

DRAFT

**Transportation Impact Analysis
School of Public Safety at Ben Clark Training Center
Riverside County**

Prepared for:

Riverside Community College District

3801 Market Street

Riverside, California 92501

Contact: Bart Doering, Facilities Development Director

Prepared by:

DUDEK

27372 Calle Arroyo

San Juan Capistrano, California 92501

Contact: Dennis Pascua

Transportation Services Manager

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1 Introduction

1.1 Purpose and Scope of the TIA

The purpose of this Traffic Impact Analysis (TIA) is to identify traffic impacts associated with the proposed School of Public Safety at Ben Clark Training Center (BCTC) (proposed project or project), a junior/community college development in Riverside County (County). This TIA has been prepared per the Recommended Transportation Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (WRCOG 2020) provided in a Staff Report dated February 13, 2020 by Western Riverside Council of Governments (WRCOG) to address the requirements of Senate Bill (SB) 743 as well as the guidelines associated with level of service (LOS) assessment for general plan consistency. WRCOG also administers the Transportation Uniform Mitigation Fees (TUMF) which is a regional fee program that mitigates the impact of new growth in western Riverside County. In addition, this TIA complies with the Riverside County Circulation Element requirements and with the Congestion Management Program (CMP) for the Riverside County Transportation Commission (RCTC). The project could also potentially affect the circulation system within the jurisdiction of the March Joint Powers Authority (March JPA) and is prepared per the March JPA Traffic Impact Study Preparation Guide (March JPA 2020).

The objectives of this TIA are to:

- Document existing roadway, pedestrian, bicycle, transit and traffic conditions, including intersection levels of service in the study area;
- Estimate trip generation, distribution, and assignment characteristics for the proposed project;
- Provide a Vehicle Miles Traveled (VMT) analysis per SB 743, the updated California Environmental Quality Act (CEQA) Guidelines, and the WRCOG guidelines;
- Document future short-range (Opening Year 2024) intersection levels of service in the study area per traffic volumes derived from adding growth to existing traffic volumes;
- Analyze the traffic impacts that would occur as a result of buildout of the proposed project under the Existing and Opening Year 2024 conditions;
- Describe the significance of the potential impacts under the Existing and Opening Year 2024 conditions;
- Identify CEQA-required mitigation measures for significant transportation impacts and/or other improvements needed to meet LOS standards (if any); and,
- Provide findings and recommendations based on the traffic analysis of the proposed project.

Based on the WRCOG and March JPA guidelines, the TIA study area was determined to include all major intersections (intersections of collector, or higher, streets) where the project would add more than 50 peak hour project trips.

Figure 1 shows the project location and study area intersections. As shown in Figure 1, the study area is comprised of the following 4 intersections:

Intersections

1. Village West Drive/Van Buren Boulevard (Signalized; County/March JPA)
2. Village West Drive/Krameria Avenue (Signalized; County/March JPA)

3. Bundy Avenue/Krameria Avenue (Unsignalized; County/March JPA)
4. Bundy Avenue/11th Street (Unsignalized; County/March JPA)

1.2 Project Description and Location

As part of the proposed project, the Riverside Community College District, is proposing the construction of 54,135 square feet of educational land uses including a classroom and administration building and a law enforcement and emergency management response educational facility for the School of Public Safety. The proposed project site would be located in western Riverside County within the boundary of the BCTC and would provide two buildings for the School of Public Safety, an instructional department within the District's Moreno Valley College. The BCTC site is located entirely within the March JPA jurisdictional boundary.

The project would be built in two phases as funding becomes available. Phase I of the project would be constructed in the western portion of the project site and would involve the construction of an approximately 14,135 square-foot classroom and administration building. Phase II of the project would be constructed on the eastern portion of the project site and involves construction of an approximately 40,000 square-foot law enforcement and emergency management response educational facility. For the purposes of this TIA, the project is assumed to be fully constructed and operational in the year 2024.

Site access would be provided via three proposed driveways along 11th Street. Two of the proposed driveways would lead to passenger vehicle parking lots located on the eastern and western corner of the project site. The third proposed driveway would lead to a loading area behind the building proposed for Phase I. Phase I would include 84 parking spots (inclusive of 5 ADA parking spaces) located at the western corner of the project site. Phase II would include 125 parking spots located at the eastern corner of the project site. The project would include improvements to the frontages of the project site, including a new concrete walkway to provide pedestrian access from 11th Street to the proposed project. Figure 2 illustrates the conceptual site plan for the proposed project.

Figure 1 Project Location and Study Area

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Figure 2 Project Site Plan

Intersections

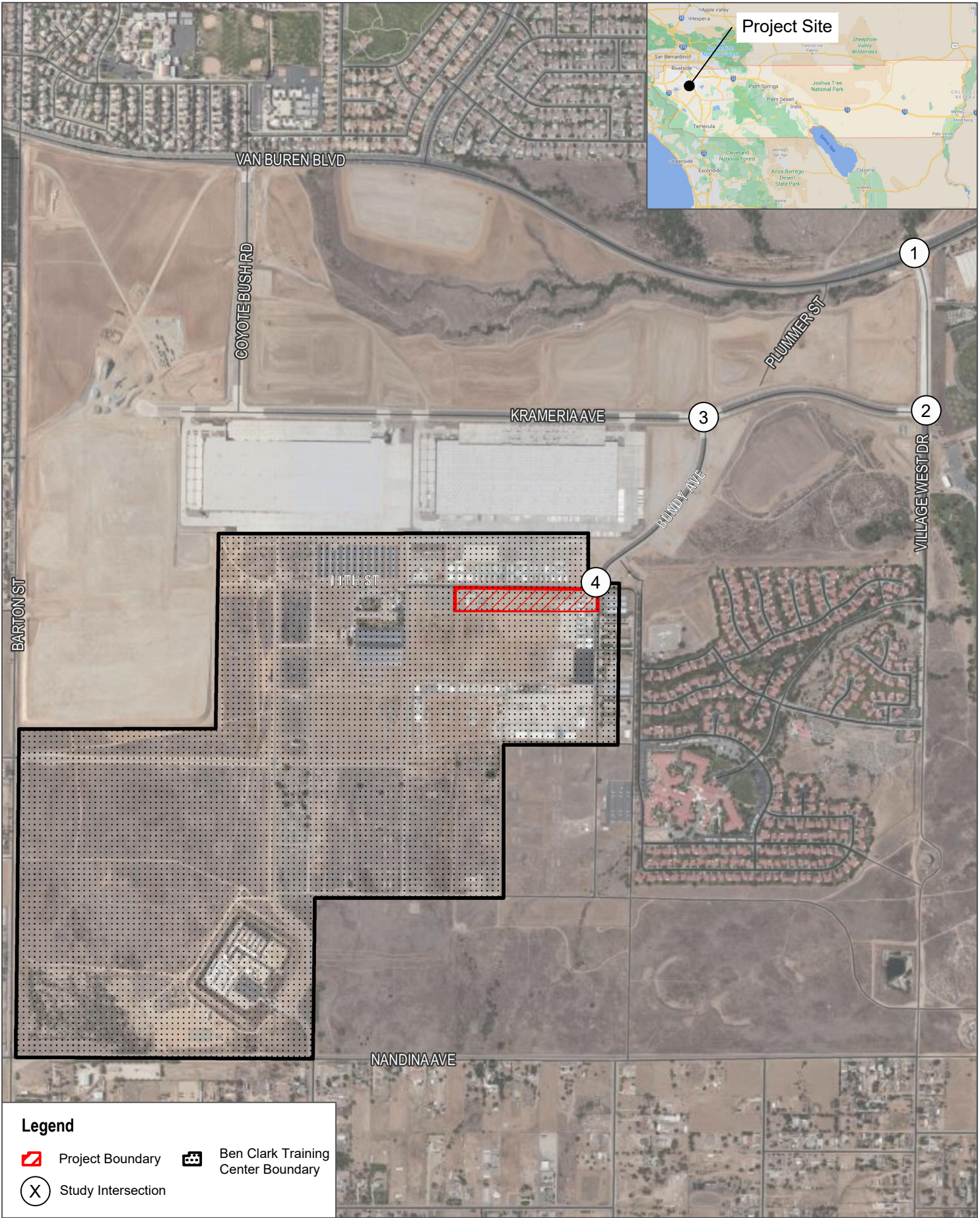
1. Village West Drive/Van Buren Boulevard (Signalized; County/March JPA)
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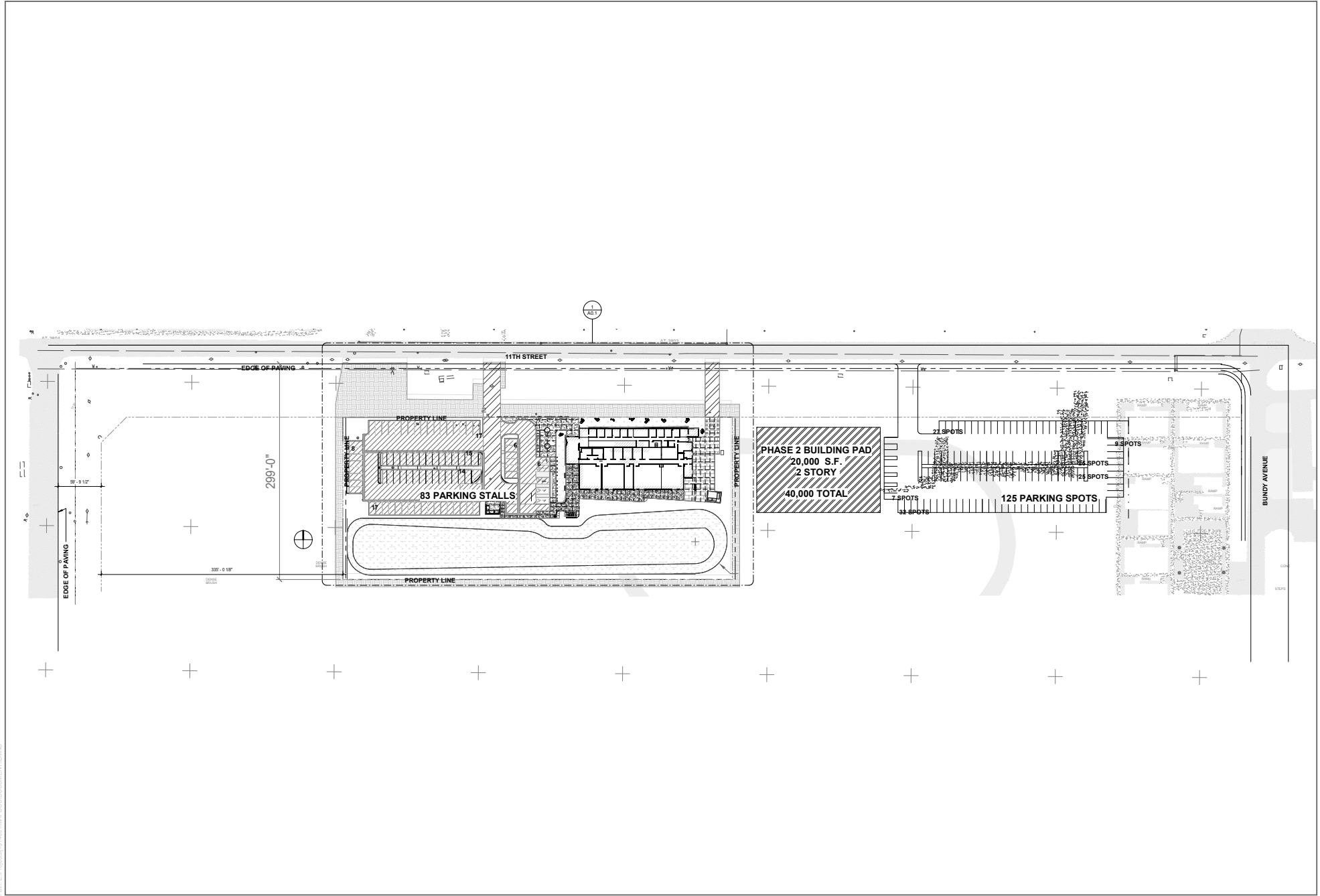
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SOURCE: SVA Architects 2020

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1.3 Analysis Methodology

1.3.1 Vehicle Miles Traveled (VMT) Analysis for CEQA

On September 27, 2013, Senate Bill (SB) 743 was signed into law, which creates a process to change the way that transportation impacts are analyzed under California Environmental Quality Act (CEQA). SB 743 required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to level of service (LOS) for evaluating transportation impacts. Under the new transportation guidelines, LOS, or vehicle delay, will no longer be considered an environmental impact under CEQA. OPR recommended Vehicle Miles Traveled (VMT) as the most appropriate measure of project transportation impacts for land use projects and land use plans. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. The OPR Technical Advisory (OPR 2018) provides guidance and tools to properly carry out the principles within SB 743 and how to evaluate transportation impacts in CEQA.

Under these guidelines, VMT has been adopted as the most appropriate measure of transportation impacts under CEQA. The OPR's regulatory text indicates that a public agency may immediately commence implementation of the new transportation impact guidelines, and that the guidelines must be implemented statewide by July 1, 2020. The Updated CEQA Guidelines state that *"...generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts..."* and define VMT as *"...the amount and distance of automobile travel attributable to a project..."*. It should be noted that "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty truck VMT could be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT). Other relevant considerations may include the effects of the project on transit and non-motorized travel.

Since the project is located in unincorporated Riverside County, the analysis was conducted based on the WRCOG Recommended Transportation Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (WRCOG 2020). The guidance is generally based upon the OPR thresholds. Therefore, both the OPR Technical Advisory and WRCOG Guide were utilized within this analysis as the primary source of analysis of VMT and transportation-related impacts.

The details of applicable screening and VMT analysis methodology is provided in Section 4 of the TIA. The following steps have been used in screening the project's VMT assessment, consistent with WRCOG guidelines for SB 743 compliance:

- Screening Threshold for Small Projects (110 daily trips or less).
- Map Based Screening for Residential and Office Projects.
- Presumption of Less Than Significant Impact for Affordable Residential Development.
- Presumption of Less Than Significant Impact Near Transit Stations.
- Presumption of Less Than Significant Impact for Local Serving Retail and Other Uses.

If the project does not meet the applicable screening criteria, then further analysis is required.

1.3.2 Level of Service (LOS) for General Plan Consistency

In addition to a VMT analysis required under CEQA, a local agency may require a TIA to include a LOS analysis to identify infrastructure improvements required to provide acceptable operations, consistent with the acceptable LOS

in the local agency's General Plan. LOS is commonly used as a qualitative description of intersection operations and roadway segments and is based on the design capacity of the intersection configuration and roadway facility, compared to the volume of traffic using the facility.

The study area intersections are analyzed in the TIA for the following scenarios:

Existing Condition

The TIA includes a description of existing traffic conditions in the site vicinity, including intersection weekday AM and PM peak hour traffic volumes, and traffic operations. The existing condition is representative of the year 2021. It should be noted that the traffic counts from 2019 utilized in this analysis were previously utilized in a prior TIA for the Meridian South Campus prepared by Urban Crossroads (2020). The Meridian South Campus TIA was included as an appendix item for the Meridian South Campus Specific Plan and Village West Drive Extension Draft Subsequent EIR project, which has been fully certified and approved in 2021. That project is located directly north of the BCTC area and involves the expansion of several roadways as well as multiple new industrial and commercial structures. There is traffic count data available for the intersection of Bundy Avenue/11th Street, however based on field observations and the fact that the BCTC area is primarily accessed only by direct traffic (and therefore includes no traffic passing through proceeding to other destinations), it was determined that the level of traffic could be estimated by utilizing the traffic counts at the Bundy Avenue/Krameria Avenue intersection and the other movements at the Bundy Avenue/11th Street intersection, would therefore be estimated. Traffic counts were then adjusted and grown to the year 2021 using the same growth factor described for Opening Year 2024 conditions below.

Existing plus Project Condition

This condition includes analysis of traffic operations under existing conditions with project-related traffic, assuming full buildout of the project, added to the existing AM and PM peak hour intersection traffic volumes. The traffic impacts specific to the project under this condition were used as the basis for determining the project's direct impacts.

Opening Year 2024 Condition

This condition includes a description of traffic conditions and operations within a short-term horizon period (less than 5 years) where the proposed project is constructed and fully occupied. Opening Year 2024 traffic volumes were derived by applying a conservative 2% per year ambient growth rate, which matches the methodology used in the Meridian South Campus TIA, to existing traffic volumes, and adding traffic generated by approved and pending projects within two miles of the project site. These approved or pending projects are developments in the review process, but not fully approved; or, projects that have been approved, but not fully constructed or occupied.

Opening Year 2024 plus Project

This condition includes analysis of traffic operations under the Opening Year 2024 (described above) condition with project-related traffic added to the AM and PM peak hour traffic volumes. The traffic impacts specific to the project under this condition were used as the basis for determining the project's contribution to cumulative impacts.

1.3.2.1 Intersections

The Highway Capacity Manual, 6th Edition (HCM 6) methodology (Transportation Research Board 2016) was used to assess level of service for intersections within the study area per requirement of the respective jurisdiction.

The HCM intersection analysis methodology was used to analyze the operation of signalized and unsignalized study intersections. The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding control delay experienced per vehicle for unsignalized intersections. The Synchro 10 LOS software was used to determine intersection LOS. Synchro is consistent with the HCM 6 methodology. Table 1 shows the LOS values by delay ranges for unsignalized and signalized intersections under the HCM methodology.

Table 1. Levels of Service for Intersections and Roadway Segments using HCM Methodology

Level of Service	Unsignalized Intersections Control Delay(in seconds per vehicle)	Signalized Intersections Control Delay (in seconds per vehicle)
A	< 10.0	< 10.0
B	> 10.0 to < 15.0	> 10.0 to < 20.0
C	> 15.0 to < 25.0	> 20.0 to < 35.0
D	> 25.0 to < 35.0	> 35.0 to < 55.0
E	> 35.0 to < 50.0	> 55.0 to < 80.0
F	> 50.0	> 80.0

Source: HCM 6 (Transportation Research Board 2016).

1.3.2.3 General Plan Consistency and TIA Requirements

The LOS thresholds and impact criteria identified in WRCOG and March JPA Guidelines used to evaluate the project's potential impacts on intersection LOS, are described below.

March JPA

As identified in the March JPA Traffic Impact Study Preparation Guide (February, 2020), in order to maintain consistency with the General Plan, all intersections within the March JPA Planning Area shall operate at LOS D or better with limiting circumstances of LOS E to occur. LOS E may also be allowed to the extent that it would support transit-oriented development (TOD) and walkable communities. LOS E is also acceptable during peak hours at interchange ramp intersections where ramp metering occurs. The Project is not proposed to be a TOD and would not analyze any freeway ramps since the level of traffic would be fewer than 50 peak hour trips; as such, the minimum LOS utilized for the purposes of this analysis is LOS D.

A direct traffic impact will be designated as significant if both of the following conditions occur:

- Peak hour project traffic plus existing traffic causes a roadway segment or intersection to operate at LOS "E" or "F"; and
- Peak hour project traffic comprises 2% or more of the total peak hour traffic on the roadway segment or intersection for LOS "E" and 2% or more for LOS "F".

A cumulative traffic impact will be designated as significant if both of the following conditions occur:

- Peak hour project traffic plus existing peak hour traffic and peak hour traffic from other near-term and future projects causes a roadway segment or intersection to operate at LOS "E" or "F"; and
- Peak hour project traffic comprises 2% or more of total peak hour traffic on the roadway segment or intersection for LOS "E" and 2% or more for LOS "F".

WRCOG

As described in the WRCOG guidelines, in order to maintain consistency with the Riverside County General Plan, all intersections within the County should operate at LOS D or better, otherwise the LOS of an intersection or roadway would be considered deficient and inconsistent with LOS policy. When the pre-Project condition is at or better than LOS D (i.e., acceptable LOS), and project-generated traffic, as measured by 50 or more peak hour trips, causes deterioration below LOS D/LOS E (i.e., unacceptable LOS), a deficiency is deemed to occur. As such, the minimum LOS utilized for the purposes of this analysis is LOS D.

For study intersections within the County the following requirements apply for signalized intersections:

- Any signalized study intersection operating at an acceptable LOS D or better without project traffic in which the addition of project traffic causes the intersection to degrade to a LOS E or F shall identify improvements to improve operations to LOS D or better.
- Any signalized study intersection that is operating at LOS E or F without project traffic where the project increases delay by 5.0 or more seconds shall identify improvements to offset the increase in delay.

For study intersections within the County the following requirements apply for unsignalized intersections:

- The addition of project related traffic causes the intersection to degrade from an acceptable LOS D or better to LOS E or F; OR
- The project adds 5.0 seconds or more of delay to an intersection that is already projected to operate without project traffic at a LOS E or F; AND
- The intersection meets the peak hour traffic signal warrant after the addition of project traffic.

Project Access, Safety and Other Analyses

An analysis of project access, safety, and traffic signal warrant analysis as applicable for any unsignalized intersections around the project and on adjacent streets is recommended per WRCOG and March JPA guidelines.

1.4 Improvements for Transportation Impacts

Per both the WRCOG and March JPA guidelines, at intersections where a project is forecast to have an impact, whether that be a direct project related impact or a cumulative impact, needed improvements must be identified to offset the projects' impacts. Locations at which unsignalized intersections are operating or forecast to operate at deficient levels of service with the proposed project shall be evaluated for traffic signal warrants based on the California Manual of Traffic Control Devices (CA MUTCD) for peak hour signal warrants unless data shows that other warrants could be applicable.

It is the project's responsibility to implement the needed improvements, unless otherwise noted, to the satisfaction of the County or March JPA, either through construction of the improvement(s), fair-share payment to the improvement(s), or payment of fees to programs, such as WRCOG's TUMF program which identifies fees and funded improvements. If improvements are included in a fee program, the cost of implementing the improvements could be credited against fees payable by the project. Improvements required in the TIA and subsequently listed in the conditions of approval shall be completed prior to occupancy.

2 Existing Conditions

This section describes existing conditions within the study area. Characteristics are provided for the existing roadway, transit, bike and pedestrian facilities, peak hour intersection traffic volumes and traffic operations.

2.1 Roadway System

Characteristics of the existing street system within the study area are described below.

Interstate 215 (I-215) is a north-south divided interstate freeway, and within the study area is generally 6 to 8 lanes and split off from I-15 near the City of Murrieta. It provides a parallel connection to I-15 to serve the communities of western Riverside County and San Bernardino County, before merging back with I-15 approximately 55 miles north. The posted speed limit is 65 miles per hour (MPH), and primary interchanges within the vicinity of the project site are located at Van Buren Boulevard.

Van Buren Boulevard is an east-west, generally 4 to 6 lane, divided roadway in the study area with left-turn pockets. Van Buren Boulevard is designated as an Urban Arterial roadway by the County of Riverside General Plan Circulation Element. Additionally, Van Buren Boulevard is designated as an Arterial Highway in the March JPA Transportation Element. Parking is not permitted along the roadway, and the posted speed limit ranges from 45 to 55 MPH within the study area.

Village West Drive is a north-south, 4-lane divided roadway, that narrows down to a 2-lane undivided roadway south of Krameria Avenue. Village West Drive is designated as a Secondary roadway by the County of Riverside General Plan Circulation Element. Additionally, Van Buren Boulevard is designated as a Secondary Highway north of Krameria Avenue, and as an Industrial Collector south of Krameria Avenue in the March JPA Transportation Element. Parking is not permitted along the roadway, and the posted speed limit ranges from 25 to 40 MPH within the study area. As part of the Meridian South Campus EIR project, Village West Drive is scheduled to be extended and paved fully to connect southward to Nandina Avenue.

Krameria Avenue is an east-west, 4-lane undivided roadway in the study area, with a two-way left-turn lane along the entire stretch of roadway. Krameria Avenue is undesignated in the County of Riverside General Plan Circulation Element and is designated as a Secondary Highway in the March JPA Transportation Element. Parking is not permitted along the roadway, and the posted speed limit is 35 MPH within the study area. As part of Meridian South Campus EIR project, Krameria Avenue is scheduled to be extended westward to connect to Barton Street.

Bundy Avenue is a north-south, 2-lane undivided roadway in the study area, with a two-way left-turn lane along the entire stretch of roadway. Bundy Avenue is undesignated in the County of Riverside General Plan Circulation Element and is designated as an Industrial Collector roadway in the March JPA Transportation Element. Parking is not permitted along the roadway, and the posted speed limit is 25 MPH within the study area. Bundy Avenue is the main entrance point as it is the most direct route for traffic to reach the BCTC area from regional roads such as I-215 and Van Buren Boulevard.

11th Street is an east-west, 2-lane undivided roadway in the study area that serves as the primary frontage of the proposed project, as well as the main access via two proposed driveways. 11th Street is undesignated in both the

County of Riverside General Plan Circulation Element and the March JPA Transportation Element. Parking is not permitted along the roadway, and the posted speed limit is 25 MPH within the study area. 11th Street does not possess adequate curbs, gutters, or pedestrian facilities.

2.2 Transit System

Currently, the project area is most directly served by the Riverside Transit Agency (RTA) which provides regional and local service to the County. The project site is also served by passenger rail and bus services. For wider regional service to the Los Angeles metropolitan area, the Southern California Regional Rail Authority (SCRRA) Metrolink commuter rail system has service near the study area

Metrolink

Metrolink is a commuter rail system that offers services in six counties, including San Diego, Orange, Riverside, San Bernardino, Los Angeles, and Ventura. Metrolink operates seven routes, which include the following:

- Antelope Valley Line in Los Angeles County
- Inland Empire-Orange County Line from San Diego, Orange, Riverside, and San Bernardino counties
- Orange County Line from Orange County to Los Angeles County
- Riverside County Line from Riverside, San Bernardino, and Los Angeles counties
- San Bernardino Line from Los Angeles County to San Bernardino County
- Ventura County Line from Los Angeles County to Ventura County
- 91/Perris Valley Line from Riverside, Orange, and Los Angeles counties

The project would be served by Metrolink's 91/Perris Valley Line which runs west to east from the Los Angeles Union Station to the Perris – South Station. The Moreno Valley/March Field Station, located approximately 2.5 miles northeast of the project site, would serve as the nearest Metrolink station serving the 91/Perris Valley Line, with weekday headways averaging 45 to 60 minutes.

RTA

Public transit bus services from RTA include routes serving the Riverside County area, as well as the City of Riverside. As shown in Figure 3, Transit and Bicycle Facilities, the RTA's Riverside-Perris Route 22 and Galleria-Perris Route 27 are the closest bus routes to the project site, with stops along Van Buren Boulevard, Orange Terrace Parkway, and Oleander Avenue respectively. The routes are located within 1 mile of the project site. A summary of each route is provided below.

The project would not relocate any existing bus stops and would not require any changes to existing or future routes as described below. The project would not require an increase in service frequency or additional routes to serve the project area. Therefore, development of the project would not conflict with the existing bus routes or bus stops.

Route 22

Route 22 operates between the downtown area of the City of Riverside and the Perris Station Transit Center with a peak weekday service frequency of 45 minutes. Route 22 primarily operates along Wood Road and Oleander

Avenue. The closest bus stop to the project site serving this route is located approximately 1 mile south of the project site, near Alexander Street/Oleander Avenue (RTA 2021a).

Route 27

Route 27 operates between the Galleria Mall at Tyler and the Perris Station Transit Center with a peak weekday service frequency of 60 minutes. Route 27 primarily operates along Orange Terrace Parkway and Van Buren Boulevard. The closest bus stop is approximately 1 mile north of the project site, near Orange Terrace Parkway/Van Buren Boulevard (RTA 2021b).

2.3 Pedestrian and Bicycle Facilities

Pedestrian Facilities

According to the Riverside County Regional Park and Open-Space District Comprehensive Trails Plan (Riverside County Regional Park and Open-Space District 2018), there are several long-distance community multi-use trails south of the BCTC that are designed to link rural communities within the County. The nearest community trail to the proposed project site is along Nandina Avenue, approximately 0.75 miles south of the project. The community trail connects to regional trails, south of Nandina Avenue along Alexander Street.

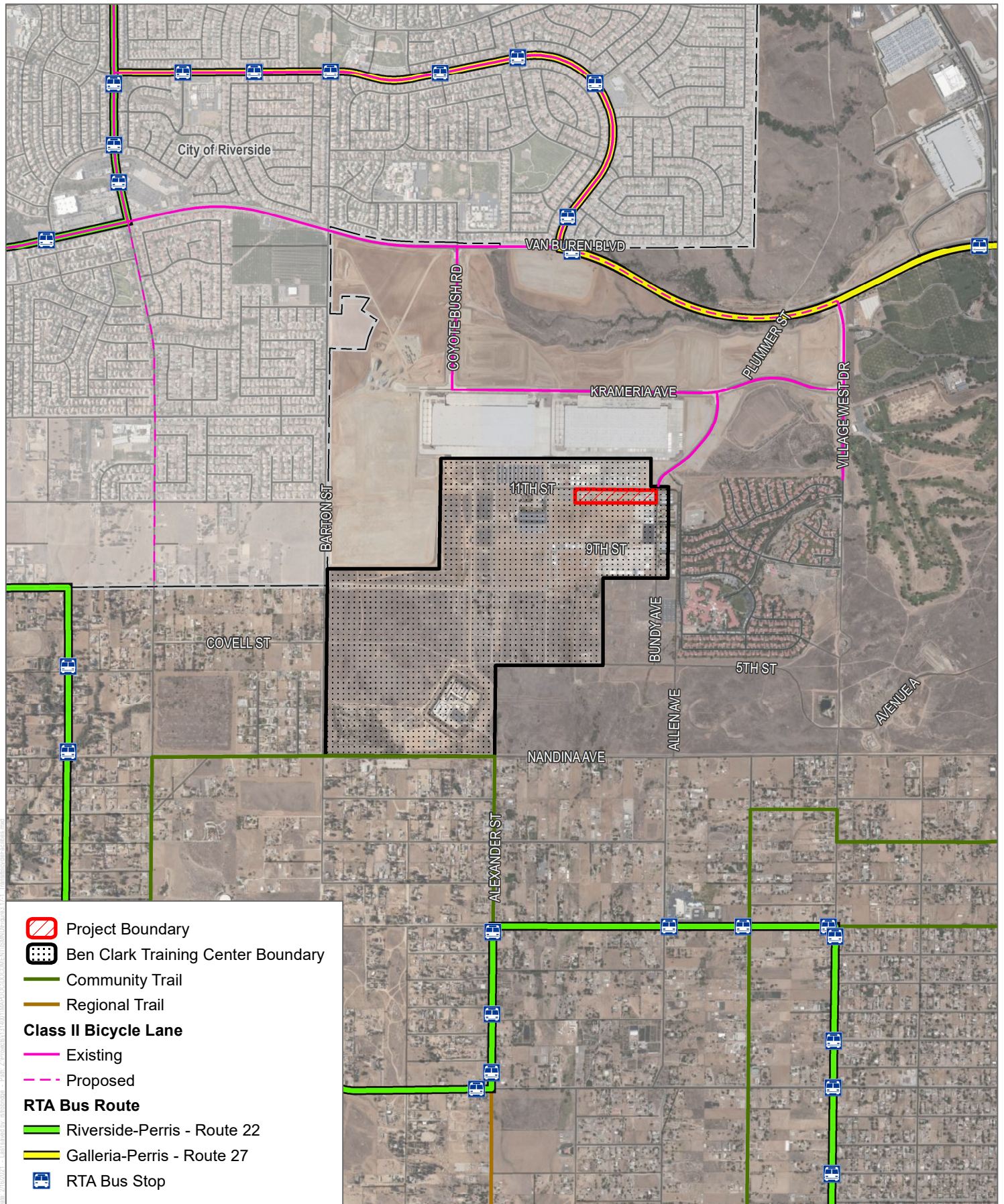
The roadway along the northern edge of the project site, 11th Street, is generally unimproved and does not have sidewalks or other pedestrian facilities. The project would include improvements to the frontages of the project site, including a new concrete walkway to provide pedestrian access from 11th Street to the proposed project.

Bicycle Facilities

Bicycle facilities are typically divided into several classifications that describe their efficacy. Class I (separated right-of-way) bicycle paths are completely separated from roadways and can be typically shared with pedestrians. Class II (painted) bicycle lanes are designed to be on-street and include a painted stripe to indicate the separation between bicyclists and motorists. Class III (signed) bicycle routes are designated to be on-street, however, they are provided on slower roadways that facilitate safe equal sharing of the roadway between bicyclists and motorists. Class IV (protected) bicycle lanes are separated from roadways and provide for exclusive use for bicyclists, including motorists, pedestrians, and other alternative transportation forms that are not permitted.

As shown in Figure 3, currently, there are existing Class II (painted) bicycle lanes along both sides of the road for Bundy Avenue, Krameria Avenue, Coyote Bush Road, portions of Village West Drive north of Lemay Drive, Van Buren Boulevard west of Orange Terrace Parkway, and Trautwein Road/Cole Avenue north of Van Buren Boulevard. Several proposed Class II bicycle lanes are proposed in the area, including along Van Buren Boulevard east of Orange Terrace Parkway, and Trautwein Road/Cole Avenue south of Van Buren Boulevard (City of Riverside, 2021).

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SOURCE: Bing Maps, Riverside County 2020, City of Riverside 2021, RTA 2021

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3 Project Traffic

This section documents the trip generation, distribution, and assignment of project traffic in the study area.

3.1 Trip Generation

As described previously in Section 1.2 as part of the proposed project, the Riverside Community College District, is proposing the construction of 54,135 square feet of educational land uses in the BCTC area. Trip generation estimates were based on the project description and characteristics as well as the expected land uses associated with both phases of the project. Trip generation was estimated by using trip rates from the Institute of Transportation Engineers 10th Edition Trip Generation book (ITE 2017). Accordingly, AM and PM peak hour trip generation volumes were computed. Table 2 presents the trip generation estimates for the proposed project.

Trip generation rates, vehicle splits, and the resulting trip generation estimates for the project are summarized in Table 2.

Table 2. Project Trip Generation

Land Use	ITE Code	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates ¹									
Junior/ Community College	540	TSF	20.25	1.59	0.48	2.07	0.93	0.93	1.86
Trip Generation									
Proposed Ben Clark Training Center Project	540	54.135 TSF	1,096	86	26	112	50	50	100
Project Trip Generation			1,096	86	26	112	50	50	100

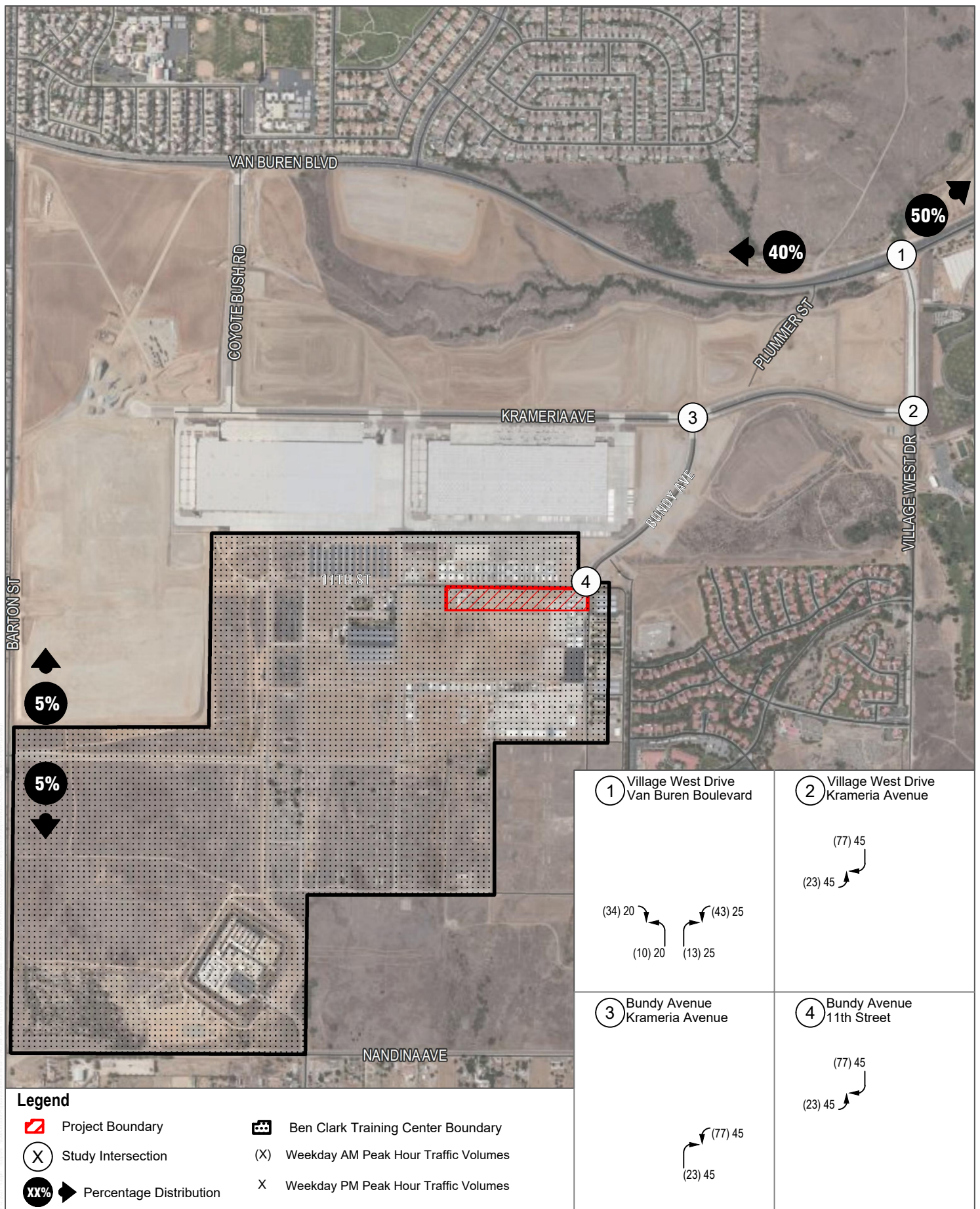
Notes: ITE = Institute of Transportation Engineers; TSF = thousand square feet

As shown in Table 2, the proposed project would generate approximately 1,096 daily trips, 112 AM peak hour trips (86 inbound and 26 outbound), and 100 PM peak hour trips (50 inbound and 50 outbound).

3.2 Trip Distribution and Assignment

Project trip distribution percentages are based on logical travel paths to and from the project site. Primary vehicular site access would be provided via Bundy Avenue, which connects to Krameria Avenue. From there, the nearest regional routes include Van Buren Boulevard and I-215, for which Village West Drive is the nearest connecting roadway. Therefore, it is expected that a majority of project traffic would enter the BCTC area from Village West Drive. It is possible for vehicles to enter the BCTC area from the unsignalized intersection of Barton Street/Mariposa Avenue, however for the most direct route and to assume a conservative distribution, all trips were distributed via Village West Drive. Project trips were assigned to the study area intersections by applying the above-referenced project trip generation estimates to the trip distribution percentages at each study area intersection. The project trip distribution and assignment are shown in Figure 4.

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SOURCE: Bing Maps, Riverside County 2020, City of Riverside 2021

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4 Vehicle Miles Traveled Analysis

4.1 Project Screening

As stated previously, the OPR Technical Advisory and WRCOG Guidelines were utilized within this analysis as the primary source of analysis of VMT and transportation-related impacts. As shown in the screening analysis below, the proposed project would be screened out using one of the criteria noted below and therefore would not require further VMT analysis. Both the WRCOG guidelines and the OPR Technical Advisory suggest that agencies may screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing. The following are the screening criteria:

- **Screening Threshold for Small Projects (110 daily trips or less).** Since the project generates more than 110 daily trips as shown in Table 2, this threshold cannot be considered.
- **Map Based Screening for Residential and Office Projects:** WRCOG possesses a screening tool for map-based screening, however the project does not fall into either residential or office project categories.
- **Presumption of Less Than Significant Impact for Affordable Residential Development:** The project is not a residential development and does not include affordable residential units.
- **Presumption of Less Than Significant Impact Near Transit Stations:** Proposed CEQA Guideline Section 15064.3, subdivision (b)(1), states that lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within 0.5 miles of an existing major transit stop¹ or an existing stop along a high quality transit corridor² would have a less-than-significant impact on VMT. This presumption would not apply, if the project:
 - Has a Floor Area Ratio (FAR) of less than 0.75
 - Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
 - Is inconsistent with the Southern California Association of Governments Regional Transportation Plan and/or
 - Replaces affordable residential units with a smaller number of moderate- or high-income residential units.The project is not located within 0.5 miles of any bus routes or bus stop locations.
- **Presumption of Less Than Significant Impact for Local Serving Retail and Other Uses:** For development projects, if the project leads to a net increase in provision of locally-serving retail and public facility uses, transportation impacts from such uses can be presumed to be less than significant. Generally, local-serving retail and similar uses less than 50,000 square feet can be assumed to cause a less-than-significant transportation impact because by improving destination proximity, local-serving developments tend to shorten trips and therefore reduce VMT.
 - The project does not include any retail components, however according to the WRCOG guidelines, local serving projects by definition would decrease the number of trips or the distance those trips travel to access the development (and are VMT-reducing projects) include:
 - Local serving K–12 schools

¹ Public Resources Code Section 21064.3 (“‘Major transit stop’ means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.”)

² Public Resources Code Section 21155 (“For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.”)

- Local parks
- Day care centers
- Local serving gas stations
- Local serving banks
- Local serving hotels (e.g., non-destination hotels)
- Student housing projects
- Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS

Since the project would be a community college that would serve the local area, as well as the adjoining existing BCTC area and associated land uses, the project is not anticipated to increase VMT significantly. As the project is consistent with the SCAG RTP and/or SCS, the above screening criteria would apply to the project and it would be screened out from further VMT analysis. Therefore, a detailed VMT analysis is not required, and the project would not conflict or be inconsistent with CEQA Guidelines Section 150645.3(b).

5 Project Access and Circulation

5.1 Project Site Access and Internal Circulation

As shown in the project site plan (Figure 2), the proposed project would be accessible directly from 11th Street via two driveways which would lead to passenger vehicle parking lots located on the eastern and western corner of the of the project site. The third proposed driveway would lead to a loading area behind the building proposed for Phase I. The project would include improvements to the frontages of the project site, including a new concrete walkway to provide pedestrian access from 11th Street to the proposed project.

