

Transportation Impact Analysis

Mission Boulevard and Ramona Avenue Business Park

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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 Mission Boulevard and Ramona Avenue Business Park (proposed project or project), a warehouse/industrial park development in the City of Montclair (City), in San Bernardino County (County). This TIA has been prepared per the City of Montclair Traffic Impact Analysis Guidelines (2018) and its scope of analysis has been approved by the City's Traffic Engineering Unit. The scoping document is provided in Appendix A of the TIA. In addition, this TIA complies with the City of Montclair General Plan Circulation Element requirements and with the Congestion Management Program (CMP) for the San Bernardino County Transportation Authority (SBCTA).

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 Resolution No. 20-3281 of the City Council of the City of Montclair establishing VMT Threshold of Significance (August 2020)
- 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;
- Compare the proposed project's trip generation estimates at buildout with the trip generation estimates of the land uses designated on the project site in the City's General Plan;
- Analyze the traffic impacts that would occur as a result of buildout of the proposed project under the Existing, Opening Year 2024, and General Plan buildout conditions;
- Describe the significance of the potential impacts under the Existing, Opening Year 2024, and General Plan buildout 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 City of Montclair TIA guidelines and scoping memorandum approved by the City's Traffic Engineering Unit (See Appendix A), 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, as well as intersections adjacent to the project site.

Per the City's TIA guidelines, roadway segment requirements can be determined by the analysis of lane requirements at intersections, and urban segments (i.e., segments on roadways that are generally signalized with spacing less than 2 miles) do not require segment analysis except at locations where the ultimate street cross sections are not constructed. Therefore, upon review of the roadway segments in the study area, a roadway segment link analysis was conducted only along 3rd Street, east of Silicon Avenue, as the project proposes to extend 3rd Street from its current terminus at Sinclair Road (i.e., County Road 20010) to Ramona Avenue.

Figure 1 shows the project location and study area selected based on the above-mentioned scoping criteria. As illustrated in Figure 1 and listed below, the study area is comprised of the following eight (8) intersections:

Intersections

1. Ramona Avenue/Holt Boulevard (Signalized; City of Montclair)
2. Camulos Avenue/State Street (Signalized; City of Montclair)
3. Silicon Avenue/3rd Street (TWSC; City of Montclair)
4. Ramona Avenue/Dale Street (Signalized; City of Montclair)
5. Silicon Avenue/Mission Boulevard (TWSC; City of Montclair)
6. Ramona Avenue/Mission Boulevard (Signalized; City of Montclair)
7. Monte Vista Avenue/Mission Boulevard (Signalized; City of Montclair)
8. Central Avenue/Mission Boulevard (Signalized; City of Montclair, County of San Bernardino)

The project would have a total of 13 driveways: four driveways on State Street; six driveways on 3rd Street (which will be extended to Ramona Avenue); one driveway on Ramona Avenue; and, two driveways on Mission Boulevard. For purposes of this analysis, the following five project driveways have been included in this analysis since they would provide primary access to/from the site to existing roadways that surround the project site:

Driveways

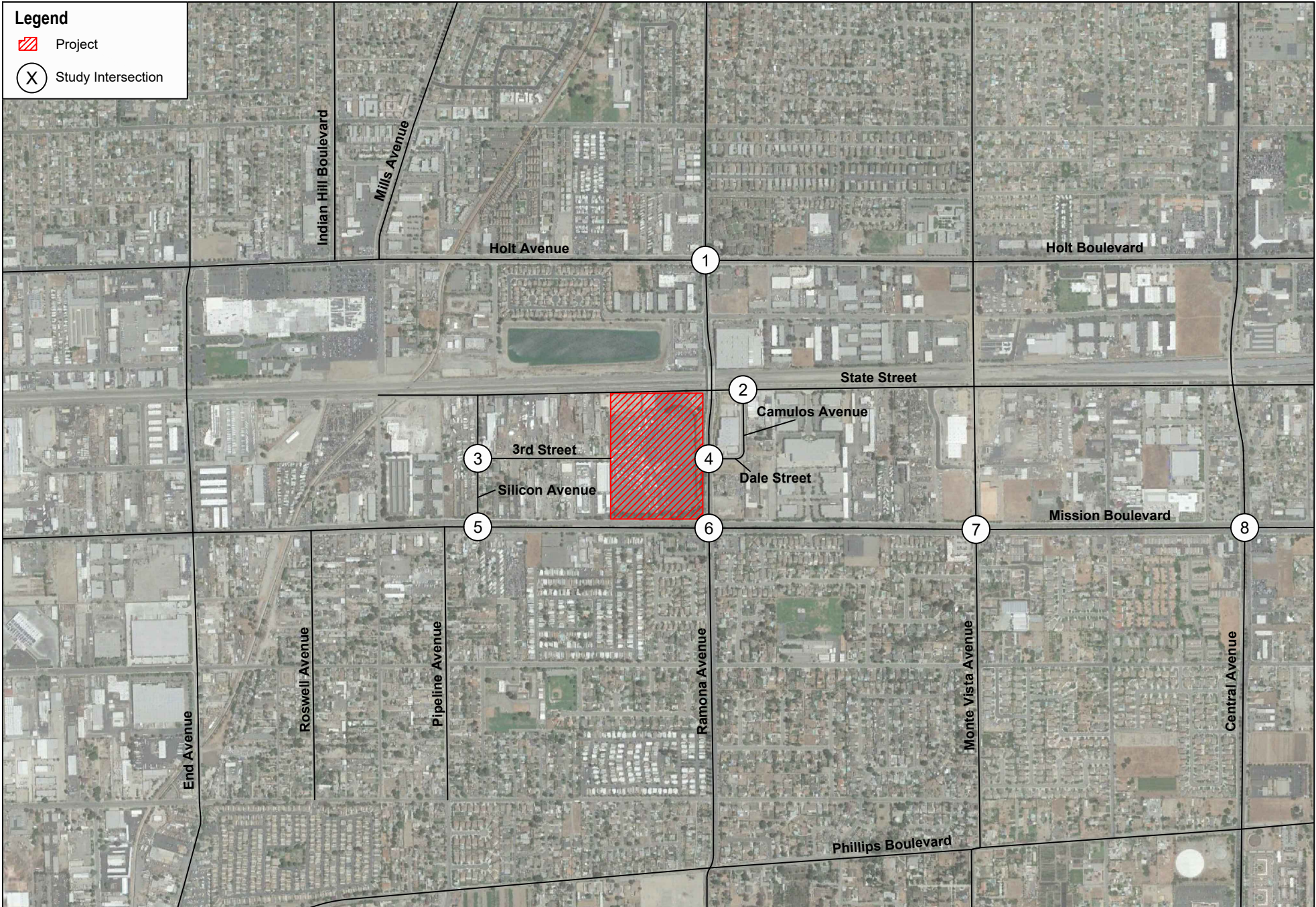
1. North Project Access 1 (west)/State Street
2. North Project Access 2 (east)/State Street (two side-by-side driveways analyzed as one driveway)
3. South Project Access 3 (west)/Mission Boulevard
4. South Project Access 4 (east)/Mission Boulevard
5. Ramona Avenue/South Project Access 5

1.2 Project Description and Location

The project includes the demolition of all existing on-site structures and the construction of an eight-building warehouse/industrial park. In total, the project would provide approximately 513,295 square feet of industrial space and associated improvements including loading docks, trailer stalls, passenger vehicle parking spaces, 3rd Street extension, sidewalk and driveways/curb cuts, and landscape, lighting, and signage improvements. The project would include improvements along 3rd Street, State Street, Ramona Avenue, and Mission Boulevard, including frontage landscape and pedestrian improvements.

Importantly, a previous version of the draft project design included a project site with 514,269 square feet of development (an increase of 974 square feet over the proposed project). Because the analysis in this TIA had commenced, and because the size of the project buildings would provide a conservative analysis (a larger project would result in greater impacts), this TIA assumes development of a 514,269 square foot project.

3rd Street currently ends at the project site's western boundary. As part of the project, 3rd Street would be extended through the project site to connect with Ramona Avenue at the intersection of Ramona Avenue and Dale Street.



SOURCE: Google Maps 2018

FIGURE 1
Project Location and Study Area
Mission Boulevard and Ramona Avenue Industrial Park Project

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Access to the project site would be provided by 13 driveways: four driveways at the northern project boundary off State Street, one driveway at the eastern project boundary off Ramona Avenue, two driveways on the southern project boundary off Mission Boulevard, and six driveways on 3rd Street (which will be extended to Ramona Avenue). Figure 2 illustrates the conceptual site plan for the proposed project.

The approximately 27.74-acre (gross) project site is currently developed with a drive-in theatre and swap-meet use and accessory office storage, and refreshment structures. After dedication of the 1.54-acre portion of the Project site to the City of Montclair for the extension of 3rd Street, the net Project site acreage would be 26.2 acres. In addition, the Montclair Tire Company occupies a metal building located on a triangular-shaped area at the northern corner of the Project site but is not currently an operating business.

Regional access to the proposed project is provided via Interstate (I-10) and its interchanges at Monte Vista Avenue, Central Avenue, and Indian Hill Boulevard to the north, as well as with State Road (SR-60) and its intersections with Ramona Avenue, Central Avenue, and Reservoir Street to the south. Local access to the project is provided via Ramona Avenue, Mission Boulevard, 3rd Street, and State Street. The area surrounding the project site is characterized as suburban and is composed of a mix of industrial, manufacturing, and commercial land uses located primarily to the east, west, and north; as well as residential land uses located primarily to the south of Mission Boulevard.

1.3 Analysis Methodology

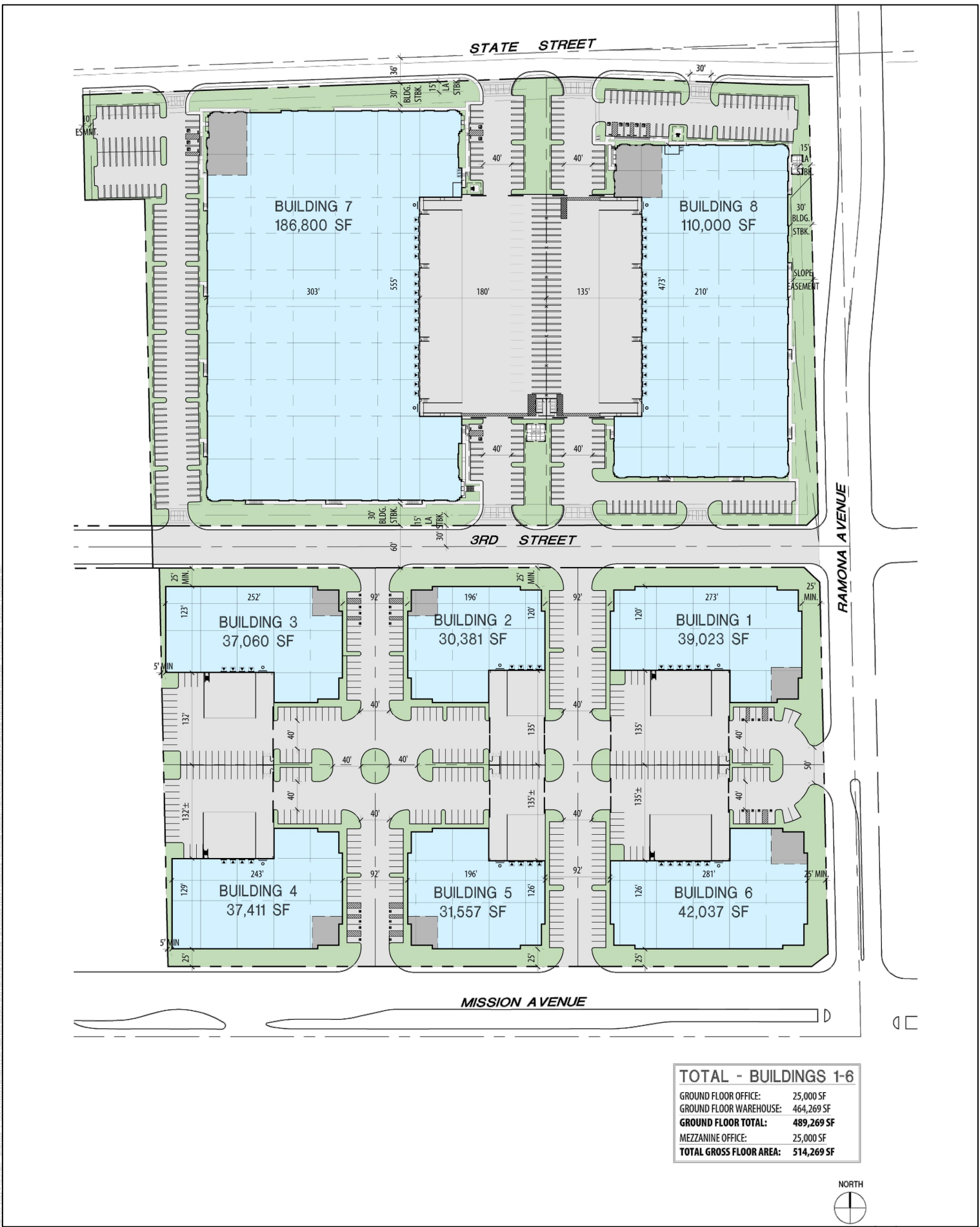
1.3.1 Vehicle Miles Traveled (VMT) Analysis for CEQA

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.

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.

The City of Montclair adopted VMT Thresholds of Significance for the purpose of analyzing transportation impacts under CEQA (VMT Thresholds of Significance) on August 2020 with Resolution No. 20-3281. The process for compliance with the VMT Thresholds and Guidelines for the City is summarized below:

1. Screen proposed projects for exemption from VMT analysis pursuant to the following classifications/criteria thresholds:
 - Projects that generate less than 110 daily trips (or 836 VMT)
 - Local serving retail less than 50,000 square feet (SF)
 - Local Serving Project (e.g., schools, day care, public institutions)
 - Affordable Housing (100% of units)
 - Development in a Transit Priority Area (TPA) and consistent with the Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS). This presumption would not apply if the project:
 - i. Has a Floor Area Ratio (FAR) of less than 0.75;
 - ii. 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);
 - iii. Is inconsistent with applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
 - iv. Replaces affordable residential units with a small number of moderate- or high-income residential units.
 - Development in a low VMT generating area consistent with a RTP/SCS and consistent with existing land use that is generation low VMT/SP. This will include both a land use (type, density, demographics, etc.) comparison.
2. For projects that do not meet any of the screening criteria above, a traffic impact study completing a full VMT assessment will be required. To complete this assessment, the applicant will be required to evaluate the Project-generated VMT and the Project Effect on VMT.
 - a. If the following condition is satisfied in the cumulative conditions, then the Project-generated VMT has a significant impact under CEQA; the project generated VMT per service population exceeds 15% below what the County of San Bernardino average VMT per service population.
 - b. If the following condition is satisfied in the cumulative conditions then the Project Effect on VMT has significant impact under CEQA: the link-level boundary VMT per service population increases Citywide under the plus project conditions compared to the no project condition.
3. A project determined to have a significant impact would need to be mitigated to be at or below the threshold standard. Mitigation would consist of one or both the following alternatives:
 - a. Preparation and Implement of a Transportation Demand Management Plan (TDM) for the project to reduce impacts, consistent with Chapter 7 of the California Air Pollution Control Officers Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* (August 2010), approved by the City; or
 - b. Modify the project to reduce VMT impacts to be at or below established thresholds.
4. As shown in Section 4, the proposed project would not screen out of conducting a detailed VMT analysis. Therefore, a detailed analysis of project’s transportation impact using the VMT metric is included in this TIA.



Source: GAA Architects 2020

FIGURE 2
Site Plan

Mission Boulevard and Ramona Avenue Industrial Park Project

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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 level of service (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 and roadway segment 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 existing daily roadway and 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 historical traffic counts from late October and early November 2019 were used in this analysis due to COVID-19 travel restrictions, and counts were 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 daily roadway and 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 1% per year ambient growth rate, based on average Los Angeles County Congestion Management Program (LA CMP) growth rates from 2015 to 2025 in the adjacent City of Pomona, 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.

General Plan Year 2040 Conditions

Generally, this scenario assumes buildout of the land uses designated in the City’s General Plan, with traffic volumes derived from the San Bernardino Transportation Analysis Model (SBTAM) for the year 2040. As the proposed project would generate less traffic than the uses designated in the current General Plan, the trip generation of the proposed project is compared with an estimated trip generation of the current land use and zoning designations. These findings are analyzed in Section 8 of this TIA.

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)	Roadway Segments V/C Ratio
A	< 10.0	< 10.0	0.00 – 0.60
B	> 10.0 to < 15.0	> 10.0 to < 20.0	0.61 – 0.70
C	> 15.0 to < 25.0	> 20.0 to < 35.0	0.71 – 0.80
D	> 25.0 to < 35.0	> 35.0 to < 55.0	0.81 – 0.90
E	> 35.0 to < 50.0	> 55.0 to < 80.0	0.91 – 1.00
F	> 50.0	> 80.0	1.01 or greater

Source: HCM 6 (Transportation Research Board 2016).

Note: V/C = Volume-to-Capacity

1.3.2.2 Roadway Segments

Per the City’s TIA guidelines, a roadway link analysis could be conducted either based on daily traffic volumes or based on peak hour volumes using vehicle-to-capacity (V/C) ratios. For the purposes of this analysis, a peak hour link analysis is conducted to determine the significance of project impacts. The peak-hour capacity is determined using Equation 16-1 of the HCM. This equation applies a flow rate of 1,800 vehicles per hour to each through lane and applies a reduction when the probability of queuing in through lanes at a downstream intersection is greater than zero. Due to the size and volume of the analyzed segment along 3rd Street, it was determined that the probability of queueing at Silicon Avenue/3rd Street would be negligible, therefore, the capacity of the segment is analyzed as 1,800 vehicles per hour per lane.

1.3.2.3 General Plan Consistency Requirements

The LOS thresholds and impact criteria identified in the City of Montclair General Plan Circulation Element, the City of Montclair TIA Guidelines, the SBCTA CMP Guidelines, and San Bernardino County Transportation Impact Study (TIS) Guidelines were used to evaluate the project’s potential impacts on intersection and roadway LOS, as described below.

City of Montclair General Plan Circulation Element

The *Circulation Policy CE-1.1.6* of the City of Montclair General Plan Circulation Element states:

Keep traffic on all streets in balance with the capacity of the circulation system by regulating the intensity and density of land use in conformity with Level of Service "D" or better performance during typical weekday peak hours.

City of Montclair TIA Guidelines

Per City of Montclair TIA Guidelines, an impact occurs if project traffic increases the average delay at an intersection by more than the thresholds identified in Table 2. The thresholds for LOS A, B, and C do not apply to projects consistent with the General Plan. The proposed project requires a General Plan Amendment and is therefore not consistent with the General Plan land use designation.

Table 2. Thresholds of Significant Impact – City of Montclair

With Project LOS	Significant Impact Threshold Project-added Delay
A/B	>10 seconds ¹
C	>8.0 seconds ¹
D	>5.0 seconds
E	>2.0 seconds
F	>1.0 second

Source: City of Montclair Traffic Impact Analysis Guidelines, 2018.

¹ Project-added delay thresholds do not apply to projects consistent with the General Plan.

San Bernardino County Transportation Authority Congestion Management Plan Guidelines

The intersection of Central Avenue and Mission Boulevard (intersection #8) is identified as a CMP intersection. Determination of impacts to this intersection are therefore based on the CMP impact criteria below.

The adopted level of service standards for the CMP system are the minimum standards allowed in California Government Code Section 65089(b)(1)(B): level of service E for all segments and intersections except those designated level of service F in the CMP. In addition, a provision is made for any level of service F facility not to deteriorate greater than 10% below its level of service value at the time of initial CMP adoption.

San Bernardino County Transportation Impact Study Guidelines

Additionally, the City of Montclair does not have a LOS standard for roadway segment operations; therefore, thresholds provided in the San Bernardino County TIS Guidelines for roadway segments are utilized:

- Any roadway segment that operates unacceptably in the no project scenario where the project adds traffic in excess of 5% of the roadway capacity (e.g., a volume-to-capacity ratio increase of 0.05) should identify improvements to add capacity to the segment.

Project Access, Safety and Other Analyses

An analysis of project access, safety, and traffic signal warrant analysis for any unsignalized intersections around the project and on adjacent streets is recommended per City of Montclair TIA guidelines.

1.4 Improvements for Transportation Impacts

Per the City’s TIA guidelines, at intersections where a project is forecast to have an 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 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 to the City’s satisfaction either through construction of the improvement(s), fair-share payment to the improvement(s), or payment of City fees. 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, daily roadway segment traffic volumes, 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 10 (I-10) is an east-west divided interstate freeway, that is generally 8 to 10 lanes, and extends across the length of the United States from California to Florida. I-10 serves as a critical connection for many other regional roadways, freeways, and highways. The posted speed limit is 65 miles per hour (MPH), and primary interchanges within the vicinity of the project site are located at Indian Hill Boulevard, Monte Vista Avenue, and Central Avenue.

State Route 60 (SR-60) is an east-west divided state highway that is generally 10 lanes and is located southward and parallel to I-10. SR-60 connects downtown Los Angeles and the communities in the eastern portion of Los Angeles County to communities in San Bernardino County and Riverside County. The posted speed limit is 65 MPH and primary interchanges within the vicinity of the project site are located at Central Avenue and Ramona Street.

Mission Boulevard is an east-west, 4-lane, divided roadway in the study area with left-turn bays. Mission Boulevard is designated as a Divided Arterial Roadway by the City of Montclair General Plan Circulation Element. Additionally, Mission Boulevard is identified as a designated truck route per the City of Montclair Designated Streets Truck Routes. Parking is permitted along some portions of the roadway, and the posted speed limit ranges from 40 to 45 MPH within the study area.

Ramona Avenue is a north-south, 4-lane undivided and divided roadway, running adjacent to the eastern boundary of the project site. Ramona Avenue is designated as a Major Roadway south of State Street, a Secondary Roadway between State Street and Holt Boulevard, and a Collector north of Holt Boulevard by the City of Montclair General Plan Circulation Element. Additionally, Ramona Avenue is identified as a designated truck route per the City of Montclair Designated Streets Truck Routes between Mission Boulevard and Holt Boulevard. Parking is permitted along some portions of the roadway, and the posted speed limit is 40 MPH within the study area.

Monte Vista Avenue is a north-south, generally 4-lane, divided roadway in the study area, with a two-way left-turn lane along stretches of the roadway. Monte Vista Avenue is designated as a Secondary Roadway by the City of Montclair General Plan Circulation Element. Additionally, Monte Vista Avenue is identified as a designated truck route per the City of Montclair Designated Streets Truck Routes between Mission Boulevard and Holt Boulevard. Parking is generally not permitted along either side of the roadway, however there are portions where parking is permitted. The posted speed limit ranges from 35 to 45 MPH within the study area. Monte Vista Avenue is located approximately 0.5 miles east of the project site and connects the project site to major corridors such as I-10 and Holt Boulevard to the north, and Mission Boulevard to the south.

Central Avenue is a north-south, generally 4-lane, divided roadway within the study area with left-turn bays. Central Avenue is designated as a Divided Arterial Roadway by the City of Montclair General Plan Circulation Element. Additionally, Central Avenue is identified as a designated truck route per the City of Montclair Designated Streets Truck Routes. Parking is generally not permitted along either side of the roadway, and the posted speed limit is 45

MPH within the study area. Central Avenue is located approximately 1-mile to the east of the project site and connects the project side northward to major corridors such as I-10 and southward to SR-60.

Holt Boulevard is an east-west, generally 4-lane divided roadway and is designated as a Divided Arterial Roadway by the City of Montclair General Plan Circulation Element. Additionally, Holt Boulevard is identified as a designated truck route per the City of Montclair Designated Streets Truck Routes west of Central Avenue. Parking is generally permitted along both sides of the roadway, except for some portions of the road adjacent to major intersections. The posted speed limit is generally 45 MPH within the study area.

State Street is an east-west, 2-lane, undivided roadway, running adjacent to the northern boundary of the project site. State Street is designated as an Industrial Collector by the City of Montclair General Plan Circulation Element. Parking is not permitted along either side of the roadway, and the posted speed limit is generally 45 MPH within the study area.

3rd Street is an approximately 0.25-mile street that extends from Silicon Avenue to County Road (Co Rd) 20010 east of the project site. 3rd Street is not classified in the City of Montclair General Plan Circulation Element, and is therefore assumed as a 2-lane, undivided, local/unclassified roadway for the purposes of this analysis. Parking is permitted along either side of the roadway where indicated, and the speed limit was assumed to be 25 MPH.

2.2 Transit System

The project site is served by passenger rail and bus services. The Southern California Regional Rail Authority (SCRRA) Metrolink commuter rail system has a connection at Montclair Station located at 5091 Richton Street, approximately 3 miles north of the project site, and at the Pomona Train Station located at 100 West Commercial Street, approximately 2.5 miles west of the project site. Additionally, the National Railroad Passenger Corporation (Amtrak) operates two rail lines, running adjacent to the stretch of Metrolink's Riverside County Line within the study area. The study area is also served by the Omnitrans bus service, providing regional and local service throughout the San Bernardino Valley.

Amtrak

Amtrak is a passenger rail system that offers medium and long-distance service between cities within the contiguous United States and Canada. The Texas Eagle and Sunset Limited Amtrak lines run along the northern end of the project site, north of State Street. The nearest stations are located at the Pomona and Ontario Amtrak Stations, located approximately 2.5 miles west and 3.5 miles east of the project site, respectively.

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 San Bernardino and Riverside County Lines. The San Bernardino Line runs west to east from the Los Angeles Union Station to the San Bernardino – Downtown Station. The Montclair Transcenter, located approximately 3 miles north of the project site, serves as the nearest Metrolink station serving the San Bernardino Line, with weekday headways averaging 45 to 60 minutes.

The Riverside County Line runs generally west to east from Los Angeles Union Station to the Riverside – Downtown Station. The Pomona-Downtown Train Station, located approximately 2.5 miles to the west of the project site, would serve as the nearest Metrolink station serving the Riverside County Line, with weekday headways averaging 45 to 60 minutes. As discussed above, this station also services the Texas Eagle and Sunset Limited Amtrak lines.

Omnitrans

Public bus services from Omnitrans include routes serving the Cities of Chino Hills, Pomona, Chino, Ontario, Montclair, Upland, Rancho Cucamonga, Fontana, Rialto, San Bernardino, Colton, Grand Terrace, Loma Linda, Riverside, Highland, Redlands, and Yucaipa. Routes 61, 85, and 88 are the closest bus routes to the project site, with stops along Holt Avenue, Central Avenue, and Ramona Avenue, respectively. A summary of each route is provided below.

Route 61

Route 61 serves the Pomona Transit Center, Ontario Convention Center, Ontario International Airport, South Fontana Transfer Center, and the Fontana Metrolink Transit Center, primarily operating along Holt Boulevard. The Ramona Avenue and Holt Boulevard bus stop would serve as the nearest stop to the project site, located approximately ¼-mile to the north of the project site. Route 61 provides 20- to 30-minute weekday peak service headways.

Route 85

Route 85 serves the Chino Transit Center, Montclair Transcenter, Chino Civic Center, and Chaffey College, primarily operating along Central Avenue, Monte Vista Avenue, Arrow Highway, and Milliken Avenue. The Central Avenue and Mission Boulevard bus stop would serve as the nearest stop to the project site, located approximately one mile to the east of the project site. Route 85 provides 30-minute weekday peak service headways.

Route 88

Route 88 connects Chino Hills to Montclair via Central and Monte Vista Avenues, primarily serving the Chino Transit Center to the south and Montclair Transcenter to the north. The Ramona Avenue and Mission Boulevard bus stop would serve as the nearest stop to the project site, located near the southeast corner of the project site. Route 88 provides 60-minute weekday peak service headways.

2.3 Pedestrian and Bicycle Facilities

The City has prepared the Active Transportation Plan (ATP), updated November 2020 (City of Montclair 2020). Bicycle facilities recommended in the ATP are included in this TIA; as well as the SBCTA Non-Motorized Transportation Plan (NMTP), revised June 2018. The following discussion identifies pedestrian and bicycle facilities within the study area.

Pedestrian Facilities

Residential areas to the south and Holt Boulevard to the north both serve as areas with active transportation users. However, the project site, along with land uses immediately west and east, primarily serve industrial and manufacturing uses, with limited pedestrian accessibility and infrastructure. Dale Street, Camulos Avenue, and State Street have all been constructed with curbs, gutters, and sidewalks along only one side of the street, and 3rd Street and Silicon Avenue are not constructed with consistent pedestrian facilities along either side of the respective streets. Mission Boulevard and Ramona Avenue both have been constructed with curbs, gutters, and sidewalks on both sides of the roadway.

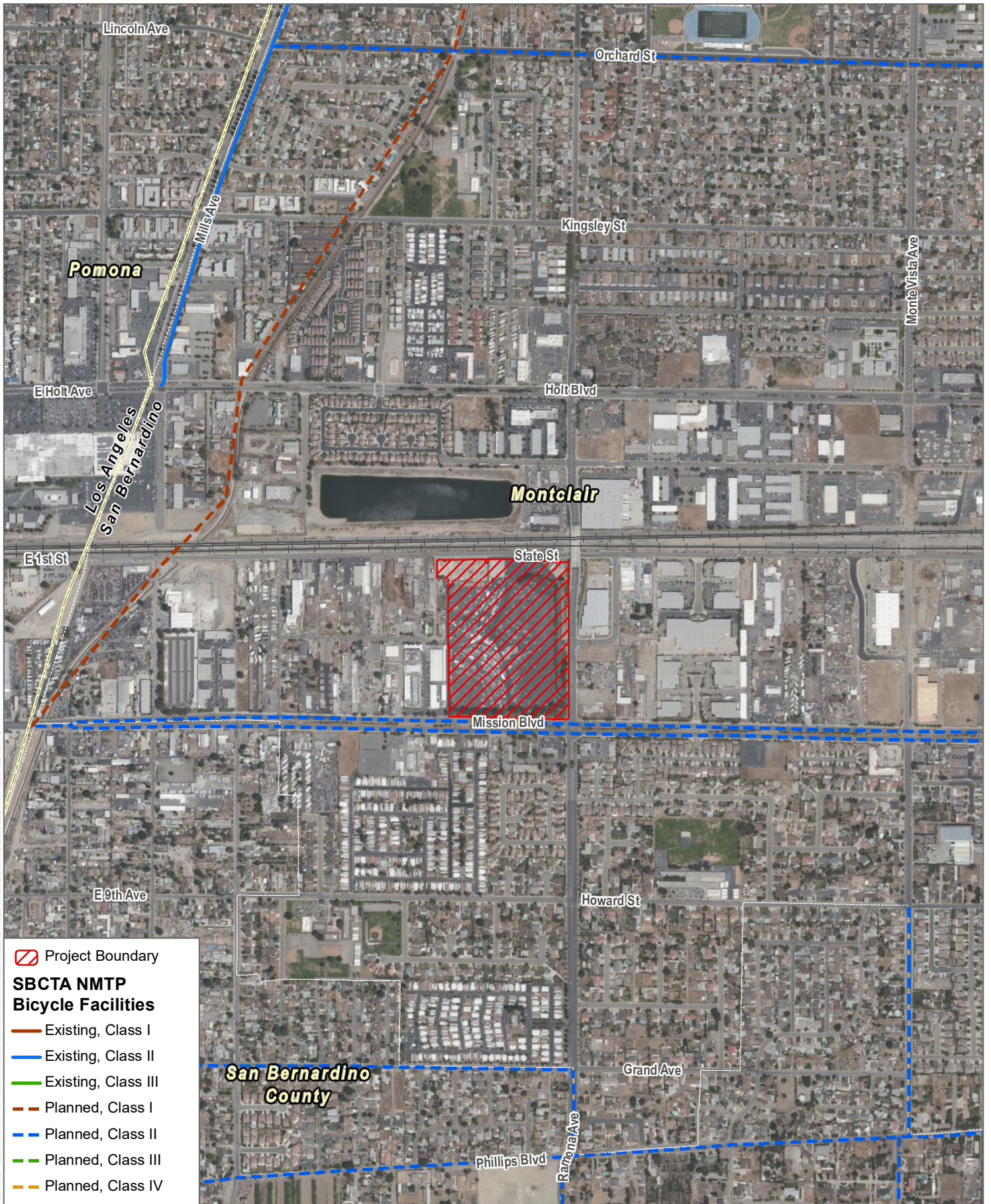
Bicycle Facilities

As stated in the City of Montclair General Plan, the City has connecting bike routes to surrounding communities like Claremont, Upland, and Ontario. Ramona Avenue, Mission Boulevard, and Central Avenue are designated as on-street bicycle lanes by the City of Montclair General Plan Circulation Element. However, there is no indication of any type of bike lane in the immediate boundary streets of the project site aside from the streets designated in the City's General Plan Circulation Element and the ATP.

As the City's Circulation Element does not provide specific bicycle facility designations, the following classes are used to identify bicycle facilities as identified in the SBCTA NMTP and the City's ATP:

- **Class I Bikeway (Shared Use Path or Bike Path)** A bikeway physically separated from any street or highway. Shared Use Paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users.
- **Class II Bikeway (Bike Lane)** A portion of roadway that has been designated by striping, signaling, and pavement markings for the preferential or exclusive use of bicyclists.
- **Class III Bike Routes** A generic term for any road, street, path, or way that in some manner is specifically designated for bicycle travel regardless of whether such facilities are designated for the exclusive use of bicycles, or are to be shared with other transportation modes.
- **Class IV Bikeway (Separated Bikeway)** A Class IV bikeway is for the exclusive use of bicycles and includes a required separation between the bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking.

The closest indication of a City designated bicycle facility is a Class II bicycle lane along both sides of Mills Avenue, north of Holt Boulevard, located approximately 1-mile northwest of the project site. However, the City's November 2020 ATP includes recommendations to stripe Mission Boulevard and Ramona Avenue as Class II buffered bike lanes, with the option to transition them to Class IV separated bike lanes in the long term. Per the SBCTA NMTP, a Class II bicycle lane is planned along Mission Boulevard, adjacent to the southern frontage of the project site, and a Class I bikeway (physically separated path) is proposed along the San Antonio Creek Channel, approximately $\frac{3}{4}$ -mile to the west of the project site. Figure 3 identifies the SBCTA NMTP designated bicycle facilities in the area.



SOURCE: Bing Maps 2020; San Bernardino County Transportation Authority (SBCTA) Non-Motorized Transportation Plan (NMTP) 2018

Figure 3

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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

Trip generation estimates for the proposed project are based on daily and AM and PM peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Handbook, 10th Edition* (2017). The project proposes the construction of eight buildings, totaling 513,295 square feet (SF), as shown in Figure 2. As previously mentioned, a previous version of the draft project design included a project site with 514,269 square feet of development (an increase of 974 square feet over the proposed project). Because the analysis in this TIA had commenced, and because the size of the project buildings would provide a conservative analysis, this TIA assumes development of a 514,269 square foot project. For the purposes of this analysis, the following land use assumptions were made for each building:

- Buildings 1-6 (217,469 SF) – Industrial Park (ITE 130)
- Building 7-8 (296,800 SF) – Warehousing (ITE 150)

Additionally, passenger car equivalent (PCE) factors were applied to the trip generation estimates to account for truck traffic. The San Bernardino County CMP indicates that projects with high truck percentages should convert project trips to PCE. A 1.5 PCE factor was applied to 2-axle trucks, 2.0 PCE for 3-axle trucks, and a 3.0 PCE factor was applied to 4-axle trucks per the San Bernardino County CMP. Trip generation rates, vehicle splits, and the resulting trip generation estimates for the project are summarized in Table 3.

Table 3. Project Trip Generation Summary

Land Use	ITE Code	Size/Units	Daily	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Trip Rates¹										
Warehousing	150	TSF	1.74	0.13	0.04	0.17	0.05	0.14	0.19	
Industrial Park	130	TSF	3.37	0.32	0.08	0.40	0.08	0.32	0.40	
Trip Generation										
Buildings 7-8	150	296.800	TSF	516	39	12	51	15	41	56
Buildings 1-6	130	217.469	TSF	733	70	17	87	19	68	87
Project Total		514.269	TSF	1,249	109	29	138	34	109	143
Trip Generation (By Vehicle Classification)										
Vehicle Mix – Warehousing (Buildings 7-8)²		Percent²								
Passenger Vehicles		72.5%		374	28	8	36	11	30	41
2-Axle Trucks		4.6%		24	2	1	3	0	2	2
3-Axle Trucks		5.7%		29	2	1	3	1	2	3
4+-Axle Trucks		17.2%		89	7	2	9	3	7	10
Warehousing Subtotal (Non-PCE)				516	39	12	51	15	41	56
Vehicle Mix – Industrial Park (Buildings 1-6)³		Percent³								
Passenger Vehicles		52.9%		388	37	9	46	10	36	46
2-Axle Trucks		4.0%		29	3	1	4	1	3	4

Table 3. Project Trip Generation Summary

Land Use	ITE Code	Size/Units	Daily	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
3-Axle Trucks		3.3%	24	2	1	3	0	2	2	
4+-Axle Trucks		39.8%	292	28	6	34	8	27	35	
<i>Industrial Park Subtotal (Non-PCE)</i>			733	70	17	87	19	68	87	
Total Trip Generation (By Vehicle Classification)										
Passenger Vehicles			762	65	17	82	21	66	87	
2-Axle Trucks			53	5	2	7	1	5	6	
3-Axle Trucks			53	4	2	6	1	4	5	
4+-Axle Trucks			381	35	8	43	11	34	45	
Total Trip Generation (Non-PCE)			1,249	109	29	138	34	109	143	
		PCE Factor⁴								
Passenger Vehicles			1.0	762	65	17	82	21	66	87
2-Axle Trucks			2.0	106	10	4	14	2	10	12
3-Axle Trucks			2.5	133	10	4	14	3	10	13
4+-Axle Trucks			3.0	1,142	104	24	128	32	103	135
Total Trip Generation (w/PCE)			2,142	189	49	238	58	189	247	

Notes: PCE = Passenger Car Equivalent; TSF = Thousand Square Feet

¹ Trip rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

² Vehicle Mix and Percent for warehousing without cold storage, from SCAQMD, Warehouse Truck Trip Study Data Results and Usage, July 2014.

³ Vehicle Mix and Percent from Fontana Truck Trip Generation Study, August 2004

⁴ Passenger Car Equivalent (PCE) factors from the City of Montclair Traffic Impact Analysis Guidelines, August 2018

As shown in Table 3, the proposed project would generate 1,249 daily trips, 138 AM peak hour trips (109 inbound and 29 outbound), and 143 PM peak hour trips (34 inbound and 109 outbound). Accounting for truck traffic from warehousing and industrial land uses, the proposed project would generate 2,142 daily PCE trips, 238 AM peak hour PCE trips (189 inbound and 49 outbound), and 247 PM peak hour PCE trips (58 inbound and 189 outbound).

It should be noted that the existing uses on site, primarily a drive-in theater and swap meet, and a (fleet-service) tire shop, either generate very low vehicle trips during the weekday AM and PM peak hours, or do not operate every day of the week. For those reasons, trip credits were not assumed for the closure of those uses, and therefore represents a conservative traffic analysis.

3.2 Trip Distribution and Assignment

Project trip distribution percentages are based on logical travel paths to and from the project site, as well as consideration of City truck routes. The project’s trip distribution percentages were approved by the City Engineer prior to the initiation of the traffic analysis.

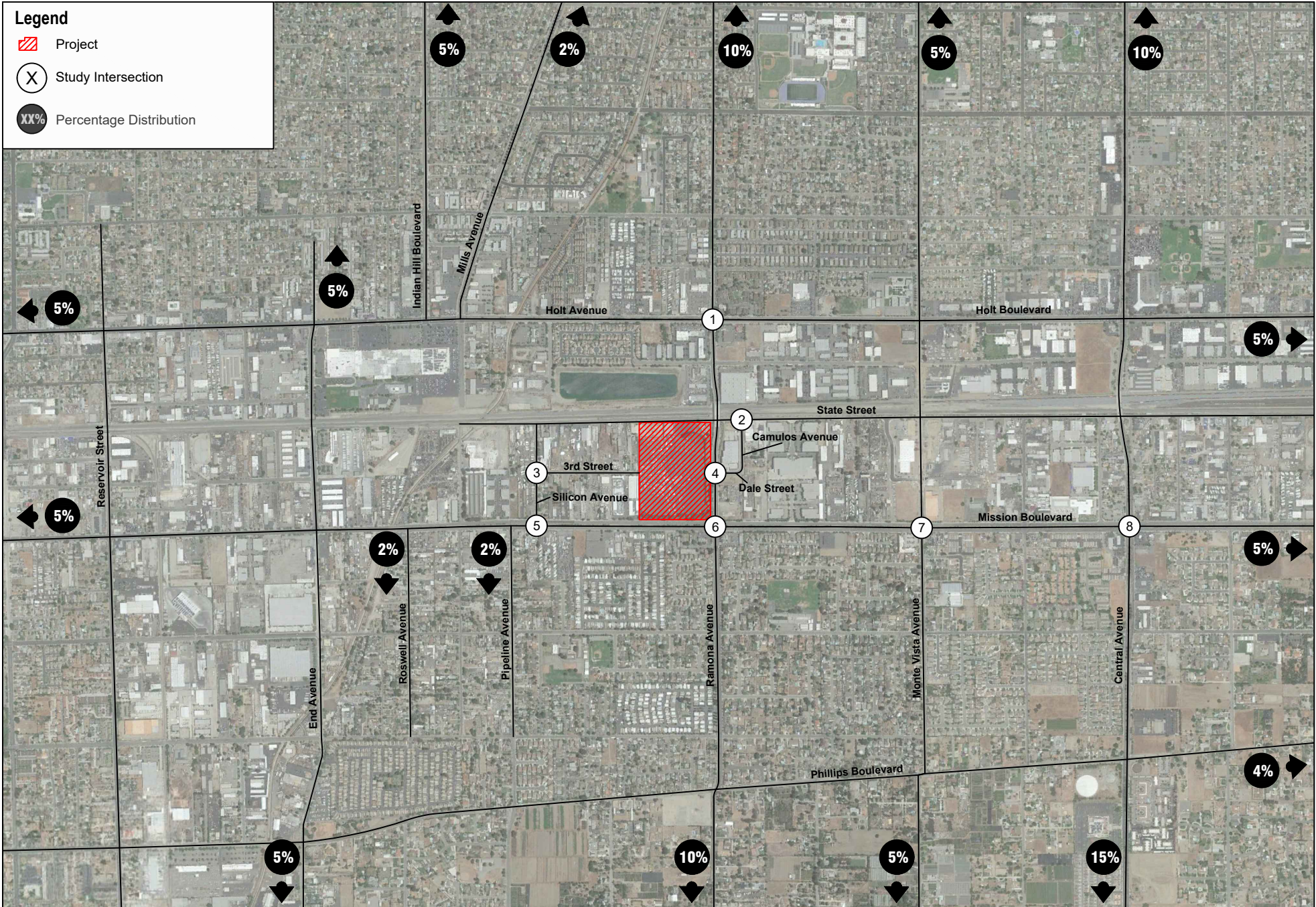
Primary vehicular site access would be provided via the Ramona Avenue/Dale Street signalized intersection, along with additional unsignalized driveways proposed along State Street, Mission Avenue, and Ramona Avenue. The project trip distribution percentages are shown in Figures 4 and 5, for passenger vehicle and truck trips, respectively. 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 roadway segment and

intersections. The project trip assignments are shown in Figures 6, 7 and 8 for passenger vehicle, truck, and total trip assignments, respectively.

3.3 Project Street Modifications

The project proposes to extend 3rd Street from its current terminus at County Road 20010 through the project site to the existing Ramona Avenue/Dale Street intersection. 3rd Street is analyzed as a two-way, undivided road from Silicon Street to Ramona Avenue in all project conditions. The geometrics of the other legs of Ramona Avenue/Dale Street were assumed to remain unchanged from existing conditions.

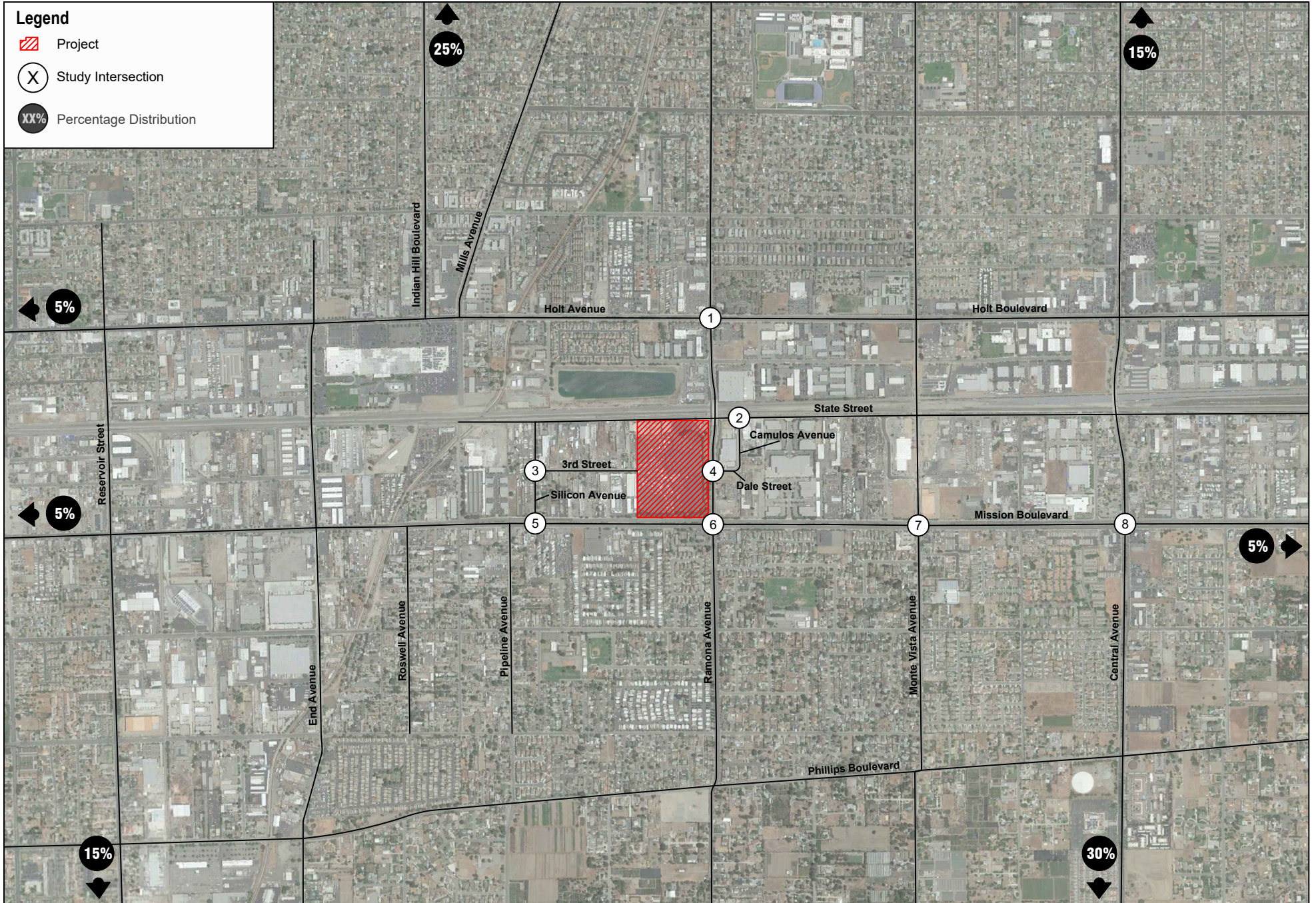
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SOURCE: Google Maps 2018

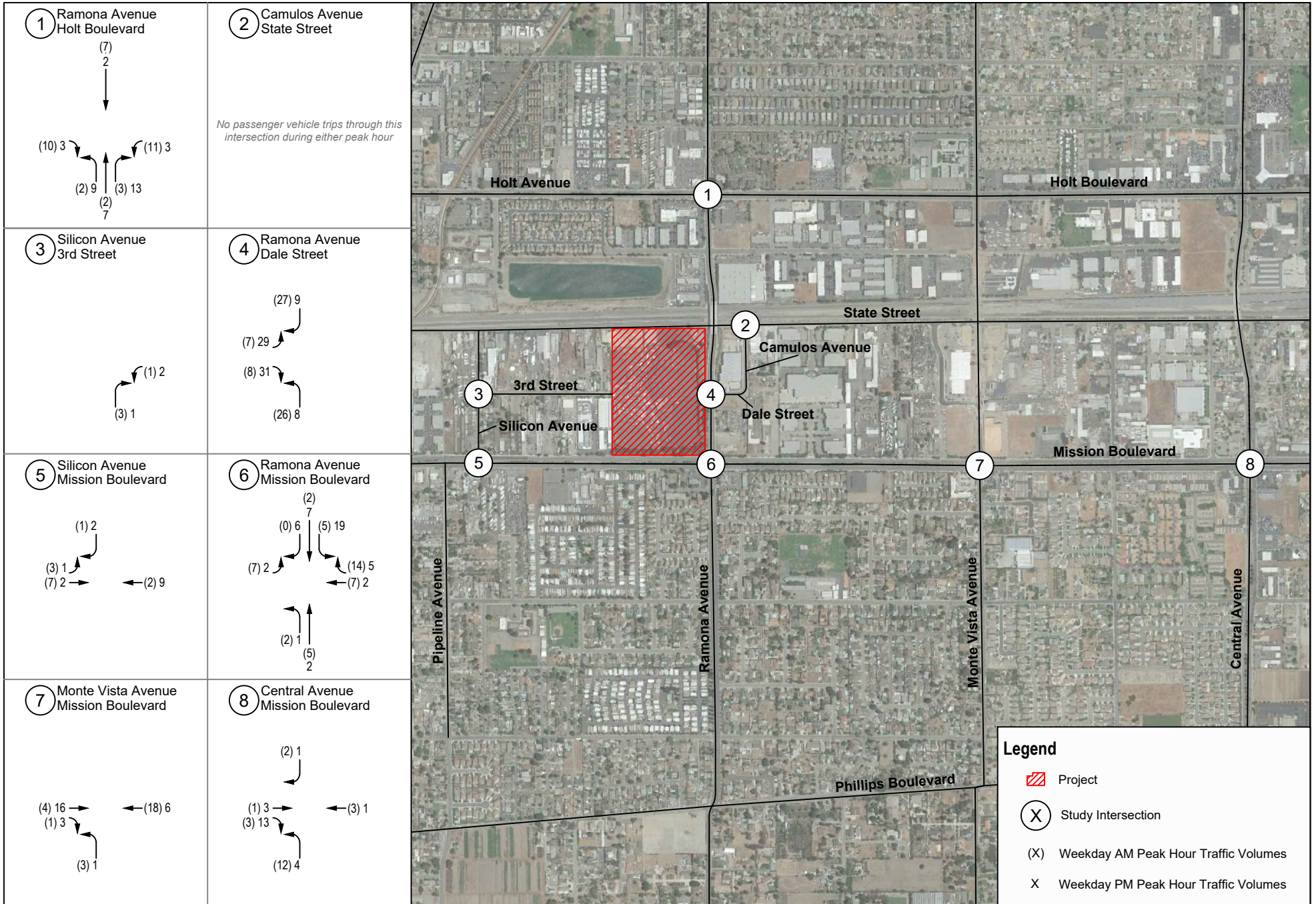
FIGURE 4
Project Passenger Vehicle Trip Distribution
Mission Boulevard and Ramona Avenue Industrial Park Project

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SOURCE: Google Maps 2018

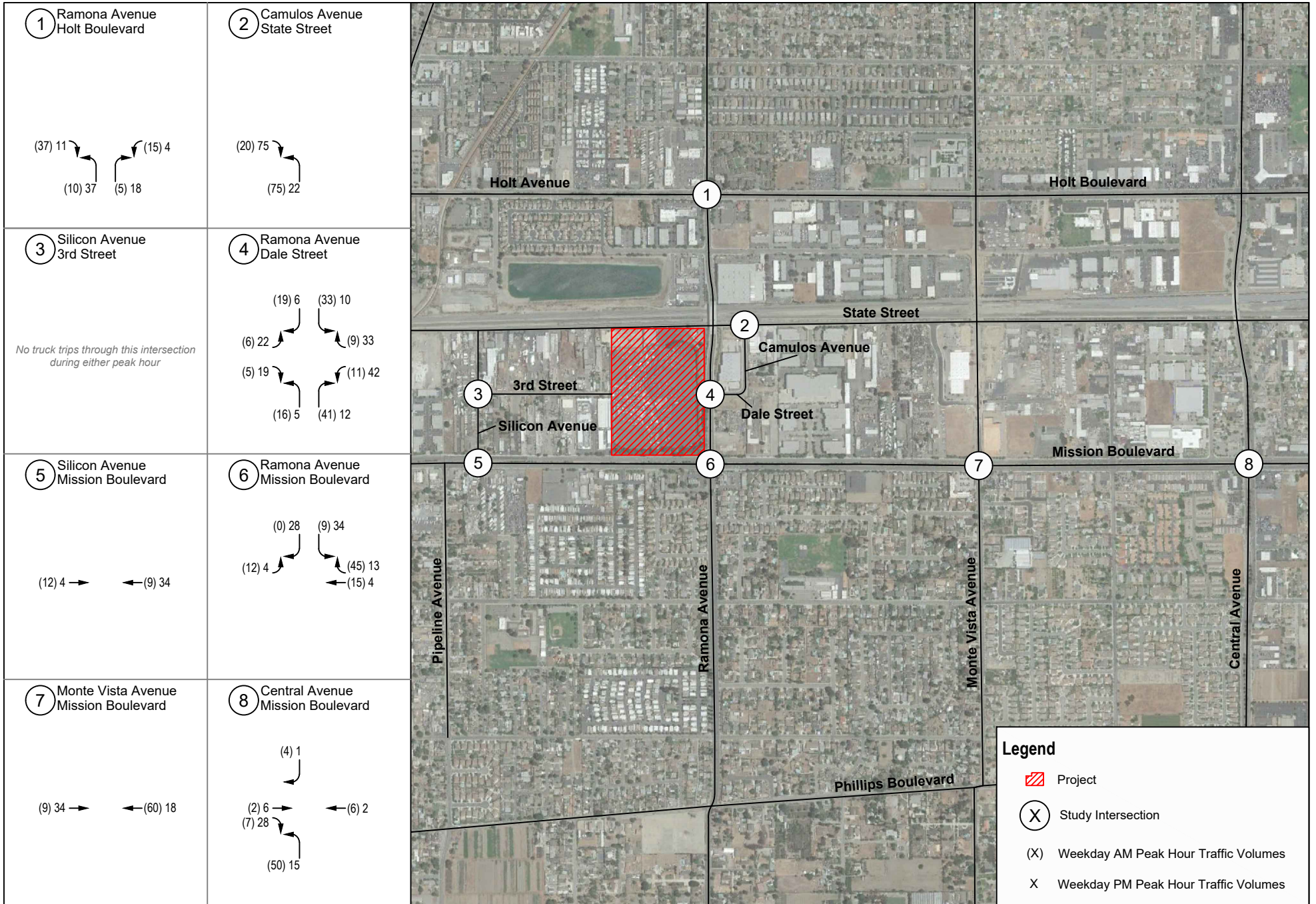
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SOURCE: Google Maps 2018

Figure 6
Project Passenger Vehicle Trip Assignments

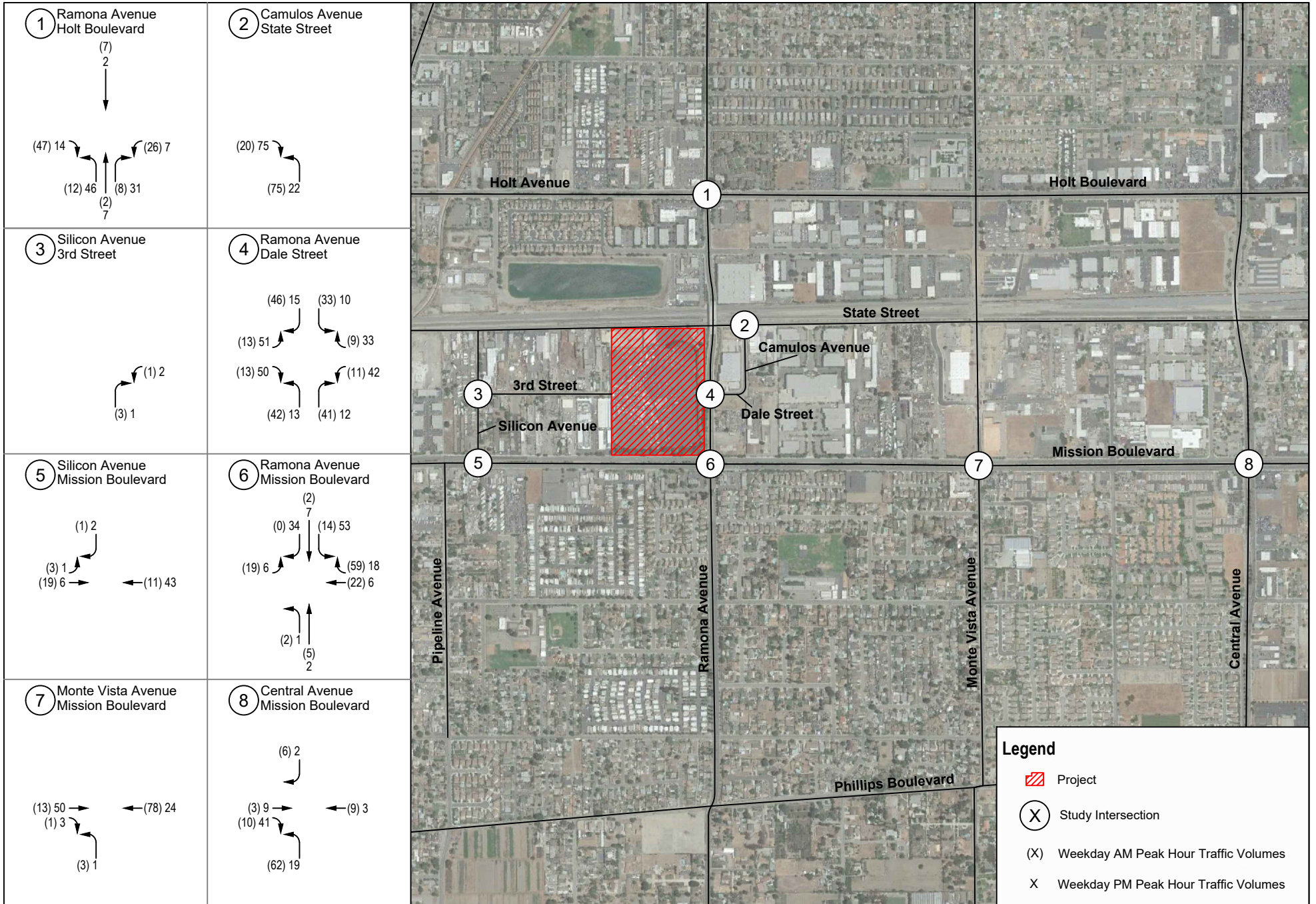
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SOURCE: Google Maps 2018

Figure 7
Project Truck Trip Assignments (PCE)
 Mission Boulevard and Ramona Avenue Industrial Park Project

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SOURCE: Google Maps 2018

Figure 8
Total Project Trip Assignments
 Mission Boulevard and Ramona Avenue Industrial Park Project

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4 Vehicle Miles Traveled Analysis

This section documents the screening, analysis, and impact determination on the project's potential impact to vehicle miles traveled (VMT) consistent with the requirements of Senate Bill 743 (SB 743) and CEQA.

4.1 Project Screening

The following screening criteria were analyzed per City Resolution No. 20-3281, *Vehicle Miles Traveled Thresholds of Significance for the Purpose of Analyzing Transportation Impacts under the California Environmental Quality Act* (August 2020). Any one of the following criteria would need to be satisfied in order to screen-out of significant VMT impacts:

- **Projects generating less than 110 daily trips (or 836 VMT):** The proposed project involves the construction and operation of 296,800 SF of warehousing buildings, as well as 217,469 SF of industrial park buildings, and is estimated to generate 1,249 daily trips as shown in Table 3. Therefore, the project would not fall under the criteria for projects generating less than 110 daily trips.
- **Local serving retail less than 50,000 SF:** The proposed project does not include retail components. Therefore, the project is not considered a local serving retail project and cannot be screened-out from further VMT analysis using this criterion.
- **Local Serving Projects:** Projects which serve the local community and have the potential to reduce VMT should not be required to complete a VMT assessment. The proposed project would not be categorized as a local serving land use. Therefore, the project cannot be screened-out from further VMT analysis using this criterion.
- **Affordable Housing (100% of units):** The proposed project does not include affordable housing units.
- **Transit Priority Area (TPA) Screening:** Projects located within a TPA¹ as determined by the most recent RTP/SCS. As shown in Appendix B, the proposed project is located within a TPA. As such, the project site is located within one-half mile of a TPA, however the proposed project's FAR is 0.45 which is less than 0.75, and therefore it cannot be screened-out using this criterion.
- **Low VMT Area Screening:** Development in a low VMT generating area consistent with an RTP/SCS and consistent with existing land use that is generation low VMT/SP. This will include both a land use (type, density, demographics, etc.) comparison.

