(v), veh/h | 124 | 818 | 420 | 194 | 1162 | 786 | 263 | 603 | 160 | 326 | 0 | 325 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1702 | 1747 | 1781 | 1702 | 1585 | 1781 | 1777 | 1585 | 1728 | 0 | 1826 |
| Q Serve(g_s), s | 8.2 | 25.5 | 25.6 | 13.0 | 25.9 | 44.2 | 17.4 | 17.6 | 9.7 | 11.0 | 0.0 | 19.9 |
| Cycle Q Clear(g_c), s | 8.2 | 25.5 | 25.6 | 13.0 | 25.9 | 44.2 | 17.4 | 17.6 | 9.7 | 11.0 | 0.0 | 19.9 |
| Prop In Lane | 1.00 | | 0.39 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 150 | 1114 | 572 | 223 | 1880 | 768 | 291 | 999 | 446 | 403 | 0 | 428 |
| V/C Ratio(X) | 0.83 | 0.73 | 0.74 | 0.87 | 0.62 | 1.02 | 0.90 | 0.60 | 0.36 | 0.81 | 0.00 | 0.76 |
| Avail Cap(c_a), veh/h | 174 | 1114 | 572 | 230 | 1880 | 768 | 340 | 999 | 446 | 821 | 0 | 428 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.50 | 0.50 | 0.50 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.1 | 35.7 | 35.8 | 56.6 | 44.7 | 40.3 | 49.2 | 37.3 | 34.5 | 51.7 | 0.0 | 42.8 |
| Incr Delay (d2), s/veh | 13.5 | 2.2 | 4.2 | 27.9 | 1.5 | 38.4 | 23.9 | 2.7 | 2.2 | 3.9 | 0.0 | 12.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.1 | 10.4 | 11.0 | 7.8 | 12.0 | 28.9 | 9.4 | 7.7 | 3.9 | 4.9 | 0.0 | 10.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 67.6 | 37.9 | 40.0 | 84.4 | 46.2 | 78.7 | 73.1 | 40.0 | 36.7 | 55.6 | 0.0 | 54.8 |
| LnGrp LOS | E | D | D | F | D | F | E | D | D | E | A | D |
| Approach Vol, veh/h | | 1362 | | | 2142 | | | 1026 | | | 651 | |
| Approach Delay, s/veh | | 41.3 | | | 61.6 | | | 48.0 | | | 55.2 | |
| Approach LOS | | D | | | E | | | D | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 19.5 | 43.8 | 24.1 | 32.6 | 14.6 | 48.7 | 18.5 | 38.2 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 15.5 | 35.5 | 22.9 | 28.1 | 11.7 | 39.3 | 28.5 | 22.5 |
| Max Q Clear Time (g_c+I1), s | 15.0 | 27.6 | 19.4 | 21.9 | 10.2 | 46.2 | 13.0 | 19.6 |
| Green Ext Time (p_c), s | 0.0 | 4.3 | 0.2 | 0.9 | 0.0 | 0.0 | 1.0 | 1.2 |

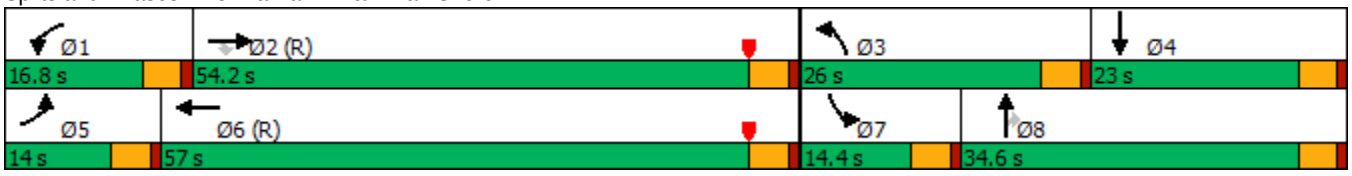
| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 52.8 |
| HCM 6th LOS | D |

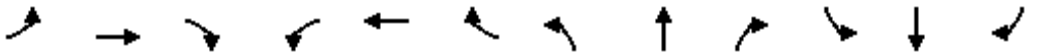
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 119 | 904 | 166 | 84 | 1203 | 185 | 289 | 576 | 74 | 93 | 345 | 184 |
| Future Volume (vph) | 119 | 904 | 166 | 84 | 1203 | 185 | 289 | 576 | 74 | 93 | 345 | 184 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 175 | | 215 | 185 | | 0 | 125 | | 125 | 135 | | 135 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 30 | | | 30 | | | 50 | | | 50 | |
| Link Distance (ft) | | 918 | | | 366 | | | 1131 | | | 331 | |
| Travel Time (s) | | 20.9 | | | 8.3 | | | 15.4 | | | 4.5 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 14.0 | 54.2 | 54.2 | 16.8 | 57.0 | | 26.0 | 34.6 | 34.6 | 14.4 | 23.0 | |
| Total Split (%) | 11.7% | 45.2% | 45.2% | 14.0% | 47.5% | | 21.7% | 28.8% | 28.8% | 12.0% | 19.2% | |
| Maximum Green (s) | 9.5 | 49.7 | 49.7 | 12.3 | 52.5 | | 21.5 | 30.1 | 30.1 | 9.9 | 18.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | Max | Max | None | Max | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | | | 11.0 | 11.0 | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | | | 5 | 5 | | 5 | |

**Intersection Summary**

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 117 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 3: Da Vall Dr. & Dinah Shore Dr.