All site access driveways are assumed to be full access. Based on the layout of the proposed project, project vehicle traffic was evenly distributed to and from each of the two driveways. Due to the relatively low amount of traffic volumes observed within the study area along 11th Street and localized traffic within the BCTC area, it is not anticipated that the project driveways would create unnecessary delays for other traffic in the BCTC area or potentially create unsafe conditions for other motorists, pedestrians, or bicyclists.

On-site circulation would be facilitated at project driveways and would not be expected to cause excessive delays for vehicles entering or exiting the project site. Queuing as part of the project would be confined on-site and is not anticipated to impact other traffic along 11th Street. The project would be required to comply with all local, regional, state, and federal guidelines related to emergency access. Emergency vehicles would be able to access all buildings and driveways within the project site. The project site would be accessible to emergency responders during construction and operation of the project. Therefore, the project would not result in inadequate emergency access

5.2 Pedestrian and Bicycle Access

Pedestrian Facilities

As discussed in Section 2.3, 11th Street is currently a paved, two-lane roadway that does not possess curbs, gutters, and sidewalks along the roadway. The nearest pedestrian facility is the sidewalk at the Bundy Avenue/11th Street intersection, east of the project site. The project would include improvements to the frontages of the project site, including a new concrete walkway to provide pedestrian access from 11th Street to the proposed project. Development of the project would not conflict with any of the existing pedestrian facilities and would improve pedestrian access around the project site.

Bicycle Facilities

As discussed in Section 2.3 and shown in Figure 3, the nearest bicycle facility within the vicinity of the project site is a Class II bicycle lane located along Bundy Avenue, which further connects to Class II bicycle lanes along Krameria Avenue. Class II bicycle lanes are provided via Coyote Bush Road and along Village West Drive. There is a planned Class II bicycle lane to be provided along Van Buren Boulevard, west of Village West Drive that would connect to the existing Class II bicycle lanes that exist along Van Buren Boulevard, east of Orange Terrace Parkway.

5.3 Parking

As shown in Figure 2, Phase 1 of the project would be located on the western portion of the proposed project site and would include 84 parking spots (inclusive of 5 ADA parking spaces). Phase II of the proposed project would include 125 parking spots located at the eastern corner of the project site. Therefore, in summation both phases of the proposed project once constructed would provide 209 parking spots and would be parked according to the County's municipal code.

6 Existing Traffic Operations

The existing traffic controls and geometrics at the study area intersections is shown in Figure 5. This section details the existing traffic volumes and the existing intersection and roadway segment operations within the study area.

6.1 Traffic Volumes

As discussed in Section 1.3.2, existing weekday peak hour turning movement counts at the study intersections were collected in 2019 and previously utilized in a prior TIA for the Meridian South Campus project. Intersection volumes were adjusted to 2021 to reflect non-pandemic conditions with the addition of a 2% per year growth rate. This analysis focuses on the weekday daily, AM (7:00 a.m. to 9:00 a.m.) and the PM (4:00 p.m. to 6:00 p.m.) peak periods. The peak periods represent the highest volume of traffic for the adjacent street system. Traffic counts were also previously balanced to conserve flow between intersections that have different peak hours. Raw traffic count worksheets are provided in Appendix A. Existing weekday AM and PM peak hour volumes are summarized in Figure 6.

6.2 Intersection Operations

An intersection LOS analysis was prepared for the existing conditions using HCM 6 methodology via the Synchro LOS software as discussed in Section 1.3. Table 3 shows the results of the existing conditions analysis. LOS worksheets are provided in Appendix B.

As shown in the table, all of the study area intersections are currently operating at satisfactory levels of service (LOS D or better) under existing conditions.

Table 3. Existing Peak Hour Intersection Level of Service

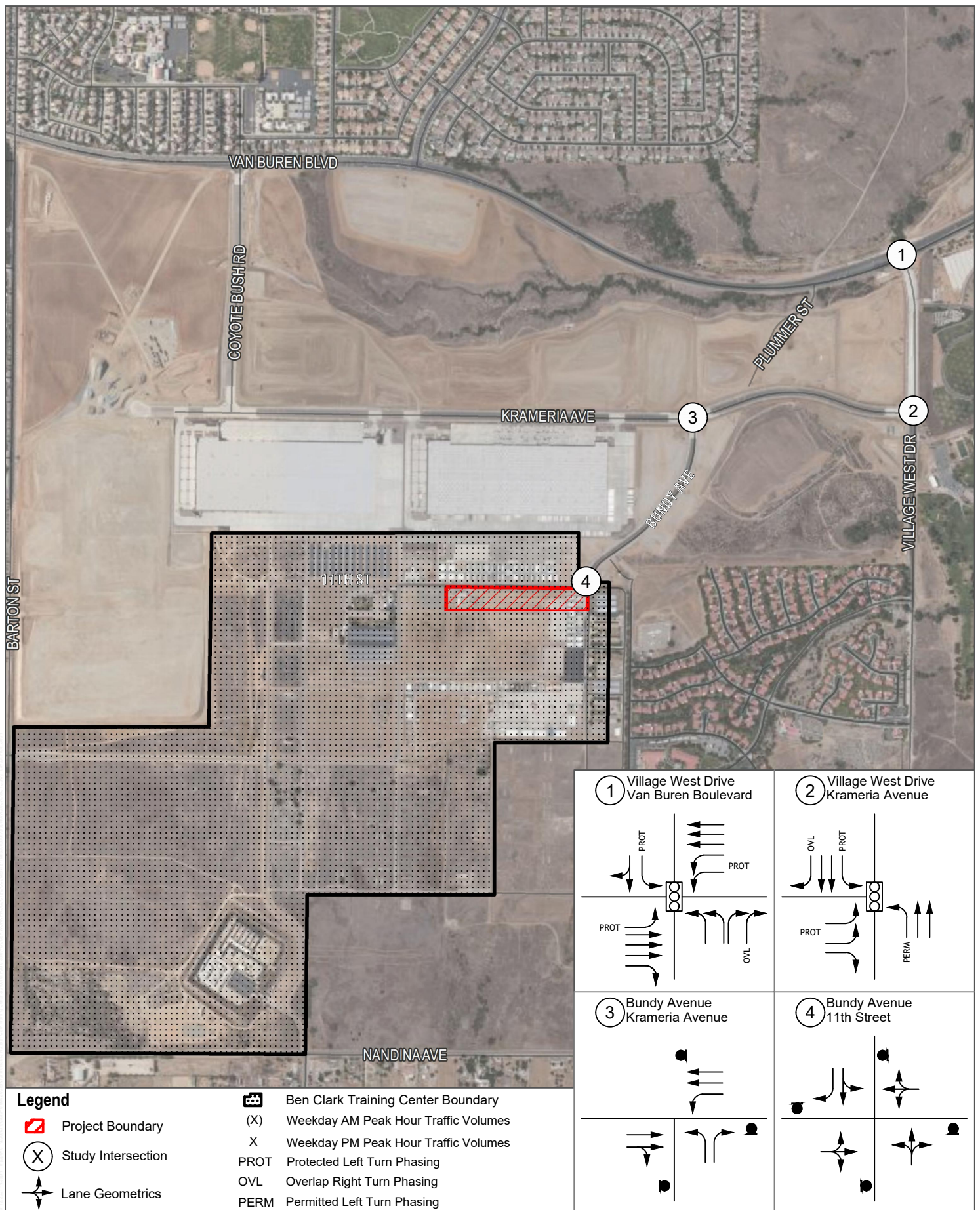
No.	Intersection	Jurisdiction	LOS Method	Existing			
				AM Peak		PM Peak	
				Delay ¹	LOS ²	Delay ¹	LOS ²
1	Village West Drive/ Van Buren Boulevard	County/March JPA	HCM	8.5	A	8.8	A
2	Village West Drive/ Krameria Avenue	County/March JPA	HCM	3.8	A	9.6	A
3	Bundy Avenue/ Krameria Avenue	County/March JPA	HCM (AWSC)	8.0	A	7.9	A
4	Bundy Avenue/ 11 th Street	County/March JPA	HCM (AWSC)	7.7	A	7.6	A

Notes: HCM = Highway Capacity Manual; AWSC = All-Way Stop-Controlled

¹ Delay in seconds per vehicle

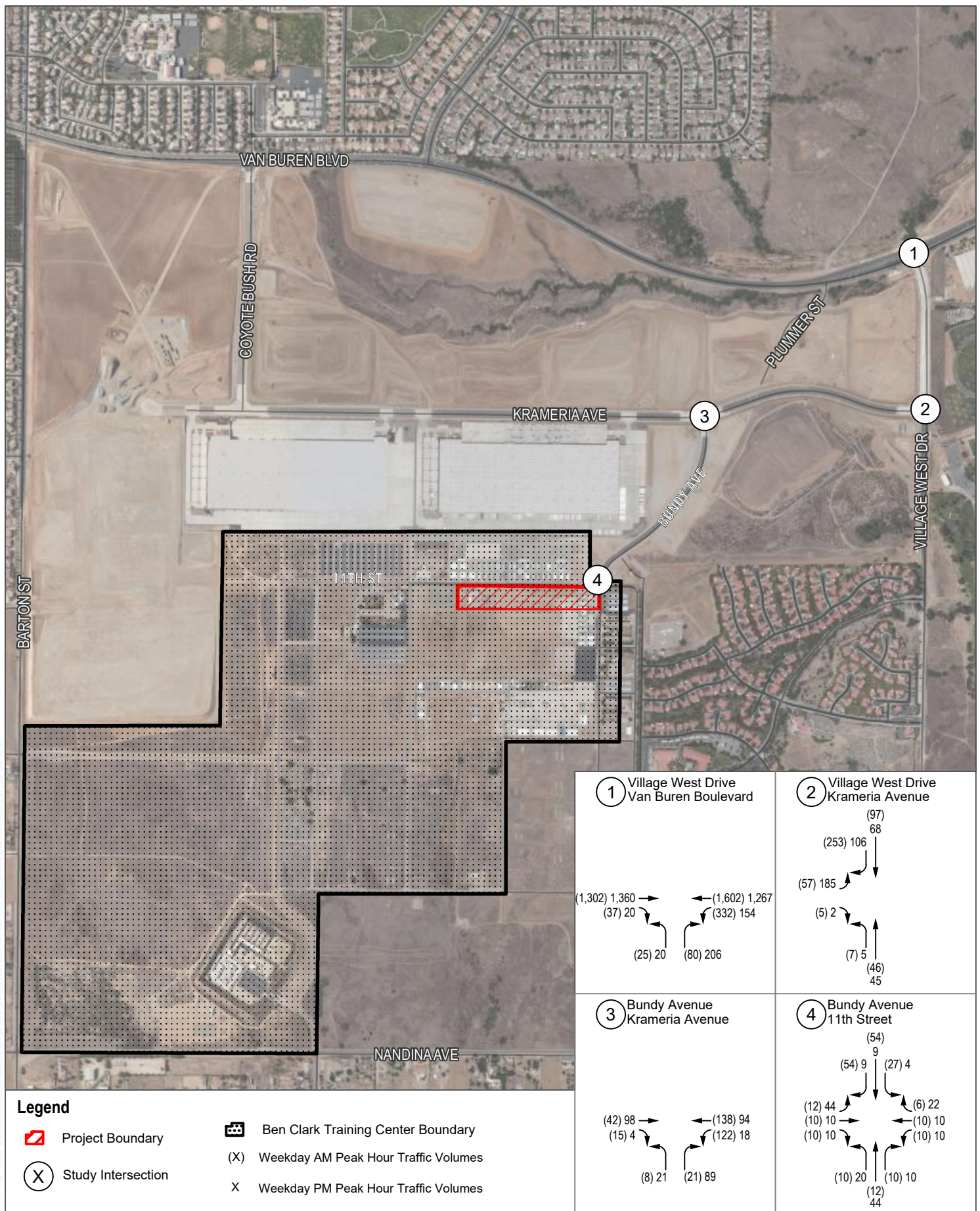
² Level of Service (LOS)

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SOURCE: Bing Maps, Riverside County 2020, City of Riverside 2021

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SOURCE: Bing Maps, Riverside County 2020, City of Riverside 2021

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6.3 Existing plus Project Traffic Operations

This section details the Existing plus Project traffic volumes and intersection operations within the study area.

6.3.1 Intersection Operations

The total project trip assignments shown in Figure 4 were added to the Existing peak hour traffic volumes shown in Figure 6 to derive the Existing plus Project peak hour traffic condition shown in Figure 7.

An intersection LOS analysis was prepared for the Existing plus Project condition using the HCM 6 methodology, and Table 4 summarizes the results of the Existing plus Project intersection analysis for the AM and PM peak hours. Detailed LOS calculation worksheets are included in Appendix B.

As shown in Table 4, all study area intersections are forecast to continue to operate with satisfactory LOS (LOS D or better) under Existing plus Project conditions during both peak hours.

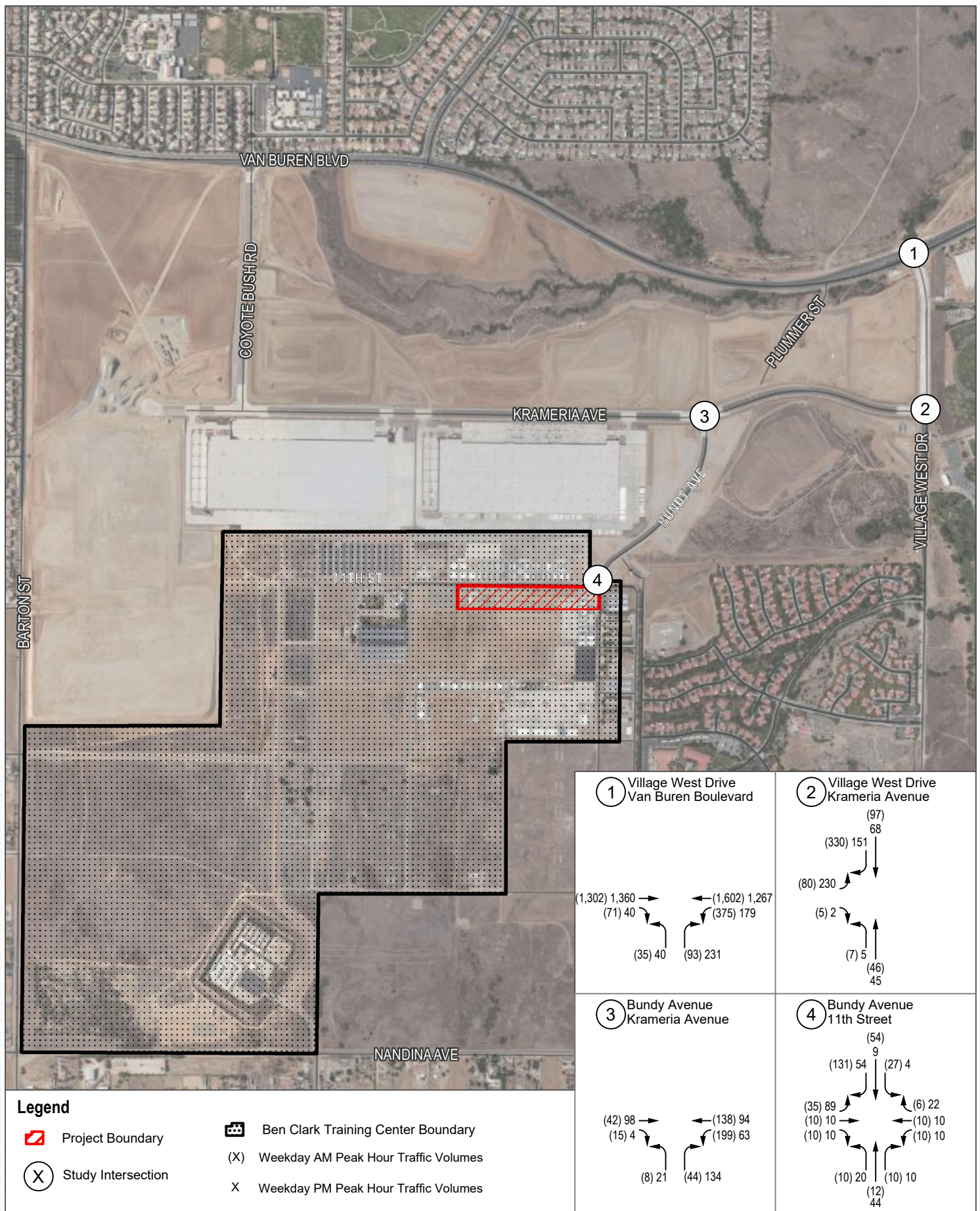
Table 4. Existing and Existing plus Project Peak Hour Intersection Level of Service

No.	Intersection	Jurisdiction	LOS Method	Existing				Existing plus Project				Change in Delay		Inconsistent with LOS Standards?	
				AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	AM	PM
				Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²				
1	Village West Drive/ Van Buren Boulevard	County/March JPA	HCM	8.5	A	8.8	A	9.1	A	9.5	A	0.6	0.7	No	No
2	Village West Drive/ Krameria Avenue	County/March JPA	HCM	3.8	A	9.6	A	4.3	A	9.7	A	0.5	0.1	No	No
3	Bundy Avenue/ Krameria Avenue	County/March JPA	HCM (AWSC)	8.0	A	7.9	A	9.0	A	8.4	A	1.0	0.5	No	No
4	Bundy Avenue/ 11 th Street	County/March JPA	HCM (AWSC)	7.7	A	7.6	A	7.9	A	7.9	A	0.2	0.3	No	No

Notes: HCM = Highway Capacity Manual; AWSC = All-Way Stop-Controlled

¹ Delay in seconds per vehicle

² Level of Service (LOS)



SOURCE: Bing Maps, Riverside County 2020, City of Riverside 2021

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7 Opening Year 2024 Conditions

This section presents the results of a cumulative condition analysis that was conducted for a short-term horizon year of 2024, assuming the proposed project is constructed and fully occupied. Characteristics are provided for the peak hour traffic volumes and traffic operations.

7.1 Cumulative Projects and Traffic Volume Development

Cumulative projects are projects that are proposed and in the review process, but not yet fully approved; or, projects that have been approved, but not fully constructed or occupied. Based on a review of the cumulative projects near the project site, it was determined that the cumulative project list and analysis provided in the Meridian South Campus TIA would be sufficient to be utilized as it provides a recent and comprehensive analysis that has been approved by March JPA. Due to the restricted area in which the BCTC is located, it is not expected that there would be additional cumulative projects that would interact with the study area intersections. The Meridian South Campus project has the same opening year (2024) as the proposed project within this TIA; therefore in order to also account for the traffic associated with the Meridian South Campus project, the “Opening Year Cumulative (2024) With Proposed Project” traffic volumes within the TIA were utilized as the Opening Year 2024 baseline condition in this analysis. All relevant data pertaining to the Meridian South Campus project, including information regarding project trip generation, assignment, distribution, traffic volumes, and cumulative project information, is provided in Appendix C.

7.2 Roadway Improvements

A number of roadway improvements within the study area would be built in the year 2024, according to the approved analysis in the Meridian South Campus project TIA, including at study area intersections analyzed in this TIA. Due to the amount of traffic generated by the Meridian South Campus project, including roadway expansions and alterations as part of the project, the Meridian South Campus project possess several “project design features” for which the Meridian South Campus project would fund entirely, prior to a certificate of occupancy being issued in 2024. For the purposes of this analysis, roadway improvements that included signalization were not analyzed in this section in order to evaluate the proposed project’s prospective impacts to the geometrics and intersection configurations that would exist as a result of the Meridian South Campus project. Therefore, the only change to the geometrics was the addition of a north leg to the Bundy Avenue/Krameria Avenue intersection, while intersection controls would remain as “all-way stop” controlled. Any additional roadway improvements required as a result of the analysis in this section would be compared against those already allocated as project design features in the Meridian South Campus TIA.

7.3 Intersection Operations

Unless otherwise stated in Section 7.2 above, the existing intersection configurations (shown in Figure 5) have been assumed to be preserved under the Opening Year (2024) conditions. Figure 8 illustrates the Opening Year 2024 (no project) traffic volumes for the peak hour conditions. An intersection LOS analysis was prepared for the Opening Year 2024 (no project) condition using the HCM 6 methodology. Table 5 summarizes the results of the Opening Year 2024 intersection analysis for the AM and PM peak hours. Detailed LOS calculation worksheets are included in Appendix B.

As shown in the table, most of the study area intersections are forecast to continue operating at satisfactory levels of service (LOS D or better) under Opening Year 2024 conditions, except for the intersection of Bundy Avenue/Krameria Avenue, which would be forecast to operate at LOS F in the PM peak hour (average delay of 53.1 seconds).

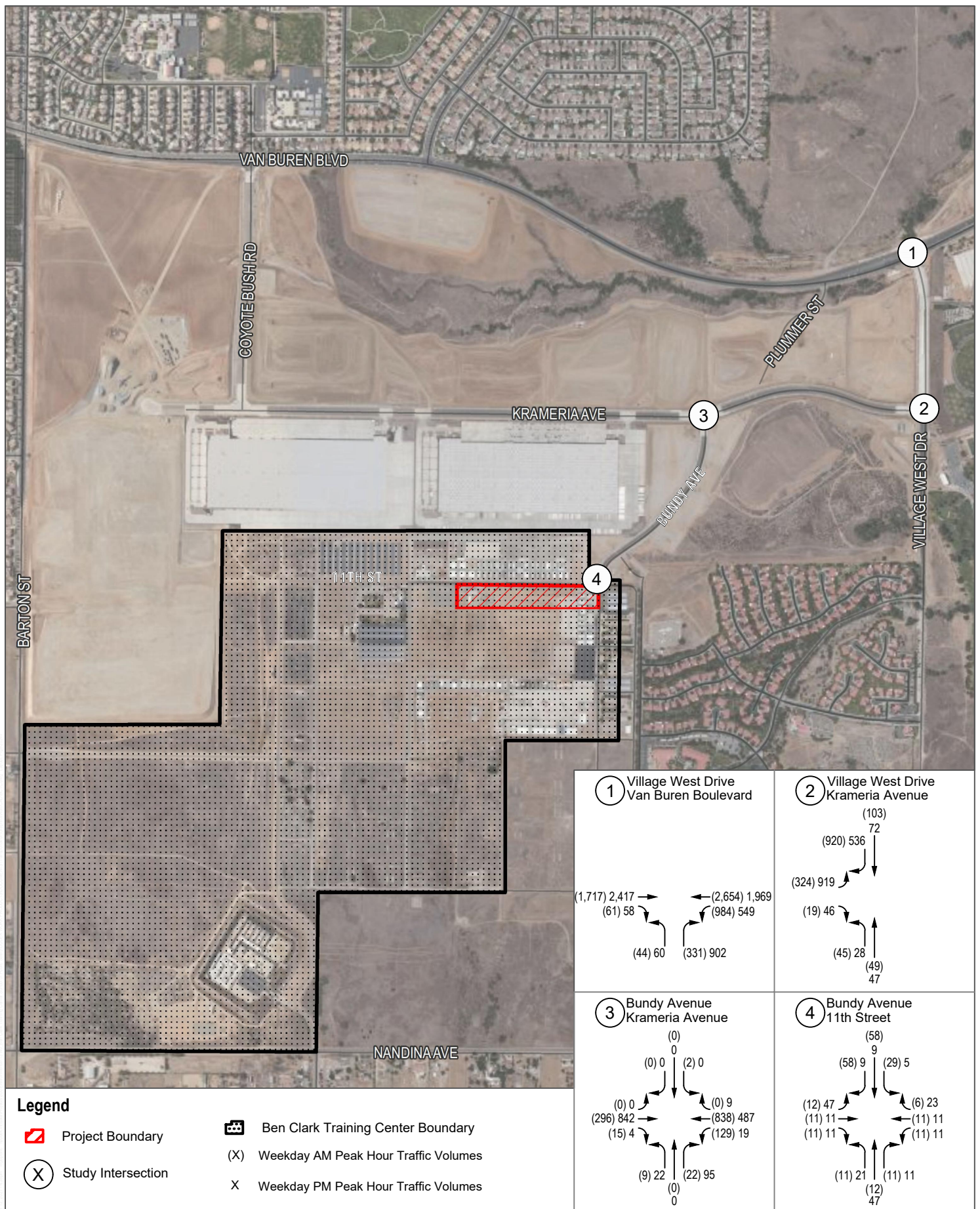
Table 5. Opening Year 2024 Peak Hour Intersection Level of Service

No.	Intersection	Jurisdiction	LOS Method	Opening Year 2024 Conditions			
				AM Peak		PM Peak	
				Delay ¹	LOS ²	Delay ¹	LOS ²
1	Village West Drive/ Van Buren Boulevard	County/March JPA	HCM	33.3	C	45.9	D
2	Village West Drive/ Krameria Avenue	County/March JPA	HCM	13.5	B	9.8	A
3	Bundy Avenue/Krameria Avenue	County/March JPA	HCM (AWSC)	14.8	B	53.1	F
4	Bundy Avenue/11 th Street	County/March JPA	HCM (AWSC)	7.7	A	7.6	A

Notes: HCM = Highway Capacity Manual; AWSC = All-Way Stop-Controlled

¹ Delay in seconds per vehicle

² Level of Service (LOS)



SOURCE: Bing Maps, Riverside County 2020, City of Riverside 2021

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7.4 Opening Year (2024) plus Project Traffic Operations

This section details the Opening Year (2024) plus Project traffic volumes and the intersection operations within the study area.

7.4.1 Intersection Operations

The total project trip assignments shown in Figure 4 were added to the Opening Year 2024 peak hour traffic volumes shown in Figure 8 to derive the Opening Year (2024) plus Project peak hour traffic volumes shown in Figure 9.

An intersection LOS analysis was prepared for the Opening Year (2024) plus Project condition using the HCM 6 methodology, and Table 6 summarizes the results of the Opening Year (2024) plus Project intersection analysis for the AM and PM peak hours. Detailed LOS calculation worksheets are included in Appendix B.

As shown in Table 6, all study area intersections are forecast to continue to operate with satisfactory LOS per the corresponding jurisdiction thresholds under Opening Year (2024) plus Project conditions during both peak hours, with exception of the Bundy Avenue/Krameria intersection in the PM peak hour. This intersection is forecast to operate at LOS F during the Opening Year (2024) conditions and Opening Year (2024) plus Project conditions, with an increase in average delay of 7.6 seconds with the project-added traffic.

Based on the WRCOG guidelines, an addition of 5.0 seconds of delay or more for intersections at LOS E or LOS F would be characterized as an operational deficiency and inconsistent with the general plan policies of member agencies of WRCOG, including the County. Since the proposed project increases the average delay by 7.6 seconds, this would constitute an operational deficiency and LOS inconsistency. Based on the March JPA guidelines, a cumulative traffic impact can occur when an intersection is operating at a deficient LOS (LOS E or LOS F) and the project traffic consists of 2% or more of total peak hour traffic at the intersection. In this case the proposed project contributes approximately 5.7% of total peak hour traffic. Therefore, per March JPA guidelines this would also constitute an operational deficiency and LOS inconsistency. A peak hour signal warrant was performed at this intersection and is provided in Appendix D. The warrant was met and further recommendations to improve the intersection to meet LOS consistency standards are provided in Section 8.

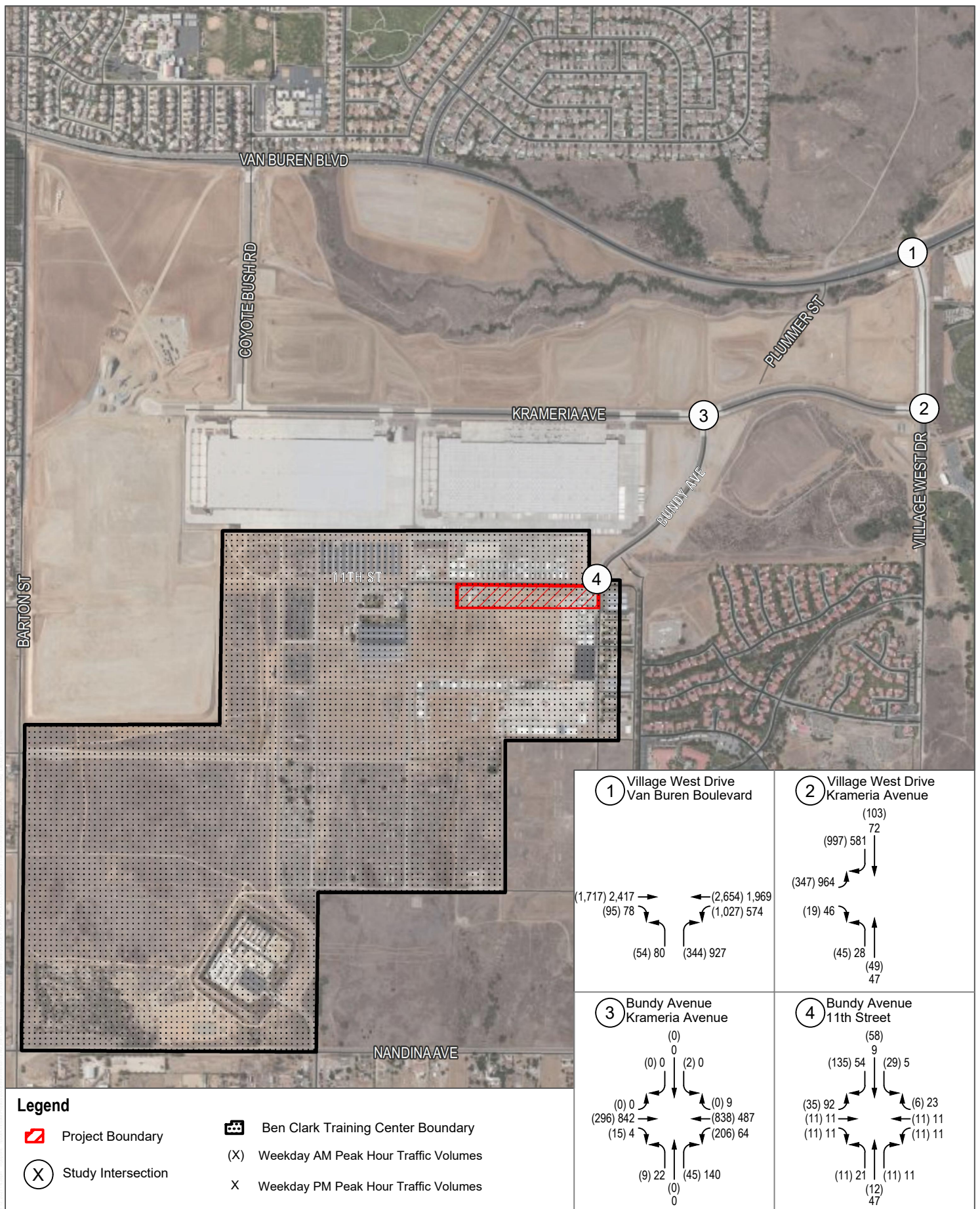
Table 6. Opening Year (2024) plus Project Peak Hour Intersection Level of Service

No.	Intersection	Jurisdiction	LOS Method	Opening Year 2024				Opening Year (2024) plus Project				Change in Delay		Inconsistent with LOS Standards?	
				AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	AM	PM
				Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²				
1	Village West Drive/Van Buren Boulevard	County/March JPA	HCM	33.3	C	45.9	D	36.7	D	47.7	D	3.4	1.8	No	No
2	Village West Drive/Krameria Avenue	County/March JPA	HCM	13.5	B	9.8	A	21.7	C	9.9	A	8.2	0.1	No	No
3	Bundy Avenue/Krameria Avenue	County/March JPA	HCM (AWSC)	14.8	B	53.1	F	15.8	C	60.7	F	1.0	7.6	No	Yes
4	Bundy Avenue/11 th Street	County/March JPA	HCM (AWSC)	7.7	A	7.6	A	7.9	A	7.9	A	0.2	0.3	No	No

Notes: HCM = Highway Capacity Manual; AWSC = All-Way Stop-Controlled

¹ Delay in seconds per vehicle

² Level of Service (LOS)



SOURCE: Bing Maps, Riverside County 2020, City of Riverside 2021

FIGURE 9

Opening Year 2024 plus Project Peak Hour Traffic Volumes

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8 Project Impacts, Mitigation Measures, and Level of Service Improvements

8.1 Project Impacts per CEQA

8.1.1 VMT Analysis

As shown in Section 4, the proposed project passes one of the screening criteria, (i.e., presumption of less than significant impact for local retail and other uses). Therefore, the proposed project can be presumed to have a less than significant VMT impact under Existing and Opening Year 2024 conditions. A project-level detailed VMT analysis would not be required.

8.1.2 Site Access Analysis

Project Site Access

As discussed in Section 5.1, project traffic would be evenly distributed between the two driveways along 11th Street. The expected delay and potential queue for vehicles entering any of the driveways of the proposed project site is expected to be minimal. Similarly, in terms of egress, vehicles would be expected to exit the project site and proceed eastward on 11th Street, before traveling northward on Bundy Avenue. Therefore, all expected vehicular delay or queue would be confined on-site and would be adequately contained within each parking lot. All driveways and frontage improvements would be designed to adhere to County roadway standards. The project would comply with all local, regional, state, and federal guidelines related to emergency access. Emergency vehicles would be able to access all buildings and driveways within the project site. The project site would be accessible to emergency responders during construction and operation of the project. Therefore, the project would not result in inadequate emergency access.

Pedestrian and Bicycle Access

As discussed in Section 5.2 and shown in Figure 3, the nearest bicycle facilities are provided along Bundy Avenue and Krameria Avenue. All pedestrian facilities within the project area would be unaffected by the proposed project. The proposed project would also improve its frontage with 11th Street and provide sidewalks, curbs, and gutters. Therefore, development of the project would not conflict with the existing pedestrian or bicycle facilities in the area and would improve pedestrian access around the project site.

8.2 Level of Service Findings

8.2.1 LOS Results

Based on the LOS analysis conducted for the study intersections and the WRCOG and March JPA significance thresholds, the proposed project would contribute to deficient LOS operational standards at the Bundy Avenue/Krameria Avenue intersection (#3) in the PM peak hour under the Opening Year (2024) plus Project conditions. The following section provides recommended improvements to meet LOS standards, identified for disclosure purposes only.

8.2.2 Improvement Measures

Intersection #3 – Bundy Avenue/Krameria Avenue

Although this intersection is already operating with deficient LOS during Opening Year 2024 baseline conditions, the addition of project traffic would be inconsistent with the LOS standards for WRCOG and March JPA. With the addition of project traffic, the average delay increases by 7.6 seconds at LOS F (which is more than the acceptable delay increase of 5.0 seconds or less) and the proportion of project traffic is 5.7% of total peak hour traffic (acceptable proportion of project traffic is 2%) during the PM peak hour, respectively.

However, as described previously, the Meridian South Campus EIR and TIA has been approved and design of the project includes installing a signal at the Bundy Avenue/Krameria intersection.

The following improvement is slated to be constructed by the year 2024:

Improvement 1 As part of the project design features as described in the certified Meridian South Campus project EIR and TIA, forecast to be built prior to the certificate of occupancy issued in 2024

- Signalization of the intersection.

If the Meridian South Campus project is delayed and the improvement is not built, then the traffic volumes added as part of the Opening Year 2024 analysis would not occur. Without the project being built in 2024, the project traffic volumes at the Bundy Avenue/Krameria Avenue intersection are expected to be similar to what was analyzed in the Existing and Existing plus Project scenarios since the remaining area is currently forecast only to be accessed by the existing uses in the BCTC area as well as the proposed project analyzed in this TIA. Therefore, a signal would not be warranted if the Meridian South Campus project is not built.

Table 7 shows the associated LOS and delay improvement that would occur with the signalization of the intersection, for the Opening Year (2024) plus Project scenario. Implementation of Improvement 1 would improve intersection operations to satisfactory conditions, consistent with all LOS standards.

Table 7. Peak Hour Intersection Level of Service with Improvement 1

No.	Intersection	Opening Year (2024) plus Project				Opening Year (2024) plus Project (w/Improvement 1)			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²
3	Bundy Avenue/Krameria Avenue	15.8	C	60.7	F	5.0	A	7.4	A

Notes:

¹ Delay in seconds per vehicle

² Level of Service (LOS)

9 References

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Appendix A

Traffic Counts

County of Riverside
N/S: Bundy Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : 23_CRV_Bundy_Krameria AM
Site Code : 05119542
Start Date : 8/20/2019
Page No : 1

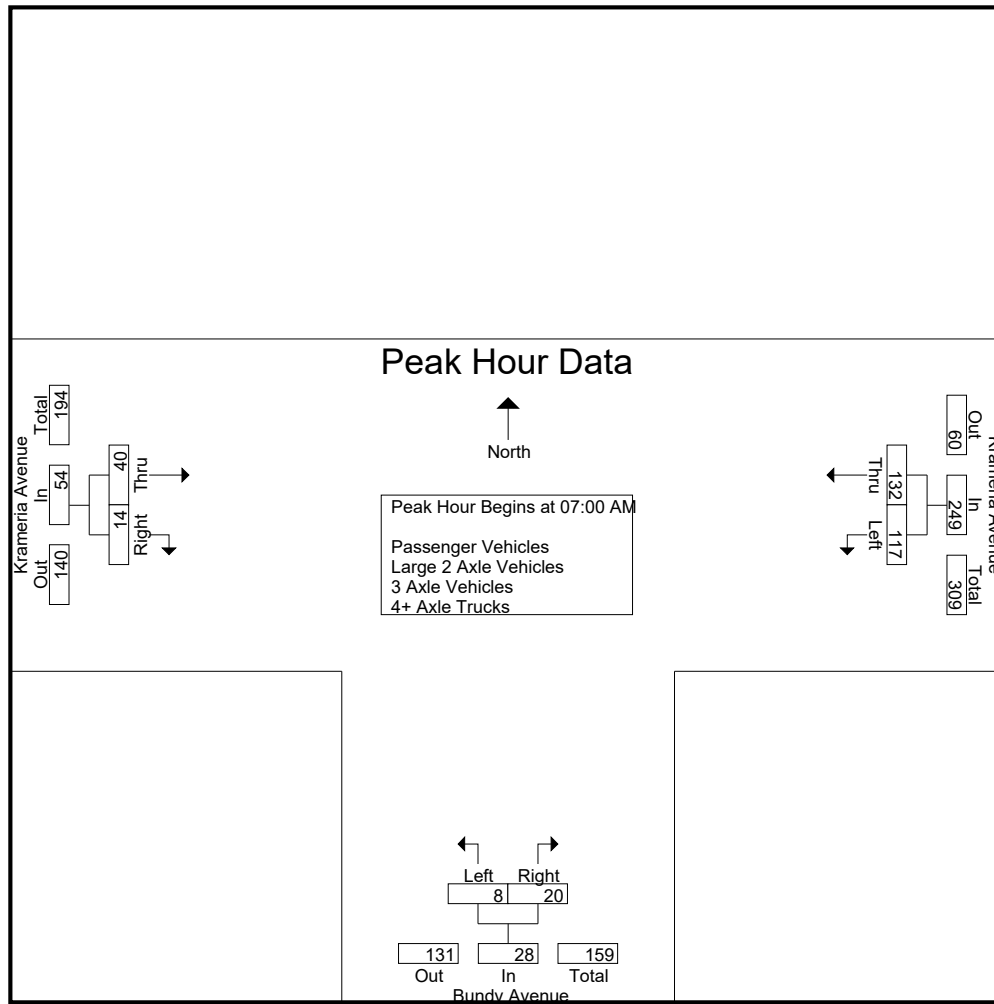
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	18	47	65	2	0	2	9	8	17	84
07:15 AM	26	54	80	1	1	2	10	2	12	94
07:30 AM	44	17	61	5	9	14	15	1	16	91
07:45 AM	29	14	43	0	10	10	6	3	9	62
Total	117	132	249	8	20	28	40	14	54	331
08:00 AM	11	14	25	4	7	11	16	4	20	56
08:15 AM	15	8	23	3	5	8	10	5	15	46
08:30 AM	17	7	24	0	12	12	8	5	13	49
08:45 AM	8	9	17	1	5	6	11	1	12	35
Total	51	38	89	8	29	37	45	15	60	186
Grand Total	168	170	338	16	49	65	85	29	114	517
Apprch %	49.7	50.3		24.6	75.4		74.6	25.4		
Total %	32.5	32.9	65.4	3.1	9.5	12.6	16.4	5.6	22.1	
Passenger Vehicles	167	155	322	16	46	62	31	29	60	444
% Passenger Vehicles	99.4	91.2	95.3	100	93.9	95.4	36.5	100	52.6	85.9
Large 2 Axle Vehicles	1	1	2	0	3	3	2	0	2	7
% Large 2 Axle Vehicles	0.6	0.6	0.6	0	6.1	4.6	2.4	0	1.8	1.4
3 Axle Vehicles	0	3	3	0	0	0	42	0	42	45
% 3 Axle Vehicles	0	1.8	0.9	0	0	0	49.4	0	36.8	8.7
4+ Axle Trucks	0	11	11	0	0	0	10	0	10	21
% 4+ Axle Trucks	0	6.5	3.3	0	0	0	11.8	0	8.8	4.1

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue 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 07:00 AM										
07:00 AM	18	47	65	2	0	2	9	8	17	84
07:15 AM	26	54	80	1	1	2	10	2	12	94
07:30 AM	44	17	61	5	9	14	15	1	16	91
07:45 AM	29	14	43	0	10	10	6	3	9	62
Total Volume	117	132	249	8	20	28	40	14	54	331
% App. Total	47	53		28.6	71.4		74.1	25.9		
PHF	.665	.611	.778	.400	.500	.500	.667	.438	.794	.880

County of Riverside
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Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:30 AM		
+0 mins.	18	47	65	5	9	14	15	1	16
+15 mins.	26	54	80	0	10	10	6	3	9
+30 mins.	44	17	61	4	7	11	16	4	20
+45 mins.	29	14	43	3	5	8	10	5	15
Total Volume	117	132	249	12	31	43	47	13	60
% App. Total	47	53		27.9	72.1		78.3	21.7	
PHF	.665	.611	.778	.600	.775	.768	.734	.650	.750