The SBCTA screening tool was used to determine whether the proposed project would be in a low VMT-generating area. The City's TIA guidelines define a project VMT impact if "*the project generated VMT per service population exceeds 15% below what the County of San Bernardino average VMT per service population*" As such, for the purposes of this analysis, if the proposed project is located within a Traffic Analysis Zone (TAZ) in which the VMT per service population is greater than 15% below the existing baseline, the project would be located in a low VMT

¹ Per Public Resources Code section 21099(a)(7) a "Transit priority area" means an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations. For purposes of SB 743, a transit priority area also includes major transit stops that are scheduled to be completed within the planning horizon of the RTP/SCS.

generating area. TAZs are geographic polygons similar to Census block groups used to represent areas of homogenous travel behavior.

It should be noted that the City’s guidelines don’t specify the use of Production-Attraction (PA) VMT per service population (SP), or Origin-Destination (OD) VMT per service population. However, the SBCTA VMT Screening Tool User’s Guide (2020) indicates that the PA VMT per SP metric should be used for mixed-use (residential and commercial) projects. Therefore, since the project is not a mixed-use (residential and commercial) project, the OD VMT per SP VMT was used as it provides the most representative and conservative analysis for the proposed project. Table 4 presents the project’s TAZ summary of OD VMT per SP.

Table 4. Summary of Project TAZ VMT

Base Year (2021)	VMT
OD VMT Per Service Population	
Project TAZ	40.9
County	33.2
% Difference (Project TAZ – County)	+23.11%
Threshold	28.2

Source: SBCTA VMT Screening Tool (Appendix B)

Note: TAZ = Traffic Analysis Zone; VMT = vehicle miles traveled; OD = origin-destination

As shown in Table 4, the OD VMT per SP for the project TAZ is 40.9, and the County’s OD VMT per SP is 33.2. Therefore, the TAZ would be 23.11% above the City’s threshold, and would not meet the 15% below baseline screening criteria. Additionally, the project is not consistent with the land uses in the TAZ and therefore, the project cannot be screened out using the low VMT area screening criterion.

As the proposed project would not meet any of the screening criteria established in the City’s guidelines, a project-level detailed VMT analysis is required, and is discussed below.

4.2 VMT Analysis

4.2.1 Project VMT

The SBTAM is trip-based regional travel demand model that considers interaction between different land uses based on socio-economic data (SED) such as population, households, and employment. Project VMT has been calculated using the most current version of SBTAM. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) provides technical assistance and recommendations for the analysis of VMT. The methodology recommendations for VMT analysis include a discussion on vehicle types. An excerpt from the OPR Technical Advisory regarding vehicle types is below:

“Vehicle Types. Proposed Section 15064.3, subdivision (a), states, “For the purposes of this section, ‘vehicle miles traveled’ refers to the amount and distance of automobile travel attributable to a project.” Here, the term “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). For

an apples-to-apples comparison, vehicle types considered should be consistent across project assessment, significance thresholds, and mitigation.”

Per Section 21099 of the Public Resource Code, the selection of the VMT criteria for determining the significance of transportation impacts was intended to promote reductions of greenhouse gas emissions; to develop multimodal transportation networks; and to diversify land uses. As mentioned in the OPR’s Technical Advisory, there are various legislative mandates and state policies that establish quantitative GHG emission reduction targets. Pursuant to Senate Bill 375, the California Air Resources Board GHG emissions reduction targets for metropolitan planning organizations (MPOs) call for reductions in GHG emissions only from cars and light trucks. Therefore, a custom model run using the SBTAM was conducted to estimate VMT from automobiles (i.e. cars and light trucks) only, and the Project’s VMT and the threshold VMT were extracted only for automobile VMT. This allows for an apples-to-apples comparisons of VMT generated by vehicle types across project assessment, significance thresholds, and mitigation (if any). While the abovementioned OPR Technical Advisory allows for heavy duty truck VMT to be included in modeling, it is important to note that this allowance was provided for modeling convenience and ease of calculation; however, in keeping with the intent of Section 21099 of the Public Resource Code and Section 15064.3, subdivision (a) of the CEQA Guidelines (which specify that automobile VMT is the primary metric that should be evaluated), the extra step of removing heavy truck VMT from SBTAM was undertaken to provide for a project level analysis that most appropriately meets the intent of SB 743. Additionally, as noted during an informational question and answer session conducted by OPR to provide information and guidance on conducting project-level VMT analysis (OPR 2020), it is automobile VMT (i.e. cars and light duty trucks) that needs to be quantified for all land uses, including warehouses.

The project is located in TAZ# 53608201 of the SBTAM travel demand model. The project socio-economic data was based on the median factors for San Bernardino County from the SCAG Employment Density Survey (October 31, 2001). Income groups and other parameters were kept consistent with the factors included in SBTAM for the City of Montclair. Based on number of employees estimated using the SCAG study, the project was coded with 282 employees². In addition, 30 employees that are attributed to the current uses were removed from the adjacent zone. No network edits were made for the project.

Per standard travel demand modeling procedure, two model runs were conducted to estimate Project’s VMT. The first model run included the existing land uses for the area with no changes. While the base year VMT is available from the SBCTA Screening Tool (i.e. 33.2 VMT/SP as shown in Table 4), the first model run was conducted to set the thresholds and to present an apples-to-apples comparison of only automobile VMT. The VMT threshold for automobile VMT was estimated to be 30.04 VMT/SP, as shown in Table 5. The second model run was conducted with the socio-economic data from the proposed project and provided the project generated VMT per SP estimate i.e. 20.18 VMT/SP as shown in Table 5. Roadway (or link-level boundary) VMT was also calculated for all vehicles to estimate Project’s effect on VMT as shown in Table 5. Detailed calculations and model outputs are included in Appendix B.

² The SCAG Employment Density Survey, (SCAG 2001), reports that in San Bernardino County, for every 1,538 square feet of light manufacturing use, the median number of jobs supported is one employee and for every 2,111 square feet of industrial warehouse space, the median number of jobs supported is one employee. The Project would include approximately 296,800 square feet of Warehousing Use and 217,469 square feet of Industrial Park use (comparable to Light Manufacturing use), as shown in Table 3. Therefore, the estimated number of employees for the industrial park portion of the project would be approximately 142 persons and the estimated number of employees for the warehouse portion of the project would be 141 persons, for a total of 282 employees. Note that a previous version of the draft project design included a Project with 514,269 square feet of development (an increase of 974 square feet over the proposed Project). Because the analysis in this TIA had commenced, and because the size of the project buildings would provide a conservative analysis, a 514,269 square foot project is used throughout the technical analysis.

The project generated VMT is defined as the VMT attributed to automobile trips to and from the project. Based on the City thresholds, if the project generated VMT per service population exceeds 15% below what the County of San Bernardino average VMT per service population, the project has a significant impact under CEQA. Table 5 summarizes the findings of this evaluation.

Table 5. Summary of Project VMT (Automobile only)

Cumulative Conditions (Year 2040)	Project	San Bernardino County
Population	-	2,714,707
Employment	282	1,035,331
Service Population (SP)	282	3,750,038
OD VMT	5,691	112,666,032
OD VMT per SP	20.18	30.04
15% below OD VMT per SP		25.54
Is Project OD VMT per SP below 25.54		Yes
Significant Impact		No

Source: SBTAM Model Results, Translutions Inc. (Appendix B)

As shown in the table, the County average automobile VMT is 30.04 VMT/SP under cumulative (Year 2040) conditions, which translates to a threshold of 25.54 VMT/SP (15% less than average VMT/SP). Table 5 also shows that the project generated VMT is 20.18 VMT/SP under cumulative (Year 2040) conditions. Because the project generated VMT per SP does not exceed 15% below County average VMT per SP in the cumulative conditions, the project generated VMT impact would be less than significant.

4.2.2 Project-Effect on VMT

The project effect on VMT evaluates the change in roadway (or link-level boundary) VMT within the City streets due to the proposed project. Based on the City thresholds, if the link-level boundary VMT per SP increases Citywide under the plus project condition compared to the no project condition, the project would have a significant impact per project effect on VMT criteria. Table 6 shows the roadway (or link level) VMT/SP for the City of Montclair under without and with project conditions.

Table 6: Roadway (or Link-Level Boundary) VMT (City of Montclair)

Cumulative Conditions (Year 2040)	Without Project	With Project
Roadway (or link level) VMT	942,656	943,106
Service Population (SP)	65,677	65,929
VMT per SP	14.4	14.3
Would the Project increase VMT per SP?		No
Significant Impact		No

Source: SBTAM Model Results, Translutions Inc. (Appendix B)

As shown in the table, with the proposed project, the VMT/SP within the City will decrease from 14.4 VMT/SP to 14.3 VMT/SP. Because the project would not increase the roadway (or link-level boundary) VMT per SP in the cumulative conditions, the project’s effect on VMT would also be less than significant.

4.3 VMT Impact Determination

As determined from the VMT analysis summarized above, the project generated OD VMT for automobiles is 20.18 VMT/SP, which is less than the threshold of 25.54 VMT/SP (established for automobiles only VMT from the project specific model run). The roadway (or link level boundary) VMT within the City of Montclair is 14.4 VMT/SP under without project conditions which decreases to 14.3 VMT/SP under with project conditions. Therefore, based on City's thresholds, the project generated VMT and the project's effect on VMT would have a less than significant impact.

5 Project Access and Circulation

5.1 Project Site Access and Internal Circulation

As shown in the site plan (Figure 2), the proposed project identifies 13 driveways that would provide access to and/or access from the project site. Four driveways are identified at the northern project boundary along State Street, two driveways are identified along Mission Boulevard, one driveway is identified along Ramona Avenue, and six driveways are located along the proposed 3rd Street extension. Primary site access is located at the intersection of Ramona Avenue/Dale Street (#4). All site access driveways are assumed to be full access, with exception of the following:

- Mission Boulevard Driveway 3 (East), west of Ramona Avenue: right turn in/out only
- Mission Boulevard Driveway 4 (West), west of Ramona Avenue: right turn in/out only
- Ramona Avenue Driveway 5, south of Dale Street and north of Mission Boulevard: right turn in/out only

Based on the layout of the proposed project land uses and access to the nearest truck routes (City of Montclair truck routes are provided in Figure 9), truck traffic was primarily distributed to and from the access driveways along State Street and the main access driveway at Ramona Avenue/Dale Street, with a small percentage of truck traffic assigned to the remaining driveways. Additionally, truck traffic was not routed along Silicon Avenue or 3rd Street, west of the project site, as both roadway segments are two-lane roadways with residential homes and street parking along both sides of the street, providing limited mobility for larger truck traffic. Passenger vehicle traffic was primarily distributed to and from the main access driveway, with a small percentage distributed to the remaining driveways.

The levels of service at all main project driveways are included in Tables 10 and 15, for Existing plus Project and Opening Year (2024) plus Project conditions, respectively. All main driveways are anticipated to operate at LOS C or better under the access limitations and assumptions noted above. For the purposes of this analysis, the eastern set of driveways along State Street were analyzed as one driveway (identified as N Project Access 2). Additionally, internal driveways along 3rd Street are not included in this analysis.

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. LOS at two-way stop-controlled (TWSC) intersections is based on the delay of the worst movement, and proposed driveways are not anticipated to operate at deficient levels of service. The highest delay at a project driveway occurs for vehicles traveling south out of the western Mission Boulevard Driveway during the AM peak hour, at 18.2 seconds per vehicle, as noted in Table 15 in Section 7.4. Sufficient throat distance is available along the drive aisle at this driveway to accommodate approximately 550 feet of queuing between Mission Avenue and the proposed 3rd Street extension. As one vehicle is routed out of the project site at this driveway during the AM peak hour, queuing would be negligible, and limited to one vehicle length.

Additionally, as the proposed project is an industrial/warehousing use expected to generate truck traffic, a truck turning template has been overlaid on the site plan to determine whether adequate curb radii are available and whether turning movements into and out of project driveways are possible. A WB-67 design vehicle has been utilized to provide a conservative analysis, and Figures 10A and 10B identify that sufficient curb radii are provided for both ingress to and egress from the project site along State Street, 3rd Street, Ramona Avenue, and Mission Boulevard. Further, during site plan review, the internal roadway and driveway widths, curb radii to facilitate passenger car and truck turning and movement would be reviewed, designed, and constructed per City standards and applicable street design requirements.

5.2 Pedestrian and Bicycle Access

Pedestrian Facilities

As discussed in Section 2.3, Dale Street, Camulos Avenue, and State Street have all been constructed with curbs, gutters, and sidewalks along some portions of the roadways, and 3rd Street and Silicon Avenue are not constructed with consistent pedestrian facilities along either side of the respective streets. Mission Boulevard and Ramona Avenue both have been constructed with curbs, gutters, and sidewalks on both sides of the street. Although all project frontages provide sidewalk facilities under existing conditions, except for the proposed 3rd Street extension, the project would include street improvements along State Street, Ramona Avenue, Mission Boulevard, and the extension of 3rd Street from the west boundary of the site to Ramona Avenue at the intersection with Dale Street. Street improvements would include right of way dedications, installation of new curb and gutter, sidewalks, street lighting, and street signal upgrade at the Ramona Avenue/3rd Street.

Bicycle Facilities

As discussed in Section 2.3 and shown in Figure 3, there are no existing bicycle facilities within the vicinity of the project site. The nearest proposed facilities include a planned Class II bicycle lane along Mission Boulevard, adjacent to the southern frontage of the project site, and a planned Class I bikeway along the San Antonio Creek Channel, approximately $\frac{3}{4}$ -mile to the west of the project site per the SBCTA NMTP, as shown in Figure 3. Additionally, the City of Montclair Active Transportation Plan (ATP), dated November 2020, includes recommendations to stripe Mission Boulevard and Ramona Avenue as Class II buffered bike lanes, with the option to transition them to Class IV separated bike lanes in the long term. These proposed facilities would connect riders within the vicinity of the project site to existing and proposed bicycle facilities throughout the region. Although the proposed project would primarily serve industrial and warehousing uses, the development would generate employee trips to the project site. As previously discussed, the project is located adjacent to Omnitrans Route 88, which operates with a peak weekday service frequency of 60-minutes and provides a bus stop at the Ramona Avenue/Mission Boulevard intersection. Additionally, the project is located approximately $\frac{1}{4}$ -mile south of the Omnitrans Route 61 bus stop at Ramona Avenue/Holt Boulevard, which primarily runs east-west along Holt Boulevard and operates with a peak weekday service frequency of 20- to 30-minutes. As such, bicycle facilities may be used as first-/last-mile trips by employees commuting to the project site via bus. As the proposed project would provide street and frontage improvements, noted above, access to the site would be facilitated for both pedestrian and bicycle users. Additionally, frontage improvements would not conflict with planned SBCTA NMTP Class II bicycle lanes along Mission Boulevard, nor would it conflict with recommended City of Montclair ATP Class II/Class IV bicycle facilities along Mission Boulevard and Ramona Avenue; therefore, the proposed project would not conflict with existing or proposed bicycle facilities in its vicinity.

5.3 Parking

The northern portion of the project site would consist of two warehouse buildings totaling 296,800 square feet. As described above, higher volumes of truck traffic were assumed to access this portion of the project site via the Ramona Avenue/Dale Street intersection and the State Street driveways. The southern portion of the project site would also attract truck traffic, although passenger vehicle traffic is prioritized in this area.

A summary of trailer stalls and passenger vehicle parking is provided in Table 7 below. As shown, the proposed passenger parking stalls exceed the number of passenger parking required for each building, meeting City of Montclair parking requirements detailed in Chapter 11.66 of the City Municipal Code.

Table 7. Parking Summary

Parking Type	Bldg. 1	Bldg. 2	Bldg. 3	Bldg. 4	Bldg. 5	Bldg. 6	Bldg. 7	Bldg. 8	Total
<i>Truck-Related</i>									
Dock Doors	6	4	4	4	4	6	18	18	64
Grade Doors	1	1	1	1	1	1	2	2	10
Trailer Stalls	0	0	0	0	0	0	23	0	23
<i>Bicycle Parking</i>									
Bicycle Parking	2	2	2	2	2	2	12	8	32
<i>Passenger Parking</i>									
Standard	41	43	41	41	44	43	185	119	557
Clean Air/ Vanpool	12	12	12	12	12	12	18	12	102
Electric Vehicle	3	3	3	3	3	3	14	9	41
Total Provided	56	58	56	56	59	58	217	140	700
<i>Passenger Parking Ratios¹</i>									
Total Required	1.39	1.50	1.41	1.40	1.48	1.36	1.16	1.27	1.29
Total Provided	1.47	1.92	1.52	1.50	1.88	1.39	1.16	1.28	1.37

Source: GAA Architects 2021.






Note: Bldg. = Building.

¹ Parking Spaces per 1,000 square feet of building area.

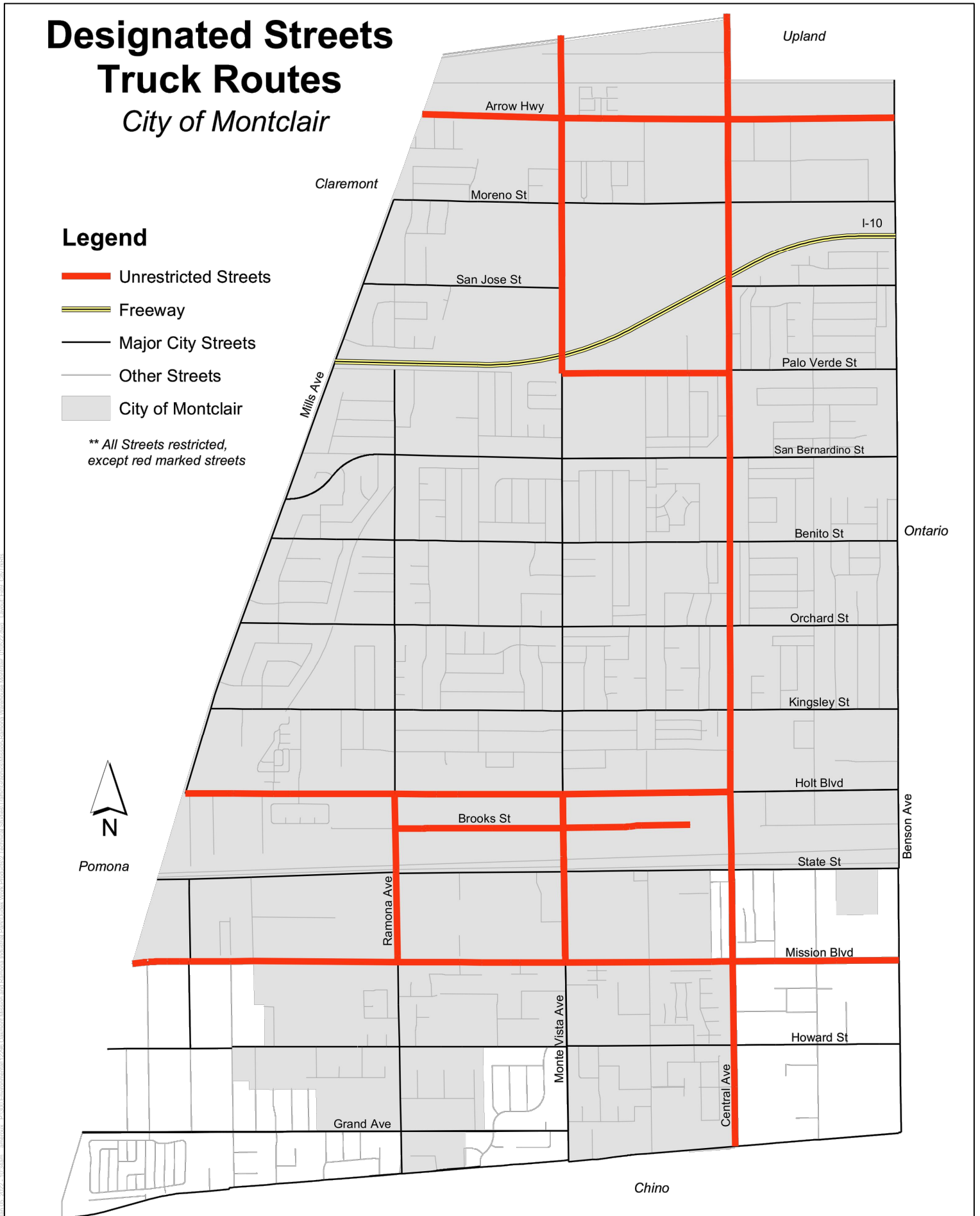
Designated Streets Truck Routes

City of Montclair

Legend

-  Unrestricted Streets
-  Freeway
-  Major City Streets
-  Other Streets
-  City of Montclair

**** All Streets restricted,
except red marked streets**

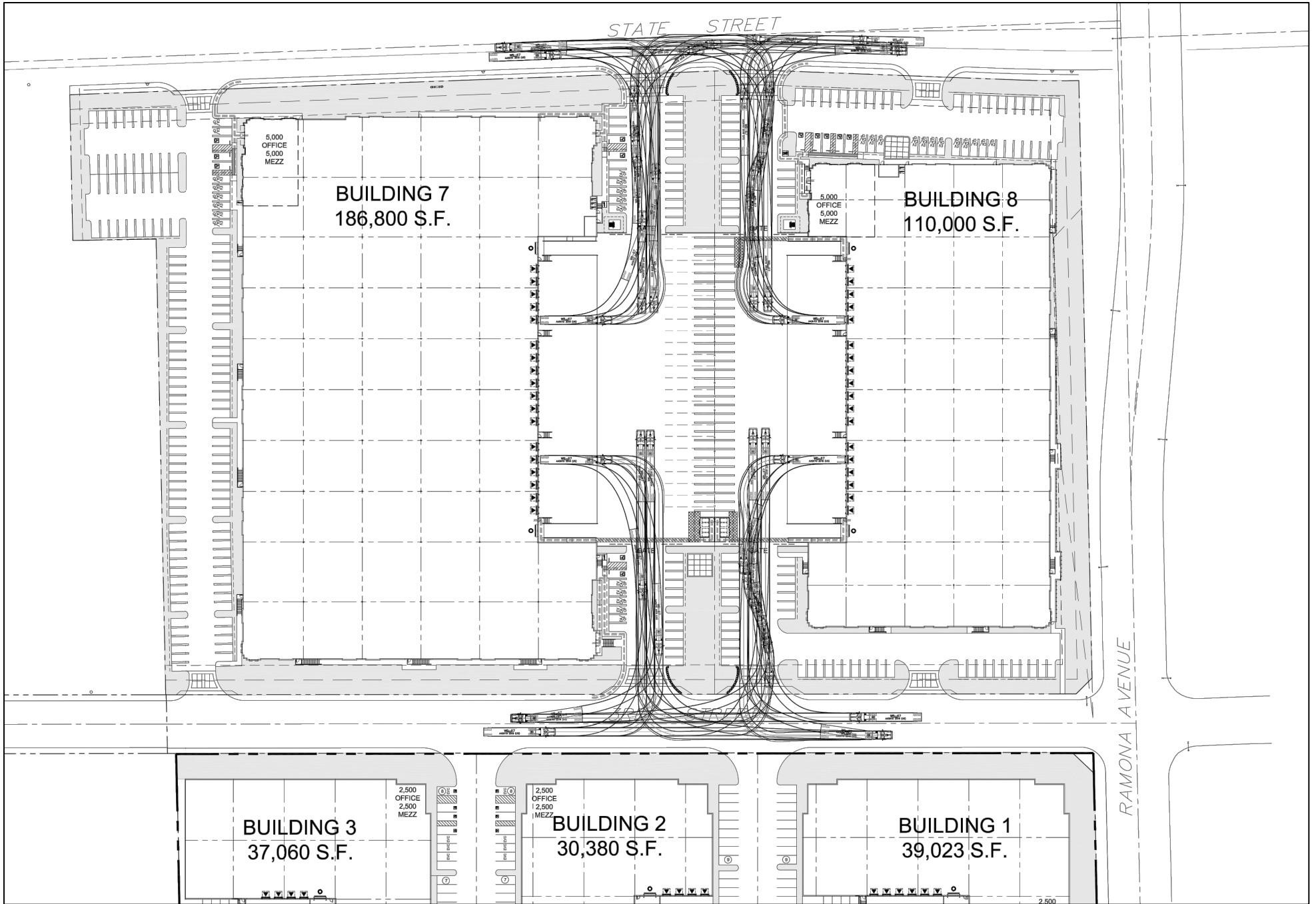


Source: City of Montclair 2020

FIGURE 9
City of Montclair Designated Streets Truck Routes

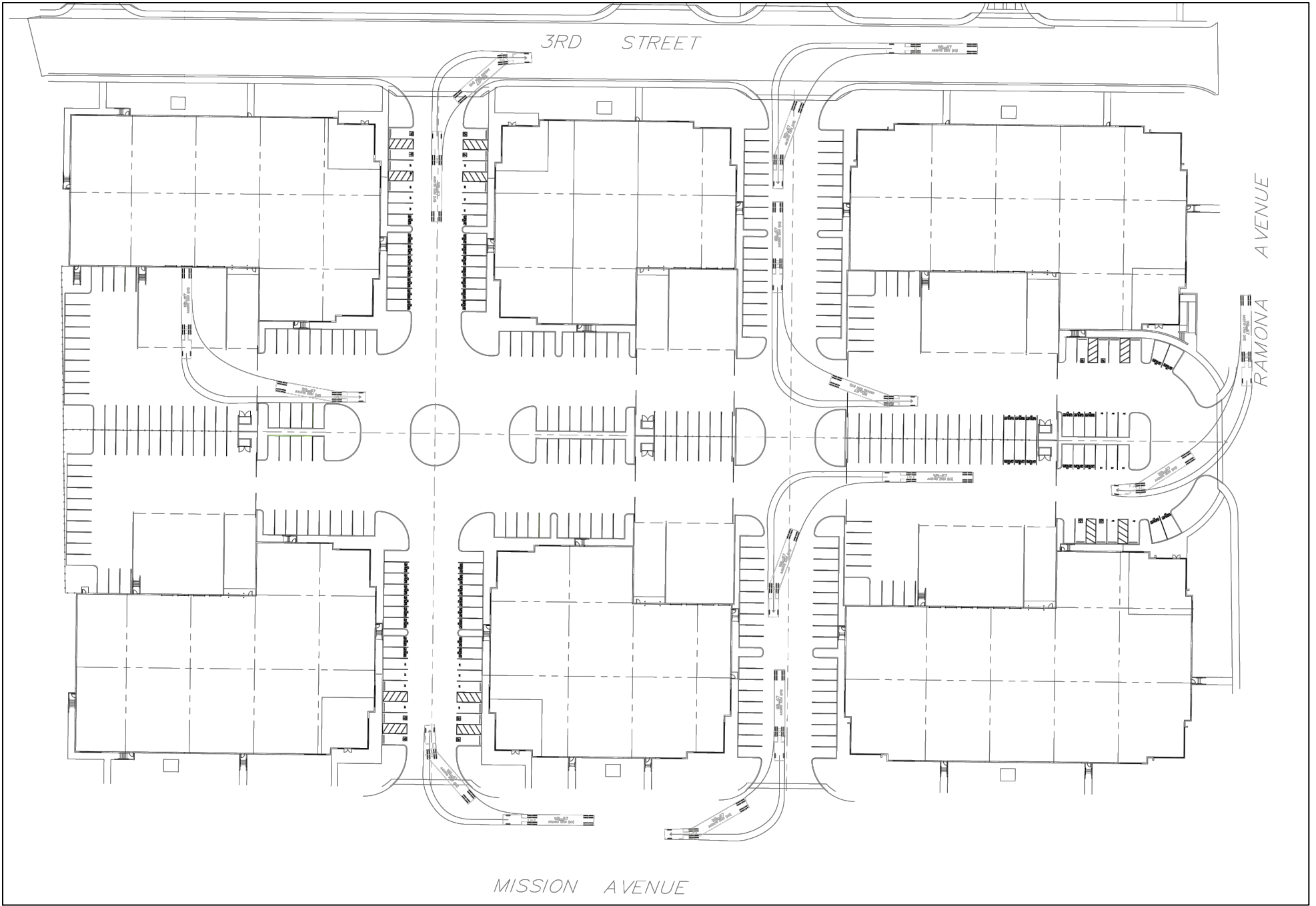
Mission Boulevard and Ramona Avenue Industrial Park Project

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SOURCE: GAA Architects 2021

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SOURCE: GAA Architects 2021

FIGURE 10B
Truck Turning Templates - Buildings 1-6

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6 Existing Traffic Operations

The existing traffic controls and geometrics at the study area intersections is shown in Figure 11. 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 late October and early November 2019 and adjusted to 2021 to reflect non-pandemic COVID-19 conditions. 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 adjusted to reflect truck traffic according to the standards set forth in the Montclair TIA Guidelines. Raw traffic count worksheets are provided in Appendix C. Existing weekday AM and PM peak hour volumes are summarized in Figure 12.

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 8 shows the results of the existing conditions analysis. LOS worksheets are provided in Appendix D.

As shown in the table, most of the study area intersections are currently operating at satisfactory levels of service (LOS D or better) under existing conditions. However, the unsignalized intersection at Silicon Avenue and Mission Boulevard is currently operating with an unsatisfactory level of service in the AM and PM peak hours (LOS F and E, respectively). A peak hour signal warrant was performed at this intersection and is provided in Appendix E. The warrant was not met due to low traffic volumes on Silicon Street in the Existing conditions.

Table 8. 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	Ramona Avenue/ Holt Boulevard	City of Montclair	HCM	30.0	C	34.1	C
2	Camulos Avenue/ State Street	City of Montclair	HCM	11.5	B	15.4	B
3	Silicon Avenue/ 3rd Street	City of Montclair	HCM (TWSC)	9.4	A	8.9	A
4	Ramona Avenue/ Dale Street	City of Montclair	HCM	5.4	A	7.3	A
5	Silicon Avenue/ Mission Boulevard	City of Montclair	HCM (TWSC)	150.5	F	40.8	E
6	Ramona Avenue/ Mission Boulevard	City of Montclair	HCM	33.3	C	29.5	C

Table 8. 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
7	Monte Vista Avenue/ Mission Blvd	City of Montclair	HCM	24.3	C	35.9	D
8	Central Avenue/ Mission Boulevard	City of Montclair/ San Bernardino County CMP	HCM	33.0	C	39.2	D
9	N Project Access 1/ State Street	City of Montclair	HCM (TWSC)	<i>does not exist</i>			
10	N Project Access 2/ State Street	City of Montclair	HCM (TWSC)	<i>does not exist</i>			
11	S Project Access 3/ Mission Boulevard	City of Montclair	HCM (TWSC)	<i>does not exist</i>			
12	S Project Access 4/ Mission Boulevard	City of Montclair	HCM (TWSC)	<i>does not exist</i>			
13	Ramona Avenue/ S Project Access 5	City of Montclair	HCM (TWSC)	<i>does not exist</i>			

Notes: HCM = Highway Capacity Manual; TWSC = Two-Way Stop-Controlled

¹ Delay in seconds per vehicle

² Level of Service (LOS)

6.3 Roadway Segment Operations

A peak hour roadway segment analysis was completed for the existing length of 3rd Street (approximately 0.25 miles) from Co Rd 20010 to Silicon Avenue, west of the project site. 3rd Street is not classified in the City of Montclair General Plan Circulation Element, and is therefore assumed as a 2-lane, undivided, local/unclassified roadway for the purposes of this analysis. Under existing conditions, the peak hour traffic accounts for only 1 to 2% of the roadway assuming capacity, of 1,800 passenger cars per hour per lane (pcphpl) per HCM 6 methodology as described in Section 1.3. Table 9 provides a summary of the roadway segment operations.

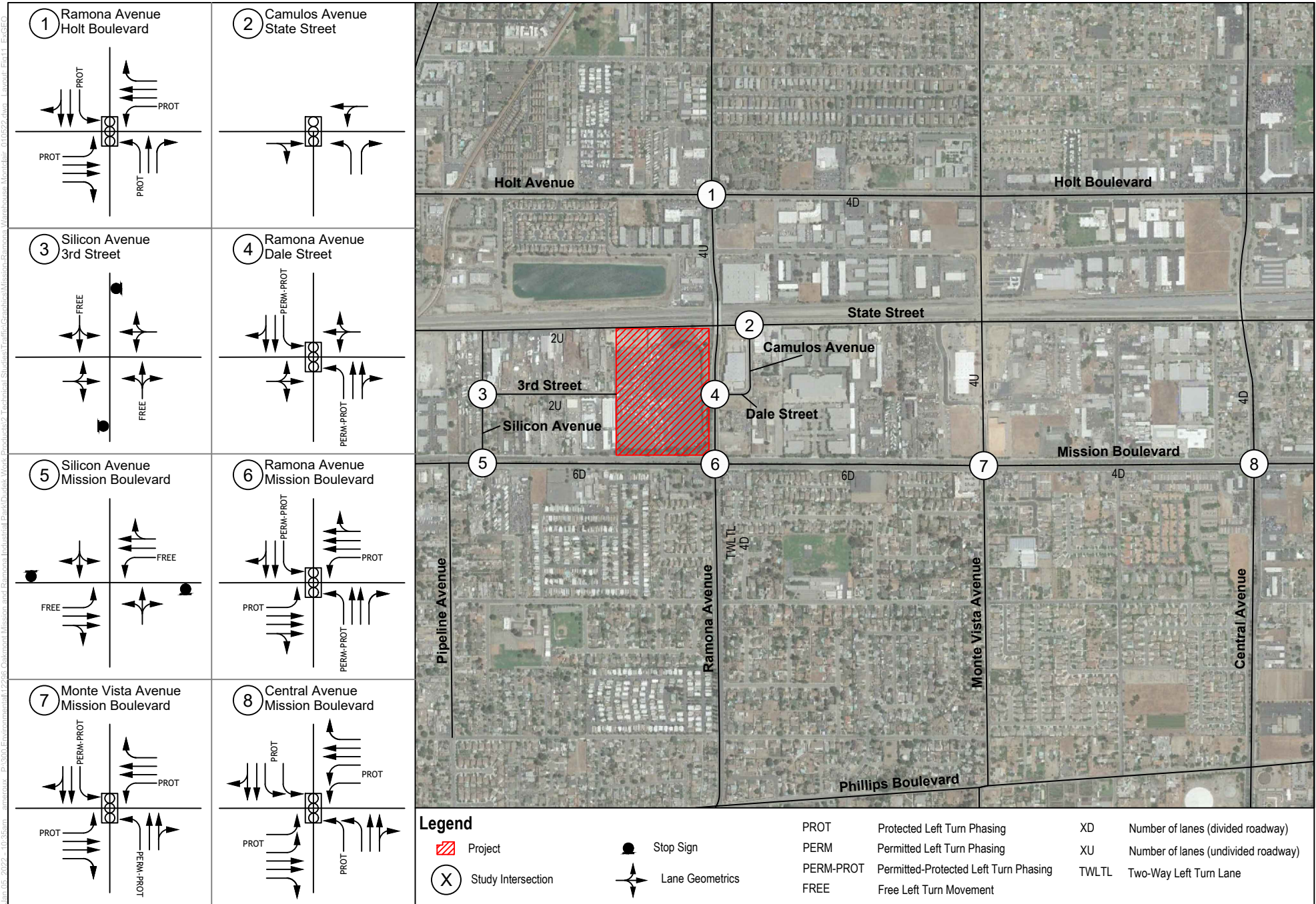
Table 9. Existing Peak Hour Roadway Segment Level of Service

Roadway Segment	Classification	No. of Lanes	Capacity ¹	Peak Hour	Existing Conditions		
					Volume ²	V/C	LOS
3rd Street, Co Rd 20010 to Silicon Avenue	Local/Unclassified	2U	3,600	AM	89	0.02	A
				PM	49	0.01	A

Notes: LOS is based on City of Montclair Roadway Segment Classifications and volume-to-capacity (V/C) ratios

¹ Capacity determined using Equation 16-1 from HCM 6 – 1,800 passenger cars per hour per lane (pcphpl)

² Volume derived from peak hour intersection traffic volumes at the Silicon Avenue/3rd Street intersection

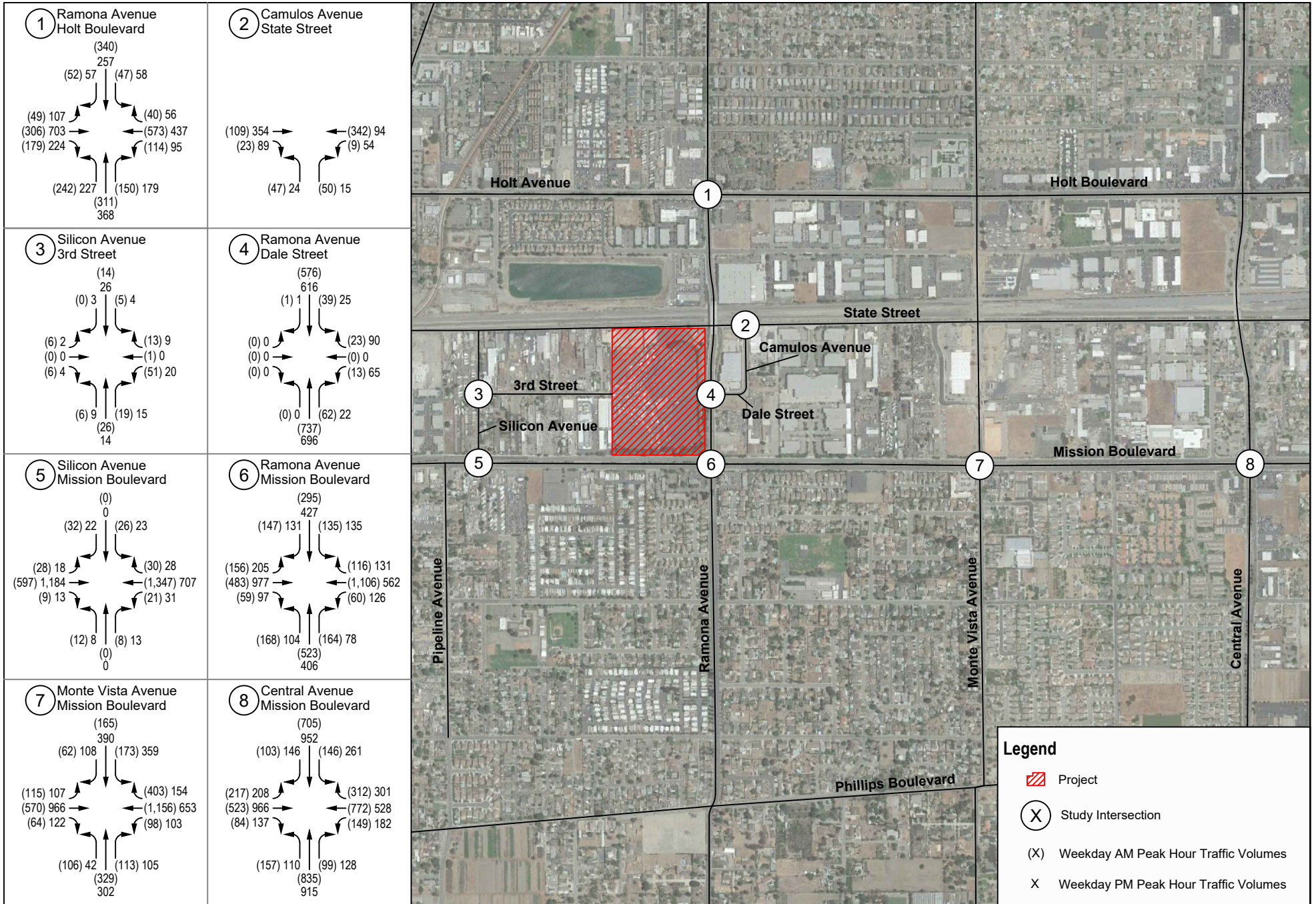


SOURCE: Google Maps 2018

Figure 11
Existing Intersection Controls and Geometrics

Mission Boulevard and Ramona Avenue Industrial Park Project

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SOURCE: Google Maps 2018

Legend



-  Project
-  Study Intersection
- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes

Figure 12
Existing Peak Hour Traffic Volumes
 Mission Boulevard and Ramona Avenue Industrial Park Project

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6.4 Existing plus Project Traffic Operations

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

6.4.1 Intersection Operations

The total project trip assignments shown in Figure 8 were added to the Existing peak hour traffic volumes shown in Figure 10 to derive the Existing plus Project peak hour traffic condition shown in Figure 13.

An intersection LOS analysis was prepared for the Existing plus Project condition using the HCM 6 methodology, and Table 10 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 D.

As shown in Table 10, all study area intersections are forecast to continue to operate with satisfactory LOS per the corresponding jurisdiction thresholds under Existing plus Project conditions during both peak hours, with exception of the Silicon Avenue/Mission Boulevard intersection. Although this intersection is already operating with deficient LOS during the Existing conditions, the addition of project traffic would increase the average delay at this intersection by more than the thresholds identified in Table 2, and this intersection would be considered inconsistent with the City’s LOS criteria. The project would add over 1.0 second of delay at LOS F in the AM peak hour and over 2.0 seconds of delay at LOS E in the PM peak hour. A peak hour signal warrant was performed at this intersection and is provided in Appendix E. The warrant was not met due to low traffic volumes on Silicon Street in the Existing plus Project conditions.

Recommended improvements to meet City of Montclair standards are provided in Section 9.

6.4.2 Roadway Segment Operations

A peak hour roadway segment analysis was completed for the existing length of 3rd Street from Co Rd 20010 to Silicon Avenue, in addition to the extended portion of 3rd Street through the project site. As described in Section 6.3, existing peak hour traffic accounts for only 1 to 2% of the roadway capacity, assuming 1,800 pcphpl per HCM 6 methodology. Addition of project traffic along the portion of 3rd Street west of Co Rd 20010, as well as project traffic along the new stretch of 3rd Street, would result in total traffic resulting in 4 to 5% of the segment capacity in Existing plus Project conditions. Table 11 provides a summary of the roadway segment operations.

Table 10. 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 City Standards?	
				AM Peak		PM Peak		AM Peak		PM Peak					
				Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	AM	PM	AM	PM
1	Ramona Avenue/ Holt Boulevard	City of Montclair	HCM	30.0	C	34.1	C	34.2	C	36.5	D	4.2	2.4	No	No
2	Camulos Avenue/ State Street	City of Montclair	HCM	11.5	B	15.4	B	11.0	B	18.7	B	-0.5	3.3	No	No
3	Silicon Avenue/ 3rd Street	City of Montclair	HCM (TWSC)	9.4	A	8.9	A	9.4	A	8.9	A	0.0	0.0	No	No
4	Ramona Avenue/ Dale Street	City of Montclair	HCM	5.4	A	7.3	A	8.4	A	11.1	B	3.0	3.8	No	No
5	Silicon Avenue/ Mission Boulevard	City of Montclair	HCM (TWSC)	150.5	F	40.8	E	176.7	F	43.0	E	26.2	2.2	Yes	Yes
6	Ramona Avenue/ Mission Boulevard	City of Montclair	HCM	33.3	C	29.5	C	37.5	D	31.2	C	4.2	1.7	No	No
7	Monte Vista Avenue/ Mission Blvd	City of Montclair	HCM	24.3	C	35.9	D	33.8	C	35.4	D	9.5	-0.5	No	No
8	Central Avenue/ Mission Boulevard	City of Montclair/ County CMP	HCM	33.0	C	39.2	D	34.0	C	39.6	D	1.0	0.4	No	No
9	N Project Access 1/ State Street	City of Montclair	HCM (TWSC)	<i>does not exist</i>				10.3	B	11.4	B	-	-	No	No

Table 10. 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 City Standards?	
				AM Peak		PM Peak		AM Peak		PM Peak					
				Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	AM	PM	AM	PM
10	N Project Access 2/ State Street	City of Montclair	HCM (TWSC)	does not exist				10.3	B	12.0	B	-	-	No	No
11	S Project Access 3/ Mission Boulevard	City of Montclair	HCM (TWSC)	does not exist				0.0	A	12.6	B	-	-	No	No
12	S Project Access 4/ Mission Boulevard	City of Montclair	HCM (TWSC)	does not exist				17.4	C	12.7	B	-	-	No	No
13	Ramona Avenue/ S Project Access 5	City of Montclair	HCM (TWSC)	does not exist				0.0	A	11.3	B	-	-	No	No

Notes: HCM = Highway Capacity Manual; TWSC = Two-Way Stop-Controlled

¹ Delay in seconds per vehicle

² Level of Service (LOS)

Table 11. Existing and Existing plus Project Peak Hour Roadway Segment Level of Service

Roadway Segment	Classification	No. of Lanes	Capacity ¹	Peak Hour	Existing Conditions			Project Traffic Volume ³	Existing plus Project Conditions			Change in V/C	Inconsistent with County Standards?
					Volume ²	V/C	LOS		Volume ^{2,3}	V/C	LOS		
3rd Street, Ramona Avenue to Silicon Avenue	Local/ Unclassified	2U	3,600	AM	89	0.02	A	98	187	0.05	A	0.03	No
				PM	49	0.01	A	100	149	0.04	A	0.03	No

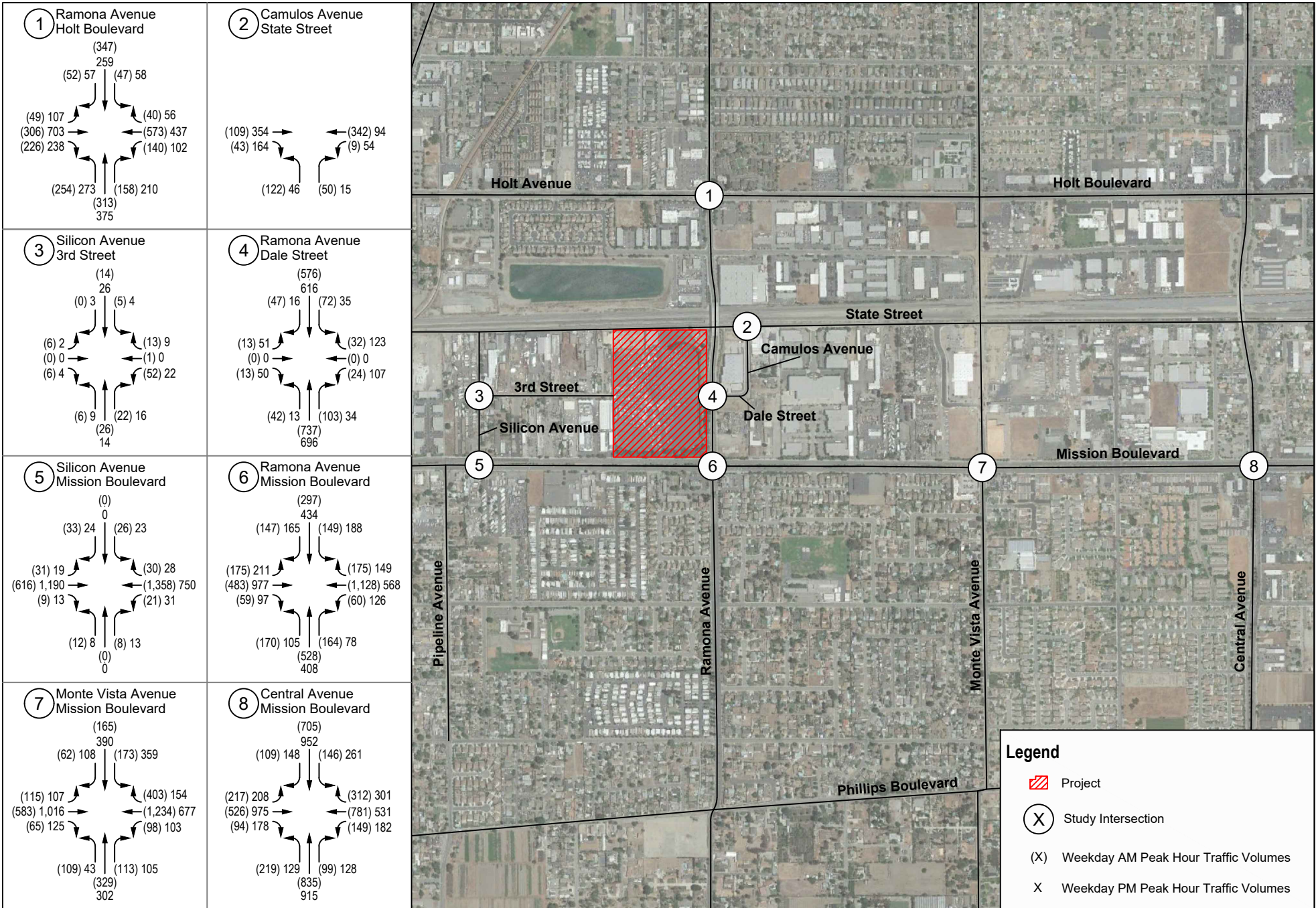
Notes: LOS is based on City of Montclair Roadway Segment Classifications and volume-to-capacity (V/C) ratios

¹ Capacity determined using Equation 16-1 from HCM 6 – 1,800 passenger cars per hour per lane (pcphpl)

² Volume derived from peak hour intersection traffic volumes at the Silicon Avenue/3rd Street intersection

³ Volume derived from proposed project traffic at the Silicon Avenue/3rd Street and Ramona Avenue/Dale Street intersections

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SOURCE: Google Maps 2018

Figure 13
Existing plus Project Peak Hour Traffic Volumes

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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 assuming the proposed project is constructed and fully occupied. This section describes conditions within the study area in the short-term year 2024. Characteristics are provided for the peak hour traffic volumes and traffic operations.

7.1 Cumulative Projects

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 within a 2-mile radius of the site, 21 cumulative projects were identified that would potentially add traffic to the study area. Table 12 provides a brief description of these cumulative projects, and cumulative project locations are shown in Figure 14.

7.1.1 Cumulative Projects Trip Generation

Project trip generation estimates for the cumulative projects were taken from traffic studies prepared for the recent development projects and/or derived using ITE *Trip Generation, 10th Edition* (2017) trip rates. As shown in Table 12, the cumulative projects are forecast to generate approximately 9,760 daily trips, 577 AM peak hour trips, and 896 PM peak hour trips. Trip estimates are adjusted for PCE for projects with industrial or warehousing land use components.

Table 12. Cumulative Projects Trip Generation Summary

Land Use	ITE Code	Size/Units	Daily Trips	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Trip Rates										
General Light Industrial	110	per TSF	4.96	0.62	0.08	0.70	0.08	0.55	0.63	
Manufacturing	140	per TSF	3.93	0.48	0.14	0.62	0.21	0.46	0.67	
Warehousing	150	per TSF	1.74	0.13	0.04	0.17	0.05	0.14	0.19	
Single-Family Detached Housing	210	per DU	9.44	0.19	0.56	0.74	0.62	0.37	0.99	
Multifamily Housing (Low-Rise)	220	per DU	7.32	0.11	0.35	0.46	0.35	0.21	0.56	
Assisted Living	254	per Bed	2.60	0.12	0.07	0.19	0.10	0.16	0.26	
Hotel	310	per Room	8.36	0.28	0.19	0.47	0.31	0.29	0.60	
Motel	320	per Room	3.35	0.14	0.24	0.38	0.21	0.17	0.38	
General Office Building	710	per TSF	9.74	1.00	0.16	1.16	0.18	0.97	1.15	
Shopping Center	820	per TSF	42.70	0.60	0.36	0.96	1.78	1.93	3.71	
Automobile Sales (New)	840	per TSF	27.84	1.37	0.50	1.87	0.97	1.46	2.43	
Supermarket	850	per TSF	106.78	2.29	1.53	3.82	4.71	4.53	9.24	
Trip Generation										
City of Claremont²										
CL1	Knight's Inn Renovation	310	38 Rooms	318	11	7	18	12	11	23
CL2	TTM 62814	220	13 DU	95	1	5	6	5	3	8

Table 12. Cumulative Projects Trip Generation Summary

Land Use		ITE Code	Size/Units	Daily Trips	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
CL3	John Elway’s Claremont Chrysler Dodge Jeep Ram	840	7.000 TSF	195	10	4	13	7	10	17
CL4	Claremont Mazda	840	30.000 TSF	835	41	15	56	29	44	73
<i>City of Claremont Subtotal</i>				1443	62	31	93	52	68	120
City of Montclair³										
M1	Montclair Senior Assisted Living	254	152 Beds	395	18	11	29	15	25	40
Currently Adopted Land Use				823	43	10	53	36	53	89
Net Trip Generation for Montclair Assisted Living ⁷				-428	-25	1	-24	-21	-28	-49
M2	Office/Industrial at Ramona and Holt	150 ⁸	56.305 TSF	149	11	3	14	4	12	16
		710	11.383 TSF	111	11	2	13	2	11	13
M3	4651 Brooks Street Warehouse ⁸	150	56.000 TSF	149	11	3	14	4	12	16
M4	Commercial Shopping Center/ Warehouse at Central and Holt	850	42.217 TSF	4,508	97	65	161	199	191	390
		820	23.784 TSF	1,016	14	9	23	42	46	88
		150 ⁸	95.235 TSF	253	20	6	26	7	20	27
<i>City of Montclair Subtotal</i>				5,757	140	88	227	238	263	501
City of Pomona⁴										
P1	Auto Body Assembly	140	29.000 TSF	114	14	4	18	6	13	19
P2	San Antonio/Grand Ave Condos	220	14 DU	102	1	5	6	5	3	8
P3	Reservoir Street Warehouse ⁸	150	74.968 TSF	199	15	5	20	6	16	22
P4	BelCon Condos	220	5 DU	37	1	2	3	2	1	3
P5	Phillips Blvd Condos	220	6 DU	44	1	2	3	2	1	3
<i>City of Pomona Subtotal</i>				496	31	18	49	21	34	55
City of Chino⁵										
CH1	Pine Tree Motel Expansion	320	32 Room	107	4	8	12	7	6	13
CH2	Francis Ave Homes	210	39 DU	368	7	22	29	24	15	39
CH3	PL20-004 ⁹	110	60.000 TSF	395	50	6	56	6	44	50
<i>City of Chino Subtotal</i>				871	62	35	97	37	65	102
City of Ontario⁶										
O1	PDEV19-006 ⁹	110	35.435 TSF	233	29	4	33	4	26	30
O2	PDEV19-015 ⁹	110	27.670 TSF	182	23	3	26	3	20	23
O3	PDEV15-027	220	53 DU	388	6	19	24	19	11	30
O4	PDEV19-049	220	30 DU	220	3	11	14	11	6	17
O5	TM-20198	210	18 DU	170	3	10	13	11	7	18
<i>City of Ontario Subtotal</i>				1,193	64	46	110	48	70	117
Total Trip Generation				9,760	359	219	577	396	500	896

Notes: DU = dwelling unit; TSF = thousand square feet

¹ Trip rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

- 2 Cumulative projects provided by email correspondence with the City of Claremont, 2021.
- 3 Cumulative projects provided by email correspondence with the City of Montclair, 2021.
- 4 Cumulative projects obtained from the City of Pomona Active Planning Projects Map, 2021.
- 5 Cumulative projects obtained from the City of Chino April 2020 Planning Activity Applications report.
- 6 Cumulative projects provided by email correspondence with the City of Ontario, 2021.
- 7 Trip generation provided by the Montclair Senior Assisted Living TIA, June 2019.
- 8 Trips adjusted with Passenger Car Equivalents (PCE). PCE factors used from San Bernardino County CMP, Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2016; vehicle mix and percent from SCAQMD, Warehouse Truck Trip Study Data Results and Usage, December 2014.
- 9 Trips adjusted with Passenger Car Equivalents (PCE). PCE factors used from San Bernardino County CMP, Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2016; vehicle mix and percent from City of Fontana Truck Trip Generation Study, August 2003.

7.1.2 Cumulative Projects Trip Distribution and Assignment

Trip distributions and assignments for the cumulative projects were obtained from traffic studies prepared for recent development projects, and/or assuming logical commute corridors. The trips generated by the cumulative projects were distributed through the study area network. Figure 15 shows the cumulative projects trip assignments for the peak hour conditions.

7.2 Intersection Operations

The existing intersection configurations (shown in Figure 11) have been assumed to be preserved under the Opening Year (2024) conditions. Figure 16 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 13 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 C.

As shown in the table, most of the study area intersections are forecast to continue operating at satisfactory levels of service per their jurisdiction’s policies (LOS D or better) under Opening Year 2024 conditions. As in the Existing condition, the unsignalized Silicon Avenue/Mission Boulevard intersection is forecast to continue to operate with an unsatisfactory LOS in the AM and PM peak hours (LOS F and E, respectively). A peak hour signal warrant was performed at this intersection and is provided in Appendix E. The warrant was not met due to low traffic volumes on Silicon Street in the Opening Year 2024 conditions.

Table 13. 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	Ramona Avenue/Holt Boulevard	City of Montclair	HCM	31.5	C	35.8	D
2	Camulos Avenue/State Street	City of Montclair	HCM	11.5	B	15.9	B
3	Silicon Avenue/3rd Street	City of Montclair	HCM (TWSC)	9.4	A	8.9	A
4	Ramona Avenue/Dale Street	City of Montclair	HCM	5.6	A	7.5	A
5	Silicon Avenue/Mission Boulevard	City of Montclair	HCM (TWSC)	217.5	F	52.1	F
6	Ramona Avenue/Mission Boulevard	City of Montclair	HCM	34.9	C	32.8	D
7	Monte Vista Avenue/Mission Blvd	City of Montclair	HCM	25.1	C	39.0	D
8	Central Avenue/Mission Boulevard	City of Montclair/ County CMP	HCM	39.6	C	47.5	D

Table 13. 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
9	N Project Access 1/ State Street	City of Montclair	HCM (TWSC)	does not exist			
10	N Project Access 2/ State Street	City of Montclair	HCM (TWSC)	does not exist			
11	S Project Access 3/ Mission Boulevard	City of Montclair	HCM (TWSC)	does not exist			
12	S Project Access 4/ Mission Boulevard	City of Montclair	HCM (TWSC)	does not exist			
13	Ramona Avenue/S Project Access 5	City of Montclair	HCM (TWSC)	does not exist			

Notes: HCM = Highway Capacity Manual; TWSC = Two-Way Stop-Controlled

¹ Delay in seconds per vehicle

² Level of Service (LOS)

7.3 Roadway Segment Operations

A peak hour roadway segment analysis was completed for the existing length of 3rd Street (approximately 0.25 miles) from Co Rd 20010 to Silicon Avenue, west of the project site. Under opening year conditions, there is not expected to be a large amount of growth along this segment. As such, the peak hour traffic continues to account for only 1 to 3% of the roadway, assuming capacity of 1,800 passenger cars per hour per lane (pcphpl) per HCM 6 methodology as described in Section 1.3. Table 14 provides a summary of the roadway segment operations.