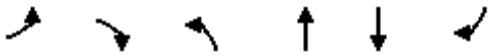




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 119 | 904 | 166 | 84 | 1203 | 185 | 289 | 576 | 74 | 93 | 345 | 184 |
| Future Volume (veh/h) | 119 | 904 | 166 | 84 | 1203 | 185 | 289 | 576 | 74 | 93 | 345 | 184 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 119 | 904 | 166 | 84 | 1203 | 185 | 289 | 576 | 74 | 93 | 345 | 184 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 141 | 1633 | 728 | 107 | 1360 | 208 | 314 | 943 | 421 | 116 | 348 | 182 |
| Arrive On Green | 0.08 | 0.46 | 0.46 | 0.06 | 0.44 | 0.44 | 0.18 | 0.27 | 0.27 | 0.07 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 3089 | 473 | 1781 | 3554 | 1585 | 1781 | 2255 | 1180 |
| Grp Volume(v), veh/h | 119 | 904 | 166 | 84 | 689 | 699 | 289 | 576 | 74 | 93 | 270 | 259 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1785 | 1781 | 1777 | 1585 | 1781 | 1777 | 1658 |
| Q Serve(g_s), s | 7.9 | 22.1 | 7.6 | 5.6 | 42.6 | 43.2 | 19.1 | 17.1 | 4.3 | 6.2 | 18.2 | 18.5 |
| Cycle Q Clear(g_c), s | 7.9 | 22.1 | 7.6 | 5.6 | 42.6 | 43.2 | 19.1 | 17.1 | 4.3 | 6.2 | 18.2 | 18.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.26 | 1.00 | | 1.00 | 1.00 | | 0.71 |
| Lane Grp Cap(c), veh/h | 141 | 1633 | 728 | 107 | 782 | 786 | 314 | 943 | 421 | 116 | 274 | 256 |
| V/C Ratio(X) | 0.84 | 0.55 | 0.23 | 0.79 | 0.88 | 0.89 | 0.92 | 0.61 | 0.18 | 0.80 | 0.99 | 1.01 |
| Avail Cap(c_a), veh/h | 141 | 1633 | 728 | 183 | 782 | 786 | 319 | 943 | 421 | 147 | 274 | 256 |
| 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) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.5 | 23.5 | 19.6 | 55.7 | 30.7 | 30.9 | 48.6 | 38.7 | 34.0 | 55.3 | 50.6 | 50.8 |
| Incr Delay (d2), s/veh | 34.8 | 1.4 | 0.7 | 12.1 | 13.6 | 14.2 | 30.3 | 2.9 | 0.9 | 21.2 | 51.3 | 59.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.9 | 9.5 | 2.8 | 2.9 | 20.7 | 21.2 | 10.8 | 7.5 | 1.7 | 3.4 | 11.7 | 11.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 89.3 | 24.9 | 20.3 | 67.7 | 44.3 | 45.1 | 78.9 | 41.6 | 34.9 | 76.5 | 101.9 | 110.0 |
| LnGrp LOS | F | C | C | E | D | D | E | D | C | E | F | F |
| Approach Vol, veh/h | | 1189 | | | 1472 | | | 939 | | | 622 | |
| Approach Delay, s/veh | | 30.7 | | | 46.1 | | | 52.6 | | | 101.5 | |
| Approach LOS | | C | | | D | | | D | | | F | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.7 | 59.6 | 25.7 | 23.0 | 14.0 | 57.3 | 12.3 | 36.3 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 12.3 | 49.7 | 21.5 | 18.5 | 9.5 | 52.5 | 9.9 | 30.1 |
| Max Q Clear Time (g_c+I1), s | 7.6 | 24.1 | 21.1 | 20.5 | 9.9 | 45.2 | 8.2 | 19.1 |
| Green Ext Time (p_c), s | 0.1 | 7.8 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 2.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 51.3 |
| HCM 6th LOS | D |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 24 | 123 | 34 | 185 | 240 | 20 |
| Future Volume (vph) | 24 | 123 | 34 | 185 | 240 | 20 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 445 | | | 524 | 1443 | |
| Travel Time (s) | 12.1 | | | 14.3 | 39.4 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 24 | 123 | 34 | 185 | 240 | 20 |
| Future Vol, veh/h | 24 | 123 | 34 | 185 | 240 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 48 | 246 | 68 | 370 | 480 | 40 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1006 | 500 | 520 | 0 | - | 0 |
| Stage 1 | 500 | - | - | - | - | - |
| Stage 2 | 506 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 267 | 571 | 1046 | - | - | - |
| Stage 1 | 609 | - | - | - | - | - |
| Stage 2 | 606 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 250 | 571 | 1046 | - | - | - |
| Mov Cap-2 Maneuver | 382 | - | - | - | - | - |
| Stage 1 | 569 | - | - | - | - | - |
| Stage 2 | 606 | - | - | - | - | - |

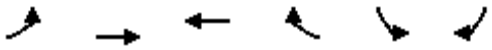
| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 20 | 1.3 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1046 | - | 528 | - | - |
| HCM Lane V/C Ratio | 0.065 | - | 0.557 | - | - |
| HCM Control Delay (s) | 8.7 | - | 20 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 3.4 | - | - |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 117 | 1497 | 1610 | 186 | 286 | 206 |
| Future Volume (vph) | 117 | 1497 | 1610 | 186 | 286 | 206 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 300 | | | 205 | 200 | 200 |
| Storage Lanes | 2 | | | 1 | 1 | 1 |
| Taper Length (ft) | 110 | | | | 60 | |
| Right Turn on Red | | | | Yes | | Yes |
| Link Speed (mph) | | 55 | 55 | | 40 | |
| Link Distance (ft) | | 647 | 2660 | | 288 | |
| Travel Time (s) | | 8.0 | 33.0 | | 4.9 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | 25% |
| Turn Type | Prot | NA | NA | pm+ov | Prot | Perm |
| Protected Phases | 5 | 2 | 6 | 4 | 4 | |
| Permitted Phases | | | | 6 | | 4 |
| Detector Phase | 5 | 2 | 6 | 4 | 4 | 4 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 37.5 | 28.0 | 22.5 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 62.5% | 46.7% | 37.5% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 33.0 | 23.5 | 18.0 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 5: Ramon Rd. & Rattler Rd.



| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 117 | 1497 | 1610 | 186 | 286 | 206 |
| Future Volume (veh/h) | 117 | 1497 | 1610 | 186 | 286 | 206 |
| 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 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 117 | 1497 | 1610 | 186 | 325 | 164 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 247 | 2808 | 2060 | 1115 | 1069 | 476 |
| Arrive On Green | 0.07 | 0.55 | 0.13 | 0.13 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3456 | 5274 | 5274 | 1585 | 3563 | 1585 |
| Grp Volume(v), veh/h | 117 | 1497 | 1610 | 186 | 325 | 164 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1702 | 1702 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 2.0 | 11.2 | 18.3 | 3.2 | 4.2 | 4.8 |
| Cycle Q Clear(g_c), s | 2.0 | 11.2 | 18.3 | 3.2 | 4.2 | 4.8 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 247 | 2808 | 2060 | 1115 | 1069 | 476 |
| V/C Ratio(X) | 0.47 | 0.53 | 0.78 | 0.17 | 0.30 | 0.34 |
| Avail Cap(c_a), veh/h | 288 | 2808 | 2060 | 1115 | 1069 | 476 |
| HCM Platoon Ratio | 1.00 | 1.00 | 0.33 | 0.33 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.76 | 0.76 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.8 | 8.6 | 23.4 | 4.5 | 16.2 | 16.4 |
| Incr Delay (d2), s/veh | 1.4 | 0.7 | 2.3 | 0.2 | 0.7 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 2.7 | 8.3 | 2.0 | 1.6 | 4.9 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 28.2 | 9.3 | 25.8 | 4.8 | 16.9 | 18.4 |
| LnGrp LOS | C | A | C | A | B | B |
| Approach Vol, veh/h | | 1614 | 1796 | | 489 | |
| Approach Delay, s/veh | | 10.7 | 23.6 | | 17.4 | |
| Approach LOS | | B | C | | B | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.5 | | 22.5 | 8.8 | 28.7 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 33.0 | | 18.0 | 5.0 | 23.5 |
| Max Q Clear Time (g_c+I1), s | | 13.2 | | 6.8 | 4.0 | 20.3 |
| Green Ext Time (p_c), s | | 9.6 | | 1.3 | 0.0 | 2.6 |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | 17.5 | |
| HCM 6th LOS | B | |

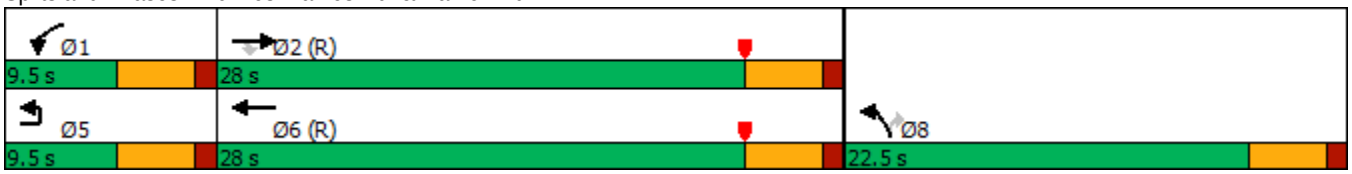
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 1 | 1639 | 115 | 58 | 1691 | 119 | 115 |
| Future Volume (vph) | 1 | 1639 | 115 | 58 | 1691 | 119 | 115 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 200 | | 200 | 255 | | 125 | 0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 |
| Taper Length (ft) | 90 | | | 90 | | 90 | |
| Right Turn on Red | | | Yes | | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | 50 | |
| Link Distance (ft) | | 2660 | | | 3172 | 1424 | |
| Travel Time (s) | | 33.0 | | | 39.3 | 19.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | 8 | |
| Permitted Phases | | | 2 | | | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 8 | 8 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 28.0 | 28.0 | 9.5 | 28.0 | 22.5 | 22.5 |
| Total Split (%) | 15.8% | 46.7% | 46.7% | 15.8% | 46.7% | 37.5% | 37.5% |
| Maximum Green (s) | 5.0 | 23.5 | 23.5 | 5.0 | 23.5 | 18.0 | 18.0 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | Max | Max |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 5 | 5 | | 5 | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 6: Los Alamos Rd. & Ramon Rd.