County of Riverside
N/S: Bundy Avenue
E/W: Krameria Avenue
Weather: Clear

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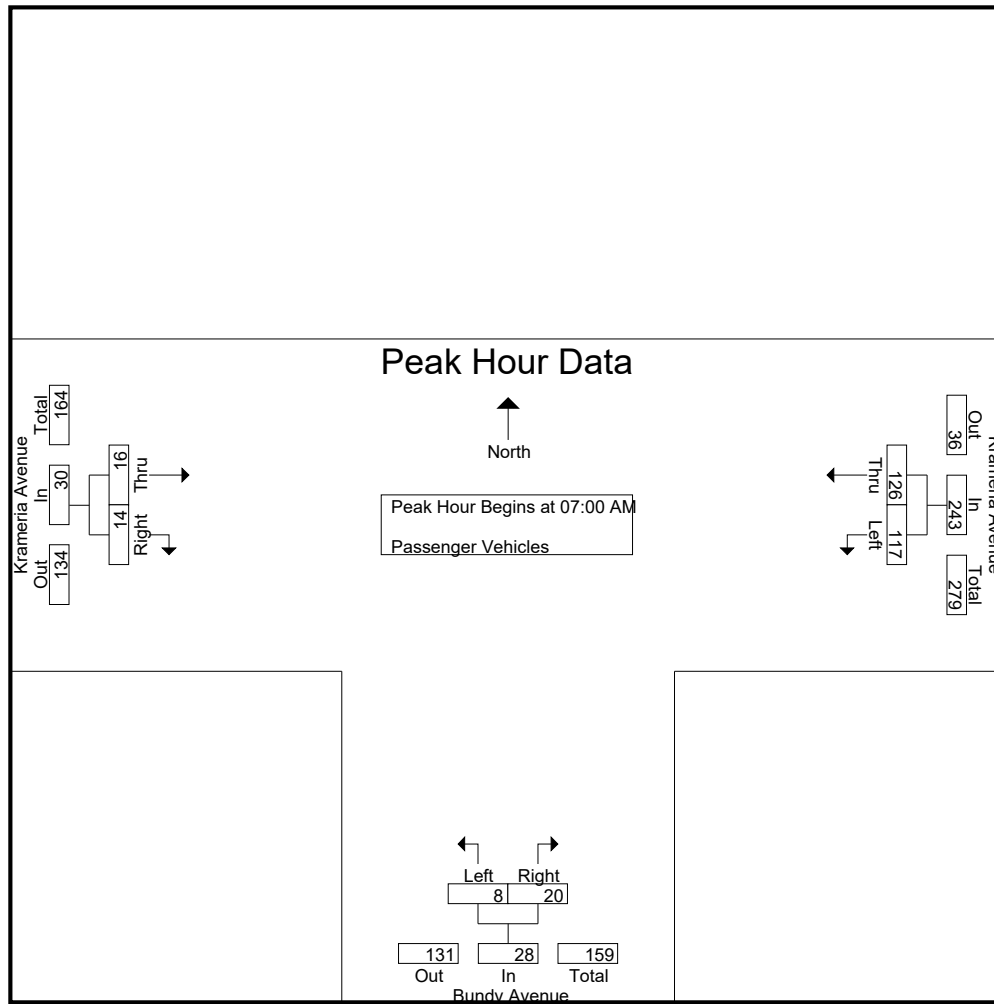
Groups Printed- Passenger Vehicles

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	18	47	65	2	0	2	2	8	10	77
07:15 AM	26	50	76	1	1	2	8	2	10	88
07:30 AM	44	16	60	5	9	14	4	1	5	79
07:45 AM	29	13	42	0	10	10	2	3	5	57
Total	117	126	243	8	20	28	16	14	30	301
08:00 AM	10	10	20	4	7	11	5	4	9	40
08:15 AM	15	7	22	3	3	6	5	5	10	38
08:30 AM	17	6	23	0	11	11	0	5	5	39
08:45 AM	8	6	14	1	5	6	5	1	6	26
Total	50	29	79	8	26	34	15	15	30	143
Grand Total	167	155	322	16	46	62	31	29	60	444
Apprch %	51.9	48.1		25.8	74.2		51.7	48.3		
Total %	37.6	34.9	72.5	3.6	10.4	14	7	6.5	13.5	

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue 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 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	18	47	65	2	0	2	2	8	10	77
07:15 AM	26	50	76	1	1	2	8	2	10	88
07:30 AM	44	16	60	5	9	14	4	1	5	79
07:45 AM	29	13	42	0	10	10	2	3	5	57
Total Volume	117	126	243	8	20	28	16	14	30	301
% App. Total	48.1	51.9		28.6	71.4		53.3	46.7		
PHF	.665	.630	.799	.400	.500	.500	.500	.438	.750	.855

County of Riverside
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Weather: Clear

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	18	47	65	2	0	2	2	8	10
+15 mins.	26	50	76	1	1	2	8	2	10
+30 mins.	44	16	60	5	9	14	4	1	5
+45 mins.	29	13	42	0	10	10	2	3	5
Total Volume	117	126	243	8	20	28	16	14	30
% App. Total	48.1	51.9		28.6	71.4		53.3	46.7	
PHF	.665	.630	.799	.400	.500	.500	.500	.438	.750

County of Riverside
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Weather: Clear

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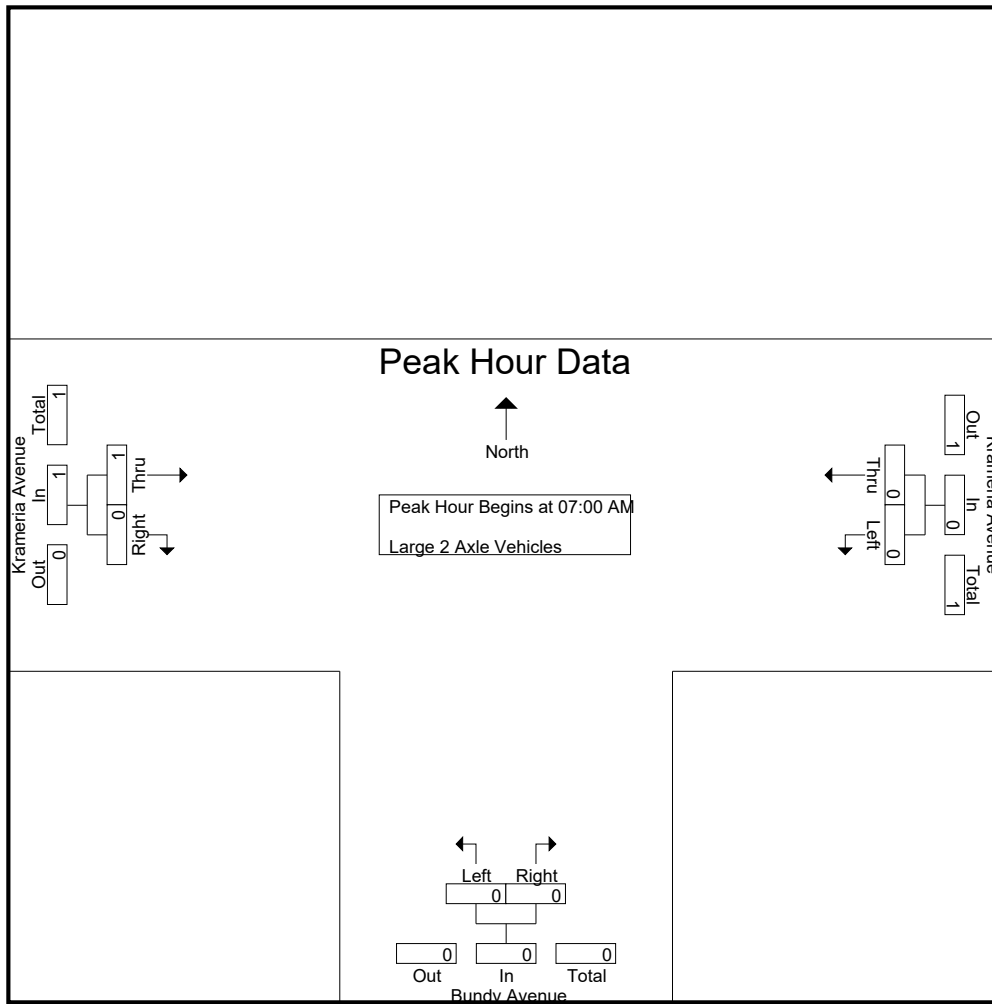
Groups Printed- Large 2 Axle Vehicles

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	1	1
08:00 AM	1	1	2	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	2	2	0	0	0	2
08:30 AM	0	0	0	0	1	1	1	0	1	2
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	1	2	0	3	3	1	0	1	6
Grand Total	1	1	2	0	3	3	2	0	2	7
Apprch %	50	50		0	100		100	0		
Total %	14.3	14.3	28.6	0	42.9	42.9	28.6	0	28.6	

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue 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 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0		0	0		100	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

County of Riverside
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	0	1
% App. Total	0	0	0	0	0	0	100	0	100
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250

County of Riverside
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E/W: Krameria Avenue
Weather: Clear

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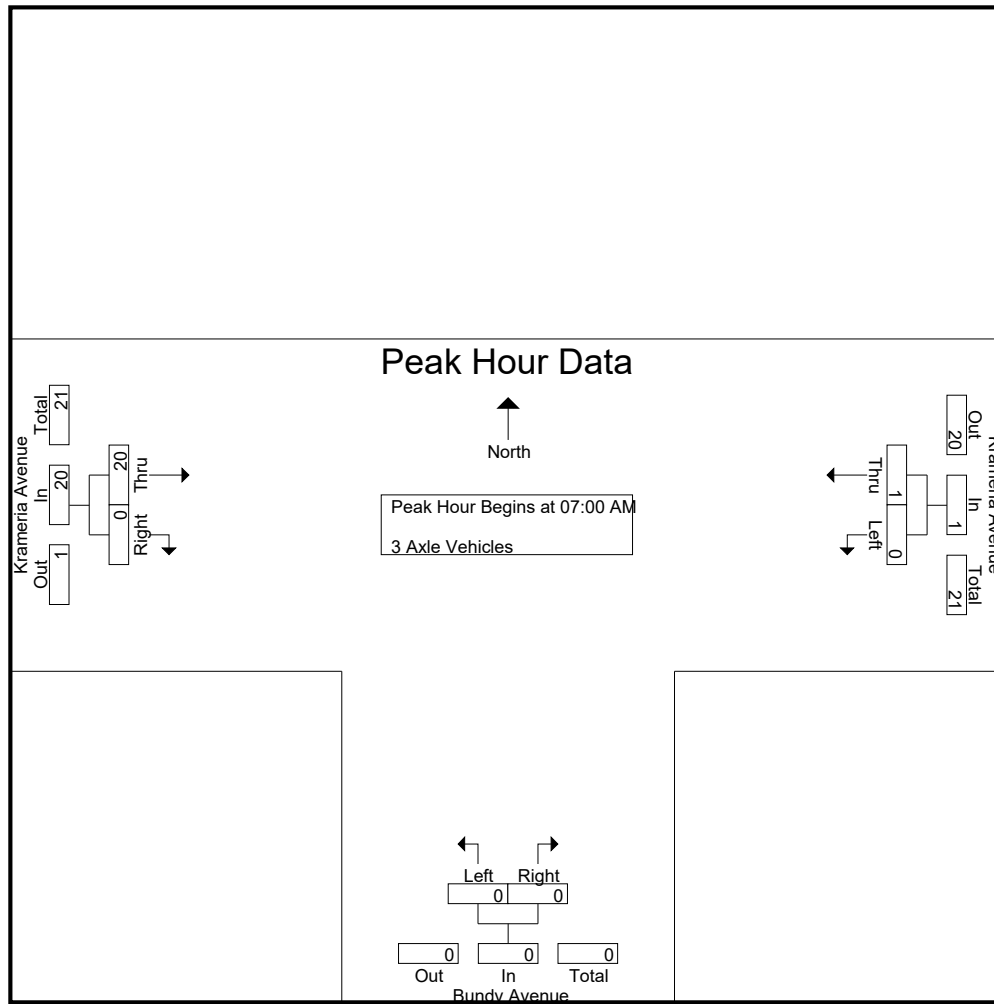
Groups Printed- 3 Axle Vehicles

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	6	0	6	6
07:15 AM	0	0	0	0	0	0	2	0	2	2
07:30 AM	0	1	1	0	0	0	10	0	10	11
07:45 AM	0	0	0	0	0	0	2	0	2	2
Total	0	1	1	0	0	0	20	0	20	21
08:00 AM	0	1	1	0	0	0	10	0	10	11
08:15 AM	0	0	0	0	0	0	4	0	4	4
08:30 AM	0	0	0	0	0	0	5	0	5	5
08:45 AM	0	1	1	0	0	0	3	0	3	4
Total	0	2	2	0	0	0	22	0	22	24
Grand Total	0	3	3	0	0	0	42	0	42	45
Apprch %	0	100		0	0		100	0		
Total %	0	6.7	6.7	0	0	0	93.3	0	93.3	

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue 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 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	6	0	6	6
07:15 AM	0	0	0	0	0	0	2	0	2	2
07:30 AM	0	1	1	0	0	0	10	0	10	11
07:45 AM	0	0	0	0	0	0	2	0	2	2
Total Volume	0	1	1	0	0	0	20	0	20	21
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.500	.000	.500	.477

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	6	0	6
+15 mins.	0	0	0	0	0	0	2	0	2
+30 mins.	0	1	1	0	0	0	10	0	10
+45 mins.	0	0	0	0	0	0	2	0	2
Total Volume	0	1	1	0	0	0	20	0	20
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.500	.000	.500

County of Riverside
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Weather: Clear

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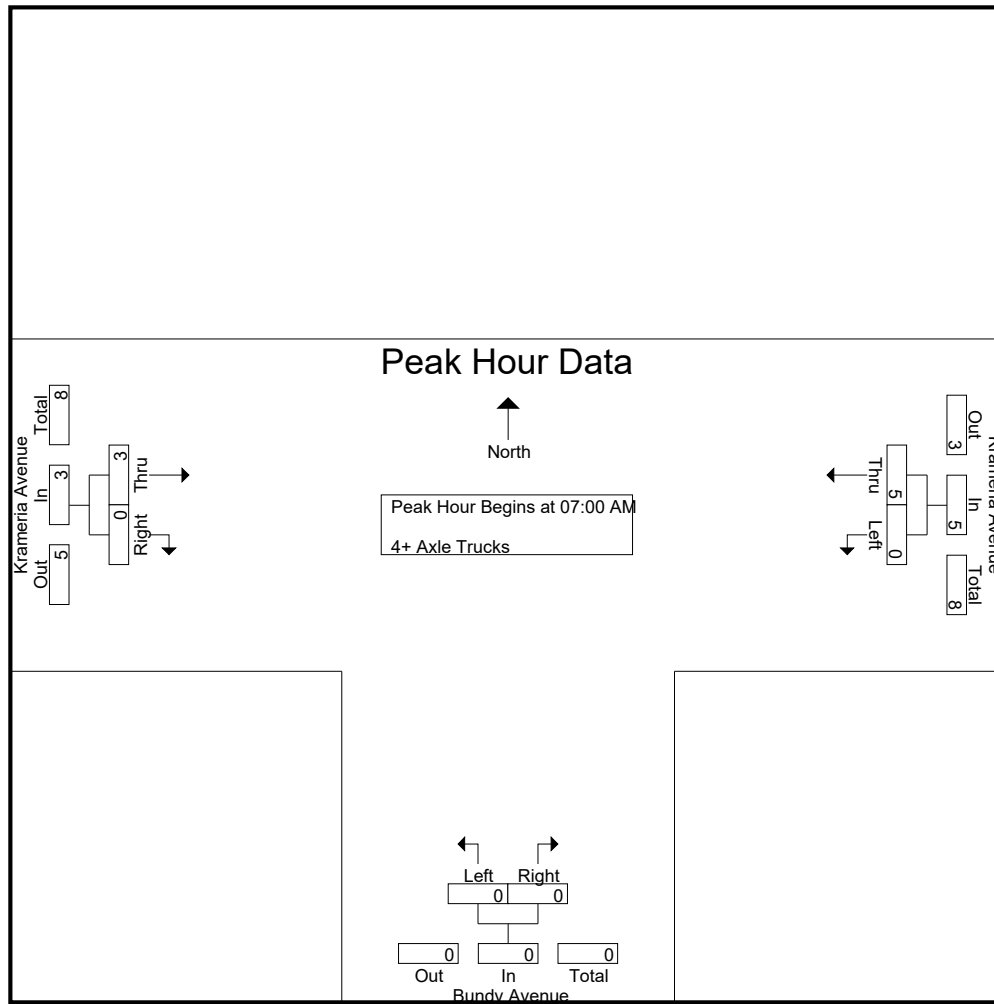
Groups Printed- 4+ Axle Trucks

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	4	4	0	0	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	1	1	0	0	0	2	0	2	3
Total	0	5	5	0	0	0	3	0	3	8
08:00 AM	0	2	2	0	0	0	1	0	1	3
08:15 AM	0	1	1	0	0	0	1	0	1	2
08:30 AM	0	1	1	0	0	0	2	0	2	3
08:45 AM	0	2	2	0	0	0	3	0	3	5
Total	0	6	6	0	0	0	7	0	7	13
Grand Total	0	11	11	0	0	0	10	0	10	21
Apprch %	0	100		0	0		100	0		
Total %	0	52.4	52.4	0	0	0	47.6	0	47.6	

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue 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 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	4	4	0	0	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	1	1	0	0	0	2	0	2	3
Total Volume	0	5	5	0	0	0	3	0	3	8
% App. Total	0	100		0	0		100	0		
PHF	.000	.313	.313	.000	.000	.000	.375	.000	.375	.500

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	4	4	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	0	1
+45 mins.	0	1	1	0	0	0	2	0	2
Total Volume	0	5	5	0	0	0	3	0	3
% App. Total	0	100		0	0		100	0	
PHF	.000	.313	.313	.000	.000	.000	.375	.000	.375

County of Riverside
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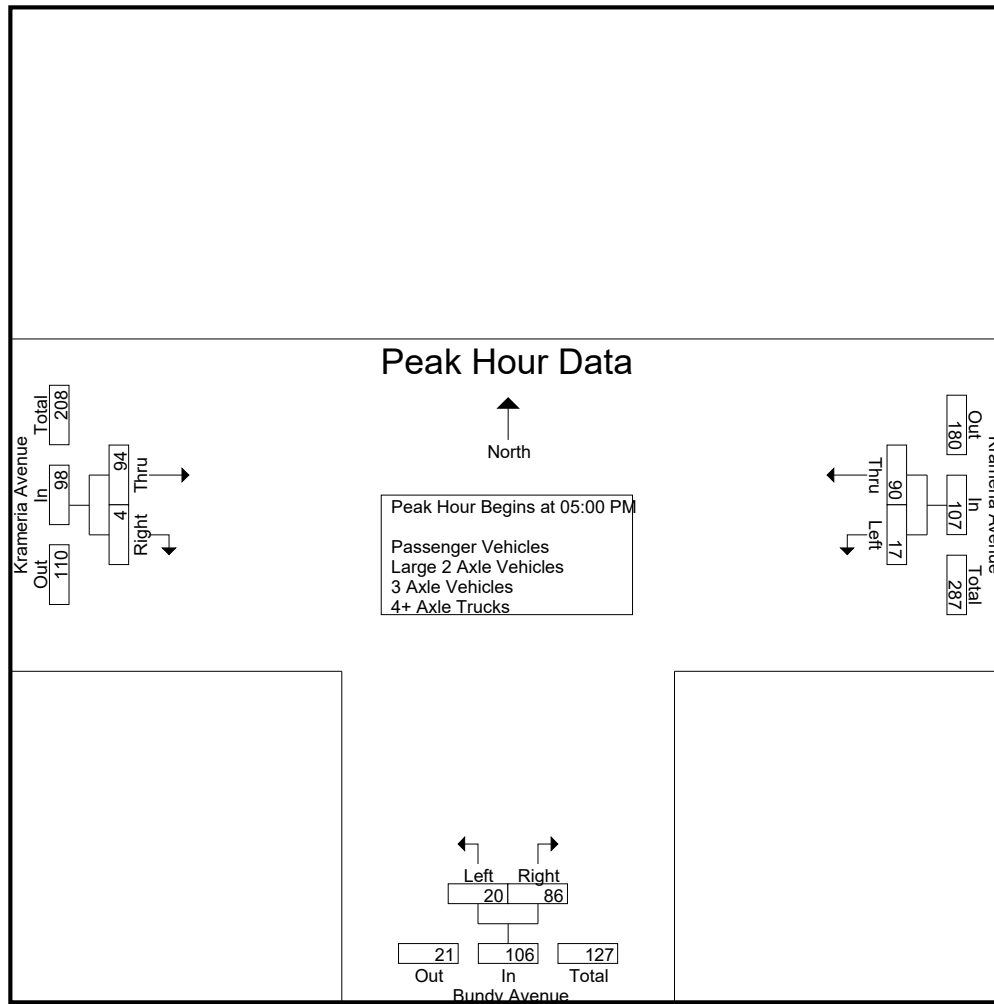
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	3	2	5	1	30	31	12	0	12	48
04:15 PM	2	8	10	7	47	54	7	0	7	71
04:30 PM	4	5	9	8	15	23	19	1	20	52
04:45 PM	2	2	4	5	21	26	8	1	9	39
Total	11	17	28	21	113	134	46	2	48	210
05:00 PM	4	14	18	5	26	31	8	0	8	57
05:15 PM	8	11	19	7	35	42	14	3	17	78
05:30 PM	3	21	24	4	15	19	45	0	45	88
05:45 PM	2	44	46	4	10	14	27	1	28	88
Total	17	90	107	20	86	106	94	4	98	311
Grand Total	28	107	135	41	199	240	140	6	146	521
Apprch %	20.7	79.3		17.1	82.9		95.9	4.1		
Total %	5.4	20.5	25.9	7.9	38.2	46.1	26.9	1.2	28	
Passenger Vehicles	26	98	124	39	197	236	129	6	135	495
% Passenger Vehicles	92.9	91.6	91.9	95.1	99	98.3	92.1	100	92.5	95
Large 2 Axle Vehicles	2	1	3	2	2	4	0	0	0	7
% Large 2 Axle Vehicles	7.1	0.9	2.2	4.9	1	1.7	0	0	0	1.3
3 Axle Vehicles	0	2	2	0	0	0	2	0	2	4
% 3 Axle Vehicles	0	1.9	1.5	0	0	0	1.4	0	1.4	0.8
4+ Axle Trucks	0	6	6	0	0	0	9	0	9	15
% 4+ Axle Trucks	0	5.6	4.4	0	0	0	6.4	0	6.2	2.9

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue 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 05:00 PM										
05:00 PM	4	14	18	5	26	31	8	0	8	57
05:15 PM	8	11	19	7	35	42	14	3	17	78
05:30 PM	3	21	24	4	15	19	45	0	45	88
05:45 PM	2	44	46	4	10	14	27	1	28	88
Total Volume	17	90	107	20	86	106	94	4	98	311
% App. Total	15.9	84.1		18.9	81.1		95.9	4.1		
PHF	.531	.511	.582	.714	.614	.631	.522	.333	.544	.884

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			05:00 PM		
+0 mins.	4	14	18	1	30	31	8	0	8
+15 mins.	8	11	19	7	47	54	14	3	17
+30 mins.	3	21	24	8	15	23	45	0	45
+45 mins.	2	44	46	5	21	26	27	1	28
Total Volume	17	90	107	21	113	134	94	4	98
% App. Total	15.9	84.1		15.7	84.3		95.9	4.1	
PHF	.531	.511	.582	.656	.601	.620	.522	.333	.544

County of Riverside
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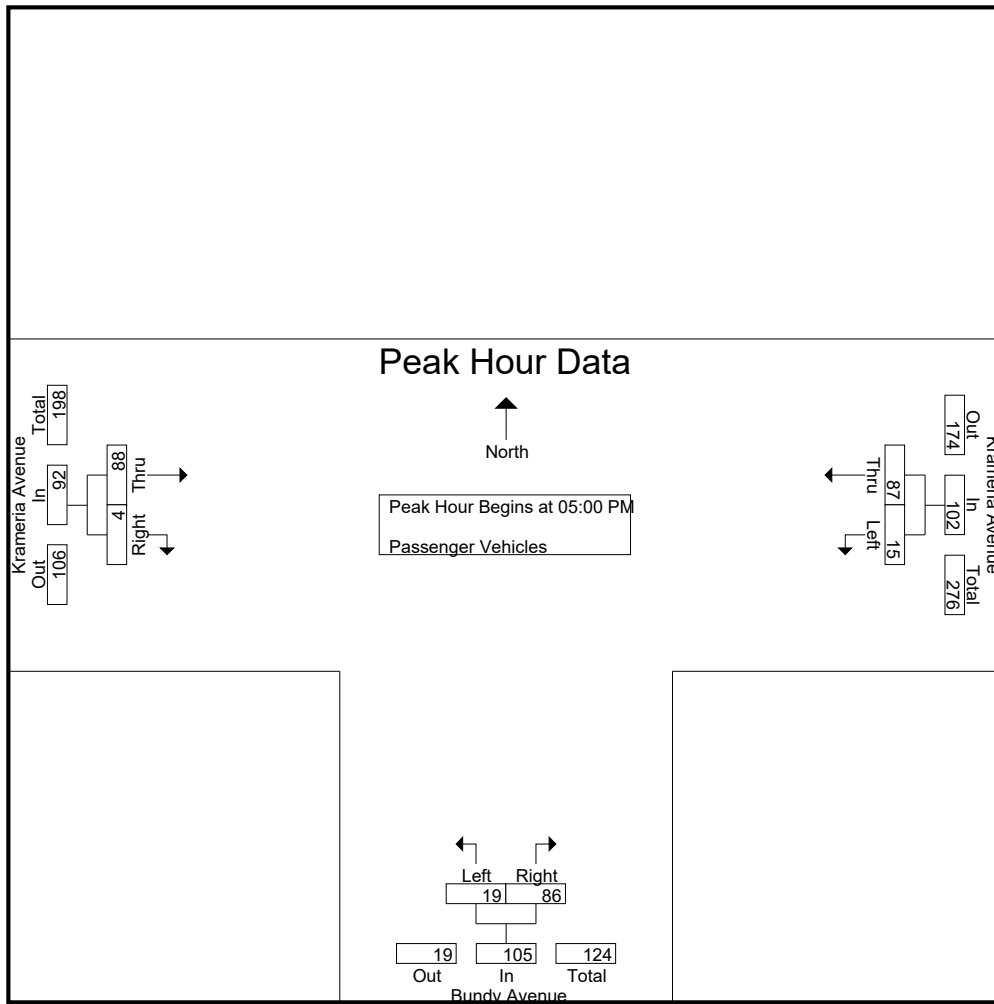
Groups Printed- Passenger Vehicles

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	3	1	4	1	29	30	12	0	12	46
04:15 PM	2	3	5	7	46	53	6	0	6	64
04:30 PM	4	5	9	7	15	22	18	1	19	50
04:45 PM	2	2	4	5	21	26	5	1	6	36
Total	11	11	22	20	111	131	41	2	43	196
05:00 PM	4	14	18	4	26	30	7	0	7	55
05:15 PM	6	9	15	7	35	42	12	3	15	72
05:30 PM	3	20	23	4	15	19	45	0	45	87
05:45 PM	2	44	46	4	10	14	24	1	25	85
Total	15	87	102	19	86	105	88	4	92	299
Grand Total	26	98	124	39	197	236	129	6	135	495
Apprch %	21	79		16.5	83.5		95.6	4.4		
Total %	5.3	19.8	25.1	7.9	39.8	47.7	26.1	1.2	27.3	

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	4	14	18	4	26	30	7	0	7	55
05:15 PM	6	9	15	7	35	42	12	3	15	72
05:30 PM	3	20	23	4	15	19	45	0	45	87
05:45 PM	2	44	46	4	10	14	24	1	25	85
Total Volume	15	87	102	19	86	105	88	4	92	299
% App. Total	14.7	85.3		18.1	81.9		95.7	4.3		
PHF	.625	.494	.554	.679	.614	.625	.489	.333	.511	.859

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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	4	14	18	4	26	30	7	0	7
+15 mins.	6	9	15	7	35	42	12	3	15
+30 mins.	3	20	23	4	15	19	45	0	45
+45 mins.	2	44	46	4	10	14	24	1	25
Total Volume	15	87	102	19	86	105	88	4	92
% App. Total	14.7	85.3		18.1	81.9		95.7	4.3	
PHF	.625	.494	.554	.679	.614	.625	.489	.333	.511

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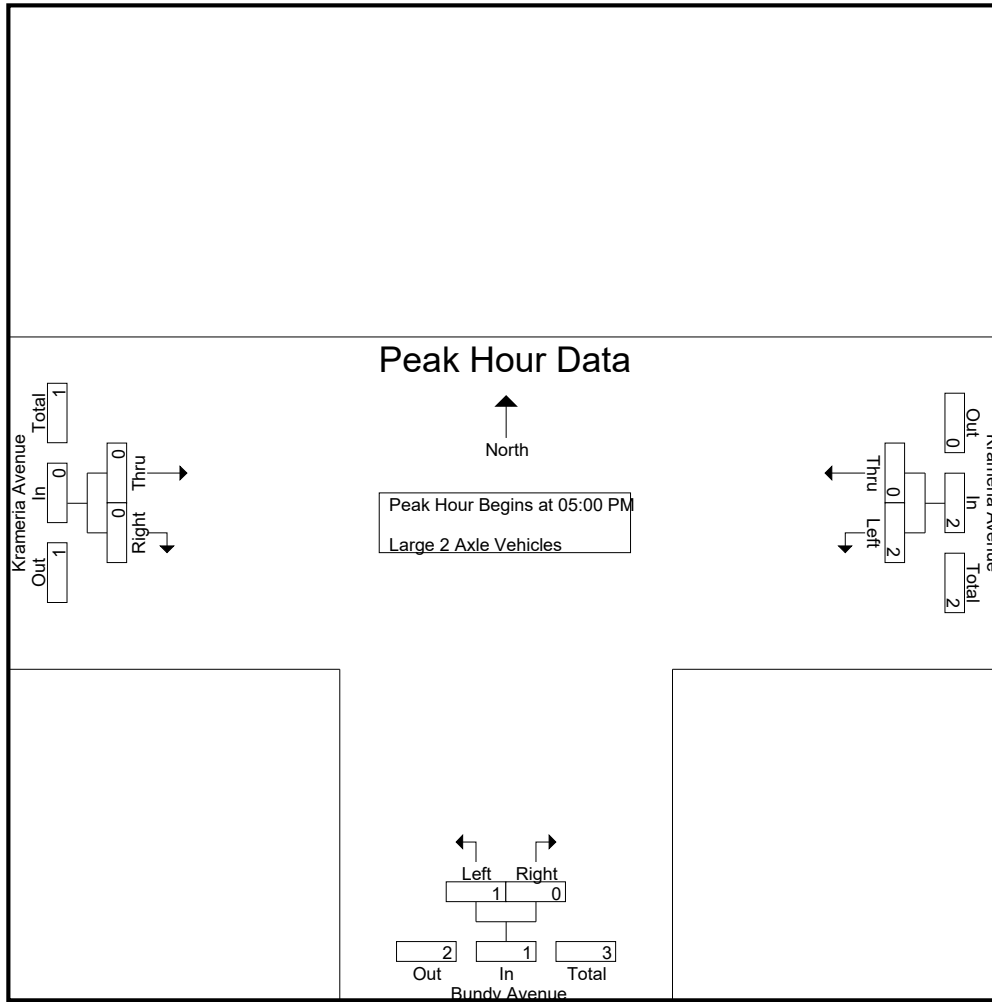
Groups Printed- Large 2 Axle Vehicles

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	1	0	0	0	1
04:15 PM	0	1	1	0	1	1	0	0	0	2
04:30 PM	0	0	0	1	0	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	1	2	3	0	0	0	4
05:00 PM	0	0	0	1	0	1	0	0	0	1
05:15 PM	2	0	2	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	2	0	2	1	0	1	0	0	0	3
Grand Total	2	1	3	2	2	4	0	0	0	7
Apprch %	66.7	33.3		50	50		0	0		
Total %	28.6	14.3	42.9	28.6	28.6	57.1	0	0	0	

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	1	0	1	0	0	0	1
05:15 PM	2	0	2	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	2	1	0	1	0	0	0	3
% App. Total	100	0		100	0		0	0		
PHF	.250	.000	.250	.250	.000	.250	.000	.000	.000	.375

County of Riverside
N/S: Bundy Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : 23_CRV_Bundy_Krameria PM
Site Code : 05119542
Start Date : 8/20/2019
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	2	0	2	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	2	0	2	1	0	1	0	0	0
% App. Total	100	0		100	0		0	0	
PHF	.250	.000	.250	.250	.000	.250	.000	.000	.000

County of Riverside
N/S: Bundy Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : 23_CRV_Bundy_Krameria PM
Site Code : 05119542
Start Date : 8/20/2019
Page No : 1

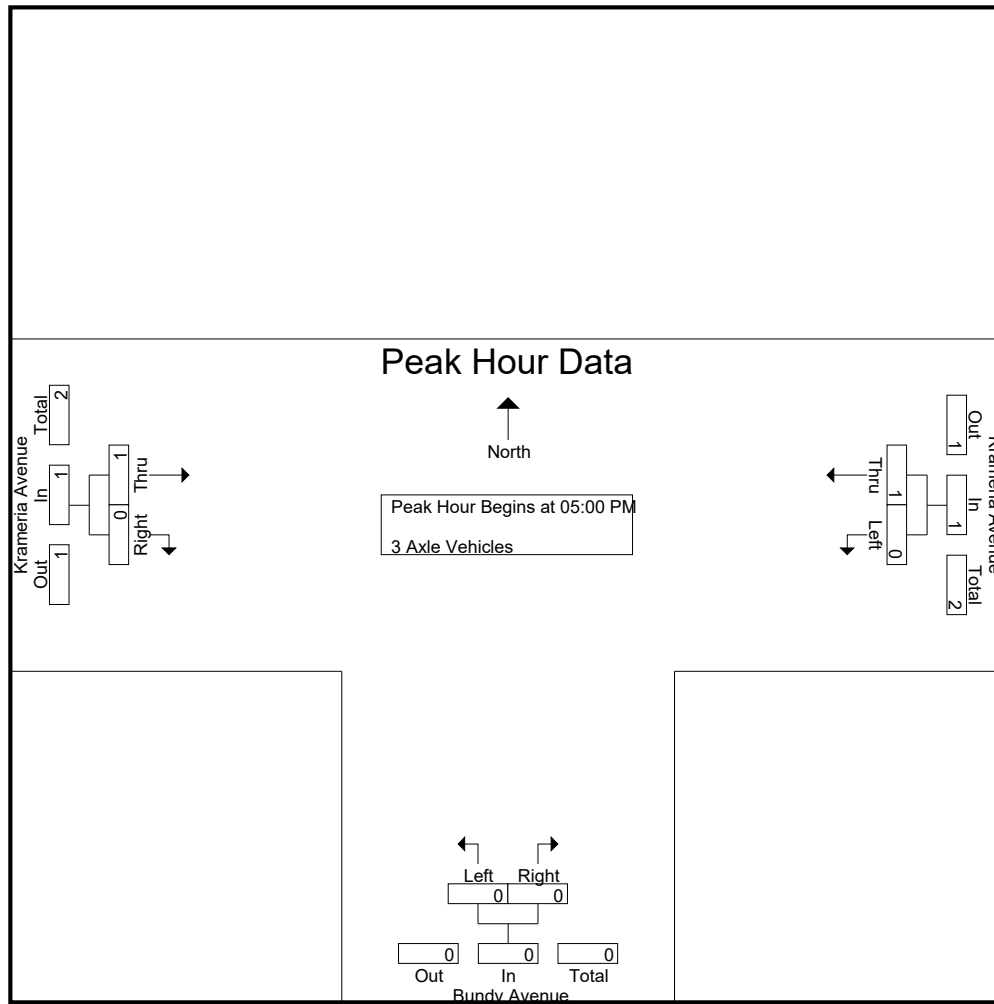
Groups Printed- 3 Axle Vehicles

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	1	1	0	0	0	1	0	1	2
Grand Total	0	2	2	0	0	0	2	0	2	4
Apprch %	0	100		0	0		100	0		
Total %	0	50	50	0	0	0	50	0	50	

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	1	1	0	0	0	1	0	1	2
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250	.500

County of Riverside
N/S: Bundy Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : 23_CRV_Bundy_Krameria PM
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	1	1	0	0	0	1	0	1
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250

County of Riverside
N/S: Bundy Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : 23_CRV_Bundy_Krameria PM
Site Code : 05119542
Start Date : 8/20/2019
Page No : 1

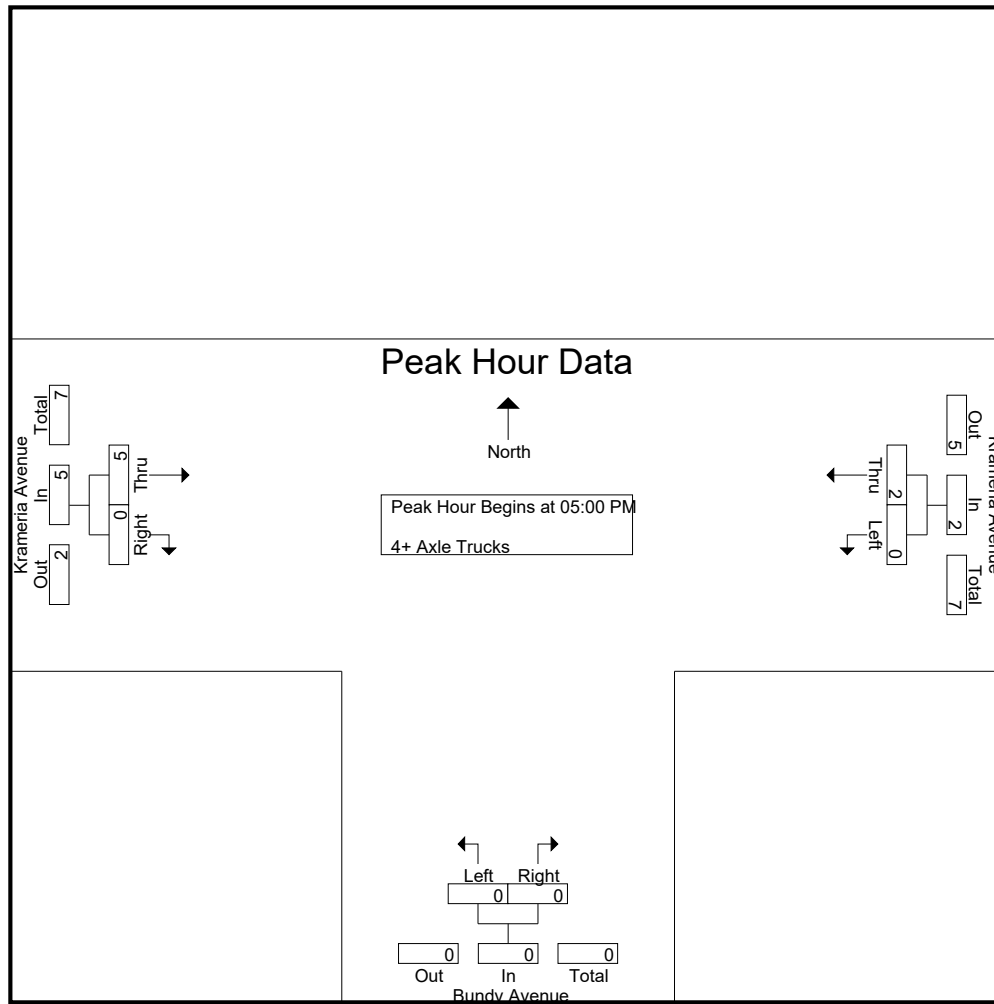
Groups Printed- 4+ Axle Trucks

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	4	4	0	0	0	1	0	1	5
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	3	0	3	3
Total	0	4	4	0	0	0	4	0	4	8
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	1	1	0	0	0	2	0	2	3
05:30 PM	0	1	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	2	0	2	2
Total	0	2	2	0	0	0	5	0	5	7
Grand Total	0	6	6	0	0	0	9	0	9	15
Apprch %	0	100		0	0		100	0		
Total %	0	40	40	0	0	0	60	0	60	

	Krameria Avenue Westbound			Bundy Avenue Northbound			Krameria Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	1	1	0	0	0	2	0	2	3
05:30 PM	0	1	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	2	0	2	2
Total Volume	0	2	2	0	0	0	5	0	5	7
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.625	.000	.625	.583

County of Riverside
N/S: Bundy Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : 23_CRV_Bundy_Krameria PM
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	1	1	0	0	0	2	0	2
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	2	0	2
Total Volume	0	2	2	0	0	0	5	0	5
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.625	.000	.625

Location: County of Riverside
 N/S: Bundy Avenue
 E/W: Krameria Avenue



Date: 8/20/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Bundy Avenue	East Leg Krameria Avenue	South Leg Bundy Avenue	West Leg Krameria Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Bundy Avenue	East Leg Krameria Avenue	South Leg Bundy Avenue	West Leg Krameria Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: Bundy Avenue
 E/W: Krameria Avenue



Date: 8/20/2019
 Day: Tuesday

BICYCLES

		Southbound Bundy Avenue			Westbound Krameria Avenue			Northbound Bundy Avenue			Eastbound Krameria Avenue			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	1	0	1

		Southbound Bundy Avenue			Westbound Krameria Avenue			Northbound Bundy Avenue			Eastbound Krameria Avenue			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	0	0	0

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren AM
Site Code : 05119542
Start Date : 8/20/2019
Page No : 1