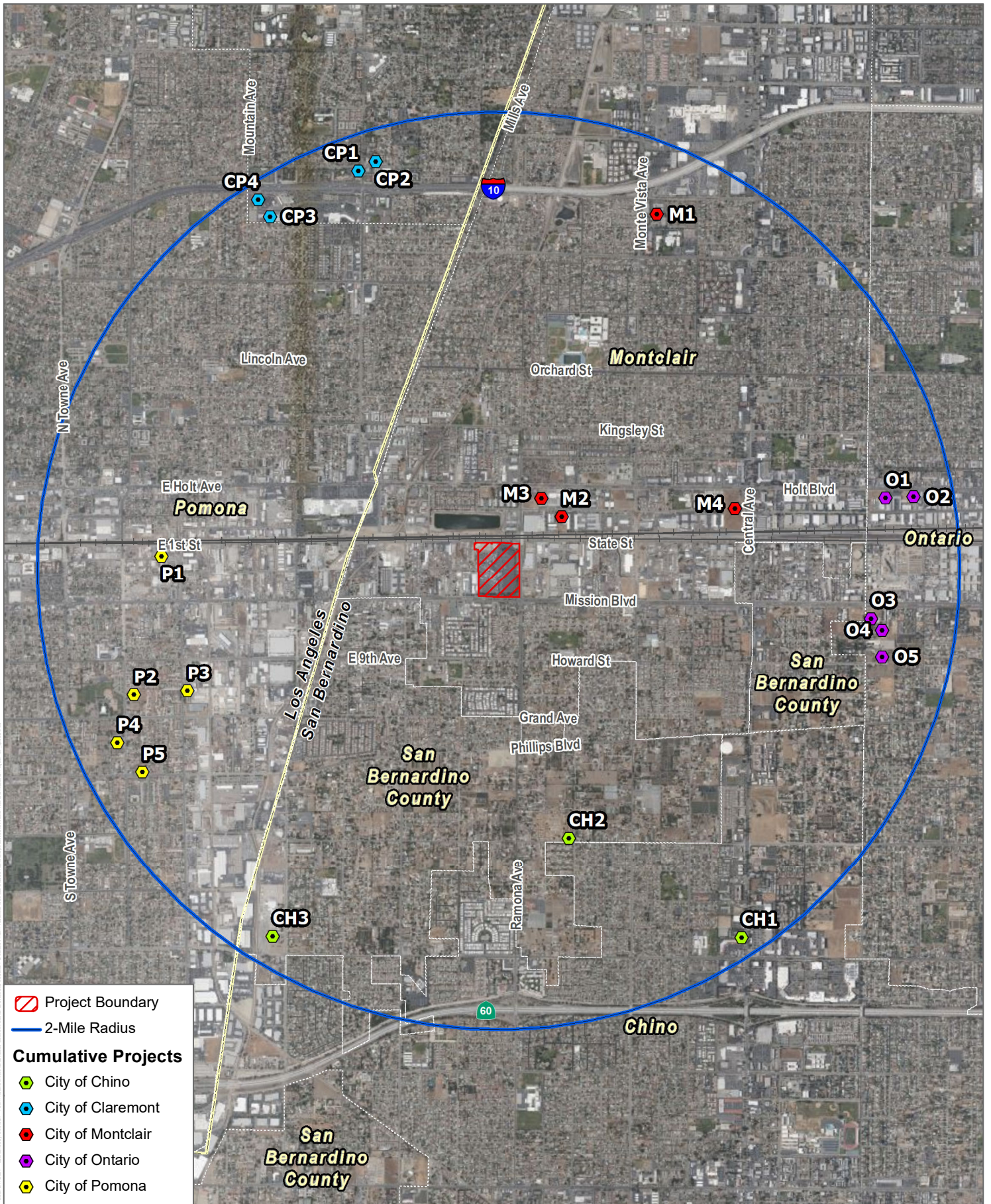
Table 14. Opening Year 2024 Peak Hour Roadway Segment Level of Service

Roadway Segment	Classification	No. of Lanes	Capacity ¹	Peak Hour	Opening Year 2024 Conditions		
					Volume ²	V/C	LOS
3rd Street, Co Rd 20010 to Silicon Avenue	Local/Unclassified	2U	3,600	AM	91	0.03	A
				PM	50	0.01	A

Notes: LOS is based on City of Montclair Roadway Segment Classifications and volume-to-capacity (V/C) ratios

¹ Capacity determined using Equation 16-1 from HCM 6 – 1,800 passenger cars per hour per lane (pcphpl)

² Volume derived from peak hour intersection traffic volumes at the Silicon Avenue/3rd Street intersection



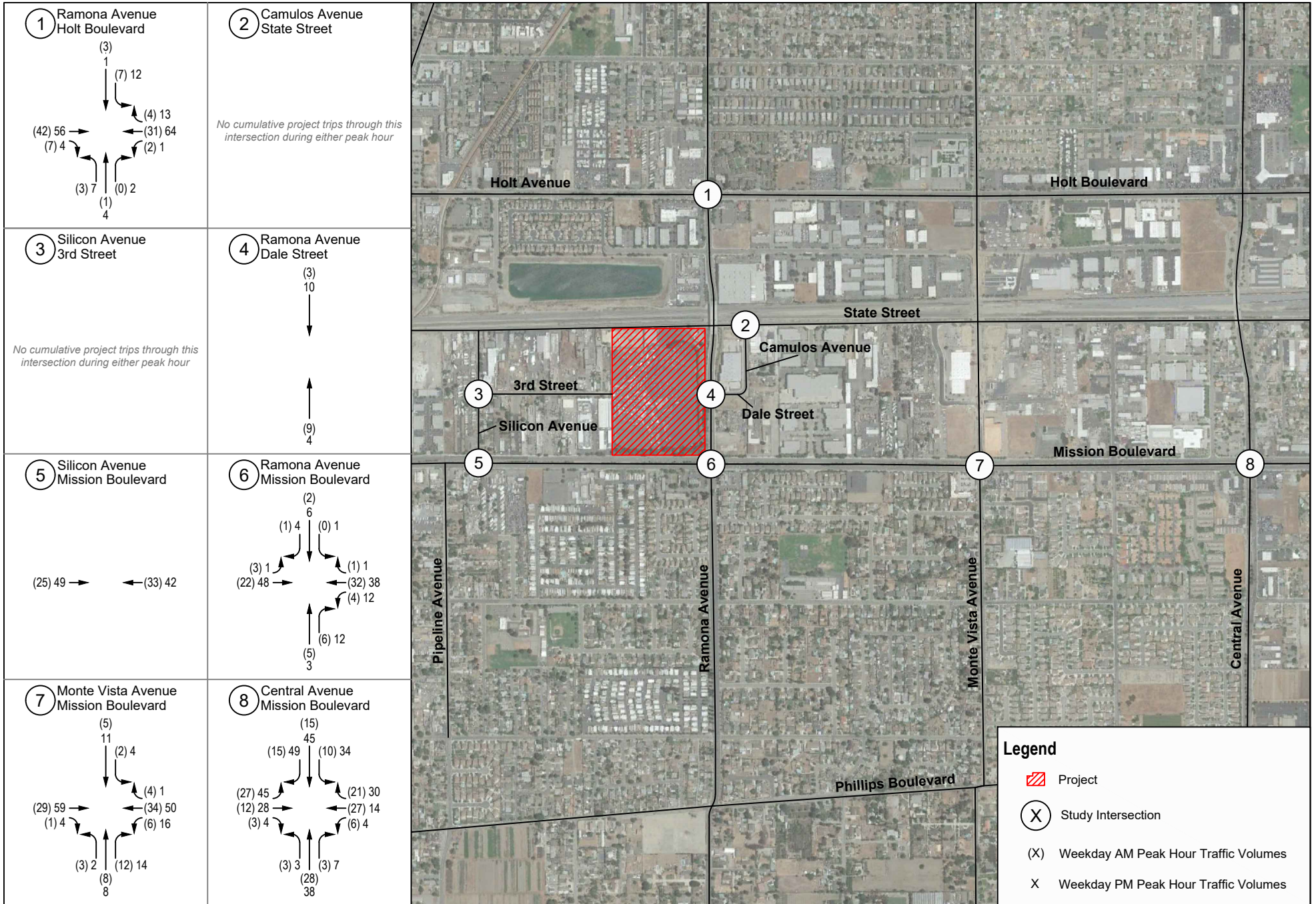
SOURCE: Bing Maps 2020; City of Chino 2020; Cities of Montclair, Ontario, Pomona, Claremont 2021

Figure 14

Cumulative Project Locations

Mission Boulevard and Ramona Avenue Industrial Park Project

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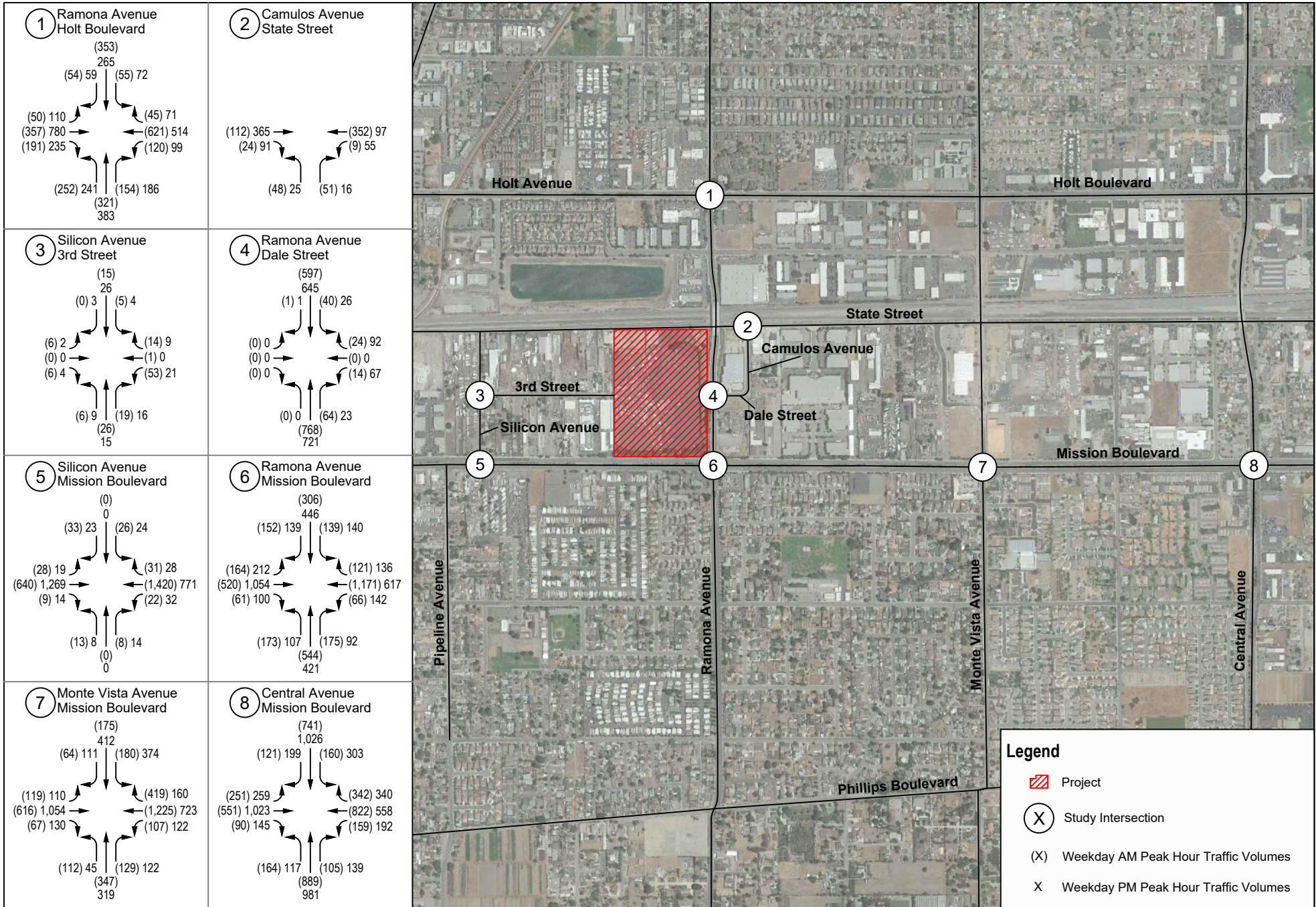


SOURCE: Google Maps 2018

Figure 15
Cumulative Project Peak Hour Traffic Volumes

Mission Boulevard and Ramona Avenue Industrial Park Project

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SOURCE: Google Maps 2018

Figure 16
Opening Year 2024 Peak Hour Traffic Volumes
 Mission Boulevard and Ramona Avenue Industrial Park Project

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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 8 were added to the Opening Year 2024 peak hour traffic volumes shown in Figures 16 to derive the Opening Year (2024) plus Project peak hour traffic volumes shown in Figure 17.

An intersection LOS analysis was prepared for the Opening Year (2024) plus Project condition using the HCM 6 methodology, and Table 15 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 C.

As shown in Table 15, 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 Silicon Avenue/Mission Boulevard intersection as identified in Opening Year 2024 conditions. Based on the City of Montclair TIA guidelines, the intersection would exceed the allowable change in delay per their corresponding levels of service as the project would add over 1.0 second of delay at LOS F in the AM peak hour, and over 2.0 seconds of delay at LOS E in the PM peak hour. A peak hour signal warrant was performed at this intersection and is provided in Appendix D. The warrant was not met due to low traffic volumes on Silicon Street in the Opening Year (2024) plus Project conditions. Although this intersection is already forecast to operate at deficient LOS during both the Existing and Opening Year 2024 conditions, recommendations to improve the intersection to meet City of Montclair standards are provided in Section 9.

7.4.2 Roadway Segment Operations

As with Existing plus Project conditions, a peak hour roadway segment analysis was completed for the existing length of 3rd Street from Co Rd 20010 to Silicon Avenue, in addition to the extended portion of 3rd Street through the project site. As described in Sections 6.3 and 7.3, both Existing and Opening Year 2024 peak hour traffic volumes account for only 1 to 3% of the roadway capacity, assuming 1,800 pcphpl per HCM 6 methodology. Addition of project traffic along the portion of 3rd Street west of Co Rd 20010, as well as project traffic along the new stretch of 3rd Street, would result in total traffic resulting in 4 to 5% of the segment capacity in Opening Year (2024) plus Project conditions. Table 16 provides a summary of the roadway segment operations.

Table 15. 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 City 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	Ramona Avenue/ Holt Boulevard	City of Montclair	HCM	31.5	C	35.8	D	35.9	D	39.3	D	4.4	3.5	No	No
2	Camulos Avenue/ State Street	City of Montclair	HCM	11.5	B	15.9	B	11.0	B	19.1	B	-0.5	3.2	No	No
3	Silicon Avenue/ 3rd Street	City of Montclair	HCM (TWSC)	9.4	A	8.9	A	9.4	A	8.9	A	0.0	0	No	No
4	Ramona Avenue/ Dale Street	City of Montclair	HCM	5.6	A	7.5	A	8.6	A	11.3	B	3.0	3.8	No	No
5	Silicon Avenue/ Mission Boulevard	City of Montclair	HCM (TWSC)	217.5	F	52.1	F	244.6	F	55.9	F	27.1	3.8	Yes	Yes
6	Ramona Avenue/Mission Boulevard	City of Montclair	HCM	34.9	C	32.8	D	39.2	D	34.1	C	4.3	1.3	No	No
7	Monte Vista Avenue/ Mission Boulevard	City of Montclair	HCM	25.1	C	39.0	D	30.7	C	38.8	D	5.6	-0.2	No	No
8	Central Avenue/ Mission Boulevard	City of Montclair/ County CMP	HCM	39.6	D	47.5	D	39.3	C	48.1	C	-0.3	0.6	No	No
9	N Project Access 1/ State Street	City of Montclair	HCM (TWSC)	does not exist				9.0	B	11.5	B	-	-	No	No
10	N Project Access 2/ State Street	City of Montclair	HCM (TWSC)	does not exist				9.1	B	12.1	B	-	-	No	No
11	S Project Access 3/ Mission Boulevard	City of Montclair	HCM (TWSC)	does not exist				0.0	A	13.0	B	-	-	No	No
12	S Project Access 4/ Mission Boulevard	City of Montclair	HCM (TWSC)	does not exist				18.2	C	13.1	B	-	-	No	No
13	Ramona Avenue/ S Project Access 5	City of Montclair	HCM (TWSC)	does not exist				0.0	A	11.4	B	-	-	No	No

Notes: HCM = Highway Capacity Manual; TWSC = Two-Way Stop-Controlled

¹ Delay in seconds per vehicle

² Level of Service (LOS)

Table 16. Opening Year 2024 plus Project Peak Hour Roadway Segment Level of Service

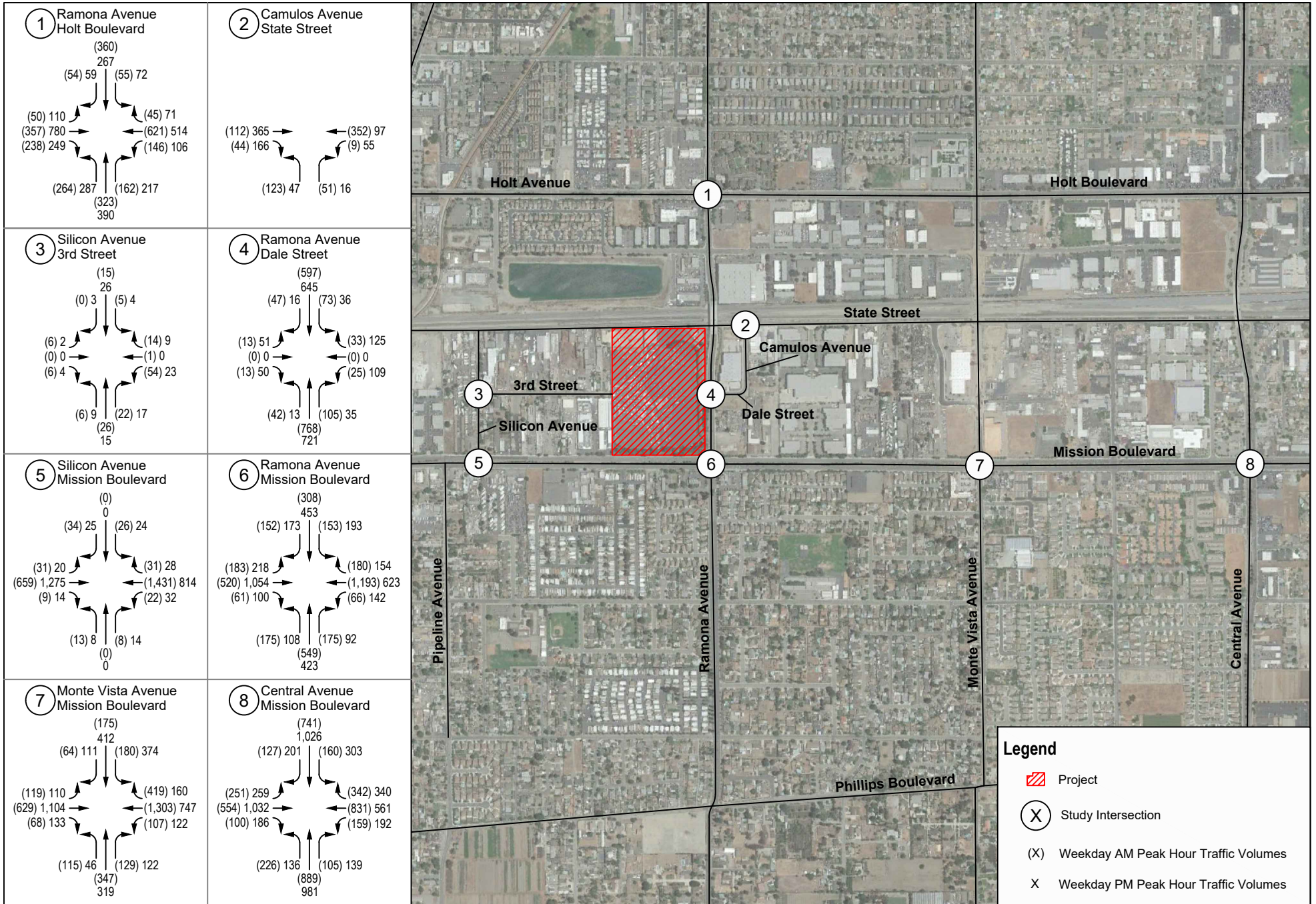
Roadway Segment	Classification	No. of Lanes	Capacity ¹	Peak Hour	Opening Year 2024 Conditions			Project Traffic Volume ²	Opening Year (2024) plus Project			Change in V/C	Inconsistent with County Standards?
					Volume ²	V/C	LOS		Volume ²	V/C	LOS		
3rd Street, Co Rd 20010 to Silicon Avenue	Local/ Unclassified	2U	3,600	AM	92	0.03	A	98	190	0.05	A	0.02	No
				PM	50	0.01	A	100	150	0.04	A	0.03	No

Notes: LOS is based on City of Montclair Roadway Segment Classifications and volume-to-capacity (V/C) ratios

¹ Capacity determined using Equation 16-1 from HCM 6 – 1,800 passenger cars per hour per lane (pcphpl)

² Volume derived from peak hour intersection traffic volumes at the Silicon Avenue/3rd Street intersection

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SOURCE: Google Maps 2018

Figure 17
Opening Year (2024) plus Project Peak Hour Traffic Volumes

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8 General Plan Year (2040) Conditions

This section includes a trip generation analysis of existing land uses and zoning designations under the current City of Montclair General Plan. Comparison of this estimate to the proposed project trip generation will serve as the basis for determining whether further analysis under a long-term horizon period would be recommended.

8.1 General Plan Year 2040 Trip Generation Analysis

Trip generation estimates for the proposed project are provided in Section 3. As with the proposed project, trip generation estimates are based on daily and AM and PM peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Handbook, 10th Edition* (2017), where applicable. The *ITE Trip Generation Handbook 9th Edition* (2012) was also utilized in this analysis based on available General Plan land use data.

The current General Plan identifies nine Assessor Parcel Numbers (APNs) at the location of the proposed project. For the purposes of this analysis, the acreage of each parcel and its associated land use and zoning designation were applied to the respective ITE trip generation rates. For parcels that are designated in the General Plan to be Limited Manufacturing (M1), the ITE trip rates for Manufacturing (ITE Code 140) were assumed as these uses are in “...an area where the primary activity is the conversion of raw materials or parts into finished products...In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research, and associated functions...” (ITE 2017). For parcels that are designated as Manufacturing Industrial (MIP), the ITE trip rates for General Light Industrial (ITE Code 110) were assumed as these uses are “...free-standing facilities devoted to single uses...Typical light industrial activities include printing, material testing, and assembly of data processing equipment...” (ITE 2017). For parcels that are designated as General Commercial (C3), the ITE trip rates for Business Park (ITE Code 770) were assumed as these uses “...consist of a group of flex-type or incubator one- or two-story buildings served by a common roadway system. The tenant space is flexible and lends itself to a variety of uses; the rear side of the building is usually served by a garage door...The space may include offices, retail and wholesale stores, restaurants, recreational areas and warehousing, manufacturing, light industrial, or scientific research functions...” (ITE 2017). Table 17 presents the trip generation estimates for the existing General Plan uses on the project site.

Table 17. Existing General Plan Trip Generation at Proposed Project Site

Assessor Parcel Number (APN)	Land Use/ Zoning Designation	ITE Code	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Trip Rates¹										
	General Light Industrial ¹	110	Acres	51.8	6.23	1.28	7.51	1.60	5.66	7.26
	Manufacturing ²	140	Acres	35.02	4.16	0.46	4.62	1.95	2.59	4.54
	Business Park ¹	770	Acres	149.79	16.03	2.83	18.86	3.37	13.47	16.84
Trip Generation										
101-215-120	Limited Manufacturing (M1)	140	3.15 Acres	110	13	1	15	6	8	14
101-215-127	Manufacturing Industrial (MIP)	110	8.93 Acres	463	56	11	67	14	51	65

Table 17. Existing General Plan Trip Generation at Proposed Project Site

Assessor Parcel Number (APN)	Land Use/ Zoning Designation	ITE Code	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
101-215-128	Manufacturing Industrial (MIP)	110	0.29 Acres	15	2	0	2	0	2	2
101-215-129	Limited Manufacturing (M1)	140	1.78 Acres	62	7	1	8	3	5	8
101-216-101	General Commercial (C3)	770	8.44 Acres	1,264	135	24	159	28	114	142
101-216-102	General Commercial (C3)	770	0.92 Acres	138	15	3	17	3	12	15
101-216-103	Limited Manufacturing (M1)	140	2.69 Acres	94	11	1	12	5	7	12
101-216-104	Limited Manufacturing (M1)	140	0.45 Acres	16	2	0	2	1	1	2
101-216-105	General Commercial (C3)	770	0.56 Acres	83	9	2	10	2	7	9
General Plan Land Use Total			27.22 Acres	2,245	250	44	294	64	207	271

Notes:

- ¹ Trip rates from Trip Generation, 9th Edition, Institute of Transportation Engineers, 2012.
- ² Trip rates from Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

As shown in Table 17, the current General Plan land uses at the project site would generate 2,245 daily trips, 294 AM peak hour trips (250 inbound and 44 outbound), and 271 PM peak hour trips (64 inbound and 207 outbound).

Comparatively, as detailed in Section 3, the proposed project would generate 1,249 daily trips, 138 AM peak hour trips (109 inbound and 29 outbound), and 143 PM peak hour trips (34 inbound and 109 outbound). Accounting for truck traffic from warehousing and industrial land uses, the proposed project would generate 2,142 daily PCE trips, 238 AM peak hour PCE trips (189 inbound and 49 outbound), and 247 PM peak hour PCE trips (58 inbound and 189 outbound).

Table 18 below summarizes the comparison between the proposed project trip generation and current General Plan land uses. As shown, the current General Plan land uses would generate more daily, AM peak hour, and PM peak hour trips when compared to both the proposed project non-PCE and PCE trip generation estimates, with exception of the outbound AM PCE split. To provide a conservative comparison, PCE factors were not applied to the General Plan land use trip generation estimate; however, it should be noted that the Limited Manufacturing (M1) and Manufacturing Industrial (MIP) land uses would be expected to generate truck traffic. As such, although the proposed project is estimated to generate slightly more outbound traffic in the AM peak hour with application of PCE factors (5 vehicles), the total AM peak hour volume of the proposed project remains less than that of the estimated General Plan land use trip generation, and this volume is not considered to be significantly greater than the current land use and zoning designations.

Table 18. General Plan and Mission Ramona Business Park Project Trip Generation Comparison

Scenario	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
City of Montclair General Plan Land Uses at Project Site	2,245	250	44	293	64	207	271
Mission Ramona Business Park Project	1,249	109	29	138	34	109	143
Mission Ramona Business Park Project (PCE)	2,142	189	49	238	58	189	247
Difference (GP Land Uses - Proposed Project non-PCE)	996	141	15	155	30	97	127
Difference (GP Land Uses - Proposed Project PCE)	103	61	-5	55	6	18	24

Source: City of Montclair General Plan Zoning Map 2013

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

9.1 Project Impacts per CEQA

9.1.1 VMT Analysis

As shown in Section 4, the project generated automobile VMT is 20.18 VMT/SP, which is less than the threshold of 25.54 VMT/SP (established for automobiles only VMT from the project specific model run). The roadway (or link level) VMT within the City of Montclair is 14.4 VMT/SP under without project conditions which decreases to 14.3 VMT/SP under with project conditions. Therefore, based on City's criteria, the project generated VMT and the project's effect on VMT would result in a less than significant impact. The project would have a less than significant VMT impact per thresholds of significance adopted by the City. Therefore, the proposed project would not require mitigation measures.

9.1.2 Site Access Analysis

Project Site Access

As discussed in Section 5.1, project traffic would be distributed throughout the site. Truck traffic would be primarily distributed to and from the access driveways along State Street and the main access driveway at Ramona Avenue/Dale Street, with a small percentage of truck traffic assigned to the remaining driveways based on the layout of the proposed project land uses. Passenger vehicle traffic would be primarily distributed to and from the main access driveway, with a small percentage distributed to the remaining driveways.

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. The highest delay (18.2 seconds) at a project driveway occurs for vehicles traveling south out of the western Mission Boulevard Driveway during the AM peak hour. Sufficient throat distance is available along the drive aisle at this driveway to accommodate approximately 550 feet of queuing between Mission Avenue and the proposed 3rd Street extension. As one vehicle is routed out of the project site at this driveway during the AM peak hour, queuing would be negligible, and limited to one vehicle length.

Pedestrian and Bicycle Access

As discussed in Section 5.2 and shown in Figure 3, the nearest proposed facilities include a planned Class II bicycle lane along Mission Boulevard, adjacent to the southern frontage of the project site, and a planned Class I bikeway along the San Antonio Creek Channel, approximately ¾-mile to the west of the project site per the SBCTA NMTP. As the proposed project would provide street and frontage improvements, noted above, access to the site would be facilitated for both pedestrian and bicycle users. Additionally, frontage improvements associated with project development would not conflict with planned bicycle facilities along Mission Boulevard; therefore, the proposed project would not conflict with existing or proposed bicycle facilities in its vicinity.

No mitigation measures would be necessary for the proposed project.

9.2 Level of Service Findings

9.2.1 LOS Results

Based on the LOS analysis conducted for the study intersections and the City of Montclair traffic impact thresholds, the proposed project would not be consistent with the City’s General Plan operational standards at the Silicon Avenue/Mission Boulevard intersection (#5) under the Existing plus Project and Opening Year (2045) plus Project conditions. The following section provides recommended improvements to meet the City’s standards, identified for disclosure purposes only.

9.2.2 Improvement Measures

Intersection #5 – Silicon Avenue/Mission Boulevard

As shown in Figure 8, less than 10% of project traffic would utilize this intersection to access the project site. Although this intersection is already operating with deficient LOS during the Existing conditions, the addition of project traffic would be inconsistent with the City’s LOS standards. With the addition of project traffic, the delay increases by 31.5 seconds at LOS F (acceptable delay increase of >1 second) and 2.6 seconds at LOS E (acceptable delay increase of >2 seconds) during the AM and PM peak hours, respectively. Additionally, under Opening Year conditions, with the addition of project traffic, the delay increases by 56.6 seconds at LOS F (acceptable delay increase of >1 second) and 1.6 seconds at LOS F during the AM and PM peak hours, respectively. These increases are greater than the City of Montclair thresholds and improvements would be recommended.

These increases are greater than the City of Montclair thresholds and the following improvement is recommended:

Improvement 1 The Property Owner/Developer shall coordinate with the City to implement the following improvement:

- Restrict all left-turning movements at the Silicon Avenue/Mission Boulevard intersection by extending the existing raised, landscaped median on Mission Boulevard through the intersection. This is the preferred improvement for this intersection per discussions with the City Engineer.

With the restriction of left turns at the intersection, the relatively low volumes of southbound left turning vehicles destined towards Ramona Avenue (to the east) would be diverted on 3rd Street, on its new extension to Ramona Avenue, and signalized intersection of Ramona Avenue/3rd Street – Dale Street. Also, the relatively low volumes of northbound left turning vehicles destined to the west would turn right at the intersection, then make a legal U-turn at the existing median break approximately 990 feet east of the intersection. Similarly, eastbound left turns on Mission Boulevard would also make a U-turn at the same median break, and then make a right turn on Silicon Avenue. Westbound left turns on Mission Boulevard would make a legal U-turn at the adjacent intersection of Pipeline Avenue/Mission Boulevard, and then make a right turn into the driveways of the mobile home park or retail center.

Intersection operations with implementation of Improvement 1 are shown in Table 19 for both Existing plus Project and Opening Year (2024) plus Project scenarios. For the purposes of this analysis, a peak hour signal warrant was performed at this intersection and is provided in Appendix E. The warrant was not met for either the Existing plus Project or Opening Year plus Project conditions due to low traffic volumes on Silicon Street. Additionally, proximity to the signalized intersection at Pipeline Avenue/Mission Boulevard, approximately 350

west of intersection #5, would need to be taken into consideration and further analyzed if signalization was considered.

Implementation of Improvement 1 would improve intersection operations to satisfactory conditions, consistent with the City's LOS standards.

Table 19. Peak Hour Intersection Level of Service with Improvement 1

No.	Intersection	Existing plus Project				Existing plus Project (w/Improvement 1)				Opening Year (2024) plus Project				Opening Year (2024) plus Project (w/Improvement 1)			
		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²
5	Silicon Avenue/ Mission Boulevard	182.0	F	43.4	E	17.1	C	13.9	B	257.5	F	53.7	F	18.5	C	14.6	B

Notes:

¹ Delay in seconds per vehicle

² Level of Service (LOS)

10 References

- City of Montclair. 1999. City of Montclair General Plan. Circulation Element. Adopted 1999. Accessed February 2021. <https://www.cityofmontclair.org/home/showpublisheddocument?id=5290>
- City of Montclair. 2018. *Transportation Impact Analysis Guidelines*. Accessed February 2021. <https://www.cityofmontclair.org/Home/ShowDocument?id=6808>
- City of Montclair. 2020. Draft Montclair Active Transportation Plan. Updated November 2020. Accessed February 2021. <https://www.cityofmontclair.org/home/showpublisheddocument?id=16894>
- City of Montclair. *Designated Streets Truck Routes*. Accessed February 2021. <https://www.cityofmontclair.org/Home/ShowDocument?id=6517>
- City of Montclair. 2020. Resolution No. 20-3281 - Establishing VMT Thresholds of Significance for the Purpose of Analyzing Transportation Impacts under the California Environmental Quality Act. (August 2020)
- ITE (Institute of Transportation Engineers). 2017. *Trip Generation Manual*. 10th ed.
- OPR (California Governor's Office of Planning and Research). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 2018. Accessed February 2021. http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.
- San Bernardino County. 2019. *Transportation Impact Study Guidelines*. July 9, 2019. Accessed February 2021. <https://cms.sbcounty.gov/Portals/50/transportation/Traffic-Study-Guidelines.pdf?ver=2019-10-03-155637-153>
- SCAQMD. 2014. *SCAQMD High Cube Warehouse Truck Trip Study White Paper Summary of Business Survey Results*. June 2014. Accessed September 2020. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/business-survey-summary.pdf>.
- Transportation Research Board. 2016. *Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis*.

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Appendix A

Scoping Memorandum

MEMORANDUM

To: Noel Castillo, PE, City of Montclair
From: Dennis Pascua, Transportation Services Manager
Subject: Oakmont Specific Plan (Warehouse Development at Mission and Ramona): Traffic Impact Analysis Scoping Memorandum
Date: October 18, 2019
cc: Collin Ramsey, Dudek
Amanda Meroux, EIT, Dudek
Attachments: Project Site Plan
Project Trip Generation Table
Project Trip Distribution and Assignment Figures

Dudek has been retained by the Applicant of the Oakmont Specific Plan project to prepare the Traffic Impact Analysis (TIA) for the proposed project. The TIA will be prepared per the requirements of the City of Montclair (City) Traffic Impact Study (TIS) Guidelines (2018) which are also generally consistent with the TIA requirements of the San Bernardino County Transportation Authority's (SBCTA) Congestion Management Program (CMP). The following memorandum presents the proposed scope of the TIA for your review and approval.

The proposed project would be constructed on the 27.87 acre site of the existing Mission Tiki Drive-In Theater and Swap Meet complex (the existing uses and structures will be demolished) located on the northwest corner of Ramona Avenue and Mission Boulevard within the city limits of Montclair.

Project Description

The proposed project is a 5-building warehouse development totaling 529,000 square feet (SF). The project site plan is attached. Building 1 would be a 281,000 SF warehouse with ancillary office and mezzanine space; Building 2 would be a 97,000 SF warehouse with ancillary office and mezzanine space; Building 3 would be an 82,500 SF warehouse with ancillary office and mezzanine space; and, Buildings 4 and 5 would be 34,000 SF warehouses with ancillary office spaces only (no mezzanine spaces). Consistent with the City's parking requirements, the project would provide 651 parking spaces, and also include trailer stalls (for Building 1), and truck docks (for all buildings).

The proposed project would construct 3rd Street to City standards, and connect this new segment to its existing terminus on the west side of the project site, eastward, to Ramona Avenue. Access to the project would occur of this new segment of 3rd Street, as well as, new driveways on State Street and Mission Boulevard.

Project Traffic

Trip Generation

Project weekday daily, and AM and PM peak hour trip generation estimates will be based on Warehouse (ITE Land Use Code 150) trip rates contained in *Trip Generation, 10th Edition* (Institute of Transportation Engineers, ITE, 2017); and, supplemented with passenger-car and truck mode split information from the South Coast Air Quality Management District (SCAQMD) to determine passenger-car equivalence (PCE) volumes. The trip generation estimates table is attached. Based on the table, the proposed project would generate approximately 920 daily trips, 90 AM peak hour trips, and 101 PM peak hour trips. Applying passenger-car equivalence (PCE) factors for truck trips, the proposed project would generate approximately 1,435 daily PCE trips, 140 AM peak hour PCE trips, and 157 PM peak hour PCE trips.

Trip Distribution and Assignment

Project traffic was distributed through the street network based on logical commute corridors for passenger-cars, and City-designated truck routes for project-related trucks. Figures 2 and 3, illustrate the trip distribution estimates for passenger-car and truck traffic, respectively. Figure 3 illustrates the total project trip assignment in PCE volumes for purposes of determining the project study area. All of the project trip distribution figures and trip assignment figure are attached.

Study Area

Based on the City's TIA requirements, and the project's trip assignment (see Figure 3), the following intersections and roadway segments are proposed to be counted and analyzed in the traffic analysis:

Intersections

1. Ramona Avenue/Holt Boulevard
2. Camulos Avenue/State Street
3. Ramona Avenue/Dale Street
4. Silicon Avenue/Mission Boulevard
5. Ramona Avenue/Mission Boulevard
6. Monte Vista Avenue/Mission Boulevard
7. Central Avenue/Mission Boulevard

Roadway Segments

1. State Street, Silicon Avenue to Camulos Avenue

Memorandum

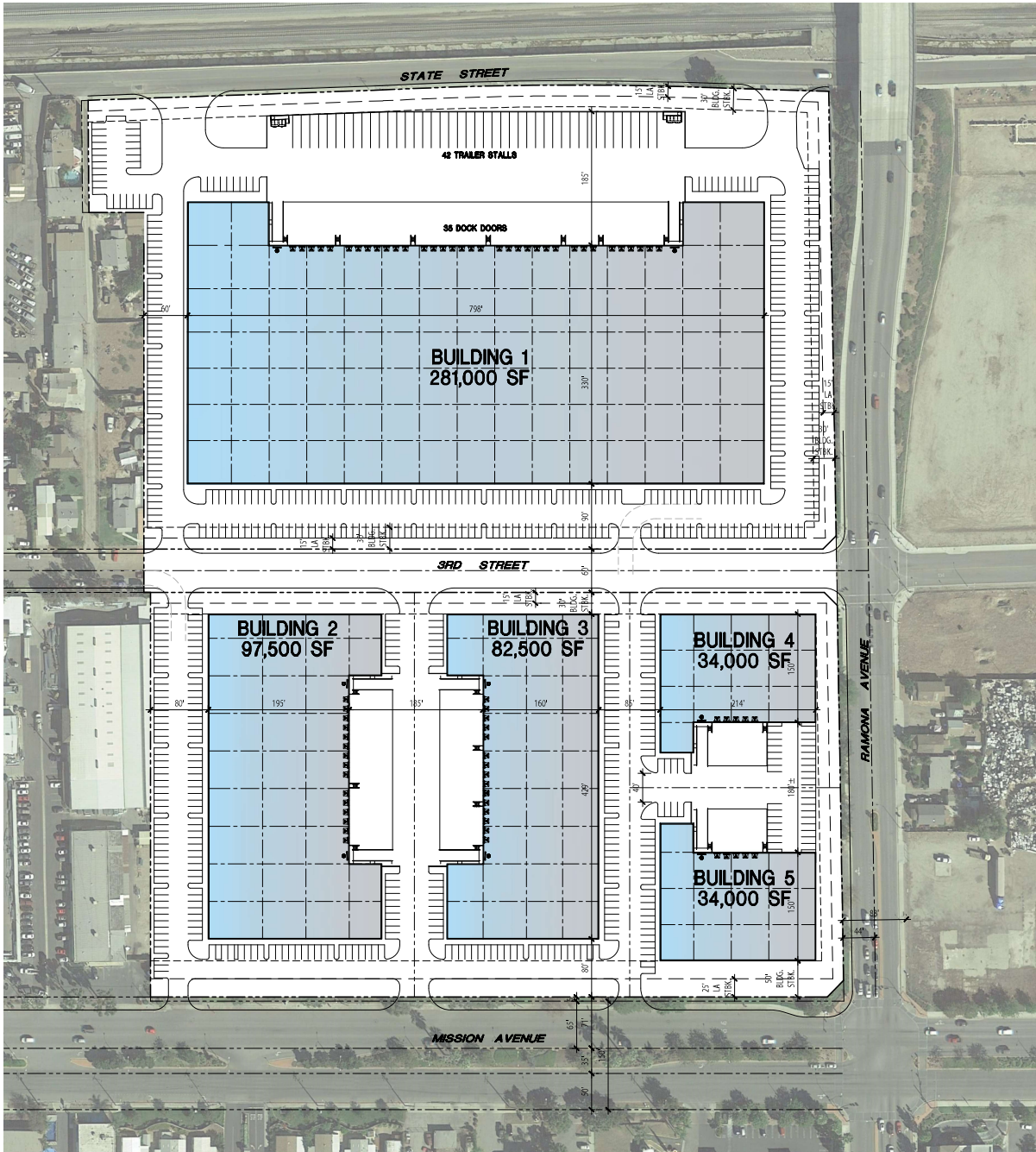
Subject: Oakmont Specific Plan (Warehouse Development at Mission and Ramona) TIA Scoping Memorandum

2. 3rd Street, Co Rd 20010 to Silicon Avenue
3. Mission Boulevard, Silicon Avenue to Ramona Avenue
4. Ramona Avenue, Dale Street to Mission Boulevard

The intersections and roadway segments will be counted on a typical weekday of a non-holiday week while adjacent schools are in session, during the AM and PM peak hours, and over a 24-hour period, respectively.

Traffic Impact Analysis

The traffic analysis will be conducted per the requirements of the City's TIA guidelines, and will address the Existing and Existing plus Project Conditions; Opening Year Baseline (no project) and Opening Year plus Project; and, General Plan Buildout Baseline (no project) and General Plan plus Project conditions. For any impacts identified, mitigation measures and/or site or operational improvements will be provided to lessen project impacts to less than significant levels per the City's significance criteria. A Draft TIA will be submitted to the City for review.



TABULATIONS

SITE AREA						SF	ACRES
GROSS						1,214,058	27.87
STREET DEDICATION						63,837	1.47
NET SITE AREA						1,150,221	26.41
PARCEL AREA		BUILDING 1	BUILDING 2	BUILDING 3	BUILDING 4	BUILDING 5	TOTAL
SF		616,782	204,152	165,677	77,880	84,730	1,150,221
ACRES		14.16	4.69	3.83	1.79	1.95	26.41
BUILDING AREA		BUILDING 1	BUILDING 2	BUILDING 3	BUILDING 4	BUILDING 5	TOTAL
GROUND FLOOR OFFICE		10,000	5,000	5,000	2,500	2,500	25,000
WAREHOUSE		266,000	91,000	75,000	31,500	31,500	495,000
TOTAL BUILDING AREA		276,000	96,000	81,000	34,000	34,000	521,000
MEZZANNE		5,000	1,500	1,500	0	0	8,000
TOTAL BUILDING AREA		281,000	97,500	82,500	34,000	34,000	525,000
COVERAGE		44.7%	47.0%	48.6%	43.7%	40.1%	45.3%
FAR		45.6%	47.8%	49.5%	43.7%	40.1%	48.0%
PARKING REQUIRED							
OFFICE		1/250	60	26	26	10	132
WAREHOUSE		1/1000	266	91	76	32	497
TOTAL PARKING REQUIRED			326	117	102	42	629
PARKING PROVIDED		340	120	107	42	42	651
PARKING RATIO		1.21/1000	1.23/1000	1.30/1000	1.24/1000	1.24/1000	1.23/1000
DOCK DOORS		35	15	15	5	5	75
GRADE DOORS		2	2	2	1	1	8
TRAILER STALLS		42	0	0	0	0	42

MISSION AND RAMONA 27 ACRES MP - MONTCLAIR, CA
OAKMONT INDUSTRIAL GROUP



PROJECT NO: 01000.01
 DATE: 9/8/2018

SCHEME B
 CONCEPTUAL SITE PLAN

GIAA ARCHITECTS
 8811 Research Drive,
 Suite 200,
 Irvine, CA 92618
 T: 949.474.1775
 www.GIAAarchitects.com

NOTE: LAND AREA AND BUILDING SQUARE FOOTAGE ARE PRELIMINARY AND MAY BE SUBJECT TO CHANGE UPON REVIEW BY GOVERNING AGENCIES, CIVIL ENGINEER, AND OWNER.
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Table 1 - Trip Generation Estimates (Oakmont Specific Plan)

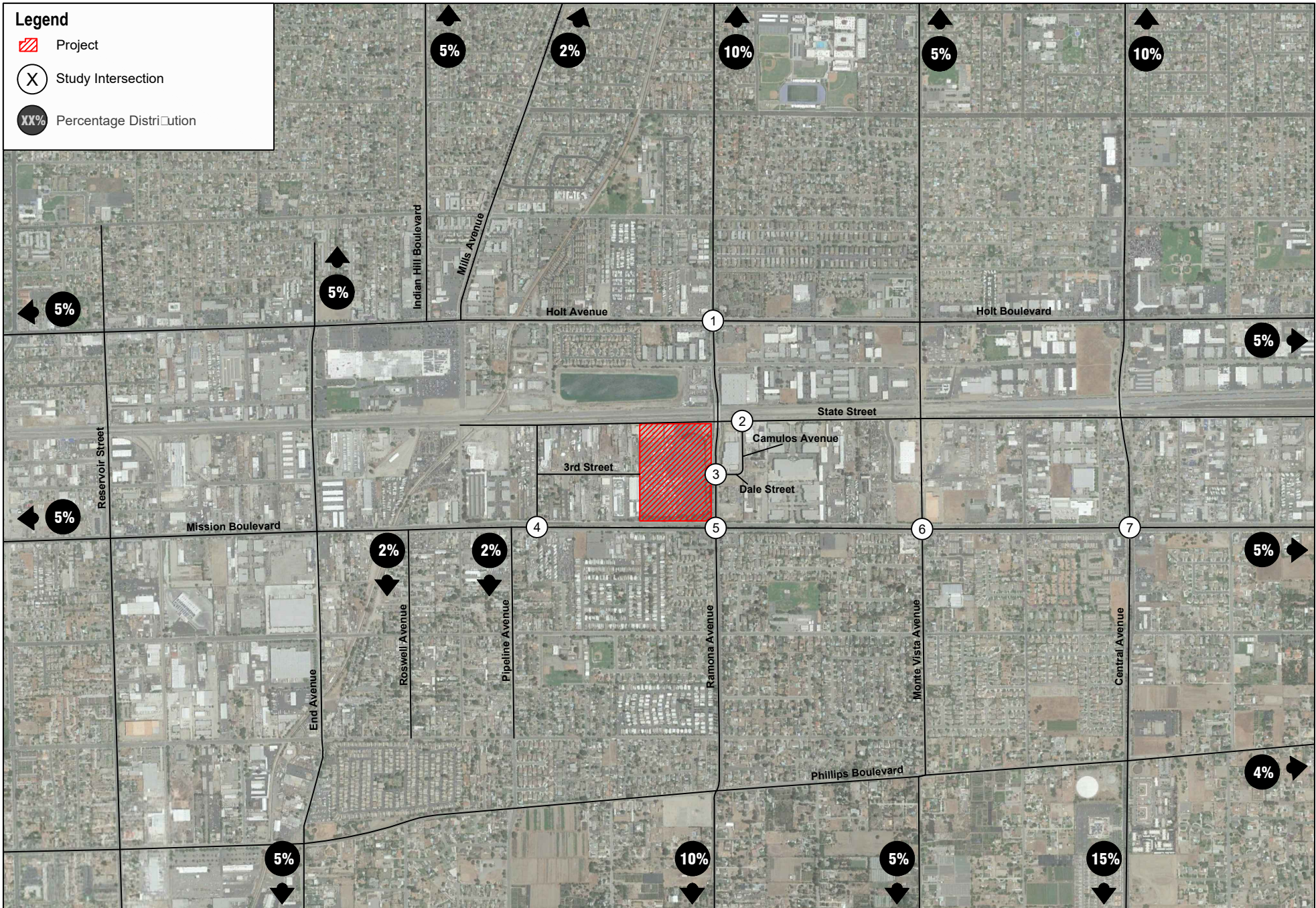
Land Use	ITE Code	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
TRIP RATES									
Warehousing ¹	150	TSF	1.74	0.13	0.04	0.17	0.05	0.14	0.19
TRIP GENERATION									
Airport Drive Warehouse	150	529,000 TSF	920	69	21	90	28	73	101
TRIP GENERATION (by Vehicle Classification)									
Vehicle Mix²		Percent²							
Passenger Vehicles		69.0%	635	48	14	62	19	51	69
2-Axle Trucks		6.8%	63	5	1	6	2	5	7
3-Axle Trucks		5.5%	51	4	1	5	1	4	6
4+-Axle Trucks		18.7%	172	13	4	17	5	14	19
TRIP GENERATION (Non-PCE)			920	69	21	90	27	73	101
		PCE Factor³							
Passenger Vehicles		1.0	635	48	14	62	19	51	69
2-Axle Trucks		2.5	156	12	4	15	5	12	17
3-Axle Trucks		2.5	127	10	3	12	4	10	14
4+-Axle Trucks		3.0	516	39	12	50	15	41	56
TRIP GENERATION (W/PCE)			1,435	108	32	140	43	114	157

Notes: TSF = Thousand Square Feet; PCE = Passenger Car Equivalent

¹ Trip rates from the Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition, 2017*.

² Vehicle Mix and Percent from SCAQMD, Warehouse Truck Trip Study Data Results and Usage, December 2014.

³ 3 Passenger Car Equivalent (PCE) factors from San Bernardino County CMP, Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2016 and City of Fontana recommended factor of 2.5 PCE for 2-axle and 3-axle trucks.

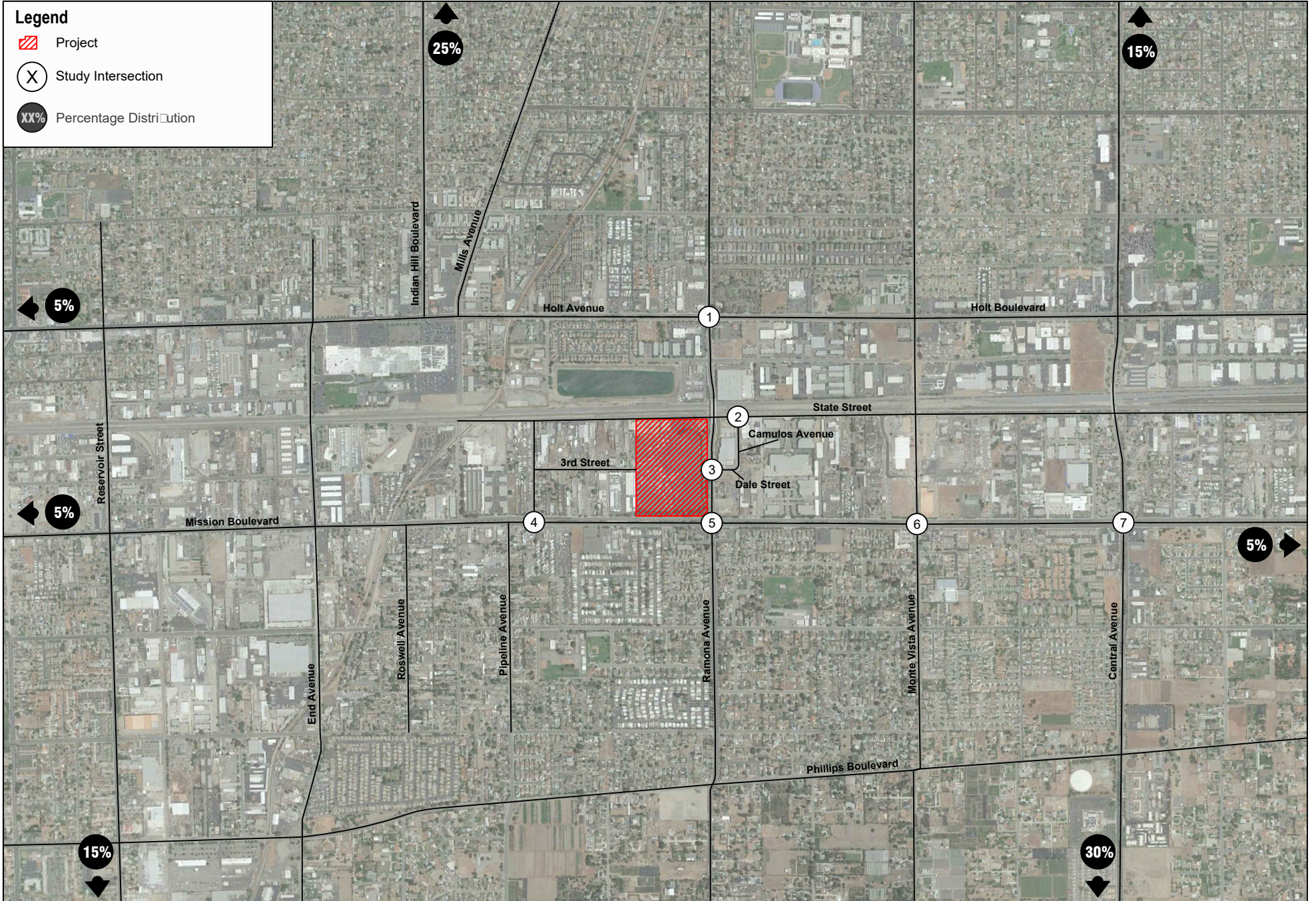


SOURCE: Google Maps 2018

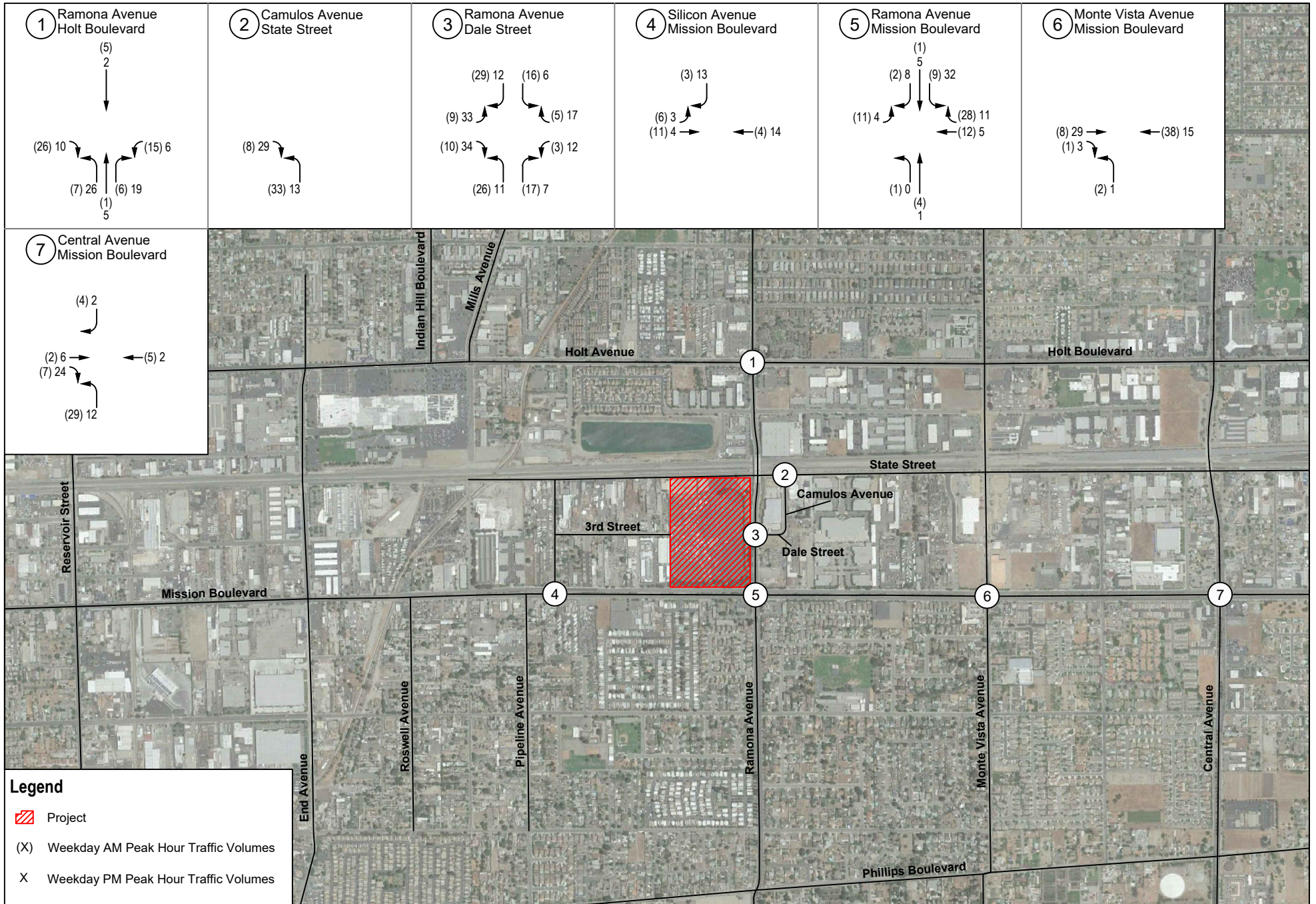
FIGURE 1

Project Passenger Car Trip Distribution

Oakmont Specific Plan



SOURCE: Google Maps 2018



SOURCE: Google Maps 2018

Figure 3
 Project Trip Assignments (PCE)
 Oakmont Specific Plan

Appendix B

Excerpt from SBCTA VMT Screening Tool and Mission
Boulevard and Ramona Avenue Business Park – VMT
Analysis, Translations, November 9, 2021

Find address or place

Complete #1 - 4, Then Click 'Run'

Input Output

#1. Zoom in on the map to your project location so parcels appear on map. Next, select 'Parcels' from the drop-down. Then click the black square next to the drop-down so you can select the parcel(s) for your project by drawing a simple rectangle over the parcel(s) you need.*

Parcels

#2. Select the VMT Metric. Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*

OD VMT Per Service Population

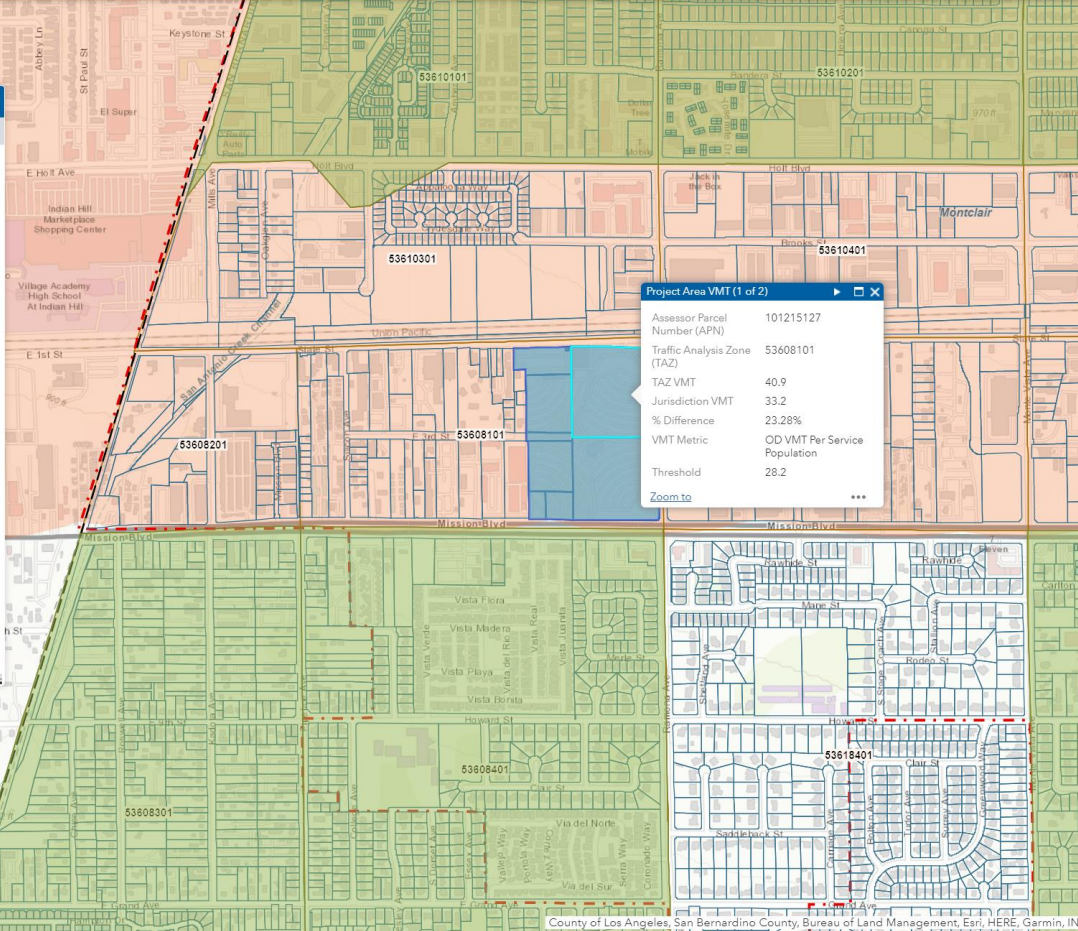
#3. Select the Baseline Year. The years available for analysis are from 2016 to 2040.*

2021

#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*

Below County Baseline (-15%)

[Help](#)



Map Layers

- Project Area VMT
- Screening Results
- Low VMT Generating TAZs
- Parcels
- Jurisdiction Boundaries
- TAZ
- Transit Priority Area

OD VMT per Service Population

Completely within a TPA? Yes (Pass)

Within a low VMT generating TAZ? No (Fail)

Note Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Assessor Parcel Number (APN)	101216101
Traffic Analysis Zone (TAZ)	53608101
TAZ VMT	40.9
Jurisdiction VMT	33.2
% Difference	23.28%
VMT Metric	OD VMT Per Service Population
Threshold	28.2

Assessor Parcel Number (APN)	101216102
Traffic Analysis Zone (TAZ)	53608101
TAZ VMT	40.9
Jurisdiction VMT	33.2
% Difference	23.28%
VMT Metric	OD VMT Per Service Population
Threshold	28.2

Assessor Parcel Number (APN)	101216105
Traffic Analysis Zone (TAZ)	53608101
TAZ VMT	40.9
Jurisdiction VMT	33.2
% Difference	23.28%
VMT Metric	OD VMT Per Service Population
Threshold	28.2

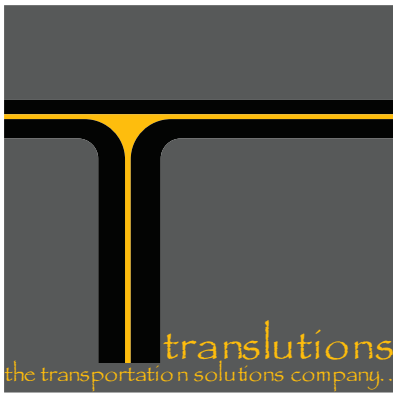
Assessor Parcel Number (APN)	101216103
Traffic Analysis Zone (TAZ)	53608101
TAZ VMT	40.9
Jurisdiction VMT	33.2
% Difference	23.28%
VMT Metric	OD VMT Per Service Population
Threshold	28.2

Assessor Parcel Number (APN) 101216104
Traffic Analysis Zone (TAZ) 53608101
TAZ VMT 40.9
Jurisdiction VMT 33.2
% Difference 23.28%
VMT Metric OD VMT Per Service Population
Threshold 28.2

Assessor Parcel Number (APN) 101215120
Traffic Analysis Zone (TAZ) 53608101
TAZ VMT 40.9
Jurisdiction VMT 33.2
% Difference 23.28%
VMT Metric OD VMT Per Service Population
Threshold 28.2

Assessor Parcel Number (APN) 101215129
Traffic Analysis Zone (TAZ) 53608101
TAZ VMT 40.9
Jurisdiction VMT 33.2
% Difference 23.28%
VMT Metric OD VMT Per Service Population
Threshold 28.2

Assessor Parcel Number (APN) 101215128
Traffic Analysis Zone (TAZ) 53608101
TAZ VMT 40.9
Jurisdiction VMT 33.2
% Difference 23.28%
VMT Metric OD VMT Per Service Population
Threshold 28.2



memorandum

DATE: November 9, 2021
TO: Dennis Pascua, PTP, DUDEK
FROM: Sandipan Bhattacharjee, PE, TE, AICP, ENV-SP
SUBJECT: Mission Boulevard & Ramona Avenue Business Park – VMT Analysis

Translutions, Inc. (Translutions) is pleased to provide this memorandum discussing the Vehicle Miles Traveled (VMT) evaluation for the proposed Mission Boulevard & Ramona Avenue Business Park project in the City of Montclair. This memorandum is intended to satisfy the requirements for a VMT analysis established by the City of Montclair for disclosure of potential impacts and mitigation measures per the California Environmental Quality Act (CEQA).