| Movement | EBU | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1 | 1639 | 115 | 58 | 1691 | 119 | 115 |
| Future Volume (veh/h) | 1 | 1639 | 115 | 58 | 1691 | 119 | 115 |
| 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 |
| Work Zone On Approach | | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | 1639 | 115 | 58 | 1691 | 119 | 115 |
| Peak Hour Factor | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | | 2162 | 671 | 92 | 2808 | 1037 | 476 |
| Arrive On Green | | 0.14 | 0.14 | 0.05 | 0.55 | 0.30 | 0.30 |
| Sat Flow, veh/h | | 5274 | 1585 | 1781 | 5274 | 3456 | 1585 |
| Grp Volume(v), veh/h | | 1639 | 115 | 58 | 1691 | 119 | 115 |
| Grp Sat Flow(s),veh/h/ln | | 1702 | 1585 | 1781 | 1702 | 1728 | 1585 |
| Q Serve(g_s), s | | 18.5 | 3.8 | 1.9 | 13.4 | 1.5 | 3.3 |
| Cycle Q Clear(g_c), s | | 18.5 | 3.8 | 1.9 | 13.4 | 1.5 | 3.3 |
| Prop In Lane | | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | | 2162 | 671 | 92 | 2808 | 1037 | 476 |
| V/C Ratio(X) | | 0.76 | 0.17 | 0.63 | 0.60 | 0.11 | 0.24 |
| Avail Cap(c_a), veh/h | | 2162 | 671 | 148 | 2808 | 1037 | 476 |
| HCM Platoon Ratio | | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | 0.86 | 0.86 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | 22.9 | 16.5 | 27.9 | 9.1 | 15.2 | 15.8 |
| Incr Delay (d2), s/veh | | 2.2 | 0.5 | 6.9 | 1.0 | 0.2 | 1.2 |
| 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 | 1.2 | 0.9 | 3.2 | 0.5 | 1.1 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | | 25.1 | 17.0 | 34.8 | 10.0 | 15.4 | 17.1 |
| LnGrp LOS | | C | B | C | B | B | B |
| Approach Vol, veh/h | | 1754 | | | 1749 | 234 | |
| Approach Delay, s/veh | | 24.5 | | | 10.9 | 16.2 | |
| Approach LOS | | C | | | B | B | |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.6 | 29.9 | | | | 37.5 | | 22.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 23.5 | | | | 23.5 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 20.5 | | | | 15.4 | | 5.3 |
| Green Ext Time (p_c), s | 0.0 | 2.4 | | | | 5.8 | | 0.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 17.6 |
| HCM 6th LOS | B |

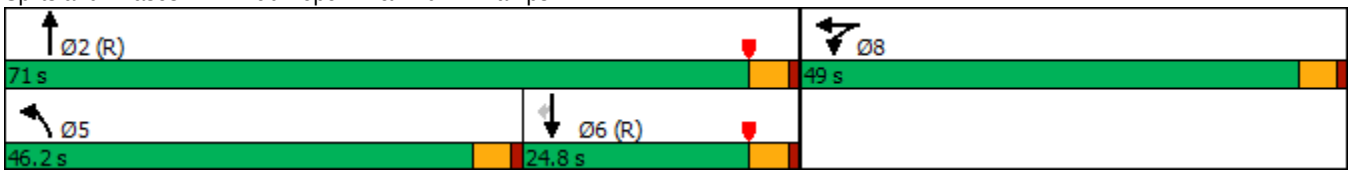
**Notes**

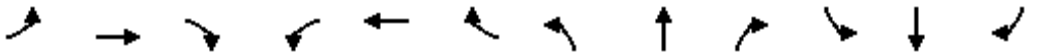
User approved ignoring U-Turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 1060 | 1 | 190 | 1058 | 450 | 0 | 0 | 455 | 430 |
| Future Volume (vph) | 0 | 0 | 0 | 1060 | 1 | 190 | 1058 | 450 | 0 | 0 | 455 | 430 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | | 0 | 0 | | 430 | 210 | | 0 | 0 | | 205 |
| Storage Lanes | 0 | | 0 | 1 | | 1 | 1 | | 0 | 0 | | 2 |
| Taper Length (ft) | 90 | | | 90 | | | 90 | | | 90 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 581 | | | 1228 | | | 688 | | | 840 | |
| Travel Time (s) | | 11.3 | | | 23.9 | | | 10.4 | | | 12.7 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | 50% | | | | | | | | |
| Turn Type | | | | Split | NA | Free | Prot | NA | | | NA | Perm |
| Protected Phases | | | | 8 | 8 | | 5 | 2 | | | 6 | |
| Permitted Phases | | | | | | Free | | | | | | 6 |
| Detector Phase | | | | 8 | 8 | | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | | | 5.0 | 5.0 | | 5.0 | 5.0 | | | 5.0 | 5.0 |
| Minimum Split (s) | | | | 22.5 | 22.5 | | 9.5 | 22.5 | | | 22.5 | 22.5 |
| Total Split (s) | | | | 49.0 | 49.0 | | 46.2 | 71.0 | | | 24.8 | 24.8 |
| Total Split (%) | | | | 40.8% | 40.8% | | 38.5% | 59.2% | | | 20.7% | 20.7% |
| Maximum Green (s) | | | | 44.5 | 44.5 | | 41.7 | 66.5 | | | 20.3 | 20.3 |
| Yellow Time (s) | | | | 3.5 | 3.5 | | 3.5 | 3.5 | | | 3.5 | 3.5 |
| All-Red Time (s) | | | | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lost Time Adjust (s) | | | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | | | | 4.5 | 4.5 | | 4.5 | 4.5 | | | 4.5 | 4.5 |
| Lead/Lag | | | | | | | Lead | | | | Lag | Lag |
| Lead-Lag Optimize? | | | | | | | Yes | | | | Yes | Yes |
| Vehicle Extension (s) | | | | 3.0 | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | | | | None | None | | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | | | | | | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | 5 |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 7: Bob Hope Dr. & I-10 NB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 1060 | 1 | 190 | 1058 | 450 | 0 | 0 | 455 | 430 |
| Future Volume (veh/h) | 0 | 0 | 0 | 1060 | 1 | 190 | 1058 | 450 | 0 | 0 | 455 | 430 |
| 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 |
| Work Zone On Approach | | | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | | | | 1870 | 1870 | 1870 | 1870 | 1870 | 0 | 0 | 1870 | 1870 |
| Adj Flow Rate, veh/h | | | | 1061 | 0 | 0 | 1058 | 450 | 0 | 0 | 455 | 430 |
| Peak Hour Factor | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | | | | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 |
| Cap, veh/h | | | | 1164 | 0 | | 1115 | 2126 | 0 | 0 | 1217 | 378 |
| Arrive On Green | | | | 0.33 | 0.00 | 0.00 | 0.54 | 1.00 | 0.00 | 0.00 | 0.24 | 0.24 |
| Sat Flow, veh/h | | | | 3563 | 0 | 1585 | 3456 | 3647 | 0 | 0 | 5274 | 1585 |
| Grp Volume(v), veh/h | | | | 1061 | 0 | 0 | 1058 | 450 | 0 | 0 | 455 | 430 |
| Grp Sat Flow(s),veh/h/ln | | | | 1781 | 0 | 1585 | 1728 | 1777 | 0 | 0 | 1702 | 1585 |
| Q Serve(g_s), s | | | | 34.3 | 0.0 | 0.0 | 34.7 | 0.0 | 0.0 | 0.0 | 8.9 | 28.6 |
| Cycle Q Clear(g_c), s | | | | 34.3 | 0.0 | 0.0 | 34.7 | 0.0 | 0.0 | 0.0 | 8.9 | 28.6 |
| Prop In Lane | | | | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | | | | 1164 | 0 | | 1115 | 2126 | 0 | 0 | 1217 | 378 |
| V/C Ratio(X) | | | | 0.91 | 0.00 | | 0.95 | 0.21 | 0.00 | 0.00 | 0.37 | 1.14 |
| Avail Cap(c_a), veh/h | | | | 1321 | 0 | | 1201 | 2126 | 0 | 0 | 1217 | 378 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 0.00 | 0.59 | 0.59 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 38.7 | 0.0 | 0.0 | 26.7 | 0.0 | 0.0 | 0.0 | 38.2 | 45.7 |
| Incr Delay (d2), s/veh | | | | 9.0 | 0.0 | 0.0 | 10.0 | 0.1 | 0.0 | 0.0 | 0.9 | 89.6 |
| 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 | | | | 16.1 | 0.0 | 0.0 | 11.7 | 0.0 | 0.0 | 0.0 | 3.7 | 20.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | | | | 47.8 | 0.0 | 0.0 | 36.8 | 0.2 | 0.0 | 0.0 | 39.1 | 135.3 |
| LnGrp LOS | | | | D | A | | D | A | A | A | D | F |
| Approach Vol, veh/h | | | | | 1061 | | | 1508 | | | 885 | |
| Approach Delay, s/veh | | | | | 47.8 | | | 25.8 | | | 85.9 | |
| Approach LOS | | | | | D | | | C | | | F | |