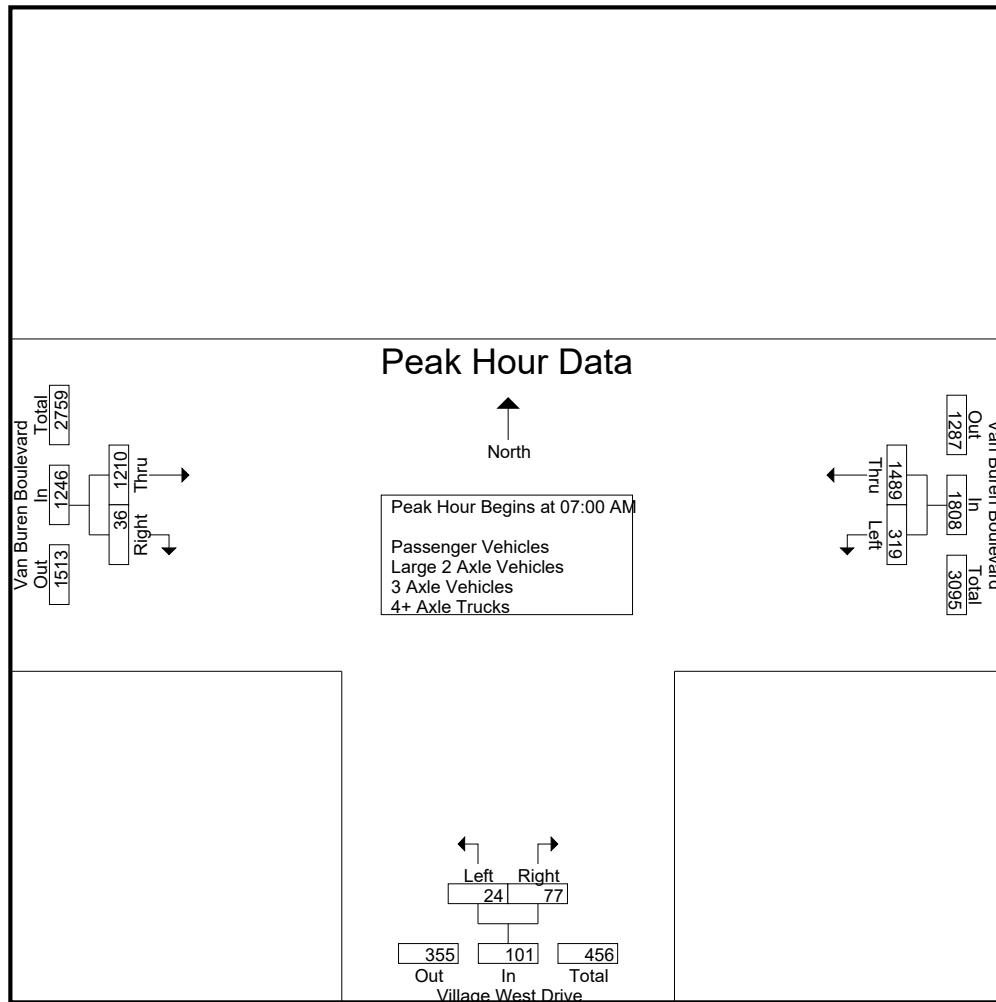
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Van Buren Boulevard Westbound				Village West Drive Northbound				Van Buren Boulevard Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	80	454	0	534	10	13	11	23	226	4	0	230	11	787	798
07:15 AM	101	401	0	502	3	17	12	20	305	10	1	315	13	837	850
07:30 AM	74	333	0	407	9	18	10	27	295	11	4	306	14	740	754
07:45 AM	64	301	0	365	2	29	19	31	384	11	1	395	20	791	811
Total	319	1489	0	1808	24	77	52	101	1210	36	6	1246	58	3155	3213
08:00 AM	34	262	0	296	8	20	11	28	284	7	1	291	12	615	627
08:15 AM	26	277	0	303	4	19	11	23	213	4	1	217	12	543	555
08:30 AM	27	264	0	291	12	19	14	31	178	5	0	183	14	505	519
08:45 AM	21	277	0	298	3	18	12	21	158	7	0	165	12	484	496
Total	108	1080	0	1188	27	76	48	103	833	23	2	856	50	2147	2197
Grand Total	427	2569	0	2996	51	153	100	204	2043	59	8	2102	108	5302	5410
Apprch %	14.3	85.7			25	75			97.2	2.8					
Total %	8.1	48.5		56.5	1	2.9		3.8	38.5	1.1		39.6	2	98	
Passenger Vehicles	410	2426		2836	24	116		223	1972	55		2034	0	0	5093
% Passenger Vehicles	96	94.4	0	94.7	47.1	75.8	83	73.4	96.5	93.2	87.5	96.4	0	0	94.1
Large 2 Axle Vehicles	3	84		87	2	10		16	51	2		53	0	0	156
% Large 2 Axle Vehicles	0.7	3.3	0	2.9	3.9	6.5	4	5.3	2.5	3.4	0	2.5	0	0	2.9
3 Axle Vehicles	3	25		28	25	20		55	8	2		11	0	0	94
% 3 Axle Vehicles	0.7	1	0	0.9	49	13.1	10	18.1	0.4	3.4	12.5	0.5	0	0	1.7
4+ Axle Trucks	11	34		45	0	7		10	12	0		12	0	0	67
% 4+ Axle Trucks	2.6	1.3	0	1.5	0	4.6	3	3.3	0.6	0	0	0.6	0	0	1.2

	Van Buren Boulevard Westbound			Village West Drive Northbound			Van Buren Boulevard 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 07:00 AM										
07:00 AM	80	454	534	10	13	23	226	4	230	787
07:15 AM	101	401	502	3	17	20	305	10	315	837
07:30 AM	74	333	407	9	18	27	295	11	306	740
07:45 AM	64	301	365	2	29	31	384	11	395	791
Total Volume	319	1489	1808	24	77	101	1210	36	1246	3155
% App. Total	17.6	82.4		23.8	76.2		97.1	2.9		
PHF	.790	.820	.846	.600	.664	.815	.788	.818	.789	.942

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren AM
Site Code : 05119542
Start Date : 8/20/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:45 AM			07:15 AM		
+0 mins.	80	454	534	2	29	31	305	10	315
+15 mins.	101	401	502	8	20	28	295	11	306
+30 mins.	74	333	407	4	19	23	384	11	395
+45 mins.	64	301	365	12	19	31	284	7	291
Total Volume	319	1489	1808	26	87	113	1268	39	1307
% App. Total	17.6	82.4		23	77		97	3	
PHF	.790	.820	.846	.542	.750	.911	.826	.886	.827

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren AM
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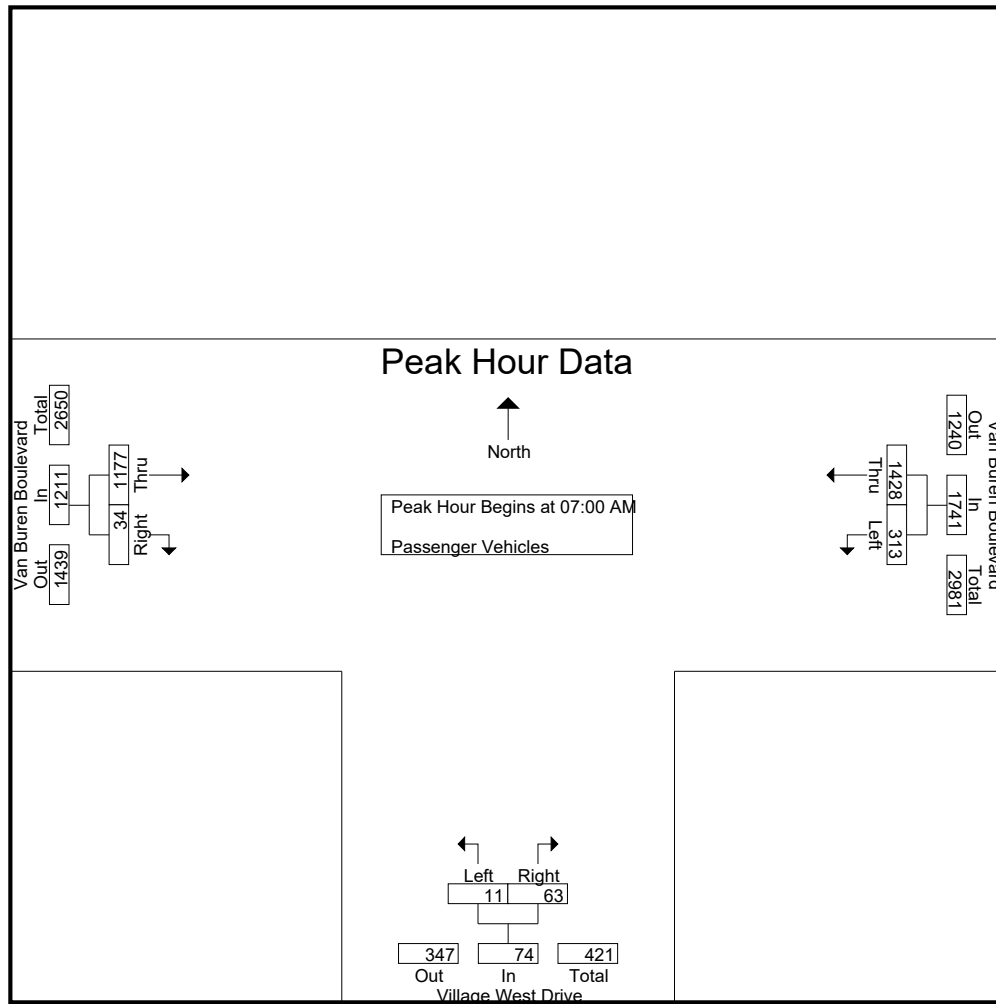
Groups Printed- Passenger Vehicles

	Van Buren Boulevard Westbound				Village West Drive Northbound				Van Buren Boulevard Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	80	434	0	514	3	10	8	13	218	3	0	221	8	748	756
07:15 AM	97	395	0	492	3	15	12	18	297	10	1	307	13	817	830
07:30 AM	73	311	0	384	3	12	9	15	285	10	3	295	12	694	706
07:45 AM	63	288	0	351	2	26	17	28	377	11	1	388	18	767	785
Total	313	1428	0	1741	11	63	46	74	1177	34	5	1211	51	3026	3077
08:00 AM	28	242	0	270	1	13	7	14	273	7	1	280	8	564	572
08:15 AM	25	257	0	282	4	11	8	15	202	4	1	206	9	503	512
08:30 AM	25	242	0	267	8	12	10	20	171	4	0	175	10	462	472
08:45 AM	19	257	0	276	0	17	12	17	149	6	0	155	12	448	460
Total	97	998	0	1095	13	53	37	66	795	21	2	816	39	1977	2016
Grand Total	410	2426	0	2836	24	116	83	140	1972	55	7	2027	90	5003	5093
Apprch %	14.5	85.5			17.1	82.9			97.3	2.7					
Total %	8.2	48.5		56.7	0.5	2.3		2.8	39.4	1.1		40.5	1.8	98.2	

	Van Buren Boulevard Westbound			Village West Drive Northbound			Van Buren Boulevard 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 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	80	434	514	3	10	13	218	3	221	748
07:15 AM	97	395	492	3	15	18	297	10	307	817
07:30 AM	73	311	384	3	12	15	285	10	295	694
07:45 AM	63	288	351	2	26	28	377	11	388	767
Total Volume	313	1428	1741	11	63	74	1177	34	1211	3026
% App. Total	18	82		14.9	85.1		97.2	2.8		
PHF	.807	.823	.847	.917	.606	.661	.781	.773	.780	.926

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren AM
Site Code : 05119542
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	80	434	514	3	10	13	218	3	221
+15 mins.	97	395	492	3	15	18	297	10	307
+30 mins.	73	311	384	3	12	15	285	10	295
+45 mins.	63	288	351	2	26	28	377	11	388
Total Volume	313	1428	1741	11	63	74	1177	34	1211
% App. Total	18	82		14.9	85.1		97.2	2.8	
PHF	.807	.823	.847	.917	.606	.661	.781	.773	.780

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren AM
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Page No : 1

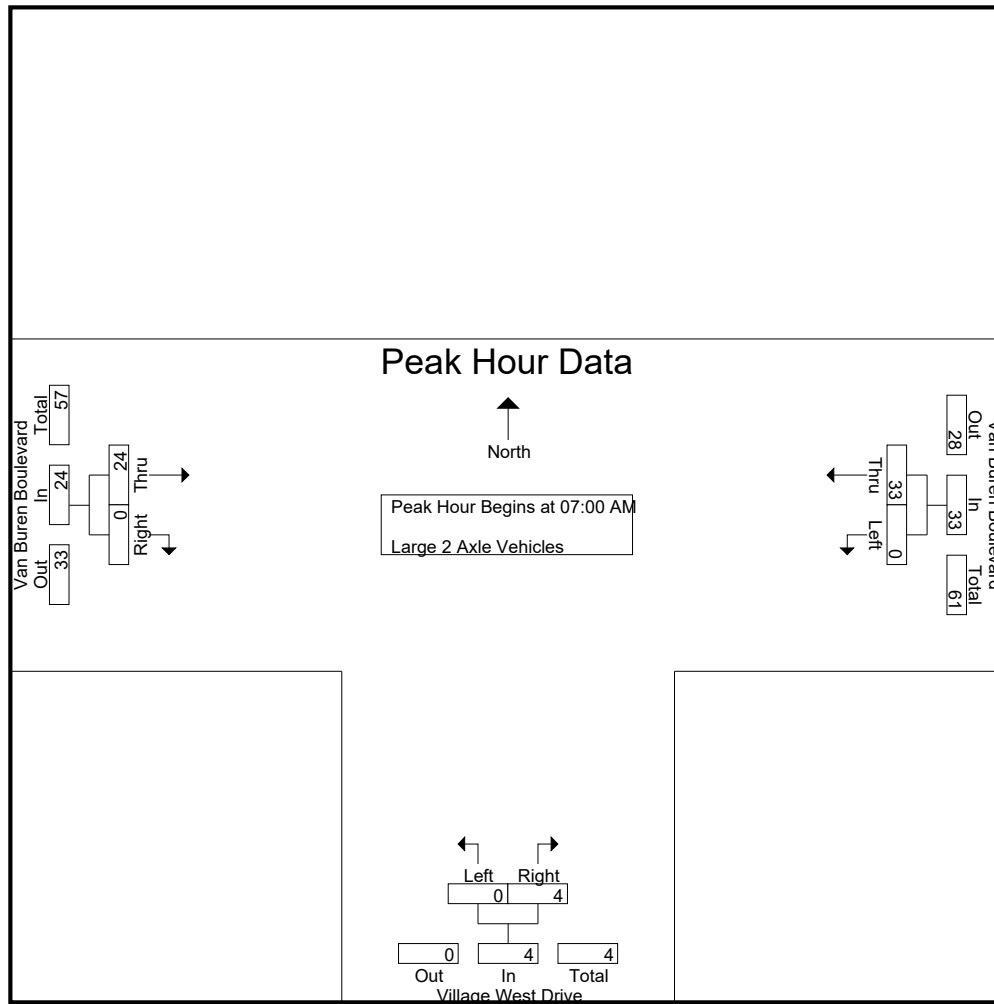
Groups Printed- Large 2 Axle Vehicles

	Van Buren Boulevard Westbound				Village West Drive Northbound				Van Buren Boulevard Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	11	0	11	0	3	3	3	4	0	0	4	3	18	21
07:15 AM	0	5	0	5	0	1	0	1	7	0	0	7	0	13	13
07:30 AM	0	12	0	12	0	0	0	0	9	0	0	9	0	21	21
07:45 AM	0	5	0	5	0	0	0	0	4	0	0	4	0	9	9
Total	0	33	0	33	0	4	3	4	24	0	0	24	3	61	64
08:00 AM	3	13	0	16	0	1	1	1	8	0	0	8	1	25	26
08:15 AM	0	14	0	14	0	3	0	3	6	0	0	6	0	23	23
08:30 AM	0	13	0	13	1	1	0	2	6	1	0	7	0	22	22
08:45 AM	0	11	0	11	1	1	0	2	7	1	0	8	0	21	21
Total	3	51	0	54	2	6	1	8	27	2	0	29	1	91	92
Grand Total	3	84	0	87	2	10	4	12	51	2	0	53	4	152	156
Apprch %	3.4	96.6			16.7	83.3			96.2	3.8					
Total %	2	55.3		57.2	1.3	6.6		7.9	33.6	1.3		34.9	2.6	97.4	

	Van Buren Boulevard Westbound			Village West Drive Northbound			Van Buren Boulevard 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 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	11	11	0	3	3	4	0	4	18
07:15 AM	0	5	5	0	1	1	7	0	7	13
07:30 AM	0	12	12	0	0	0	9	0	9	21
07:45 AM	0	5	5	0	0	0	4	0	4	9
Total Volume	0	33	33	0	4	4	24	0	24	61
% App. Total	0	100		0	100		100	0		
PHF	.000	.688	.688	.000	.333	.333	.667	.000	.667	.726

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren AM
Site Code : 05119542
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	11	11	0	3	3	4	0	4
+15 mins.	0	5	5	0	1	1	7	0	7
+30 mins.	0	12	12	0	0	0	9	0	9
+45 mins.	0	5	5	0	0	0	4	0	4
Total Volume	0	33	33	0	4	4	24	0	24
% App. Total	0	100		0	100		100	0	
PHF	.000	.688	.688	.000	.333	.333	.667	.000	.667

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren AM
Site Code : 05119542
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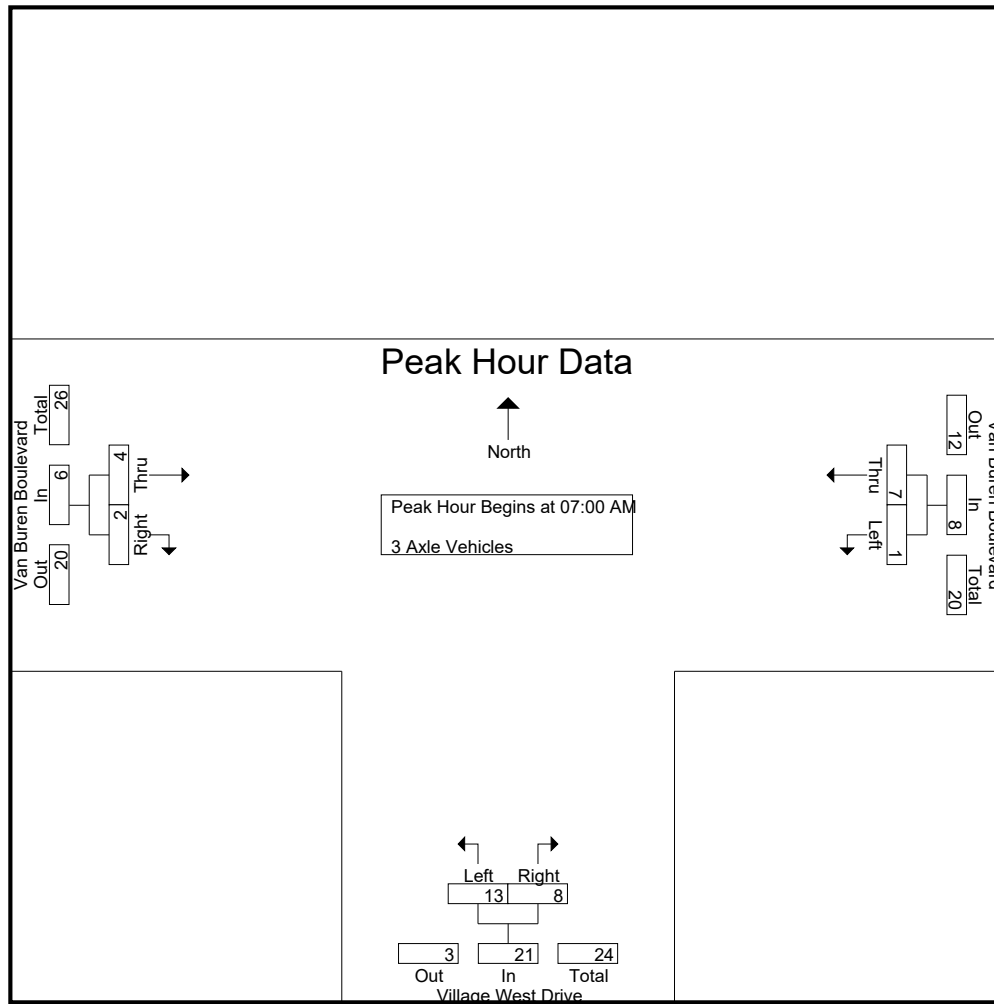
Groups Printed- 3 Axle Vehicles

	Van Buren Boulevard Westbound				Village West Drive Northbound				Van Buren Boulevard Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	3	0	3	7	0	0	7	1	1	0	2	0	12	12
07:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	0	2	2
07:30 AM	1	0	0	1	6	5	1	11	0	1	1	1	2	13	15
07:45 AM	0	4	0	4	0	2	1	2	2	0	0	2	1	8	9
Total	1	7	0	8	13	8	2	21	4	2	1	6	3	35	38
08:00 AM	1	6	0	7	7	4	2	11	1	0	0	1	2	19	21
08:15 AM	0	2	0	2	0	4	3	4	3	0	0	3	3	9	12
08:30 AM	1	6	0	7	3	4	3	7	0	0	0	0	3	14	17
08:45 AM	0	4	0	4	2	0	0	2	0	0	0	0	0	6	6
Total	2	18	0	20	12	12	8	24	4	0	0	4	8	48	56
Grand Total	3	25	0	28	25	20	10	45	8	2	1	10	11	83	94
Apprch %	10.7	89.3			55.6	44.4			80	20					
Total %	3.6	30.1		33.7	30.1	24.1		54.2	9.6	2.4		12	11.7	88.3	

	Van Buren Boulevard Westbound			Village West Drive Northbound			Van Buren Boulevard 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 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	3	3	7	0	7	1	1	2	12
07:15 AM	0	0	0	0	1	1	1	0	1	2
07:30 AM	1	0	1	6	5	11	0	1	1	13
07:45 AM	0	4	4	0	2	2	2	0	2	8
Total Volume	1	7	8	13	8	21	4	2	6	35
% App. Total	12.5	87.5		61.9	38.1		66.7	33.3		
PHF	.250	.438	.500	.464	.400	.477	.500	.500	.750	.673

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	3	3	7	0	7	1	1	2
+15 mins.	0	0	0	0	1	1	1	0	1
+30 mins.	1	0	1	6	5	11	0	1	1
+45 mins.	0	4	4	0	2	2	2	0	2
Total Volume	1	7	8	13	8	21	4	2	6
% App. Total	12.5	87.5		61.9	38.1		66.7	33.3	
PHF	.250	.438	.500	.464	.400	.477	.500	.500	.750

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren AM
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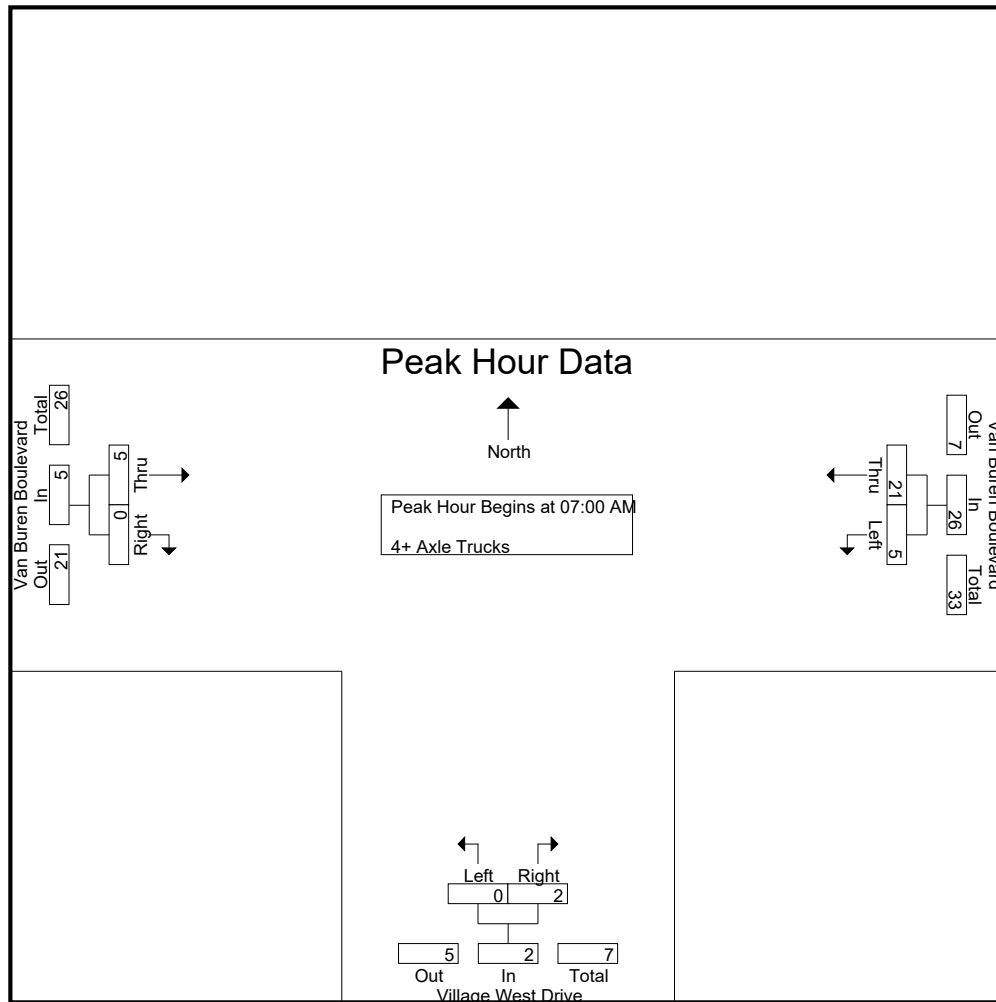
Groups Printed- 4+ Axle Trucks

	Van Buren Boulevard Westbound				Village West Drive Northbound				Van Buren Boulevard Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	6	0	6	0	0	0	0	3	0	0	3	0	9	9
07:15 AM	4	1	0	5	0	0	0	0	0	0	0	0	0	5	5
07:30 AM	0	10	0	10	0	1	0	1	1	0	0	1	0	12	12
07:45 AM	1	4	0	5	0	1	1	1	1	0	0	1	1	7	8
Total	5	21	0	26	0	2	1	2	5	0	0	5	1	33	34
08:00 AM	2	1	0	3	0	2	1	2	2	0	0	2	1	7	8
08:15 AM	1	4	0	5	0	1	0	1	2	0	0	2	0	8	8
08:30 AM	1	3	0	4	0	2	1	2	1	0	0	1	1	7	8
08:45 AM	2	5	0	7	0	0	0	0	2	0	0	2	0	9	9
Total	6	13	0	19	0	5	2	5	7	0	0	7	2	31	33
Grand Total	11	34	0	45	0	7	3	7	12	0	0	12	3	64	67
Apprch %	24.4	75.6			0	100			100	0					
Total %	17.2	53.1		70.3	0	10.9		10.9	18.8	0		18.8	4.5	95.5	

	Van Buren Boulevard Westbound			Village West Drive Northbound			Van Buren Boulevard 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 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	6	6	0	0	0	3	0	3	9
07:15 AM	4	1	5	0	0	0	0	0	0	5
07:30 AM	0	10	10	0	1	1	1	0	1	12
07:45 AM	1	4	5	0	1	1	1	0	1	7
Total Volume	5	21	26	0	2	2	5	0	5	33
% App. Total	19.2	80.8		0	100		100	0		
PHF	.313	.525	.650	.000	.500	.500	.417	.000	.417	.688

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren AM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	6	6	0	0	0	0	0	3
+15 mins.	4	1	5	0	0	0	0	0	0
+30 mins.	0	10	10	0	1	1	1	0	1
+45 mins.	1	4	5	0	1	1	1	0	1
Total Volume	5	21	26	0	2	2	5	0	5
% App. Total	19.2	80.8		0	100		100	0	
PHF	.313	.525	.650	.000	.500	.500	.417	.000	.417

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren PM
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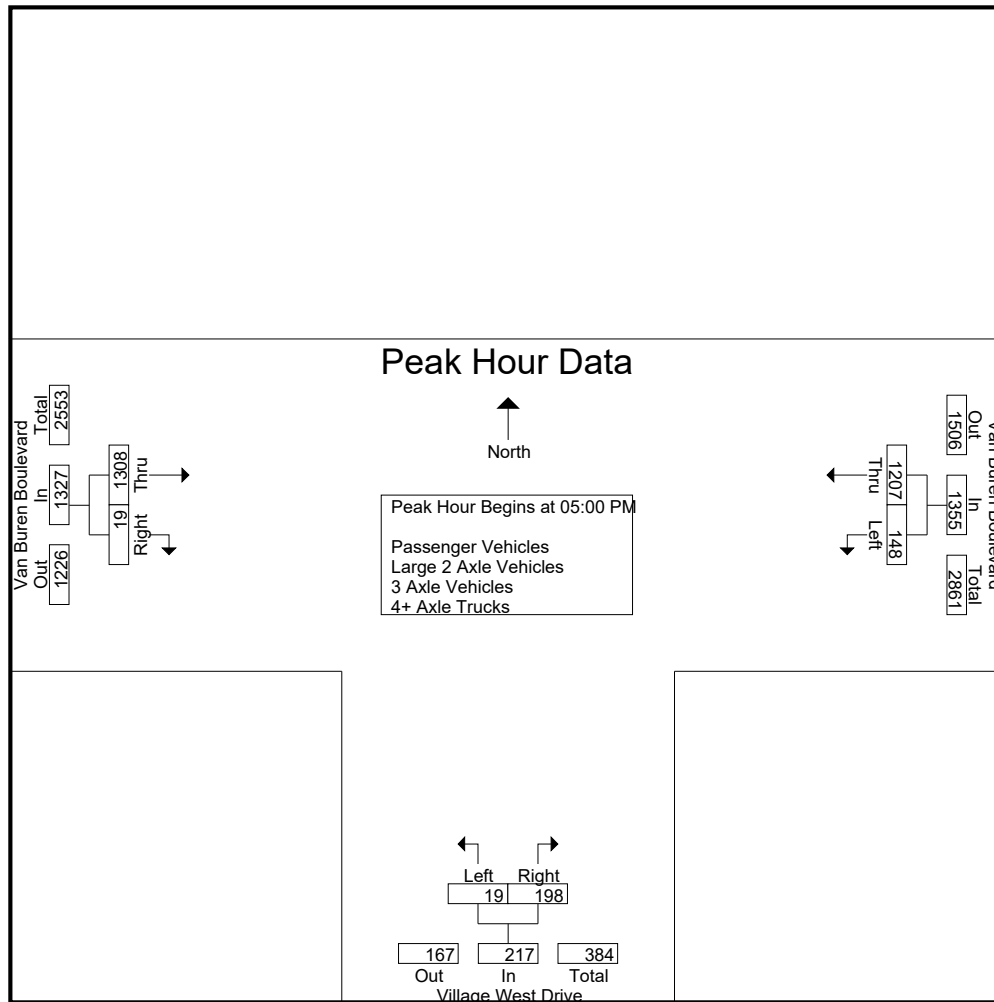
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Van Buren Boulevard Westbound				Village West Drive Northbound				Van Buren Boulevard Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	20	270	0	290	10	44	25	54	355	3	0	358	25	702	727
04:15 PM	25	269	0	294	9	63	38	72	311	7	0	318	38	684	722
04:30 PM	22	306	0	328	18	55	42	73	304	4	1	308	43	709	752
04:45 PM	20	300	0	320	6	39	22	45	289	1	1	290	23	655	678
Total	87	1145	0	1232	43	201	127	244	1259	15	2	1274	129	2750	2879
05:00 PM	27	284	0	311	7	42	31	49	315	3	0	318	31	678	709
05:15 PM	33	356	0	389	0	52	42	52	327	8	0	335	42	776	818
05:30 PM	30	278	0	308	6	66	30	72	352	4	0	356	30	736	766
05:45 PM	58	289	0	347	6	38	30	44	314	4	2	318	32	709	741
Total	148	1207	0	1355	19	198	133	217	1308	19	2	1327	135	2899	3034
Grand Total	235	2352	0	2587	62	399	260	461	2567	34	4	2601	264	5649	5913
Apprch %	9.1	90.9			13.4	86.6			98.7	1.3					
Total %	4.2	41.6		45.8	1.1	7.1		8.2	45.4	0.6		46	4.5	95.5	
Passenger Vehicles	223	2293		2516	61	388		706	2484	34		2522	0	0	5744
% Passenger Vehicles	94.9	97.5	0	97.3	98.4	97.2	98.8	97.9	96.8	100	100	96.8	0	0	97.1
Large 2 Axle Vehicles	4	43		47	1	2		5	64	0		64	0	0	116
% Large 2 Axle Vehicles	1.7	1.8	0	1.8	1.6	0.5	0.8	0.7	2.5	0	0	2.5	0	0	2
3 Axle Vehicles	2	2		4	0	1		1	3	0		3	0	0	8
% 3 Axle Vehicles	0.9	0.1	0	0.2	0	0.3	0	0.1	0.1	0	0	0.1	0	0	0.1
4+ Axle Trucks	6	14		20	0	8		9	16	0		16	0	0	45
% 4+ Axle Trucks	2.6	0.6	0	0.8	0	2	0.4	1.2	0.6	0	0	0.6	0	0	0.8

	Van Buren Boulevard Westbound			Village West Drive Northbound			Van Buren Boulevard 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 05:00 PM										
05:00 PM	27	284	311	7	42	49	315	3	318	678
05:15 PM	33	356	389	0	52	52	327	8	335	776
05:30 PM	30	278	308	6	66	72	352	4	356	736
05:45 PM	58	289	347	6	38	44	314	4	318	709
Total Volume	148	1207	1355	19	198	217	1308	19	1327	2899
% App. Total	10.9	89.1		8.8	91.2		98.6	1.4		
PHF	.638	.848	.871	.679	.750	.753	.929	.594	.932	.934

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren PM
Site Code : 05119542
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			05:00 PM		
+0 mins.	27	284	311	10	44	54	315	3	318
+15 mins.	33	356	389	9	63	72	327	8	335
+30 mins.	30	278	308	18	55	73	352	4	356
+45 mins.	58	289	347	6	39	45	314	4	318
Total Volume	148	1207	1355	43	201	244	1308	19	1327
% App. Total	10.9	89.1		17.6	82.4		98.6	1.4	
PHF	.638	.848	.871	.597	.798	.836	.929	.594	.932

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren PM
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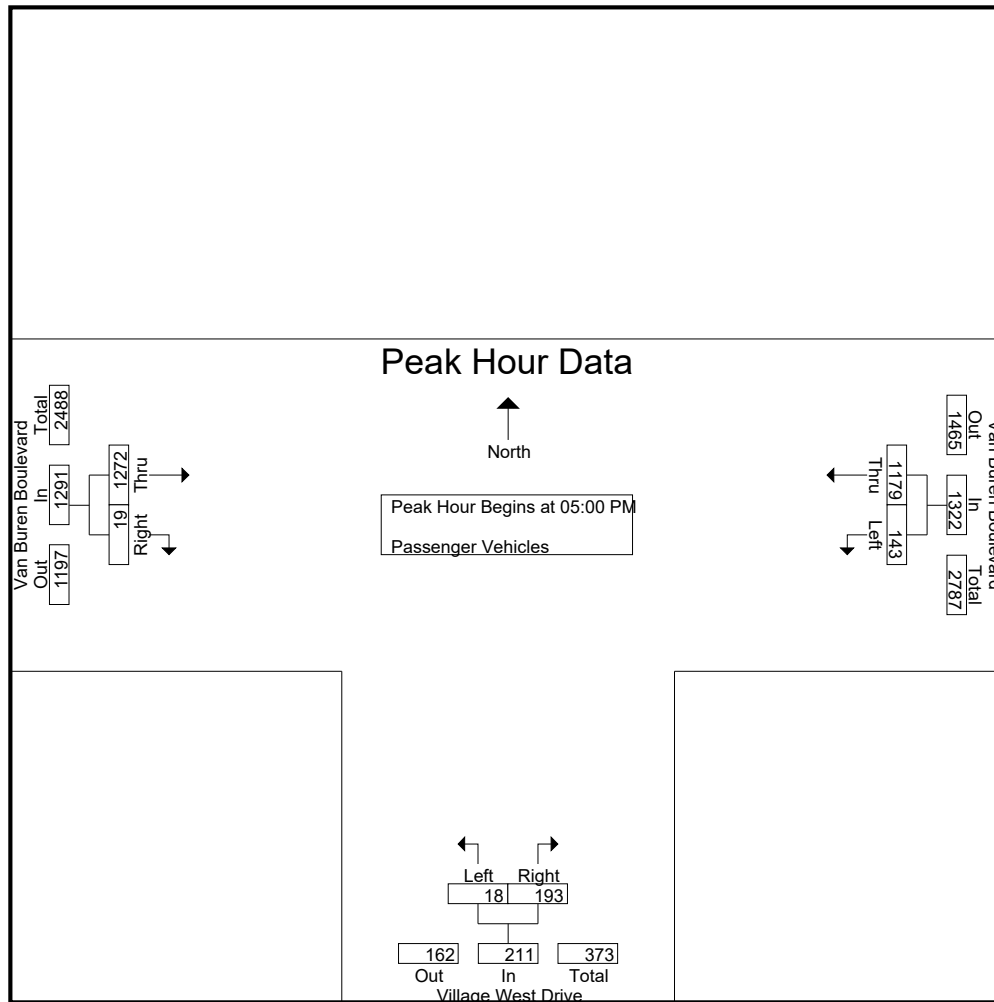
Groups Printed- Passenger Vehicles

	Van Buren Boulevard Westbound				Village West Drive Northbound				Van Buren Boulevard Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	18	259	0	277	10	43	24	53	335	3	0	338	24	668	692
04:15 PM	20	263	0	283	9	61	37	70	301	7	0	308	37	661	698
04:30 PM	22	299	0	321	18	55	42	73	295	4	1	299	43	693	736
04:45 PM	20	293	0	313	6	36	22	42	281	1	1	282	23	637	660
Total	80	1114	0	1194	43	195	125	238	1212	15	2	1227	127	2659	2786
05:00 PM	26	275	0	301	7	40	31	47	299	3	0	302	31	650	681
05:15 PM	30	350	0	380	0	50	41	50	319	8	0	327	41	757	798
05:30 PM	29	270	0	299	6	66	30	72	345	4	0	349	30	720	750
05:45 PM	58	284	0	342	5	37	30	42	309	4	2	313	32	697	729
Total	143	1179	0	1322	18	193	132	211	1272	19	2	1291	134	2824	2958
Grand Total	223	2293	0	2516	61	388	257	449	2484	34	4	2518	261	5483	5744
Apprch %	8.9	91.1			13.6	86.4			98.6	1.4					
Total %	4.1	41.8		45.9	1.1	7.1		8.2	45.3	0.6		45.9	4.5	95.5	

	Van Buren Boulevard Westbound			Village West Drive Northbound			Van Buren Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	26	275	301	7	40	47	299	3	302	650
05:15 PM	30	350	380	0	50	50	319	8	327	757
05:30 PM	29	270	299	6	66	72	345	4	349	720
05:45 PM	58	284	342	5	37	42	309	4	313	697
Total Volume	143	1179	1322	18	193	211	1272	19	1291	2824
% App. Total	10.8	89.2		8.5	91.5		98.5	1.5		
PHF	.616	.842	.870	.643	.731	.733	.922	.594	.925	.933

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren PM
Site Code : 05119542
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	26	275	301	7	40	47	299	3	302
+15 mins.	30	350	380	0	50	50	319	8	327
+30 mins.	29	270	299	6	66	72	345	4	349
+45 mins.	58	284	342	5	37	42	309	4	313
Total Volume	143	1179	1322	18	193	211	1272	19	1291
% App. Total	10.8	89.2		8.5	91.5		98.5	1.5	
PHF	.616	.842	.870	.643	.731	.733	.922	.594	.925

County of Riverside
N/S: Village West Drive
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File Name : 24_CRV_Village W_Van Buren PM
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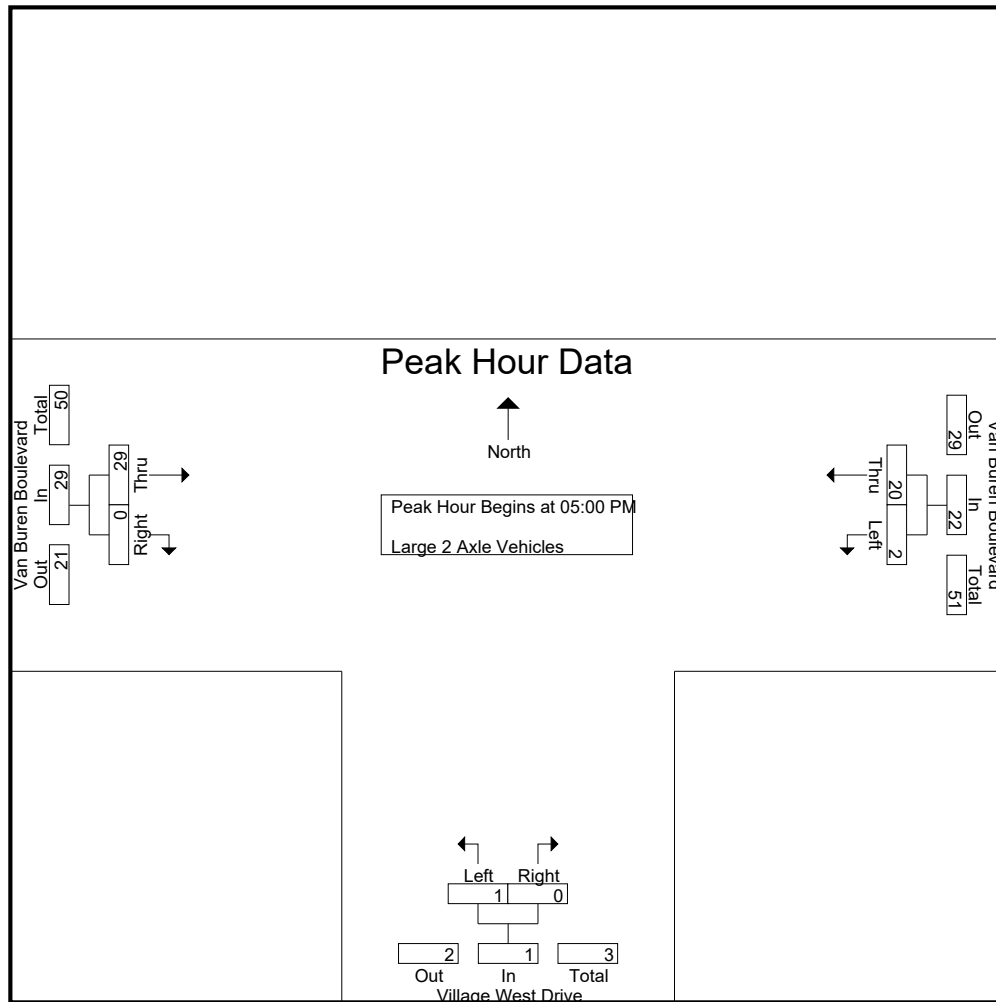
Groups Printed- Large 2 Axle Vehicles