The approximately 27.74-acre (gross) project site is currently developed with a drive-in theatre and swap-meet use and accessory office, storage, and refreshment structures. The proposed project includes the demolition of existing uses and will construct approximately 513,295 square feet of industrial space and associated improvements.

BACKGROUND AND GUIDANCE

Senate Bill 743 (SB-743), which was codified in Public Resources Code section 21099, was signed by the Governor in 2013 and directed the Governor's Office of Planning and Research (OPR) to identify alternative metrics for evaluating transportation impacts under CEQA. Per Section 21099 of the Public Resource Code, the selection of the VMT criteria for determining the significance of transportation impacts was intended to promote reductions of greenhouse gas emissions; to develop multimodal transportation networks; and to diversify land uses. As mentioned in the OPR's Technical Advisory, there are various legislative mandates and state policies that establish quantitative GHG emission reduction targets. Pursuant to Senate Bill 375, the California Air Resources Board GHG emissions reduction targets for metropolitan planning organizations (MPOs) call for reductions in GHG emissions only from cars and light trucks. The changes to the CEQA Guidelines in response to Section 21099 include a new section (15064.3) that specifies that Vehicle Miles Traveled (VMT) is the most appropriate measure of transportation impacts. In addition, Section 15064.3, subdivision (a), states, "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." As a result, the VMT criteria and thresholds in the CEQA Guidelines and this chapter related to employment generating uses do not apply to those components of proposed projects that involve commercial vehicles. However, the VMT criteria and thresholds would apply to those components that involve passenger vehicles.

A separate Technical Advisory (TA) issued by OPR provides additional technical details on calculating VMT and assessing transportation impacts for various types of projects. The OPR Technical Advisory states that "automobile" refers to on-road passenger vehicles, specifically cars and light trucks. It does not include heavy-duty trucks, semi-trailers, construction equipment, or other commercial-type vehicles. While the OPR TA allows for heavy duty truck VMT to be included in modeling, it is important to note that this allowance was provided for modeling convenience and ease of calculation. The TA also states that the analysis should be based on an apples-to-apples comparison, wherein the same VMT (e.g., with trucks or without trucks) should be reported for both the threshold and the project. This was also clarified and noted during an informational question and answer session conducted by OPR to provide information and guidance on conducting project-level VMT analysis (OPR 2020), that it is automobile VMT (i.e. cars and light duty trucks) that should to be quantified.

The following example from the County of Santa Barbara Environmental Thresholds Update summarizes the issue concisely: *For example, a proposed oil production or agricultural processing facility may involve significant numbers of commercial trucks and semitrailers that would haul supplies and products to and from the facility. The project may also involve employees and others who would travel to and from the facility in passenger vehicles. In this case, the VMT analysis would not address potential VMT generated by the commercial trucks and semi-trailers and, therefore, would not consider such VMT a significant*

transportation impact. Rather, the VMT analysis would focus on VMT generated by passenger vehicles traveling to and from the facility¹.

The City of Montclair has adopted VMT impact thresholds and has identified following recommended threshold:

- If the following condition is satisfied in the cumulative conditions, then the Project-generated VMT has a significant impact under CEQA: *the project generated VMT per service population exceeds 15% below what the County of San Bernardino average VMT per service population.*
- If the following condition is satisfied in the cumulative conditions, then the Project Effect on VMT has a significant impact under CEQA: *the link-level boundary VMT per service population increases Citywide under the plus project condition compared to the no project condition.*

PROJECT SCREENING

The City includes screening thresholds that can be used to identify when a proposed land use project is anticipated to result in presumption of less than significant impacts. The City's adopted screening thresholds are listed below:

- **Small Projects Screening.** Projects that generate fewer than 110 daily trips would not cause a substantial increase in the total citywide or regional VMT and are therefore presumed to have a less than significant impact on VMT. ***The project generates more than 110 daily trips and therefore does not meet this threshold.***
- **Local Serving Project Type Screening.** Local serving retail projects less than 50,000 square feet may be presumed to have a less than significant impact. In addition to local serving retail, other local serving land uses such as public facilities, day care centers, gas stations, etc. would tend to provide local services and result in reducing overall VMT. ***The project land uses do not meet the criteria and therefore this threshold does not apply.***
- **Transit Priority Area Screening.** Projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing “major transit stop” or an existing stop along a “high-quality transit corridor”) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may *not* be appropriate if a 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 applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
 - Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

The project falls within a TPA but has a FAR of less than 0.75, and therefore this threshold does not apply.

- **Low VMT Area Screening.** Projects located in a low VMT generating area consistent with the Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) and consistent with existing land use that is generating low VMT/SP. For this evaluation the City requires the use of the San Bernardino County Travel Demand Model (SBTAM) as its preferred methodology to measure VMT. ***The project is not consistent with the land uses in the traffic analysis zone (TAZ) and therefore, the project cannot be screened out using this threshold.***

ANALYSIS METHODOLOGY

As stated earlier, the City requires the use of the SBTAM for analysis. Translutions conducted model runs using the following parameters.

- **Traffic Analysis Zone.** The project is located in TAZ# 53608201. To isolate the impacts of the project, the existing land uses for the project were moved to the adjacent TAZ# 53608401, and the project was included in TAZ# 53608201.

¹ Santa Barbara County Environmental Thresholds and Guidelines Manual,
<http://www.countyofsb.org/uploadedFiles/plndev/Content/Projects/FINAL%20Ch.%2018%20Environmental%20Thresholds%20Update.pdf>

- **Socio-Economic Data.** The project socio-economic data (SED) was based on the median factors for San Bernardino County from the SCAG Employment Density Survey (October 31, 2001). Income groups and other parameters were kept consistent with the factors included in SBTAM for the City of Montclair. The project was coded with 282 employees. In addition, 30 employees that are attributed to the current uses were removed from the adjacent zone.
- **Other Edits.** No network edits were made for the project beyond creating spare zones for the project as identified in Traffic Analysis Zone modifications above.
- **Model Runs.** Each model was run for 5 loops, and the convergence criteria was set at 0.01. Final assignment runs were completed. Several separate model runs were conducted.
 - **Model Run 1.** This run included the existing model land uses for the area with no changes. This was used to set the threshold. While the data could be used from the SBCTA Screening Tool, this run was conducted to set the thresholds and to present an apples-to-apples comparison of automobile VMT.
 - **Model Run 2.** This run included the proposed project SED.
- **Model Outputs.** VMT data was extracted using the time-of-day OD matrices multiplied by the time-of-day skims. Roadway VMT was calculated for all vehicles. Detailed calculations and model outputs are included in Attachment A.

In keeping with the intent of Section 21099 of the Public Resource Code and Section 15064.3, subdivision (a) of the CEQA Guidelines (which specify that automobile VMT is the primary metric that should be evaluated), the extra step of removing heavy truck VMT from the SBTAM was undertaken to identify applicable thresholds as well as to provide for a project level analysis that most appropriately meets the intent of SB 743. The numbers reported in this memo are based on automobile (i.e. cars and light trucks) VMT for both the applicable threshold and the project VMT, allowing for an apples-to-apples comparisons of VMT generated by vehicle types across project assessment, significance thresholds, and mitigation (if any).

IMPACT EVALUATION

As stated earlier, the City requires the evaluation of project generated VMT as well as project effect on VMT.

Project Generated VMT. The project generated VMT is defined as the VMT attributed to automobile trips to and from the project. Based on the City thresholds, if the project generated VMT per service population exceeds 15% below what the County of San Bernardino average VMT per service population, the project has a significant impact under CEQA. Table A summarizes the findings of this evaluation. As shown on Table A, the County average automobile VMT is 30.04 VMT/SP under cumulative (2040) conditions, which translates to a threshold of 25.54 VMT/SP (15% less than average VMT/SP). Table A also shows that the project generated VMT is 20.18 VMT/SP under cumulative (2040) conditions.

Table A: Project Generated VMT

2040	Project	San Bernardino County
Population	-	2,714,707
Employment	282	1,035,331
Service Population	282	3,750,038
OD VMT	5,691	112,666,032
OD VMT per service population	20.18	30.04
Impact/Threshold	NO	25.54

Therefore, the project impacts are determined to be less than significant.

Project Effect on VMT. The project effect on VMT evaluates the change in VMT within the City streets due to the project. Based on the City thresholds, if the link-level boundary VMT per service population increases Citywide under the plus project condition compared to the no project condition, the project has a significant impact under CEQA based on the project effect on VMT. Table B shows the link level VMT/SP for the City of Montclair under without and with project conditions. As shown on Table B, with the construction of the proposed project, the VMT/SP within the City will decrease from 14.4 VMT/SP to 14.3 VMT/SP.

Table B: Roadway Link VMT (City of Montclair)

2040	Without Project	With Project
Roadway VMT	942,656	943,106
Service Population	65,677	65,929
VMT per service population	14.4	14.3

Therefore, the project impacts are determined to be less than significant.

CONCLUSION

As seen from the above analysis, project generated VMT is 20.18 VMT/SP, which is less than the threshold of 25.54 VMT/SP. The link level VMT within the City of Montclair is 14.4 VMT/SP under without project conditions which decreases to 14.3 VMT/SP under with project conditions. Therefore, the project will have a less than significant impact on VMT under both criteria adopted by the City.

Attachment A: SBTAM Outputs Year 2040

Year 2040 SBTAM	PROJECT	COUNTY OF SAN BERNARDINO
TAZ	53608201	
DISTRICT	5	
POP	-	2,714,707
RES	-	2,664,595
HH	-	852,759
TOT_EMP	282	1,035,331
INTERNAL_SEQUENCE_TAZ	1,368	
OD_CarP_VMT	2,750	56,227,568
OD_CarA_VMT	2,941	56,438,464
TotOD_VMT	5,691	112,666,032
Tot_SerPop	282	3,750,038

Year 2040 SBTAM - Link Level	City of Montclair With Project	City of Montclair Without Project
DY_VMT (City Boundary)	943,106	942,656
Tot_SerPop	65,959	65,677

Appendix C

Traffic Counts

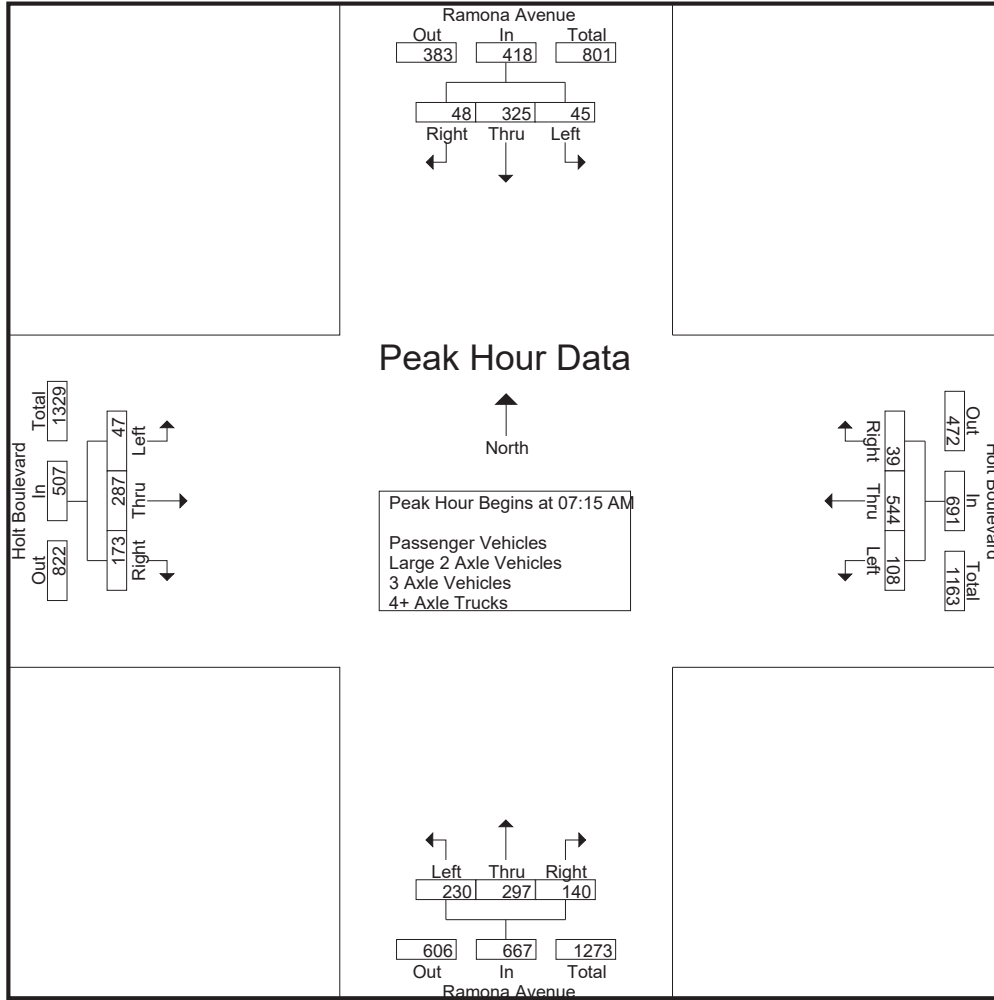
City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

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

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	9	75	9	93	20	129	4	153	38	56	20	114	14	58	41	113	473
07:15 AM	8	64	6	78	29	121	9	159	49	73	33	155	13	60	43	116	508
07:30 AM	12	101	13	126	15	154	11	180	73	116	38	227	11	73	42	126	659
07:45 AM	18	83	13	114	31	147	9	187	62	65	35	162	15	93	40	148	611
Total	47	323	41	411	95	551	33	679	222	310	126	658	53	284	166	503	2251
08:00 AM	7	77	16	100	33	122	10	165	46	43	34	123	8	61	48	117	505
08:15 AM	9	52	8	69	21	131	8	160	38	34	24	96	13	77	53	143	468
08:30 AM	16	47	10	73	17	73	4	94	41	40	23	104	14	68	44	126	397
08:45 AM	7	37	17	61	11	103	10	124	41	39	15	95	9	82	36	127	407
Total	39	213	51	303	82	429	32	543	166	156	96	418	44	288	181	513	1777
Grand Total	86	536	92	714	177	980	65	1222	388	466	222	1076	97	572	347	1016	4028
Apprch %	12	75.1	12.9		14.5	80.2	5.3		36.1	43.3	20.6		9.5	56.3	34.2		
Total %	2.1	13.3	2.3	17.7	4.4	24.3	1.6	30.3	9.6	11.6	5.5	26.7	2.4	14.2	8.6	25.2	
Passenger Vehicles	85	524	87	696	170	950	64	1184	379	455	211	1045	96	547	338	981	3906
% Passenger Vehicles	98.8	97.8	94.6	97.5	96	96.9	98.5	96.9	97.7	97.6	95	97.1	99	95.6	97.4	96.6	97
Large 2 Axle Vehicles	1	11	5	17	6	24	1	31	7	10	11	28	1	20	5	26	102
% Large 2 Axle Vehicles	1.2	2.1	5.4	2.4	3.4	2.4	1.5	2.5	1.8	2.1	5	2.6	1	3.5	1.4	2.6	2.5
3 Axle Vehicles	0	0	0	0	0	3	0	3	0	0	0	0	0	0	2	2	5
% 3 Axle Vehicles	0	0	0	0	0	0.3	0	0.2	0	0	0	0	0	0	0.6	0.2	0.1
4+ Axle Trucks	0	1	0	1	1	3	0	4	2	1	0	3	0	5	2	7	15
% 4+ Axle Trucks	0	0.2	0	0.1	0.6	0.3	0	0.3	0.5	0.2	0	0.3	0	0.9	0.6	0.7	0.4

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	8	64	6	78	29	121	9	159	49	73	33	155	13	60	43	116	508
07:30 AM	12	101	13	126	15	154	11	180	73	116	38	227	11	73	42	126	659
07:45 AM	18	83	13	114	31	147	9	187	62	65	35	162	15	93	40	148	611
08:00 AM	7	77	16	100	33	122	10	165	46	43	34	123	8	61	48	117	505
Total Volume	45	325	48	418	108	544	39	691	230	297	140	667	47	287	173	507	2283
% App. Total	10.8	77.8	11.5		15.6	78.7	5.6		34.5	44.5	21		9.3	56.6	34.1		
PHF	.625	.804	.750	.829	.818	.883	.886	.924	.788	.640	.921	.735	.783	.772	.901	.856	.866



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

	07:15 AM				07:30 AM				07:15 AM				07:30 AM			
+0 mins.	8	64	6	78	15	154	11	180	49	73	33	155	11	73	42	126
+15 mins.	12	101	13	126	31	147	9	187	73	116	38	227	15	93	40	148
+30 mins.	18	83	13	114	33	122	10	165	62	65	35	162	8	61	48	117
+45 mins.	7	77	16	100	21	131	8	160	46	43	34	123	13	77	53	143
Total Volume	45	325	48	418	100	554	38	692	230	297	140	667	47	304	183	534
% App. Total	10.8	77.8	11.5		14.5	80.1	5.5		34.5	44.5	21		8.8	56.9	34.3	
PHF	.625	.804	.750	.829	.758	.899	.864	.925	.788	.640	.921	.735	.783	.817	.863	.902

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt AM
 Site Code : 99919768
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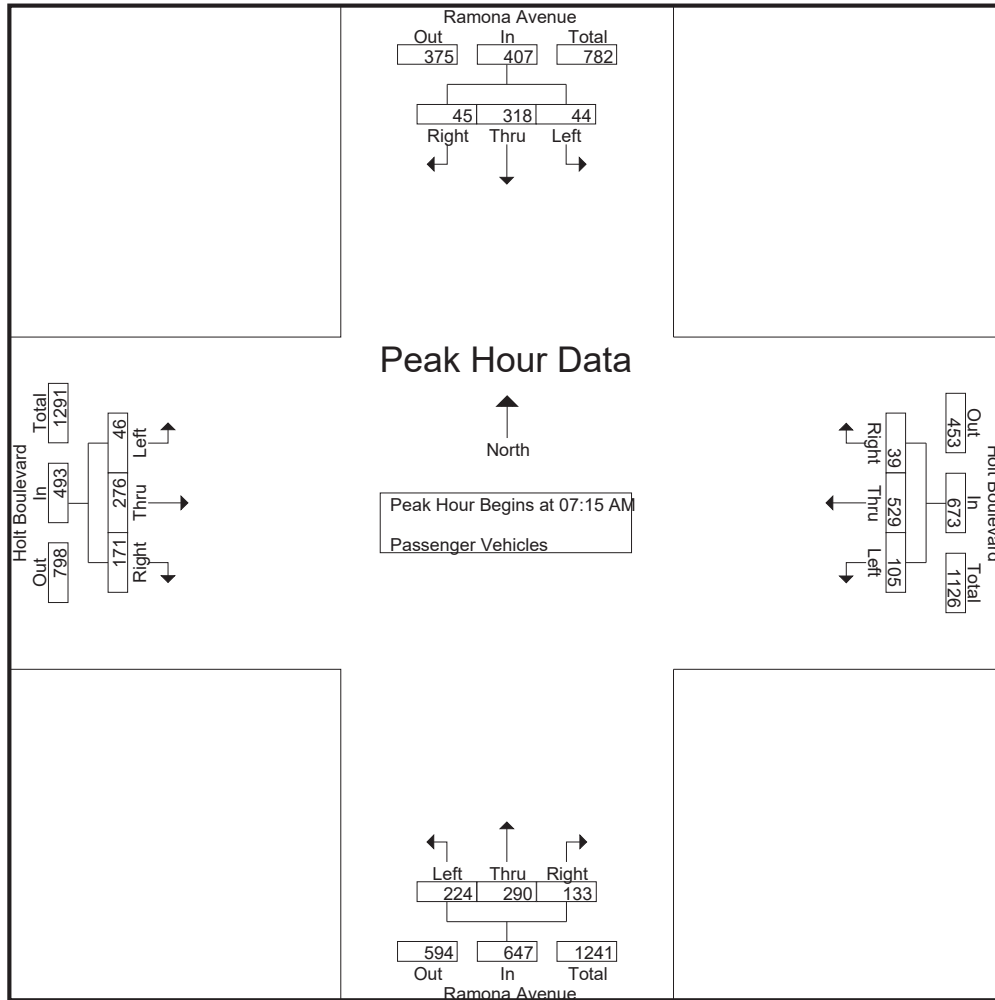
Groups Printed- Passenger Vehicles

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	9	72	7	88	19	124	4	147	37	54	17	108	14	57	38	109	452
07:15 AM	8	62	6	76	27	120	9	156	49	71	30	150	12	58	43	113	495
07:30 AM	12	98	12	122	14	149	11	174	70	116	36	222	11	70	42	123	641
07:45 AM	18	81	13	112	31	143	9	183	61	63	33	157	15	90	39	144	596
Total	47	313	38	398	91	536	33	660	217	304	116	637	52	275	162	489	2184
08:00 AM	6	77	14	97	33	117	10	160	44	40	34	118	8	58	47	113	488
08:15 AM	9	51	8	68	21	128	7	156	37	34	24	95	13	72	51	136	455
08:30 AM	16	47	10	73	15	70	4	89	40	38	23	101	14	64	44	122	385
08:45 AM	7	36	17	60	10	99	10	119	41	39	14	94	9	78	34	121	394
Total	38	211	49	298	79	414	31	524	162	151	95	408	44	272	176	492	1722
Grand Total	85	524	87	696	170	950	64	1184	379	455	211	1045	96	547	338	981	3906
Apprch %	12.2	75.3	12.5		14.4	80.2	5.4		36.3	43.5	20.2		9.8	55.8	34.5		
Total %	2.2	13.4	2.2	17.8	4.4	24.3	1.6	30.3	9.7	11.6	5.4	26.8	2.5	14	8.7	25.1	

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	8	62	6	76	27	120	9	156	49	71	30	150	12	58	43	113	495
07:30 AM	12	98	12	122	14	149	11	174	70	116	36	222	11	70	42	123	641
07:45 AM	18	81	13	112	31	143	9	183	61	63	33	157	15	90	39	144	596
08:00 AM	6	77	14	97	33	117	10	160	44	40	34	118	8	58	47	113	488
Total Volume	44	318	45	407	105	529	39	673	224	290	133	647	46	276	171	493	2220
% App. Total	10.8	78.1	11.1		15.6	78.6	5.8		34.6	44.8	20.6		9.3	56	34.7		
PHF	.611	.811	.804	.834	.795	.888	.886	.919	.800	.625	.924	.729	.767	.767	.910	.856	.866

City of Montclair
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	8	62	6	76	27	120	9	156	49	71	30	150	12	58	43	113
+15 mins.	12	98	12	122	14	149	11	174	70	116	36	222	11	70	42	123
+30 mins.	18	81	13	112	31	143	9	183	61	63	33	157	15	90	39	144
+45 mins.	6	77	14	97	33	117	10	160	44	40	34	118	8	58	47	113
Total Volume	44	318	45	407	105	529	39	673	224	290	133	647	46	276	171	493
% App. Total	10.8	78.1	11.1		15.6	78.6	5.8		34.6	44.8	20.6		9.3	56	34.7	
PHF	.611	.811	.804	.834	.795	.888	.886	.919	.800	.625	.924	.729	.767	.767	.910	.856

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt AM
 Site Code : 99919768
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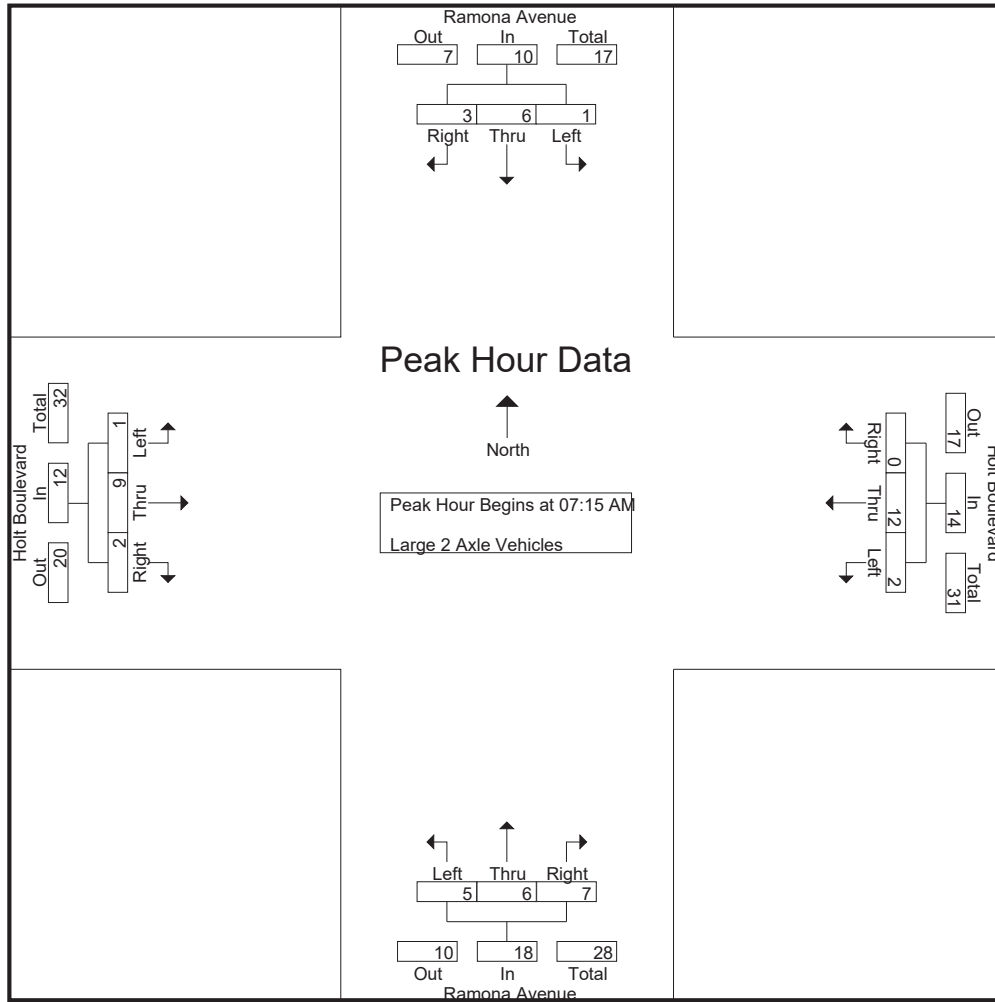
Groups Printed- Large 2 Axle Vehicles

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	3	2	5	1	5	0	6	1	2	3	6	0	1	1	2	19
07:15 AM	0	1	0	1	2	1	0	3	0	2	3	5	1	1	0	2	11
07:30 AM	0	3	1	4	0	3	0	3	3	0	2	5	0	3	0	3	15
07:45 AM	0	2	0	2	0	4	0	4	0	1	2	3	0	3	1	4	13
Total	0	9	3	12	3	13	0	16	4	5	10	19	1	8	2	11	58
08:00 AM	1	0	2	3	0	4	0	4	2	3	0	5	0	2	1	3	15
08:15 AM	0	1	0	1	0	2	1	3	0	0	0	0	0	4	1	5	9
08:30 AM	0	0	0	0	2	2	0	4	1	2	0	3	0	3	0	3	10
08:45 AM	0	1	0	1	1	3	0	4	0	0	1	1	0	3	1	4	10
Total	1	2	2	5	3	11	1	15	3	5	1	9	0	12	3	15	44
Grand Total	1	11	5	17	6	24	1	31	7	10	11	28	1	20	5	26	102
Apprch %	5.9	64.7	29.4		19.4	77.4	3.2		25	35.7	39.3		3.8	76.9	19.2		
Total %	1	10.8	4.9	16.7	5.9	23.5	1	30.4	6.9	9.8	10.8	27.5	1	19.6	4.9	25.5	

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	1	0	1	2	1	0	3	0	2	3	5	1	1	0	2	11
07:30 AM	0	3	1	4	0	3	0	3	3	0	2	5	0	3	0	3	15
07:45 AM	0	2	0	2	0	4	0	4	0	1	2	3	0	3	1	4	13
08:00 AM	1	0	2	3	0	4	0	4	2	3	0	5	0	2	1	3	15
Total Volume	1	6	3	10	2	12	0	14	5	6	7	18	1	9	2	12	54
% App. Total	10	60	30		14.3	85.7	0		27.8	33.3	38.9		8.3	75	16.7		
PHF	.250	.500	.375	.625	.250	.750	.000	.875	.417	.500	.583	.900	.250	.750	.500	.750	.900

City of Montclair
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	1	0	1	2	1	0	3	0	2	3	5	1	1	0	2
+15 mins.	0	3	1	4	0	3	0	3	3	0	2	5	0	3	0	3
+30 mins.	0	2	0	2	0	4	0	4	0	1	2	3	0	3	1	4
+45 mins.	1	0	2	3	0	4	0	4	2	3	0	5	0	2	1	3
Total Volume	1	6	3	10	2	12	0	14	5	6	7	18	1	9	2	12
% App. Total	10	60	30		14.3	85.7	0		27.8	33.3	38.9		8.3	75	16.7	
PHF	.250	.500	.375	.625	.250	.750	.000	.875	.417	.500	.583	.900	.250	.750	.500	.750

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt AM
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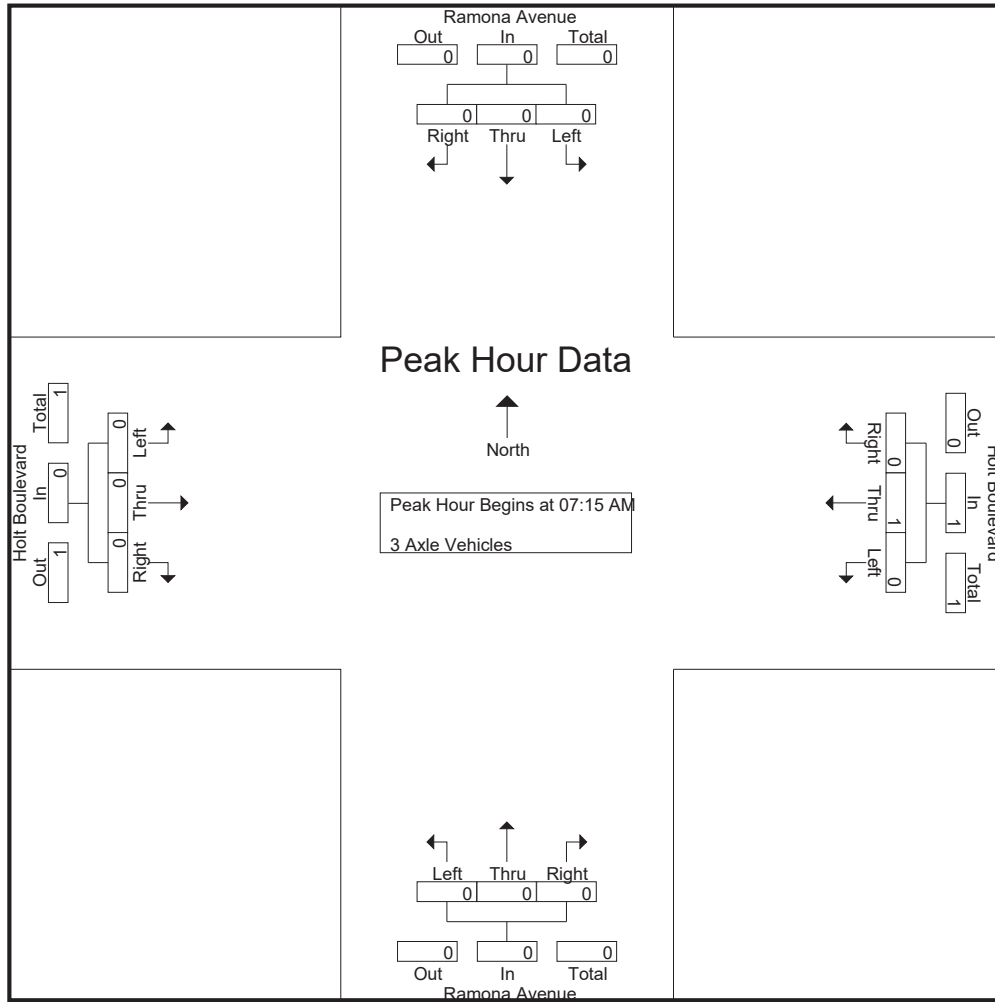
Groups Printed- 3 Axle Vehicles

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	1	3
Grand Total	0	0	0	0	0	3	0	3	0	0	0	0	0	0	2	2	5
Apprch %	0	0	0		0	100	0		0	0	0		0	0	100		
Total %	0	0	0		0	60	0	60	0	0	0		0	0	40	40	

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

City of Montclair
 N/S: Ramona Avenue
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 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

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

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt AM
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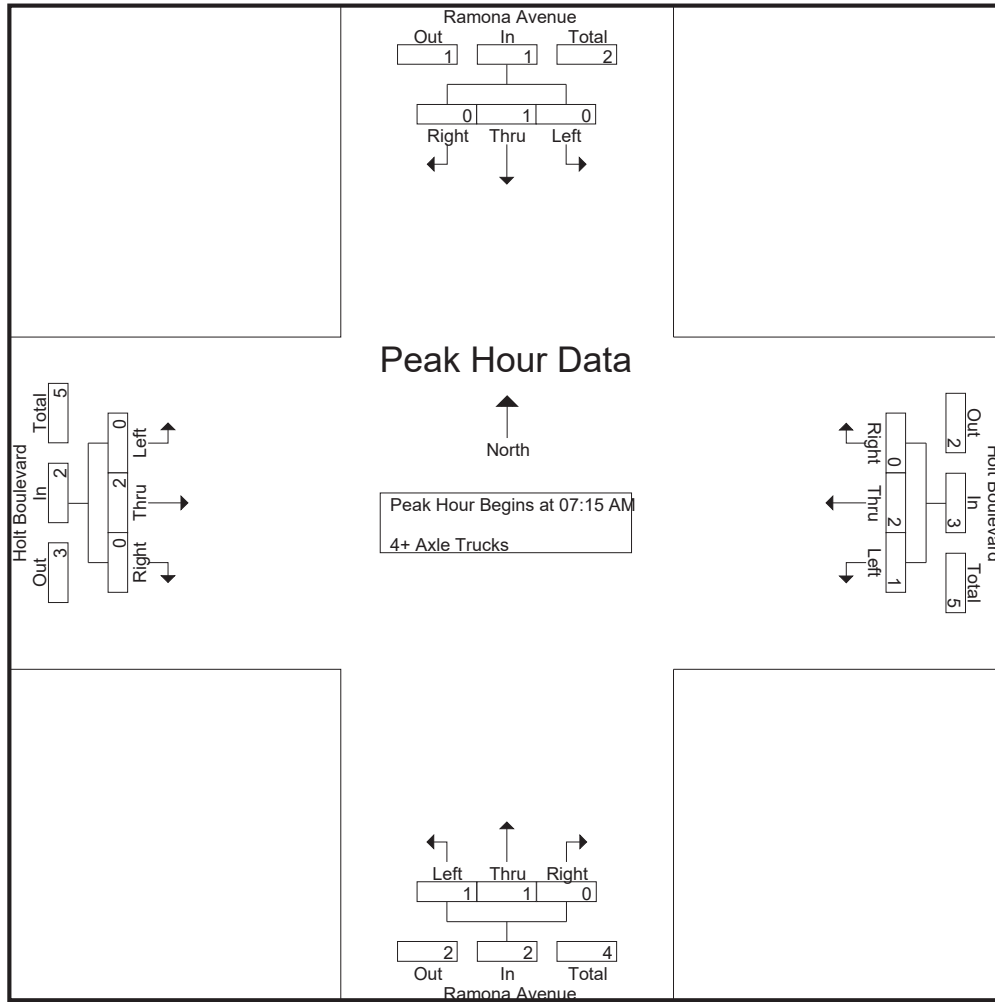
Groups Printed- 4+ Axle Trucks

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
07:30 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
Total	0	1	0	1	1	1	0	2	1	1	0	2	0	1	1	2	7
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	1	0	1	1	0	0	1	0	1	1	2	4
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	2	0	2	1	0	0	1	0	4	1	5	8
Grand Total	0	1	0	1	1	3	0	4	2	1	0	3	0	5	2	7	15
Apprch %	0	100	0		25	75	0		66.7	33.3	0		0	71.4	28.6		
Total %	0	6.7	0	6.7	6.7	20	0	26.7	13.3	6.7	0	20	0	33.3	13.3	46.7	

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
07:30 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total Volume	0	1	0	1	1	2	0	3	1	1	0	2	0	2	0	2	8
% App. Total	0	100	0		33.3	66.7	0		50	50	0		0	100	0		
PHF	.000	.250	.000	.250	.250	.500	.000	.375	.250	.250	.000	.250	.000	.500	.000	.500	1.00

City of Montclair
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
Total Volume	0	1	0	1	1	2	0	3	1	1	0	2	0	2	0	2
% App. Total	0	100	0	0	33.3	66.7	0	0	50	50	0	0	0	100	0	0
PHF	.000	.250	.000	.250	.250	.500	.000	.375	.250	.250	.000	.250	.000	.500	.000	.500

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt PM
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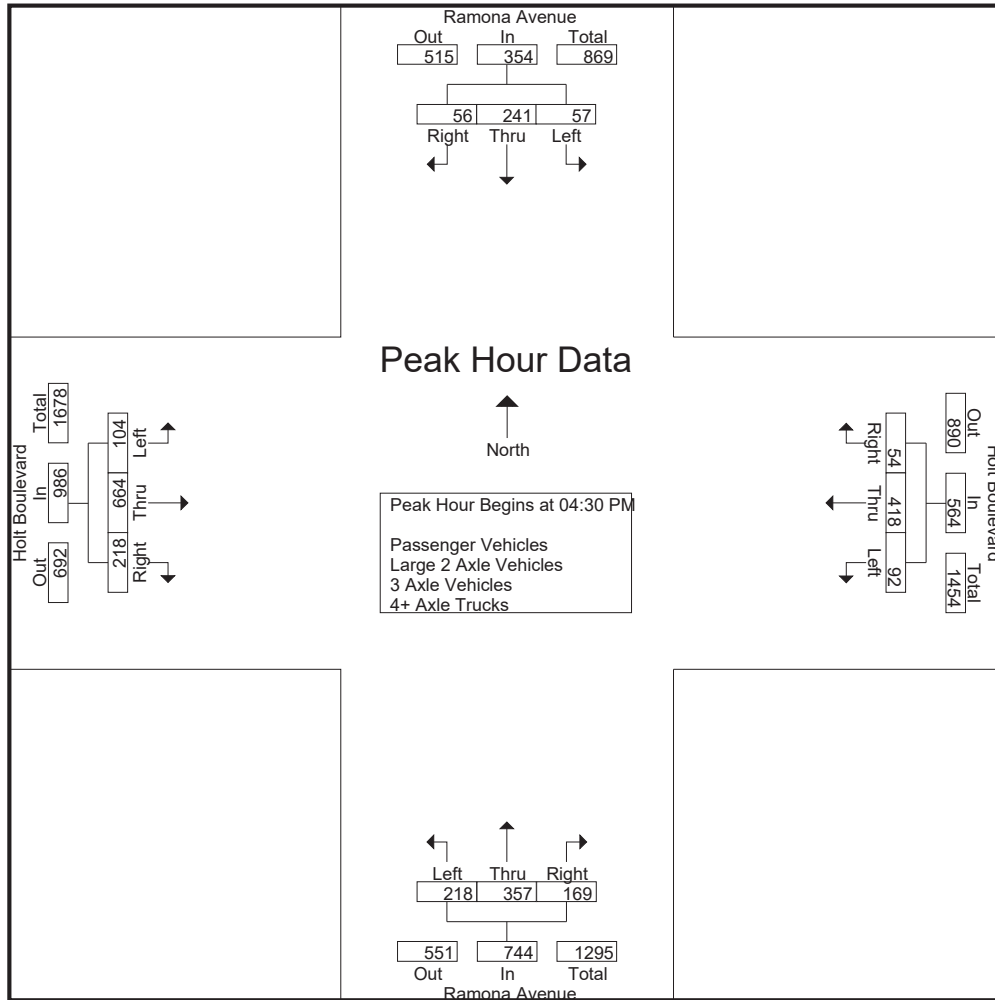
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	16	63	10	89	19	106	14	139	53	92	40	185	24	150	65	239	652
04:15 PM	18	71	19	108	21	93	11	125	45	92	45	182	22	150	66	238	653
04:30 PM	17	62	13	92	20	106	11	137	51	93	40	184	24	176	51	251	664
04:45 PM	14	63	14	91	19	79	12	110	56	84	47	187	37	127	60	224	612
Total	65	259	56	380	79	384	48	511	205	361	172	738	107	603	242	952	2581
05:00 PM	15	55	15	85	24	125	13	162	57	87	43	187	20	168	52	240	674
05:15 PM	11	61	14	86	29	108	18	155	54	93	39	186	23	193	55	271	698
05:30 PM	21	67	3	91	24	76	10	110	47	85	31	163	27	155	60	242	606
05:45 PM	18	75	10	103	30	114	14	158	54	83	37	174	18	135	52	205	640
Total	65	258	42	365	107	423	55	585	212	348	150	710	88	651	219	958	2618
Grand Total	130	517	98	745	186	807	103	1096	417	709	322	1448	195	1254	461	1910	5199
Apprch %	17.4	69.4	13.2		17	73.6	9.4		28.8	49	22.2		10.2	65.7	24.1		
Total %	2.5	9.9	1.9	14.3	3.6	15.5	2	21.1	8	13.6	6.2	27.9	3.8	24.1	8.9	36.7	
Passenger Vehicles	129	500	98	727	183	787	101	1071	409	700	313	1422	192	1213	456	1861	5081
% Passenger Vehicles	99.2	96.7	100	97.6	98.4	97.5	98.1	97.7	98.1	98.7	97.2	98.2	98.5	96.7	98.9	97.4	97.7
Large 2 Axle Vehicles	0	14	0	14	1	15	2	18	6	9	4	19	2	29	5	36	87
% Large 2 Axle Vehicles	0	2.7	0	1.9	0.5	1.9	1.9	1.6	1.4	1.3	1.2	1.3	1	2.3	1.1	1.9	1.7
3 Axle Vehicles	1	3	0	4	1	2	0	3	0	0	1	1	1	2	0	3	11
% 3 Axle Vehicles	0.8	0.6	0	0.5	0.5	0.2	0	0.3	0	0	0.3	0.1	0.5	0.2	0	0.2	0.2
4+ Axle Trucks	0	0	0	0	1	3	0	4	2	0	4	6	0	10	0	10	20
% 4+ Axle Trucks	0	0	0	0	0.5	0.4	0	0.4	0.5	0	1.2	0.4	0	0.8	0	0.5	0.4

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	17	62	13	92	20	106	11	137	51	93	40	184	24	176	51	251	664
04:45 PM	14	63	14	91	19	79	12	110	56	84	47	187	37	127	60	224	612
05:00 PM	15	55	15	85	24	125	13	162	57	87	43	187	20	168	52	240	674
05:15 PM	11	61	14	86	29	108	18	155	54	93	39	186	23	193	55	271	698
Total Volume	57	241	56	354	92	418	54	564	218	357	169	744	104	664	218	986	2648
% App. Total	16.1	68.1	15.8		16.3	74.1	9.6		29.3	48	22.7		10.5	67.3	22.1		
PHF	.838	.956	.933	.962	.793	.836	.750	.870	.956	.960	.899	.995	.703	.860	.908	.910	.948

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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:

	04:00 PM				05:00 PM				04:30 PM				04:30 PM			
+0 mins.	16	63	10	89	24	125	13	162	51	93	40	184	24	176	51	251
+15 mins.	18	71	19	108	29	108	18	155	56	84	47	187	37	127	60	224
+30 mins.	17	62	13	92	24	76	10	110	57	87	43	187	20	168	52	240
+45 mins.	14	63	14	91	30	114	14	158	54	93	39	186	23	193	55	271
Total Volume	65	259	56	380	107	423	55	585	218	357	169	744	104	664	218	986
% App. Total	17.1	68.2	14.7		18.3	72.3	9.4		29.3	48	22.7		10.5	67.3	22.1	
PHF	.903	.912	.737	.880	.892	.846	.764	.903	.956	.960	.899	.995	.703	.860	.908	.910

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

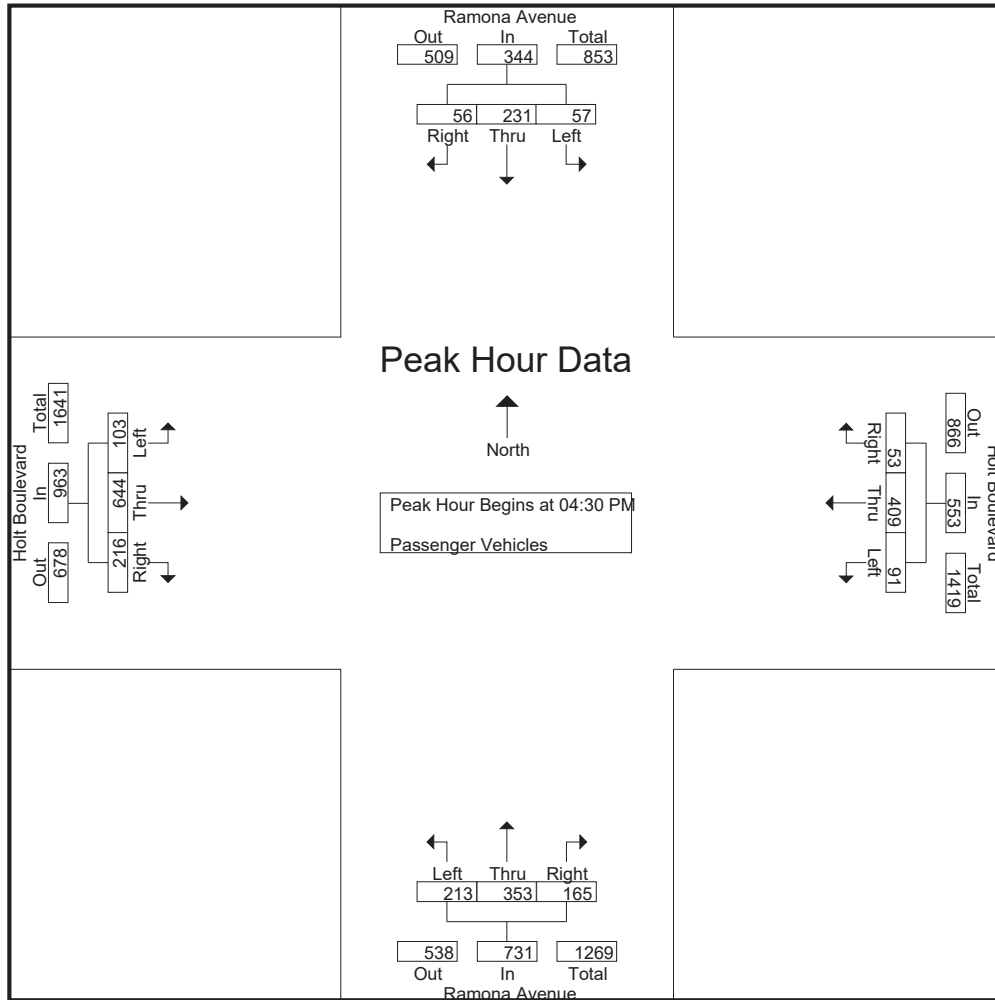
Groups Printed- Passenger Vehicles

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	16	61	10	87	18	103	14	135	51	89	38	178	24	146	64	234	634
04:15 PM	18	68	19	105	21	90	10	121	44	91	43	178	21	141	65	227	631
04:30 PM	17	59	13	89	20	105	11	136	49	92	38	179	23	168	50	241	645
04:45 PM	14	61	14	89	19	77	11	107	54	84	47	185	37	122	59	218	599
Total	65	249	56	370	78	375	46	499	198	356	166	720	105	577	238	920	2509
05:00 PM	15	54	15	84	23	121	13	157	56	86	42	184	20	164	52	236	661
05:15 PM	11	57	14	82	29	106	18	153	54	91	38	183	23	190	55	268	686
05:30 PM	20	66	3	89	24	74	10	108	47	84	31	162	27	150	60	237	596
05:45 PM	18	74	10	102	29	111	14	154	54	83	36	173	17	132	51	200	629
Total	64	251	42	357	105	412	55	572	211	344	147	702	87	636	218	941	2572
Grand Total	129	500	98	727	183	787	101	1071	409	700	313	1422	192	1213	456	1861	5081
Apprch %	17.7	68.8	13.5		17.1	73.5	9.4		28.8	49.2	22		10.3	65.2	24.5		
Total %	2.5	9.8	1.9	14.3	3.6	15.5	2	21.1	8	13.8	6.2	28	3.8	23.9	9	36.6	

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	17	59	13	89	20	105	11	136	49	92	38	179	23	168	50	241	645
04:45 PM	14	61	14	89	19	77	11	107	54	84	47	185	37	122	59	218	599
05:00 PM	15	54	15	84	23	121	13	157	56	86	42	184	20	164	52	236	661
05:15 PM	11	57	14	82	29	106	18	153	54	91	38	183	23	190	55	268	686
Total Volume	57	231	56	344	91	409	53	553	213	353	165	731	103	644	216	963	2591
% App. Total	16.6	67.2	16.3		16.5	74	9.6		29.1	48.3	22.6		10.7	66.9	22.4		
PHF	.838	.947	.933	.966	.784	.845	.736	.881	.951	.959	.878	.988	.696	.847	.915	.898	.944

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt PM
 Site Code : 99919768
 Start Date : 11/5/2019
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	17	59	13	89	20	105	11	136	49	92	38	179	23	168	50	241
+15 mins.	14	61	14	89	19	77	11	107	54	84	47	185	37	122	59	218
+30 mins.	15	54	15	84	23	121	13	157	56	86	42	184	20	164	52	236
+45 mins.	11	57	14	82	29	106	18	153	54	91	38	183	23	190	55	268
Total Volume	57	231	56	344	91	409	53	553	213	353	165	731	103	644	216	963
% App. Total	16.6	67.2	16.3		16.5	74	9.6		29.1	48.3	22.6		10.7	66.9	22.4	
PHF	.838	.947	.933	.966	.784	.845	.736	.881	.951	.959	.878	.988	.696	.847	.915	.898

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

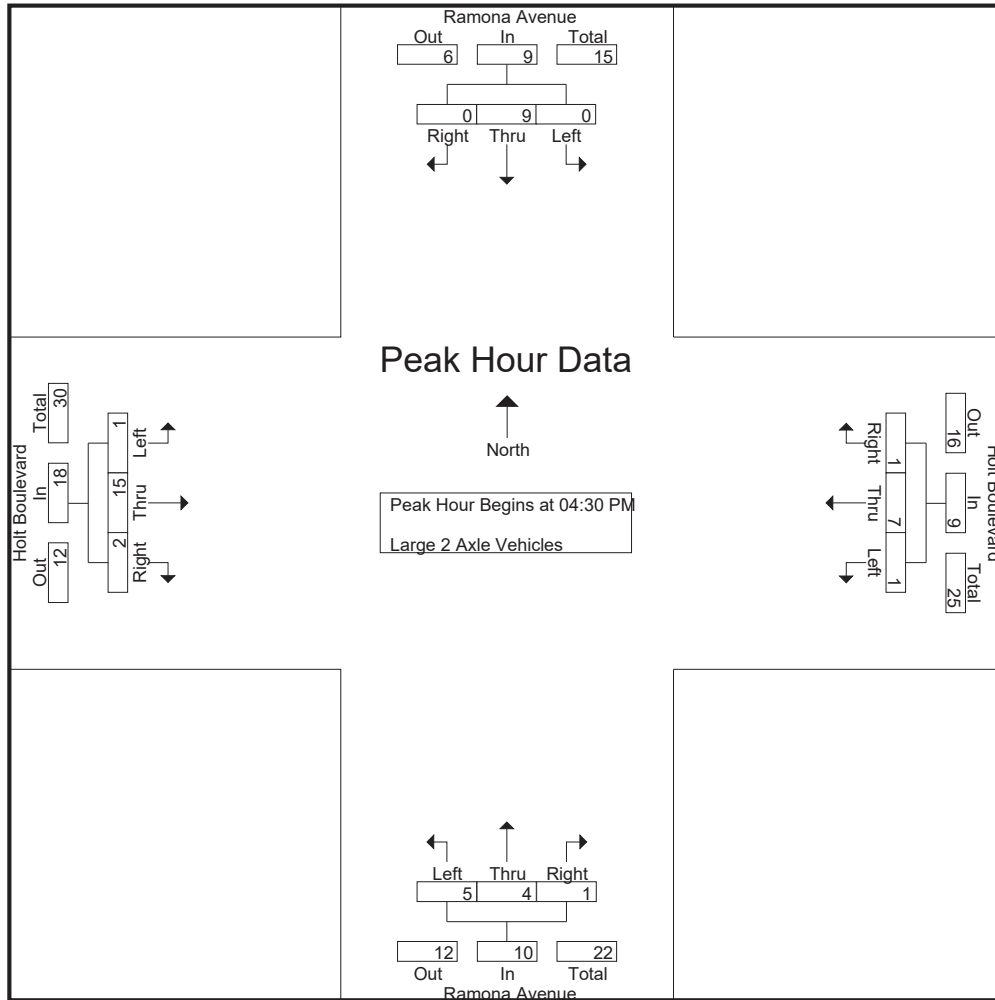
Groups Printed- Large 2 Axle Vehicles

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	2	0	2	0	2	0	2	1	3	1	5	0	3	1	4	13
04:15 PM	0	2	0	2	0	2	1	3	0	1	2	3	1	6	1	8	16
04:30 PM	0	3	0	3	0	0	0	0	2	1	1	4	1	7	1	9	16
04:45 PM	0	2	0	2	0	1	1	2	2	0	0	2	0	4	1	5	11
Total	0	9	0	9	0	5	2	7	5	5	4	14	2	20	4	26	56
05:00 PM	0	1	0	1	1	4	0	5	1	1	0	2	0	3	0	3	11
05:15 PM	0	3	0	3	0	2	0	2	0	2	0	2	0	1	0	1	8
05:30 PM	0	0	0	0	0	2	0	2	0	1	0	1	0	5	0	5	8
05:45 PM	0	1	0	1	0	2	0	2	0	0	0	0	0	0	1	1	4
Total	0	5	0	5	1	10	0	11	1	4	0	5	0	9	1	10	31
Grand Total	0	14	0	14	1	15	2	18	6	9	4	19	2	29	5	36	87
Apprch %	0	100	0		5.6	83.3	11.1		31.6	47.4	21.1		5.6	80.6	13.9		
Total %	0	16.1	0	16.1	1.1	17.2	2.3	20.7	6.9	10.3	4.6	21.8	2.3	33.3	5.7	41.4	

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	3	0	3	0	0	0	0	2	1	1	4	1	7	1	9	16
04:45 PM	0	2	0	2	0	1	1	2	2	0	0	2	0	4	1	5	11
05:00 PM	0	1	0	1	1	4	0	5	1	1	0	2	0	3	0	3	11
05:15 PM	0	3	0	3	0	2	0	2	0	2	0	2	0	1	0	1	8
Total Volume	0	9	0	9	1	7	1	9	5	4	1	10	1	15	2	18	46
% App. Total	0	100	0		11.1	77.8	11.1		50	40	10		5.6	83.3	11.1		
PHF	.000	.750	.000	.750	.250	.438	.250	.450	.625	.500	.250	.625	.250	.536	.500	.500	.719

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt PM
 Site Code : 99919768
 Start Date : 11/5/2019
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	3	0	3	0	0	0	0	2	1	1	4	1	7	1	9
+15 mins.	0	2	0	2	0	1	1	2	2	0	0	2	0	4	1	5
+30 mins.	0	1	0	1	1	4	0	5	1	1	0	2	0	3	0	3
+45 mins.	0	3	0	3	0	2	0	2	0	2	0	2	0	1	0	1
Total Volume	0	9	0	9	1	7	1	9	5	4	1	10	1	15	2	18
% App. Total	0	100	0		11.1	77.8	11.1		50	40	10		5.6	83.3	11.1	
PHF	.000	.750	.000	.750	.250	.438	.250	.450	.625	.500	.250	.625	.250	.536	.500	.500