| Timer - Assigned Phs | 2 | | 5 | 6 | | 8 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 76.3 | | 43.2 | 33.1 | | 43.7 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | | 4.5 | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 66.5 | | 41.7 | 20.3 | | 44.5 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | | 36.7 | 30.6 | | 36.3 | | | | | | |
| Green Ext Time (p_c), s | 3.0 | | 2.0 | 0.0 | | 2.9 | | | | | | |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | 48.0 | |
| HCM 6th LOS | D | |

**Notes**

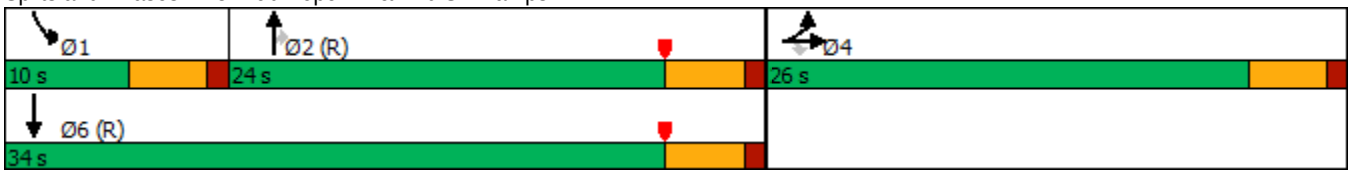
User approved volume balancing among the lanes for turning movement.

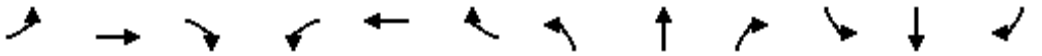
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 260 | 2 | 985 | 0 | 0 | 0 | 0 | 1248 | 140 | 240 | 1275 | 0 |
| Future Volume (vph) | 260 | 2 | 985 | 0 | 0 | 0 | 0 | 1248 | 140 | 240 | 1275 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 490 | | 135 | 0 | | 0 | 0 | | 195 | 225 | | 0 |
| Storage Lanes | 1 | | 1 | 0 | | 0 | 0 | | 1 | 1 | | 0 |
| Taper Length (ft) | 200 | | | 90 | | | 90 | | | 110 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 35 | | | 35 | | | 45 | | | 45 | |
| Link Distance (ft) | | 1337 | | | 718 | | | 776 | | | 688 | |
| Travel Time (s) | | 26.0 | | | 14.0 | | | 11.8 | | | 10.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | 10% | | 49% | | | | | | 10% | | | |
| Turn Type | Split | NA | Perm | | | | | NA | Perm | Prot | NA | |
| Protected Phases | 4 | 4 | | | | | | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | | 2 | | | |
| Detector Phase | 4 | 4 | 4 | | | | | 2 | 2 | 1 | 6 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | | | | | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 22.5 | 22.5 | 22.5 | | | | | 22.5 | 22.5 | 9.5 | 22.5 | |
| Total Split (s) | 26.0 | 26.0 | 26.0 | | | | | 24.0 | 24.0 | 10.0 | 34.0 | |
| Total Split (%) | 43.3% | 43.3% | 43.3% | | | | | 40.0% | 40.0% | 16.7% | 56.7% | |
| Maximum Green (s) | 21.5 | 21.5 | 21.5 | | | | | 19.5 | 19.5 | 5.5 | 29.5 | |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | | | | | 3.5 | 3.5 | 3.5 | 3.5 | |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | | | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | | | | | 4.5 | 4.5 | 4.5 | 4.5 | |
| Lead/Lag | | | | | | | | Lag | Lag | Lead | | |
| Lead-Lag Optimize? | | | | | | | | Yes | Yes | Yes | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | | | | | 3.0 | 3.0 | 3.0 | 3.0 | |
| Recall Mode | None | None | None | | | | | C-Max | C-Max | None | C-Max | |
| Walk Time (s) | | | | | | | | | | | 7.0 | |
| Flash Dont Walk (s) | | | | | | | | | | | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 60 | |
| Actuated Cycle Length: 60 | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 8: Bob Hope Dr. & I-10 SB Ramps





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 260 | 2 | 985 | 0 | 0 | 0 | 0 | 1248 | 140 | 240 | 1275 | 0 |
| Future Volume (veh/h) | 260 | 2 | 985 | 0 | 0 | 0 | 0 | 1248 | 140 | 240 | 1275 | 0 |
| 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 |
| Work Zone On Approach | | No | | | | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | | | | 0 | 1870 | 1870 | 1870 | 1870 | 0 |
| Adj Flow Rate, veh/h | 174 | 0 | 1078 | | | | 0 | 1248 | 140 | 240 | 1275 | 0 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | | | | 0 | 2 | 2 | 2 | 2 | 0 |
| Cap, veh/h | 638 | 0 | 1136 | | | | 0 | 1824 | 515 | 317 | 1747 | 0 |
| Arrive On Green | 0.36 | 0.00 | 0.36 | | | | 0.00 | 0.32 | 0.32 | 0.12 | 0.65 | 0.00 |
| Sat Flow, veh/h | 1781 | 0 | 3170 | | | | 0 | 5611 | 1585 | 3456 | 3647 | 0 |
| Grp Volume(v), veh/h | 174 | 0 | 1078 | | | | 0 | 1248 | 140 | 240 | 1275 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | | | | 0 | 1870 | 1585 | 1728 | 1777 | 0 |
| Q Serve(g_s), s | 4.2 | 0.0 | 19.8 | | | | 0.0 | 11.6 | 3.9 | 4.0 | 14.2 | 0.0 |
| Cycle Q Clear(g_c), s | 4.2 | 0.0 | 19.8 | | | | 0.0 | 11.6 | 3.9 | 4.0 | 14.2 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 638 | 0 | 1136 | | | | 0 | 1824 | 515 | 317 | 1747 | 0 |
| V/C Ratio(X) | 0.27 | 0.00 | 0.95 | | | | 0.00 | 0.68 | 0.27 | 0.76 | 0.73 | 0.00 |
| Avail Cap(c_a), veh/h | 638 | 0 | 1136 | | | | 0 | 1824 | 515 | 317 | 1747 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.33 | 1.33 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 | 0.66 | 0.66 | 0.00 |
| Uniform Delay (d), s/veh | 13.7 | 0.0 | 18.7 | | | | 0.0 | 17.6 | 15.0 | 25.7 | 7.7 | 0.0 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 16.0 | | | | 0.0 | 2.1 | 1.3 | 6.8 | 1.8 | 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 | 1.5 | 0.0 | 8.7 | | | | 0.0 | 4.5 | 1.4 | 1.7 | 3.2 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 13.9 | 0.0 | 34.7 | | | | 0.0 | 19.7 | 16.3 | 32.5 | 9.6 | 0.0 |
| LnGrp LOS | B | A | C | | | | A | B | B | C | A | A |
| Approach Vol, veh/h | | 1252 | | | | | | 1388 | | | 1515 | |
| Approach Delay, s/veh | | 31.8 | | | | | | 19.3 | | | 13.2 | |
| Approach LOS | | C | | | | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.0 | 24.0 | | 26.0 | | 34.0 | | | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | | 4.5 | | | | | | |
| Max Green Setting (Gmax), s | 5.5 | 19.5 | | 21.5 | | 29.5 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 13.6 | | 21.8 | | 16.2 | | | | | | |
| Green Ext Time (p_c), s | 0.0 | 3.8 | | 0.0 | | 6.9 | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 20.9 |
| HCM 6th LOS | | | C |