	Van Buren Boulevard Westbound				Village West Drive Northbound				Van Buren Boulevard Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	7	0	8	0	1	1	1	16	0	0	16	1	25	26
04:15 PM	1	5	0	6	0	1	1	1	6	0	0	6	1	13	14
04:30 PM	0	6	0	6	0	0	0	0	6	0	0	6	0	12	12
04:45 PM	0	5	0	5	0	0	0	0	7	0	0	7	0	12	12
Total	2	23	0	25	0	2	2	2	35	0	0	35	2	62	64
05:00 PM	0	5	0	5	0	0	0	0	12	0	0	12	0	17	17
05:15 PM	2	5	0	7	0	0	0	0	6	0	0	6	0	13	13
05:30 PM	0	7	0	7	0	0	0	0	7	0	0	7	0	14	14
05:45 PM	0	3	0	3	1	0	0	1	4	0	0	4	0	8	8
Total	2	20	0	22	1	0	0	1	29	0	0	29	0	52	52
Grand Total	4	43	0	47	1	2	2	3	64	0	0	64	2	114	116
Apprch %	8.5	91.5			33.3	66.7			100	0					
Total %	3.5	37.7		41.2	0.9	1.8		2.6	56.1	0		56.1	1.7	98.3	

	Van Buren Boulevard Westbound			Village West Drive Northbound			Van Buren Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	5	5	0	0	0	12	0	12	17
05:15 PM	2	5	7	0	0	0	6	0	6	13
05:30 PM	0	7	7	0	0	0	7	0	7	14
05:45 PM	0	3	3	1	0	1	4	0	4	8
Total Volume	2	20	22	1	0	1	29	0	29	52
% App. Total	9.1	90.9		100	0		100	0		
PHF	.250	.714	.786	.250	.000	.250	.604	.000	.604	.765

County of Riverside
N/S: Village West Drive
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Weather: Clear

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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	5	5	0	0	0	12	0	12
+15 mins.	2	5	7	0	0	0	6	0	6
+30 mins.	0	7	7	0	0	0	7	0	7
+45 mins.	0	3	3	1	0	1	4	0	4
Total Volume	2	20	22	1	0	1	29	0	29
% App. Total	9.1	90.9		100	0		100	0	
PHF	.250	.714	.786	.250	.000	.250	.604	.000	.604

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren PM
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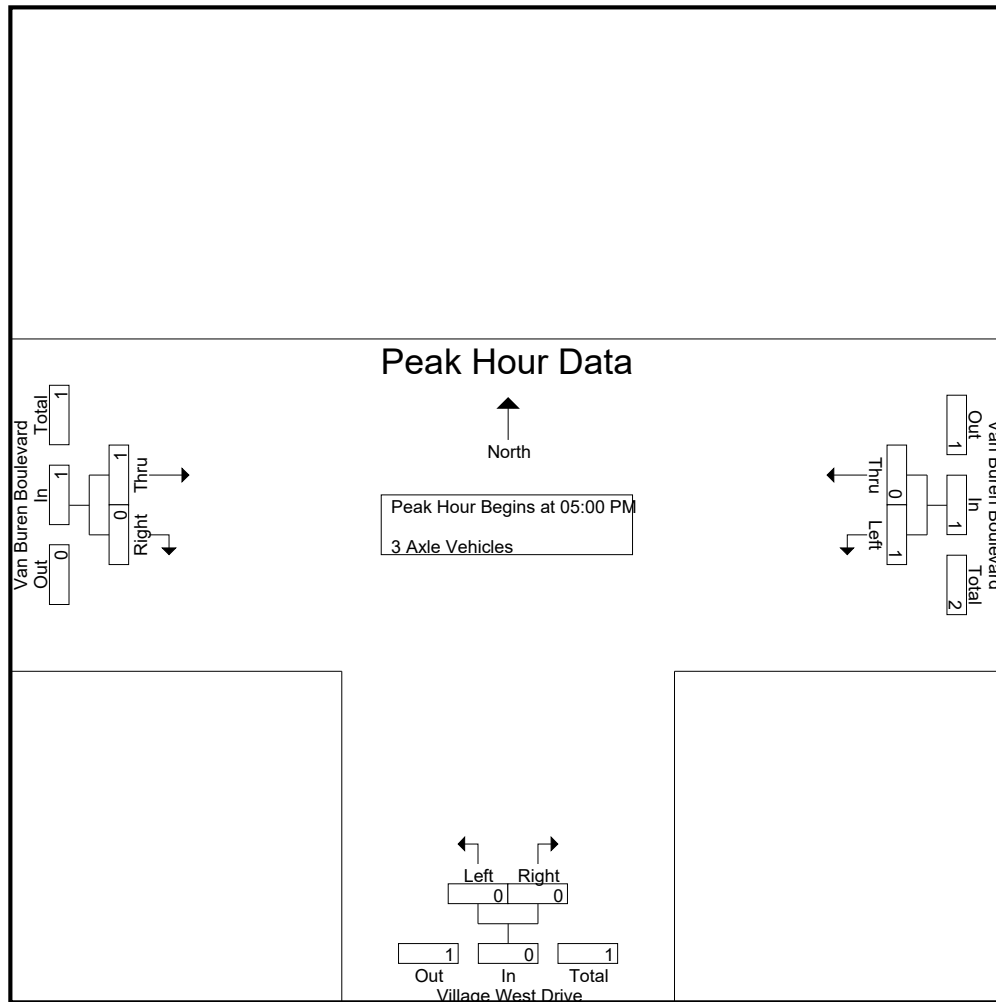
Groups Printed- 3 Axle Vehicles

	Van Buren Boulevard Westbound				Village West Drive Northbound				Van Buren Boulevard Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	2	2
04:15 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	2	2
Total	1	2	0	3	0	1	0	1	2	0	0	2	0	6	6
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
05:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	1	0	0	1	0	2	2
Grand Total	2	2	0	4	0	1	0	1	3	0	0	3	0	8	8
Apprch %	50	50			0	100			100	0			0		
Total %	25	25		50	0	12.5		12.5	37.5	0		37.5	0	100	

	Van Buren Boulevard Westbound			Village West Drive Northbound			Van Buren Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	1	0	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	1	0	1	2
% App. Total	100	0		0	0		100	0		
PHF	.250	.000	.250	.000	.000	.000	.250	.000	.250	.500

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren PM
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	1	0	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	1	0	1
% App. Total	100	0		0	0		100	0	
PHF	.250	.000	.250	.000	.000	.000	.250	.000	.250

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren PM
Site Code : 05119542
Start Date : 8/20/2019
Page No : 1

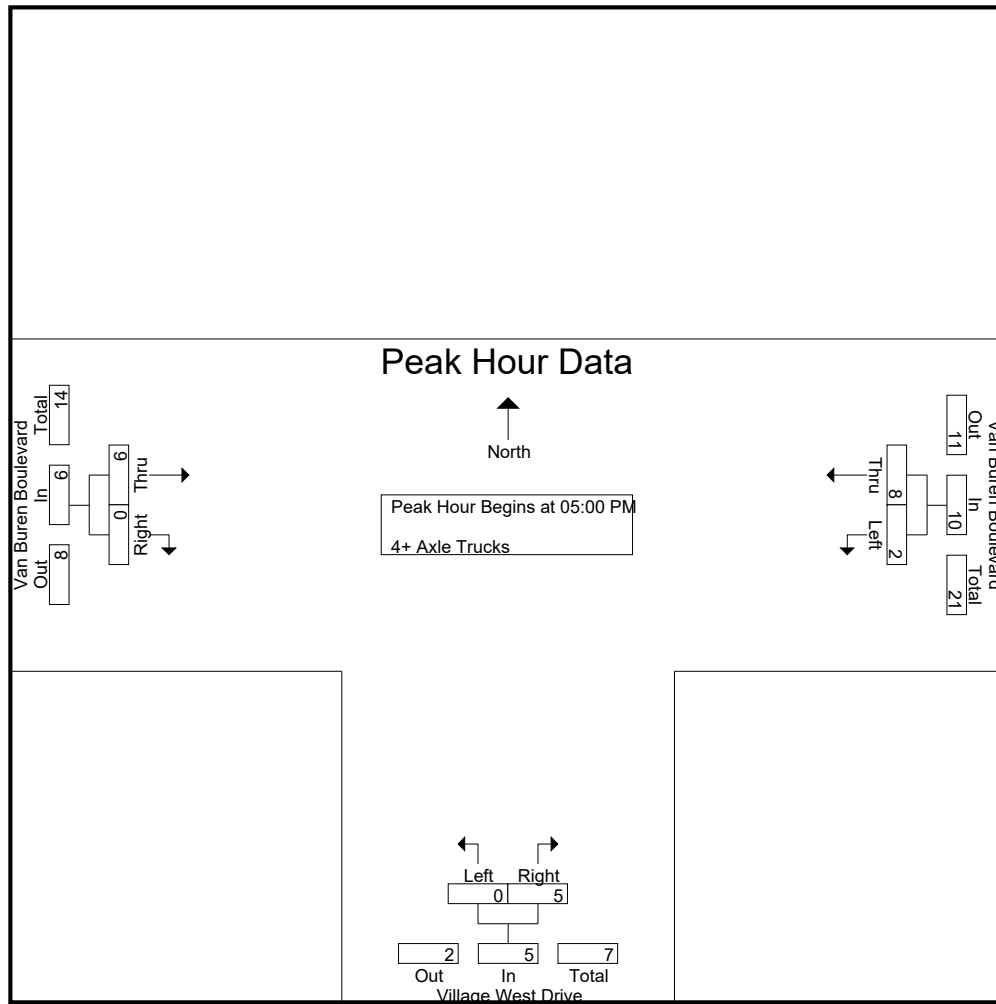
Groups Printed- 4+ Axle Trucks

	Van Buren Boulevard Westbound				Village West Drive Northbound				Van Buren Boulevard Eastbound						
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	3	0	3	0	0	0	0	4	0	0	4	0	7	7
04:15 PM	4	1	0	5	0	1	0	1	2	0	0	2	0	8	8
04:30 PM	0	1	0	1	0	0	0	0	3	0	0	3	0	4	4
04:45 PM	0	1	0	1	0	2	0	2	1	0	0	1	0	4	4
Total	4	6	0	10	0	3	0	3	10	0	0	10	0	23	23
05:00 PM	1	4	0	5	0	2	0	2	3	0	0	3	0	10	10
05:15 PM	0	1	0	1	0	2	1	2	2	0	0	2	1	5	6
05:30 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	2	2
05:45 PM	0	2	0	2	0	1	0	1	1	0	0	1	0	4	4
Total	2	8	0	10	0	5	1	5	6	0	0	6	1	21	22
Grand Total	6	14	0	20	0	8	1	8	16	0	0	16	1	44	45
Apprch %	30	70			0	100			100	0					
Total %	13.6	31.8		45.5	0	18.2		18.2	36.4	0		36.4	2.2	97.8	

	Van Buren Boulevard Westbound			Village West Drive Northbound			Van Buren Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	1	4	5	0	2	2	3	0	3	10
05:15 PM	0	1	1	0	2	2	2	0	2	5
05:30 PM	1	1	2	0	0	0	0	0	0	2
05:45 PM	0	2	2	0	1	1	1	0	1	4
Total Volume	2	8	10	0	5	5	6	0	6	21
% App. Total	20	80		0	100		100	0		
PHF	.500	.500	.500	.000	.625	.625	.500	.000	.500	.525

County of Riverside
N/S: Village West Drive
E/W: Van Buren Boulevard
Weather: Clear

File Name : 24_CRV_Village W_Van Buren PM
Site Code : 05119542
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	1	4	5	0	2	2	3	0	3
+15 mins.	0	1	1	0	2	2	2	0	2
+30 mins.	1	1	2	0	0	0	0	0	0
+45 mins.	0	2	2	0	1	1	1	0	1
Total Volume	2	8	10	0	5	5	6	0	6
% App. Total	20	80		0	100		100	0	
PHF	.500	.500	.500	.000	.625	.625	.500	.000	.500

Location: County of Riverside
 N/S: Village West Drive
 E/W: Van Buren Boulevard



Date: 8/20/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Van Buren Boulevard	South Leg Village West Drive	West Leg Van Buren Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Van Buren Boulevard	South Leg Village West Drive	West Leg Van Buren Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: Village West Drive
 E/W: Van Buren Boulevard



Date: 8/20/2019
 Day: Tuesday

BICYCLES

	Southbound Dead End			Westbound Van Buren Boulevard			Northbound Village West Drive			Eastbound Van Buren Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	2	0	0	0	3

	Southbound Dead End			Westbound Van Buren Boulevard			Northbound Village West Drive			Eastbound Van Buren Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	0	0	0	0	0	0	0	0	1

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria AM
Site Code : 05119542
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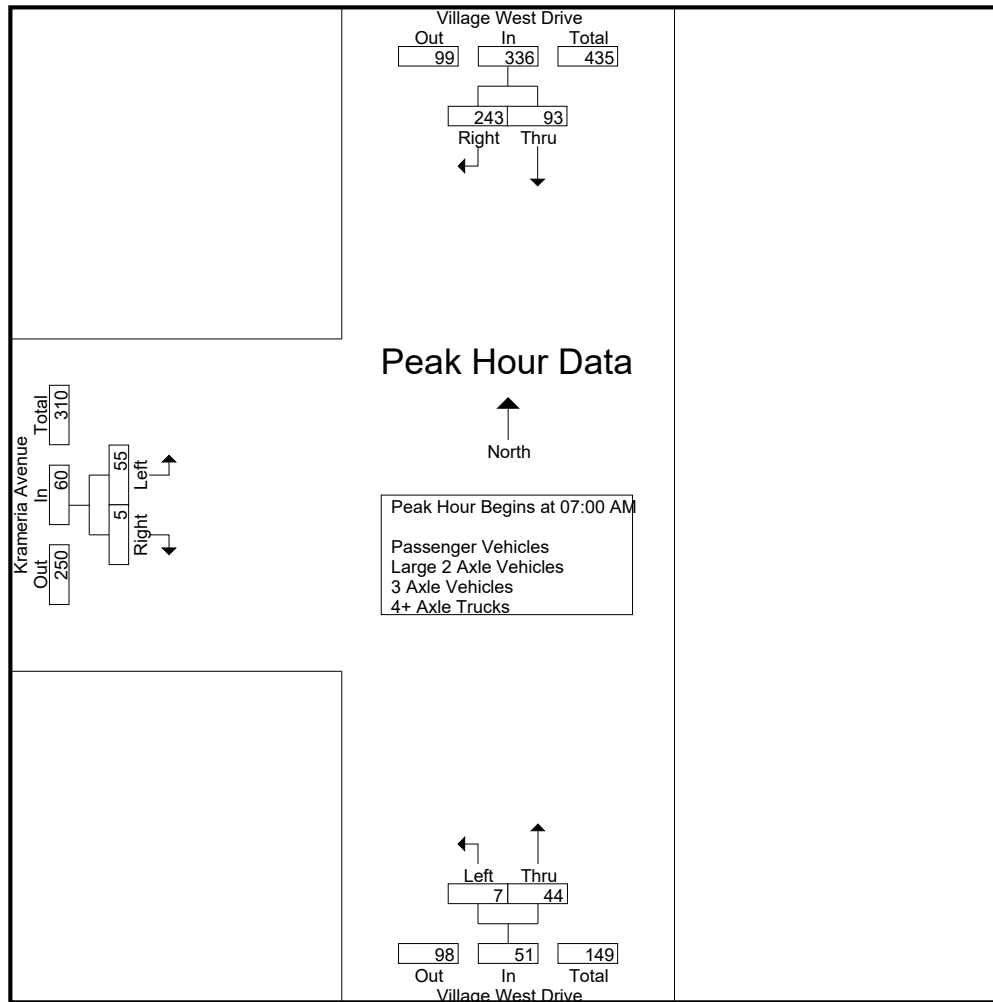
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	17	49	5	66	2	12	0	14	11	0	0	11	5	91	96
07:15 AM	25	95	17	120	2	13	0	15	7	2	2	9	19	144	163
07:30 AM	25	57	3	82	3	8	0	11	20	2	0	22	3	115	118
07:45 AM	26	42	1	68	0	11	0	11	17	1	1	18	2	97	99
Total	93	243	26	336	7	44	0	51	55	5	3	60	29	447	476
08:00 AM	18	24	8	42	2	6	0	8	22	0	0	22	8	72	80
08:15 AM	8	20	3	28	3	12	0	15	11	4	1	15	4	58	62
08:30 AM	8	20	6	28	1	9	0	10	19	1	0	20	6	58	64
08:45 AM	10	17	0	27	0	7	0	7	12	0	0	12	0	46	46
Total	44	81	17	125	6	34	0	40	64	5	1	69	18	234	252
Grand Total	137	324	43	461	13	78	0	91	119	10	4	129	47	681	728
Apprch %	29.7	70.3			14.3	85.7			92.2	7.8					
Total %	20.1	47.6		67.7	1.9	11.5		13.4	17.5	1.5		18.9	6.5	93.5	
Passenger Vehicles	133	310		482	13	74		87	68	9		80	0	0	649
% Passenger Vehicles	97.1	95.7	90.7	95.6	100	94.9	0	95.6	57.1	90	75	60.2	0	0	89.1
Large 2 Axle Vehicles	3	0		3	0	3		3	3	0		3	0	0	9
% Large 2 Axle Vehicles	2.2	0	0	0.6	0	3.8	0	3.3	2.5	0	0	2.3	0	0	1.2
3 Axle Vehicles	1	3		5	0	1		1	41	1		43	0	0	49
% 3 Axle Vehicles	0.7	0.9	2.3	1	0	1.3	0	1.1	34.5	10	25	32.3	0	0	6.7
4+ Axle Trucks	0	11		14	0	0		0	7	0		7	0	0	21
% 4+ Axle Trucks	0	3.4	7	2.8	0	0	0	0	5.9	0	0	5.3	0	0	2.9

	Village West Drive Southbound			Village West Drive Northbound			Krameria Avenue 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 07:00 AM										
07:00 AM	17	49	66	2	12	14	11	0	11	91
07:15 AM	25	95	120	2	13	15	7	2	9	144
07:30 AM	25	57	82	3	8	11	20	2	22	115
07:45 AM	26	42	68	0	11	11	17	1	18	97
Total Volume	93	243	336	7	44	51	55	5	60	447
% App. Total	27.7	72.3		13.7	86.3		91.7	8.3		
PHF	.894	.639	.700	.583	.846	.850	.688	.625	.682	.776

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria AM
Site Code : 05119542
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:30 AM		
+0 mins.	17	49	66	2	12	14	20	2	22
+15 mins.	25	95	120	2	13	15	17	1	18
+30 mins.	25	57	82	3	8	11	22	0	22
+45 mins.	26	42	68	0	11	11	11	4	15
Total Volume	93	243	336	7	44	51	70	7	77
% App. Total	27.7	72.3		13.7	86.3		90.9	9.1	
PHF	.894	.639	.700	.583	.846	.850	.795	.438	.875

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria AM
Site Code : 05119542
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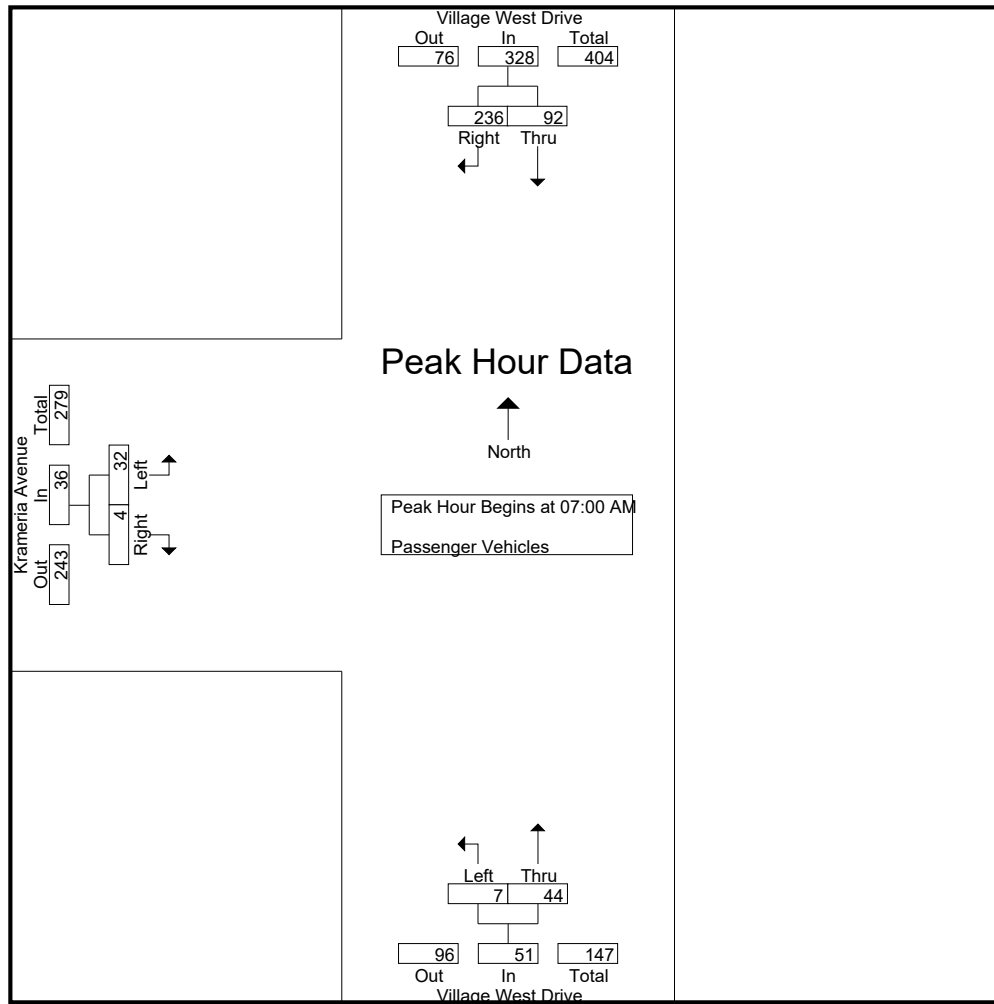
Groups Printed- Passenger Vehicles

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	17	48	5	65	2	12	0	14	4	0	0	4	5	83	88
07:15 AM	25	91	17	116	2	13	0	15	5	1	1	6	18	137	155
07:30 AM	24	56	2	80	3	8	0	11	9	2	0	11	2	102	104
07:45 AM	26	41	1	67	0	11	0	11	14	1	1	15	2	93	95
Total	92	236	25	328	7	44	0	51	32	4	2	36	27	415	442
08:00 AM	17	21	6	38	2	5	0	7	10	0	0	10	6	55	61
08:15 AM	8	19	3	27	3	11	0	14	6	4	1	10	4	51	55
08:30 AM	7	19	5	26	1	7	0	8	11	1	0	12	5	46	51
08:45 AM	9	15	0	24	0	7	0	7	9	0	0	9	0	40	40
Total	41	74	14	115	6	30	0	36	36	5	1	41	15	192	207
Grand Total	133	310	39	443	13	74	0	87	68	9	3	77	42	607	649
Apprch %	30	70			14.9	85.1			88.3	11.7					
Total %	21.9	51.1		73	2.1	12.2		14.3	11.2	1.5		12.7	6.5	93.5	

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue 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 07:45 AM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 07:00 AM												
07:00 AM	17	48	65		2	12	14		4	0	4	83
07:15 AM	25	91	116		2	13	15		5	1	6	137
07:30 AM	24	56	80		3	8	11		9	2	11	102
07:45 AM	26	41	67		0	11	11		14	1	15	93
Total Volume	92	236	328		7	44	51		32	4	36	415
% App. Total	28	72			13.7	86.3			88.9	11.1		
PHF	.885	.648	.707		.583	.846	.850		.571	.500	.600	.757

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria AM
Site Code : 05119542
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	17	48	65	2	12	14	4	0	4
+15 mins.	25	91	116	2	13	15	5	1	6
+30 mins.	24	56	80	3	8	11	9	2	11
+45 mins.	26	41	67	0	11	11	14	1	15
Total Volume	92	236	328	7	44	51	32	4	36
% App. Total	28	72		13.7	86.3		88.9	11.1	
PHF	.885	.648	.707	.583	.846	.850	.571	.500	.600

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria AM
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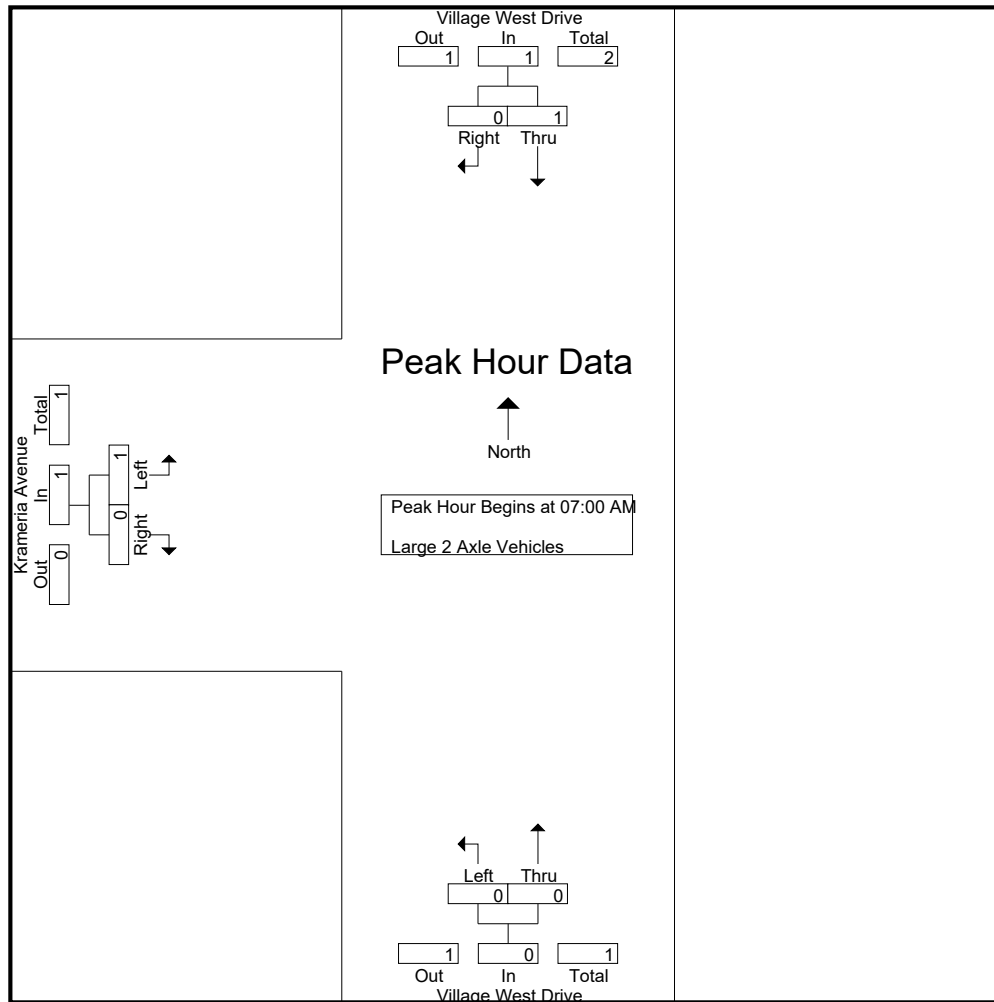
Groups Printed- Large 2 Axle Vehicles

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	1	0	0	1	0	2	2
08:00 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	2	2
08:15 AM	0	0	0	0	0	1	0	1	2	0	0	2	0	3	3
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1
08:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1
Total	2	0	0	2	0	3	0	3	2	0	0	2	0	7	7
Grand Total	3	0	0	3	0	3	0	3	3	0	0	3	0	9	9
Apprch %	100	0			0	100			100	0			0		
Total %	33.3	0		33.3	0	33.3		33.3	33.3	0		33.3	0	100	

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue 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 07:45 AM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 07:00 AM												
07:00 AM	0	0	0		0	0	0		0	0	0	0
07:15 AM	0	0	0		0	0	0		1	0	1	1
07:30 AM	1	0	1		0	0	0		0	0	0	1
07:45 AM	0	0	0		0	0	0		0	0	0	0
Total Volume	1	0	1		0	0	0		1	0	1	2
% App. Total	100	0			0	0			100	0		
PHF	.250	.000	.250		.000	.000	.000		.250	.000	.250	.500

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria AM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	0	1
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	1	0	1
% App. Total	100	0		0	0		100	0	
PHF	.250	.000	.250	.000	.000	.000	.250	.000	.250

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria AM
Site Code : 05119542
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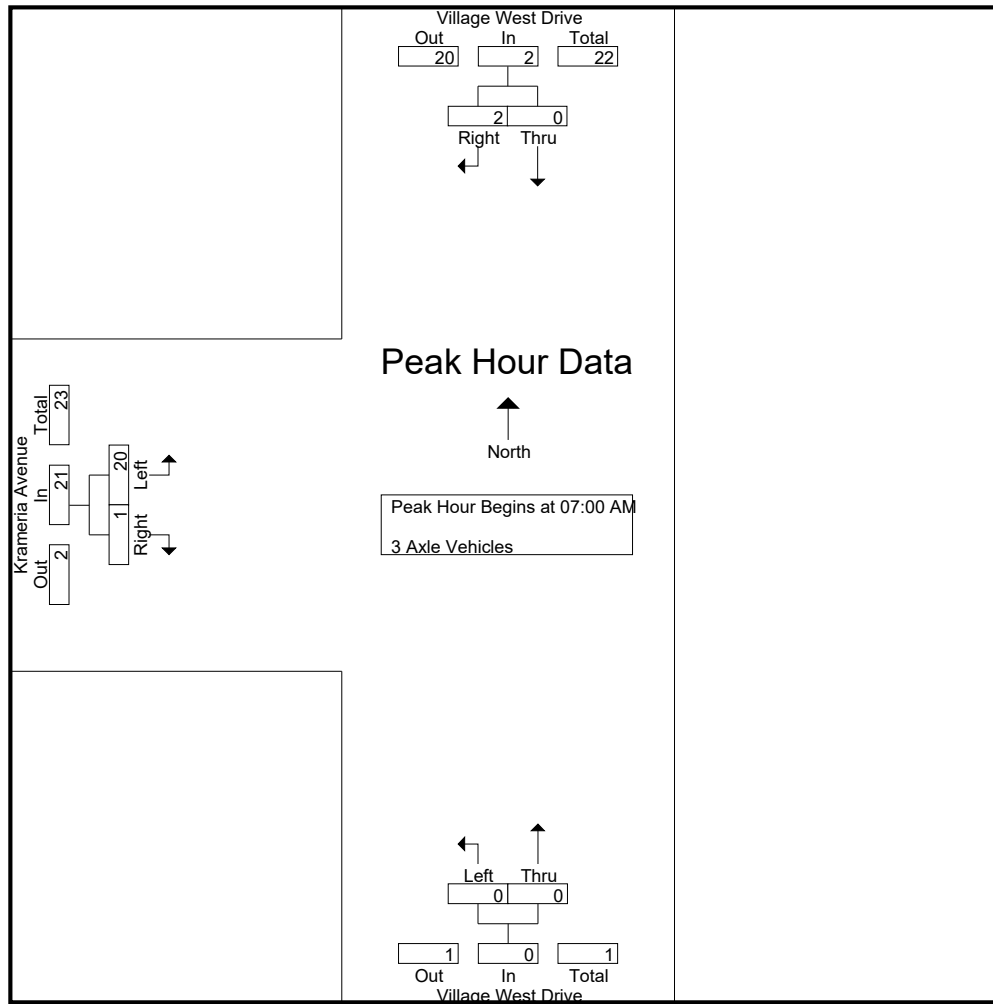
Groups Printed- 3 Axle Vehicles

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	7	0	0	7	0	8	8
07:15 AM	0	0	0	0	0	0	0	0	1	1	1	2	1	2	3
07:30 AM	0	1	1	1	0	0	0	0	10	0	0	10	1	11	12
07:45 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
Total	0	2	1	2	0	0	0	0	20	1	1	21	2	23	25
08:00 AM	0	1	0	1	0	0	0	0	10	0	0	10	0	11	11
08:15 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
08:30 AM	1	0	0	1	0	1	0	1	6	0	0	6	0	8	8
08:45 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	3	3
Total	1	1	0	2	0	1	0	1	21	0	0	21	0	24	24
Grand Total	1	3	1	4	0	1	0	1	41	1	1	42	2	47	49
Apprch %	25	75			0	100			97.6	2.4					
Total %	2.1	6.4		8.5	0	2.1		2.1	87.2	2.1		89.4	4.1	95.9	

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue 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 07:45 AM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 07:00 AM												
07:00 AM	0	1	1		0	0	0		7	0	7	8
07:15 AM	0	0	0		0	0	0		1	1	2	2
07:30 AM	0	1	1		0	0	0		10	0	10	11
07:45 AM	0	0	0		0	0	0		2	0	2	2
Total Volume	0	2	2		0	0	0		20	1	21	23
% App. Total	0	100			0	0			95.2	4.8		
PHF	.000	.500	.500		.000	.000	.000		.500	.250	.525	.523

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria AM
Site Code : 05119542
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	0	0	0	7	0	7
+15 mins.	0	0	0	0	0	0	1	1	2
+30 mins.	0	1	1	0	0	0	10	0	10
+45 mins.	0	0	0	0	0	0	2	0	2
Total Volume	0	2	2	0	0	0	20	1	21
% App. Total	0	100		0	0		95.2	4.8	
PHF	.000	.500	.500	.000	.000	.000	.500	.250	.525

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria AM
Site Code : 05119542
Start Date : 8/20/2019
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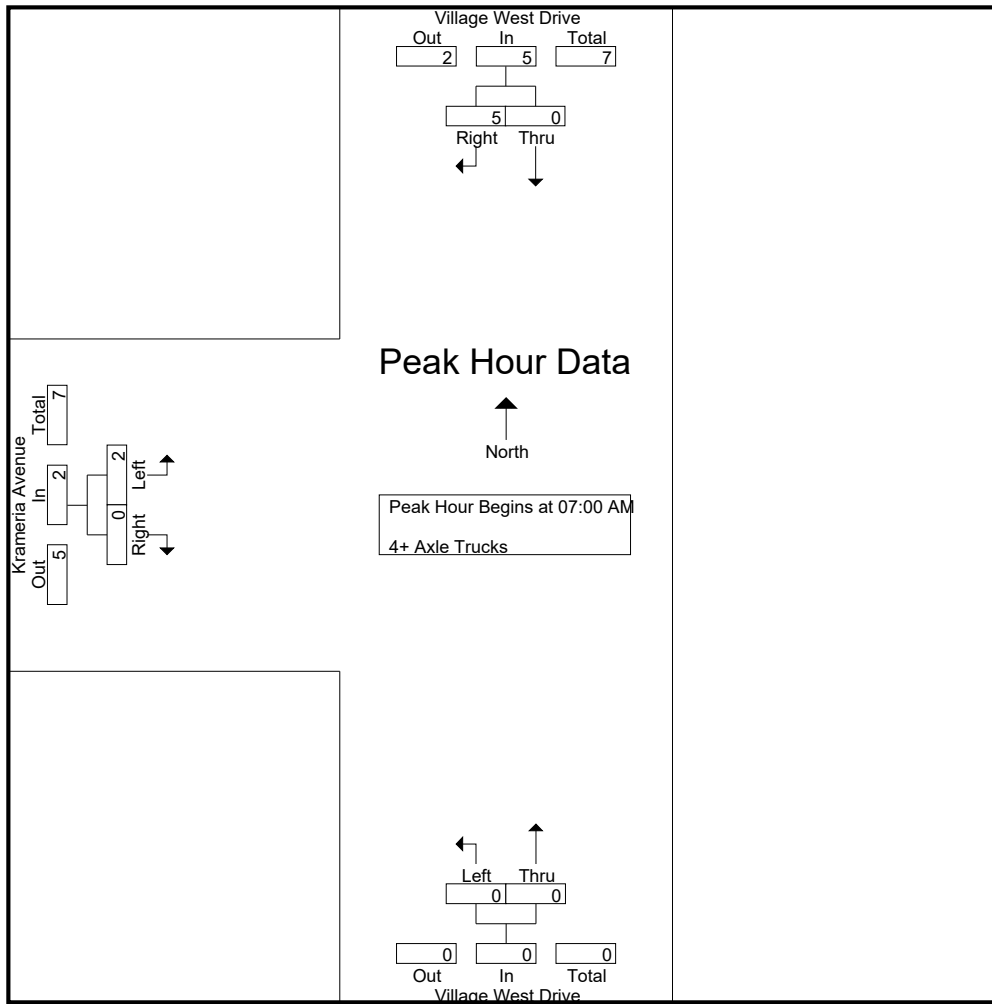
Groups Printed- 4+ Axle Trucks

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	4	0	4	0	0	0	0	0	0	0	0	0	4	4
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
07:45 AM	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
Total	0	5	0	5	0	0	0	0	2	0	0	2	0	7	7
08:00 AM	0	2	2	2	0	0	0	0	2	0	0	2	2	4	6
08:15 AM	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
08:30 AM	0	1	1	1	0	0	0	0	2	0	0	2	1	3	4
08:45 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	2	2
Total	0	6	3	6	0	0	0	0	5	0	0	5	3	11	14
Grand Total	0	11	3	11	0	0	0	0	7	0	0	7	3	18	21
Apprch %	0	100			0	0			100	0					
Total %	0	61.1		61.1	0	0		0	38.9	0		38.9	14.3	85.7	

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue 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 07:45 AM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 07:00 AM												
07:00 AM	0	0	0		0	0	0		0	0	0	0
07:15 AM	0	4	4		0	0	0		0	0	0	4
07:30 AM	0	0	0		0	0	0		1	0	1	1
07:45 AM	0	1	1		0	0	0		1	0	1	2
Total Volume	0	5	5		0	0	0		2	0	2	7
% App. Total	0	100			0	0			100	0		
PHF	.000	.313	.313		.000	.000	.000		.500	.000	.500	.438

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria AM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	4	4	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	0	1
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	5	5	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.313	.313	.000	.000	.000	.500	.000	.500

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria PM
Site Code : 05119542
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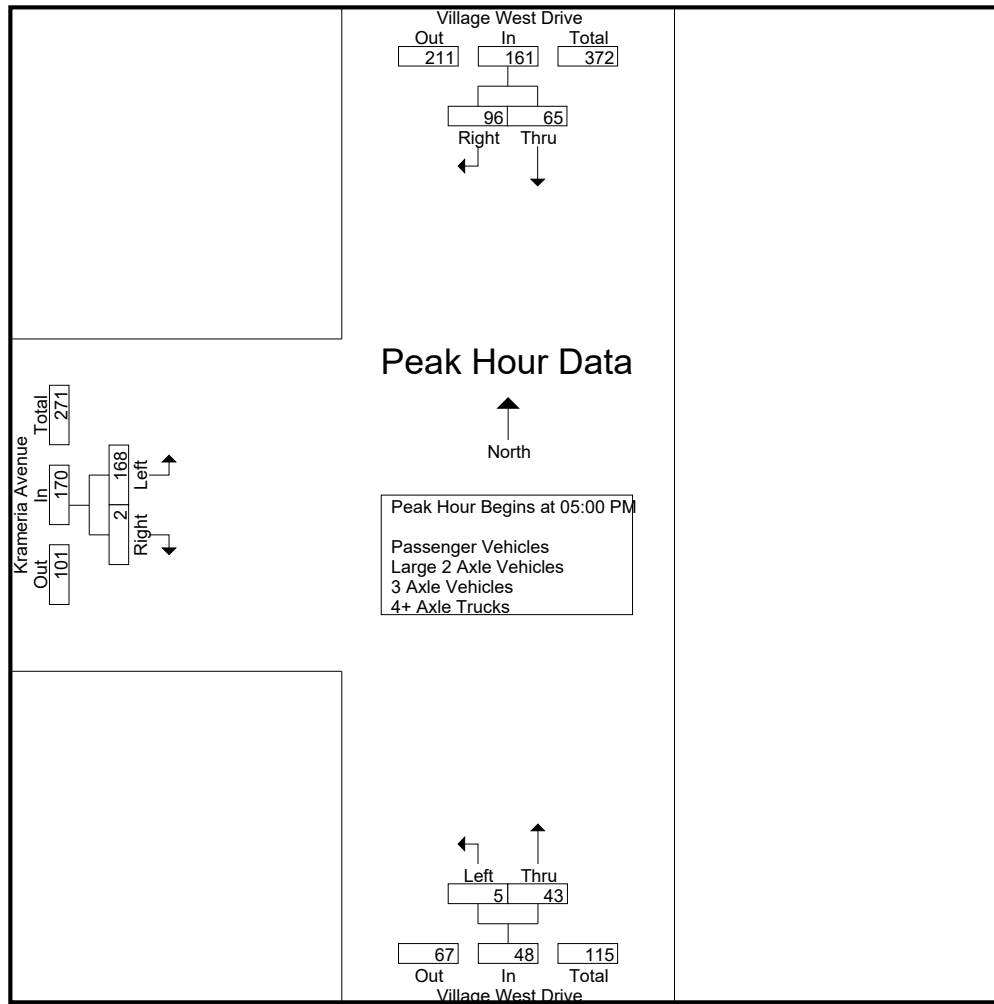
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	22	4	1	26	0	11	0	11	38	4	0	42	1	79	80
04:15 PM	22	10	2	32	1	25	0	26	49	3	2	52	4	110	114
04:30 PM	15	9	4	24	0	26	0	26	39	1	1	40	5	90	95
04:45 PM	15	4	0	19	0	18	0	18	25	2	0	27	0	64	64
Total	74	27	7	101	1	80	0	81	151	10	3	161	10	343	353
05:00 PM	16	15	10	31	2	13	0	15	31	0	0	31	10	77	87
05:15 PM	21	19	7	40	1	6	0	7	47	1	0	48	7	95	102
05:30 PM	9	24	10	33	0	8	0	8	60	1	0	61	10	102	112
05:45 PM	19	38	24	57	2	16	0	18	30	0	0	30	24	105	129
Total	65	96	51	161	5	43	0	48	168	2	0	170	51	379	430
Grand Total	139	123	58	262	6	123	0	129	319	12	3	331	61	722	783
Apprch %	53.1	46.9			4.7	95.3			96.4	3.6					
Total %	19.3	17		36.3	0.8	17		17.9	44.2	1.7		45.8	7.8	92.2	
Passenger Vehicles	138	113		307	6	122		128	308	12		323	0	0	758
% Passenger Vehicles	99.3	91.9	96.6	95.9	100	99.2	0	99.2	96.6	100	100	96.7	0	0	96.8
Large 2 Axle Vehicles	1	1		2	0	1		1	1	0		1	0	0	4
% Large 2 Axle Vehicles	0.7	0.8	0	0.6	0	0.8	0	0.8	0.3	0	0	0.3	0	0	0.5
3 Axle Vehicles	0	2		2	0	0		0	2	0		2	0	0	4
% 3 Axle Vehicles	0	1.6	0	0.6	0	0	0	0	0.6	0	0	0.6	0	0	0.5
4+ Axle Trucks	0	7		9	0	0		0	8	0		8	0	0	17
% 4+ Axle Trucks	0	5.7	3.4	2.8	0	0	0	0	2.5	0	0	2.4	0	0	2.2