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

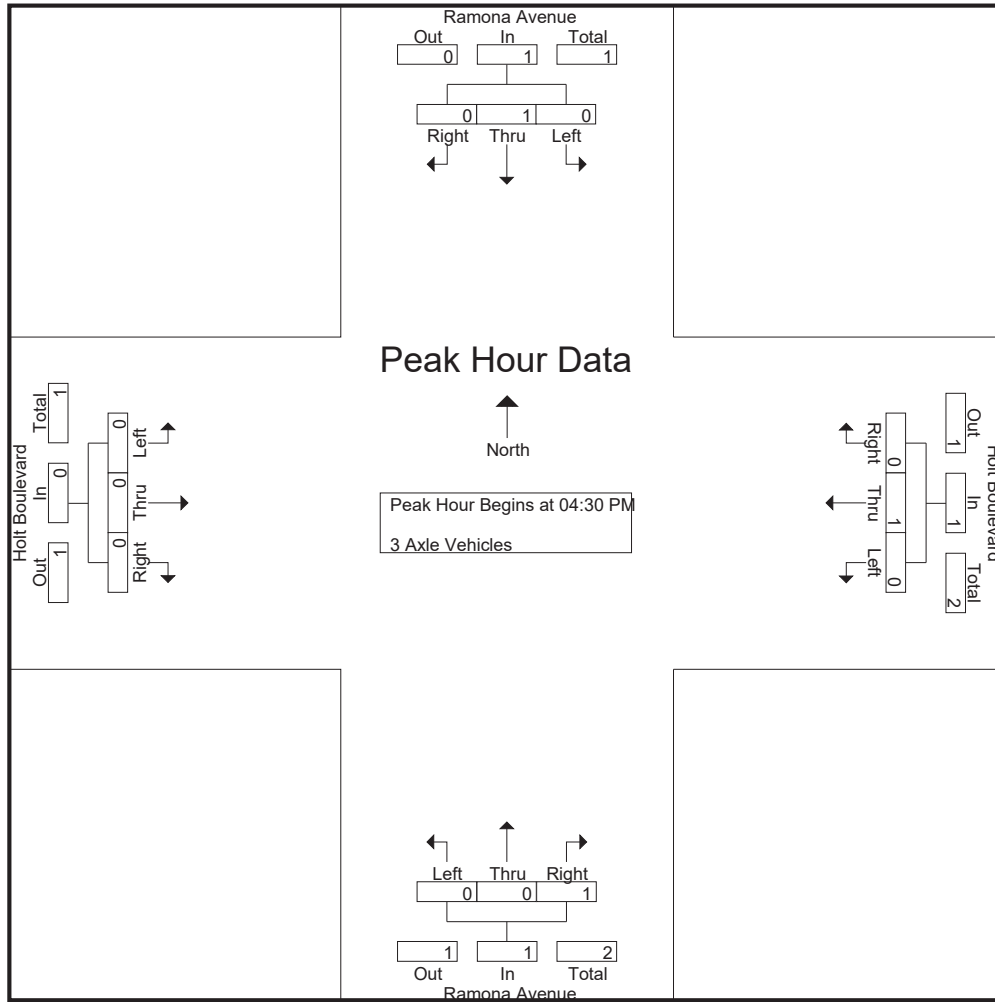
Groups Printed- 3 Axle Vehicles

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	1	1	0	2	0	0	1	1	0	1	0	1	5
05:00 PM	0	0	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	0	0	0	1
05:30 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	2	3
Total	1	2	0	3	0	1	0	1	0	0	0	0	1	1	0	2	6
Grand Total	1	3	0	4	1	2	0	3	0	0	1	1	1	2	0	3	11
Apprch %	25	75	0		33.3	66.7	0		0	0	100		33.3	66.7	0		
Total %	9.1	27.3	0	36.4	9.1	18.2	0	27.3	0	0	9.1	9.1	9.1	18.2	0	27.3	

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	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	0	0	0	1
Total Volume	0	1	0	1	0	1	0	1	0	0	1	1	0	0	0	0	3
% App. Total	0	100	0		0	100	0		0	0	100		0	0	0		
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000	.375

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	1	0	1	0	0	1	1	0	0	0	0
% App. Total	0	100	0	0	0	100	0	0	0	0	100	0	0	0	0	0
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

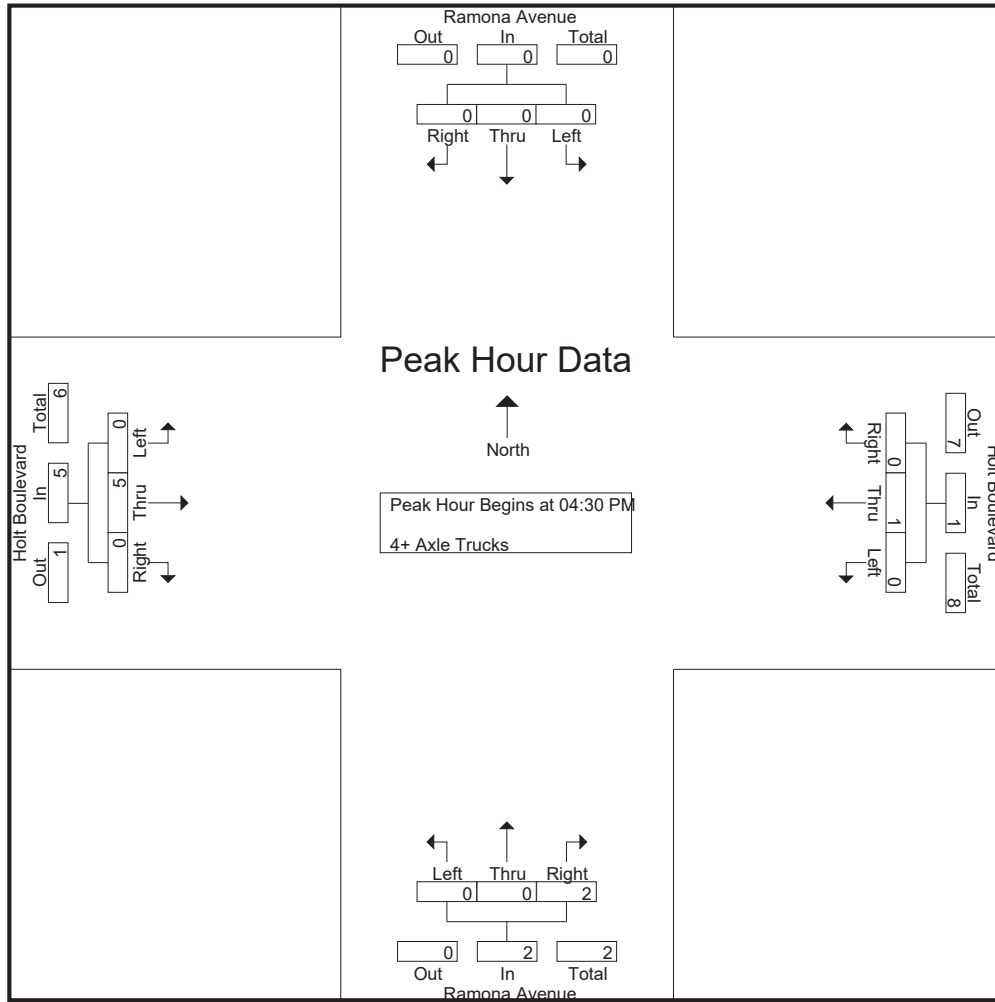
Groups Printed- 4+ Axle Trucks

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	1	0	1	1	0	1	2	0	1	0	1	4
04:15 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	2	0	2	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	0	3	0	3	2	0	1	3	0	5	0	5	11
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	2	0	2	4
Total	0	0	0	0	1	0	0	1	0	0	3	3	0	5	0	5	9
Grand Total	0	0	0	0	1	3	0	4	2	0	4	6	0	10	0	10	20
Apprch %	0	0	0		25	75	0		33.3	0	66.7		0	100	0		
Total %	0	0	0		5	15	0	20	10	0	20	30	0	50	0	50	

Start Time	Ramona Avenue Southbound				Holt Boulevard Westbound				Ramona Avenue Northbound				Holt Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	3
Total Volume	0	0	0	0	0	1	0	1	0	0	2	2	0	5	0	5	8
% App. Total	0	0	0		0	100	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.500	.500	.000	.625	.000	.625	.667

City of Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard
 Weather: Clear

File Name : 01_MON_Ramona_Holt PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2
Total Volume	0	0	0	0	0	1	0	1	0	0	2	2	0	5	0	5
% App. Total	0	0	0	0	0	100	0	0	0	0	100	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.500	.500	.000	.625	.000	.625

Location: Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard



Date: 11/5/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Ramona Avenue Pedestrians	East Leg Holt Boulevard Pedestrians	South Leg Ramona Avenue Pedestrians	West Leg Holt Boulevard Pedestrians	
7:00 AM	2	3	0	4	9
7:15 AM	1	1	1	1	4
7:30 AM	1	4	1	3	9
7:45 AM	2	6	1	0	9
8:00 AM	3	1	2	0	6
8:15 AM	1	2	1	0	4
8:30 AM	1	1	2	0	4
8:45 AM	2	3	2	0	7
TOTAL VOLUMES:	13	21	10	8	52

	North Leg Ramona Avenue Pedestrians	East Leg Holt Boulevard Pedestrians	South Leg Ramona Avenue Pedestrians	West Leg Holt Boulevard Pedestrians	
4:00 PM	3	4	3	4	14
4:15 PM	4	4	0	2	10
4:30 PM	5	8	7	6	26
4:45 PM	4	6	7	10	27
5:00 PM	3	6	0	2	11
5:15 PM	2	5	0	7	14
5:30 PM	2	6	3	12	23
5:45 PM	1	4	5	4	14
TOTAL VOLUMES:	24	43	25	47	139

Location: Montclair
 N/S: Ramona Avenue
 E/W: Holt Boulevard



Date: 11/5/2019
 Day: Tuesday

BICYCLES

	Southbound Ramona Avenue			Westbound Holt Boulevard			Northbound Ramona Avenue			Eastbound Holt Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
7:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	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	1	0	1
TOTAL VOLUMES:	0	0	0	0	2	0	1	2	0	0	1	1	7

	Southbound Ramona Avenue			Westbound Holt Boulevard			Northbound Ramona Avenue			Eastbound Holt Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:15 PM	0	0	0	0	1	0	0	1	0	0	1	0	3
4:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
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	1	0	0	3	0	1	4	0	0	2	0	11

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

File Name : 02_MON_Camulos_State AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

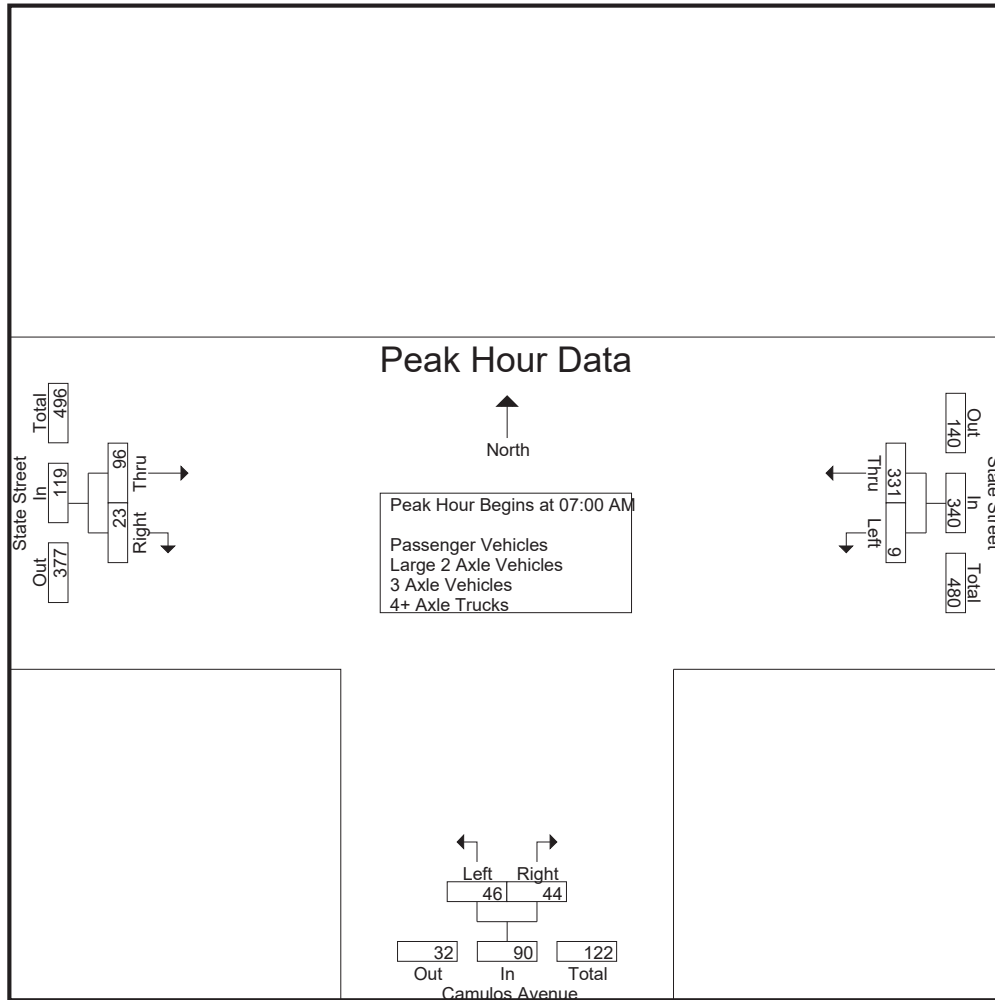
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	1	63	64	10	15	25	23	8	31	120
07:15 AM	5	74	79	9	7	16	21	4	25	120
07:30 AM	2	90	92	15	9	24	25	5	30	146
07:45 AM	1	104	105	12	13	25	27	6	33	163
Total	9	331	340	46	44	90	96	23	119	549
08:00 AM	1	61	62	9	15	24	14	6	20	106
08:15 AM	5	41	46	7	10	17	21	6	27	90
08:30 AM	4	23	27	8	13	21	19	11	30	78
08:45 AM	5	28	33	8	3	11	19	6	25	69
Total	15	153	168	32	41	73	73	29	102	343
Grand Total	24	484	508	78	85	163	169	52	221	892
Apprch %	4.7	95.3		47.9	52.1		76.5	23.5		
Total %	2.7	54.3	57	8.7	9.5	18.3	18.9	5.8	24.8	
Passenger Vehicles	23	477	500	78	81	159	156	51	207	866
% Passenger Vehicles	95.8	98.6	98.4	100	95.3	97.5	92.3	98.1	93.7	97.1
Large 2 Axle Vehicles	0	5	5	0	3	3	12	0	12	20
% Large 2 Axle Vehicles	0	1	1	0	3.5	1.8	7.1	0	5.4	2.2
3 Axle Vehicles	1	2	3	0	0	0	1	1	2	5
% 3 Axle Vehicles	4.2	0.4	0.6	0	0	0	0.6	1.9	0.9	0.6
4+ Axle Trucks	0	0	0	0	1	1	0	0	0	1
% 4+ Axle Trucks	0	0	0	0	1.2	0.6	0	0	0	0.1

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. 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	1	63	64	10	15	25	23	8	31	120
07:15 AM	5	74	79	9	7	16	21	4	25	120
07:30 AM	2	90	92	15	9	24	25	5	30	146
07:45 AM	1	104	105	12	13	25	27	6	33	163
Total Volume	9	331	340	46	44	90	96	23	119	549
% App. Total	2.6	97.4		51.1	48.9		80.7	19.3		
PHF	.450	.796	.810	.767	.733	.900	.889	.719	.902	.842

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

File Name : 02_MON_Camulos_State AM
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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			07:00 AM		
+0 mins.	1	63	64	10	15	25	23	8	31
+15 mins.	5	74	79	9	7	16	21	4	25
+30 mins.	2	90	92	15	9	24	25	5	30
+45 mins.	1	104	105	12	13	25	27	6	33
Total Volume	9	331	340	46	44	90	96	23	119
% App. Total	2.6	97.4		51.1	48.9		80.7	19.3	
PHF	.450	.796	.810	.767	.733	.900	.889	.719	.902

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

File Name : 02_MON_Camulos_State AM
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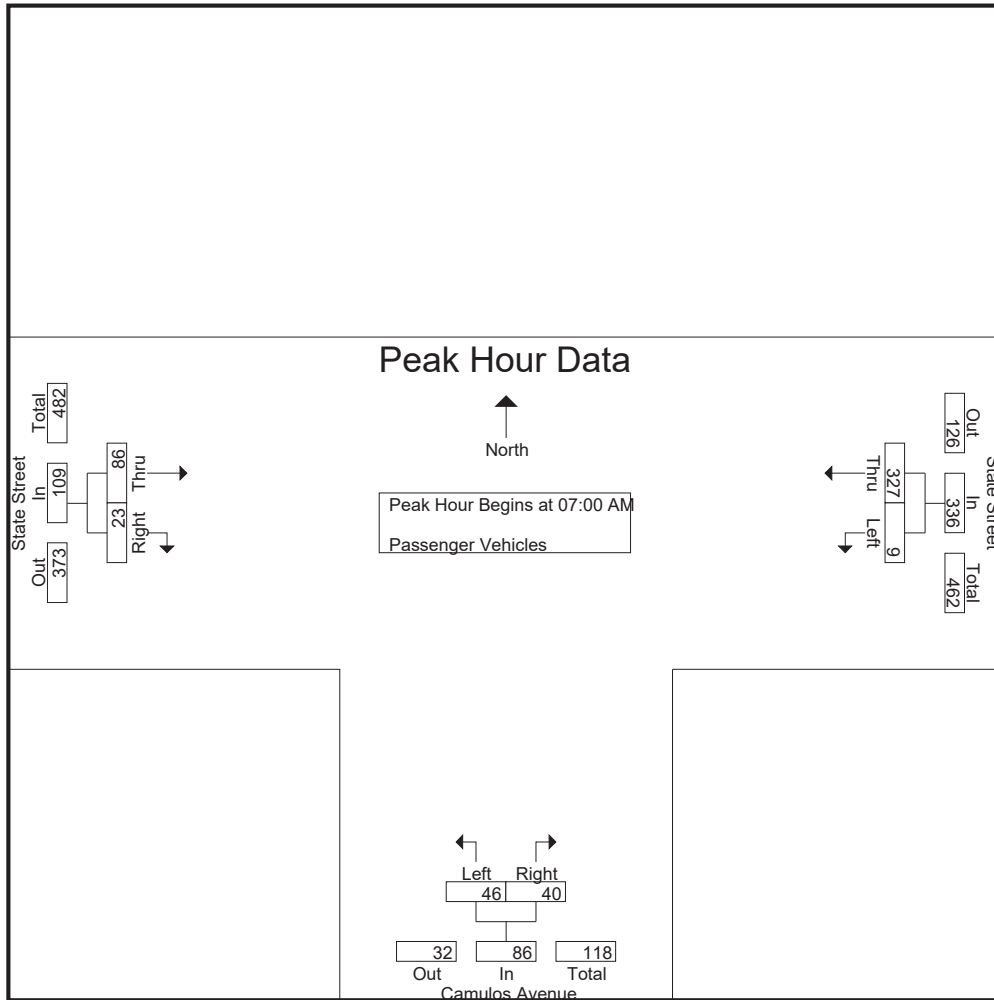
Groups Printed- Passenger Vehicles

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	1	63	64	10	15	25	20	8	28	117
07:15 AM	5	71	76	9	6	15	18	4	22	113
07:30 AM	2	90	92	15	6	21	23	5	28	141
07:45 AM	1	103	104	12	13	25	25	6	31	160
Total	9	327	336	46	40	86	86	23	109	531
08:00 AM	1	59	60	9	15	24	13	6	19	103
08:15 AM	5	40	45	7	10	17	20	5	25	87
08:30 AM	4	23	27	8	13	21	18	11	29	77
08:45 AM	4	28	32	8	3	11	19	6	25	68
Total	14	150	164	32	41	73	70	28	98	335
Grand Total	23	477	500	78	81	159	156	51	207	866
Apprch %	4.6	95.4		49.1	50.9		75.4	24.6		
Total %	2.7	55.1	57.7	9	9.4	18.4	18	5.9	23.9	

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. 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	1	63	64	10	15	25	20	8	28	117
07:15 AM	5	71	76	9	6	15	18	4	22	113
07:30 AM	2	90	92	15	6	21	23	5	28	141
07:45 AM	1	103	104	12	13	25	25	6	31	160
Total Volume	9	327	336	46	40	86	86	23	109	531
% App. Total	2.7	97.3		53.5	46.5		78.9	21.1		
PHF	.450	.794	.808	.767	.667	.860	.860	.719	.879	.830

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

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 Site Code : 99919768
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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.	1	63	64	10	15	25	20	8	28
+15 mins.	5	71	76	9	6	15	18	4	22
+30 mins.	2	90	92	15	6	21	23	5	28
+45 mins.	1	103	104	12	13	25	25	6	31
Total Volume	9	327	336	46	40	86	86	23	109
% App. Total	2.7	97.3		53.5	46.5		78.9	21.1	
PHF	.450	.794	.808	.767	.667	.860	.860	.719	.879

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

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Groups Printed- Large 2 Axle Vehicles

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	3	0	3	3
07:15 AM	0	3	3	0	1	1	3	0	3	7
07:30 AM	0	0	0	0	2	2	2	0	2	4
07:45 AM	0	1	1	0	0	0	1	0	1	2
Total	0	4	4	0	3	3	9	0	9	16
08:00 AM	0	0	0	0	0	0	1	0	1	1
08:15 AM	0	1	1	0	0	0	1	0	1	2
08:30 AM	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	3	0	3	4
Grand Total	0	5	5	0	3	3	12	0	12	20
Apprch %	0	100		0	100		100	0		
Total %	0	25	25	0	15	15	60	0	60	

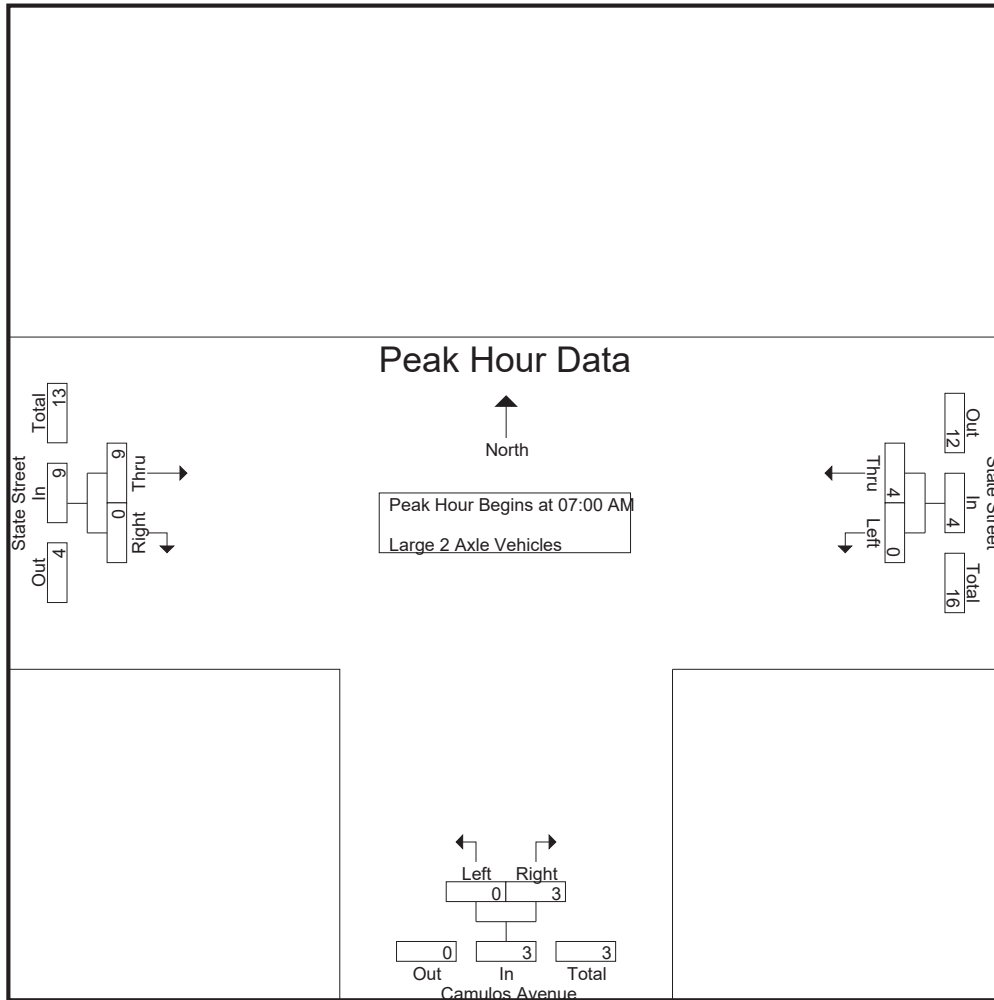
Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	3	0	3	3
07:15 AM	0	3	3	0	1	1	3	0	3	7
07:30 AM	0	0	0	0	2	2	2	0	2	4
07:45 AM	0	1	1	0	0	0	1	0	1	2
Total Volume	0	4	4	0	3	3	9	0	9	16
% App. Total	0	100		0	100		100	0		
PHF	.000	.333	.333	.000	.375	.375	.750	.000	.750	.571

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

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 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	0	0	0	0	0	3	0	3
+15 mins.	0	3	3	0	1	1	3	0	3
+30 mins.	0	0	0	0	2	2	2	0	2
+45 mins.	0	1	1	0	0	0	1	0	1
Total Volume	0	4	4	0	3	3	9	0	9
% App. Total	0	100		0	100		100	0	
PHF	.000	.333	.333	.000	.375	.375	.750	.000	.750

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

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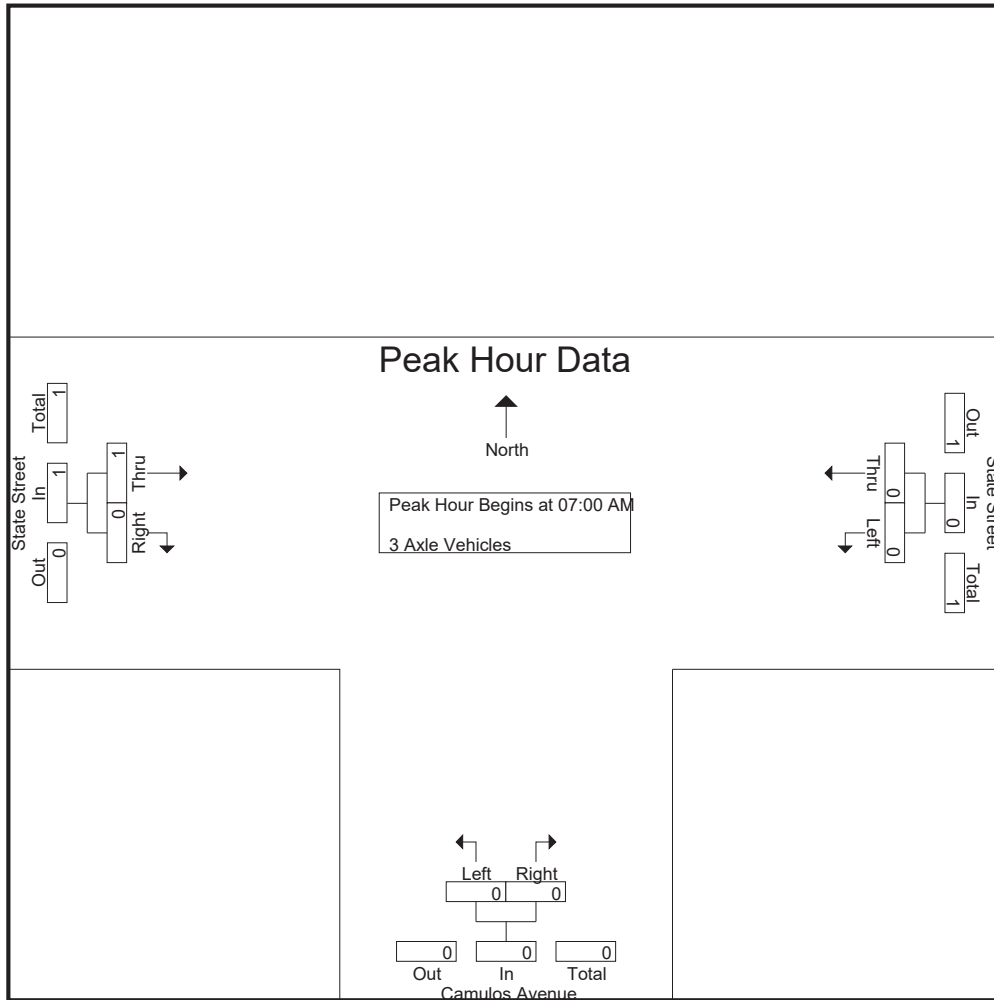
Groups Printed- 3 Axle Vehicles

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
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	1	0	1	1
Total	0	0	0	0	0	0	1	0	1	1
08:00 AM	0	2	2	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	1	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	1	0	0	0	0	0	0	1
Total	1	2	3	0	0	0	0	1	1	4
Grand Total	1	2	3	0	0	0	1	1	2	5
Apprch %	33.3	66.7		0	0		50	50		
Total %	20	40	60	0	0	0	20	20	40	

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. 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	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	1	0	1	1
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

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 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	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	0	0	1	0	1
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

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

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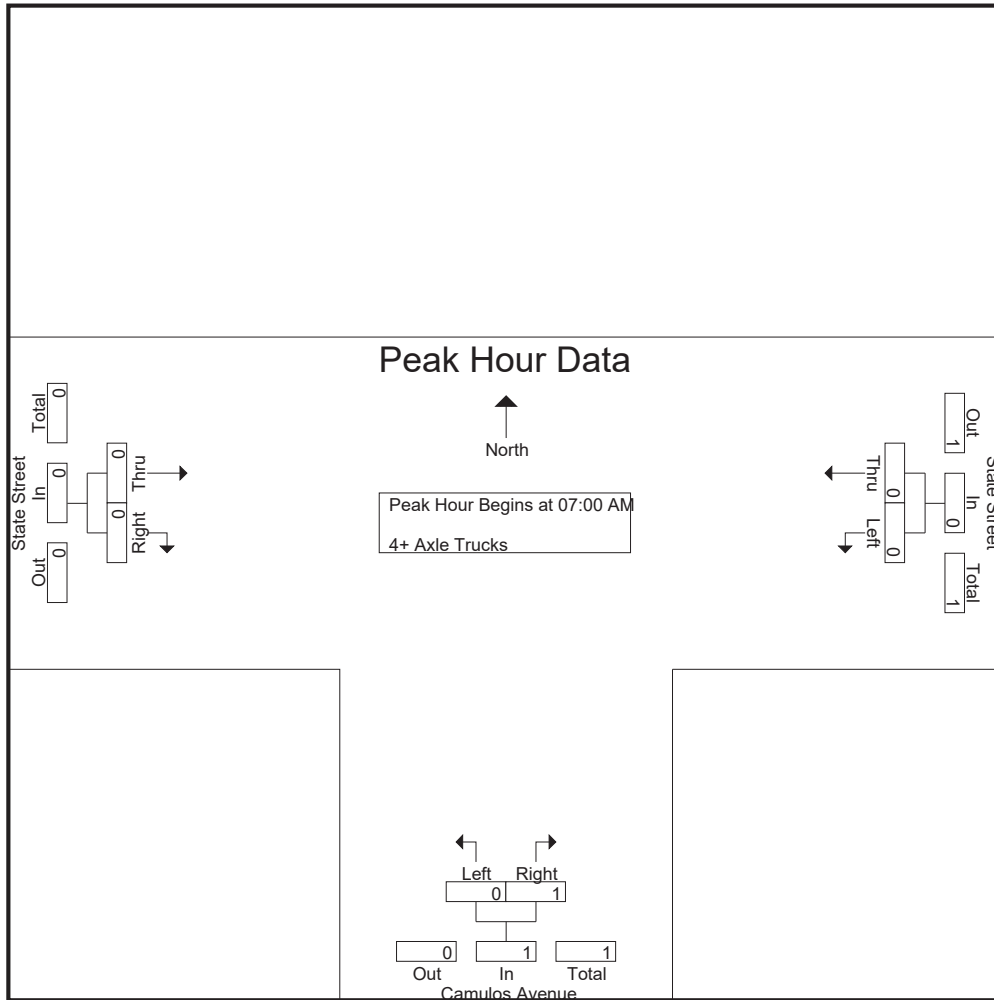
Groups Printed- 4+ Axle Trucks

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1	1	0	0	0	1
Apprch %	0	0		0	100		0	0		
Total %	0	0		0	100	100	0	0		

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. 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	0	0	0	0
07:30 AM	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
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

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 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	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	1	1	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0	0	0	100	100	0	0	0
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

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

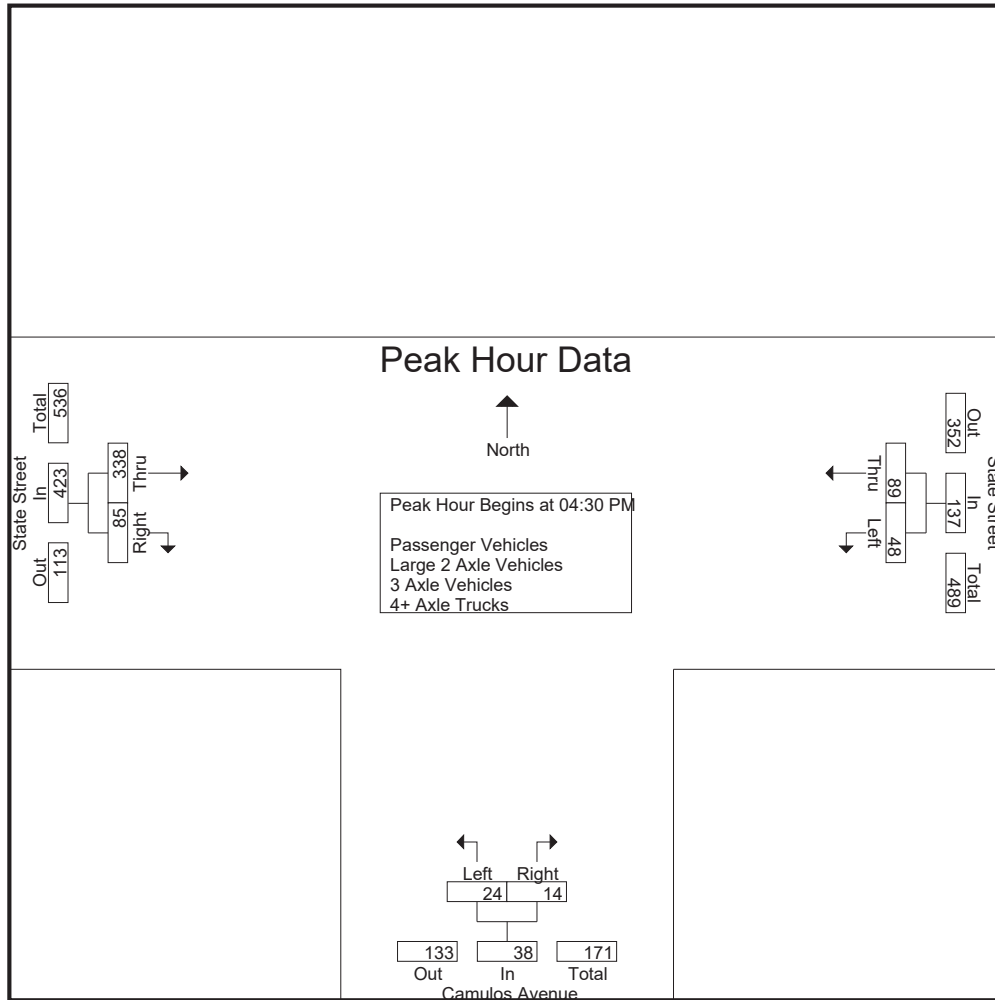
Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	9	18	27	8	3	11	61	13	74	112
04:15 PM	4	18	22	12	3	15	56	8	64	101
04:30 PM	21	19	40	8	6	14	73	15	88	142
04:45 PM	8	17	25	3	2	5	77	19	96	126
Total	42	72	114	31	14	45	267	55	322	481
05:00 PM	12	27	39	7	4	11	91	30	121	171
05:15 PM	7	26	33	6	2	8	97	21	118	159
05:30 PM	7	24	31	3	5	8	73	15	88	127
05:45 PM	7	11	18	4	3	7	54	15	69	94
Total	33	88	121	20	14	34	315	81	396	551
Grand Total	75	160	235	51	28	79	582	136	718	1032
Apprch %	31.9	68.1		64.6	35.4		81.1	18.9		
Total %	7.3	15.5	22.8	4.9	2.7	7.7	56.4	13.2	69.6	
Passenger Vehicles	68	155	223	50	26	76	569	132	701	1000
% Passenger Vehicles	90.7	96.9	94.9	98	92.9	96.2	97.8	97.1	97.6	96.9
Large 2 Axle Vehicles	3	3	6	0	2	2	11	4	15	23
% Large 2 Axle Vehicles	4	1.9	2.6	0	7.1	2.5	1.9	2.9	2.1	2.2
3 Axle Vehicles	2	2	4	1	0	1	1	0	1	6
% 3 Axle Vehicles	2.7	1.2	1.7	2	0	1.3	0.2	0	0.1	0.6
4+ Axle Trucks	2	0	2	0	0	0	1	0	1	3
% 4+ Axle Trucks	2.7	0	0.9	0	0	0	0.2	0	0.1	0.3

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	21	19	40	8	6	14	73	15	88	142
04:45 PM	8	17	25	3	2	5	77	19	96	126
05:00 PM	12	27	39	7	4	11	91	30	121	171
05:15 PM	7	26	33	6	2	8	97	21	118	159
Total Volume	48	89	137	24	14	38	338	85	423	598
% App. Total	35	65		63.2	36.8		79.9	20.1		
PHF	.571	.824	.856	.750	.583	.679	.871	.708	.874	.874

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:30 PM

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

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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:

	04:30 PM			04:00 PM			04:30 PM		
+0 mins.	21	19	40	8	3	11	73	15	88
+15 mins.	8	17	25	12	3	15	77	19	96
+30 mins.	12	27	39	8	6	14	91	30	121
+45 mins.	7	26	33	3	2	5	97	21	118
Total Volume	48	89	137	31	14	45	338	85	423
% App. Total	35	65		68.9	31.1		79.9	20.1	
PHF	.571	.824	.856	.646	.583	.750	.871	.708	.874

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

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Groups Printed- Passenger Vehicles

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	7	17	24	8	2	10	60	12	72	106
04:15 PM	3	17	20	11	3	14	54	7	61	95
04:30 PM	19	18	37	8	6	14	70	14	84	135
04:45 PM	7	17	24	3	1	4	76	19	95	123
Total	36	69	105	30	12	42	260	52	312	459
05:00 PM	12	25	37	7	4	11	88	30	118	166
05:15 PM	7	26	33	6	2	8	96	20	116	157
05:30 PM	6	24	30	3	5	8	72	15	87	125
05:45 PM	7	11	18	4	3	7	53	15	68	93
Total	32	86	118	20	14	34	309	80	389	541
Grand Total	68	155	223	50	26	76	569	132	701	1000
Apprch %	30.5	69.5		65.8	34.2		81.2	18.8		
Total %	6.8	15.5	22.3	5	2.6	7.6	56.9	13.2	70.1	

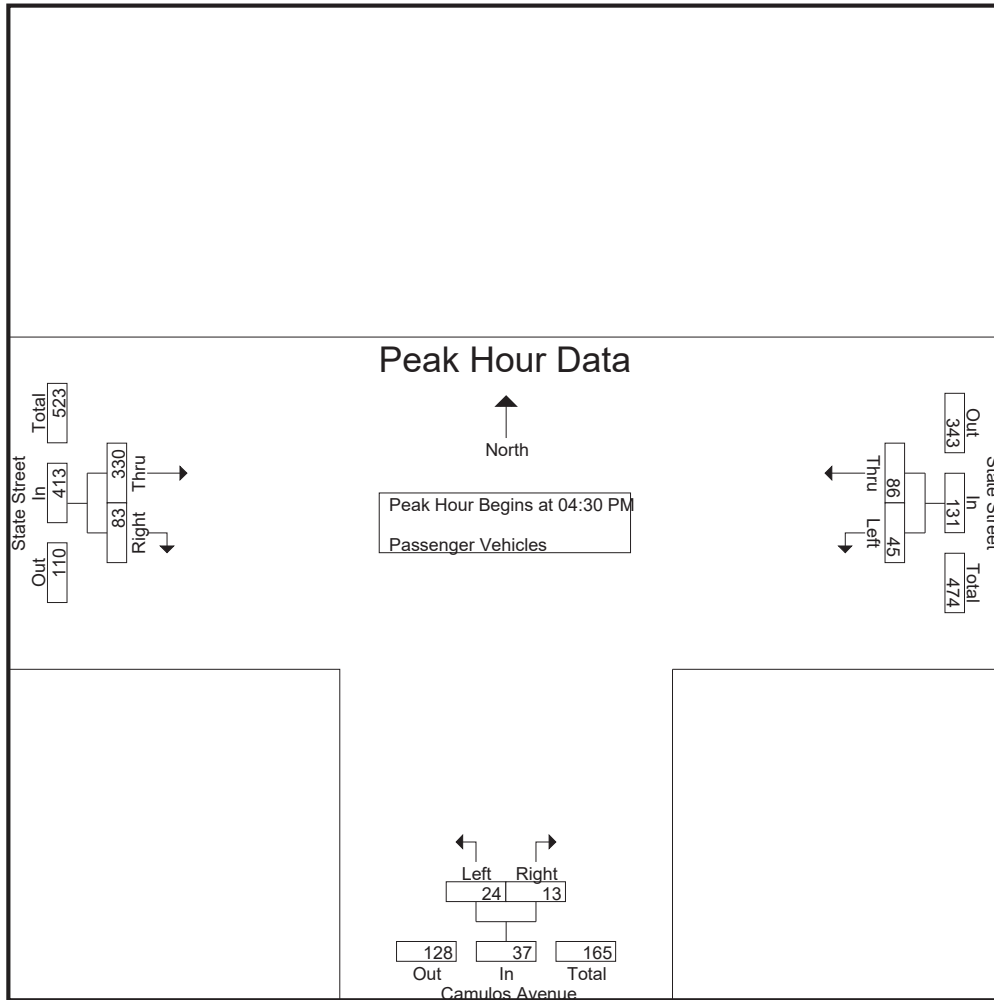
Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	19	18	37	8	6	14	70	14	84	135
04:45 PM	7	17	24	3	1	4	76	19	95	123
05:00 PM	12	25	37	7	4	11	88	30	118	166
05:15 PM	7	26	33	6	2	8	96	20	116	157
Total Volume	45	86	131	24	13	37	330	83	413	581
% App. Total	34.4	65.6		64.9	35.1		79.9	20.1		
PHF	.592	.827	.885	.750	.542	.661	.859	.692	.875	.875

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	19	18	37	8	6	14	70	14	84
+15 mins.	7	17	24	3	1	4	76	19	95
+30 mins.	12	25	37	7	4	11	88	30	118
+45 mins.	7	26	33	6	2	8	96	20	116
Total Volume	45	86	131	24	13	37	330	83	413
% App. Total	34.4	65.6		64.9	35.1		79.9	20.1	
PHF	.592	.827	.885	.750	.542	.661	.859	.692	.875

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

File Name : 02_MON_Camulos_State PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	1	1	2	0	1	1	1	1	2	5
04:15 PM	0	0	0	0	0	0	2	1	3	3
04:30 PM	1	1	2	0	0	0	3	1	4	6
04:45 PM	0	0	0	0	1	1	1	0	1	2
Total	2	2	4	0	2	2	7	3	10	16
05:00 PM	0	1	1	0	0	0	3	0	3	4
05:15 PM	0	0	0	0	0	0	0	1	1	1
05:30 PM	1	0	1	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	1	0	1	1
Total	1	1	2	0	0	0	4	1	5	7
Grand Total	3	3	6	0	2	2	11	4	15	23
Apprch %	50	50		0	100		73.3	26.7		
Total %	13	13	26.1	0	8.7	8.7	47.8	17.4	65.2	

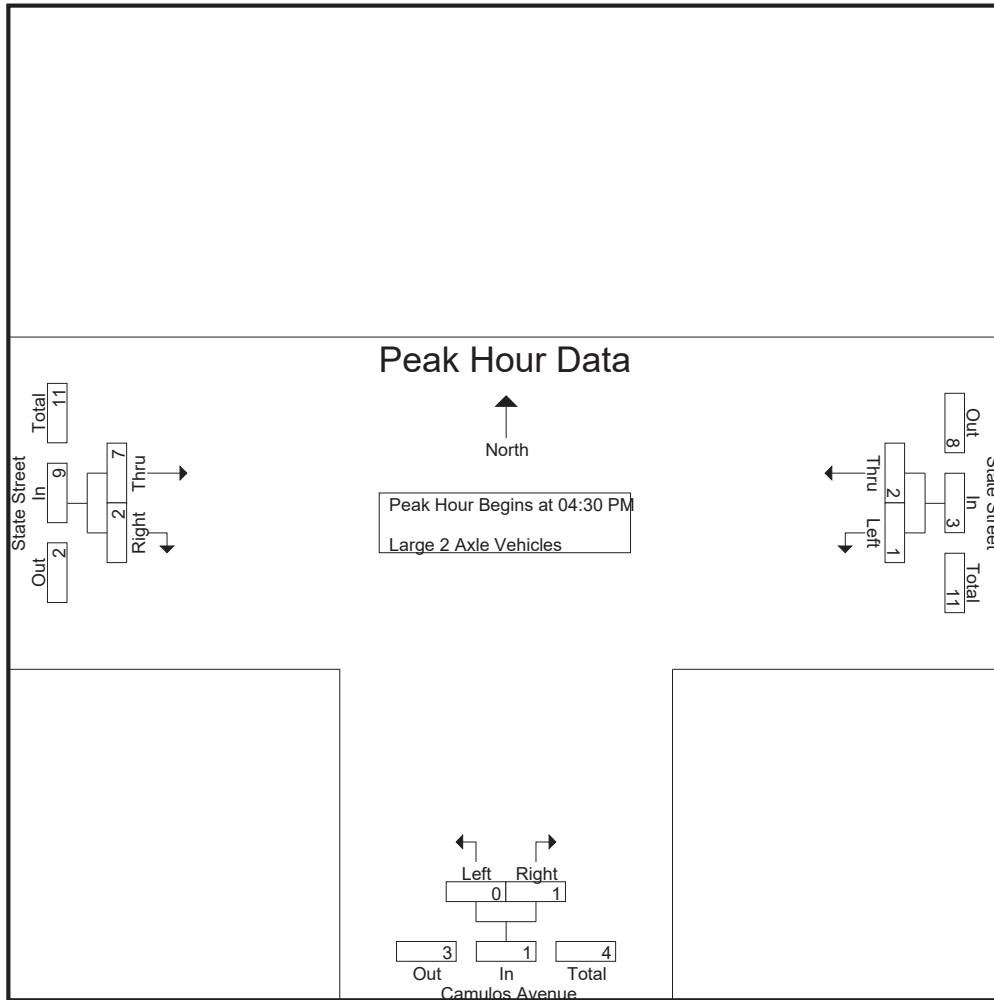
Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:30 PM	1	1	2	0	0	0	3	1	4	6
04:45 PM	0	0	0	0	1	1	1	0	1	2
05:00 PM	0	1	1	0	0	0	3	0	3	4
05:15 PM	0	0	0	0	0	0	0	1	1	1
Total Volume	1	2	3	0	1	1	7	2	9	13
% App. Total	33.3	66.7		0	100		77.8	22.2		
PHF	.250	.500	.375	.000	.250	.250	.583	.500	.563	.542

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

File Name : 02_MON_Camulos_State PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	1	1	2	0	0	0	3	1	4
+15 mins.	0	0	0	0	1	1	1	0	1
+30 mins.	0	1	1	0	0	0	3	0	3
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	1	2	3	0	1	1	7	2	9
% App. Total	33.3	66.7		0	100		77.8	22.2	
PHF	.250	.500	.375	.000	.250	.250	.583	.500	.563

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

File Name : 02_MON_Camulos_State PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

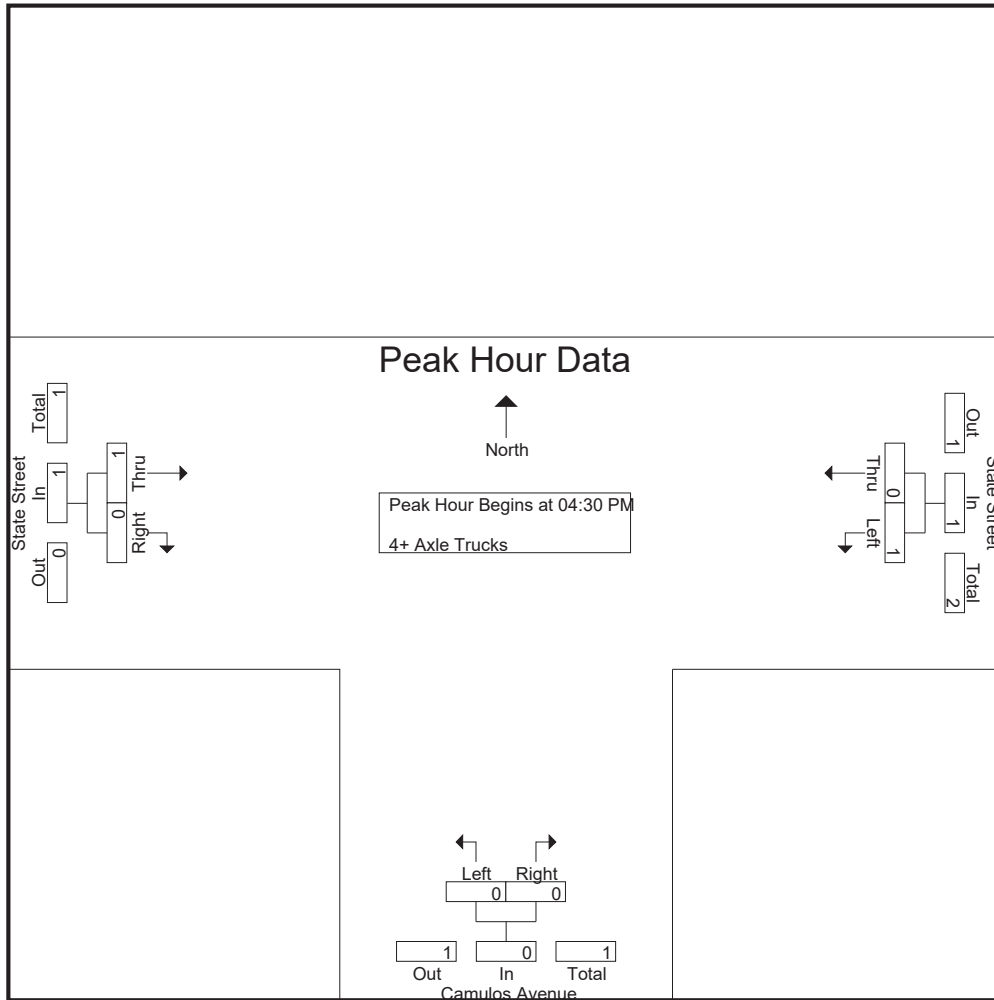
Groups Printed- 4+ Axle Trucks

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	1	0	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	0	0	0	0
04:45 PM	1	0	1	0	0	0	0	0	0	1
Total	2	0	2	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	0	1	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	0	0	0	0	0	0	1	0	1	1
Grand Total	2	0	2	0	0	0	1	0	1	3
Apprch %	100	0		0	0		100	0		
Total %	66.7	0	66.7	0	0	0	33.3	0	33.3	

Start Time	State Street Westbound			Camulos Avenue Northbound			State Street Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	1	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	0	1	1
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

City of Montclair
 N/S: Camulos Avenue
 E/W: State Street
 Weather: Clear

File Name : 02_MON_Camulos_State PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+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	1	0	1
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

Location: Montclair
 N/S: Camulos Avenue
 E/W: State Street



Date: 11/5/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg State Street	South Leg Camulos Avenue	West Leg State Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	1	0	1
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	1	0	1

	North Leg Dead End	East Leg State Street	South Leg Camulos Avenue	West Leg State Street	
	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	1	0	1
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	1	0	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	2

Location: Montclair
 N/S: Camulos Avenue
 E/W: State Street



Date: 11/5/2019
 Day: Tuesday

BICYCLES

	Southbound Dead End			Westbound State Street			Northbound Camulos Avenue			Eastbound State Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	2
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
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	1	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	0	0	0	0	3	0	1	0	5

	Southbound Dead End			Westbound State Street			Northbound Camulos Avenue			Eastbound State Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
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	3	0	0	0	0	0	0	0	0	3

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

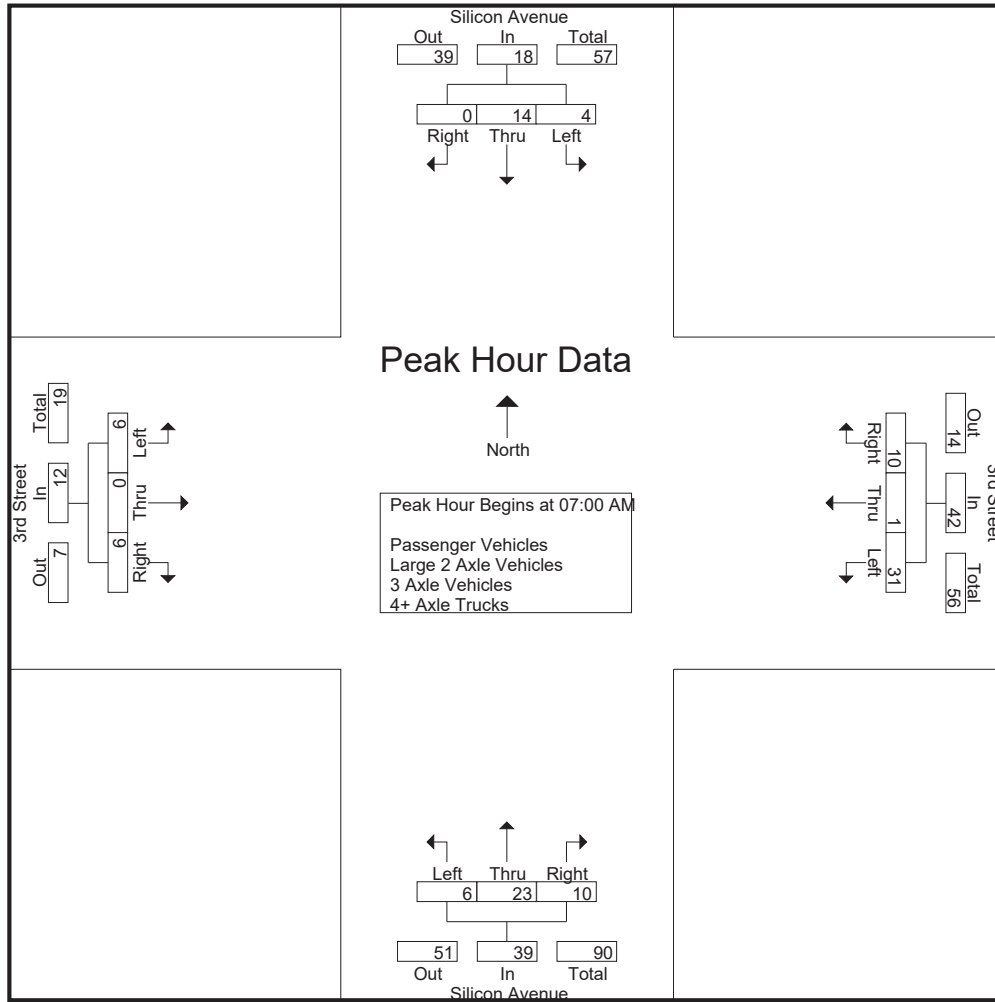
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	2	4	0	6	19	0	6	25	1	6	2	9	3	0	1	4	44
07:15 AM	0	6	0	6	6	1	2	9	0	6	2	8	0	0	3	3	26
07:30 AM	0	3	0	3	3	0	1	4	3	4	5	12	2	0	2	4	23
07:45 AM	2	1	0	3	3	0	1	4	2	7	1	10	1	0	0	1	18
Total	4	14	0	18	31	1	10	42	6	23	10	39	6	0	6	12	111
08:00 AM	0	5	1	6	5	0	0	5	0	4	5	9	0	0	1	1	21
08:15 AM	1	5	0	6	2	0	1	3	0	6	2	8	1	0	1	2	19
08:30 AM	1	2	0	3	4	1	0	5	1	2	2	5	2	0	0	2	15
08:45 AM	0	3	0	3	4	0	0	4	2	9	6	17	0	0	0	0	24
Total	2	15	1	18	15	1	1	17	3	21	15	39	3	0	2	5	79
Grand Total	6	29	1	36	46	2	11	59	9	44	25	78	9	0	8	17	190
Apprch %	16.7	80.6	2.8		78	3.4	18.6		11.5	56.4	32.1		52.9	0	47.1		
Total %	3.2	15.3	0.5	18.9	24.2	1.1	5.8	31.1	4.7	23.2	13.2	41.1	4.7	0	4.2	8.9	
Passenger Vehicles	4	29	1	34	19	2	8	29	9	40	12	61	9	0	8	17	141
% Passenger Vehicles	66.7	100	100	94.4	41.3	100	72.7	49.2	100	90.9	48	78.2	100	0	100	100	74.2
Large 2 Axle Vehicles	2	0	0	2	25	0	3	28	0	3	11	14	0	0	0	0	44
% Large 2 Axle Vehicles	33.3	0	0	5.6	54.3	0	27.3	47.5	0	6.8	44	17.9	0	0	0	0	23.2
3 Axle Vehicles	0	0	0	0	2	0	0	2	0	0	2	2	0	0	0	0	4
% 3 Axle Vehicles	0	0	0	0	4.3	0	0	3.4	0	0	8	2.6	0	0	0	0	2.1
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	2.3	0	1.3	0	0	0	0	0.5

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	2	4	0	6	19	0	6	25	1	6	2	9	3	0	1	4	44
07:15 AM	0	6	0	6	6	1	2	9	0	6	2	8	0	0	3	3	26
07:30 AM	0	3	0	3	3	0	1	4	3	4	5	12	2	0	2	4	23
07:45 AM	2	1	0	3	3	0	1	4	2	7	1	10	1	0	0	1	18
Total Volume	4	14	0	18	31	1	10	42	6	23	10	39	6	0	6	12	111
% App. Total	22.2	77.8	0		73.8	2.4	23.8		15.4	59	25.6		50	0	50		
PHF	.500	.583	.000	.750	.408	.250	.417	.420	.500	.821	.500	.813	.500	.000	.500	.750	.631

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



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

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	2	4	0	6	19	0	6	25	1	6	2	9	3	0	1	4
+15 mins.	0	6	0	6	6	1	2	9	0	6	2	8	0	0	3	3
+30 mins.	0	3	0	3	3	0	1	4	3	4	5	12	2	0	2	4
+45 mins.	2	1	0	3	3	0	1	4	2	7	1	10	1	0	0	1
Total Volume	4	14	0	18	31	1	10	42	6	23	10	39	6	0	6	12
% App. Total	22.2	77.8	0		73.8	2.4	23.8		15.4	59	25.6		50	0	50	
PHF	.500	.583	.000	.750	.408	.250	.417	.420	.500	.821	.500	.813	.500	.000	.500	.750

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

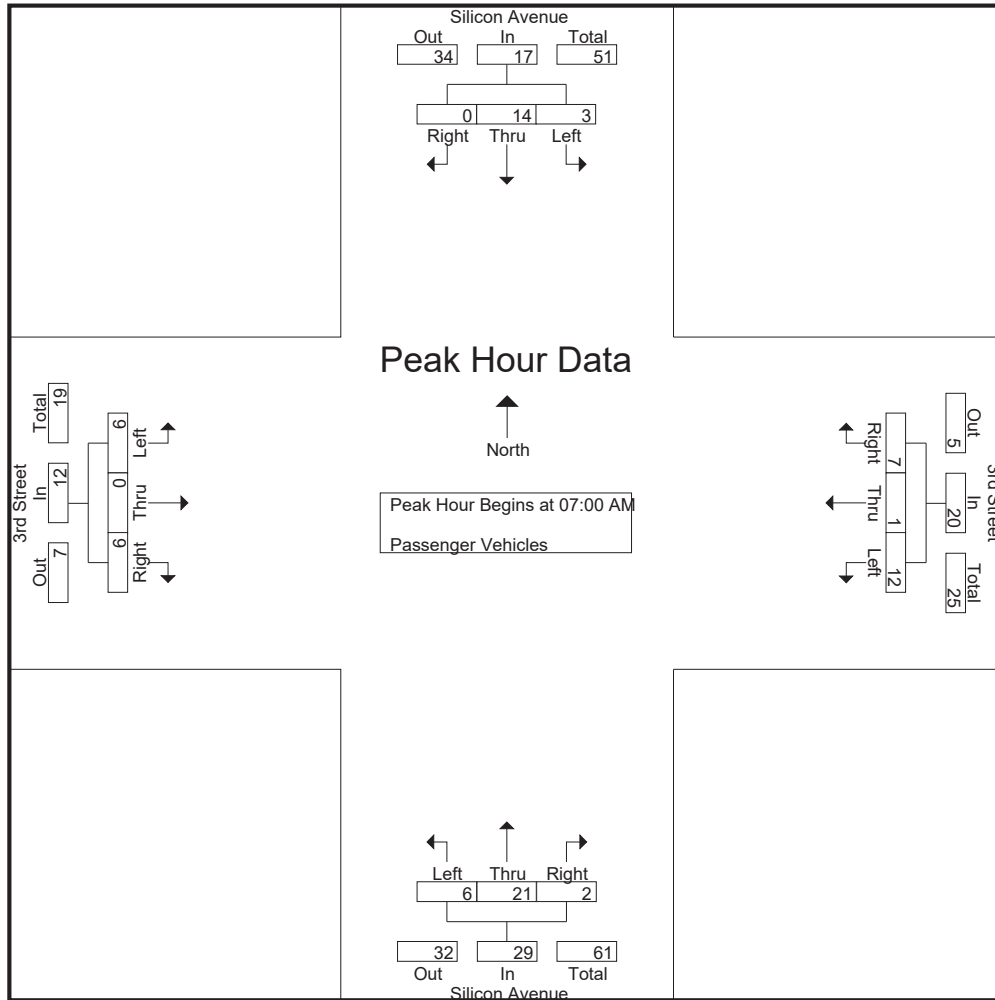
Groups Printed- Passenger Vehicles

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	4	0	5	8	0	4	12	1	5	0	6	3	0	1	4	27
07:15 AM	0	6	0	6	3	1	1	5	0	6	0	6	0	0	3	3	20
07:30 AM	0	3	0	3	1	0	1	2	3	4	2	9	2	0	2	4	18
07:45 AM	2	1	0	3	0	0	1	1	2	6	0	8	1	0	0	1	13
Total	3	14	0	17	12	1	7	20	6	21	2	29	6	0	6	12	78
08:00 AM	0	5	1	6	3	0	0	3	0	3	2	5	0	0	1	1	15
08:15 AM	0	5	0	5	1	0	1	2	0	6	1	7	1	0	1	2	16
08:30 AM	1	2	0	3	0	1	0	1	1	2	2	5	2	0	0	2	11
08:45 AM	0	3	0	3	3	0	0	3	2	8	5	15	0	0	0	0	21
Total	1	15	1	17	7	1	1	9	3	19	10	32	3	0	2	5	63
Grand Total	4	29	1	34	19	2	8	29	9	40	12	61	9	0	8	17	141
Apprch %	11.8	85.3	2.9		65.5	6.9	27.6		14.8	65.6	19.7		52.9	0	47.1		
Total %	2.8	20.6	0.7	24.1	13.5	1.4	5.7	20.6	6.4	28.4	8.5	43.3	6.4	0	5.7	12.1	