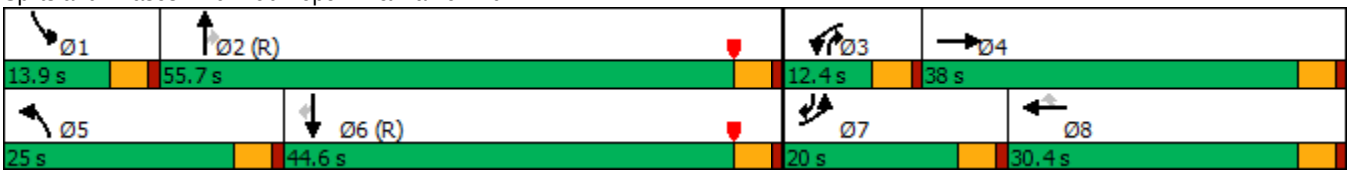
**Notes**

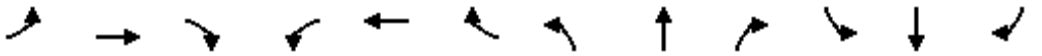
User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 240 | 950 | 517 | 120 | 630 | 75 | 545 | 1073 | 490 | 135 | 1535 | 590 |
| Future Volume (vph) | 240 | 950 | 517 | 120 | 630 | 75 | 545 | 1073 | 490 | 135 | 1535 | 590 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 280 | | 470 | 240 | | 180 | 205 | | 280 | 215 | | 225 |
| Storage Lanes | 2 | | 0 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 90 | | | 120 | | | 120 | | | 120 | | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Link Speed (mph) | | 55 | | | 55 | | | 45 | | | 45 | |
| Link Distance (ft) | | 676 | | | 1191 | | | 1119 | | | 476 | |
| Travel Time (s) | | 8.4 | | | 14.8 | | | 17.0 | | | 7.2 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Turn Type | Prot | NA | Free | Prot | NA | Perm | Prot | NA | pm+ov | Prot | NA | pm+ov |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 3 | 1 | 6 | 7 |
| Permitted Phases | | | Free | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | | 3 | 8 | 8 | 5 | 2 | 3 | 1 | 6 | 7 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 9.5 | 9.5 | 22.5 | 9.5 |
| Total Split (s) | 20.0 | 38.0 | | 12.4 | 30.4 | 30.4 | 25.0 | 55.7 | 12.4 | 13.9 | 44.6 | 20.0 |
| Total Split (%) | 16.7% | 31.7% | | 10.3% | 25.3% | 25.3% | 20.8% | 46.4% | 10.3% | 11.6% | 37.2% | 16.7% |
| Maximum Green (s) | 15.5 | 33.5 | | 7.9 | 25.9 | 25.9 | 20.5 | 51.2 | 7.9 | 9.4 | 40.1 | 15.5 |
| Yellow Time (s) | 3.5 | 3.5 | | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | Lead | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | None | | None | None | None | None | C-Max | None | None | C-Max | None |
| Walk Time (s) | | 7.0 | | | 7.0 | 7.0 | | 7.0 | | | 7.0 | |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | 11.0 | | 11.0 | | | 11.0 | |
| Pedestrian Calls (#/hr) | | 5 | | | 5 | 5 | | 5 | | | 5 | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 40.1 (33%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Coordinated | |

Splits and Phases: 9: Bob Hope Dr. & Ramon Rd.





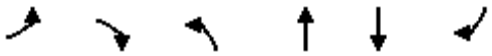
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 240 | 950 | 517 | 120 | 630 | 75 | 545 | 1073 | 490 | 135 | 1535 | 590 |
| Future Volume (veh/h) | 240 | 950 | 517 | 120 | 630 | 75 | 545 | 1073 | 490 | 135 | 1535 | 590 |
| 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 240 | 950 | 0 | 120 | 630 | 75 | 545 | 1073 | 490 | 135 | 1535 | 590 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 303 | 992 | | 174 | 860 | 383 | 590 | 2376 | 817 | 191 | 1786 | 693 |
| Arrive On Green | 0.09 | 0.28 | 0.00 | 0.05 | 0.24 | 0.24 | 0.17 | 0.47 | 0.47 | 0.06 | 0.35 | 0.35 |
| Sat Flow, veh/h | 3456 | 3554 | 1585 | 3456 | 3554 | 1585 | 3456 | 5106 | 1585 | 3456 | 5106 | 1585 |
| Grp Volume(v), veh/h | 240 | 950 | 0 | 120 | 630 | 75 | 545 | 1073 | 490 | 135 | 1535 | 590 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1585 | 1728 | 1777 | 1585 | 1728 | 1702 | 1585 | 1728 | 1702 | 1585 |
| Q Serve(g_s), s | 8.2 | 31.6 | 0.0 | 4.1 | 19.6 | 4.5 | 18.6 | 17.1 | 26.0 | 4.6 | 33.5 | 40.0 |
| Cycle Q Clear(g_c), s | 8.2 | 31.6 | 0.0 | 4.1 | 19.6 | 4.5 | 18.6 | 17.1 | 26.0 | 4.6 | 33.5 | 40.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 303 | 992 | | 174 | 860 | 383 | 590 | 2376 | 817 | 191 | 1786 | 693 |
| V/C Ratio(X) | 0.79 | 0.96 | | 0.69 | 0.73 | 0.20 | 0.92 | 0.45 | 0.60 | 0.71 | 0.86 | 0.85 |
| Avail Cap(c_a), veh/h | 446 | 992 | | 228 | 860 | 383 | 590 | 2376 | 817 | 271 | 1786 | 693 |
| 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) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.7 | 42.6 | 0.0 | 56.1 | 41.9 | 36.2 | 49.0 | 21.7 | 20.4 | 55.7 | 36.3 | 30.3 |
| Incr Delay (d2), s/veh | 5.9 | 19.1 | 0.0 | 5.7 | 3.3 | 0.2 | 20.3 | 0.6 | 3.2 | 4.8 | 5.7 | 12.5 |
| 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 | 3.6 | 15.6 | 0.0 | 1.9 | 8.5 | 1.7 | 9.4 | 6.6 | 9.3 | 2.1 | 14.2 | 16.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 59.6 | 61.7 | 0.0 | 61.8 | 45.2 | 36.4 | 69.3 | 22.3 | 23.6 | 60.5 | 41.9 | 42.8 |
| LnGrp LOS | E | E | | E | D | D | E | C | C | E | D | D |
| Approach Vol, veh/h | | 1190 | | | 825 | | | 2108 | | | 2260 | |
| Approach Delay, s/veh | | 61.2 | | | 46.8 | | | 34.8 | | | 43.3 | |
| Approach LOS | | E | | | D | | | C | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.1 | 60.3 | 10.5 | 38.0 | 25.0 | 46.5 | 15.0 | 33.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 9.4 | 51.2 | 7.9 | 33.5 | 20.5 | 40.1 | 15.5 | 25.9 |
| Max Q Clear Time (g_c+I1), s | 6.6 | 28.0 | 6.1 | 33.6 | 20.6 | 42.0 | 10.2 | 21.6 |
| Green Ext Time (p_c), s | 0.1 | 9.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 1.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 44.3 |
| HCM 6th LOS | D |