	Village West Drive Southbound			Village West Drive Northbound			Krameria Avenue 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 05:00 PM										
05:00 PM	16	15	31	2	13	15	31	0	31	77
05:15 PM	21	19	40	1	6	7	47	1	48	95
05:30 PM	9	24	33	0	8	8	60	1	61	102
05:45 PM	19	38	57	2	16	18	30	0	30	105
Total Volume	65	96	161	5	43	48	168	2	170	379
% App. Total	40.4	59.6		10.4	89.6		98.8	1.2		
PHF	.774	.632	.706	.625	.672	.667	.700	.500	.697	.902

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria PM
Site Code : 05119542
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:15 PM			05:00 PM		
+0 mins.	16	15	31	1	25	26	31	0	31
+15 mins.	21	19	40	0	26	26	47	1	48
+30 mins.	9	24	33	0	18	18	60	1	61
+45 mins.	19	38	57	2	13	15	30	0	30
Total Volume	65	96	161	3	82	85	168	2	170
% App. Total	40.4	59.6		3.5	96.5		98.8	1.2	
PHF	.774	.632	.706	.375	.788	.817	.700	.500	.697

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria PM
Site Code : 05119542
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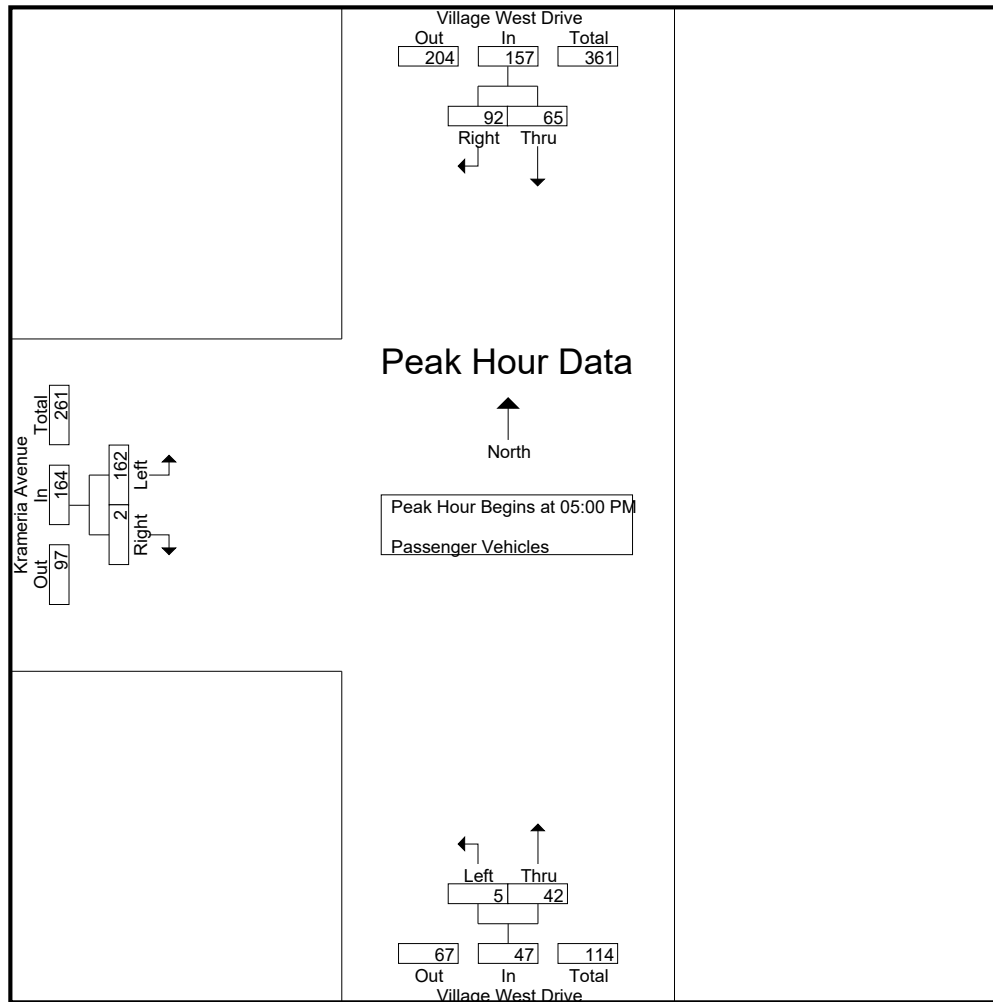
Groups Printed- Passenger Vehicles

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	21	3	1	24	0	11	0	11	38	4	0	42	1	77	78
04:15 PM	22	5	1	27	1	25	0	26	47	3	2	50	3	103	106
04:30 PM	15	9	4	24	0	26	0	26	38	1	1	39	5	89	94
04:45 PM	15	4	0	19	0	18	0	18	23	2	0	25	0	62	62
Total	73	21	6	94	1	80	0	81	146	10	3	156	9	331	340
05:00 PM	16	15	10	31	2	13	0	15	29	0	0	29	10	75	85
05:15 PM	21	16	7	37	1	6	0	7	45	1	0	46	7	90	97
05:30 PM	9	23	9	32	0	8	0	8	60	1	0	61	9	101	110
05:45 PM	19	38	24	57	2	15	0	17	28	0	0	28	24	102	126
Total	65	92	50	157	5	42	0	47	162	2	0	164	50	368	418
Grand Total	138	113	56	251	6	122	0	128	308	12	3	320	59	699	758
Apprch %	55	45			4.7	95.3			96.2	3.8					
Total %	19.7	16.2		35.9	0.9	17.5		18.3	44.1	1.7		45.8	7.8	92.2	

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound			
Start Time	Thru	Right	App. Total		Left	Thru	App. Total		Left	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 05:00 PM												
05:00 PM	16	15	31		2	13	15		29	0	29	75
05:15 PM	21	16	37		1	6	7		45	1	46	90
05:30 PM	9	23	32		0	8	8		60	1	61	101
05:45 PM	19	38	57		2	15	17		28	0	28	102
Total Volume	65	92	157		5	42	47		162	2	164	368
% App. Total	41.4	58.6			10.6	89.4			98.8	1.2		
PHF	.774	.605	.689		.625	.700	.691		.675	.500	.672	.902

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria PM
Site Code : 05119542
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	16	15	31	2	13	15	29	0	29
+15 mins.	21	16	37	1	6	7	45	1	46
+30 mins.	9	23	32	0	8	8	60	1	61
+45 mins.	19	38	57	2	15	17	28	0	28
Total Volume	65	92	157	5	42	47	162	2	164
% App. Total	41.4	58.6		10.6	89.4		98.8	1.2	
PHF	.774	.605	.689	.625	.700	.691	.675	.500	.672

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria PM
Site Code : 05119542
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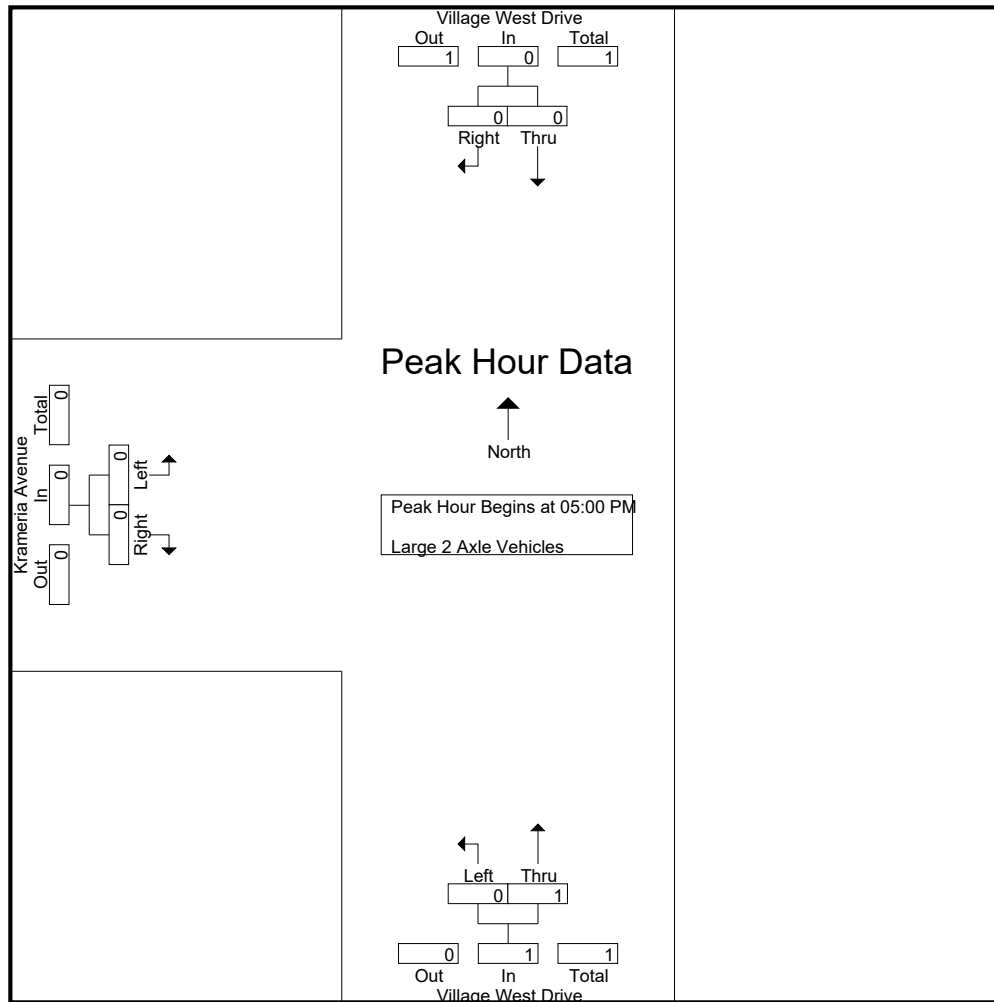
Groups Printed- Large 2 Axle Vehicles

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	2	0	0	0	0	1	0	0	1	0	3	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1
Grand Total	1	1	0	2	0	1	0	1	1	0	0	1	0	4	4
Apprch %	50	50			0	100			100	0					
Total %	25	25		50	0	25		25	25	0		25	0	100	

	Village West Drive Southbound			Village West Drive Northbound			Krameria Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	1	1	0	0	0	1
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0	0	0	100		0	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria PM
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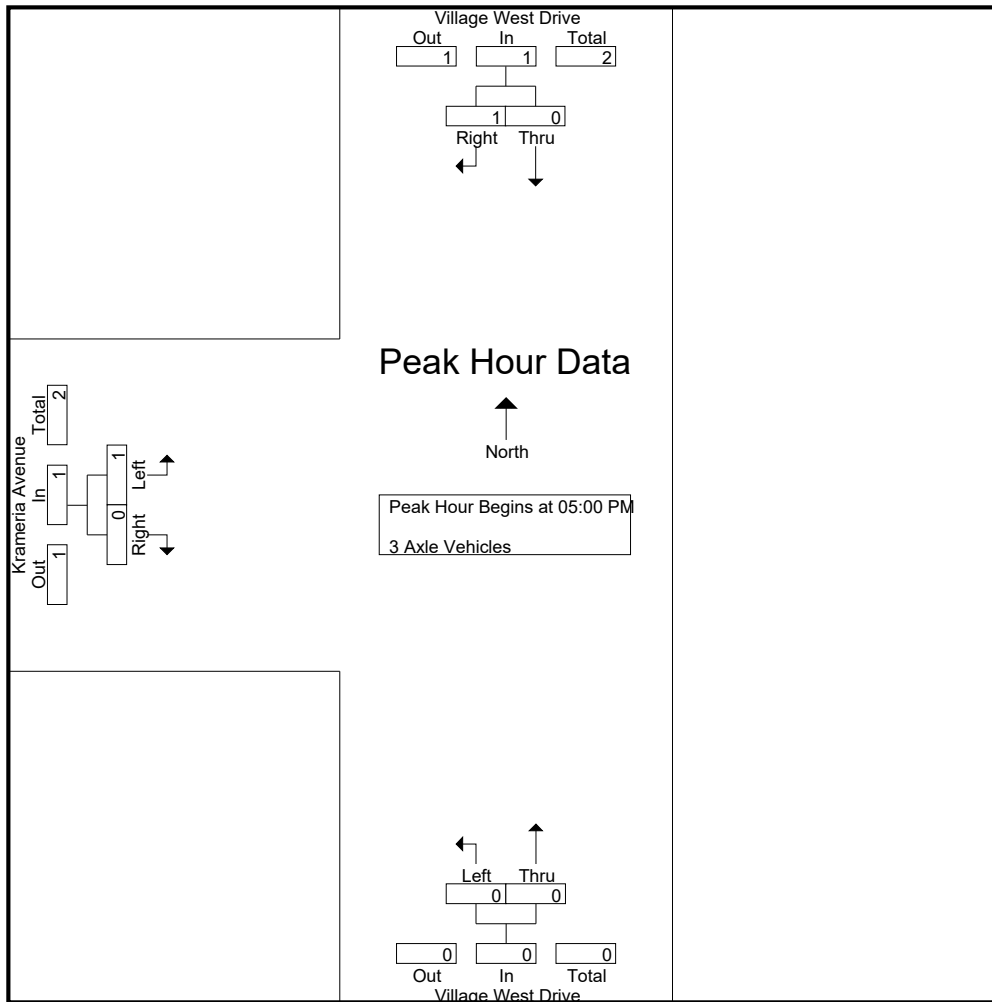
Groups Printed- 3 Axle Vehicles

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
Total	0	1	0	1	0	0	0	0	1	0	0	1	0	2	2
Grand Total	0	2	0	2	0	0	0	0	2	0	0	2	0	4	4
Apprch %	0	100			0	0			100	0			0		
Total %	0	50		50	0	0		0	50	0		50	0	100	

	Village West Drive Southbound			Village West Drive Northbound			Krameria Avenue Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	1	1	0	0	0	1	0	1	2
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250	.500

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria PM
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Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	1	1	0	0	0	1	0	1
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria PM
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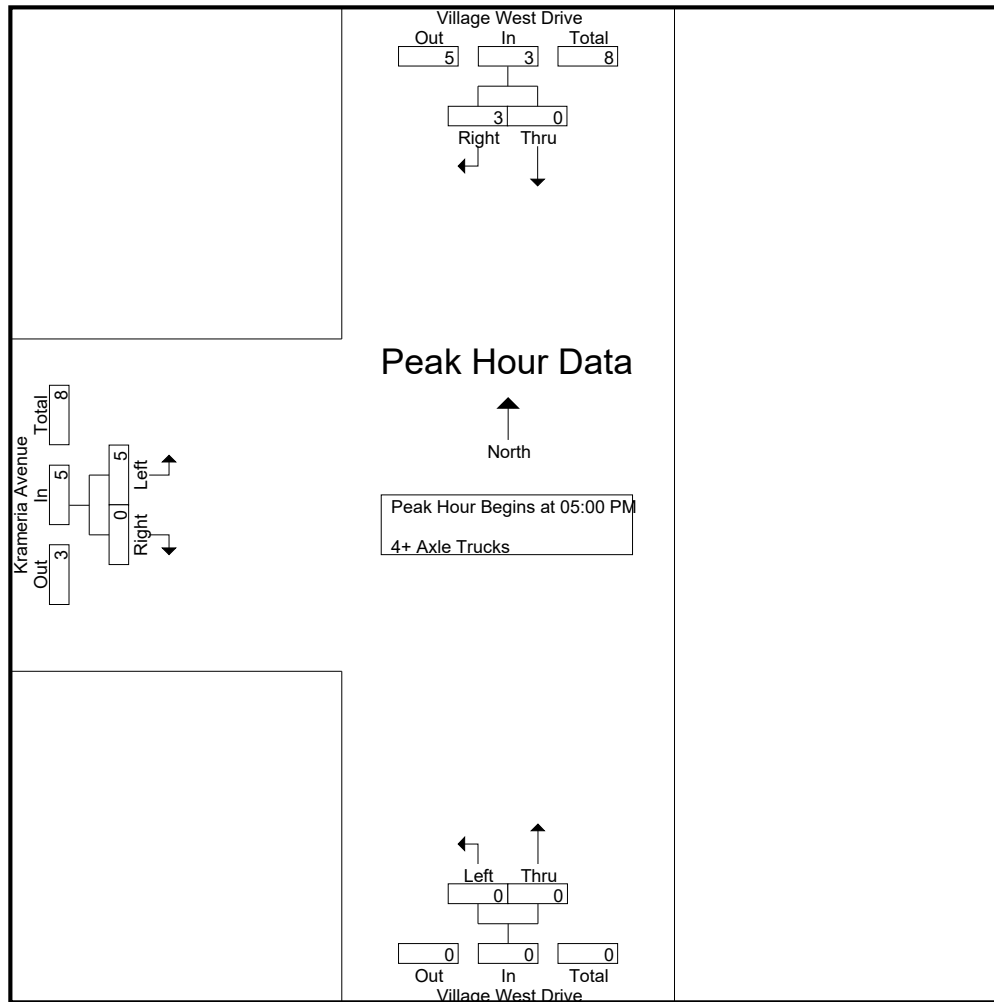
Groups Printed- 4+ Axle Trucks

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound						
Start Time	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	4	1	4	0	0	0	0	1	0	0	1	1	5	6
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
Total	0	4	1	4	0	0	0	0	3	0	0	3	1	7	8
05:00 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
05:15 PM	0	2	0	2	0	0	0	0	2	0	0	2	0	4	4
05:30 PM	0	1	1	1	0	0	0	0	0	0	0	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
Total	0	3	1	3	0	0	0	0	5	0	0	5	1	8	9
Grand Total	0	7	2	7	0	0	0	0	8	0	0	8	2	15	17
Apprch %	0	100			0	0			100	0					
Total %	0	46.7		46.7	0	0		0	53.3	0		53.3	11.8	88.2	

	Village West Drive Southbound				Village West Drive Northbound				Krameria Avenue Eastbound			
Start Time	Thru	Right	App. Total		Left	Thru	App. Total		Left	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1												
Peak Hour for Entire Intersection Begins at 05:00 PM												
05:00 PM	0	0	0		0	0	0		2	0	2	2
05:15 PM	0	2	2		0	0	0		2	0	2	4
05:30 PM	0	1	1		0	0	0		0	0	0	1
05:45 PM	0	0	0		0	0	0		1	0	1	1
Total Volume	0	3	3		0	0	0		5	0	5	8
% App. Total	0	100			0	0			100	0		
PHF	.000	.375	.375		.000	.000	.000		.625	.000	.625	.500

County of Riverside
N/S: Village West Drive
E/W: Krameria Avenue
Weather: Clear

File Name : 25_CRV_Village W_Krameria PM
Site Code : 05119542
Start Date : 8/20/2019
Page No : 2



Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			05:00 PM			05:00 PM		
+0 mins.	0	0	0	0	0	0	2	0	2
+15 mins.	0	2	2	0	0	0	2	0	2
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	3	3	0	0	0	5	0	5
% App. Total	0	100		0	0		100	0	
PHF	.000	.375	.375	.000	.000	.000	.625	.000	.625

Location: County of Riverside
 N/S: Village West Drive
 E/W: Krameria Avenue



Date: 8/20/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Village West Drive	East Leg Dead End	South Leg Village West Drive	West Leg Krameria Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Village West Drive	East Leg Dead End	South Leg Village West Drive	West Leg Krameria Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: Village West Drive
 E/W: Krameria Avenue



Date: 8/20/2019
 Day: Tuesday

BICYCLES

	Southbound Village West Drive			Westbound Dead End			Northbound Village West Drive			Eastbound Krameria Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	1	0	1	2

	Southbound Village West Drive			Westbound Dead End			Northbound Village West Drive			Eastbound Krameria Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

Appendix B

Intersection LOS Worksheets

HCM 6th Signalized Intersection Summary

1: Village West Dr & Van Buren Blvd

Existing Conditions
Timing Plan: AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑↑	↱	↰↱	↑↑↑	↰↱	↰↱
Traffic Volume (veh/h)	0	1302	37	332	1602	25	80
Future Volume (veh/h)	0	1302	37	332	1602	25	80
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		1385	39	353	1704	27	85
Peak Hour Factor		0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		2370	736	531	3569	267	644
Arrive On Green		0.46	0.46	0.15	0.70	0.08	0.08
Sat Flow, veh/h		5274	1585	3456	5274	3456	2790
Grp Volume(v), veh/h		1385	39	353	1704	27	85
Grp Sat Flow(s),veh/h/ln		1702	1585	1728	1702	1728	1395
Q Serve(g_s), s		10.3	0.7	5.0	7.8	0.4	1.3
Cycle Q Clear(g_c), s		10.3	0.7	5.0	7.8	0.4	1.3
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		2370	736	531	3569	267	644
V/C Ratio(X)		0.58	0.05	0.66	0.48	0.10	0.13
Avail Cap(c_a), veh/h		5557	1725	1520	8217	1667	1774
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		10.2	7.6	20.7	3.5	22.2	15.8
Incr Delay (d2), s/veh		0.2	0.0	1.4	0.1	0.2	0.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		2.4	0.2	1.7	0.3	0.1	0.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		10.4	7.7	22.1	3.6	22.4	15.9
LnGrp LOS		B	A	C	A	C	B
Approach Vol, veh/h		1424			2057	112	
Approach Delay, s/veh		10.4			6.8	17.5	
Approach LOS		B			A	B	
Timer - Assigned Phs	1	2			6		8
Phs Duration (G+Y+Rc), s	12.2	30.6			42.7		9.1
Change Period (Y+Rc), s	* 4.2	6.5			6.5		5.1
Max Green Setting (Gmax), s	* 23	56.4			83.4		25.0
Max Q Clear Time (g_c+l1), s	7.0	12.3			9.8		3.3
Green Ext Time (p_c), s	1.0	11.7			17.8		0.3

Intersection Summary

HCM 6th Ctrl Delay 8.5
HCM 6th LOS A

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Village West Dr & Krameria Ave

Existing Conditions
Timing Plan: AM Peak Hour

														
Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR							
Lane Configurations	 	 	 	 	 	 	 							
Traffic Volume (veh/h)	57	5	7	46	0	97	253							
Future Volume (veh/h)	57	5	7	46	0	97	253							
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	73	6	9	59		124	324							
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	250	115	852	2583		2583	1267							
Arrive On Green	0.07	0.07	0.73	0.73		0.73	0.73							
Sat Flow, veh/h	3456	1585	942	3647		3647	1585							
Grp Volume(v), veh/h	73	6	9	59		124	324							
Grp Sat Flow(s),veh/h/ln	1728	1585	942	1777		1777	1585							
Q Serve(g_s), s	0.8	0.1	0.1	0.2		0.4	2.1							
Cycle Q Clear(g_c), s	0.8	0.1	0.5	0.2		0.4	2.1							
Prop In Lane	1.00	1.00	1.00				1.00							
Lane Grp Cap(c), veh/h	250	115	852	2583		2583	1267							
V/C Ratio(X)	0.29	0.05	0.01	0.02		0.05	0.26							
Avail Cap(c_a), veh/h	1869	857	852	2583		2583	1267							
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00							
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00							
Uniform Delay (d), s/veh	18.0	17.6	1.7	1.5		1.6	1.0							
Incr Delay (d2), s/veh	0.6	0.2	0.0	0.0		0.0	0.5							
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0							
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.0		0.0	0.2							
Unsig. Movement Delay, s/veh														
LnGrp Delay(d),s/veh	18.6	17.8	1.7	1.6		1.6	1.5							
LnGrp LOS	B	B	A	A		A	A							
Approach Vol, veh/h	79			68		448								
Approach Delay, s/veh	18.5			1.6		1.5								
Approach LOS	B			A		A								
Timer - Assigned Phs	2			4		6								
Phs Duration (G+Y+Rc), s	33.8			7.1		33.8								
Change Period (Y+Rc), s	4.1			4.1		4.1								
Max Green Setting (Gmax), s	29.7			22.1		29.7								
Max Q Clear Time (g_c+I1), s	2.5			2.8		4.1								
Green Ext Time (p_c), s	0.3			0.2		1.8								
Intersection Summary														
HCM 6th Ctrl Delay				3.8										
HCM 6th LOS				A										
Notes														
User approved ignoring U-Turning movement.														

HCM 6th AWSC
3: Bundy Ave & Krameria Ave

Existing Conditions
Timing Plan: AM Peak Hour

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Traffic Vol, veh/h	42	15	122	138	8	21
Future Vol, veh/h	42	15	122	138	8	21
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	17	139	157	9	24
Number of Lanes	2	0	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	7.9	8.1	7.8
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	48%	0%	100%	100%
Vol Right, %	0%	100%	0%	52%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	21	28	29	122	69	69
LT Vol	8	0	0	0	122	0	0
Through Vol	0	0	28	14	0	69	69
RT Vol	0	21	0	15	0	0	0
Lane Flow Rate	9	24	32	33	139	78	78
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.015	0.031	0.045	0.044	0.2	0.102	0.064
Departure Headway (Hd)	5.891	4.691	5.147	4.785	5.183	4.683	2.947
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	611	767	699	752	685	757	1189
Service Time	3.597	2.397	2.852	2.489	2.968	2.467	0.731
HCM Lane V/C Ratio	0.015	0.031	0.046	0.044	0.203	0.103	0.066
HCM Control Delay	8.7	7.5	8.1	7.7	9.3	8	5.9
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0.1	0.1	0.1	0.7	0.3	0.2

HCM 6th AWSC
4: Bundy Ave & 11th St

Existing Conditions
Timing Plan: AM Peak Hour

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	10	10	10	10	6	10	12	10	27	54	54
Future Vol, veh/h	12	10	10	10	10	6	10	12	10	27	54	54
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	11	11	11	11	7	11	14	11	31	61	61
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	7.5	7.5	7.4	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	31%	38%	38%	33%	0%
Vol Thru, %	38%	31%	38%	67%	0%
Vol Right, %	31%	31%	23%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	32	26	81	54
LT Vol	10	12	10	27	0
Through Vol	12	10	10	54	0
RT Vol	10	10	6	0	54
Lane Flow Rate	36	36	30	92	61
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.042	0.043	0.036	0.124	0.068
Departure Headway (Hd)	4.135	4.286	4.343	4.833	3.965
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	853	840	829	739	898
Service Time	2.221	2.287	2.344	2.581	1.712
HCM Lane V/C Ratio	0.042	0.043	0.036	0.124	0.068
HCM Control Delay	7.4	7.5	7.5	8.3	7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0.4	0.2

HCM 6th Signalized Intersection Summary

1: Village West Dr & Van Buren Blvd

Existing Conditions
Timing Plan: PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑↑	↱	↰↱	↑↑↑	↰↱	↰↱
Traffic Volume (veh/h)	0	1360	20	154	1267	20	206
Future Volume (veh/h)	0	1360	20	154	1267	20	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		1462	22	166	1362	22	222
Peak Hour Factor		0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		2491	773	303	3353	413	578
Arrive On Green		0.49	0.49	0.09	0.66	0.12	0.12
Sat Flow, veh/h		5274	1585	3456	5274	3456	2790
Grp Volume(v), veh/h		1462	22	166	1362	22	222
Grp Sat Flow(s),veh/h/ln		1702	1585	1728	1702	1728	1395
Q Serve(g_s), s		10.6	0.4	2.4	6.5	0.3	3.6
Cycle Q Clear(g_c), s		10.6	0.4	2.4	6.5	0.3	3.6
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		2491	773	303	3353	413	578
V/C Ratio(X)		0.59	0.03	0.55	0.41	0.05	0.38
Avail Cap(c_a), veh/h		5560	1726	1521	8221	1668	1591
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		9.5	6.9	22.6	4.2	20.2	17.7
Incr Delay (d2), s/veh		0.2	0.0	1.5	0.1	0.1	0.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		2.4	0.1	0.9	0.6	0.1	1.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		9.7	6.9	24.2	4.2	20.3	18.1
LnGrp LOS		A	A	C	A	C	B
Approach Vol, veh/h		1484			1528	244	
Approach Delay, s/veh		9.7			6.4	18.3	
Approach LOS		A			A	B	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	8.7	31.8			40.5	11.3	
Change Period (Y+Rc), s	* 4.2	6.5			6.5	5.1	
Max Green Setting (Gmax), s	* 23	56.4			83.4	25.0	
Max Q Clear Time (g_c+I1), s	4.4	12.6			8.5	5.6	
Green Ext Time (p_c), s	0.4	12.6			11.8	0.8	

Intersection Summary

HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Village West Dr & Krameria Ave

Existing Conditions
Timing Plan: PM Peak Hour

							
Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	 			 		 	
Traffic Volume (veh/h)	185	2	5	45	0	68	106
Future Volume (veh/h)	185	2	5	45	0	68	106
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	206	2	6	50		76	118
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	372	171	993	2485		2485	1279
Arrive On Green	0.11	0.11	0.70	0.70		0.70	0.70
Sat Flow, veh/h	3456	1585	1189	3647		3647	1585
Grp Volume(v), veh/h	206	2	6	50		76	118
Grp Sat Flow(s),veh/h/ln	1728	1585	1189	1777		1777	1585
Q Serve(g_s), s	2.4	0.0	0.1	0.2		0.3	0.7
Cycle Q Clear(g_c), s	2.4	0.0	0.3	0.2		0.3	0.7
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	372	171	993	2485		2485	1279
V/C Ratio(X)	0.55	0.01	0.01	0.02		0.03	0.09
Avail Cap(c_a), veh/h	1798	825	993	2485		2485	1279
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	18.0	16.9	2.0	1.9		2.0	0.9
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.0		0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.0		0.0	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	19.3	17.0	2.0	2.0		2.0	1.0
LnGrp LOS	B	B	A	A		A	A
Approach Vol, veh/h	208			56		194	
Approach Delay, s/veh	19.3			2.0		1.4	
Approach LOS	B			A		A	
Timer - Assigned Phs	2		4		6		
Phs Duration (G+Y+Rc), s	33.8		8.7		33.8		
Change Period (Y+Rc), s	4.1		4.1		4.1		
Max Green Setting (Gmax), s	29.7		22.1		29.7		
Max Q Clear Time (g_c+I1), s	2.3		4.4		2.7		
Green Ext Time (p_c), s	0.2		0.6		0.8		
Intersection Summary							
HCM 6th Ctrl Delay			9.6				
HCM 6th LOS			A				
Notes							

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Traffic Vol, veh/h	98	4	18	94	21	89
Future Vol, veh/h	98	4	18	94	21	89
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	111	5	20	107	24	101
Number of Lanes	2	0	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.3	7.5	8
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	89%	0%	100%	100%
Vol Right, %	0%	100%	0%	11%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	89	65	37	18	47	47
LT Vol	21	0	0	0	18	0	0
Through Vol	0	0	65	33	0	47	47
RT Vol	0	89	0	4	0	0	0
Lane Flow Rate	24	101	74	42	20	53	53
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.037	0.125	0.105	0.058	0.032	0.076	0.05
Departure Headway (Hd)	5.639	4.439	5.093	5.017	5.606	5.104	3.363
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	636	808	705	715	640	703	1065
Service Time	3.362	2.161	2.816	2.74	3.326	2.824	1.083
HCM Lane V/C Ratio	0.038	0.125	0.105	0.059	0.031	0.075	0.05
HCM Control Delay	8.6	7.8	8.4	8.1	8.5	8.2	6.3
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.4	0.2	0.1	0.2	0.2

HCM 6th AWSC
4: Bundy Ave & 11th St

Existing Conditions
Timing Plan: PM Peak Hour

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	10	10	10	10	22	20	44	10	4	9	9
Future Vol, veh/h	44	10	10	10	10	22	20	44	10	4	9	9
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	11	11	11	11	25	23	50	11	5	10	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	7.7	7.2	7.8	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	27%	69%	24%	31%	0%
Vol Thru, %	59%	16%	24%	69%	0%
Vol Right, %	14%	16%	52%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	64	42	13	9
LT Vol	20	44	10	4	0
Through Vol	44	10	10	9	0
RT Vol	10	10	22	0	9
Lane Flow Rate	84	73	48	15	10
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.099	0.085	0.052	0.02	0.012
Departure Headway (Hd)	4.235	4.201	3.91	4.944	4.088
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	838	843	902	718	865
Service Time	2.303	2.275	1.994	2.719	1.862
HCM Lane V/C Ratio	0.1	0.087	0.053	0.021	0.012
HCM Control Delay	7.8	7.7	7.2	7.8	6.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.2	0.1	0

HCM 6th Signalized Intersection Summary

1: Village West Dr & Van Buren Blvd

Existing plus Project
Timing Plan: AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑↑	↱	↰↱	↑↑↑	↰↱	↰↱
Traffic Volume (veh/h)	0	1302	71	375	1602	35	93
Future Volume (veh/h)	0	1302	71	375	1602	35	93
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		1385	76	399	1704	37	99
Peak Hour Factor		0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		2345	728	577	3595	279	691
Arrive On Green		0.46	0.46	0.17	0.70	0.08	0.08
Sat Flow, veh/h		5274	1585	3456	5274	3456	2790
Grp Volume(v), veh/h		1385	76	399	1704	37	99
Grp Sat Flow(s),veh/h/ln		1702	1585	1728	1702	1728	1395
Q Serve(g_s), s		10.8	1.5	5.9	8.0	0.5	1.5
Cycle Q Clear(g_c), s		10.8	1.5	5.9	8.0	0.5	1.5
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		2345	728	577	3595	279	691
V/C Ratio(X)		0.59	0.10	0.69	0.47	0.13	0.14
Avail Cap(c_a), veh/h		5343	1658	1462	7900	1603	1759
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		10.8	8.3	21.1	3.5	23.0	15.8
Incr Delay (d2), s/veh		0.2	0.1	1.5	0.1	0.2	0.1
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		2.6	0.3	2.0	0.4	0.2	0.4
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		11.1	8.3	22.6	3.6	23.2	15.9
LnGrp LOS		B	A	C	A	C	B
Approach Vol, veh/h		1461			2103	136	
Approach Delay, s/veh		10.9			7.2	17.9	
Approach LOS		B			A	B	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	13.2	31.3			44.5	9.4	
Change Period (Y+Rc), s	* 4.2	6.5			6.5	5.1	
Max Green Setting (Gmax), s	* 23	56.4			83.4	25.0	
Max Q Clear Time (g_c+I1), s	7.9	12.8			10.0	3.5	
Green Ext Time (p_c), s	1.2	11.9			17.7	0.4	

Intersection Summary

HCM 6th Ctrl Delay 9.1
HCM 6th LOS A

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Village West Dr & Krameria Ave

Existing plus Project
Timing Plan: AM Peak Hour

							
Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	 			 		 	
Traffic Volume (veh/h)	80	5	7	46	0	97	330
Future Volume (veh/h)	80	5	7	46	0	97	330
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	103	6	9	59		124	423
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	298	137	781	2545		2545	1272
Arrive On Green	0.09	0.09	0.72	0.72		0.72	0.72
Sat Flow, veh/h	3456	1585	860	3647		3647	1585
Grp Volume(v), veh/h	103	6	9	59		124	423
Grp Sat Flow(s),veh/h/ln	1728	1585	860	1777		1777	1585
Q Serve(g_s), s	1.2	0.1	0.1	0.2		0.4	3.0
Cycle Q Clear(g_c), s	1.2	0.1	0.6	0.2		0.4	3.0
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	298	137	781	2545		2545	1272
V/C Ratio(X)	0.35	0.04	0.01	0.02		0.05	0.33
Avail Cap(c_a), veh/h	1841	845	781	2545		2545	1272
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	17.8	17.4	1.8	1.7		1.7	1.1
Incr Delay (d2), s/veh	0.7	0.1	0.0	0.0		0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.0		0.0	0.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	18.5	17.5	1.8	1.7		1.8	1.8
LnGrp LOS	B	B	A	A		A	A
Approach Vol, veh/h	109			68		547	
Approach Delay, s/veh	18.5			1.7		1.8	
Approach LOS	B			A		A	
Timer - Assigned Phs	2			4		6	
Phs Duration (G+Y+Rc), s	33.8			7.7		33.8	
Change Period (Y+Rc), s	4.1			4.1		4.1	
Max Green Setting (Gmax), s	29.7			22.1		29.7	
Max Q Clear Time (g_c+I1), s	2.6			3.2		5.0	
Green Ext Time (p_c), s	0.3			0.3		2.2	
Intersection Summary							
HCM 6th Ctrl Delay	4.3						
HCM 6th LOS	A						

Notes

User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Traffic Vol, veh/h	42	15	199	138	8	44
Future Vol, veh/h	42	15	199	138	8	44
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	17	226	157	9	50
Number of Lanes	2	0	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.2	9.2	8.2
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	48%	0%	100%	100%
Vol Right, %	0%	100%	0%	52%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	44	28	29	199	69	69
LT Vol	8	0	0	0	199	0	0
Through Vol	0	0	28	14	0	69	69
RT Vol	0	44	0	15	0	0	0
Lane Flow Rate	9	50	32	33	226	78	78
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.015	0.068	0.048	0.046	0.335	0.105	0.068
Departure Headway (Hd)	6.132	4.931	5.405	5.042	5.34	4.839	3.101
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	585	727	664	711	676	743	1156
Service Time	3.859	2.659	3.128	2.765	3.056	2.555	0.817
HCM Lane V/C Ratio	0.015	0.069	0.048	0.046	0.334	0.105	0.067
HCM Control Delay	9	8	8.4	8	10.7	8.1	6
HCM Lane LOS	A	A	A	A	B	A	A
HCM 95th-tile Q	0	0.2	0.2	0.1	1.5	0.4	0.2

HCM 6th AWSC
4: Bundy Ave & 11th St

Existing plus Project
Timing Plan: AM Peak Hour

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	10	10	10	10	6	10	12	10	27	54	131
Future Vol, veh/h	35	10	10	10	10	6	10	12	10	27	54	131
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	11	11	11	11	7	11	14	11	31	61	149
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	8	7.7	7.6	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	31%	64%	38%	33%	0%
Vol Thru, %	38%	18%	38%	67%	0%
Vol Right, %	31%	18%	23%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	55	26	81	131
LT Vol	10	35	10	27	0
Through Vol	12	10	10	54	0
RT Vol	10	10	6	0	131
Lane Flow Rate	36	62	30	92	149
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.044	0.08	0.037	0.125	0.166
Departure Headway (Hd)	4.366	4.587	4.547	4.881	4.013
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	824	786	791	728	883
Service Time	2.374	2.589	2.552	2.657	1.788
HCM Lane V/C Ratio	0.044	0.079	0.038	0.126	0.169
HCM Control Delay	7.6	8	7.7	8.4	7.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.1	0.4	0.6

HCM 6th Signalized Intersection Summary

1: Village West Dr & Van Buren Blvd

Existing plus Project
Timing Plan: PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑↑	↱	↰↱	↑↑↑	↰↱	↰↱
Traffic Volume (veh/h)	0	1360	40	179	1267	40	231
Future Volume (veh/h)	0	1360	40	179	1267	40	231
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		1462	43	192	1362	43	248
Peak Hour Factor		0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		2460	764	326	3341	448	625
Arrive On Green		0.48	0.48	0.09	0.65	0.13	0.13
Sat Flow, veh/h		5274	1585	3456	5274	3456	2790
Grp Volume(v), veh/h		1462	43	192	1362	43	248
Grp Sat Flow(s),veh/h/ln		1702	1585	1728	1702	1728	1395
Q Serve(g_s), s		11.2	0.8	2.9	6.8	0.6	4.1
Cycle Q Clear(g_c), s		11.2	0.8	2.9	6.8	0.6	4.1
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		2460	764	326	3341	448	625
V/C Ratio(X)		0.59	0.06	0.59	0.41	0.10	0.40
Avail Cap(c_a), veh/h		5359	1664	1466	7925	1608	1561
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		10.1	7.4	23.3	4.4	20.6	17.7
Incr Delay (d2), s/veh		0.2	0.0	1.7	0.1	0.1	0.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		2.6	0.2	1.0	0.7	0.2	1.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		10.3	7.4	25.0	4.5	20.7	18.2
LnGrp LOS		B	A	C	A	C	B
Approach Vol, veh/h		1505			1554	291	
Approach Delay, s/veh		10.3			7.0	18.5	
Approach LOS		B			A	B	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	9.3	32.4			41.7	12.1	
Change Period (Y+Rc), s	* 4.2	6.5			6.5	5.1	
Max Green Setting (Gmax), s	* 23	56.4			83.4	25.0	
Max Q Clear Time (g_c+I1), s	4.9	13.2			8.8	6.1	
Green Ext Time (p_c), s	0.5	12.7			11.8	1.0	

Intersection Summary

HCM 6th Ctrl Delay 9.5
HCM 6th LOS A

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Village West Dr & Krameria Ave