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	1	4	0	5	8	0	4	12	1	5	0	6	3	0	1	4	27
07:15 AM	0	6	0	6	3	1	1	5	0	6	0	6	0	0	3	3	20
07:30 AM	0	3	0	3	1	0	1	2	3	4	2	9	2	0	2	4	18
07:45 AM	2	1	0	3	0	0	1	1	2	6	0	8	1	0	0	1	13
Total Volume	3	14	0	17	12	1	7	20	6	21	2	29	6	0	6	12	78
% App. Total	17.6	82.4	0		60	5	35		20.7	72.4	6.9		50	0	50		
PHF	.375	.583	.000	.708	.375	.250	.438	.417	.500	.875	.250	.806	.500	.000	.500	.750	.722

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St AM
 Site Code : 99919768
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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				07:00 AM			
+0 mins.	1	4	0	5	8	0	4	12	1	5	0	6	3	0	1	4
+15 mins.	0	6	0	6	3	1	1	5	0	6	0	6	0	0	3	3
+30 mins.	0	3	0	3	1	0	1	2	3	4	2	9	2	0	2	4
+45 mins.	2	1	0	3	0	0	1	1	2	6	0	8	1	0	0	1
Total Volume	3	14	0	17	12	1	7	20	6	21	2	29	6	0	6	12
% App. Total	17.6	82.4	0		60	5	35		20.7	72.4	6.9		50	0	50	
PHF	.375	.583	.000	.708	.375	.250	.438	.417	.500	.875	.250	.806	.500	.000	.500	.750

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

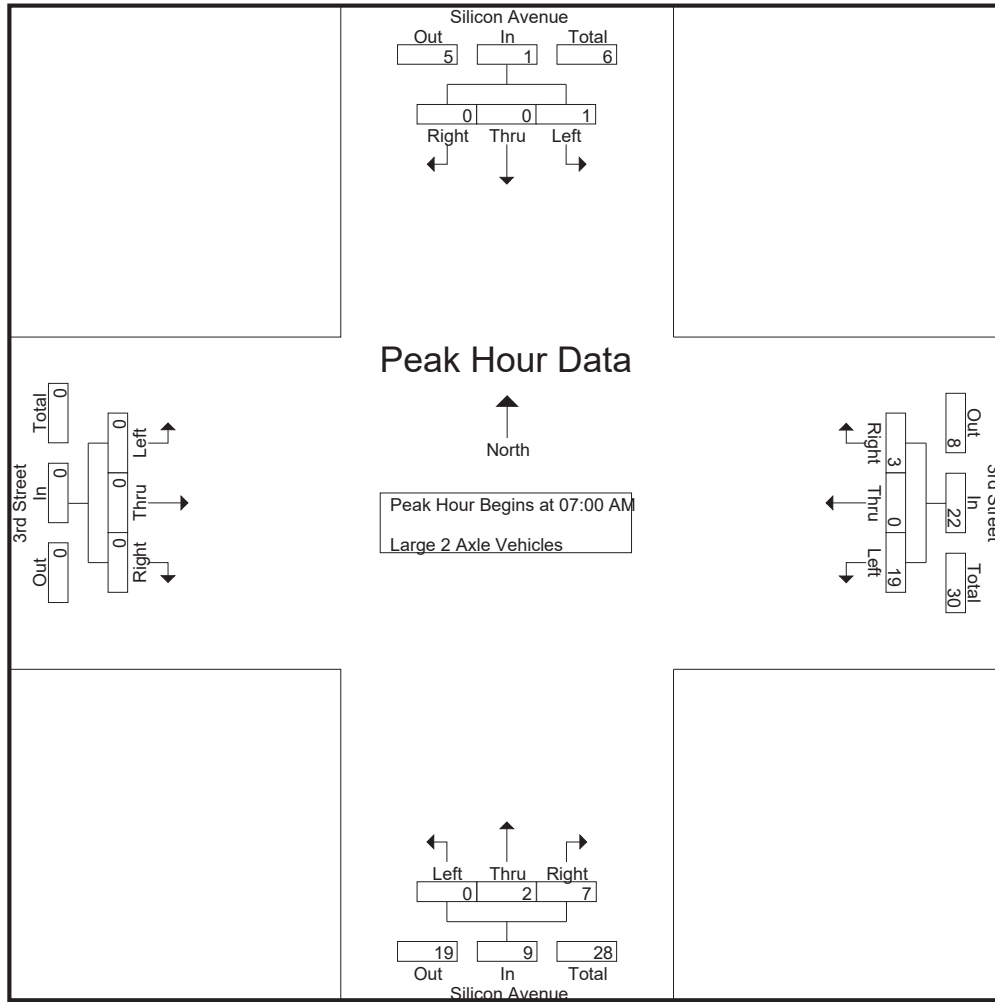
Groups Printed- Large 2 Axle Vehicles

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	0	0	1	11	0	2	13	0	1	2	3	0	0	0	0	17
07:15 AM	0	0	0	0	3	0	1	4	0	0	2	2	0	0	0	0	6
07:30 AM	0	0	0	0	2	0	0	2	0	0	3	3	0	0	0	0	5
07:45 AM	0	0	0	0	3	0	0	3	0	1	0	1	0	0	0	0	4
Total	1	0	0	1	19	0	3	22	0	2	7	9	0	0	0	0	32
08:00 AM	0	0	0	0	2	0	0	2	0	0	3	3	0	0	0	0	5
08:15 AM	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	3
08:45 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2
Total	1	0	0	1	6	0	0	6	0	1	4	5	0	0	0	0	12
Grand Total	2	0	0	2	25	0	3	28	0	3	11	14	0	0	0	0	44
Apprch %	100	0	0		89.3	0	10.7		0	21.4	78.6		0	0	0		
Total %	4.5	0	0	4.5	56.8	0	6.8	63.6	0	6.8	25	31.8	0	0	0	0	

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	1	0	0	1	11	0	2	13	0	1	2	3	0	0	0	0	17
07:15 AM	0	0	0	0	3	0	1	4	0	0	2	2	0	0	0	0	6
07:30 AM	0	0	0	0	2	0	0	2	0	0	3	3	0	0	0	0	5
07:45 AM	0	0	0	0	3	0	0	3	0	1	0	1	0	0	0	0	4
Total Volume	1	0	0	1	19	0	3	22	0	2	7	9	0	0	0	0	32
% App. Total	100	0	0		86.4	0	13.6		0	22.2	77.8		0	0	0		
PHF	.250	.000	.000	.250	.432	.000	.375	.423	.000	.500	.583	.750	.000	.000	.000	.000	.471

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 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				07:00 AM			
+0 mins.	1	0	0	1	11	0	2	13	0	1	2	3	0	0	0	0
+15 mins.	0	0	0	0	3	0	1	4	0	0	2	2	0	0	0	0
+30 mins.	0	0	0	0	2	0	0	2	0	0	3	3	0	0	0	0
+45 mins.	0	0	0	0	3	0	0	3	0	1	0	1	0	0	0	0
Total Volume	1	0	0	1	19	0	3	22	0	2	7	9	0	0	0	0
% App. Total	100	0	0		86.4	0	13.6		0	22.2	77.8		0	0	0	
PHF	.250	.000	.000	.250	.432	.000	.375	.423	.000	.500	.583	.750	.000	.000	.000	.000

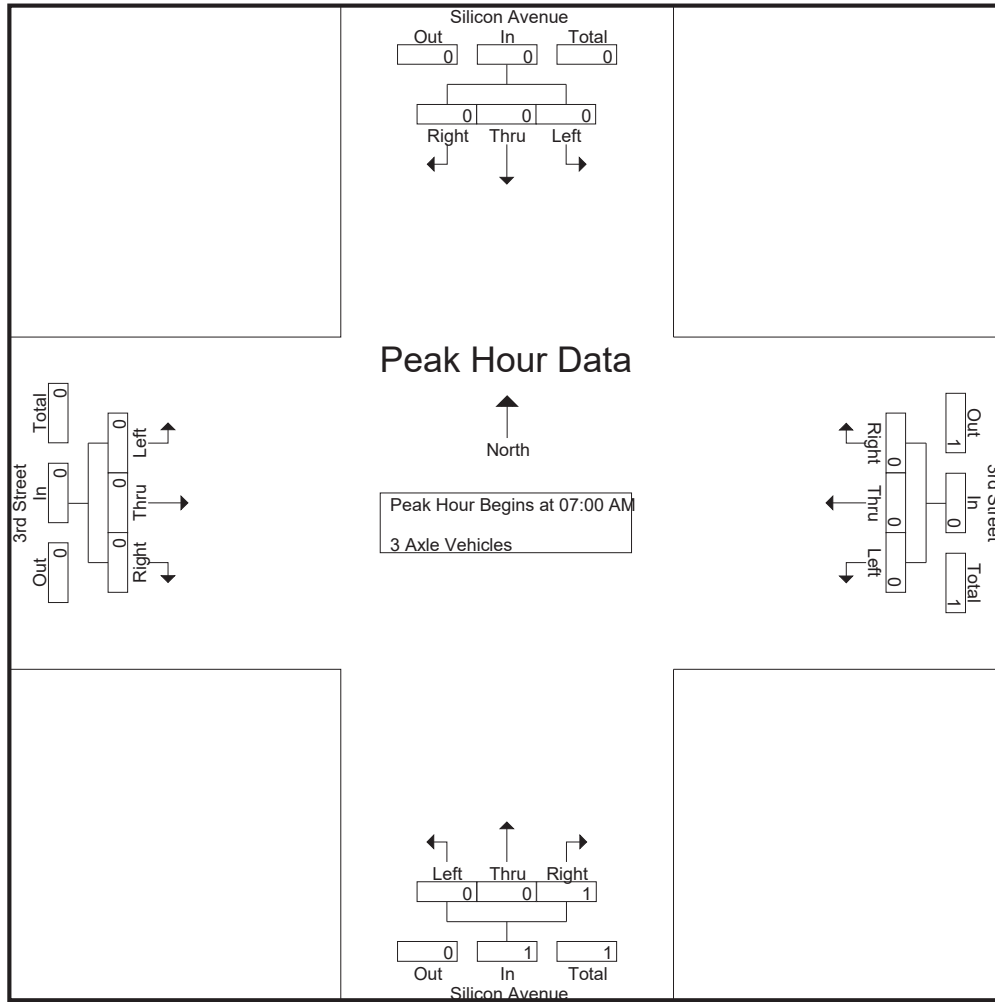
City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St AM
 Site Code : 99919768
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Groups Printed- 3 Axle Vehicles

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	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	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
08:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	2	0	0	2	0	0	1	1	0	0	0	0	3
Grand Total	0	0	0	0	2	0	0	2	0	0	2	2	0	0	0	0	4
Apprch %	0	0	0		100	0	0		0	0	100		0	0	0		
Total %	0	0	0		50	0	0	50	0	0	50	50	0	0	0		

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.250



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

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St AM
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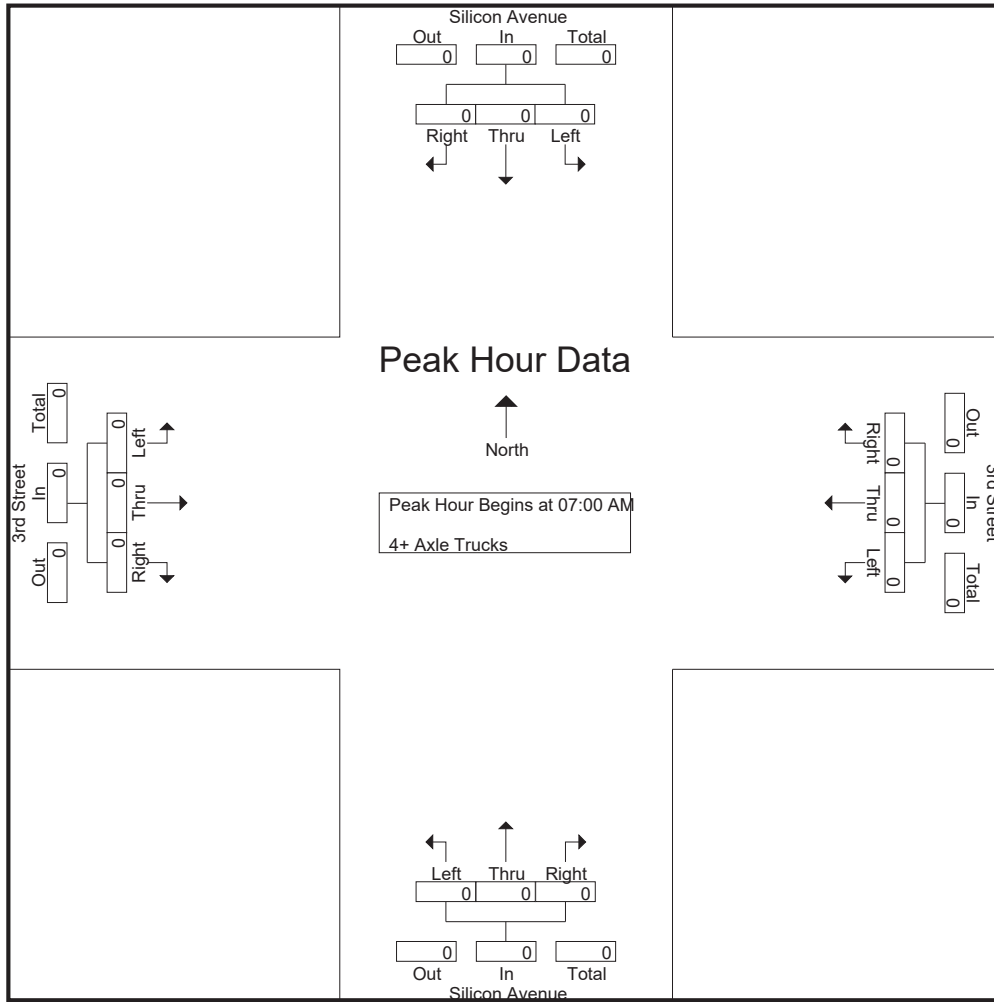
Groups Printed- 4+ Axle Trucks

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	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	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Apprch %	0	0	0		0	0	0		0	100	0		0	0	0		
Total %	0	0	0		0	0	0		0	100	0	100	0	0	0		

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Montclair
 N/S: Silicon Avenue
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 Weather: Clear

File Name : 03_MON_Silicon_3rd St 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				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St PM
 Site Code : 99919768
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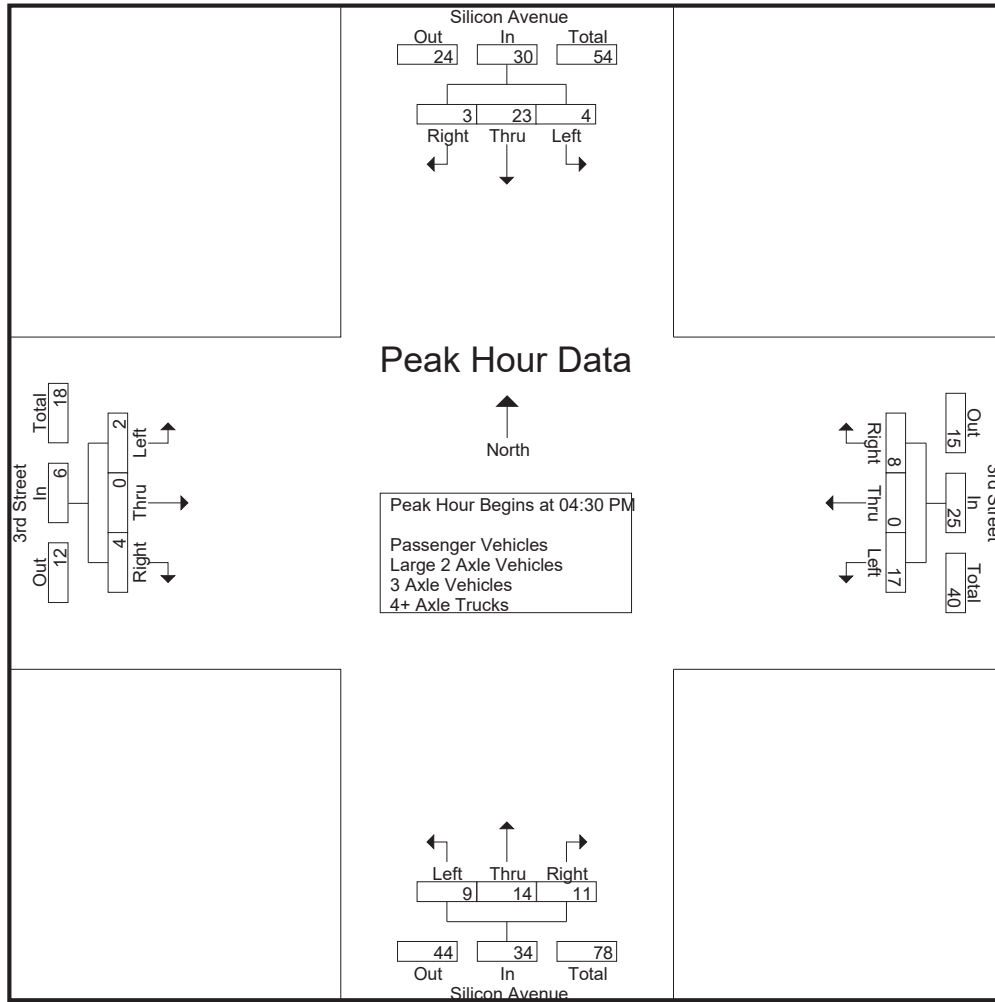
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	2	1	4	7	0	2	9	2	4	3	9	0	0	1	1	23
04:15 PM	4	8	0	12	3	0	1	4	5	1	1	7	1	0	1	2	25
04:30 PM	1	10	1	12	3	0	1	4	2	6	4	12	1	0	1	2	30
04:45 PM	1	2	0	3	2	0	5	7	2	1	1	4	0	0	2	2	16
Total	7	22	2	31	15	0	9	24	11	12	9	32	2	0	5	7	94
05:00 PM	2	3	0	5	6	0	2	8	2	3	0	5	1	0	1	2	20
05:15 PM	0	8	2	10	6	0	0	6	3	4	6	13	0	0	0	0	29
05:30 PM	0	4	0	4	2	0	0	2	1	5	3	9	0	0	1	1	16
05:45 PM	0	4	0	4	0	0	1	1	2	3	2	7	1	0	1	2	14
Total	2	19	2	23	14	0	3	17	8	15	11	34	2	0	3	5	79
Grand Total	9	41	4	54	29	0	12	41	19	27	20	66	4	0	8	12	173
Apprch %	16.7	75.9	7.4		70.7	0	29.3		28.8	40.9	30.3		33.3	0	66.7		
Total %	5.2	23.7	2.3	31.2	16.8	0	6.9	23.7	11	15.6	11.6	38.2	2.3	0	4.6	6.9	
Passenger Vehicles	9	40	4	53	26	0	11	37	19	26	16	61	4	0	8	12	163
% Passenger Vehicles	100	97.6	100	98.1	89.7	0	91.7	90.2	100	96.3	80	92.4	100	0	100	100	94.2
Large 2 Axle Vehicles	0	0	0	0	2	0	1	3	0	1	3	4	0	0	0	0	7
% Large 2 Axle Vehicles	0	0	0	0	6.9	0	8.3	7.3	0	3.7	15	6.1	0	0	0	0	4
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	1	0	1	1	0	0	1	0	0	1	1	0	0	0	0	3
% 4+ Axle Trucks	0	2.4	0	1.9	3.4	0	0	2.4	0	0	5	1.5	0	0	0	0	1.7

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	10	1	12	3	0	1	4	2	6	4	12	1	0	1	2	30
04:45 PM	1	2	0	3	2	0	5	7	2	1	1	4	0	0	2	2	16
05:00 PM	2	3	0	5	6	0	2	8	2	3	0	5	1	0	1	2	20
05:15 PM	0	8	2	10	6	0	0	6	3	4	6	13	0	0	0	0	29
Total Volume	4	23	3	30	17	0	8	25	9	14	11	34	2	0	4	6	95
% App. Total	13.3	76.7	10		68	0	32		26.5	41.2	32.4		33.3	0	66.7		
PHF	.500	.575	.375	.625	.708	.000	.400	.781	.750	.583	.458	.654	.500	.000	.500	.750	.792

City of Montclair
 N/S: Silicon Avenue
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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:

	04:15 PM				04:30 PM				04:30 PM				04:15 PM			
+0 mins.	4	8	0	12	3	0	1	4	2	6	4	12	1	0	1	2
+15 mins.	1	10	1	12	2	0	5	7	2	1	1	4	1	0	1	2
+30 mins.	1	2	0	3	6	0	2	8	2	3	0	5	0	0	2	2
+45 mins.	2	3	0	5	6	0	0	6	3	4	6	13	1	0	1	2
Total Volume	8	23	1	32	17	0	8	25	9	14	11	34	3	0	5	8
% App. Total	25	71.9	3.1		68	0	32		26.5	41.2	32.4		37.5	0	62.5	
PHF	.500	.575	.250	.667	.708	.000	.400	.781	.750	.583	.458	.654	.750	.000	.625	1.000

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St PM
 Site Code : 99919768
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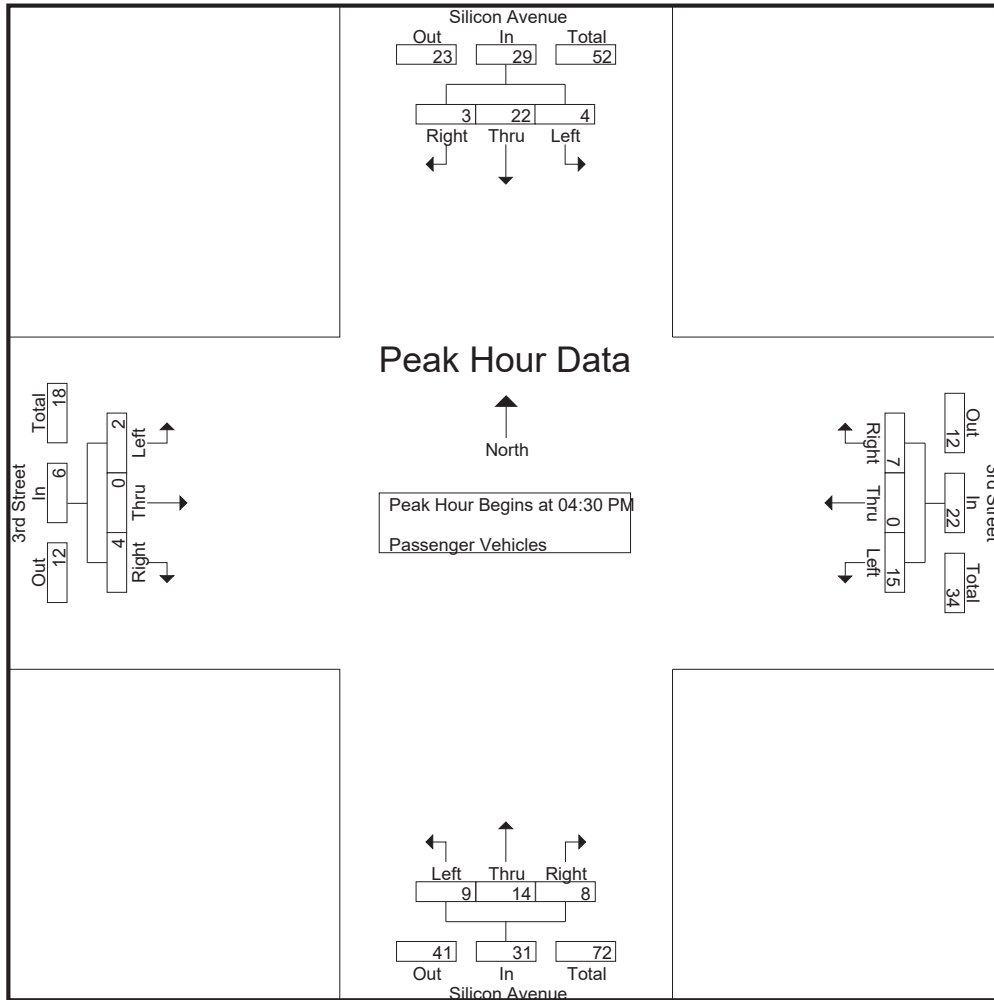
Groups Printed- Passenger Vehicles

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	2	1	4	6	0	2	8	2	4	2	8	0	0	1	1	21
04:15 PM	4	8	0	12	3	0	1	4	5	1	1	7	1	0	1	2	25
04:30 PM	1	10	1	12	3	0	0	3	2	6	2	10	1	0	1	2	27
04:45 PM	1	2	0	3	1	0	5	6	2	1	0	3	0	0	2	2	14
Total	7	22	2	31	13	0	8	21	11	12	5	28	2	0	5	7	87
05:00 PM	2	3	0	5	5	0	2	7	2	3	0	5	1	0	1	2	19
05:15 PM	0	7	2	9	6	0	0	6	3	4	6	13	0	0	0	0	28
05:30 PM	0	4	0	4	2	0	0	2	1	5	3	9	0	0	1	1	16
05:45 PM	0	4	0	4	0	0	1	1	2	2	2	6	1	0	1	2	13
Total	2	18	2	22	13	0	3	16	8	14	11	33	2	0	3	5	76
Grand Total	9	40	4	53	26	0	11	37	19	26	16	61	4	0	8	12	163
Apprch %	17	75.5	7.5		70.3	0	29.7		31.1	42.6	26.2		33.3	0	66.7		
Total %	5.5	24.5	2.5	32.5	16	0	6.7	22.7	11.7	16	9.8	37.4	2.5	0	4.9	7.4	

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	10	1	12	3	0	0	3	2	6	2	10	1	0	1	2	27
04:45 PM	1	2	0	3	1	0	5	6	2	1	0	3	0	0	2	2	14
05:00 PM	2	3	0	5	5	0	2	7	2	3	0	5	1	0	1	2	19
05:15 PM	0	7	2	9	6	0	0	6	3	4	6	13	0	0	0	0	28
Total Volume	4	22	3	29	15	0	7	22	9	14	8	31	2	0	4	6	88
% App. Total	13.8	75.9	10.3		68.2	0	31.8		29	45.2	25.8		33.3	0	66.7		
PHF	.500	.550	.375	.604	.625	.000	.350	.786	.750	.583	.333	.596	.500	.000	.500	.750	.786

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St PM
 Site Code : 99919768
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	1	10	1	12	3	0	0	3	2	6	2	10	1	0	1	2
+15 mins.	1	2	0	3	1	0	5	6	2	1	0	3	0	0	2	2
+30 mins.	2	3	0	5	5	0	2	7	2	3	0	5	1	0	1	2
+45 mins.	0	7	2	9	6	0	0	6	3	4	6	13	0	0	0	0
Total Volume	4	22	3	29	15	0	7	22	9	14	8	31	2	0	4	6
% App. Total	13.8	75.9	10.3		68.2	0	31.8		29	45.2	25.8		33.3	0	66.7	
PHF	.500	.550	.375	.604	.625	.000	.350	.786	.750	.583	.333	.596	.500	.000	.500	.750

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St PM
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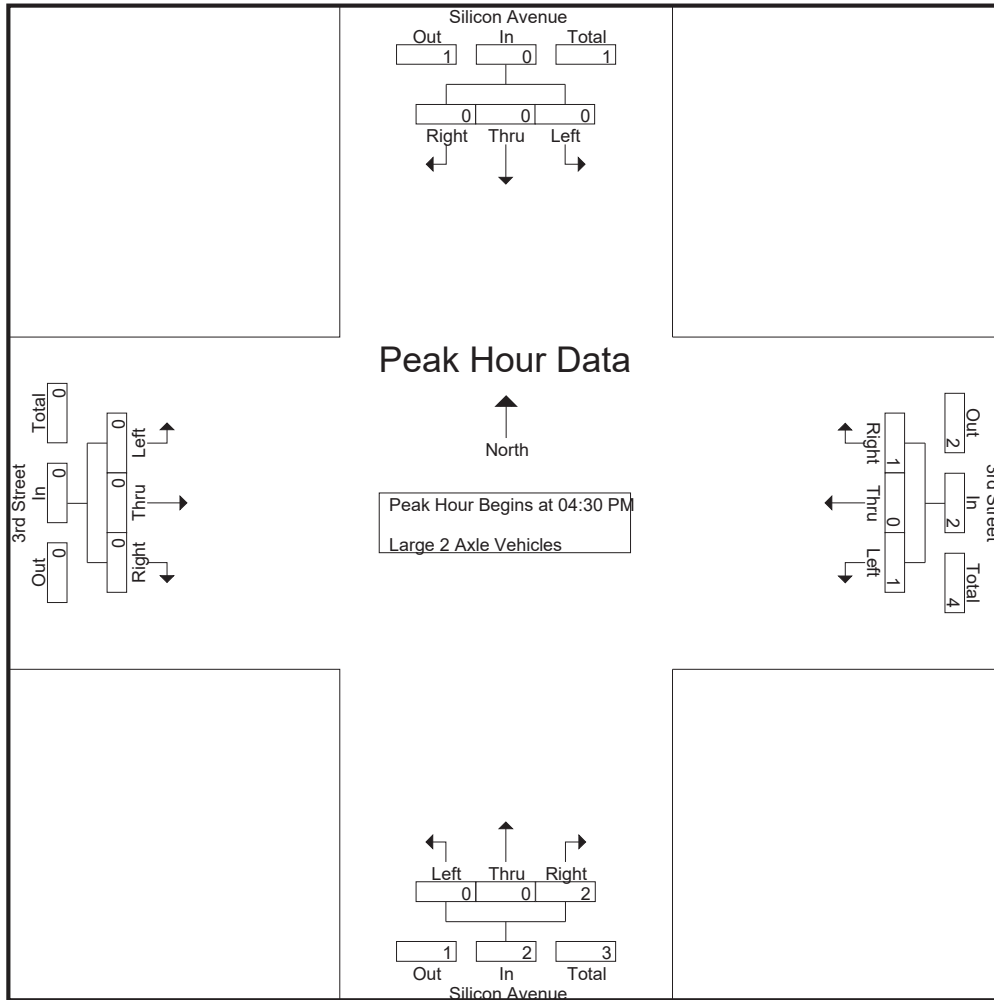
Groups Printed- Large 2 Axle Vehicles

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	2
04:45 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
Total	0	0	0	0	2	0	1	3	0	0	3	3	0	0	0	0	6
05:00 PM	0	0	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	0	0
05:30 PM	0	0	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	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	0	0	0	2	0	1	3	0	1	3	4	0	0	0	0	7
Apprch %	0	0	0		66.7	0	33.3		0	25	75		0	0	0		
Total %	0	0	0		28.6	0	14.3	42.9	0	14.3	42.9	57.1	0	0	0		

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	2
04:45 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
05:00 PM	0	0	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	0	0
Total Volume	0	0	0	0	1	0	1	2	0	0	2	2	0	0	0	0	4
% App. Total	0	0	0		50	0	50		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.250	.000	.250	.500	.000	.000	.500	.500	.000	.000	.000	.000	.500

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0
+15 mins.	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	1	2	0	0	2	2	0	0	0	0
% App. Total	0	0	0	0	50	0	50		0	0	100		0	0	0	0
PHF	.000	.000	.000	.000	.250	.000	.250	.500	.000	.000	.500	.500	.000	.000	.000	.000

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

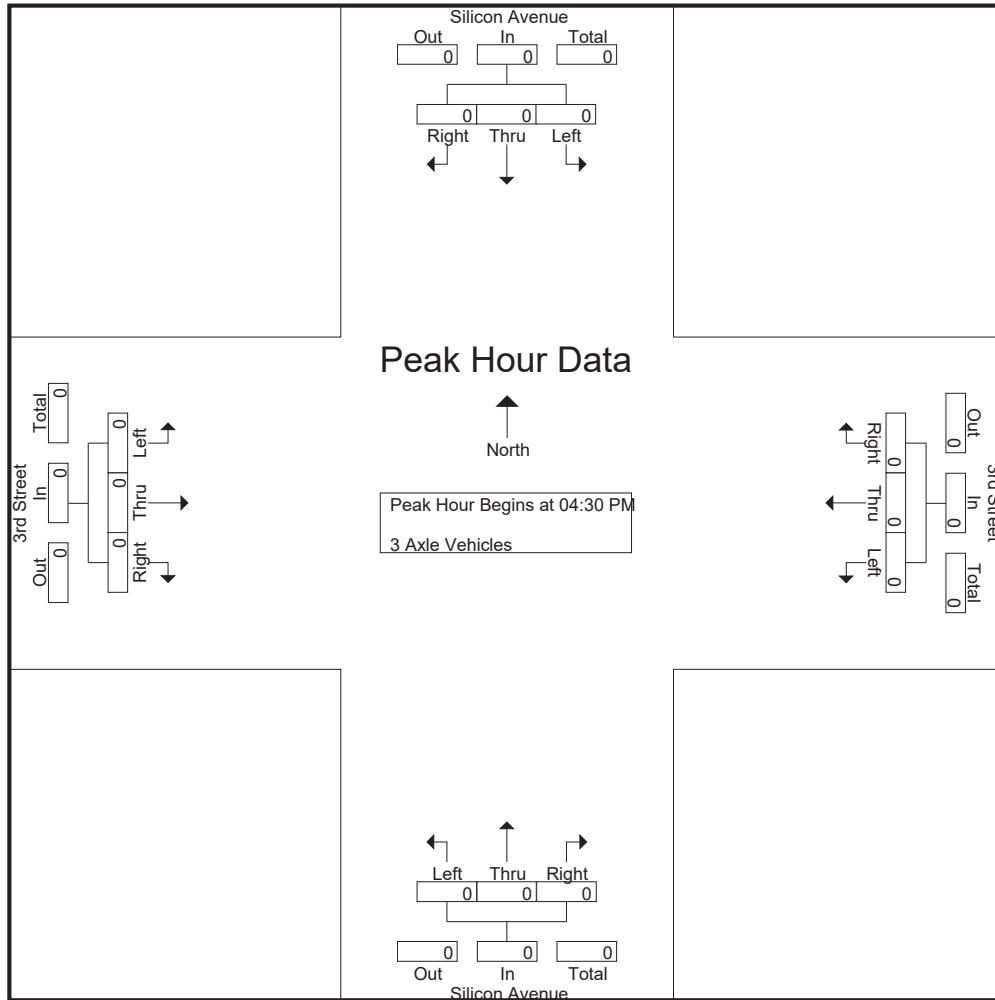
Groups Printed- 3 Axle Vehicles

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	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	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	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	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	0	0
05:30 PM	0	0	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	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	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	0	0
05:00 PM	0	0	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	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

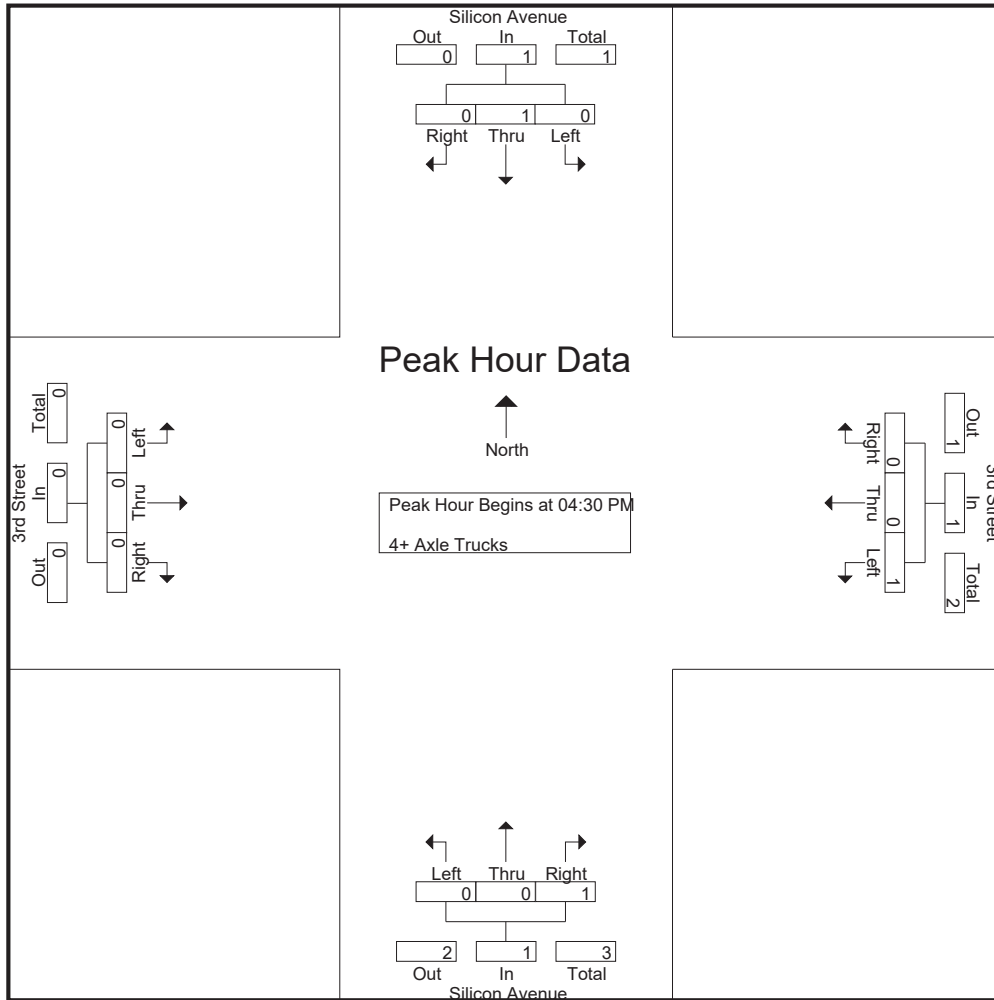
Groups Printed- 4+ Axle Trucks

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	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	0	0	1	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
05:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	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	0	0
Total	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
Grand Total	0	1	0	1	1	0	0	1	0	0	1	1	0	0	0	0	3
Apprch %	0	100	0		100	0	0		0	0	100		0	0	0		
Total %	0	33.3	0	33.3	33.3	0	0	33.3	0	0	33.3	33.3	0	0	0	0	

Start Time	Silicon Avenue Southbound				3rd Street Westbound				Silicon Avenue Northbound				3rd Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	1	0	0	1	0	0	1	1	0	0	0	0	3
% App. Total	0	100	0		100	0	0		0	0	100		0	0	0		
PHF	.000	.250	.000	.250	.250	.000	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000	.750

City of Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street
 Weather: Clear

File Name : 03_MON_Silicon_3rd St PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	1	0	0	1	0	0	1	1	0	0	0	0
% App. Total	0	100	0	0	100	0	0	0	0	0	100	0	0	0	0	0
PHF	.000	.250	.000	.250	.250	.000	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000

Location: Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street



Date: 11/5/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Silicon Avenue	East Leg 3rd Street	South Leg Silicon Avenue	West Leg Dead End	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	1	1	2
7:15 AM	2	0	4	0	6
7:30 AM	1	0	2	0	3
7:45 AM	1	0	0	0	1
8:00 AM	0	0	1	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	1	0	1	0	2
TOTAL VOLUMES:	5	0	9	1	15

	North Leg Silicon Avenue	East Leg 3rd Street	South Leg Silicon Avenue	West Leg Dead End	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	1	1	0	2
4:15 PM	0	0	2	0	2
4:30 PM	1	0	0	1	2
4:45 PM	0	1	0	1	2
5:00 PM	1	0	1	0	2
5:15 PM	0	0	1	0	1
5:30 PM	0	0	0	1	1
5:45 PM	0	0	4	0	4
TOTAL VOLUMES:	2	2	9	3	16

Location: Montclair
 N/S: Silicon Avenue
 E/W: 3rd Street



Date: 11/5/2019
 Day: Tuesday

BICYCLES

	Southbound Silicon Avenue			Westbound 3rd Street			Northbound Silicon Avenue			Eastbound Dead End			
	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	0	0	0
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	1	0	0	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	0	0	0	0	0	1	0	0	0	0	0	1

	Southbound Silicon Avenue			Westbound 3rd Street			Northbound Silicon Avenue			Eastbound Dead End			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
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	1	0	0	0	0	1

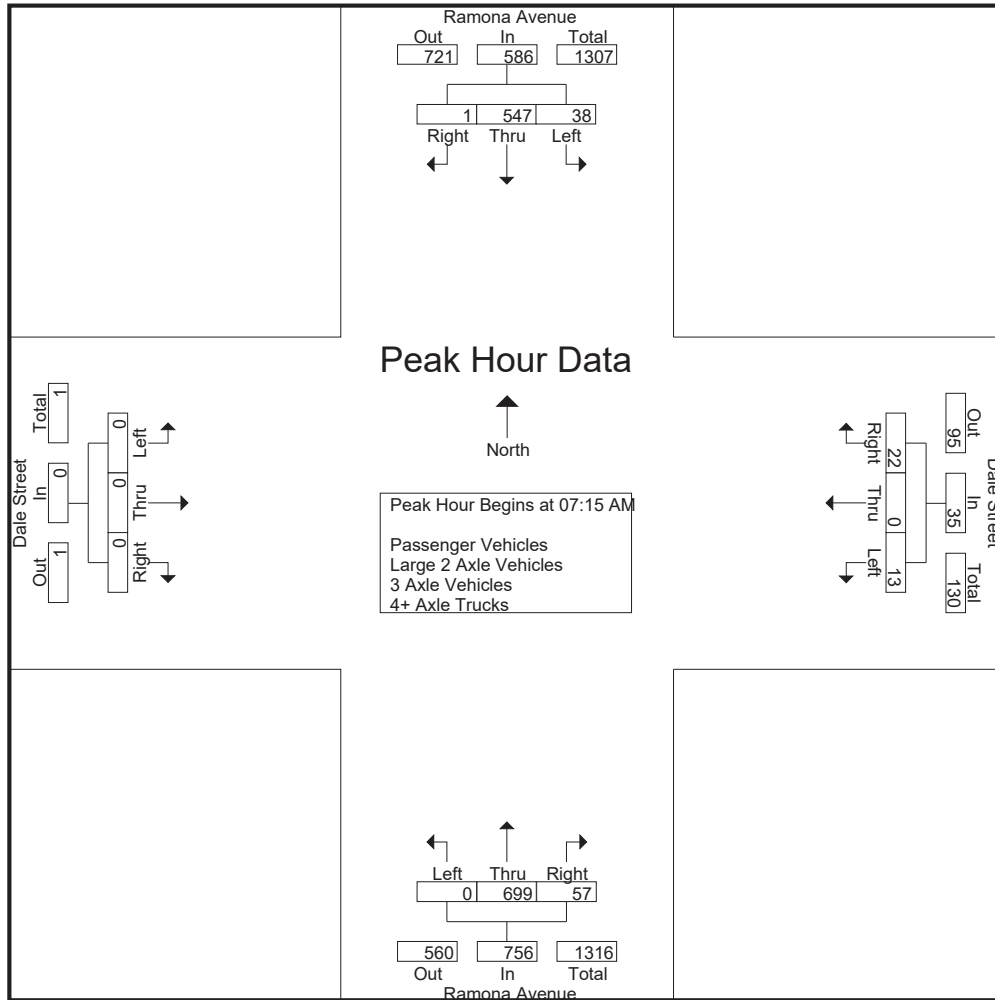
City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

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

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	13	115	0	128	5	0	3	8	0	106	12	118	0	0	0	0	254
07:15 AM	5	137	1	143	5	0	7	12	0	172	12	184	0	0	0	0	339
07:30 AM	9	137	0	146	3	0	5	8	0	221	16	237	0	0	0	0	391
07:45 AM	13	142	0	155	3	0	5	8	0	181	17	198	0	0	0	0	361
Total	40	531	1	572	16	0	20	36	0	680	57	737	0	0	0	0	1345
08:00 AM	11	131	0	142	2	0	5	7	0	125	12	137	0	0	0	0	286
08:15 AM	13	110	1	124	5	0	7	12	2	103	14	119	0	0	0	0	255
08:30 AM	11	90	0	101	7	0	10	17	1	110	12	123	0	0	0	0	241
08:45 AM	7	80	0	87	4	0	6	10	1	104	9	114	0	0	0	0	211
Total	42	411	1	454	18	0	28	46	4	442	47	493	0	0	0	0	993
Grand Total	82	942	2	1026	34	0	48	82	4	1122	104	1230	0	0	0	0	2338
Apprch %	8	91.8	0.2		41.5	0	58.5		0.3	91.2	8.5		0	0	0		
Total %	3.5	40.3	0.1	43.9	1.5	0	2.1	3.5	0.2	48	4.4	52.6	0	0	0	0	
Passenger Vehicles	82	909	1	992	31	0	47	78	4	1083	101	1188	0	0	0	0	2258
% Passenger Vehicles	100	96.5	50	96.7	91.2	0	97.9	95.1	100	96.5	97.1	96.6	0	0	0	0	96.6
Large 2 Axle Vehicles	0	29	1	30	1	0	1	2	0	37	2	39	0	0	0	0	71
% Large 2 Axle Vehicles	0	3.1	50	2.9	2.9	0	2.1	2.4	0	3.3	1.9	3.2	0	0	0	0	3
3 Axle Vehicles	0	1	0	1	2	0	0	2	0	0	0	0	0	0	0	0	3
% 3 Axle Vehicles	0	0.1	0	0.1	5.9	0	0	2.4	0	0	0	0	0	0	0	0	0.1
4+ Axle Trucks	0	3	0	3	0	0	0	0	0	2	1	3	0	0	0	0	6
% 4+ Axle Trucks	0	0.3	0	0.3	0	0	0	0	0	0.2	1	0.2	0	0	0	0	0.3

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	5	137	1	143	5	0	7	12	0	172	12	184	0	0	0	0	339
07:30 AM	9	137	0	146	3	0	5	8	0	221	16	237	0	0	0	0	391
07:45 AM	13	142	0	155	3	0	5	8	0	181	17	198	0	0	0	0	361
08:00 AM	11	131	0	142	2	0	5	7	0	125	12	137	0	0	0	0	286
Total Volume	38	547	1	586	13	0	22	35	0	699	57	756	0	0	0	0	1377
% App. Total	6.5	93.3	0.2		37.1	0	62.9		0	92.5	7.5		0	0	0		
PHF	.731	.963	.250	.945	.650	.000	.786	.729	.000	.791	.838	.797	.000	.000	.000	.000	.880



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

	07:15 AM				08:00 AM				07:15 AM				07:00 AM			
+0 mins.	5	137	1	143	2	0	5	7	0	172	12	184	0	0	0	0
+15 mins.	9	137	0	146	5	0	7	12	0	221	16	237	0	0	0	0
+30 mins.	13	142	0	155	7	0	10	17	0	181	17	198	0	0	0	0
+45 mins.	11	131	0	142	4	0	6	10	0	125	12	137	0	0	0	0
Total Volume	38	547	1	586	18	0	28	46	0	699	57	756	0	0	0	0
% App. Total	6.5	93.3	0.2		39.1	0	60.9		0	92.5	7.5		0	0	0	
PHF	.731	.963	.250	.945	.643	.000	.700	.676	.000	.791	.838	.797	.000	.000	.000	.000

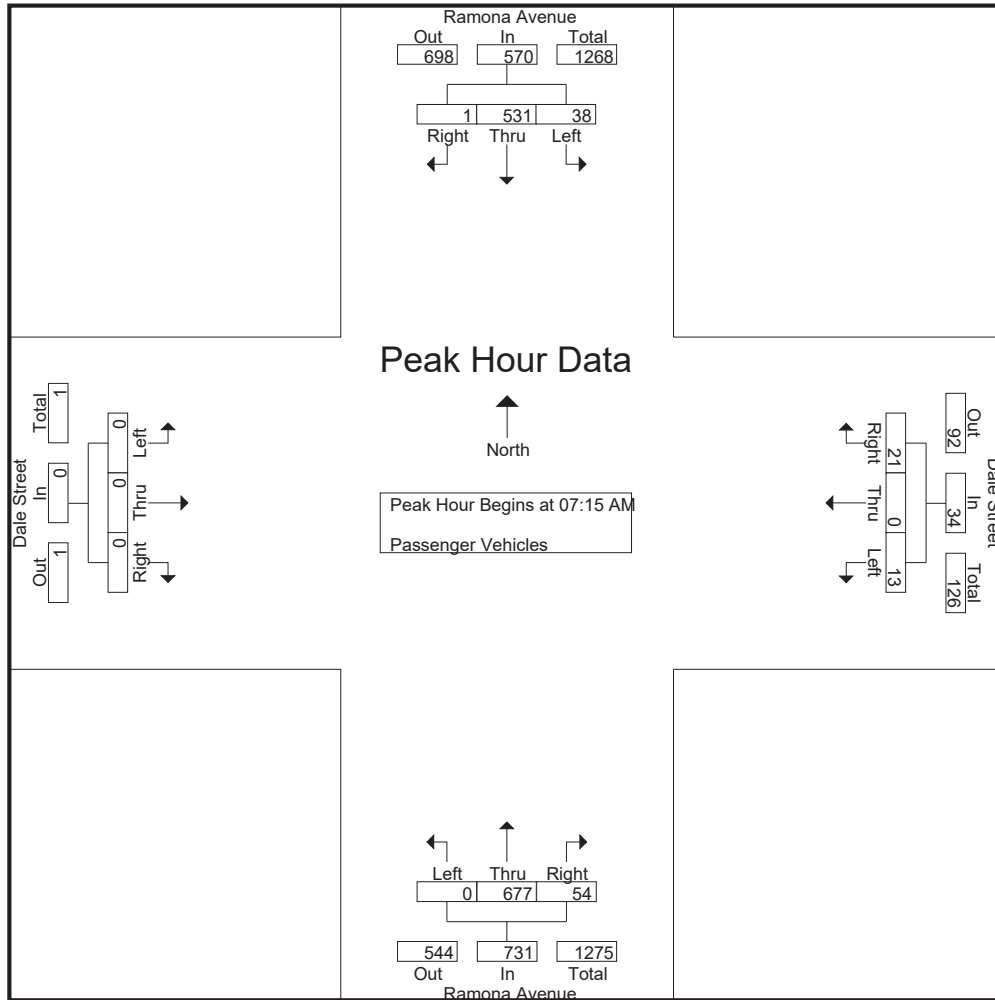
City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

Groups Printed- Passenger Vehicles

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	13	108	0	121	5	0	3	8	0	99	12	111	0	0	0	0	240
07:15 AM	5	134	1	140	5	0	7	12	0	163	11	174	0	0	0	0	326
07:30 AM	9	133	0	142	3	0	5	8	0	217	14	231	0	0	0	0	381
07:45 AM	13	136	0	149	3	0	4	7	0	176	17	193	0	0	0	0	349
Total	40	511	1	552	16	0	19	35	0	655	54	709	0	0	0	0	1296
08:00 AM	11	128	0	139	2	0	5	7	0	121	12	133	0	0	0	0	279
08:15 AM	13	107	0	120	4	0	7	11	2	101	14	117	0	0	0	0	248
08:30 AM	11	89	0	100	6	0	10	16	1	106	12	119	0	0	0	0	235
08:45 AM	7	74	0	81	3	0	6	9	1	100	9	110	0	0	0	0	200
Total	42	398	0	440	15	0	28	43	4	428	47	479	0	0	0	0	962
Grand Total	82	909	1	992	31	0	47	78	4	1083	101	1188	0	0	0	0	2258
Apprch %	8.3	91.6	0.1		39.7	0	60.3		0.3	91.2	8.5		0	0	0		
Total %	3.6	40.3	0	43.9	1.4	0	2.1	3.5	0.2	48	4.5	52.6	0	0	0	0	

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	5	134	1	140	5	0	7	12	0	163	11	174	0	0	0	0	326
07:30 AM	9	133	0	142	3	0	5	8	0	217	14	231	0	0	0	0	381
07:45 AM	13	136	0	149	3	0	4	7	0	176	17	193	0	0	0	0	349
08:00 AM	11	128	0	139	2	0	5	7	0	121	12	133	0	0	0	0	279
Total Volume	38	531	1	570	13	0	21	34	0	677	54	731	0	0	0	0	1335
% App. Total	6.7	93.2	0.2		38.2	0	61.8		0	92.6	7.4		0	0	0		
PHF	.731	.976	.250	.956	.650	.000	.750	.708	.000	.780	.794	.791	.000	.000	.000	.000	.876



Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	5	134	1	140	5	0	7	12	0	163	11	174	0	0	0	0
+15 mins.	9	133	0	142	3	0	5	8	0	217	14	231	0	0	0	0
+30 mins.	13	136	0	149	3	0	4	7	0	176	17	193	0	0	0	0
+45 mins.	11	128	0	139	2	0	5	7	0	121	12	133	0	0	0	0
Total Volume	38	531	1	570	13	0	21	34	0	677	54	731	0	0	0	0
% App. Total	6.7	93.2	0.2		38.2	0	61.8		0	92.6	7.4		0	0	0	
PHF	.731	.976	.250	.956	.650	.000	.750	.708	.000	.780	.794	.791	.000	.000	.000	.000

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

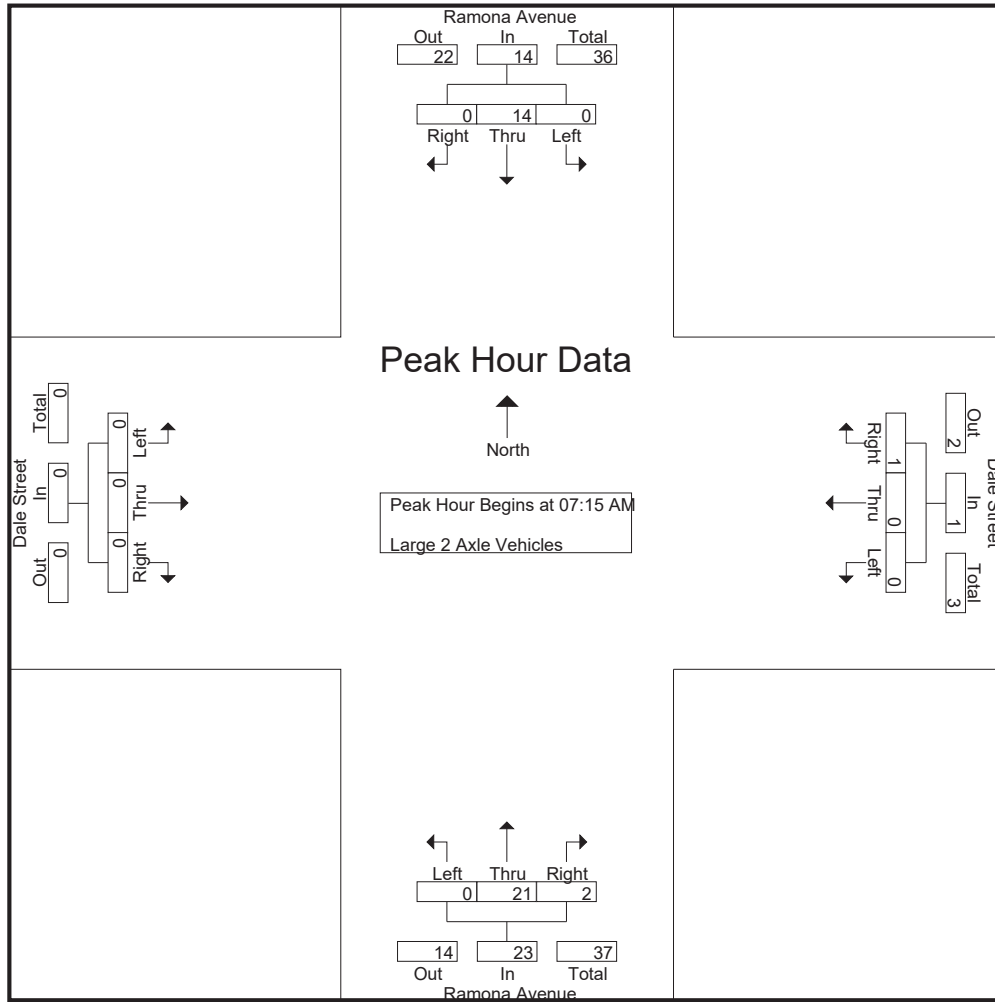
Groups Printed- Large 2 Axle Vehicles

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	7	0	7	0	0	0	0	0	7	0	7	0	0	0	0	14
07:15 AM	0	2	0	2	0	0	0	0	0	9	1	10	0	0	0	0	12
07:30 AM	0	4	0	4	0	0	0	0	0	4	1	5	0	0	0	0	9
07:45 AM	0	5	0	5	0	0	1	1	0	4	0	4	0	0	0	0	10
Total	0	18	0	18	0	0	1	1	0	24	2	26	0	0	0	0	45
08:00 AM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
08:15 AM	0	2	1	3	0	0	0	0	0	2	0	2	0	0	0	0	5
08:30 AM	0	1	0	1	1	0	0	1	0	4	0	4	0	0	0	0	6
08:45 AM	0	5	0	5	0	0	0	0	0	3	0	3	0	0	0	0	8
Total	0	11	1	12	1	0	0	1	0	13	0	13	0	0	0	0	26
Grand Total	0	29	1	30	1	0	1	2	0	37	2	39	0	0	0	0	71
Apprch %	0	96.7	3.3		50	0	50		0	94.9	5.1		0	0	0		
Total %	0	40.8	1.4	42.3	1.4	0	1.4	2.8	0	52.1	2.8	54.9	0	0	0	0	

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	2	0	2	0	0	0	0	0	9	1	10	0	0	0	0	12
07:30 AM	0	4	0	4	0	0	0	0	0	4	1	5	0	0	0	0	9
07:45 AM	0	5	0	5	0	0	1	1	0	4	0	4	0	0	0	0	10
08:00 AM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
Total Volume	0	14	0	14	0	0	1	1	0	21	2	23	0	0	0	0	38
% App. Total	0	100	0		0	0	100		0	91.3	8.7		0	0	0		
PHF	.000	.700	.000	.700	.000	.000	.250	.250	.000	.583	.500	.575	.000	.000	.000	.000	.792

City of Montclair
 N/S: Ramona Avenue
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 Weather: Clear

File Name : 04_MON_Ramona_Dale AM
 Site Code : 99919768
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	2	0	2	0	0	0	0	0	9	1	10	0	0	0	0
+15 mins.	0	4	0	4	0	0	0	0	0	4	1	5	0	0	0	0
+30 mins.	0	5	0	5	0	0	1	1	0	4	0	4	0	0	0	0
+45 mins.	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0
Total Volume	0	14	0	14	0	0	1	1	0	21	2	23	0	0	0	0
% App. Total	0	100	0	100	0	0	100	100	0	91.3	8.7	100	0	0	0	0
PHF	.000	.700	.000	.700	.000	.000	.250	.250	.000	.583	.500	.575	.000	.000	.000	.000