**Notes**

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 4 | 58 | 54 | 215 | 359 | 4 |
| Future Volume (vph) | 4 | 58 | 54 | 215 | 359 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 100 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 40 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 470 | 524 | |
| Travel Time (s) | 6.4 | | | 8.0 | 8.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

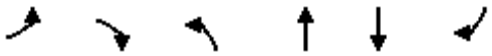
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 58 | 54 | 215 | 359 | 4 |
| Future Vol, veh/h | 4 | 58 | 54 | 215 | 359 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 100 | - | - | - |
| 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 | 4 | 63 | 59 | 234 | 390 | 4 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 744 | 392 | 394 | 0 | - | 0 |
| Stage 1 | 392 | - | - | - | - | - |
| Stage 2 | 352 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 382 | 657 | 1165 | - | - | - |
| Stage 1 | 683 | - | - | - | - | - |
| Stage 2 | 712 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 363 | 657 | 1165 | - | - | - |
| Mov Cap-2 Maneuver | 475 | - | - | - | - | - |
| Stage 1 | 648 | - | - | - | - | - |
| Stage 2 | 712 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.3 | 1.7 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1165 | - | 641 | - | - |
| HCM Lane V/C Ratio | 0.05 | - | 0.105 | - | - |
| HCM Control Delay (s) | 8.3 | - | 11.3 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.4 | - | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 6 | 82 | 40 | 263 | 410 | 7 |
| Future Volume (vph) | 6 | 82 | 40 | 263 | 410 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 25 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 10 | | | |
| Link Speed (mph) | 30 | | | 40 | 40 | |
| Link Distance (ft) | 281 | | | 82 | 470 | |
| Travel Time (s) | 6.4 | | | 1.4 | 8.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

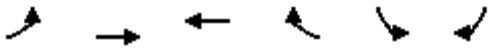
| Intersection | |
|---|---|
| Int Delay, s/veh | 1.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 82 | 40 | 263 | 410 | 7 |
| Future Vol, veh/h | 6 | 82 | 40 | 263 | 410 | 7 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 25 | - | - | - |
| 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 | 7 | 89 | 43 | 286 | 446 | 8 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 822 | 450 | 454 | 0 | - | 0 |
| Stage 1 | 450 | - | - | - | - | - |
| Stage 2 | 372 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 344 | 609 | 1107 | - | - | - |
| Stage 1 | 642 | - | - | - | - | - |
| Stage 2 | 697 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 331 | 609 | 1107 | - | - | - |
| Mov Cap-2 Maneuver | 449 | - | - | - | - | - |
| Stage 1 | 617 | - | - | - | - | - |
| Stage 2 | 697 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 12.2 | 1.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1107 | - | 595 | - | - |
| HCM Lane V/C Ratio | 0.039 | - | 0.161 | - | - |
| HCM Control Delay (s) | 8.4 | - | 12.2 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.6 | - | - |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 1614 | 1730 | 86 | 0 | 57 |
| Future Volume (vph) | 0 | 1614 | 1730 | 86 | 0 | 57 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 650 | 647 | | 292 | |
| Travel Time (s) | | 8.1 | 8.0 | | 6.6 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |

Control Type: Unsignalized

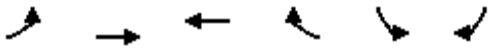
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 1614 | 1730 | 86 | 0 | 57 |
| Future Vol, veh/h | 0 | 1614 | 1730 | 86 | 0 | 57 |
| 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, # | - | 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 | 0 | 1754 | 1880 | 93 | 0 | 62 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 0 | - | 0 | - | 987 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 0 | - | - | - | 0 | 212 |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | - | 212 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 28.8 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 212 |
| HCM Lane V/C Ratio | - | - | - | 0.292 |
| HCM Control Delay (s) | - | - | - | 28.8 |
| HCM Lane LOS | - | - | - | D |
| HCM 95th %tile Q(veh) | - | - | - | 1.2 |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 67 | 1614 | 1780 | 7 | 0 | 31 |
| Future Volume (vph) | 67 | 1614 | 1780 | 7 | 0 | 31 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 150 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 0 | 1 |
| Taper Length (ft) | 60 | | | | 90 | |
| Link Speed (mph) | | 55 | 55 | | 30 | |
| Link Distance (ft) | | 1330 | 650 | | 268 | |
| Travel Time (s) | | 16.5 | 8.1 | | 6.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | | Free | Free | | Stop | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

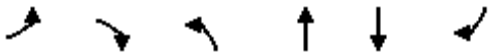
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 67 | 1614 | 1780 | 7 | 0 | 31 |
| Future Vol, veh/h | 67 | 1614 | 1780 | 7 | 0 | 31 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 150 | - | - | - | - | 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 | 1754 | 1935 | 8 | 0 | 34 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1943 | 0 | - | 0 | - | 972 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | 4.7 | - | - | - | - | 7.14 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | 3 | - | - | - | - | 3.92 |
| Pot Cap-1 Maneuver | 192 | - | - | - | 0 | 217 |
| Stage 1 | - | - | - | - | 0 | - |
| Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 192 | - | - | - | - | 217 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1.4 | 0 | 24.6 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 192 | - | - | - | 217 |
| HCM Lane V/C Ratio | 0.379 | - | - | - | 0.155 |
| HCM Control Delay (s) | 34.8 | - | - | - | 24.6 |
| HCM Lane LOS | D | - | - | - | C |
| HCM 95th %tile Q(veh) | 1.6 | - | - | - | 0.5 |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 48 | 34 | 0 | 209 | 226 | 0 |
| Future Volume (vph) | 48 | 34 | 0 | 209 | 226 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 1 | 0 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 354 | | | 1443 | 236 | |
| Travel Time (s) | 9.7 | | | 39.4 | 6.4 | |
| Peak Hour Factor | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

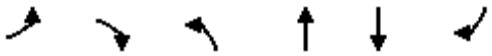
| Intersection | |
|---|---|
| Int Delay, s/veh | 2.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 48 | 34 | 0 | 209 | 226 | 0 |
| Future Vol, veh/h | 48 | 34 | 0 | 209 | 226 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 51 | 51 | 51 | 51 | 51 | 51 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 94 | 67 | 0 | 410 | 443 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 853 | 443 | - | 0 | - | 0 |
| Stage 1 | 443 | - | - | - | - | - |
| Stage 2 | 410 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | - | - |
| Pot Cap-1 Maneuver | 330 | 615 | 0 | - | - | 0 |
| Stage 1 | 647 | - | 0 | - | - | 0 |
| Stage 2 | 670 | - | 0 | - | - | 0 |
| Platoon blocked, % | | | | - | - | |
| Mov Cap-1 Maneuver | 330 | 615 | - | - | - | - |
| Mov Cap-2 Maneuver | 451 | - | - | - | - | - |
| Stage 1 | 647 | - | - | - | - | - |
| Stage 2 | 670 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 13.6 | 0 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | EBLn1 | EBLn2 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | 451 | 615 | - |
| HCM Lane V/C Ratio | - | 0.209 | 0.108 | - |
| HCM Control Delay (s) | - | 15.1 | 11.6 | - |
| HCM Lane LOS | - | C | B | - |
| HCM 95th %tile Q(veh) | - | 0.8 | 0.4 | - |