Existing plus Project
Timing Plan: PM Peak Hour

							
Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	 			 		 	
Traffic Volume (veh/h)	230	2	5	45	0	68	151
Future Volume (veh/h)	230	2	5	45	0	68	151
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	256	2	6	50		76	168
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	440	202	935	2430		2430	1286
Arrive On Green	0.13	0.13	0.68	0.68		0.68	0.68
Sat Flow, veh/h	3456	1585	1136	3647		3647	1585
Grp Volume(v), veh/h	256	2	6	50		76	168
Grp Sat Flow(s),veh/h/ln	1728	1585	1136	1777		1777	1585
Q Serve(g_s), s	3.0	0.0	0.1	0.2		0.3	1.0
Cycle Q Clear(g_c), s	3.0	0.0	0.4	0.2		0.3	1.0
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	440	202	935	2430		2430	1286
V/C Ratio(X)	0.58	0.01	0.01	0.02		0.03	0.13
Avail Cap(c_a), veh/h	1758	807	935	2430		2430	1286
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	17.9	16.6	2.3	2.2		2.2	0.9
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.0		0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0		0.0	0.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	19.1	16.6	2.3	2.2		2.2	1.1
LnGrp LOS	B	B	A	A		A	A
Approach Vol, veh/h	258			56		244	
Approach Delay, s/veh	19.1			2.2		1.4	
Approach LOS	B			A		A	
Timer - Assigned Phs	2			4		6	
Phs Duration (G+Y+Rc), s	33.8			9.6		33.8	
Change Period (Y+Rc), s	4.1			4.1		4.1	
Max Green Setting (Gmax), s	29.7			22.1		29.7	
Max Q Clear Time (g_c+I1), s	2.4			5.0		3.0	
Green Ext Time (p_c), s	0.2			0.8		0.9	
Intersection Summary							
HCM 6th Ctrl Delay	9.7						
HCM 6th LOS	A						

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘	↗
Traffic Vol, veh/h	98	4	63	94	21	134
Future Vol, veh/h	98	4	63	94	21	134
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	111	5	72	107	24	152
Number of Lanes	2	0	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.7	8.1	8.5
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	89%	0%	100%	100%
Vol Right, %	0%	100%	0%	11%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	134	65	37	63	47	47
LT Vol	21	0	0	0	63	0	0
Through Vol	0	0	65	33	0	47	47
RT Vol	0	134	0	4	0	0	0
Lane Flow Rate	24	152	74	42	72	53	53
Geometry Grp	8	8	8	8	8	8	8
Degree of Util (X)	0.038	0.194	0.11	0.061	0.114	0.078	0.052
Departure Headway (Hd)	5.797	4.596	5.349	5.272	5.752	5.25	3.507
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	618	780	669	678	623	682	1017
Service Time	3.533	2.332	3.089	3.013	3.488	2.985	1.241
HCM Lane V/C Ratio	0.039	0.195	0.111	0.062	0.116	0.078	0.052
HCM Control Delay	8.8	8.4	8.8	8.4	9.2	8.4	6.4
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.7	0.4	0.2	0.4	0.3	0.2

HCM 6th AWSC
4: Bundy Ave & 11th St

Existing plus Project
Timing Plan: PM Peak Hour

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	89	10	10	10	10	22	20	44	10	4	9	54
Future Vol, veh/h	89	10	10	10	10	22	20	44	10	4	9	54
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	101	11	11	11	11	25	23	50	11	5	10	61
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	8.3	7.4	8	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	27%	82%	24%	31%	0%
Vol Thru, %	59%	9%	24%	69%	0%
Vol Right, %	14%	9%	52%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	109	42	13	54
LT Vol	20	89	10	4	0
Through Vol	44	10	10	9	0
RT Vol	10	10	22	0	54
Lane Flow Rate	84	124	48	15	61
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.105	0.153	0.055	0.021	0.073
Departure Headway (Hd)	4.488	4.459	4.172	5.155	4.298
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	801	808	861	697	836
Service Time	2.497	2.47	2.185	2.865	2.008
HCM Lane V/C Ratio	0.105	0.153	0.056	0.022	0.073
HCM Control Delay	8	8.3	7.4	8	7.3
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0.2	0.1	0.2

HCM 6th Signalized Intersection Summary

1: Village West Dr & Van Buren Blvd

Opening Year 2024
Timing Plan: AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑↑	↱	↰↱	↑↑↑	↰↱	↰↱
Traffic Volume (veh/h)	0	1717	61	984	2654	44	331
Future Volume (veh/h)	0	1717	61	984	2654	44	331
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		1841	1781	1663	1811	1767	1500
Adj Flow Rate, veh/h		1866	66	1070	2885	48	360
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		4	8	16	6	9	27
Cap, veh/h		1791	538	1132	3778	417	1110
Arrive On Green		0.36	0.36	0.37	0.76	0.13	0.13
Sat Flow, veh/h		5191	1510	3072	5107	3264	2237
Grp Volume(v), veh/h		1866	66	1070	2885	48	360
Grp Sat Flow(s),veh/h/ln		1675	1510	1536	1648	1632	1119
Q Serve(g_s), s		38.2	3.2	36.2	35.4	1.4	10.4
Cycle Q Clear(g_c), s		38.2	3.2	36.2	35.4	1.4	10.4
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1791	538	1132	3778	417	1110
V/C Ratio(X)		1.04	0.12	0.95	0.76	0.12	0.32
Avail Cap(c_a), veh/h		1791	538	1175	3848	761	1346
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		34.5	23.2	32.8	7.2	41.4	16.2
Incr Delay (d2), s/veh		33.0	0.1	14.8	0.9	0.1	0.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		19.5	1.1	14.4	7.3	0.6	2.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		67.5	23.3	47.6	8.1	41.5	16.4
LnGrp LOS		F	C	D	A	D	B
Approach Vol, veh/h		1932			3955	408	
Approach Delay, s/veh		66.0			18.8	19.3	
Approach LOS		E			B	B	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	43.7	44.7			88.4	18.8	
Change Period (Y+Rc), s	* 4.2	6.5			6.5	5.1	
Max Green Setting (Gmax), s	* 41	38.2			83.4	25.0	
Max Q Clear Time (g_c+I1), s	38.2	40.2			37.4	12.4	
Green Ext Time (p_c), s	1.3	0.0			36.6	1.3	

Intersection Summary

HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Village West Dr & Krameria Ave

Opening Year 2024
Timing Plan: AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↔↔	↔	↔	↑↑	↔	↑↑	↔
Traffic Volume (veh/h)	324	19	45	49	0	103	920
Future Volume (veh/h)	324	19	45	49	0	103	920
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	1441	1737	1781	1796		1841	1633
Adj Flow Rate, veh/h	352	21	49	53		112	1000
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	31	11	8	7		4	18
Cap, veh/h	539	298	461	2004		2054	1093
Arrive On Green	0.20	0.20	0.59	0.59		0.59	0.59
Sat Flow, veh/h	2662	1472	483	3503		3589	1384
Grp Volume(v), veh/h	352	21	49	53		112	1000
Grp Sat Flow(s),veh/h/ln	1331	1472	483	1706		1749	1384
Q Serve(g_s), s	4.7	0.5	1.9	0.3		0.5	21.3
Cycle Q Clear(g_c), s	4.7	0.5	2.4	0.3		0.5	21.3
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	539	298	461	2004		2054	1093
V/C Ratio(X)	0.65	0.07	0.11	0.03		0.05	0.91
Avail Cap(c_a), veh/h	1972	1091	461	2004		2054	1093
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	14.3	12.6	3.9	3.4		3.4	3.1
Incr Delay (d2), s/veh	1.3	0.1	0.1	0.0		0.0	11.7
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	0.1	0.0		0.1	7.6
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	15.6	12.7	4.0	3.4		3.4	14.8
LnGrp LOS	B	B	A	A		A	B
Approach Vol, veh/h	373			102		1112	
Approach Delay, s/veh	15.5			3.7		13.7	
Approach LOS	B			A		B	
Timer - Assigned Phs	2		4		6		
Phs Duration (G+Y+Rc), s	27.0		12.0		27.0		
Change Period (Y+Rc), s	4.1		4.1		4.1		
Max Green Setting (Gmax), s	22.9		28.9		22.9		
Max Q Clear Time (g_c+l1), s	4.4		6.7		23.3		
Green Ext Time (p_c), s	0.7		1.3		0.0		
Intersection Summary							
HCM 6th Ctrl Delay			13.5				
HCM 6th LOS			B				

Notes

User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	296	15	129	838	0	9	0	22	2	0	0
Future Vol, veh/h	0	296	15	129	838	0	9	0	22	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	32	0	0	18	0	0	0	0	0	0	0
Mvmt Flow	0	322	16	140	911	0	10	0	24	2	0	0
Number of Lanes	1	2	0	1	2	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	3	3
HCM Control Delay	13	15.5	10.3	11
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%	100%
Vol Thru, %	0%	0%	100%	100%	87%	0%	100%	100%	0%
Vol Right, %	0%	100%	0%	0%	13%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	22	0	197	114	129	419	419	2
LT Vol	9	0	0	0	0	129	0	0	2
Through Vol	0	0	0	197	99	0	419	419	0
RT Vol	0	22	0	0	15	0	0	0	0
Lane Flow Rate	10	24	0	214	124	140	455	455	2
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.022	0.046	0	0.413	0.216	0.232	0.728	0.474	0.005
Departure Headway (Hd)	8.168	6.953	6.394	6.94	6.302	5.952	5.757	3.743	8.276
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	440	517	0	521	573	597	619	943	434
Service Time	5.887	4.671	4.096	4.642	4.004	3.751	3.556	1.541	5.996
HCM Lane V/C Ratio	0.023	0.046	0	0.411	0.216	0.235	0.735	0.483	0.005
HCM Control Delay	11.1	10	9.1	14.4	10.7	10.6	22.6	10	11
HCM Lane LOS	B	A	N	B	B	B	C	A	B
HCM 95th-tile Q	0.1	0.1	0	2	0.8	0.9	6.2	2.6	0

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	11	11	11	11	6	11	12	11	29	58	58
Future Vol, veh/h	12	11	11	11	11	6	11	12	11	29	58	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	12	12	12	12	7	12	13	12	32	63	63
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	7.5	7.5	7.4	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	32%	35%	39%	33%	0%
Vol Thru, %	35%	32%	39%	67%	0%
Vol Right, %	32%	32%	21%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	34	28	87	58
LT Vol	11	12	11	29	0
Through Vol	12	11	11	58	0
RT Vol	11	11	6	0	58
Lane Flow Rate	37	37	30	95	63
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.042	0.044	0.037	0.127	0.07
Departure Headway (Hd)	4.137	4.284	4.365	4.838	3.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	853	841	825	739	897
Service Time	2.225	2.285	2.366	2.585	1.716
HCM Lane V/C Ratio	0.043	0.044	0.036	0.129	0.07
HCM Control Delay	7.4	7.5	7.5	8.3	7
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0.4	0.2

HCM 6th Signalized Intersection Summary

1: Village West Dr & Van Buren Blvd

Opening Year 2024
Timing Plan: PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑↑	↱	↰↱	↑↑↑	↰↱	↰↱
Traffic Volume (veh/h)	0	2417	58	549	1969	60	902
Future Volume (veh/h)	0	2417	58	549	1969	60	902
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		2627	63	597	2140	65	980
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		2485	771	599	3549	720	1065
Arrive On Green		0.49	0.49	0.17	0.69	0.21	0.21
Sat Flow, veh/h		5274	1585	3456	5274	3456	2790
Grp Volume(v), veh/h		2627	63	597	2140	65	980
Grp Sat Flow(s),veh/h/ln		1702	1585	1728	1702	1728	1395
Q Serve(g_s), s		58.4	2.5	20.7	26.4	1.8	25.0
Cycle Q Clear(g_c), s		58.4	2.5	20.7	26.4	1.8	25.0
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		2485	771	599	3549	720	1065
V/C Ratio(X)		1.06	0.08	1.00	0.60	0.09	0.92
Avail Cap(c_a), veh/h		2485	771	599	3549	720	1065
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		30.8	16.5	49.6	9.6	38.3	35.4
Incr Delay (d2), s/veh		35.4	0.0	35.9	0.3	0.1	12.6
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		29.3	0.9	11.5	7.7	0.8	14.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		66.2	16.5	85.4	9.9	38.4	48.0
LnGrp LOS		F	B	F	A	D	D
Approach Vol, veh/h		2690			2737	1045	
Approach Delay, s/veh		65.1			26.4	47.4	
Approach LOS		E			C	D	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	25.0	64.9			89.9	30.1	
Change Period (Y+Rc), s	* 4.2	6.5			6.5	5.1	
Max Green Setting (Gmax), s	* 21	58.4			83.4	25.0	
Max Q Clear Time (g_c+l1), s	22.7	60.4			28.4	27.0	
Green Ext Time (p_c), s	0.0	0.0			25.8	0.0	

Intersection Summary

HCM 6th Ctrl Delay 45.9
HCM 6th LOS D

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Village West Dr & Krameria Ave

Opening Year 2024
Timing Plan: PM Peak Hour

							
Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	 			 		 	
Traffic Volume (veh/h)	919	46	28	47	0	72	536
Future Volume (veh/h)	919	46	28	47	0	72	536
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	999	50	30	51		78	583
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	1285	589	494	1638		1638	1320
Arrive On Green	0.37	0.37	0.46	0.46		0.46	0.46
Sat Flow, veh/h	3456	1585	774	3647		3647	1585
Grp Volume(v), veh/h	999	50	30	51		78	583
Grp Sat Flow(s),veh/h/ln	1728	1585	774	1777		1777	1585
Q Serve(g_s), s	12.5	1.0	1.1	0.4		0.6	4.8
Cycle Q Clear(g_c), s	12.5	1.0	1.7	0.4		0.6	4.8
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	1285	589	494	1638		1638	1320
V/C Ratio(X)	0.78	0.08	0.06	0.03		0.05	0.44
Avail Cap(c_a), veh/h	2058	944	494	1638		1638	1320
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	13.6	10.0	7.7	7.2		7.3	1.1
Incr Delay (d2), s/veh	1.0	0.1	0.2	0.0		0.1	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	3.8	0.3	0.2	0.1		0.2	4.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	14.7	10.0	8.0	7.3		7.3	2.2
LnGrp LOS	B	B	A	A		A	A
Approach Vol, veh/h	1049			81		661	
Approach Delay, s/veh	14.4			7.5		2.8	
Approach LOS	B			A		A	
Timer - Assigned Phs	2		4		6		
Phs Duration (G+Y+Rc), s	26.7		22.3		26.7		
Change Period (Y+Rc), s	4.1		4.1		4.1		
Max Green Setting (Gmax), s	22.6		29.2		22.6		
Max Q Clear Time (g_c+I1), s	3.7		14.5		6.8		
Green Ext Time (p_c), s	0.3		3.7		2.4		
Intersection Summary							
HCM 6th Ctrl Delay			9.8				
HCM 6th LOS			A				

Notes

User approved ignoring U-Turning movement.

Intersection	
Intersection Delay, s/veh	53.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	842	4	19	487	9	22	0	95	0	0	0
Future Vol, veh/h	0	842	4	19	487	9	22	0	95	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	13	0	12	16	0	5	0	0	0	0	0
Mvmt Flow	0	915	4	21	529	10	24	0	103	0	0	0
Number of Lanes	1	2	0	1	2	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	3	3
HCM Control Delay	77.8	21.6	12.7	0
HCM LOS	F	C	B	-

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%	0%
Vol Thru, %	0%	0%	100%	100%	99%	0%	100%	95%	100%
Vol Right, %	0%	100%	0%	0%	1%	0%	0%	5%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	95	0	561	285	19	325	171	0
LT Vol	22	0	0	0	0	19	0	0	0
Through Vol	0	0	0	561	281	0	325	162	0
RT Vol	0	95	0	0	4	0	0	9	0
Lane Flow Rate	24	103	0	610	309	21	353	186	0
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.059	0.219	0	1.142	0.559	0.044	0.708	0.357	0
Departure Headway (Hd)	9.253	7.936	6.514	6.737	6.504	7.913	7.475	7.162	9.196
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	389	455	0	543	554	455	487	505	0
Service Time	6.953	5.636	4.249	4.472	4.239	5.613	5.175	4.862	6.896
HCM Lane V/C Ratio	0.062	0.226	0	1.123	0.558	0.046	0.725	0.368	0
HCM Control Delay	12.5	12.8	9.2	108.5	17.2	11	26.3	13.8	11.9
HCM Lane LOS	B	B	N	F	C	B	D	B	N
HCM 95th-tile Q	0.2	0.8	0	20.5	3.4	0.1	5.5	1.6	0

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	11	11	11	11	23	21	47	11	5	9	9
Future Vol, veh/h	47	11	11	11	11	23	21	47	11	5	9	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	51	12	12	12	12	25	23	51	12	5	10	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	7.7	7.2	7.8	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	27%	68%	24%	36%	0%
Vol Thru, %	59%	16%	24%	64%	0%
Vol Right, %	14%	16%	51%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	69	45	14	9
LT Vol	21	47	11	5	0
Through Vol	47	11	11	9	0
RT Vol	11	11	23	0	9
Lane Flow Rate	86	75	49	15	10
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.101	0.088	0.053	0.021	0.011
Departure Headway (Hd)	4.239	4.203	3.925	4.975	4.094
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	837	843	899	713	863
Service Time	2.307	2.277	2.009	2.753	1.871
HCM Lane V/C Ratio	0.103	0.089	0.055	0.021	0.012
HCM Control Delay	7.8	7.7	7.2	7.9	6.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.2	0.1	0

HCM 6th Signalized Intersection Summary

1: Village West Dr & Van Buren Blvd

Opening Year 2024 plus Project
Timing Plan: AM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑↑	↱	↰↱	↑↑↑	↰↱	↰↱
Traffic Volume (veh/h)	0	1717	95	1027	2654	54	344
Future Volume (veh/h)	0	1717	95	1027	2654	54	344
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		1841	1781	1663	1811	1767	1500
Adj Flow Rate, veh/h		1866	103	1116	2885	59	374
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		4	8	16	6	9	27
Cap, veh/h		1758	528	1153	3775	426	1131
Arrive On Green		0.35	0.35	0.38	0.76	0.13	0.13
Sat Flow, veh/h		5191	1510	3072	5107	3264	2237
Grp Volume(v), veh/h		1866	103	1116	2885	59	374
Grp Sat Flow(s),veh/h/ln		1675	1510	1536	1648	1632	1119
Q Serve(g_s), s		38.2	5.2	38.9	36.2	1.7	10.8
Cycle Q Clear(g_c), s		38.2	5.2	38.9	36.2	1.7	10.8
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		1758	528	1153	3775	426	1131
V/C Ratio(X)		1.06	0.20	0.97	0.76	0.14	0.33
Avail Cap(c_a), veh/h		1758	528	1154	3776	747	1351
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		35.5	24.8	33.5	7.3	42.1	16.0
Incr Delay (d2), s/veh		39.9	0.2	19.3	1.0	0.1	0.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		20.7	1.8	16.2	7.7	0.7	2.6
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		75.4	25.0	52.7	8.3	42.2	16.2
LnGrp LOS		F	C	D	A	D	B
Approach Vol, veh/h		1969			4001	433	
Approach Delay, s/veh		72.8			20.7	19.7	
Approach LOS		E			C	B	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	45.2	44.7			89.9	19.3	
Change Period (Y+Rc), s	* 4.2	6.5			6.5	5.1	
Max Green Setting (Gmax), s	* 41	38.2			83.4	25.0	
Max Q Clear Time (g_c+I1), s	40.9	40.2			38.2	12.8	
Green Ext Time (p_c), s	0.0	0.0			36.1	1.4	

Intersection Summary

HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Village West Dr & Krameria Ave

Opening Year 2024 plus Project
Timing Plan: AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↰↱	↱	↰	↰↱	↰	↰↱	↱
Traffic Volume (veh/h)	347	19	45	49	0	103	997
Future Volume (veh/h)	347	19	45	49	0	103	997
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	1441	1737	1781	1796		1841	1633
Adj Flow Rate, veh/h	377	21	49	53		112	1084
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	31	11	8	7		4	18
Cap, veh/h	567	314	434	1978		2027	1097
Arrive On Green	0.21	0.21	0.58	0.58		0.58	0.58
Sat Flow, veh/h	2662	1472	446	3503		3589	1384
Grp Volume(v), veh/h	377	21	49	53		112	1084
Grp Sat Flow(s),veh/h/ln	1331	1472	446	1706		1749	1384
Q Serve(g_s), s	5.1	0.5	2.1	0.3		0.5	22.9
Cycle Q Clear(g_c), s	5.1	0.5	2.7	0.3		0.5	22.9
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	567	314	434	1978		2027	1097
V/C Ratio(X)	0.66	0.07	0.11	0.03		0.06	0.99
Avail Cap(c_a), veh/h	1946	1076	434	1978		2027	1097
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	14.3	12.4	4.2	3.5		3.6	3.2
Incr Delay (d2), s/veh	1.3	0.1	0.1	0.0		0.0	24.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.1	0.1	0.0		0.1	13.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	15.6	12.5	4.3	3.6		3.6	27.5
LnGrp LOS	B	B	A	A		A	C
Approach Vol, veh/h	398			102		1196	
Approach Delay, s/veh	15.4			3.9		25.2	
Approach LOS	B			A		C	
Timer - Assigned Phs		2		4		6	
Phs Duration (G+Y+Rc), s		27.0		12.5		27.0	
Change Period (Y+Rc), s		4.1		4.1		4.1	
Max Green Setting (Gmax), s		22.9		28.9		22.9	
Max Q Clear Time (g_c+I1), s		4.7		7.1		24.9	
Green Ext Time (p_c), s		0.8		1.4		0.0	
Intersection Summary							
HCM 6th Ctrl Delay			21.7				
HCM 6th LOS			C				

Notes

User approved ignoring U-Turning movement.

HCM 6th AWSC
3: Bundy Ave & Krameria Ave

Opening Year 2024 plus Project
Timing Plan: AM Peak Hour

Intersection	
Intersection Delay, s/veh	15.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	296	15	206	838	0	9	0	45	2	0	0
Future Vol, veh/h	0	296	15	206	838	0	9	0	45	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	32	0	0	18	0	0	0	0	0	0	0
Mvmt Flow	0	322	16	224	911	0	10	0	49	2	0	0
Number of Lanes	1	2	0	1	2	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	3	3
HCM Control Delay	13.8	16.7	10.8	11.4
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%	100%
Vol Thru, %	0%	0%	100%	100%	87%	0%	100%	100%	0%
Vol Right, %	0%	100%	0%	0%	13%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	45	0	197	114	206	419	419	2
LT Vol	9	0	0	0	0	206	0	0	2
Through Vol	0	0	0	197	99	0	419	419	0
RT Vol	0	45	0	0	15	0	0	0	0
Lane Flow Rate	10	49	0	214	124	224	455	455	2
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.023	0.097	0	0.429	0.225	0.383	0.755	0.5	0.005
Departure Headway (Hd)	8.358	7.141	6.647	7.193	6.554	6.165	5.97	3.952	8.558
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	428	501	0	502	549	584	606	911	418
Service Time	6.115	4.898	4.384	4.931	4.291	3.896	3.701	1.683	6.322
HCM Lane V/C Ratio	0.023	0.098	0	0.426	0.226	0.384	0.751	0.499	0.005
HCM Control Delay	11.3	10.7	9.4	15.3	11.2	12.7	24.8	10.6	11.4
HCM Lane LOS	B	B	N	C	B	B	C	B	B
HCM 95th-tile Q	0.1	0.3	0	2.1	0.9	1.8	6.8	2.9	0

HCM 6th AWSC
4: Bundy Ave & 11th St

Opening Year 2024 plus Project
Timing Plan: AM Peak Hour

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	11	11	11	11	6	11	12	11	29	58	135
Future Vol, veh/h	35	11	11	11	11	6	11	12	11	29	58	135
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	12	12	12	12	7	12	13	12	32	63	147
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	8	7.8	7.6	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	32%	61%	39%	33%	0%
Vol Thru, %	35%	19%	39%	67%	0%
Vol Right, %	32%	19%	21%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	57	28	87	135
LT Vol	11	35	11	29	0
Through Vol	12	11	11	58	0
RT Vol	11	11	6	0	135
Lane Flow Rate	37	62	30	95	147
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.045	0.079	0.039	0.128	0.164
Departure Headway (Hd)	4.362	4.58	4.561	4.881	4.013
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	824	786	789	727	882
Service Time	2.373	2.583	2.566	2.66	1.791
HCM Lane V/C Ratio	0.045	0.079	0.038	0.131	0.167
HCM Control Delay	7.6	8	7.8	8.4	7.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0.1	0.4	0.6

HCM 6th Signalized Intersection Summary

1: Village West Dr & Van Buren Blvd

Opening Year 2024 plus Project
Timing Plan: PM Peak Hour



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑↑	↱	↰↱	↑↑↑	↰↱	↰↱
Traffic Volume (veh/h)	0	2417	78	574	1969	80	927
Future Volume (veh/h)	0	2417	78	574	1969	80	927
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		2627	85	624	2140	87	1008
Peak Hour Factor		0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %		2	2	2	2	2	2
Cap, veh/h		2485	771	599	3549	720	1065
Arrive On Green		0.49	0.49	0.17	0.69	0.21	0.21
Sat Flow, veh/h		5274	1585	3456	5274	3456	2790
Grp Volume(v), veh/h		2627	85	624	2140	87	1008
Grp Sat Flow(s),veh/h/ln		1702	1585	1728	1702	1728	1395
Q Serve(g_s), s		58.4	3.5	20.8	26.4	2.5	25.0
Cycle Q Clear(g_c), s		58.4	3.5	20.8	26.4	2.5	25.0
Prop In Lane			1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h		2485	771	599	3549	720	1065
V/C Ratio(X)		1.06	0.11	1.04	0.60	0.12	0.95
Avail Cap(c_a), veh/h		2485	771	599	3549	720	1065
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		30.8	16.7	49.6	9.6	38.6	35.9
Incr Delay (d2), s/veh		35.4	0.1	48.1	0.3	0.1	16.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		29.3	1.2	12.5	7.7	1.0	16.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh		66.2	16.8	97.7	9.9	38.6	52.3
LnGrp LOS		F	B	F	A	D	D
Approach Vol, veh/h		2712			2764	1095	
Approach Delay, s/veh		64.7			29.7	51.2	
Approach LOS		E			C	D	
Timer - Assigned Phs	1	2			6	8	
Phs Duration (G+Y+Rc), s	25.0	64.9			89.9	30.1	
Change Period (Y+Rc), s	* 4.2	6.5			6.5	5.1	
Max Green Setting (Gmax), s	* 21	58.4			83.4	25.0	
Max Q Clear Time (g_c+I1), s	22.8	60.4			28.4	27.0	
Green Ext Time (p_c), s	0.0	0.0			25.8	0.0	

Intersection Summary

HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

2: Village West Dr & Krameria Ave

Opening Year 2024 plus Project
Timing Plan: PM Peak Hour

							
Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	 			 		 	
Traffic Volume (veh/h)	964	46	28	47	0	72	581
Future Volume (veh/h)	964	46	28	47	0	72	581
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	1048	50	30	51		78	632
Peak Hour Factor	0.92	0.92	0.92	0.92		0.92	0.92
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	1328	609	469	1605		1605	1325
Arrive On Green	0.38	0.38	0.45	0.45		0.45	0.45
Sat Flow, veh/h	3456	1585	739	3647		3647	1585
Grp Volume(v), veh/h	1048	50	30	51		78	632
Grp Sat Flow(s),veh/h/ln	1728	1585	739	1777		1777	1585
Q Serve(g_s), s	13.4	1.0	1.2	0.4		0.6	5.4
Cycle Q Clear(g_c), s	13.4	1.0	1.8	0.4		0.6	5.4
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	1328	609	469	1605		1605	1325
V/C Ratio(X)	0.79	0.08	0.06	0.03		0.05	0.48
Avail Cap(c_a), veh/h	2017	925	469	1605		1605	1325
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	13.6	9.8	8.2	7.6		7.7	1.1
Incr Delay (d2), s/veh	1.2	0.1	0.3	0.0		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	4.2	0.3	0.2	0.1		0.2	4.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	14.8	9.8	8.5	7.7		7.7	2.3
LnGrp LOS	B	A	A	A		A	A
Approach Vol, veh/h	1098			81		710	
Approach Delay, s/veh	14.6			8.0		2.9	
Approach LOS	B			A		A	
Timer - Assigned Phs	2		4		6		
Phs Duration (G+Y+Rc), s	26.7		23.3		26.7		
Change Period (Y+Rc), s	4.1		4.1		4.1		
Max Green Setting (Gmax), s	22.6		29.2		22.6		
Max Q Clear Time (g_c+l1), s	3.8		15.4		7.4		
Green Ext Time (p_c), s	0.3		3.8		2.6		
Intersection Summary							
HCM 6th Ctrl Delay			9.9				
HCM 6th LOS			A				

Notes

User approved ignoring U-Turning movement.

HCM 6th AWSC
3: Bundy Ave & Krameria Ave

Opening Year 2024 plus Project
Timing Plan: PM Peak Hour

Intersection	
Intersection Delay, s/veh	60.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	842	4	64	487	9	22	0	140	0	0	0
Future Vol, veh/h	0	842	4	64	487	9	22	0	140	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	13	0	12	16	0	5	0	0	0	0	0
Mvmt Flow	0	915	4	70	529	10	24	0	152	0	0	0
Number of Lanes	1	2	0	1	2	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	3	3
HCM Control Delay	94.7	22.6	14.6	0
HCM LOS	F	C	B	-

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%	0%
Vol Thru, %	0%	0%	100%	100%	99%	0%	100%	95%	100%
Vol Right, %	0%	100%	0%	0%	1%	0%	0%	5%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	140	0	561	285	64	325	171	0
LT Vol	22	0	0	0	0	64	0	0	0
Through Vol	0	0	0	561	281	0	325	162	0
RT Vol	0	140	0	0	4	0	0	9	0
Lane Flow Rate	24	152	0	610	309	70	353	186	0
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.06	0.33	0	1.204	0.59	0.152	0.73	0.369	0
Departure Headway (Hd)	9.524	8.205	6.879	7.103	6.869	8.23	7.791	7.476	9.699
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	378	441	0	513	526	438	466	484	0
Service Time	7.224	5.905	4.623	4.847	4.613	5.93	5.491	5.176	7.399
HCM Lane V/C Ratio	0.063	0.345	0	1.189	0.587	0.16	0.758	0.384	0
HCM Control Delay	12.8	14.9	9.6	133.1	19.1	12.4	28.8	14.5	12.4
HCM Lane LOS	B	B	N	F	C	B	D	B	N
HCM 95th-tile Q	0.2	1.4	0	22.8	3.8	0.5	5.9	1.7	0

HCM 6th AWSC
4: Bundy Ave & 11th St

Opening Year 2024 plus Project
Timing Plan: PM Peak Hour

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	92	11	11	11	11	23	21	47	11	5	9	54
Future Vol, veh/h	92	11	11	11	11	23	21	47	11	5	9	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	100	12	12	12	12	25	23	51	12	5	10	59
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	1	1
HCM Control Delay	8.3	7.4	8	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	27%	81%	24%	36%	0%
Vol Thru, %	59%	10%	24%	64%	0%
Vol Right, %	14%	10%	51%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	114	45	14	54
LT Vol	21	92	11	5	0
Through Vol	47	11	11	9	0
RT Vol	11	11	23	0	54
Lane Flow Rate	86	124	49	15	59
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.107	0.153	0.057	0.022	0.07
Departure Headway (Hd)	4.483	4.454	4.179	5.184	4.301
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	802	808	859	693	836
Service Time	2.496	2.467	2.194	2.896	2.013
HCM Lane V/C Ratio	0.107	0.153	0.057	0.022	0.071
HCM Control Delay	8	8.3	7.4	8	7.3
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0.2	0.1	0.2

HCM 6th Signalized Intersection Summary

3: Bundy Ave & Krameria Ave

Opening Year 2024 plus Project IMP

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	296	15	206	838	0	9	0	45	2	0	0
Future Volume (veh/h)	0	296	15	206	838	0	9	0	45	2	0	0
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	1900	1426	1900	1900	1633	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	322	16	224	911	0	10	0	49	2	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	32	0	0	18	0	0	0	0	0	0	0
Cap, veh/h	240	1399	69	735	1653	0	491	0	269	434	0	0
Arrive On Green	0.00	0.53	0.53	0.53	0.53	0.00	0.17	0.00	0.17	0.17	0.00	0.00
Sat Flow, veh/h	622	2627	130	1059	3185	0	1440	0	1610	1162	0	0
Grp Volume(v), veh/h	0	165	173	224	911	0	10	0	49	2	0	0
Grp Sat Flow(s),veh/h/ln	622	1354	1402	1059	1552	0	1440	0	1610	1162	0	0
Q Serve(g_s), s	0.0	1.9	2.0	4.3	5.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.9	2.0	6.2	5.8	0.0	0.1	0.0	0.8	0.8	0.0	0.0
Prop In Lane	1.00		0.09	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	240	721	747	735	1653	0	491	0	269	434	0	0
V/C Ratio(X)	0.00	0.23	0.23	0.30	0.55	0.00	0.02	0.00	0.18	0.00	0.00	0.00
Avail Cap(c_a), veh/h	563	1424	1475	1284	3263	0	1188	0	1048	1101	0	0
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)	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	3.7	3.7	5.4	4.6	0.0	10.5	0.0	10.7	11.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.2	0.3	0.0	0.0	0.0	0.3	0.0	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.4	0.4	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.9	3.9	5.6	4.9	0.0	10.5	0.0	11.0	11.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	B	A	B	B	A	A
Approach Vol, veh/h	338			1135			59			2		
Approach Delay, s/veh	3.9			5.1			10.9			11.1		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	9.5			20.5			9.5			20.5		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	19.5			31.5			19.5			31.5		
Max Q Clear Time (g_c+I1), s	2.8			4.0			2.8			8.2		
Green Ext Time (p_c), s	0.2			1.9			0.0			7.7		
Intersection Summary												
HCM 6th Ctrl Delay	5.0											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary 3: Bundy Ave & Krameria Ave

2024 plus Project IMP
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	842	4	64	487	9	22	0	140	0	0	0
Future Volume (veh/h)	0	842	4	64	487	9	22	0	140	0	0	0
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	1900	1707	1900	1722	1663	1900	1826	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	915	4	70	529	10	24	0	152	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	13	0	12	16	0	5	0	0	0	0	0
Cap, veh/h	210	1553	7	359	1488	28	717	0	470	0	554	0
Arrive On Green	0.00	0.47	0.47	0.47	0.47	0.47	0.29	0.00	0.29	0.00	0.00	0.00
Sat Flow, veh/h	880	3312	14	560	3172	60	1739	0	1610	0	1900	0
Grp Volume(v), veh/h	0	448	471	70	263	276	24	0	152	0	0	0
Grp Sat Flow(s),veh/h/ln	880	1622	1705	560	1580	1652	1739	0	1610	0	1900	0
Q Serve(g_s), s	0.0	6.9	6.9	3.6	3.6	3.6	0.3	0.0	2.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.9	6.9	10.5	3.6	3.6	0.3	0.0	2.5	0.0	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.04	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	210	761	799	359	741	775	717	0	470	0	554	0
V/C Ratio(X)	0.00	0.59	0.59	0.19	0.36	0.36	0.03	0.00	0.32	0.00	0.00	0.00
Avail Cap(c_a), veh/h	565	1415	1487	585	1378	1441	1321	0	1029	0	1214	0
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	6.7	6.7	10.5	5.8	5.8	8.7	0.0	9.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.7	0.3	0.3	0.3	0.0	0.0	0.4	0.0	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.2	1.3	0.3	0.6	0.6	0.1	0.0	0.7	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.4	7.4	10.8	6.1	6.1	8.7	0.0	9.9	0.0	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h	919			609			176			0		
Approach Delay, s/veh	7.4			6.6			9.7			0.0		
Approach LOS	A			A			A					
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	14.1			20.2			14.1			20.2		
Change Period (Y+Rc), s	4.1			4.1			4.1			4.1		
Max Green Setting (Gmax), s	21.9			29.9			21.9			29.9		
Max Q Clear Time (g_c+I1), s	4.5			8.9			0.0			12.5		
Green Ext Time (p_c), s	0.8			5.6			0.0			3.5		
Intersection Summary												
HCM 6th Ctrl Delay	7.4											
HCM 6th LOS	A											

Appendix C

Meridian South Campus TIA Data



Meridian South Campus

TRAFFIC IMPACT ANALYSIS

MARCH JOINT POWERS AUTHORITY (MARCH JPA)

PREPARED BY:

Aric Evatt, PTP
aevatt@urbanxroads.com
(949) 336-5978

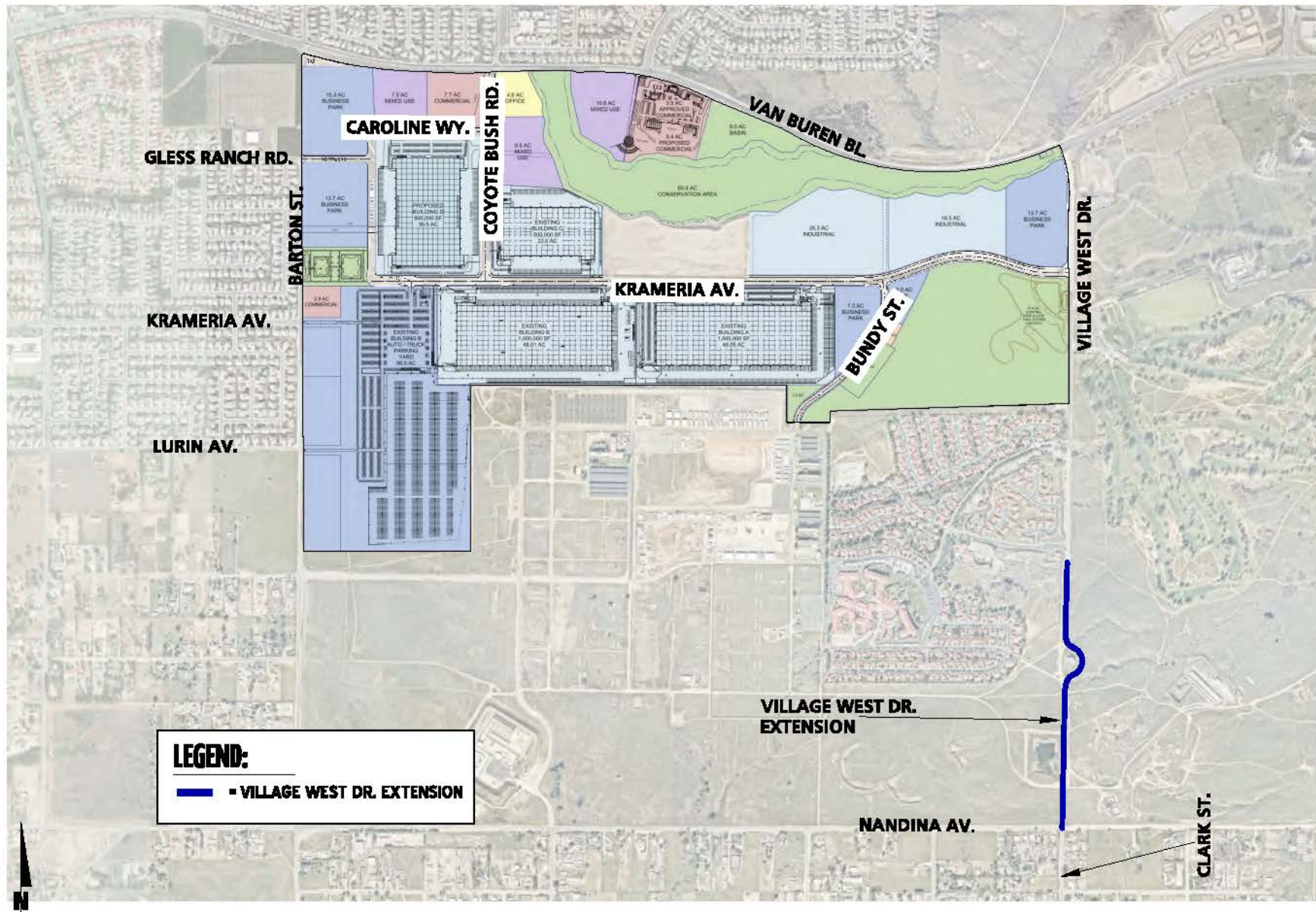
Charlene So, PE
cso@urbanxroads.com
(949) 660-1994 x222

Connor Paquin, PE
cpaquin@urbanxroads.com
(949) 660-1994 x6635

APRIL 29, 2020

12759-17 TIA Report

EXHIBIT 1-1: PRELIMINARY SITE PLAN



- I-215 Southbound, North of Alessandro Bl.
- I-215 Southbound, Off-Ramp at Alessandro Bl.
- I-215 Southbound, Loop-On at Alessandro Bl.
- I-215 Southbound, On-Ramp at Alessandro Bl.
- I-215 Northbound, South of Van Buren Bl.
- I-215 Northbound, Off-Ramp at Van Buren Bl.
- I-215 Northbound, On-Ramp at Van Buren Bl.
- I-215 Northbound, On-Ramp at Van Buren Bl.
- I-215 Northbound, Between Van Buren Bl. and Cactus Av.
- I-215 Northbound, Off-Ramp at Alessandro Bl.
- I-215 Northbound, On-Ramp at Alessandro Bl.
- I-215 Northbound, North of Alessandro Bl.

The Project is anticipated to have a cumulatively considerable impact to the identified freeway mainline segments and merge/diverge ramp junctions, however, no mitigation measures have been identified as no other improvements beyond those planned by the I-215 North Project have been evaluated. Neither Caltrans or the State have adopted a fee program that can ensure that locally contributed impact fees will be tied to improvements along the freeway mainline, and only Caltrans has the jurisdiction over mainline improvements. Because Caltrans has exclusive control over SHS improvements, ensuring that fair share contributions to mainline improvements are actually part of a program tied to implementation is within the jurisdiction of Caltrans. As such, the impacts are considered significant and unavoidable.