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale AM
 Site Code : 99919768
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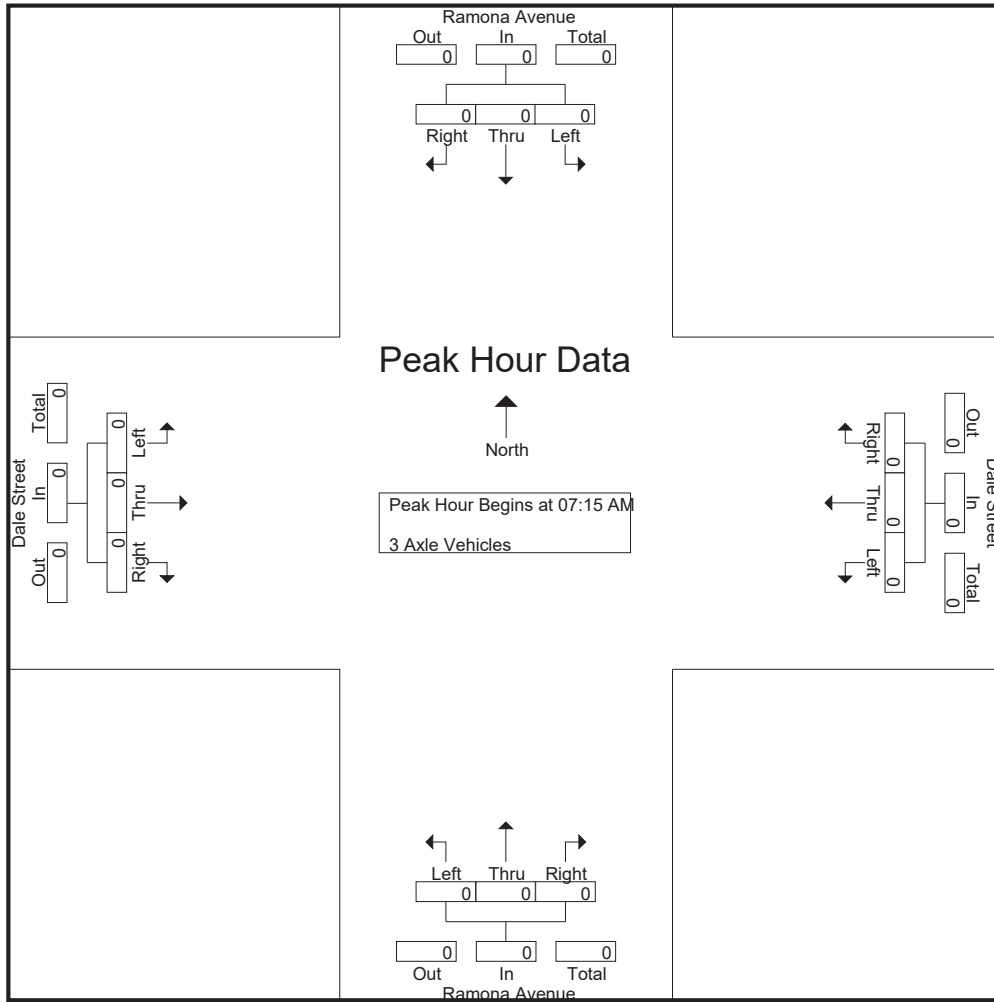
Groups Printed- 3 Axle Vehicles

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	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	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
Total	0	1	0	1	2	0	0	2	0	0	0	0	0	0	0	0	3
Grand Total	0	1	0	1	2	0	0	2	0	0	0	0	0	0	0	0	3
Apprch %	0	100	0		100	0	0		0	0	0		0	0	0		
Total %	0	33.3	0	33.3	66.7	0	0	66.7	0	0	0	0	0	0	0	0	

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

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

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale AM
 Site Code : 99919768
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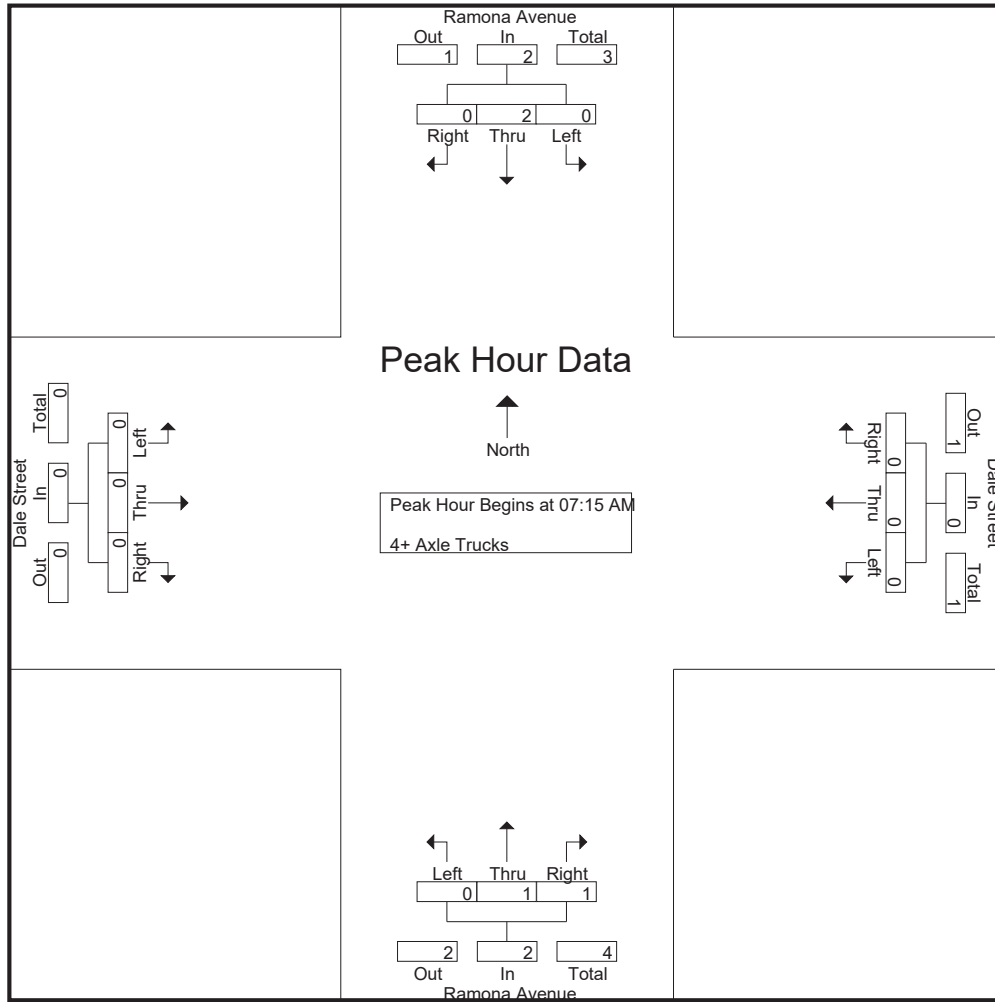
Groups Printed- 4+ Axle Trucks

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	2	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Grand Total	0	3	0	3	0	0	0	0	0	2	1	3	0	0	0	0	6
Apprch %	0	100	0		0	0	0		0	66.7	33.3		0	0	0		
Total %	0	50	0	50	0	0	0	0	0	33.3	16.7	50	0	0	0	0	

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
% App. Total	0	100	0		0	0	0		0	50	50		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.250	.500	.000	.000	.000	.000	.500

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	1	1	2	0	0	0	0
% App. Total	0	100	0	0	0	0	0	0	0	50	50	0	0	0	0	0
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.250	.250	.500	.000	.000	.000	.000

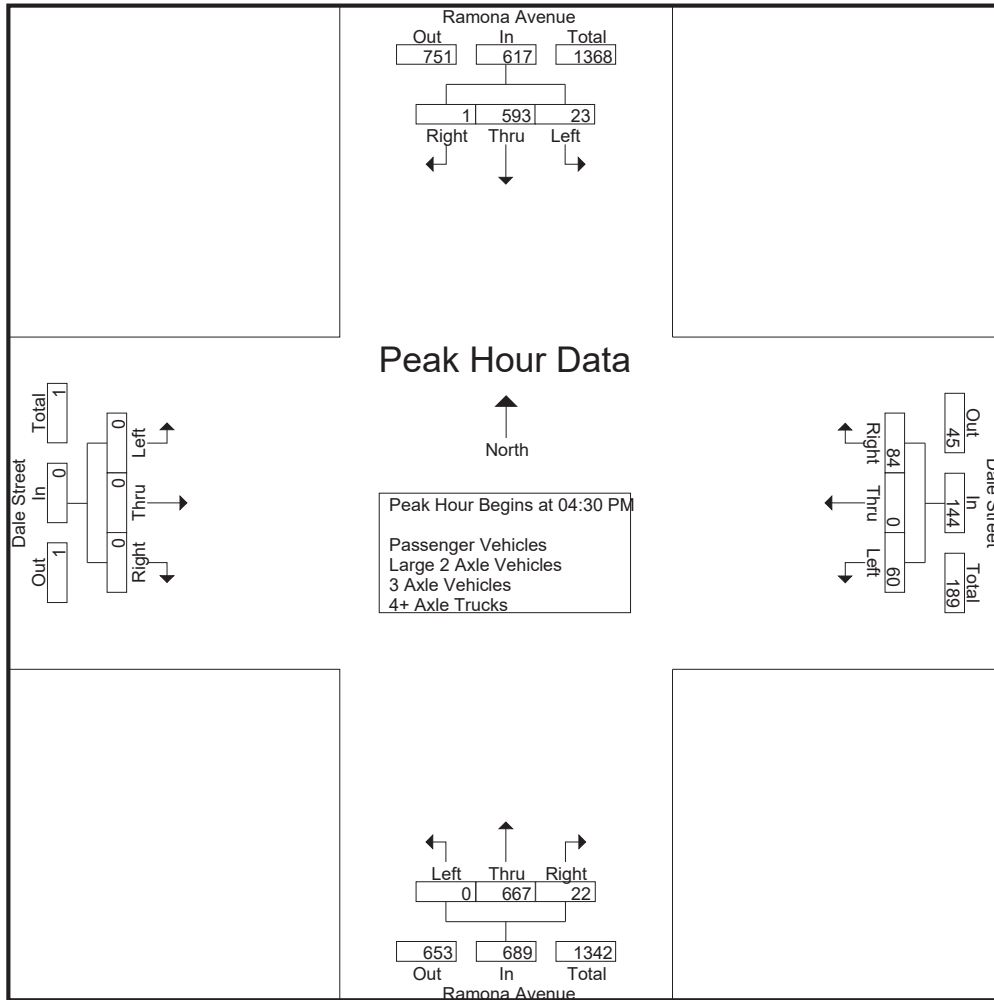
City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale PM
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	10	155	1	166	4	0	15	19	0	140	7	147	0	0	1	1	333
04:15 PM	11	147	1	159	9	0	13	22	0	163	5	168	0	0	0	0	349
04:30 PM	7	141	0	148	17	0	21	38	0	191	7	198	0	0	0	0	384
04:45 PM	4	140	1	145	11	0	17	28	0	148	2	150	0	0	0	0	323
Total	32	583	3	618	41	0	66	107	0	642	21	663	0	0	1	1	1389
05:00 PM	6	154	0	160	20	0	24	44	0	174	8	182	0	0	0	0	386
05:15 PM	6	158	0	164	12	0	22	34	0	154	5	159	0	0	0	0	357
05:30 PM	7	158	1	166	9	1	13	23	2	146	6	154	0	0	0	0	343
05:45 PM	11	149	0	160	12	1	13	26	0	174	3	177	0	0	1	1	364
Total	30	619	1	650	53	2	72	127	2	648	22	672	0	0	1	1	1450
Grand Total	62	1202	4	1268	94	2	138	234	2	1290	43	1335	0	0	2	2	2839
Apprch %	4.9	94.8	0.3		40.2	0.9	59		0.1	96.6	3.2		0	0	100		
Total %	2.2	42.3	0.1	44.7	3.3	0.1	4.9	8.2	0.1	45.4	1.5	47	0	0	0.1	0.1	
Passenger Vehicles	59	1178	4	1241	92	2	130	224	2	1268	42	1312	0	0	2	2	2779
% Passenger Vehicles	95.2	98	100	97.9	97.9	100	94.2	95.7	100	98.3	97.7	98.3	0	0	100	100	97.9
Large 2 Axle Vehicles	1	23	0	24	0	0	4	4	0	18	0	18	0	0	0	0	46
% Large 2 Axle Vehicles	1.6	1.9	0	1.9	0	0	2.9	1.7	0	1.4	0	1.3	0	0	0	0	1.6
3 Axle Vehicles	2	0	0	2	0	0	3	3	0	1	0	1	0	0	0	0	6
% 3 Axle Vehicles	3.2	0	0	0.2	0	0	2.2	1.3	0	0.1	0	0.1	0	0	0	0	0.2
4+ Axle Trucks	0	1	0	1	2	0	1	3	0	3	1	4	0	0	0	0	8
% 4+ Axle Trucks	0	0.1	0	0.1	2.1	0	0.7	1.3	0	0.2	2.3	0.3	0	0	0	0	0.3

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	7	141	0	148	17	0	21	38	0	191	7	198	0	0	0	0	384
04:45 PM	4	140	1	145	11	0	17	28	0	148	2	150	0	0	0	0	323
05:00 PM	6	154	0	160	20	0	24	44	0	174	8	182	0	0	0	0	386
05:15 PM	6	158	0	164	12	0	22	34	0	154	5	159	0	0	0	0	357
Total Volume	23	593	1	617	60	0	84	144	0	667	22	689	0	0	0	0	1450
% App. Total	3.7	96.1	0.2		41.7	0	58.3		0	96.8	3.2		0	0	0		
PHF	.821	.938	.250	.941	.750	.000	.875	.818	.000	.873	.688	.870	.000	.000	.000	.000	.939



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				04:30 PM				04:15 PM				04:00 PM			
+0 mins.	6	154	0	160	17	0	21	38	0	163	5	168	0	0	1	1
+15 mins.	6	158	0	164	11	0	17	28	0	191	7	198	0	0	0	0
+30 mins.	7	158	1	166	20	0	24	44	0	148	2	150	0	0	0	0
+45 mins.	11	149	0	160	12	0	22	34	0	174	8	182	0	0	0	0
Total Volume	30	619	1	650	60	0	84	144	0	676	22	698	0	0	1	1
% App. Total	4.6	95.2	0.2		41.7	0	58.3		0	96.8	3.2		0	0	100	
PHF	.682	.979	.250	.979	.750	.000	.875	.818	.000	.885	.688	.881	.000	.000	.250	.250

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale PM
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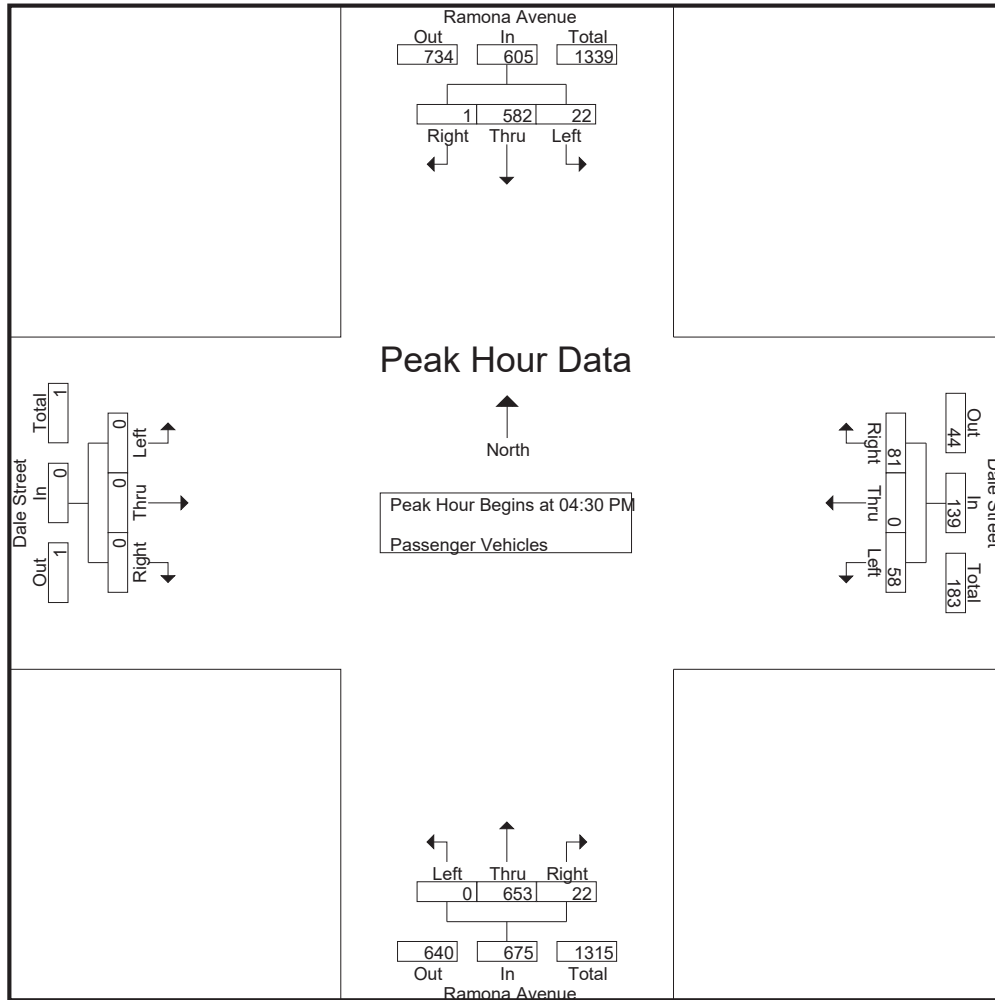
Groups Printed- Passenger Vehicles

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	9	150	1	160	4	0	13	17	0	136	7	143	0	0	1	1	321
04:15 PM	10	142	1	153	9	0	10	19	0	160	4	164	0	0	0	0	336
04:30 PM	7	138	0	145	16	0	19	35	0	187	7	194	0	0	0	0	374
04:45 PM	3	137	1	141	10	0	17	27	0	144	2	146	0	0	0	0	314
Total	29	567	3	599	39	0	59	98	0	627	20	647	0	0	1	1	1345
05:00 PM	6	152	0	158	20	0	23	43	0	170	8	178	0	0	0	0	379
05:15 PM	6	155	0	161	12	0	22	34	0	152	5	157	0	0	0	0	352
05:30 PM	7	158	1	166	9	1	13	23	2	145	6	153	0	0	0	0	342
05:45 PM	11	146	0	157	12	1	13	26	0	174	3	177	0	0	1	1	361
Total	30	611	1	642	53	2	71	126	2	641	22	665	0	0	1	1	1434
Grand Total	59	1178	4	1241	92	2	130	224	2	1268	42	1312	0	0	2	2	2779
Apprch %	4.8	94.9	0.3		41.1	0.9	58		0.2	96.6	3.2		0	0	100		
Total %	2.1	42.4	0.1	44.7	3.3	0.1	4.7	8.1	0.1	45.6	1.5	47.2	0	0	0.1	0.1	

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	7	138	0	145	16	0	19	35	0	187	7	194	0	0	0	0	374
04:45 PM	3	137	1	141	10	0	17	27	0	144	2	146	0	0	0	0	314
05:00 PM	6	152	0	158	20	0	23	43	0	170	8	178	0	0	0	0	379
05:15 PM	6	155	0	161	12	0	22	34	0	152	5	157	0	0	0	0	352
Total Volume	22	582	1	605	58	0	81	139	0	653	22	675	0	0	0	0	1419
% App. Total	3.6	96.2	0.2		41.7	0	58.3		0	96.7	3.3		0	0	0		
PHF	.786	.939	.250	.939	.725	.000	.880	.808	.000	.873	.688	.870	.000	.000	.000	.000	.936

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	7	138	0	145	16	0	19	35	0	187	7	194	0	0	0	0
+15 mins.	3	137	1	141	10	0	17	27	0	144	2	146	0	0	0	0
+30 mins.	6	152	0	158	20	0	23	43	0	170	8	178	0	0	0	0
+45 mins.	6	155	0	161	12	0	22	34	0	152	5	157	0	0	0	0
Total Volume	22	582	1	605	58	0	81	139	0	653	22	675	0	0	0	0
% App. Total	3.6	96.2	0.2		41.7	0	58.3		0	96.7	3.3		0	0	0	
PHF	.786	.939	.250	.939	.725	.000	.880	.808	.000	.873	.688	.870	.000	.000	.000	.000

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

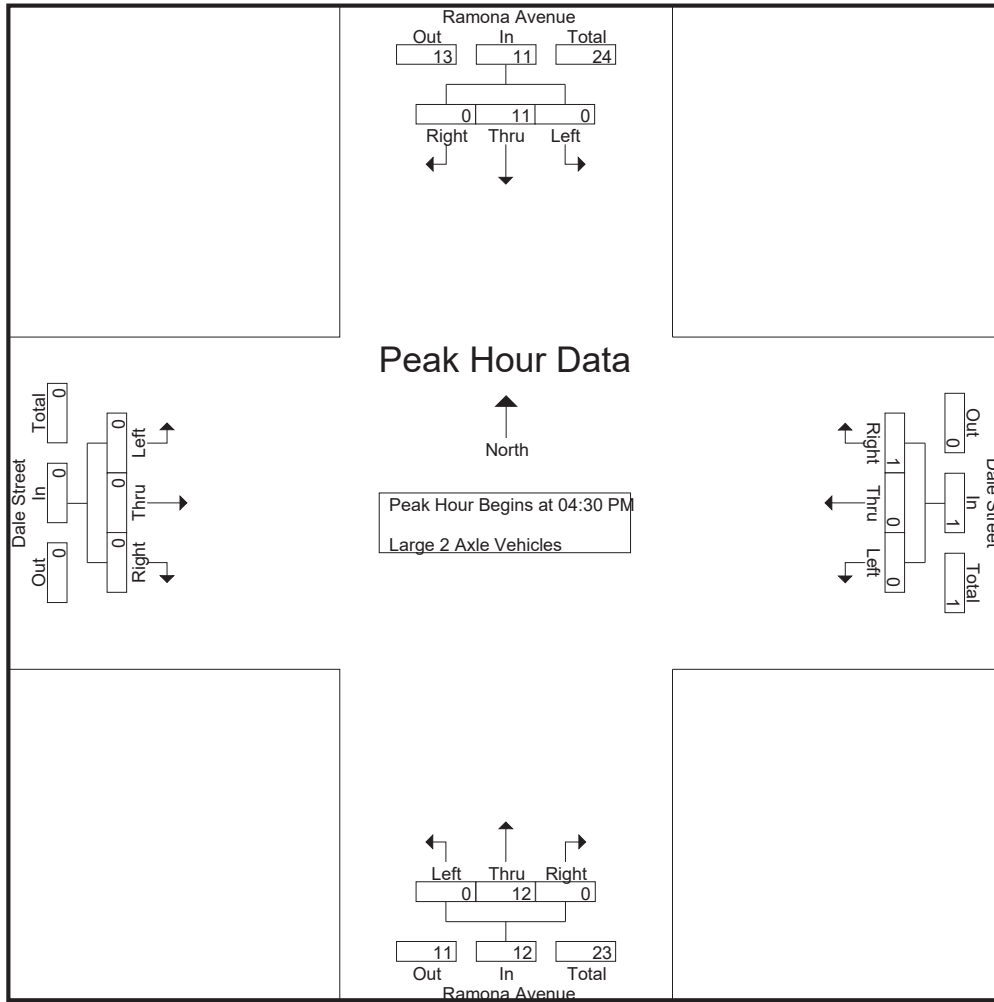
Groups Printed- Large 2 Axle Vehicles

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	5	0	6	0	0	1	1	0	3	0	3	0	0	0	0	10
04:15 PM	0	4	0	4	0	0	2	2	0	2	0	2	0	0	0	0	8
04:30 PM	0	3	0	3	0	0	1	1	0	4	0	4	0	0	0	0	8
04:45 PM	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6
Total	1	15	0	16	0	0	4	4	0	12	0	12	0	0	0	0	32
05:00 PM	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0	5
05:15 PM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:45 PM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	8	0	8	0	0	0	0	0	6	0	6	0	0	0	0	14
Grand Total	1	23	0	24	0	0	4	4	0	18	0	18	0	0	0	0	46
Apprch %	4.2	95.8	0		0	0	100		0	100	0		0	0	0		
Total %	2.2	50	0	52.2	0	0	8.7	8.7	0	39.1	0	39.1	0	0	0	0	

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	3	0	3	0	0	1	1	0	4	0	4	0	0	0	0	8
04:45 PM	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6
05:00 PM	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0	5
05:15 PM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
Total Volume	0	11	0	11	0	0	1	1	0	12	0	12	0	0	0	0	24
% App. Total	0	100	0		0	0	100		0	100	0		0	0	0		
PHF	.000	.917	.000	.917	.000	.000	.250	.250	.000	.750	.000	.750	.000	.000	.000	.000	.750

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	3	0	3	0	0	1	1	0	4	0	4	0	0	0	0
+15 mins.	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0
+45 mins.	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0
Total Volume	0	11	0	11	0	0	1	1	0	12	0	12	0	0	0	0
% App. Total	0	100	0	100	0	0	100	100	0	100	0	100	0	0	0	0
PHF	.000	.917	.000	.917	.000	.000	.250	.250	.000	.750	.000	.750	.000	.000	.000	.000

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

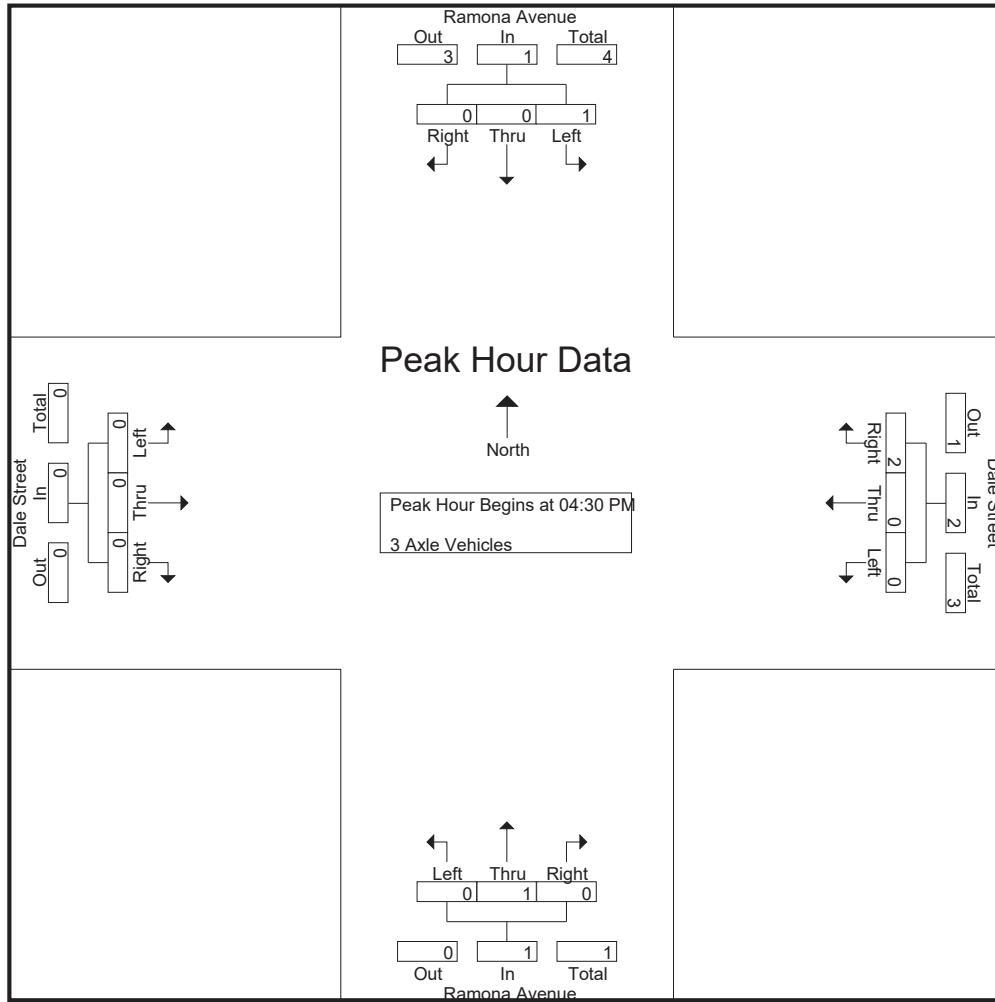
Groups Printed- 3 Axle Vehicles

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:45 PM	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	2	0	0	2	0	0	2	2	0	1	0	1	0	0	0	0	5
05:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	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	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Grand Total	2	0	0	2	0	0	3	3	0	1	0	1	0	0	0	0	6
Apprch %	100	0	0		0	0	100		0	100	0		0	0	0		
Total %	33.3	0	0	33.3	0	0	50	50	0	16.7	0	16.7	0	0	0	0	

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:45 PM	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	2	2	0	1	0	1	0	0	0	0	4
% App. Total	100	0	0		0	0	100		0	100	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.500	.500	.000	.250	.000	.250	.000	.000	.000	.000	.500

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	2	2	0	1	0	1	0	0	0	0
% App. Total	100	0	0	0	0	0	100	0	0	100	0	0	0	0	0	0
PHF	.250	.000	.000	.250	.000	.000	.500	.500	.000	.250	.000	.250	.000	.000	.000	.000

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

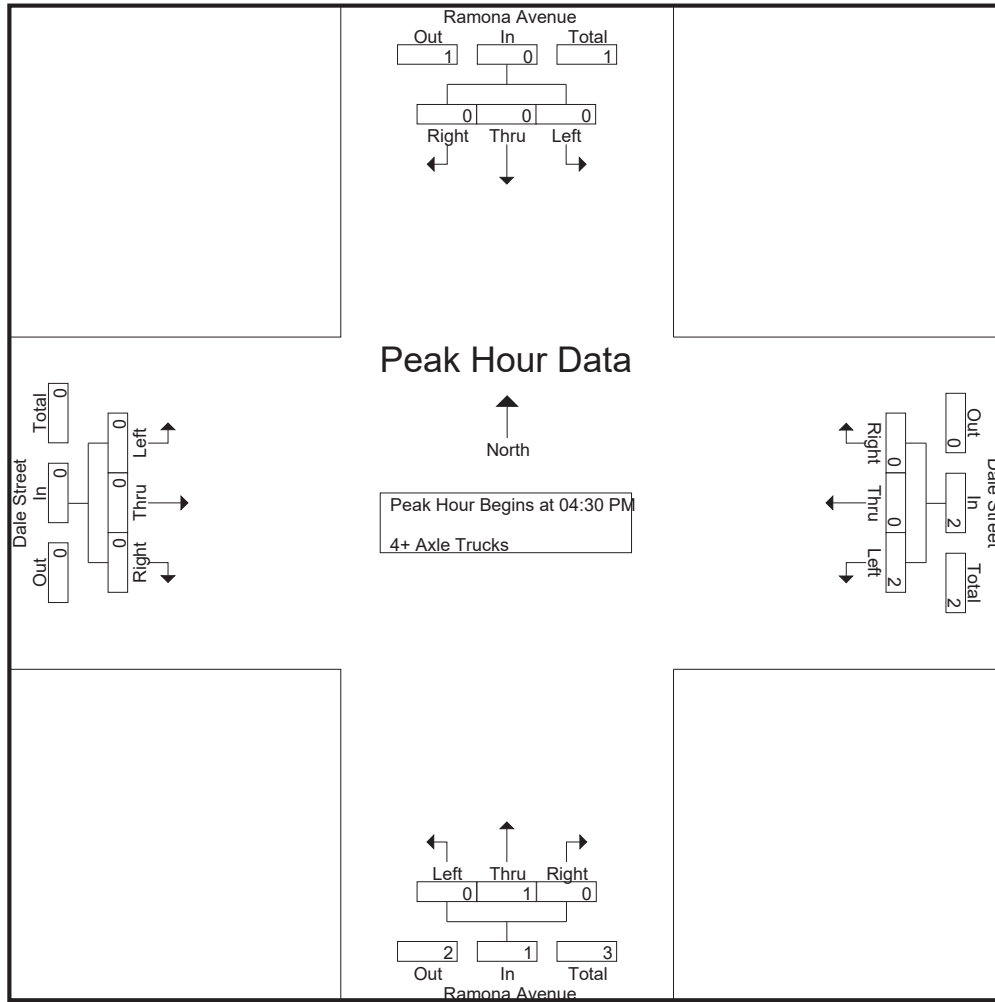
Groups Printed- 4+ Axle Trucks

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
04:15 PM	0	1	0	1	0	0	0	0	0	1	1	2	0	0	0	0	3
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	2	0	1	3	0	2	1	3	0	0	0	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	0	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	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	1	0	1	2	0	1	3	0	3	1	4	0	0	0	0	8
Apprch %	0	100	0		66.7	0	33.3		0	75	25		0	0	0		
Total %	0	12.5	0	12.5	25	0	12.5	37.5	0	37.5	12.5	50	0	0	0	0	

Start Time	Ramona Avenue Southbound				Dale Street Westbound				Ramona Avenue Northbound				Dale Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	0	0	2	0	1	0	1	0	0	0	0	3
% App. Total	0	0	0		100	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.500	.000	.000	.500	.000	.250	.000	.250	.000	.000	.000	.000	.750

City of Montclair
 N/S: Ramona Avenue
 E/W: Dale Street
 Weather: Clear

File Name : 04_MON_Ramona_Dale PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	0	0	2	0	1	0	1	0	0	0	0
% App. Total	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.500	.000	.000	.500	.000	.250	.000	.250	.000	.000	.000	.000

Location: Montclair
 N/S: Ramona Avenue
 E/W: Dale Street



Date: 11/5/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Ramona Avenue	East Leg Dale Street	South Leg Ramona Avenue	West Leg Dale Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	1	0	3	4
7:15 AM	1	0	0	2	3
7:30 AM	1	0	0	2	3
7:45 AM	0	0	0	0	0
8:00 AM	0	2	0	0	2
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:	2	3	0	7	12

	North Leg Ramona Avenue	East Leg Dale Street	South Leg Ramona Avenue	West Leg Dale Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	3	0	3	6
4:15 PM	0	1	0	2	3
4:30 PM	1	2	0	1	4
4:45 PM	0	1	0	0	1
5:00 PM	0	1	0	1	2
5:15 PM	0	0	0	2	2
5:30 PM	0	0	0	2	2
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	8	0	11	20

Location: Montclair
 N/S: Ramona Avenue
 E/W: Dale Street



Date: 11/5/2019
 Day: Tuesday

BICYCLES

	Southbound Ramona Avenue			Westbound Dale Street			Northbound Ramona Avenue			Eastbound Dale Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	2	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	1	1	0	0	0	2
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	1	0	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	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:	2	1	0	0	0	0	0	2	1	0	0	0	6

	Southbound Ramona Avenue			Westbound Dale Street			Northbound Ramona Avenue			Eastbound Dale Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	1	0	0	0	1	0	1	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	2	0	0	0	1	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	4	0	0	0	2	0	5	0	0	0	0	11

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

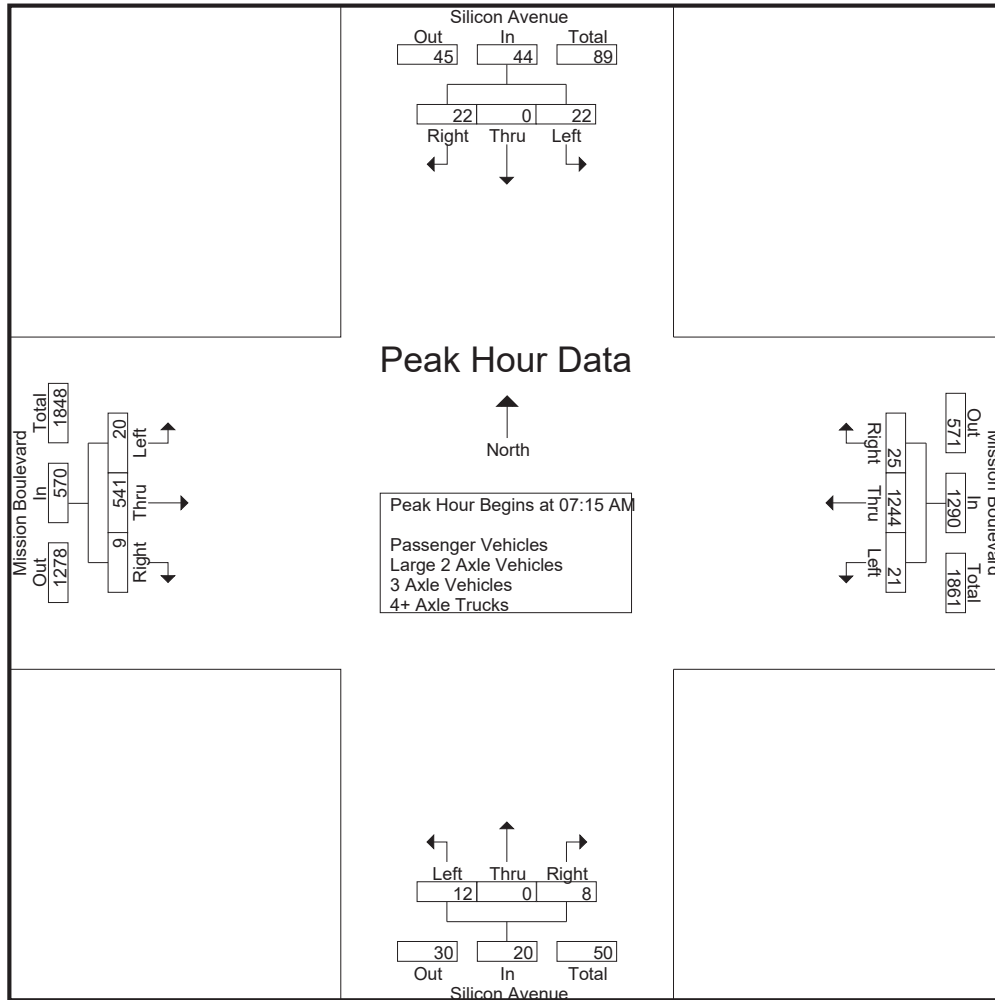
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	8	0	14	22	6	298	11	315	1	0	8	9	2	100	3	105	451
07:15 AM	10	0	9	19	3	276	4	283	3	0	2	5	6	137	1	144	451
07:30 AM	7	0	4	11	9	337	9	355	1	0	1	2	3	158	2	163	531
07:45 AM	1	0	3	4	4	336	7	347	5	0	3	8	3	125	2	130	489
Total	26	0	30	56	22	1247	31	1300	10	0	14	24	14	520	8	542	1922
08:00 AM	4	0	6	10	5	295	5	305	3	0	2	5	8	121	4	133	453
08:15 AM	2	0	4	6	6	206	4	216	1	0	2	3	3	115	0	118	343
08:30 AM	5	0	5	10	7	185	3	195	1	0	1	2	3	108	3	114	321
08:45 AM	2	0	3	5	5	166	6	177	1	0	1	2	10	118	2	130	314
Total	13	0	18	31	23	852	18	893	6	0	6	12	24	462	9	495	1431
Grand Total	39	0	48	87	45	2099	49	2193	16	0	20	36	38	982	17	1037	3353
Apprch %	44.8	0	55.2		2.1	95.7	2.2		44.4	0	55.6		3.7	94.7	1.6		
Total %	1.2	0	1.4	2.6	1.3	62.6	1.5	65.4	0.5	0	0.6	1.1	1.1	29.3	0.5	30.9	
Passenger Vehicles	30	0	28	58	44	1975	43	2062	16	0	20	36	28	912	17	957	3113
% Passenger Vehicles	76.9	0	58.3	66.7	97.8	94.1	87.8	94	100	0	100	100	73.7	92.9	100	92.3	92.8
Large 2 Axle Vehicles	8	0	19	27	0	91	4	95	0	0	0	0	9	46	0	55	177
% Large 2 Axle Vehicles	20.5	0	39.6	31	0	4.3	8.2	4.3	0	0	0	0	23.7	4.7	0	5.3	5.3
3 Axle Vehicles	1	0	1	2	0	13	2	15	0	0	0	0	0	12	0	12	29
% 3 Axle Vehicles	2.6	0	2.1	2.3	0	0.6	4.1	0.7	0	0	0	0	0	1.2	0	1.2	0.9
4+ Axle Trucks	0	0	0	0	1	20	0	21	0	0	0	0	1	12	0	13	34
% 4+ Axle Trucks	0	0	0	0	2.2	1	0	1	0	0	0	0	2.6	1.2	0	1.3	1

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	10	0	9	19	3	276	4	283	3	0	2	5	6	137	1	144	451
07:30 AM	7	0	4	11	9	337	9	355	1	0	1	2	3	158	2	163	531
07:45 AM	1	0	3	4	4	336	7	347	5	0	3	8	3	125	2	130	489
08:00 AM	4	0	6	10	5	295	5	305	3	0	2	5	8	121	4	133	453
Total Volume	22	0	22	44	21	1244	25	1290	12	0	8	20	20	541	9	570	1924
% App. Total	50	0	50		1.6	96.4	1.9		60	0	40		3.5	94.9	1.6		
PHF	.550	.000	.611	.579	.583	.923	.694	.908	.600	.000	.667	.625	.625	.856	.563	.874	.906

City of Montclair
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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				07:00 AM				07:15 AM			
+0 mins.	8	0	14	22	6	298	11	315	1	0	8	9	6	137	1	144
+15 mins.	10	0	9	19	3	276	4	283	3	0	2	5	3	158	2	163
+30 mins.	7	0	4	11	9	337	9	355	1	0	1	2	3	125	2	130
+45 mins.	1	0	3	4	4	336	7	347	5	0	3	8	8	121	4	133
Total Volume	26	0	30	56	22	1247	31	1300	10	0	14	24	20	541	9	570
% App. Total	46.4	0	53.6		1.7	95.9	2.4		41.7	0	58.3		3.5	94.9	1.6	
PHF	.650	.000	.536	.636	.611	.925	.705	.915	.500	.000	.438	.667	.625	.856	.563	.874

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission AM
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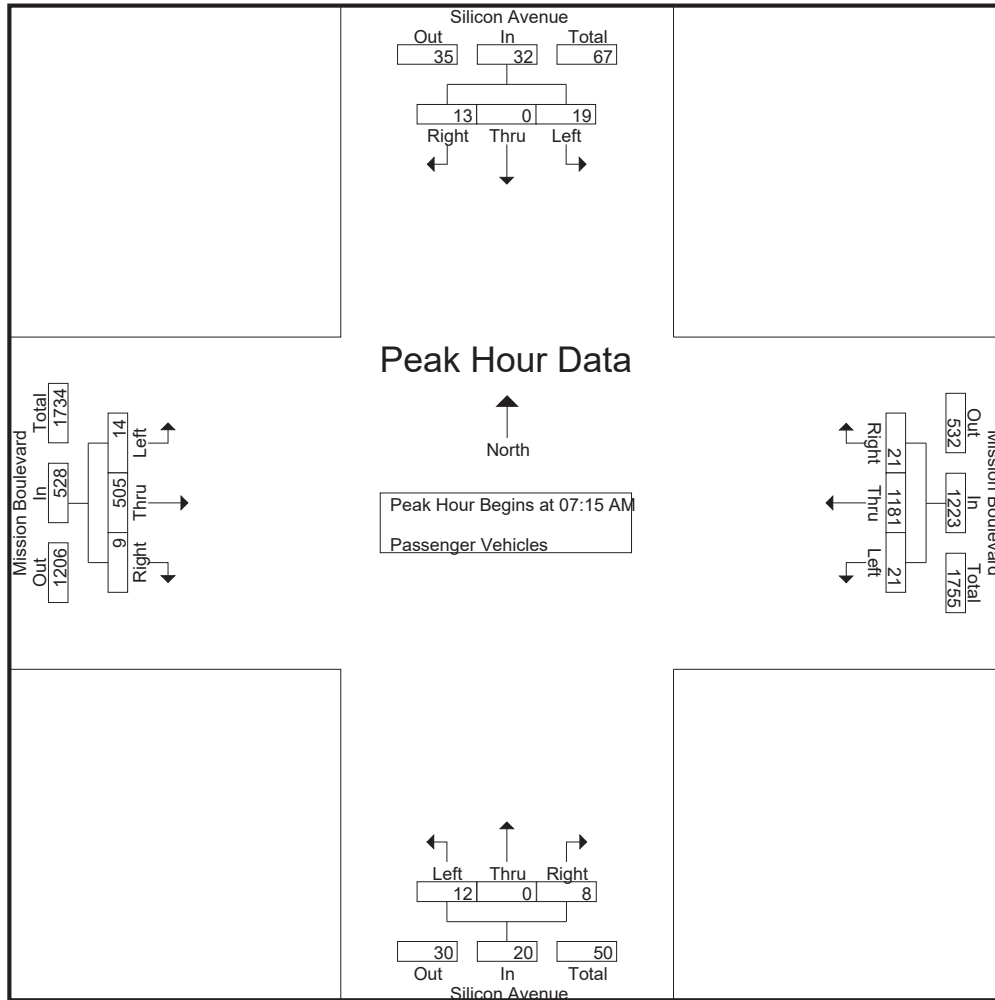
Groups Printed- Passenger Vehicles

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	5	0	6	11	6	275	10	291	1	0	8	9	0	93	3	96	407
07:15 AM	9	0	5	14	3	262	4	269	3	0	2	5	4	123	1	128	416
07:30 AM	6	0	3	9	9	323	7	339	1	0	1	2	2	149	2	153	503
07:45 AM	0	0	1	1	4	317	6	327	5	0	3	8	3	120	2	125	461
Total	20	0	15	35	22	1177	27	1226	10	0	14	24	9	485	8	502	1787
08:00 AM	4	0	4	8	5	279	4	288	3	0	2	5	5	113	4	122	423
08:15 AM	1	0	4	5	5	194	3	202	1	0	2	3	3	106	0	109	319
08:30 AM	3	0	3	6	7	172	3	182	1	0	1	2	3	101	3	107	297
08:45 AM	2	0	2	4	5	153	6	164	1	0	1	2	8	107	2	117	287
Total	10	0	13	23	22	798	16	836	6	0	6	12	19	427	9	455	1326
Grand Total	30	0	28	58	44	1975	43	2062	16	0	20	36	28	912	17	957	3113
Apprch %	51.7	0	48.3		2.1	95.8	2.1		44.4	0	55.6		2.9	95.3	1.8		
Total %	1	0	0.9	1.9	1.4	63.4	1.4	66.2	0.5	0	0.6	1.2	0.9	29.3	0.5	30.7	

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	9	0	5	14	3	262	4	269	3	0	2	5	4	123	1	128	416
07:30 AM	6	0	3	9	9	323	7	339	1	0	1	2	2	149	2	153	503
07:45 AM	0	0	1	1	4	317	6	327	5	0	3	8	3	120	2	125	461
08:00 AM	4	0	4	8	5	279	4	288	3	0	2	5	5	113	4	122	423
Total Volume	19	0	13	32	21	1181	21	1223	12	0	8	20	14	505	9	528	1803
% App. Total	59.4	0	40.6		1.7	96.6	1.7		60	0	40		2.7	95.6	1.7		
PHF	.528	.000	.650	.571	.583	.914	.750	.902	.600	.000	.667	.625	.700	.847	.563	.863	.896

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	9	0	5	14	3	262	4	269	3	0	2	5	4	123	1	128
+15 mins.	6	0	3	9	9	323	7	339	1	0	1	2	2	149	2	153
+30 mins.	0	0	1	1	4	317	6	327	5	0	3	8	3	120	2	125
+45 mins.	4	0	4	8	5	279	4	288	3	0	2	5	5	113	4	122
Total Volume	19	0	13	32	21	1181	21	1223	12	0	8	20	14	505	9	528
% App. Total	59.4	0	40.6		1.7	96.6	1.7		60	0	40		2.7	95.6	1.7	
PHF	.528	.000	.650	.571	.583	.914	.750	.902	.600	.000	.667	.625	.700	.847	.563	.863

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission AM
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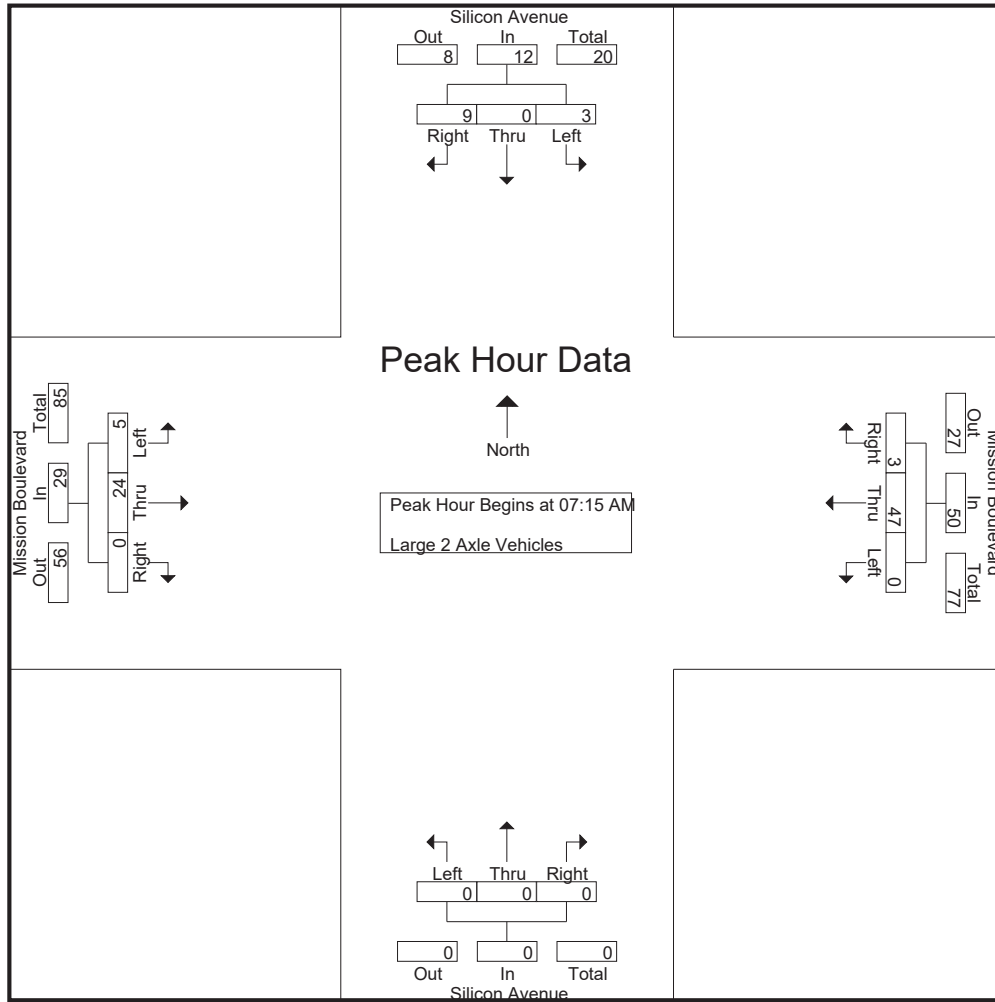
Groups Printed- Large 2 Axle Vehicles

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	3	0	8	11	0	21	1	22	0	0	0	0	2	4	0	6	39
07:15 AM	1	0	4	5	0	9	0	9	0	0	0	0	2	9	0	11	25
07:30 AM	1	0	1	2	0	12	2	14	0	0	0	0	1	7	0	8	24
07:45 AM	1	0	2	3	0	17	0	17	0	0	0	0	0	2	0	2	22
Total	6	0	15	21	0	59	3	62	0	0	0	0	5	22	0	27	110
08:00 AM	0	0	2	2	0	9	1	10	0	0	0	0	2	6	0	8	20
08:15 AM	1	0	0	1	0	6	0	6	0	0	0	0	0	6	0	6	13
08:30 AM	1	0	2	3	0	11	0	11	0	0	0	0	0	6	0	6	20
08:45 AM	0	0	0	0	0	6	0	6	0	0	0	0	2	6	0	8	14
Total	2	0	4	6	0	32	1	33	0	0	0	0	4	24	0	28	67
Grand Total	8	0	19	27	0	91	4	95	0	0	0	0	9	46	0	55	177
Apprch %	29.6	0	70.4		0	95.8	4.2		0	0	0		16.4	83.6	0		
Total %	4.5	0	10.7	15.3	0	51.4	2.3	53.7	0	0	0	0	5.1	26	0	31.1	

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	0	4	5	0	9	0	9	0	0	0	0	2	9	0	11	25
07:30 AM	1	0	1	2	0	12	2	14	0	0	0	0	1	7	0	8	24
07:45 AM	1	0	2	3	0	17	0	17	0	0	0	0	0	2	0	2	22
08:00 AM	0	0	2	2	0	9	1	10	0	0	0	0	2	6	0	8	20
Total Volume	3	0	9	12	0	47	3	50	0	0	0	0	5	24	0	29	91
% App. Total	25	0	75		0	94	6		0	0	0		17.2	82.8	0		
PHF	.750	.000	.563	.600	.000	.691	.375	.735	.000	.000	.000	.000	.625	.667	.000	.659	.910

City of Montclair
 N/S: Silicon Avenue
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	1	0	4	5	0	9	0	9	0	0	0	0	2	9	0	11
+15 mins.	1	0	1	2	0	12	2	14	0	0	0	0	1	7	0	8
+30 mins.	1	0	2	3	0	17	0	17	0	0	0	0	0	2	0	2
+45 mins.	0	0	2	2	0	9	1	10	0	0	0	0	2	6	0	8
Total Volume	3	0	9	12	0	47	3	50	0	0	0	0	5	24	0	29
% App. Total	25	0	75		0	94	6		0	0	0		17.2	82.8	0	
PHF	.750	.000	.563	.600	.000	.691	.375	.735	.000	.000	.000	.000	.625	.667	.000	.659

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

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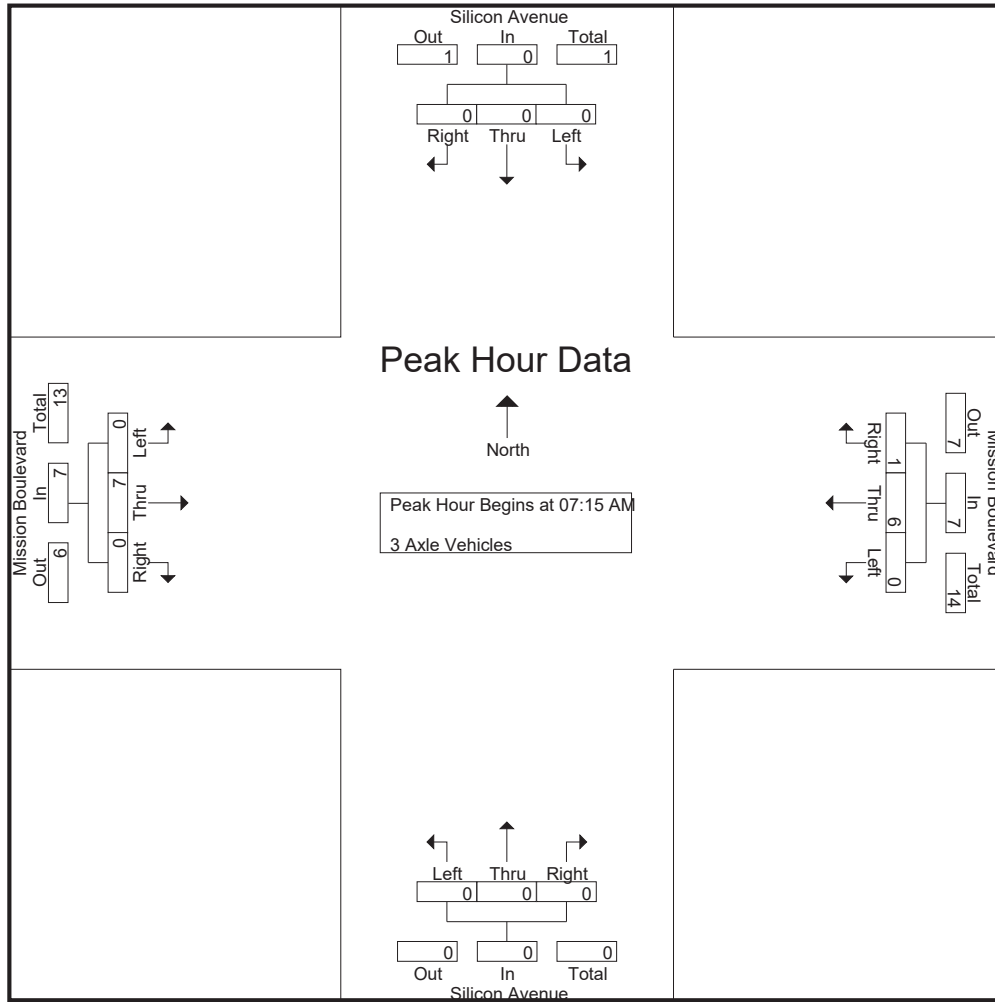
Groups Printed- 3 Axle Vehicles

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
Total	0	0	0	0	0	2	1	3	0	0	0	0	0	8	0	8	11
08:00 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	1	0	1	5
08:15 AM	0	0	0	0	0	3	1	4	0	0	0	0	0	2	0	2	6
08:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
08:45 AM	0	0	1	1	0	4	0	4	0	0	0	0	0	0	0	0	5
Total	1	0	1	2	0	11	1	12	0	0	0	0	0	4	0	4	18
Grand Total	1	0	1	2	0	13	2	15	0	0	0	0	0	12	0	12	29
Apprch %	50	0	50		0	86.7	13.3		0	0	0		0	100	0		
Total %	3.4	0	3.4	6.9	0	44.8	6.9	51.7	0	0	0	0	0	41.4	0	41.4	

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
08:00 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	1	0	1	5
Total Volume	0	0	0	0	0	6	1	7	0	0	0	0	0	7	0	7	14
% App. Total	0	0	0		0	85.7	14.3		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.375	.250	.438	.000	.000	.000	.000	.000	.583	.000	.583	.700

City of Montclair
 N/S: Silicon Avenue
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 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	4	0	4	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	6	1	7	0	0	0	0	0	7	0	7
% App. Total	0	0	0	0	0	85.7	14.3		0	0	0	0	0	100	0	
PHF	.000	.000	.000	.000	.000	.375	.250	.438	.000	.000	.000	.000	.000	.583	.000	.583

City of Montclair
 N/S: Silicon Avenue
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 Weather: Clear

File Name : 05_MON_Silicon_Mission AM
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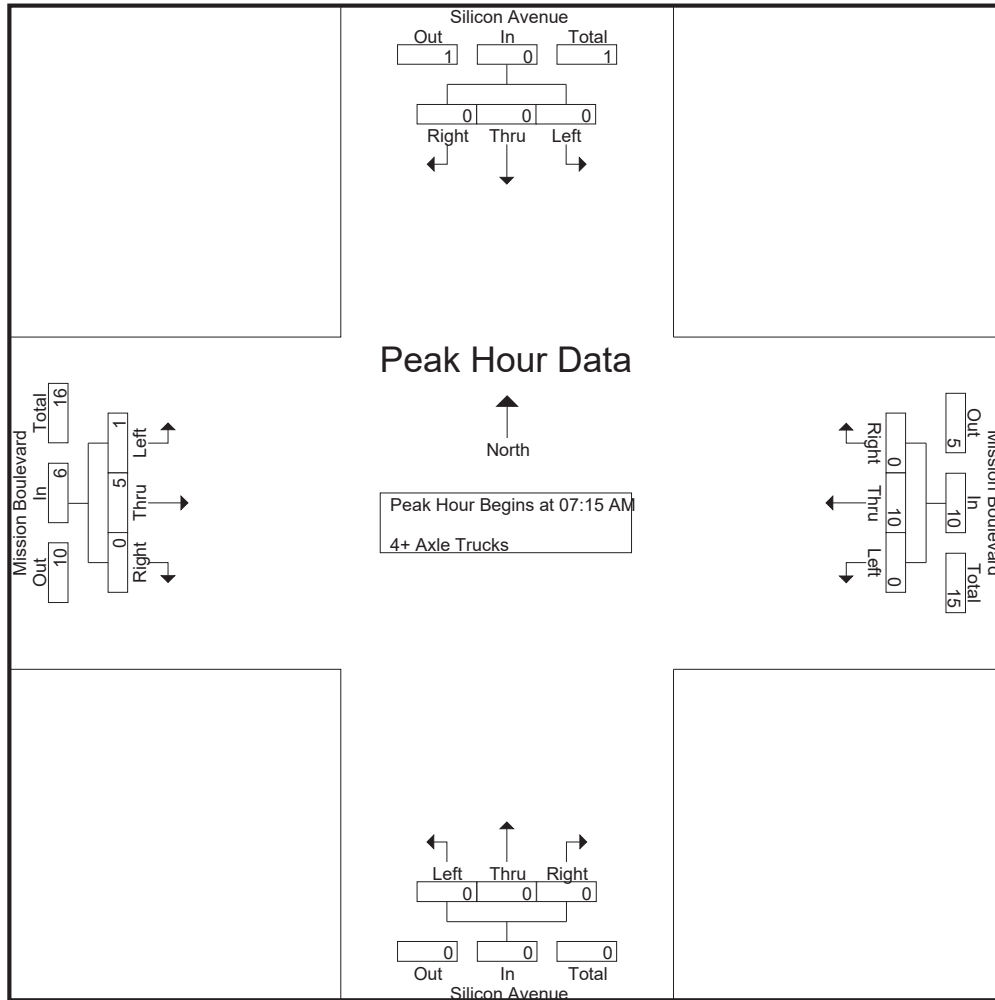
Groups Printed- 4+ Axle Trucks