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 34 | 40 | 68 | 189 | 186 | 50 |
| Future Volume (vph) | 34 | 40 | 68 | 189 | 186 | 50 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 0 | 0 | 50 | | | 0 |
| Storage Lanes | 1 | 0 | 1 | | | 0 |
| Taper Length (ft) | 90 | | 60 | | | |
| Link Speed (mph) | 25 | | | 25 | 25 | |
| Link Distance (ft) | 334 | | | 236 | 360 | |
| Travel Time (s) | 9.1 | | | 6.4 | 9.8 | |
| Peak Hour Factor | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Shared Lane Traffic (%) | | | | | | |
| Sign Control | Stop | | | Free | Free | |

| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Control Type: Unsignalized | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 34 | 40 | 68 | 189 | 186 | 50 |
| Future Vol, veh/h | 34 | 40 | 68 | 189 | 186 | 50 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 50 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 50 | 50 | 50 | 50 | 50 | 50 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 68 | 80 | 136 | 378 | 372 | 100 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1072 | 422 | 472 | 0 | - | 0 |
| Stage 1 | 422 | - | - | - | - | - |
| Stage 2 | 650 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 244 | 632 | 1090 | - | - | - |
| Stage 1 | 662 | - | - | - | - | - |
| Stage 2 | 520 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 214 | 632 | 1090 | - | - | - |
| Mov Cap-2 Maneuver | 214 | - | - | - | - | - |
| Stage 1 | 579 | - | - | - | - | - |
| Stage 2 | 520 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 24.2 | 2.3 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1090 | - | 333 | - | - |
| HCM Lane V/C Ratio | 0.125 | - | 0.444 | - | - |
| HCM Control Delay (s) | 8.8 | - | 24.2 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0.4 | - | 2.2 | - | - |

## Intersection: 5: Ramon Rd. & Rattler Rd.

| Movement | EB | EB | EB | EB | EB | WB | WB | WB | WB | SB | SB | SB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Directions Served | L | L | T | T | T | T | T | T | R | L | LR | R |
| Maximum Queue (ft) | 198 | 91 | 111 | 123 | 151 | 197 | 216 | 215 | 76 | 74 | 100 | 65 |
| Average Queue (ft) | 146 | 29 | 80 | 97 | 117 | 165 | 168 | 179 | 50 | 54 | 78 | 40 |
| 95th Queue (ft) | 226 | 102 | 120 | 140 | 162 | 214 | 228 | 234 | 80 | 87 | 117 | 70 |
| Link Distance (ft) | | | 578 | 578 | 578 | 2555 | 2555 | 2555 | | | 200 | |
| Upstream Blk Time (%) | | | | | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | | | | | |
| Storage Bay Dist (ft) | 300 | 300 | | | | | | | 205 | 200 | | 200 |
| Storage Blk Time (%) | | | | | | | | 1 | | | | |
| Queuing Penalty (veh) | | | | | | | | 5 | | | | |

## Intersection: 10: Rattler Rd. & Access 1

| Movement | EB | NB |
|---|---|---|
| Directions Served | LR | L |
| Maximum Queue (ft) | 46 | 24 |
| Average Queue (ft) | 27 | 8 |
| 95th Queue (ft) | 57 | 30 |
| Link Distance (ft) | 247 | |
| Upstream Blk Time (%) | | |
| Queuing Penalty (veh) | | |
| Storage Bay Dist (ft) | | 100 |
| Storage Blk Time (%) | | |
| Queuing Penalty (veh) | | |

## Intersection: 11: Rattler Rd. & Access 2

| Movement | EB | NB | NB |
|---|---|---|---|
| Directions Served | LR | L | T |
| Maximum Queue (ft) | 48 | 12 | 10 |
| Average Queue (ft) | 29 | 2 | 2 |
| 95th Queue (ft) | 59 | 16 | 13 |
| Link Distance (ft) | 246 | | 48 |
| Upstream Blk Time (%) | | 0 | |
| Queuing Penalty (veh) | | 0 | |
| Storage Bay Dist (ft) | | 25 | |
| Storage Blk Time (%) | | 0 | 0 |
| Queuing Penalty (veh) | | 3 | 0 |

## Intersection: 12: Ramon Rd. & Access 3

| Movement | SB |
|---|---|
| Directions Served | R |
| Maximum Queue (ft) | 31 |
| Average Queue (ft) | 23 |
| 95th Queue (ft) | 44 |
| Link Distance (ft) | 228 |
| Upstream Blk Time (%) | |
| Queuing Penalty (veh) | |
| Storage Bay Dist (ft) | |
| Storage Blk Time (%) | |
| Queuing Penalty (veh) | |

## Intersection: 13: Ramon Rd. & Access 4

| Movement | EB | SB |
|---|---|---|
| Directions Served | L | R |
| Maximum Queue (ft) | 31 | 28 |
| Average Queue (ft) | 12 | 16 |
| 95th Queue (ft) | 37 | 39 |
| Link Distance (ft) | | 204 |
| Upstream Blk Time (%) | | |
| Queuing Penalty (veh) | | |
| Storage Bay Dist (ft) | 150 | |
| Storage Blk Time (%) | | |
| Queuing Penalty (veh) | | |

## Zone Summary

Zone wide Queuing Penalty: 8

## Intersection: 5: Ramon Rd. & Rattler Rd.

| Movement | EB | EB | EB | EB | EB | WB | WB | WB | WB | SB | SB | SB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Directions Served | L | L | T | T | T | T | T | T | R | L | LR | R |
| Maximum Queue (ft) | 95 | 29 | 121 | 138 | 136 | 184 | 224 | 270 | 35 | 90 | 111 | 64 |
| Average Queue (ft) | 60 | 8 | 80 | 90 | 105 | 136 | 161 | 212 | 18 | 55 | 86 | 40 |
| 95th Queue (ft) | 107 | 37 | 135 | 152 | 148 | 200 | 240 | 297 | 44 | 102 | 118 | 78 |
| Link Distance (ft) | | | 578 | 578 | 578 | 2555 | 2555 | 2555 | | | 200 | |
| Upstream Blk Time (%) | | | | | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | | | | | |
| Storage Bay Dist (ft) | 300 | 300 | | | | | | | 205 | 200 | | 200 |
| Storage Blk Time (%) | | | | | | | | 9 | | | | |
| Queuing Penalty (veh) | | | | | | | | 16 | | | | |

## Intersection: 10: Rattler Rd. & Access 1

| Movement | EB | NB |
|---|---|---|
| Directions Served | LR | L |
| Maximum Queue (ft) | 36 | 33 |
| Average Queue (ft) | 26 | 10 |
| 95th Queue (ft) | 47 | 36 |
| Link Distance (ft) | 247 | |
| Upstream Blk Time (%) | | |
| Queuing Penalty (veh) | | |
| Storage Bay Dist (ft) | | 100 |
| Storage Blk Time (%) | | |
| Queuing Penalty (veh) | | |

## Intersection: 11: Rattler Rd. & Access 2

| Movement | EB | NB | NB | SB |
|---|---|---|---|---|
| Directions Served | LR | L | T | TR |
| Maximum Queue (ft) | 69 | 25 | 5 | 4 |
| Average Queue (ft) | 44 | 14 | 1 | 1 |
| 95th Queue (ft) | 76 | 39 | 8 | 8 |
| Link Distance (ft) | 246 | | 48 | 414 |
| Upstream Blk Time (%) | | 0 | | |
| Queuing Penalty (veh) | | 0 | | |
| Storage Bay Dist (ft) | | 25 | | |
| Storage Blk Time (%) | | 3 | | |
| Queuing Penalty (veh) | | 8 | | |