1.6 SITE ADJACENT ROADWAY AND SITE ACCESS IMPROVEMENTS

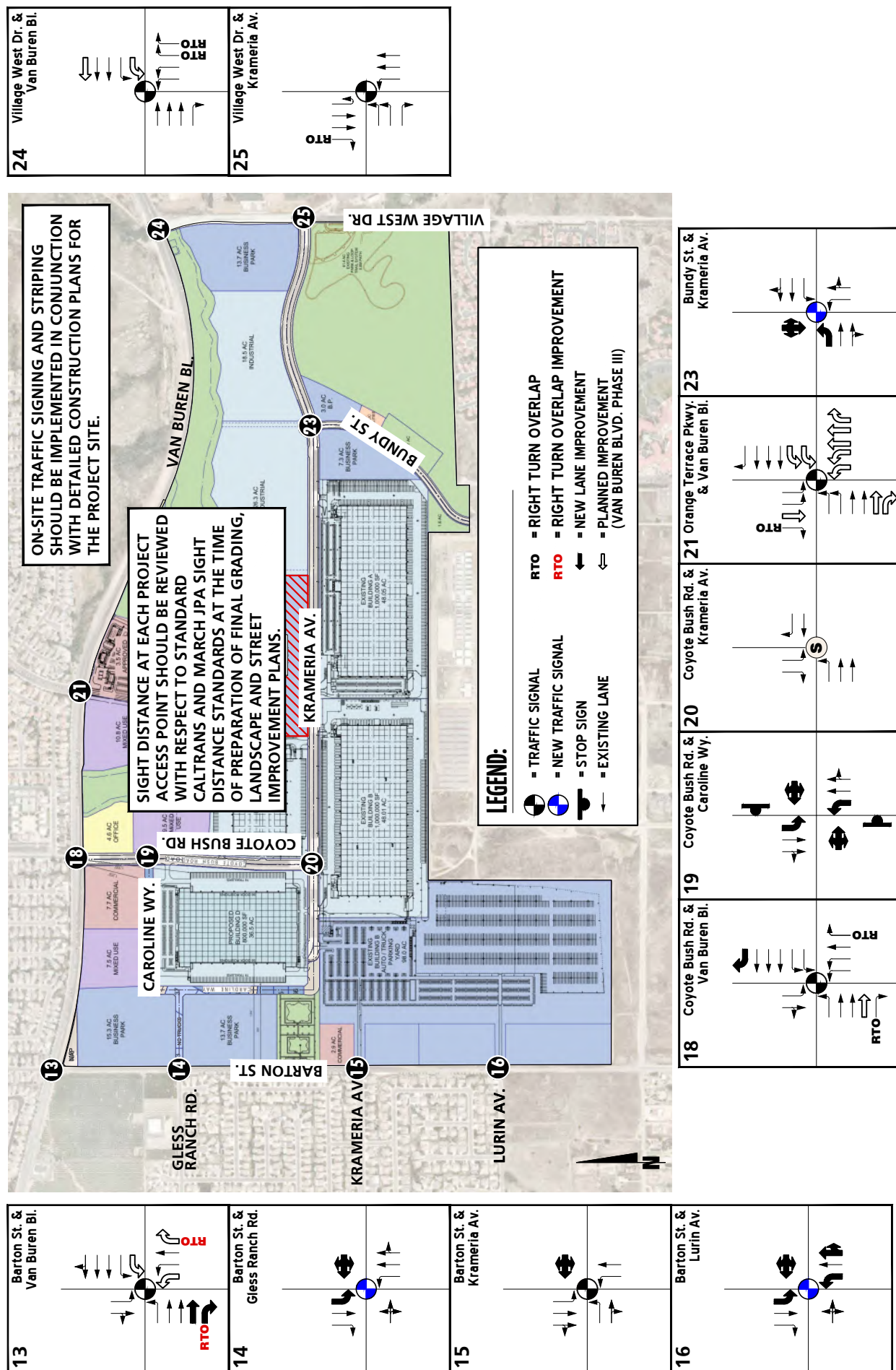
1.6.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

The following recommendations are based on the improvements needed to accommodate site access. Exhibit 1-4 shows the site adjacent recommendations.

Barton Street is a north-south oriented roadway located along the Project's western boundary. Construct Barton Street at its ultimate half-section width as a Secondary Arterial (112-foot right-of-way) between the Project's northern boundary and Project's southern boundary consistent with the March JPA General Plan Circulation Element.

Van Buren Boulevard is an east-west oriented roadway located along the Project's northern boundary. Construct Van Buren Boulevard at its ultimate half-section width as an Arterial Highway/Urban Highway (120-foot right-of-way) between the Project's western boundary and Project's eastern boundary consistent with the March JPA General Plan Circulation Element.

EXHIBIT 1-4: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS



Village West Drive is a north-south oriented roadway located along the Project's eastern boundary. The improved portions of Village West Drive currently terminate at Lemay Drive to the south. Construct the extension of Village West Drive to provide a connection between Van Buren Boulevard to the north and Nandina Avenue to the south. The improved Village West Drive would include one through lane in each direction of travel, a center striped median, and a bike lane. Sidewalks would also be provided on either side of the roadway. The total roadway width would be 54-feet, and the length of the extension is expected to be 4,330-linear feet.

Since Coyote Bush Road, Village West Drive, and Krameria Avenue are built out to their ultimate cross-sections according to the March JPA and City of Moreno Valley General Plans, there are no roadway widening recommendations along these roadways. However, additional curb, gutter, and sidewalk improvements are recommended, as needed for site access along the Project's frontage consistent with March JPA standards.

Barton Street & Van Buren Boulevard (#13) – The following improvements are necessary to accommodate site access:

- Project to construct an eastbound through lane and right turn lane.
- Project to modify the traffic signal to implement overlap phasing for the northbound and eastbound right turn lanes.
- Project to construct a 2nd northbound left turn lane.
- Project to construct a 2nd westbound left turn lane.

Barton Street & Gless Ranch Road (#14) – The following improvements are necessary to accommodate site access:

- Project to install a traffic signal.
- Project to construct a southbound left turn lane.
- Project to construct a westbound shared left-through-right turn lane.

Barton Street & Krameria Avenue (#15) – The following improvement is necessary to accommodate site access:

- Project to construct a westbound shared left-through-right turn lane.

Barton Street & Lurin Avenue (#16) – The following improvements are necessary to accommodate site access:

- Project to install a traffic signal.
- Project to construct a northbound left turn lane and shared through-right turn lane.
- Project to construct a southbound left turn lane.
- Project to construct a westbound shared left-through-right turn lane.

Coyote Bush Road & Van Buren Boulevard (#18) – The following improvement is necessary to accommodate site access:

- Project to construct a westbound right turn lane.

Coyote Bush Road & Caroline Way (#19) – The following improvements are necessary to accommodate site access:

- Project to construct a northbound left turn lane.
- Project to construct a southbound left turn lane.
- Project to install a stop control on the eastbound approach and a shared left-through-right turn lane.
- Project to install a stop control on the westbound approach and a shared left-through-right turn lane.

Bundy Street & Krameria Avenue (#23) – The following improvements are necessary to accommodate site access:

- Project to install a traffic signal.
- Project to construct a southbound shared left-through-right turn lane.
- Project to construct an eastbound left turn lane.

At the intersections of Coyote Bush Road & Krameria Avenue (#20) and Village West Drive & Krameria Avenue (#25), no improvements are recommended; the existing traffic control and intersection geometrics should be maintained.

Similarly, no additional improvements are necessary beyond those improvements planned by the Van Buren Boulevard Phase III roadway widening improvement project at the intersections of Orange Terrace Parkway & Van Buren Boulevard (#21) and Village West Drive & Van Buren Boulevard (#24). The Van Buren Boulevard Phase III roadway widening improvement project is currently underway.

Table 1-3
Page 3 of 4

Summary of Improvements by Analysis Scenario and Project Fair Share

#	Intersection Location	Jurisdiction	Existing (2019)	Existing plus Project	2024 Without Project	2024 With Project	Horizon Year (2040) Without Project	Horizon Year (2040) With Project	Improvements in TUMF? ^{1,2}	Total Cost ¹²	Fair Share % ³	Fair Share Cost ¹³
19	Coyote Bush Rd. & Caroline	JPA	- None	- NB left turn lane ⁵ - SB left turn lane ⁵ -EB shared left-through-right turn lane ⁵ -WB shared left-through-right turn lane ⁵	- Not Applicable - Not Applicable - Not Applicable - Not Applicable	- Same as E+P - Same as E+P - Same as E+P - Same as E+P	- Not Applicable - Not Applicable - Not Applicable - Not Applicable	- Same as E+P - Same as E+P - Same as E+P - Same as E+P	No No No No	\$0 \$0 \$0 \$0	--	\$0 \$0 \$0 \$0
23	Bundy St. & Krameria Av.	JPA	- None	- Install a traffic signal ⁵ -SB shared left-through-right turn lane ⁵ - EB left turn lane ⁵	- Same - Not Applicable - Not Applicable	- Same - Same as E+P - Same as E+P	- Same - Not Applicable - Not Applicable	- Same - Same as E+P - Same as E+P	No No No	\$0 \$0 \$0 \$0	--	\$0 \$0 \$0 \$0
26	Village West Dr./Clark St. & Nandina Av.	County/JPA	- None	- None	- None	- None	- Install a traffic signal - NB left turn lane - SB left turn lane	- Same - Same - Same	No No No	\$392,000 \$78,400 \$78,400 \$548,800	9.49%	\$37,220 \$7,444 \$7,444 \$52,108
27	Sycamore Canyon Dr./Meridian Pkwy. & Alessandro Bl.	Riverside/JPA	- None	- None	- Modify the TS to implement overlap phasing on the SB, EB, and WB right turn lane	- Same	- Same - 2nd EB left turn lane	- Same - Same	No No	\$117,600 \$78,400 \$196,000	1.96%	\$2,301 \$1,534 \$3,835
32	Meridian Pkwy. & Van Buren Bl.	JPA	- None	- None	- No feasible improvements ⁴	- No feasible improvements ⁴	- No feasible improvements ⁴	- No feasible improvements ⁴	N/A	\$0 \$0	--	\$0 \$0
37	I-215 SB Ramps & Van Buren Bl.	Caltrans/JPA/County	- None	- None	- 3rd WB through lane	- Same	- Same	- Same	Yes (TUMF)	NA ⁹ \$0	--	\$0 \$0
39	Old 215 Frontage Rd./I-215 NB Ramps & Cactus Av.	Caltrans/JPA	- None	- None	- 3rd EB through lane - 3rd WB through lane	- Same - Same	- Same - Same - 2nd NB left turn lane - 2nd NB through lane - 1st and 2nd SB right turn lanes - 2nd EB left turn lane - EB right turn lane - 4th WB through lane - WB right turn lane - Modify the TS to implement overlap phasing on the SB right turn lane	- Same - Same - Same - Same - Same - Same - Same - Same - Same - Same	Yes (TUMF) ⁶ Yes (TUMF) ⁶ Yes (TUMF) ⁶ Yes (TUMF) ⁶ Yes (TUMF) ⁶ Yes (TUMF) ⁶ Yes (TUMF) ⁶ Yes (TUMF) ⁶ Yes (TUMF) ⁶ Yes (TUMF) ⁶ Yes (TUMF) ⁶	NA ⁹ NA ⁹ NA ⁹ NA ⁹ NA ⁹ NA ⁹ NA ⁹ NA ⁹ NA ⁹ NA ⁹ NA ⁹	--	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0
40	Van Buren Bl. & I-215 NB Ramps	Caltrans/JPA/County	- None	- None	- None	- None	- No feasible improvements ⁴	- No feasible improvements ⁴	N/A	\$0 \$0	--	\$0 \$0

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 proposed Project involves amending the South Campus Specific Plan to change the mix of uses. The square footage calculated based on maximum allowable floor area ratio (FAR) for each land use type is shown below:

Proposed Project

- Office – 388.011 TSF
- Commercial – 221.394 TSF
- Grocery Store – 61.336 TSF
- Business Park – 1,764.180 TSF
- High Cube Warehouse – 800.000 TSF
- High Cube Cold Storage Warehouse – 700.000 TSF
- Warehousing – 274.437 TSF
- Dog Park – 6.2 Acres

The following uses that are built or entitled, but not yet occupied and operational will also be included as part of the proposed Project scenarios:

- Amazon (Building A) – 1,000.000 TSF
- Parcel Delivery (Building B) – 1,000.000 TSF
- Parking Lot – 61.0 Acres
- Building C (Warehousing) – 500.000 TSF
- Commercial (Parcel 72) – 13.922 TSF

The report is intended to evaluate the net change in potential impacts from the 2003 EIR Phase III to the proposed Project. For analytical purposes the “without project” conditions will reflect the EIR Phase III and the “with project” conditions will reflect the proposed net change in trips to the proposed Project.

4.1 PROJECT TRIP GENERATION

4.1.1 PROPOSED PROJECT

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 for the Project in actual vehicles are shown in Table 4-1.

Table 4-1

Trip Generation Rates

Land Use ¹	ITE LU Code	Units ²	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Trip Generation Rates ¹									
Warehousing ^{3,4}	150	TSF	Based on the ITE Fitted Curve Equation						
Warehousing (274.437 TSF)			0.163	0.049	0.212	0.060	0.162	0.222	1.746
Warehousing (1,234.926 TSF)			0.108	0.032	0.140	0.038	0.104	0.142	1.617
High-Cube Transload Short-Term Warehouse ^{3,4}	154	TSF	0.062	0.018	0.080	0.028	0.072	0.100	1.400
High-Cube Cold Storage Warehouse ^{3,4}	157	TSF	0.085	0.025	0.110	0.032	0.088	0.120	2.263
General Office	710	TSF	Based on the ITE Fitted Curve Equation						
General Office (388.011 TSF)			0.870	0.140	1.010	0.170	0.890	1.060	10.190
General Office (529.254 TSF)			0.850	0.140	0.990	0.170	0.880	1.050	10.090
Shopping Center	820	TSF	Based on the ITE Fitted Curve Equation						
Shopping Center (221.394 TSF)			0.740	0.450	1.190	2.120	2.300	4.420	46.620
Supermarket	850	TSF	Based on the ITE Fitted Curve Equation						
Supermarket (61.336 TSF)			2.368	1.452	3.820	4.516	4.339	8.855	90.660
Public Park	411	AC	Based on the ITE Fitted Curve Equation						
Public Park (6.20 AC)			0.012	0.008	0.020	2.038	1.667	3.705	14.908

¹ Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

² AC = Acres; TSF = Thousand Square Feet

³ Vehicle Mix Source: ITE High Cube Warehouse Vehicle Trip Generation Analysis, October 2016 and SCAQMD.

⁴ Truck Percentage: ITE Trip Generation Handbook, 3rd Edition (2017) for Industrial Park; 2% trucks used for office commercial areas

Truck Mix Source: South Coast Air Quality Management District (SCAQMD) Warehouse Truck Trip Study Data Results and Usage (2014).

Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks

Normalized % - With Cold Storage: 34.7% 2-Axle trucks, 11.0% 3-Axle trucks, 54.3% 4-Axle trucks.

The trip generation summary illustrating daily and peak hour trip generation estimates for the proposed Project are shown on Table 4-2. The building square footages were derived based on the acreages and maximum floor-area-ratios utilized in March JPA. The trip generation rates used for this analysis are based upon information collected by the ITE as provided in their Trip Generation Manual, 10th Edition, 2017. (8) In order to accurately reflect the impact that heavy trucks would have on the street system, Project trips have been further broken down between passenger cars and trucks for each of the peak hours and weekday daily trip generation. As noted on Table 4-1, refinements to the raw trip generation estimates have been made to provide a more detailed breakdown of trips by vehicle mix. Total vehicle mix percentages were also obtained from the ITE Trip Generation manual in conjunction with the SCAQMD recommended truck mix, by axle type.

For the Business Park use, a blended rate has been used based on the ITE description for Business Park that the average mix is 20 to 30 percent office/commercial and 70 to 80 percent industrial/warehousing. As such, 30% of the business park area has been designated as office related uses, while the remaining 70% of the business park area has been allocated to warehousing uses. For office and commercial uses, a truck percentage of 2% has been used to provide a conservative analysis. For industrial portions of the Business Park, a truck percentage of 13% has been utilized based on average truck percentage for Industrial Park in ITE Trip Generation Handbook, 3rd Edition (2017). (9)

Employees of the office use may also visit other uses on-site, such as the retail uses. In other words, trips may be made between individual retail and office uses on-site and can be made either by walking or using internal roadways without using external streets. As such, a maximum 10 percent internal capture reduction was applied to recognize the interactions that would occur between the various complementary land uses. As the project is proposed to include shopping center and grocery store uses, pass-by percentages have been obtained from the ITE Trip Generation Handbook (3rd Edition, 2017). (9)

As shown on Table 4-2, the proposed Project is anticipated to generate a total of 31,424 trip-ends per day with 2,759 AM peak hour trips and 3,503 PM peak hour trips (actual vehicles as opposed to PCE).

For the purposes of this analysis, it is proposed that the actual vehicles be utilized in order to most accurately reflect the effects of heavy trucks in the analysis. Trucks will be accounted for in the analysis as a percentage of total traffic, which will be input into the analysis software (Synchro, Version 10).

Table 4-2

Page 1 of 2

Proposed Project Trip Generation Summary

Project Land Uses	Quantity	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Vacant Land Uses									
Office	70.132	TSF							
Office (75% of Mixed Use)	317.879	TSF							
Office Passenger Cars (98%)			331	53	384	65	338	403	3,874
Office Truck Trips (2%)			7	1	8	1	7	8	80
Office Subtotal	388.011	TSF	338	54	392	66	345	411	3,954
Commercial Retail	115.434	TSF							
Commercial Retail (25% of Mixed Use)	105.960	TSF							
Commercial Retail Subtotal			164	100	264	469	509	978	10,322
Pass-by Reduction (AM: 0%, PM/Daily: 34%) ³			0	0	0	-159	-159	-318	-3,510
Commercial (Grocery Store)	61.336	TSF	145	89	234	277	266	543	5,562
Pass-by Reduction (AM: 0%, PM/Daily: 36%) ³			0	0	0	-96	-96	-192	-2,004
Commercial Passenger Cars (98%)			303	185	488	481	510	991	10,162
Commercial Truck Trips (2%)			6	4	10	10	10	20	208
Commercial Subtotal	282.730	TSF	309	189	498	491	520	1,011	10,370
Business Park	1,764.180	TSF							
Office (30% of Business Park)	529.254	TSF							
Office Passenger Cars (98%)			441	74	514	88	457	545	5,342
Office Truck Trips (2%)			9	1	10	2	9	11	108
Warehouse (70% of Business Park)	1,234.926	TSF	133	40	173	47	128	175	1,998
Warehouse Passenger Cars (69.2% AM, 78.3% PM, 63.2% Daily)			92	28	120	37	100	137	1,262
Warehouse Truck Trips (30.8% AM, 21.7% PM, 36.8% Daily)			41	12	53	10	28	38	736
Business Park Subtotal	1,764.180	TSF	583	114	697	137	594	731	7,340
Industrial	1,774.437	TSF							
Warehousing	274.437	TSF							
Warehouse Passenger Cars (69.2% AM, 78.3% PM, 63.2% Daily)			31	9	40	13	34	47	302
Warehouse Truck Trips (30.8% AM, 21.7% PM, 36.8% Daily)			14	4	18	3	10	13	178
Warehousing Subtotal			45	13	58	16	44	60	480
High-Cube Cold Storage Warehouse	700.000	TSF							
Cold Storage Passenger Cars (69.2% AM, 78.3% PM, 63.2% Daily)									
Cold Storage Truck Trips (30.8% AM, 21.7% PM, 36.8% Daily)			18	6	24	5	13	18	584
High-Cube Cold Storage Warehouse Subtotal			59	18	77	23	61	84	1,584
High-Cube Transload Short-Term Warehouse (Building D)	800.000	TSF							
High-Cube Warehouse Passenger Cars (69.2% AM, 78.3% PM, 63.2% Daily)									
High-Cube Warehouse Truck Trips (30.8% AM, 21.7% PM, 36.8% Daily)			15	5	20	5	13	17	414
High-Cube Warehousing Subtotal			49	15	64	22	58	80	1,120
Industrial Subtotal	1,774.437	TSF	153	46	199	61	163	224	3,184
Dog Park & Paseo	6.200	AC	0	0	0	13	10	23	94
Vacant Land Uses Passenger Car Trips			1,273	370	1,643	732	1,542	2,275	22,634
Vacant Land Uses Truck Trips			110	33	143	36	90	125	2,308
Vacant Land Uses Total Trips ²			1,383	403	1,786	768	1,632	2,400	24,942

Table 4-2

Page 2 of 2

Proposed Project Trip Generation Summary

Project Land Uses	Quantity	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Built/Entitled Land Uses									
LGB6 (Building A) ⁴	1,000.000	TSF							
LGB6 (Building A) Passenger Cars			222	87	309	127	235	362	2,306
LGB6 (Building A) Truck Trips			57	22	79	33	60	93	592
LGB6 (Building A) Subtotal			279	109	388	160	295	455	2,898
Parcel Delivery Site (Building B + Parking Lot) ⁵	1,000.000	TSF							
Parcel Delivery Site (Building B + Parking Lot) Passenger Cars			341	132	473	221	410	631	2,952
Parcel Delivery Site (Building B + Parking Lot) Truck Trips			151	59	210	61	113	174	1,720
Parcel Delivery Site (Building B + Parking Lot) Subtotal			492	191	683	282	523	805	4,672
Commercial (Parcel 72) ⁶	15.485	TSF	65	56	121	66	71	137	1,534
Commercial Passenger Cars (98%)			64	55	119	65	70	135	1,502
Commercial Truck Trips (2%)			1	1	2	1	1	2	32
Warehousing (Building C) ⁶	500.000	TSF							
Warehousing (Building C) Passenger Cars			46	14	60	20	54	74	550
Warehousing (Building C) Truck Trips			21	6	27	5	15	20	320
Warehousing (Building C) Subtotal			67	20	87	25	69	94	870
Built/Entitled Passenger Car Trips			673	288	961	433	769	1,202	7,310
Built/Entitled Truck Trips			230	88	318	100	189	289	2,664
Built/Entitled Total Trips ²			903	376	1,279	533	958	1,491	9,974
Vacant + Built/Entitled Passenger Car Trips			1,946	658	2,604	1,165	2,311	3,477	29,944
Vacant + Built/Entitled Truck Trips			340	121	461	136	279	414	4,972
Vacant + Built/Entitled Subtotal Trips ²			2,286	779	3,065	1,301	2,590	3,891	34,916
Vacant + Built/Entitled Passenger Car Trips (With 10% Internal Trip Reduction)			1,751	592	2,344	1,049	2,080	3,129	26,950
Vacant + Built/Entitled Truck Trips (With 10% Internal Trip Reduction)			306	109	415	122	251	374	4,475
Vacant + Built/Entitled Subtotal Trips (With 10% Internal Trip Reduction)			2,057	701	2,759	1,171	2,331	3,503	31,424
Previous EIR Ph. III Trips			2,965	648	3,613	808	2,907	3,715	31,267
Previous EIR Ph. III Passenger Car Trips (92.6%) (With 10% Internal Trip Reduction)			2,471	540	3,011	673	2,423	3,096	26,058
Previous EIR Ph. III Truck Trips (7.4%) (With 10% Internal Trip Reduction)			197	43	240	54	194	248	2,082
Previous EIR Ph. III Subtotal Trips (With 10% Internal Trip Reduction)			2,668	583	3,251	727	2,617	3,344	28,140
Proposed Project Net Passenger Car Trips ⁷			-720	52	-667	376	-343	33	892
Proposed Project Net Truck Trips ⁷			109	66	175	68	57	126	2,393
Proposed Project Net Trip Generation ⁷			-611	118	-493	444	-286	159	3,284

¹ AC = Acres; TSF = Thousand Square Feet

² Total Trips (Actual Vehicles) = Passenger Cars + Truck Trips (Actual Trucks).

³ Pass-by reduction percentage consistent with ITE *Trip Generation Handbook*, 3rd Edition (2017)

⁴ Source: *LGB6 Project Substantial Conformance Traffic Assessment* (November 13, 2017, prepared by Urban Crossroads, Inc.)

⁵ Source: *Meridian South Parcel Delivery Traffic Impact Study Report* (August 2017, prepared by VRPA Technologies, Inc.)

⁶ Source: *Meridian South Campus Addendum #3 Focused Traffic Impact Analysis* (August 15, 2018, prepared by Urban Crossroads, Inc.)

⁷ Proposed Project = Vacant + Built/Entitled Subtotal Trips (With 10% Internal Trip Reduction) - Previous EIR Ph. III Subtotal Trips (With 10% Internal Trip Reduction)

EXHIBIT 4-7 (10F2): PROPOSED PROJECT ONLY (NEAR-TERM) TRAFFIC VOLUMES

1 Overlook Pkwy./ Canyon Crest Dr. & Alessandro Bl. 	2 Wood Rd. & Van Buren Bl. 	3 Wood Rd. & Krameria Av. 	4 Wood Rd. & Marlposa Av. 	5 Wood Rd. & Nandina Av. 	6 Trautwein Rd. & Alessandro Bl.
7 Trautwein Rd. & Mission Grove Pkwy. 	8 Trautwein Rd. & John F Kennedy Dr. 	9 Trautwein Rd. & Orange Terrace Pkwy. 	10 Trautwein Rd. / Cole Av. & Van Buren Bl. 	11 Mission Grove Pkwy. & Alessandro Bl. 	12 Barton St. & Alessandro Bl.
13 Barton St. & Van Buren Bl. 	14 Barton St. & Gless Ranch Rd. 	15 Barton St. & Krameria Av. 	16 Barton St. & Lurin Av. 	17 Barton St. & Nandina Av. 	18 Coyote Bush Rd. & Van Buren Bl.
19 Coyote Bush Rd. & Caroline Wy. 	20 Coyote Bush Rd. & Krameria Av. 	21 Orange Terrace Pkwy. & Van Buren Bl. 	22 San Geronio Dr. & Alessandro Bl. 	23 Bundy St. & Krameria Av. 	

LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES



EXHIBIT 4-7 (2OF2): PROPOSED PROJECT ONLY (NEAR-TERM) TRAFFIC VOLUMES

24 Village West Dr. & Van Buren Bl. 	25 Village West Dr. & Krameria Av. 	26 Village West Dr./Clark St. & Nandina Av. 	27 Sycamore Canyon Bl./Meridian Pkwy. & Alessandro Bl. 	28 Meridian Pkwy. & Metrolink Station Dwy. 	29 Meridian Pkwy. & Cactus Av.
30 Meridian Pkwy. & Innovation Dr. 	31 Meridian Pkwy. & Opportunity Wy. 	32 Meridian Pkwy. & Van Buren Bl. 	33 Innovation Dr. & Cactus Av. 	34 Opportunity Wy. & Van Buren Bl. 	35 I-215 SB Ramps & Alessandro Bl.
36 I-215 SB Ramps & Cactus Av. 	37 I-215 SB Ramps & Van Buren Bl. 	38 I-215 NB Ramps & Alessandro Bl. 	39 Old 215 Frontage Rd./I-215 NB Ramps & Cactus Av. 	40 Van Buren Bl. & I-215 NB Ramps 	41 Old 215 Frontage Rd. & Alessandro Bl.
42 Day St. & Cottonwood Av. 	43 Day St. & Alessandro Bl. 	44 Elsworth St. & Alessandro Bl. 	45 Elsworth St. & Cactus Av. 	46 Frederick St. & Cactus Av. 	47 Graham St. / Riverside Dr. & Cactus Av.

LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES



4.6 BACKGROUND TRAFFIC

To account for growth in traffic between Existing Conditions (2019) and the Project Opening Year Cumulative (2024), a compounded annual traffic growth rate of 2.0 percent was assumed (10.41 percent aggregate growth in background traffic for the period between 2019 and 2024). The 2.0 percent annual growth rate is intended to capture non-specific ambient traffic growth.

In context, the TIA's assumed 2.0 percent compounded annual growth rate is considered a reasonable approximation of future traffic growth when compared to demographic projections reflected in other local and regional growth modeling efforts. More specifically, the Southern California Association of Governments (SCAG) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) growth forecasts for the unincorporated County of Riverside assume the County population to increase from 359,000 in 2012 to 499,200 by the year 2040, or an approximate 1.18 percent growth rate compounded annually. The RTP/SCS assumed growth in households over the same 28-year period reflects an increase from 112,300 households to 162,900 households; a rate of 1.34 percent compounded annually.

At the upper end of assumed RTP/SCS growth rates, employment over the same 28-year period is projected to increase from 70,500 jobs to 156,600 jobs; a rate of approximately 2.89 percent compounded annually. (10) The 2.0 percent compounded annual traffic growth rate used in the TIA reflects the fact that not all persons comprising population growth, household growth, or employment growth would translate on a one-to-one basis as a new vehicle trip in the region; and establishes a judicious midrange estimate lying between the RTP/SCS assumed regional population growth rate (1.18 percent) and the RTP/SCS assumed regional employment growth rate (2.89 percent). Conservatively, the TIA estimates of area traffic growth then add traffic generated by other known or probable related projects defined in Section 4.7 *Cumulative Development Traffic*. These related projects are at least in part already accounted for in the assumed annual 2.0 percent ambient growth in traffic noted above; and in some instances, these related projects would likely not be implemented and functional within the 2024 Opening Year Cumulative time frame assumed for the Project. The resulting traffic growth rate used in the TIA (2.0 percent annual ambient growth plus traffic generated by related projects) would therefore tend to overstate rather than understate background cumulative traffic impacts under 2024 conditions.

4.7 CUMULATIVE DEVELOPMENT TRAFFIC

A cumulative project list, which includes projects that are either approved or being processed concurrently in the study area, was developed for the purposes of this analysis through consultation with planning and engineering staff from the March JPA. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections.

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e. 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate Opening Year Cumulative forecasts. In other words, this list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects that were determined to affect one or more of the study area intersections are shown on Exhibit 4-10, listed on Table 4-3, and have been considered for inclusion.

Although it is unlikely that all of these cumulative projects would be fully built and occupied by Year 2024, they have been included in an effort to conduct a conservative analysis and overstate as opposed to understate potential traffic impacts. Any other cumulative projects that are not expected to contribute measurable traffic to study area intersections have not been included since the traffic would dissipate due to the distance from the Project site and study area intersections. Any additional traffic generated by other projects not on the cumulative projects list is accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections as discussed in Section 4.6 *Background Traffic*.

EXHIBIT 4-10: CUMULATIVE DEVELOPMENT LOCATION MAP

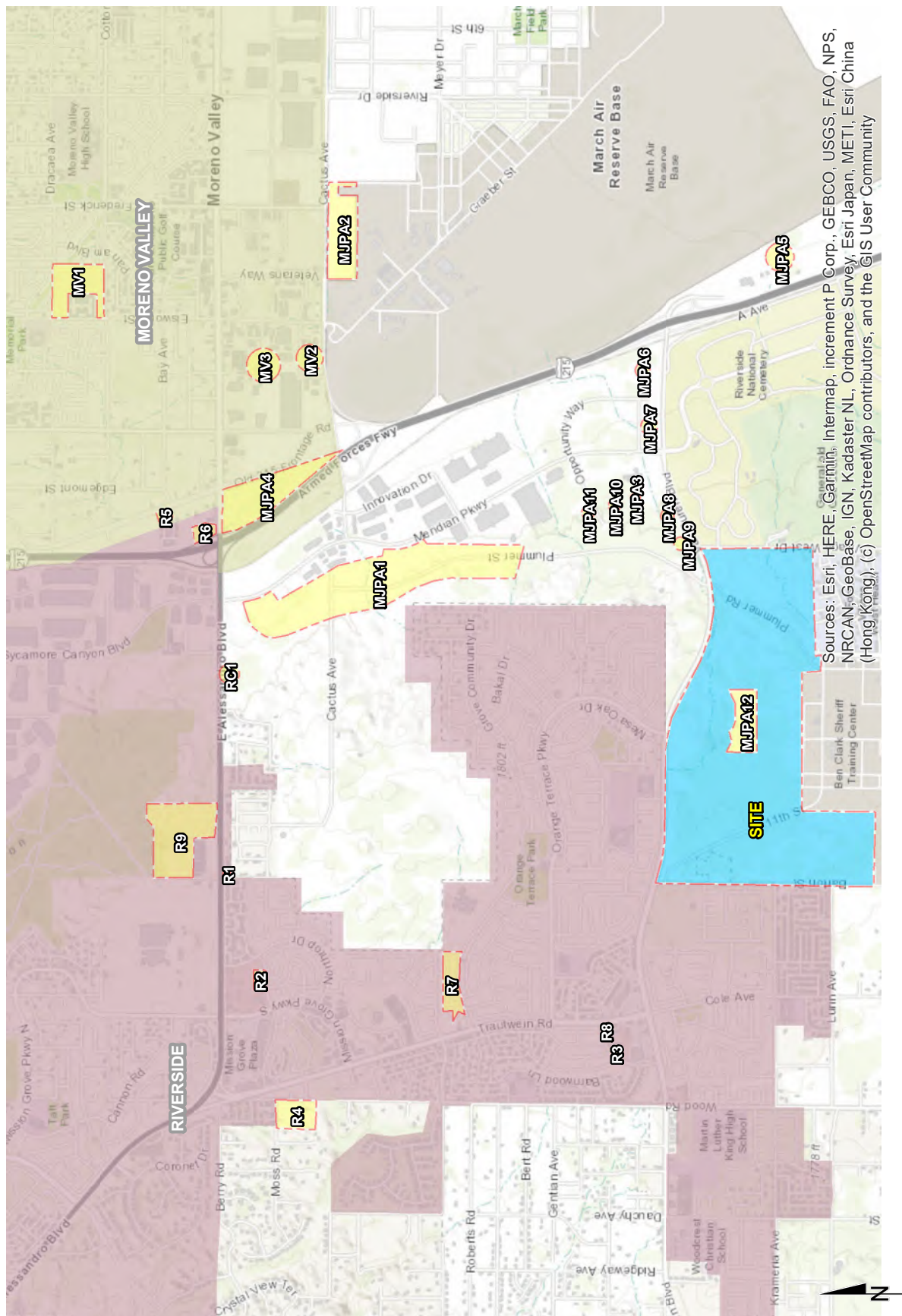


Table 4-3

Cumulative Development Land Use Summary

ID	Project Name	Land Use ¹	Quantity	Units ²
March Joint Powers Authority				
MJPA1	Meridian Business Park (West Campus)	Industrial Park	2,278.852	TSF
MJPA2	K4 Parcel	Warehouse	718.000	TSF
MJPA3	Economic Business Center	Warehouse	124.523	TSF
MJPA4	Freeway Business Center	Warehouse	709	TSF
MJPA5	Veteran's Industrial Plaza/VIP 215	Warehouse	2,000.000	TSF
MJPA6	Veteran's Plaza	Commercial Retail	198.000	TSF
MJPA7	MS Van Buren I	Warehouse	176.396	TSF
MJPA8	MS Van Buren II	Warehouse	162.041	TSF
MJPA9	MS Prime Six	General Office	74.922	TSF
MJPA10	Meridian Distribution Center IV	Warehouse	90.000	TSF
MJPA11	Meridian Distribution Center III	Warehouse	262.269	TSF
MJPA12	Eagle Business Park	Business Park	390.480	TSF
City of Riverside				
R1	P17-0419/20/21	Fast Food w/ Drive Thru	1.857	TSF
R2	P16-0578	Warehouse	82.200	TSF
R3	P19-0151/P19-0152/P19-0153	Health and Fitness Club	21.706	TSF
R4	P13-0665	SFDR	8	DU
R5	P15-1035/P16-0556/P16-0567	Warehouse	176.149	TSF
R6	P14-0841 to P14-0848/P16-0472/P16-0474	Warehouse	73.200	TSF
		Commercial Retail	15.000	TSF
R7	P14-0472/P14-0473/P15-0321/P15-0322	SFDR	85	DU
R8	P19-0022/P19-0024/P19-0026/P19-0027/P19-0028	Fast Food w/ Drive Thru	4.319	TSF
R9	Sycamore Hills Distribution Center	Warehouse	603.100	TSF
County of Riverside				
RC1	PP 25422	Warehouse	814.000	TSF
RC2	Knox Business Park	Warehouse	1,259.050	TSF
RC3	Oleander Business Park	Warehouse	710.736	TSF
City of Moreno Valley				
MV1	Scottish Village	Multifamily	194	DU
MV2	Moreno Valley Cactus Center (PEN16-0131)	Warehouse	36.950	TSF
		Fast Food w/ Drive Thru	7.900	TSF
		Gas Station w/ Car Wash	28	VFP
MV3	PA 08-0047-0052 (Komar Cactus Plaza)	Hotel	110	Rooms
		Fast Food w/ Drive Thru	8.000	TSF
		Commercial	42.400	TSF

¹ SFDR = Single Family Detached Residential² DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions

4.8 NEAR-TERM TRAFFIC FORECASTS

To provide a comprehensive assessment of potential transportation network deficiencies, a “buildup” analysis was performed in support of this work effort. The “buildup” method was used to approximate the Opening Year Cumulative traffic forecasts and is intended to identify the cumulative impacts on both the existing and planned near-term circulation system. The Opening Year Cumulative traffic forecasts include background traffic, traffic generated by other cumulative development projects within the study area, and the traffic generated by the proposed Project.

The “buildup” approach combines existing traffic counts with a background ambient growth factor to forecast the near-term 2024 traffic conditions. An ambient growth factor of 10.41% (2024) accounts for background (area-wide) traffic increases that occur over time, up to the year 2024 from the year 2019 (compounded two percent per year growth over a 5-year period). Traffic volumes generated by the Project are then added to assess the Opening Year Cumulative traffic conditions. The 2024 roadway network is similar to the existing conditions roadway network with the exception of future roadways and intersections proposed to be developed by the Project.

As noted previously, an analysis of the proposed Project at various development tiers has been assessed for the purposes of this traffic study. The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- Opening Year Cumulative (2024) Without Project
 - Existing 2019 counts
 - Ambient growth (10.41%)
 - Cumulative Development traffic
 - 2003 EIR Phase III traffic
- Opening Year Cumulative (2024) With Project
 - Opening Year Cumulative (2024) Without Project
 - Proposed Project traffic (Net change in Project trips compared to the trip generation evaluated in the 2003 EIR for Phase III)

4.9 HORIZON YEAR (2040) VOLUME DEVELOPMENT

The Horizon Year (2040) traffic conditions were derived from the RivTAM modified to represent Horizon Year conditions using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between Existing conditions and Horizon Year conditions.

EXHIBIT 6-4 (1of2): OPENING YEAR CUMULATIVE (2024) WITH PROPOSED PROJECT TRAFFIC VOLUMES

1 Overlook Pkwy./ Canyon Crest Dr. & Alessandro Bl. 	2 Wood Rd. & Van Buren Bl. 	3 Wood Rd. & Krameria Av. 	4 Wood Rd. & Marlposa Av. 	5 Wood Rd. & Nandina Av. 	6 Trautwein Rd. & Alessandro Bl.
7 Trautwein Rd. & Mission Grove Pkwy. 	8 Trautwein Rd. & John F Kennedy Dr. 	9 Trautwein Rd. & Orange Terrace Pkwy. 	10 Trautwein Rd. / Cole Av. & Van Buren Bl. 	11 Mission Grove Pkwy. & Alessandro Bl. 	12 Barton St. & Alessandro Bl.
13 Barton St. & Van Buren Bl. 	14 Barton St. & Gless Ranch Rd. 	15 Barton St. & Krameria Av. 	16 Barton St. & Lurin Av. 	17 Barton St. & Nandina Av. 	18 Coyote Bush Rd. & Van Buren Bl.
19 Coyote Bush Rd. & Caroline Wy. 	20 Coyote Bush Rd. & Krameria Av. 	21 Orange Terrace Pkwy. & Van Buren Bl. 	22 San Geronio Dr. & Alessandro Bl. 	23 Bundy St. & Krameria Av. 	

LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES



115

LEGEND:



Appendix D

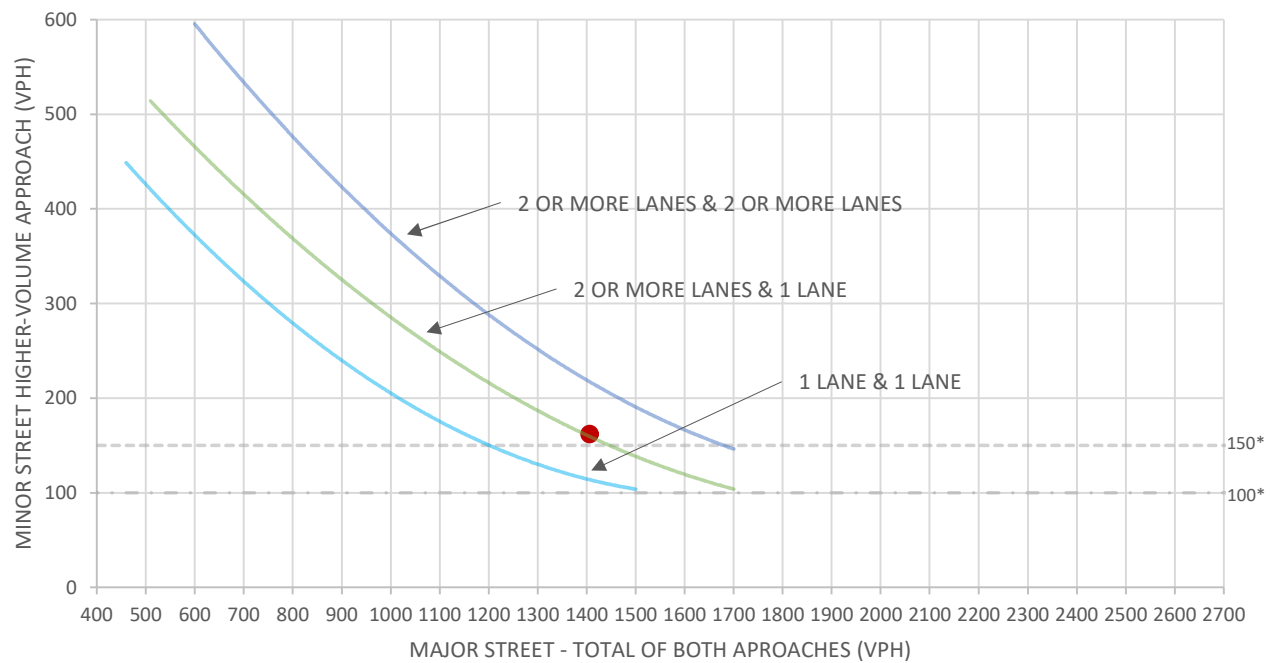
Traffic Signal Warrants

Project	School at Ben Clark Training Center
Scenario	2024 plus Project
Peak Hour	PM

Intersection #	3
Major Street	Krameria Avenue
Minor Street	Bundy Avenue

N-S	E-W
☐	☒
☒	☐

Figure 4C-3. Warrant 3, Peak Hour



Source: California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Minor Street	Warrant Met?
	Krameria Avenue	Bundy Avenue	
Number of Approach Lanes	2	1	Yes
Traffic Volume (VPH)*	1,406	162	
*Note: Traffic volume for the Major Street approach is the total volume of both approaches. Traffic volume for the Minor Street is the highest volume approach.			