## Intersection: 12: Ramon Rd. & Access 3

| Movement | WB | SB |
|---|---|---|
| Directions Served | TR | R |
| Maximum Queue (ft) | 31 | 40 |
| Average Queue (ft) | 6 | 28 |
| 95th Queue (ft) | 34 | 56 |
| Link Distance (ft) | 578 | 228 |
| Upstream Blk Time (%) | | |
| Queuing Penalty (veh) | | |
| Storage Bay Dist (ft) | | |
| Storage Blk Time (%) | | |
| Queuing Penalty (veh) | | |

## Intersection: 13: Ramon Rd. & Access 4

| Movement | EB | SB |
|---|---|---|
| Directions Served | L | R |
| Maximum Queue (ft) | 69 | 41 |
| Average Queue (ft) | 41 | 27 |
| 95th Queue (ft) | 70 | 57 |
| Link Distance (ft) | | 204 |
| Upstream Blk Time (%) | | |
| Queuing Penalty (veh) | | |
| Storage Bay Dist (ft) | 150 | |
| Storage Blk Time (%) | | |
| Queuing Penalty (veh) | | |

## Zone Summary

Zone wide Queuing Penalty: 24

Appendix E
Vehicle Miles Traveled (VMT) Screening Analysis

MEMORANDUM

URBAN | CROSSROADS

**DATE:** June 30, 2023
**TO:** Nicole Criste, Terra Nova Planning & Research, Inc.
**FROM:** John Kain and Marlie Whiteman, Urban Crossroads, Inc.
**JOB NO:** 15284-03 VMT Screening.docx

## CATANA SPECIFIC PLAN VEHICLE MILES TRAVELED (VMT) SCREENING ANALYSIS

Urban Crossroads, Inc. is pleased to provide the following Vehicle Miles Traveled (VMT) Screening Analysis for the Catana Specific Plan (**Project**), which is at the northwest corner of E. Ramon Avenue and Rattler Road in Rancho Mirage.

## PROJECT OVERVIEW

The proposed Project includes the development of consists of 215 single family rental homes, 90 affordable apartment dwelling units and 75,000 square feet of commercial land use. The preliminary Project site plan is shown on Exhibit A.

## BACKGROUND

The California Environmental Quality Act (CEQA) requires all lead agencies to adopt VMT as the measure for identifying transportation impacts for land use projects. City of Rancho Mirage Resolution 2021-06 (**City Guidelines**) aligns the City's VMT analysis policy with SB 743 and the City's goals as set forth in the General Plan Update (2017). The purpose of the policy is to comply with State laws while maintaining the resort residential character of the community.

The City's VMT policy establishes VMT as the metric to measure transportation impacts in conformance with CEQA.

## VMT SCREENING

Exhibit A of Resolution 2021-06 sets forth screening criteria under which Projects are not required to submit detailed VMT analysis. This guidance for determination of non-significant VMT impact is primarily intended to avoid unnecessary analysis and findings that would be inconsistent with the intent of SB 743. VMT screening criteria for development projects include the following:

**EXHIBIT A: PRELIMNARY PROJECT SITE PLAN**

**TABLE 1: SCREENING FOR LAND USE PROJECTS EXEMPT FROM VMT ANALYSIS**

| Screening Steps | Description | Result |
|---|---|---|
| 1. Small Projects Screening | Projects with low trip generation based on the County Greenhouse Gas Emissions Screening Tables resulting in a 3,000 metric tons of Carbon Dioxide Equivalent per year screening level threshold. Specific examples include single family housing projects less than or equal to 110 dwelling units, multi-family housing projects less than or equal to 147 dwelling units, and retail buildings with area less than or equal to 60,000 sf. | Does not meet. |
| 2. Projects Near High Quality Transit | Projects within a half mile of an existing major transit stop which maintains a service interval frequency of 15 minutes or less during peak commute periods. | Does not meet. |
| 3. Local Serving Retail | Projects with no single store on-site exceeding 50,000 sf and determined to be local-serving by the Engineering Department. | Meets for retail component. |
| 4. Affordable Housing | Projects with a high percentage of affordable units as determined by the Planning and Engineering departments. | Meets for residential component. |
| 5. Local Essential Service | Projects such as day care, police or fire facility, medical/dental office building less than 50,000 sf, government offices, or other uses deemed essential by the Engineering Department. | Does not meet. |
| 6. Map Based Screening | Projects within an area of development under threshold as shown on screening map allowed by the Engineering Department. | Does not meet. |
| 7. Redevelopment Projects | Projects which replace an existing VMT-generating land use and do not result in a net overall increase in VMT. | Does not meet. |

## PROJECT LOCAL SERVING RETAIL

As noted above, City of Rancho Mirage in Resolution 2021-06 includes Local Serving Retail in the list of project types which can be presumed to have non-significant VMT impacts. In effect, the introduction of new Local-serving retail has been determined to reduce VMT by shortening trips that will occur. This determination can be made for retail buildings which do not exceed 50,000 square feet.

The OPR SB 743 Technical Advisory further addresses local retail uses, as follows:

> "By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact."

The proposed Catana Specific Plan Project includes six buildings that have a combined square footage of 75,000 square feet, each of which is anticipated to be less than 25,000 square feet. The addition of these retail shops at this location, with building sizes well under 50,000 sf, will allow residents to interact with local businesses rather than traveling farther to serve their retail needs.

## PROJECT HIGH PERCENTAGE OF AFFORDABLE HOUSING

Resolution 2021-06 indicates that projects in which "a high percentage of affordable housing is provided as determined by the Planning and Engineering Departments" can be presumed to have non-significant VMT impacts.

The Technical Advisory on Evaluating Transportation Impacts in CEQA (California Governor's Office of Planning and Research, December 2018) states that affordable housing generally improves jobs-housing match, shortens commutes and reduces VMT. This technical advisory concludes that low income housing generates less VMT than market-rate housing.

Of the 305 Project residential units, 90 dwelling units are affordable housing. This equates to 29.5% of the dwelling units. In comparison, recent residential projects in Rancho Mirage have not included an affordable housing component.

The Residential component of the Project is immediately adjacent to the planned on-site retail parcel. Sidewalks connect the affordable housing and single-family rental housing units to the retail site. The Project is also located adjacent to the Rancho Mirage High School. The existing sidewalk along the west side of Rattler Road connects the site to the existing high school.

Off-site elementary and middle schools are located near to the site. The Sunny Sands Elementary School is approximately 2 miles away, and the Nellie N Coffman Middle School is approximately 2.5 miles away.

Adding affordable housing to this location, with existing off-site retail/service jobs located at Cathedral Village Shopping Center and Agua Caliente Resort Casino Spa provides housing opportunities for current employees in the area. Low-wage workers in particular would be more likely to choose a residential location close to their workplace, if one is available.

## CONCLUSION

The Project was evaluated against screening criteria as outlined in the City Guidelines. Based on the results of this screening analysis the following findings are made:

- The Project's retail component meets the Project Type Screening criteria for Local Serving Retail.
- The Project's residential component meets the Project Type Screening criteria for Affordable Housing by having 29.5% affordable housing.
- The screening of this Project as Local-Serving Retail and With High Percentage of Affordable Housing is appropriate. The mix of affordable housing, single-family rental housing, and retail will allow on-site interaction between residents, retail jobs, and retail services which will reduce auto VMT by encouraging pedestrian and bicycle activity. This determination of non-significant VMT impact is consistent with the intent of SB-743.

If you have any questions, please contact us directly at jkain@urbanxroads.com for John or mwhiteman@urbanxroads.com for Marlie.