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
07:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
07:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total	0	0	0	0	0	9	0	9	0	0	0	0	0	5	0	5	14
08:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	1	1	0	2	5
08:15 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	1	0	1	5
08:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	5	0	5	8
Total	0	0	0	0	1	11	0	12	0	0	0	0	1	7	0	8	20
Grand Total	0	0	0	0	1	20	0	21	0	0	0	0	1	12	0	13	34
Apprch %	0	0	0		4.8	95.2	0		0	0	0		7.7	92.3	0		
Total %	0	0	0		2.9	58.8	0	61.8	0	0	0		2.9	35.3	0	38.2	

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
07:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
08:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	1	1	0	2	5
Total Volume	0	0	0	0	0	10	0	10	0	0	0	0	1	5	0	6	16
% App. Total	0	0	0		0	100	0		0	0	0		16.7	83.3	0		
PHF	.000	.000	.000	.000	.000	.833	.000	.833	.000	.000	.000	.000	.250	.625	.000	.750	.800

City of Montclair
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	3	0	3	0	0	0	0	1	1	0	2
Total Volume	0	0	0	0	0	10	0	10	0	0	0	0	1	5	0	6
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	16.7	83.3	0	0
PHF	.000	.000	.000	.000	.000	.833	.000	.833	.000	.000	.000	.000	.250	.625	.000	.750

City of Montclair
 N/S: Silicon Avenue
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 Weather: Clear

File Name : 05_MON_Silicon_Mission PM
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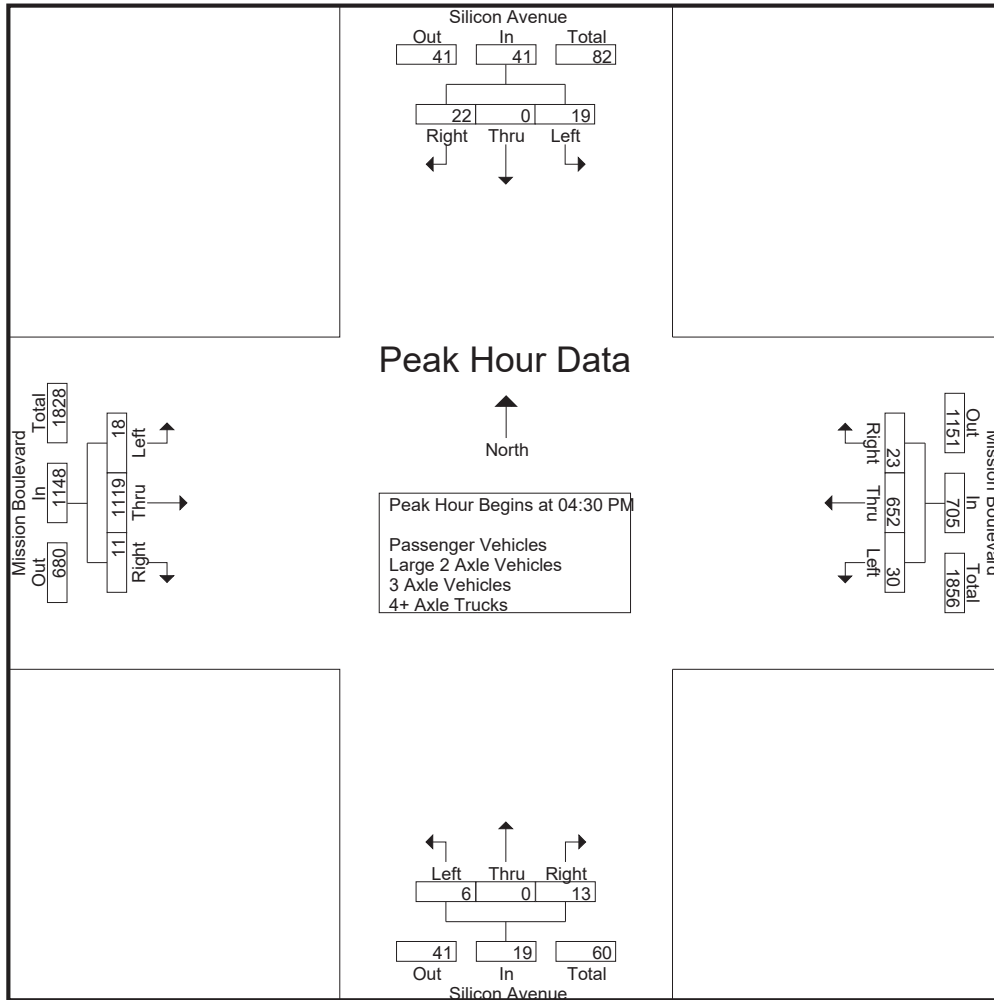
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	8	0	3	11	6	150	6	162	3	1	6	10	6	245	3	254	437
04:15 PM	7	0	5	12	4	180	6	190	1	0	4	5	5	263	4	272	479
04:30 PM	7	0	6	13	9	169	10	188	2	0	3	5	4	270	4	278	484
04:45 PM	3	0	7	10	8	140	2	150	1	0	4	5	4	276	0	280	445
Total	25	0	21	46	27	639	24	690	7	1	17	25	19	1054	11	1084	1845
05:00 PM	4	0	4	8	9	180	4	193	0	0	5	5	2	280	4	286	492
05:15 PM	5	0	5	10	4	163	7	174	3	0	1	4	8	293	3	304	492
05:30 PM	8	0	3	11	7	137	7	151	1	0	2	3	10	252	2	264	429
05:45 PM	1	0	4	5	4	151	6	161	2	0	1	3	4	233	4	241	410
Total	18	0	16	34	24	631	24	679	6	0	9	15	24	1058	13	1095	1823
Grand Total	43	0	37	80	51	1270	48	1369	13	1	26	40	43	2112	24	2179	3668
Apprch %	53.8	0	46.2		3.7	92.8	3.5		32.5	2.5	65		2	96.9	1.1		
Total %	1.2	0	1	2.2	1.4	34.6	1.3	37.3	0.4	0	0.7	1.1	1.2	57.6	0.7	59.4	
Passenger Vehicles	39	0	37	76	49	1207	43	1299	9	1	25	35	42	2031	20	2093	3503
% Passenger Vehicles	90.7	0	100	95	96.1	95	89.6	94.9	69.2	100	96.2	87.5	97.7	96.2	83.3	96.1	95.5
Large 2 Axle Vehicles	3	0	0	3	2	45	4	51	4	0	1	5	1	61	4	66	125
% Large 2 Axle Vehicles	7	0	0	3.8	3.9	3.5	8.3	3.7	30.8	0	3.8	12.5	2.3	2.9	16.7	3	3.4
3 Axle Vehicles	0	0	0	0	0	6	0	6	0	0	0	0	0	4	0	4	10
% 3 Axle Vehicles	0	0	0	0	0	0.5	0	0.4	0	0	0	0	0	0.2	0	0.2	0.3
4+ Axle Trucks	1	0	0	1	0	12	1	13	0	0	0	0	0	16	0	16	30
% 4+ Axle Trucks	2.3	0	0	1.2	0	0.9	2.1	0.9	0	0	0	0	0	0.8	0	0.7	0.8

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	7	0	6	13	9	169	10	188	2	0	3	5	4	270	4	278	484
04:45 PM	3	0	7	10	8	140	2	150	1	0	4	5	4	276	0	280	445
05:00 PM	4	0	4	8	9	180	4	193	0	0	5	5	2	280	4	286	492
05:15 PM	5	0	5	10	4	163	7	174	3	0	1	4	8	293	3	304	492
Total Volume	19	0	22	41	30	652	23	705	6	0	13	19	18	1119	11	1148	1913
% App. Total	46.3	0	53.7		4.3	92.5	3.3		31.6	0	68.4		1.6	97.5	1		
PHF	.679	.000	.786	.788	.833	.906	.575	.913	.500	.000	.650	.950	.563	.955	.688	.944	.972

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission PM
 Site Code : 99919768
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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:

	04:00 PM				04:15 PM				04:30 PM				04:45 PM			
+0 mins.	8	0	3	11	4	180	6	190	3	1	6	10	4	270	4	278
+15 mins.	7	0	5	12	9	169	10	188	1	0	4	5	4	276	0	280
+30 mins.	7	0	6	13	8	140	2	150	2	0	3	5	2	280	4	286
+45 mins.	3	0	7	10	9	180	4	193	1	0	4	5	8	293	3	304
Total Volume	25	0	21	46	30	669	22	721	7	1	17	25	18	1119	11	1148
% App. Total	54.3	0	45.7		4.2	92.8	3.1		28	4	68		1.6	97.5	1	
PHF	.781	.000	.750	.885	.833	.929	.550	.934	.583	.250	.708	.625	.563	.955	.688	.944

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

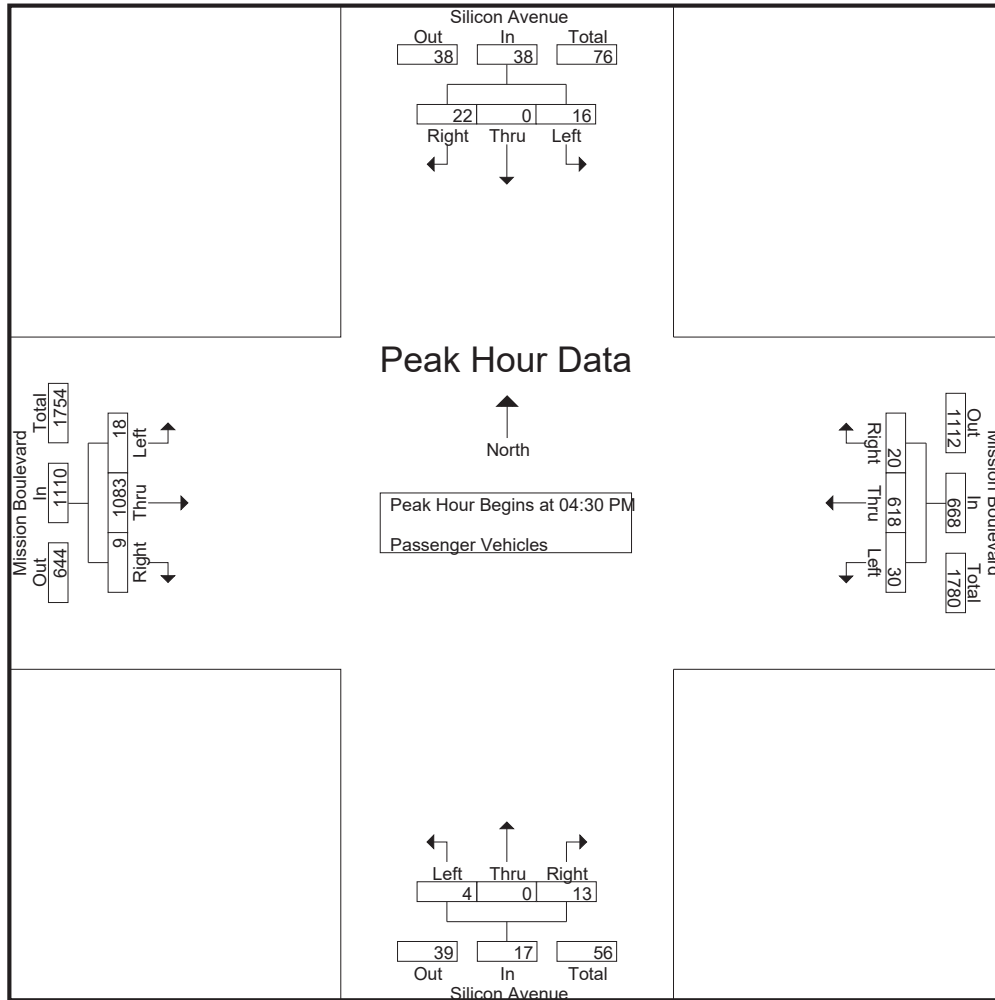
Groups Printed- Passenger Vehicles

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	7	0	3	10	6	140	5	151	2	1	5	8	6	232	2	240	409
04:15 PM	7	0	5	12	4	172	5	181	1	0	4	5	5	243	4	252	450
04:30 PM	7	0	6	13	9	162	8	179	1	0	3	4	4	261	3	268	464
04:45 PM	2	0	7	9	8	129	1	138	1	0	4	5	4	267	0	271	423
Total	23	0	21	44	27	603	19	649	5	1	16	22	19	1003	9	1031	1746
05:00 PM	3	0	4	7	9	171	4	184	0	0	5	5	2	271	3	276	472
05:15 PM	4	0	5	9	4	156	7	167	2	0	1	3	8	284	3	295	474
05:30 PM	8	0	3	11	5	131	7	143	1	0	2	3	10	244	1	255	412
05:45 PM	1	0	4	5	4	146	6	156	1	0	1	2	3	229	4	236	399
Total	16	0	16	32	22	604	24	650	4	0	9	13	23	1028	11	1062	1757
Grand Total	39	0	37	76	49	1207	43	1299	9	1	25	35	42	2031	20	2093	3503
Apprch %	51.3	0	48.7		3.8	92.9	3.3		25.7	2.9	71.4		2	97	1		
Total %	1.1	0	1.1	2.2	1.4	34.5	1.2	37.1	0.3	0	0.7	1	1.2	58	0.6	59.7	

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	7	0	6	13	9	162	8	179	1	0	3	4	4	261	3	268	464
04:45 PM	2	0	7	9	8	129	1	138	1	0	4	5	4	267	0	271	423
05:00 PM	3	0	4	7	9	171	4	184	0	0	5	5	2	271	3	276	472
05:15 PM	4	0	5	9	4	156	7	167	2	0	1	3	8	284	3	295	474
Total Volume	16	0	22	38	30	618	20	668	4	0	13	17	18	1083	9	1110	1833
% App. Total	42.1	0	57.9		4.5	92.5	3		23.5	0	76.5		1.6	97.6	0.8		
PHF	.571	.000	.786	.731	.833	.904	.625	.908	.500	.000	.650	.850	.563	.953	.750	.941	.967

City of Montclair
 N/S: Silicon Avenue
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 Weather: Clear

File Name : 05_MON_Silicon_Mission PM
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	7	0	6	13	9	162	8	179	1	0	3	4	4	261	3	268
+15 mins.	2	0	7	9	8	129	1	138	1	0	4	5	4	267	0	271
+30 mins.	3	0	4	7	9	171	4	184	0	0	5	5	2	271	3	276
+45 mins.	4	0	5	9	4	156	7	167	2	0	1	3	8	284	3	295
Total Volume	16	0	22	38	30	618	20	668	4	0	13	17	18	1083	9	1110
% App. Total	42.1	0	57.9		4.5	92.5	3		23.5	0	76.5		1.6	97.6	0.8	
PHF	.571	.000	.786	.731	.833	.904	.625	.908	.500	.000	.650	.850	.563	.953	.750	.941

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

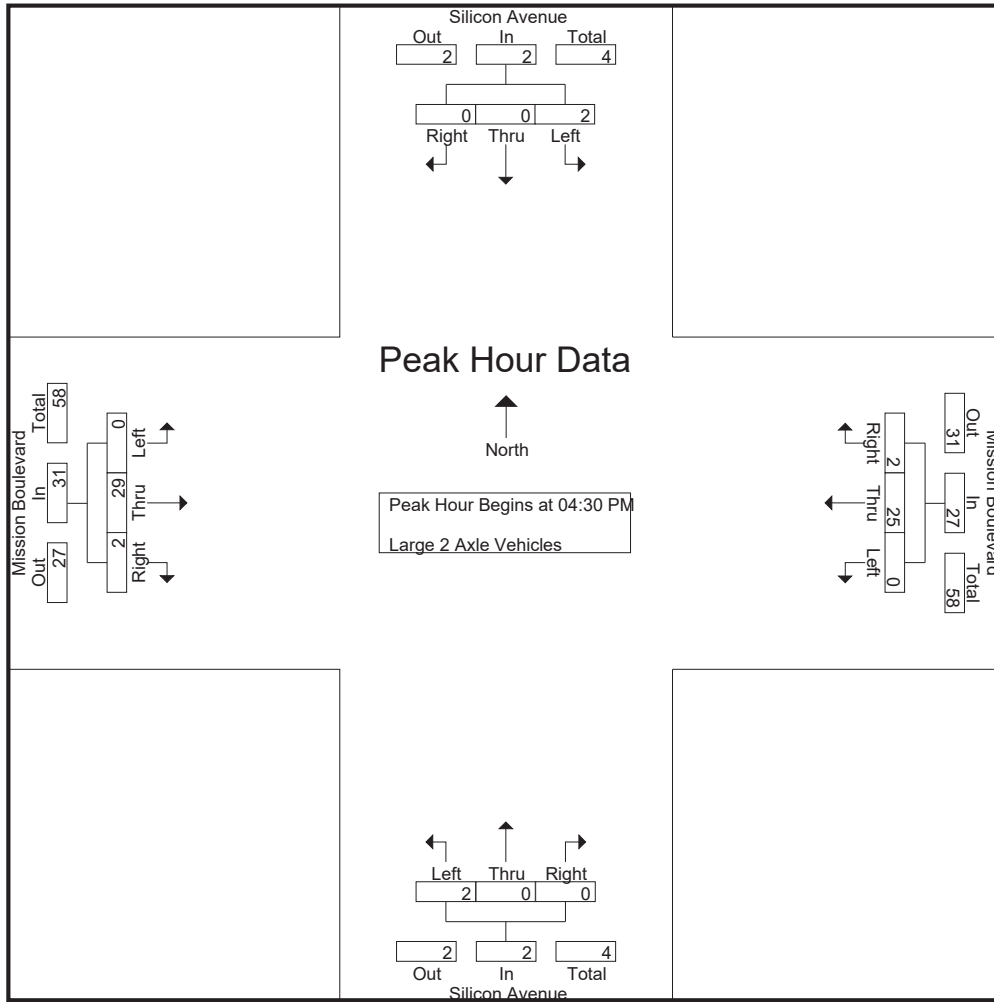
Groups Printed- Large 2 Axle Vehicles

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	0	0	1	0	5	1	6	1	0	1	2	0	9	1	10	19
04:15 PM	0	0	0	0	0	6	1	7	0	0	0	0	0	14	0	14	21
04:30 PM	0	0	0	0	0	5	1	6	1	0	0	1	0	8	1	9	16
04:45 PM	1	0	0	1	0	7	1	8	0	0	0	0	0	8	0	8	17
Total	2	0	0	2	0	23	4	27	2	0	1	3	0	39	2	41	73
05:00 PM	0	0	0	0	0	8	0	8	0	0	0	0	0	7	1	8	16
05:15 PM	1	0	0	1	0	5	0	5	1	0	0	1	0	6	0	6	13
05:30 PM	0	0	0	0	2	6	0	8	0	0	0	0	0	6	1	7	15
05:45 PM	0	0	0	0	0	3	0	3	1	0	0	1	1	3	0	4	8
Total	1	0	0	1	2	22	0	24	2	0	0	2	1	22	2	25	52
Grand Total	3	0	0	3	2	45	4	51	4	0	1	5	1	61	4	66	125
Apprch %	100	0	0		3.9	88.2	7.8		80	0	20		1.5	92.4	6.1		
Total %	2.4	0	0	2.4	1.6	36	3.2	40.8	3.2	0	0.8	4	0.8	48.8	3.2	52.8	

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	5	1	6	1	0	0	1	0	8	1	9	16
04:45 PM	1	0	0	1	0	7	1	8	0	0	0	0	0	8	0	8	17
05:00 PM	0	0	0	0	0	8	0	8	0	0	0	0	0	7	1	8	16
05:15 PM	1	0	0	1	0	5	0	5	1	0	0	1	0	6	0	6	13
Total Volume	2	0	0	2	0	25	2	27	2	0	0	2	0	29	2	31	62
% App. Total	100	0	0		0	92.6	7.4		100	0	0		0	93.5	6.5		
PHF	.500	.000	.000	.500	.000	.781	.500	.844	.500	.000	.000	.500	.000	.906	.500	.861	.912

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission PM
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	5	1	6	1	0	0	1	0	8	1	9
+15 mins.	1	0	0	1	0	7	1	8	0	0	0	0	0	8	0	8
+30 mins.	0	0	0	0	0	8	0	8	0	0	0	0	0	7	1	8
+45 mins.	1	0	0	1	0	5	0	5	1	0	0	1	0	6	0	6
Total Volume	2	0	0	2	0	25	2	27	2	0	0	2	0	29	2	31
% App. Total	100	0	0		0	92.6	7.4		100	0	0		0	93.5	6.5	
PHF	.500	.000	.000	.500	.000	.781	.500	.844	.500	.000	.000	.500	.000	.906	.500	.861

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

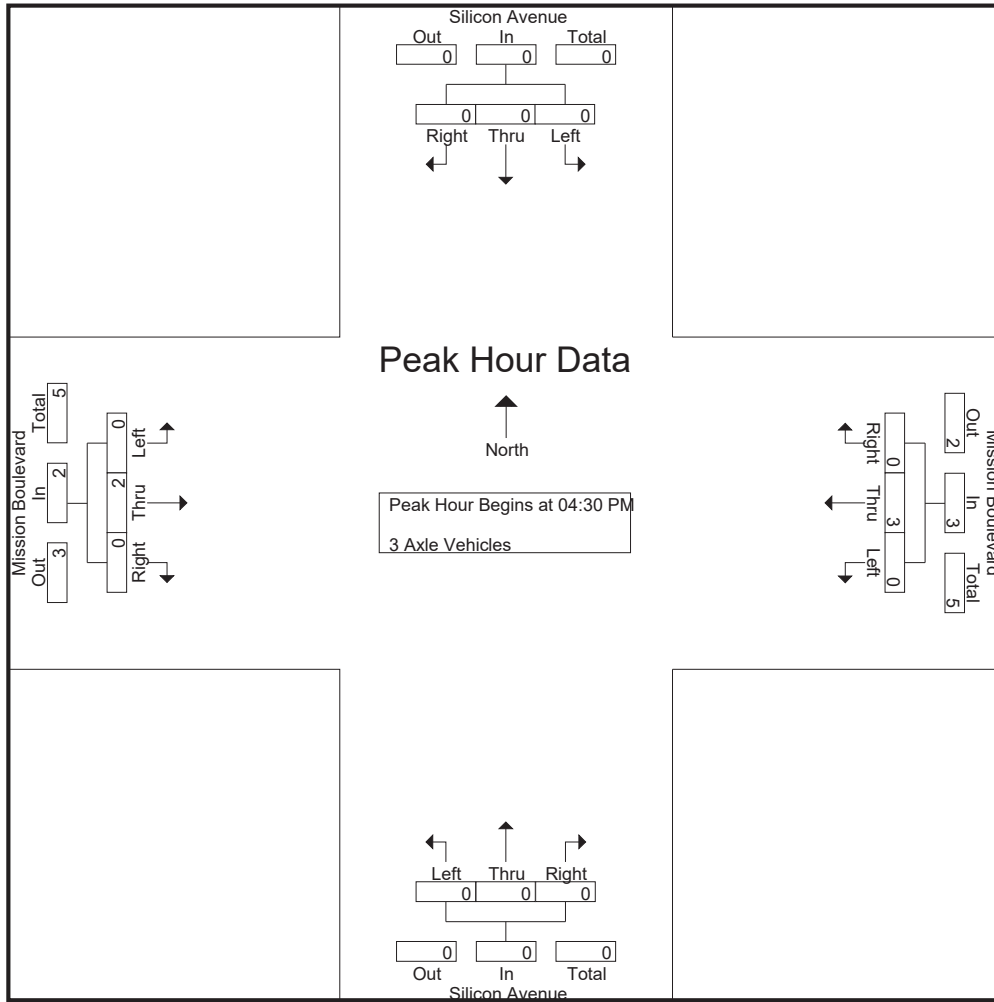
Groups Printed- 3 Axle Vehicles

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
Total	0	0	0	0	0	6	0	6	0	0	0	0	0	2	0	2	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	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	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Grand Total	0	0	0	0	0	6	0	6	0	0	0	0	0	4	0	4	10
Apprch %	0	0	0		0	100	0		0	0	0		0	100	0		
Total %	0	0	0		0	60	0	60	0	0	0		0	40	0	40	

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.000	.500	.313

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission PM
 Site Code : 99919768
 Start Date : 11/5/2019
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.000	.500

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission PM
 Site Code : 99919768
 Start Date : 11/5/2019
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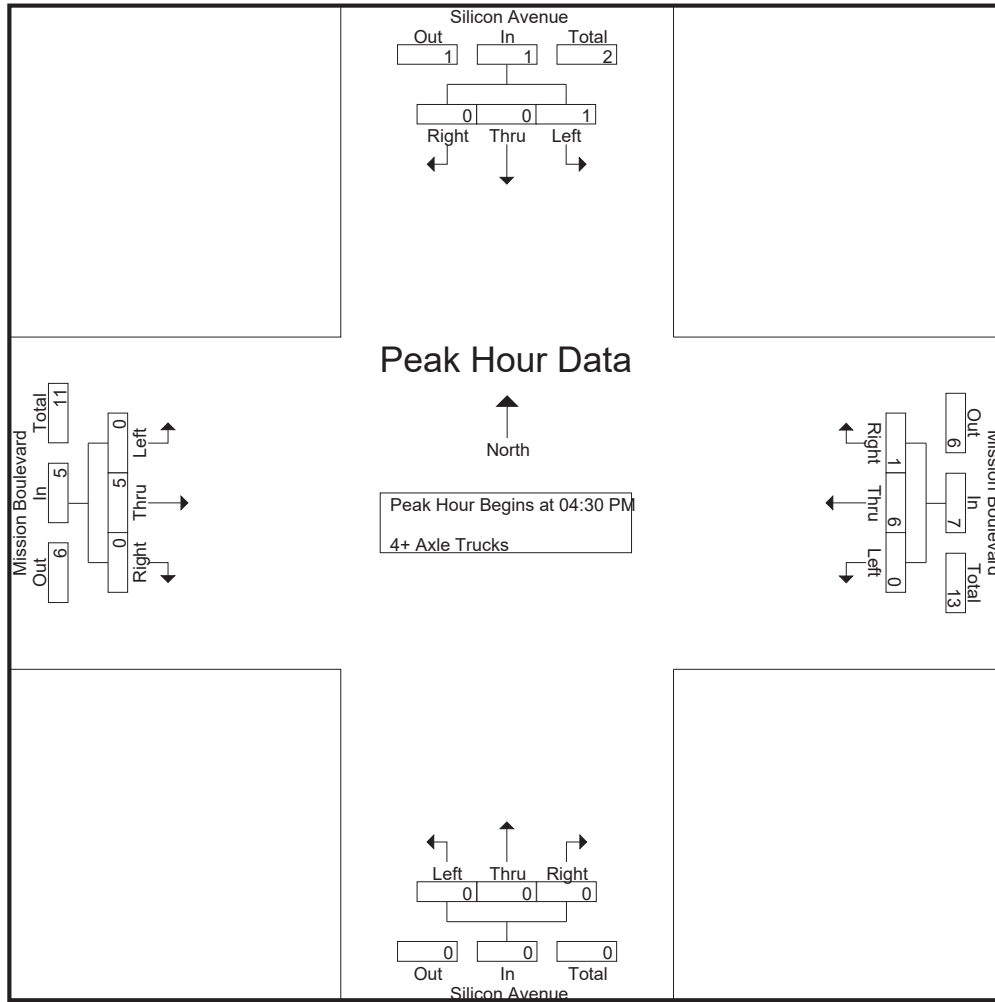
Groups Printed- 4+ Axle Trucks

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	6
04:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	5	0	5	7
04:30 PM	0	0	0	0	0	2	1	3	0	0	0	0	0	1	0	1	4
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	7	1	8	0	0	0	0	0	10	0	10	18
05:00 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	1	0	1	3
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	1	0	0	1	0	5	0	5	0	0	0	0	0	6	0	6	12
Grand Total	1	0	0	1	0	12	1	13	0	0	0	0	0	16	0	16	30
Apprch %	100	0	0		0	92.3	7.7		0	0	0		0	100	0		
Total %	3.3	0	0	3.3	0	40	3.3	43.3	0	0	0	0	0	53.3	0	53.3	

Start Time	Silicon Avenue Southbound				Mission Boulevard Westbound				Silicon Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	2	1	3	0	0	0	0	0	1	0	1	4
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:00 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	1	0	1	3
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
Total Volume	1	0	0	1	0	6	1	7	0	0	0	0	0	5	0	5	13
% App. Total	100	0	0		0	85.7	14.3		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.750	.250	.583	.000	.000	.000	.000	.000	.417	.000	.417	.650

City of Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 05_MON_Silicon_Mission PM
 Site Code : 99919768
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	0	0	0	2	1	3	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	1	0	1	0	1	0	0	0	0	0	1	0	1	1
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	3
Total Volume	1	0	0	1	0	6	1	7	0	0	0	0	0	5	0	5	5
% App. Total	100	0	0	0	0	85.7	14.3		0	0	0	0	0	100	0		
PHF	.250	.000	.000	.250	.000	.750	.250	.583	.000	.000	.000	.000	.000	.417	.000	.417	

Location: Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard



Date: 11/5/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Silicon Avenue Pedestrians	East Leg Mission Boulevard Pedestrians	South Leg Silicon Avenue Pedestrians	West Leg Mission Boulevard Pedestrians	
7:00 AM	1	0	0	0	1
7:15 AM	1	0	0	0	1
7:30 AM	2	0	3	0	5
7:45 AM	0	0	1	0	1
8:00 AM	2	0	3	0	5
8:15 AM	1	0	1	1	3
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	7	0	8	1	16

	North Leg Silicon Avenue Pedestrians	East Leg Mission Boulevard Pedestrians	South Leg Silicon Avenue Pedestrians	West Leg Mission Boulevard Pedestrians	
4:00 PM	2	0	0	0	2
4:15 PM	0	0	0	0	0
4:30 PM	3	0	0	1	4
4:45 PM	0	0	0	0	0
5:00 PM	1	0	0	0	1
5:15 PM	1	0	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	3	0	0	0	3
TOTAL VOLUMES:	10	0	0	1	11

Location: Montclair
 N/S: Silicon Avenue
 E/W: Mission Boulevard



Date: 11/5/2019
 Day: Tuesday

BICYCLES

	Southbound Silicon Avenue			Westbound Mission Boulevard			Northbound Silicon Avenue			Eastbound Mission Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
7:45 AM	0	0	0	0	1	0	0	0	0	0	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	1	0	0	1	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	4	0	1	1	0	0	2	1	9

	Southbound Silicon Avenue			Westbound Mission Boulevard			Northbound Silicon Avenue			Eastbound Mission Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	2	0	1	0	0	0	2	0	5
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	2
4:45 PM	0	0	0	0	1	0	0	0	1	0	0	0	2
5:00 PM	0	0	0	0	3	0	0	0	0	0	1	0	4
5:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
5:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
TOTAL VOLUMES:	0	0	0	0	13	0	1	0	2	0	4	1	21

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

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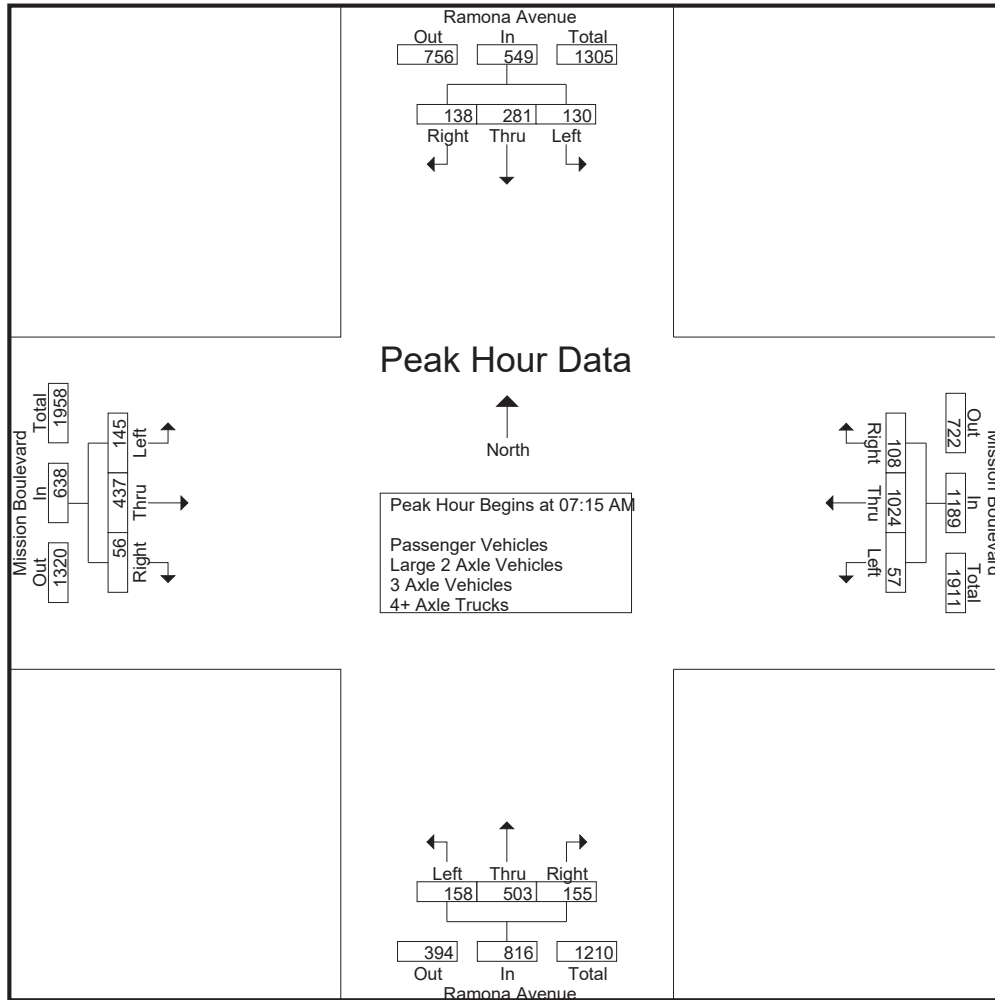
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	30	63	20	113	20	240	14	274	53	77	35	165	23	78	19	120	672
07:15 AM	29	71	28	128	18	259	21	298	32	126	55	213	37	109	18	164	803
07:30 AM	33	74	38	145	6	233	34	273	46	177	52	275	40	131	18	189	882
07:45 AM	32	68	41	141	18	292	26	336	33	122	29	184	38	108	12	158	819
Total	124	276	127	527	62	1024	95	1181	164	502	171	837	138	426	67	631	3176
08:00 AM	36	68	31	135	15	240	27	282	47	78	19	144	30	89	8	127	688
08:15 AM	10	66	28	104	13	159	21	193	43	77	21	141	22	104	6	132	570
08:30 AM	29	63	14	106	8	137	24	169	31	82	16	129	18	86	15	119	523
08:45 AM	27	44	23	94	16	144	22	182	33	72	15	120	24	98	17	139	535
Total	102	241	96	439	52	680	94	826	154	309	71	534	94	377	46	517	2316
Grand Total	226	517	223	966	114	1704	189	2007	318	811	242	1371	232	803	113	1148	5492
Apprch %	23.4	53.5	23.1		5.7	84.9	9.4		23.2	59.2	17.7		20.2	69.9	9.8		
Total %	4.1	9.4	4.1	17.6	2.1	31	3.4	36.5	5.8	14.8	4.4	25	4.2	14.6	2.1	20.9	
Passenger Vehicles	221	498	214	933	107	1607	180	1894	308	793	235	1336	221	745	108	1074	5237
% Passenger Vehicles	97.8	96.3	96	96.6	93.9	94.3	95.2	94.4	96.9	97.8	97.1	97.4	95.3	92.8	95.6	93.6	95.4
Large 2 Axle Vehicles	3	19	6	28	7	64	6	77	9	18	6	33	10	34	4	48	186
% Large 2 Axle Vehicles	1.3	3.7	2.7	2.9	6.1	3.8	3.2	3.8	2.8	2.2	2.5	2.4	4.3	4.2	3.5	4.2	3.4
3 Axle Vehicles	2	0	0	2	0	12	1	13	1	0	0	1	0	12	1	13	29
% 3 Axle Vehicles	0.9	0	0	0.2	0	0.7	0.5	0.6	0.3	0	0	0.1	0	1.5	0.9	1.1	0.5
4+ Axle Trucks	0	0	3	3	0	21	2	23	0	0	1	1	1	12	0	13	40
% 4+ Axle Trucks	0	0	1.3	0.3	0	1.2	1.1	1.1	0	0	0.4	0.1	0.4	1.5	0	1.1	0.7

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	29	71	28	128	18	259	21	298	32	126	55	213	37	109	18	164	803
07:30 AM	33	74	38	145	6	233	34	273	46	177	52	275	40	131	18	189	882
07:45 AM	32	68	41	141	18	292	26	336	33	122	29	184	38	108	12	158	819
08:00 AM	36	68	31	135	15	240	27	282	47	78	19	144	30	89	8	127	688
Total Volume	130	281	138	549	57	1024	108	1189	158	503	155	816	145	437	56	638	3192
% App. Total	23.7	51.2	25.1		4.8	86.1	9.1		19.4	61.6	19		22.7	68.5	8.8		
PHF	.903	.949	.841	.947	.792	.877	.794	.885	.840	.710	.705	.742	.906	.834	.778	.844	.905

City of Montclair
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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:

	07:15 AM				07:15 AM				07:00 AM				07:15 AM			
+0 mins.	29	71	28	128	18	259	21	298	53	77	35	165	37	109	18	164
+15 mins.	33	74	38	145	6	233	34	273	32	126	55	213	40	131	18	189
+30 mins.	32	68	41	141	18	292	26	336	46	177	52	275	38	108	12	158
+45 mins.	36	68	31	135	15	240	27	282	33	122	29	184	30	89	8	127
Total Volume	130	281	138	549	57	1024	108	1189	164	502	171	837	145	437	56	638
% App. Total	23.7	51.2	25.1		4.8	86.1	9.1		19.6	60	20.4		22.7	68.5	8.8	
PHF	.903	.949	.841	.947	.792	.877	.794	.885	.774	.709	.777	.761	.906	.834	.778	.844

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 06_MON_Ramona_Mission AM
 Site Code : 99919768
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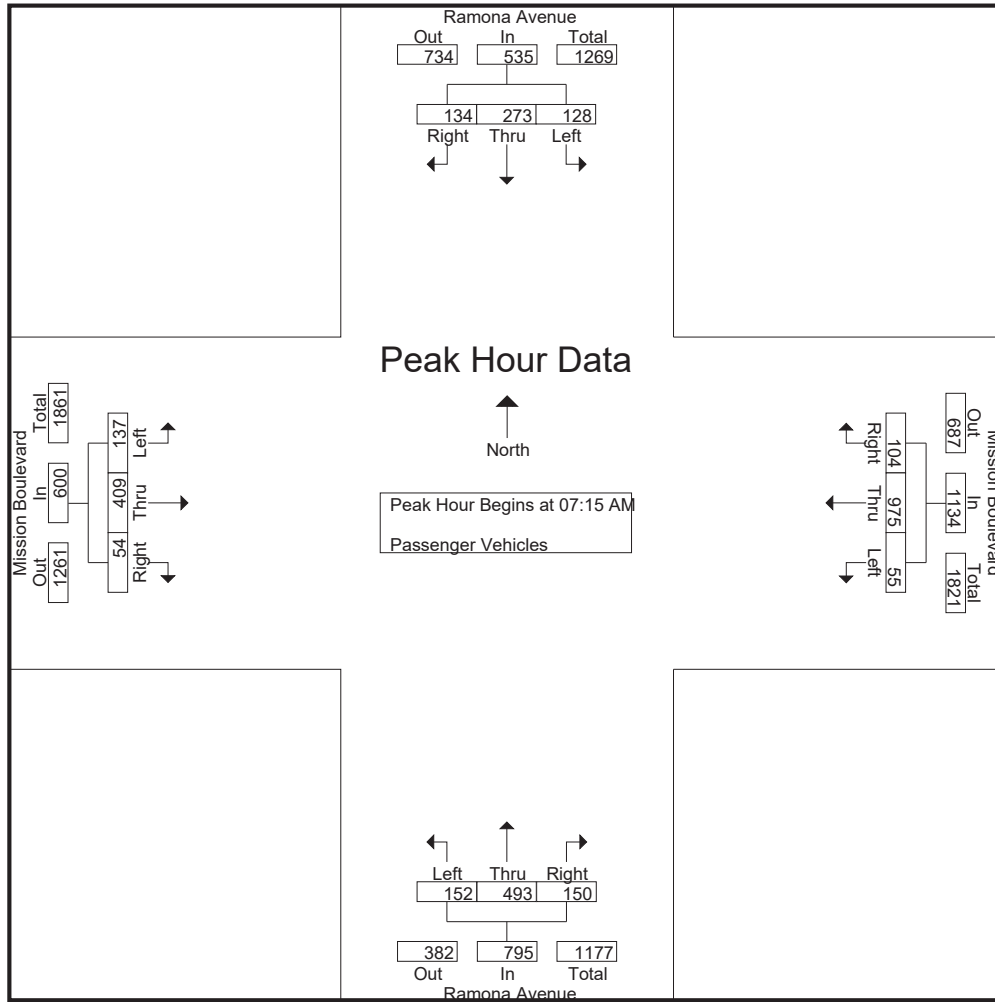
Groups Printed- Passenger Vehicles

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	29	60	17	106	18	226	12	256	51	73	35	159	22	70	18	110	631
07:15 AM	29	71	26	126	18	250	21	289	32	124	55	211	32	99	18	149	775
07:30 AM	33	70	38	141	6	220	32	258	44	175	50	269	39	122	18	179	847
07:45 AM	32	64	39	135	17	276	24	317	32	118	28	178	38	103	11	152	782
Total	123	265	120	508	59	972	89	1120	159	490	168	817	131	394	65	590	3035
08:00 AM	34	68	31	133	14	229	27	270	44	76	17	137	28	85	7	120	660
08:15 AM	10	63	27	100	13	150	20	183	43	76	21	140	21	96	6	123	546
08:30 AM	29	62	14	105	8	127	23	158	30	81	15	126	18	79	14	111	500
08:45 AM	25	40	22	87	13	129	21	163	32	70	14	116	23	91	16	130	496
Total	98	233	94	425	48	635	91	774	149	303	67	519	90	351	43	484	2202
Grand Total	221	498	214	933	107	1607	180	1894	308	793	235	1336	221	745	108	1074	5237
Apprch %	23.7	53.4	22.9		5.6	84.8	9.5		23.1	59.4	17.6		20.6	69.4	10.1		
Total %	4.2	9.5	4.1	17.8	2	30.7	3.4	36.2	5.9	15.1	4.5	25.5	4.2	14.2	2.1	20.5	

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	29	71	26	126	18	250	21	289	32	124	55	211	32	99	18	149	775
07:30 AM	33	70	38	141	6	220	32	258	44	175	50	269	39	122	18	179	847
07:45 AM	32	64	39	135	17	276	24	317	32	118	28	178	38	103	11	152	782
08:00 AM	34	68	31	133	14	229	27	270	44	76	17	137	28	85	7	120	660
Total Volume	128	273	134	535	55	975	104	1134	152	493	150	795	137	409	54	600	3064
% App. Total	23.9	51	25		4.9	86	9.2		19.1	62	18.9		22.8	68.2	9		
PHF	.941	.961	.859	.949	.764	.883	.813	.894	.864	.704	.682	.739	.878	.838	.750	.838	.904

City of Montclair
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 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	29	71	26	126	18	250	21	289	32	124	55	211	32	99	18	149
+15 mins.	33	70	38	141	6	220	32	258	44	175	50	269	39	122	18	179
+30 mins.	32	64	39	135	17	276	24	317	32	118	28	178	38	103	11	152
+45 mins.	34	68	31	133	14	229	27	270	44	76	17	137	28	85	7	120
Total Volume	128	273	134	535	55	975	104	1134	152	493	150	795	137	409	54	600
% App. Total	23.9	51	25		4.9	86	9.2		19.1	62	18.9		22.8	68.2	9	
PHF	.941	.961	.859	.949	.764	.883	.813	.894	.864	.704	.682	.739	.878	.838	.750	.838

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 06_MON_Ramona_Mission AM
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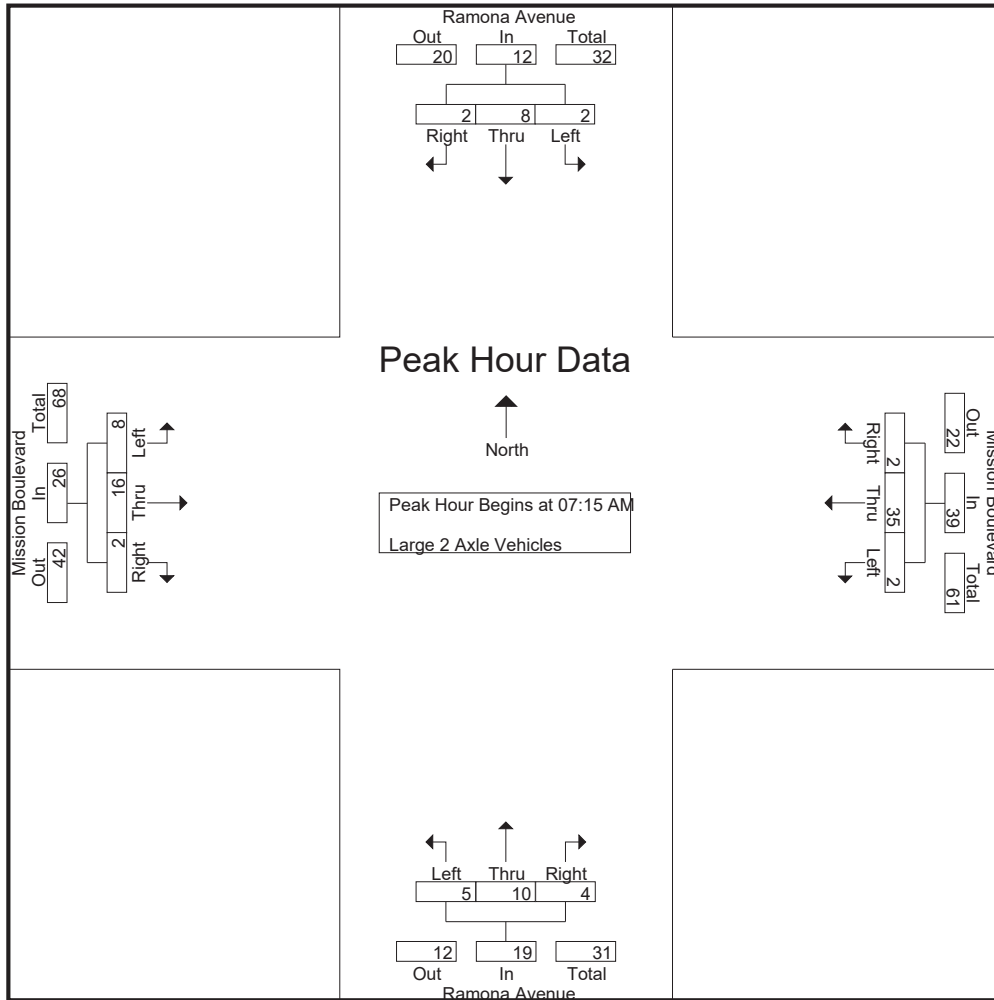
Groups Printed- Large 2 Axle Vehicles

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	3	3	7	2	12	2	16	2	4	0	6	1	6	0	7	36
07:15 AM	0	0	1	1	0	5	0	5	0	2	0	2	5	5	0	10	18
07:30 AM	0	4	0	4	0	11	1	12	2	2	1	5	1	7	0	8	29
07:45 AM	0	4	1	5	1	13	1	15	1	4	1	6	0	2	1	3	29
Total	1	11	5	17	3	41	4	48	5	12	2	19	7	20	1	28	112
08:00 AM	2	0	0	2	1	6	0	7	2	2	2	6	2	2	1	5	20
08:15 AM	0	3	0	3	0	3	0	3	0	1	0	1	1	4	0	5	12
08:30 AM	0	1	0	1	0	7	1	8	1	1	1	3	0	5	1	6	18
08:45 AM	0	4	1	5	3	7	1	11	1	2	1	4	0	3	1	4	24
Total	2	8	1	11	4	23	2	29	4	6	4	14	3	14	3	20	74
Grand Total	3	19	6	28	7	64	6	77	9	18	6	33	10	34	4	48	186
Apprch %	10.7	67.9	21.4		9.1	83.1	7.8		27.3	54.5	18.2		20.8	70.8	8.3		
Total %	1.6	10.2	3.2	15.1	3.8	34.4	3.2	41.4	4.8	9.7	3.2	17.7	5.4	18.3	2.2	25.8	

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	1	1	0	5	0	5	0	2	0	2	5	5	0	10	18
07:30 AM	0	4	0	4	0	11	1	12	2	2	1	5	1	7	0	8	29
07:45 AM	0	4	1	5	1	13	1	15	1	4	1	6	0	2	1	3	29
08:00 AM	2	0	0	2	1	6	0	7	2	2	2	6	2	2	1	5	20
Total Volume	2	8	2	12	2	35	2	39	5	10	4	19	8	16	2	26	96
% App. Total	16.7	66.7	16.7		5.1	89.7	5.1		26.3	52.6	21.1		30.8	61.5	7.7		
PHF	.250	.500	.500	.600	.500	.673	.500	.650	.625	.625	.500	.792	.400	.571	.500	.650	.828

City of Montclair
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 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	1	1	0	5	0	5	0	2	0	2	5	5	0	10
+15 mins.	0	4	0	4	0	11	1	12	2	2	1	5	1	7	0	8
+30 mins.	0	4	1	5	1	13	1	15	1	4	1	6	0	2	1	3
+45 mins.	2	0	0	2	1	6	0	7	2	2	2	6	2	2	1	5
Total Volume	2	8	2	12	2	35	2	39	5	10	4	19	8	16	2	26
% App. Total	16.7	66.7	16.7		5.1	89.7	5.1		26.3	52.6	21.1		30.8	61.5	7.7	
PHF	.250	.500	.500	.600	.500	.673	.500	.650	.625	.625	.500	.792	.400	.571	.500	.650

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 06_MON_Ramona_Mission AM
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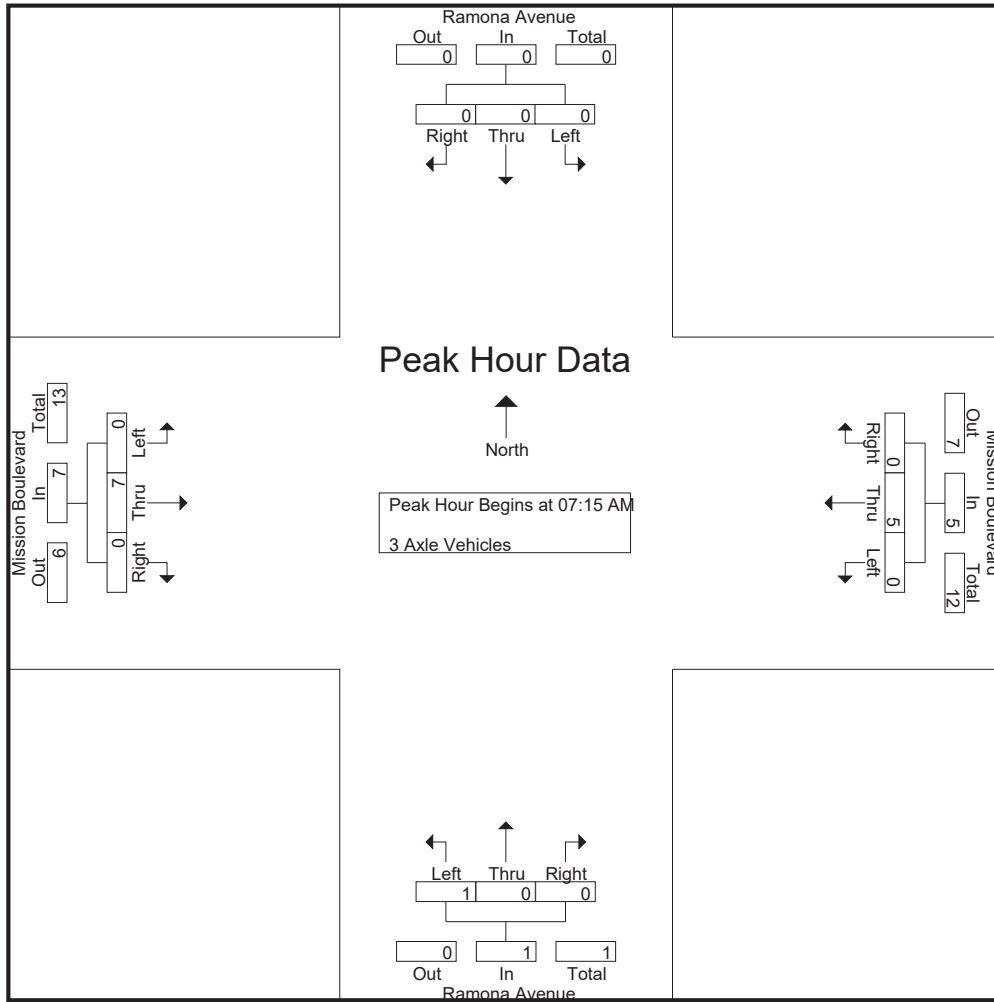
Groups Printed- 3 Axle Vehicles

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
Total	0	0	0	0	0	2	0	2	0	0	0	0	0	7	1	8	10
08:00 AM	0	0	0	0	0	3	0	3	1	0	0	1	0	1	0	1	5
08:15 AM	0	0	0	0	0	3	1	4	0	0	0	0	0	2	0	2	6
08:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
08:45 AM	2	0	0	2	0	3	0	3	0	0	0	0	0	0	0	0	5
Total	2	0	0	2	0	10	1	11	1	0	0	1	0	5	0	5	19
Grand Total	2	0	0	2	0	12	1	13	1	0	0	1	0	12	1	13	29
Apprch %	100	0	0		0	92.3	7.7		100	0	0		0	92.3	7.7		
Total %	6.9	0	0	6.9	0	41.4	3.4	44.8	3.4	0	0	3.4	0	41.4	3.4	44.8	

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
08:00 AM	0	0	0	0	0	3	0	3	1	0	0	1	0	1	0	1	5
Total Volume	0	0	0	0	0	5	0	5	1	0	0	1	0	7	0	7	13
% App. Total	0	0	0		0	100	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.417	.000	.417	.250	.000	.000	.250	.000	.583	.000	.583	.650

City of Montclair
 N/S: Ramona Avenue
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 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
+45 mins.	0	0	0	0	0	3	0	3	1	0	0	1	0	1	0	1
Total Volume	0	0	0	0	0	5	0	5	1	0	0	1	0	7	0	7
% App. Total	0	0	0	0	0	100	0	0	100	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.417	.000	.417	.250	.000	.000	.250	.000	.583	.000	.583

City of Montclair
 N/S: Ramona Avenue
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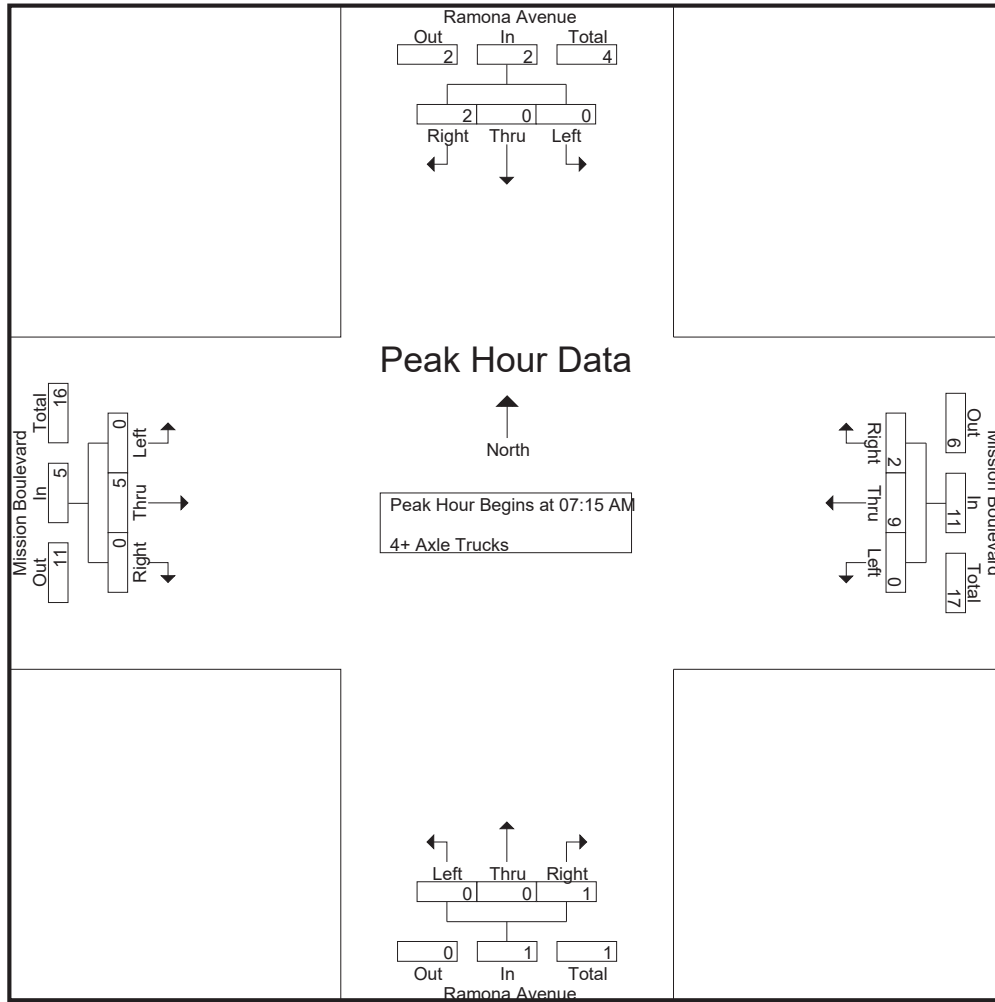
Groups Printed- 4+ Axle Trucks

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
07:15 AM	0	0	1	1	0	3	0	3	0	0	0	0	0	2	0	2	6
07:30 AM	0	0	0	0	0	2	1	3	0	0	1	1	0	1	0	1	5
07:45 AM	0	0	1	1	0	2	1	3	0	0	0	0	0	1	0	1	5
Total	0	0	2	2	0	9	2	11	0	0	1	1	0	5	0	5	19
08:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
08:15 AM	0	0	1	1	0	3	0	3	0	0	0	0	0	2	0	2	6
08:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	5	0	5	0	0	0	0	1	4	0	5	10
Total	0	0	1	1	0	12	0	12	0	0	0	0	1	7	0	8	21
Grand Total	0	0	3	3	0	21	2	23	0	0	1	1	1	12	0	13	40
Apprch %	0	0	100		0	91.3	8.7		0	0	100		7.7	92.3	0		
Total %	0	0	7.5	7.5	0	52.5	5	57.5	0	0	2.5	2.5	2.5	30	0	32.5	

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	1	1	0	3	0	3	0	0	0	0	0	2	0	2	6
07:30 AM	0	0	0	0	0	2	1	3	0	0	1	1	0	1	0	1	5
07:45 AM	0	0	1	1	0	2	1	3	0	0	0	0	0	1	0	1	5
08:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total Volume	0	0	2	2	0	9	2	11	0	0	1	1	0	5	0	5	19
% App. Total	0	0	100		0	81.8	18.2		0	0	100		0	100	0		
PHF	.000	.000	.500	.500	.000	.750	.500	.917	.000	.000	.250	.250	.000	.625	.000	.625	.792

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	1	1	0	3	0	3	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	2	1	3	0	0	1	1	0	1	0	1
+30 mins.	0	0	1	1	0	2	1	3	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
Total Volume	0	0	2	2	0	9	2	11	0	0	1	1	0	5	0	5
% App. Total	0	0	100		0	81.8	18.2		0	0	100		0	100	0	
PHF	.000	.000	.500	.500	.000	.750	.500	.917	.000	.000	.250	.250	.000	.625	.000	.625

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 06_MON_Ramona_Mission PM
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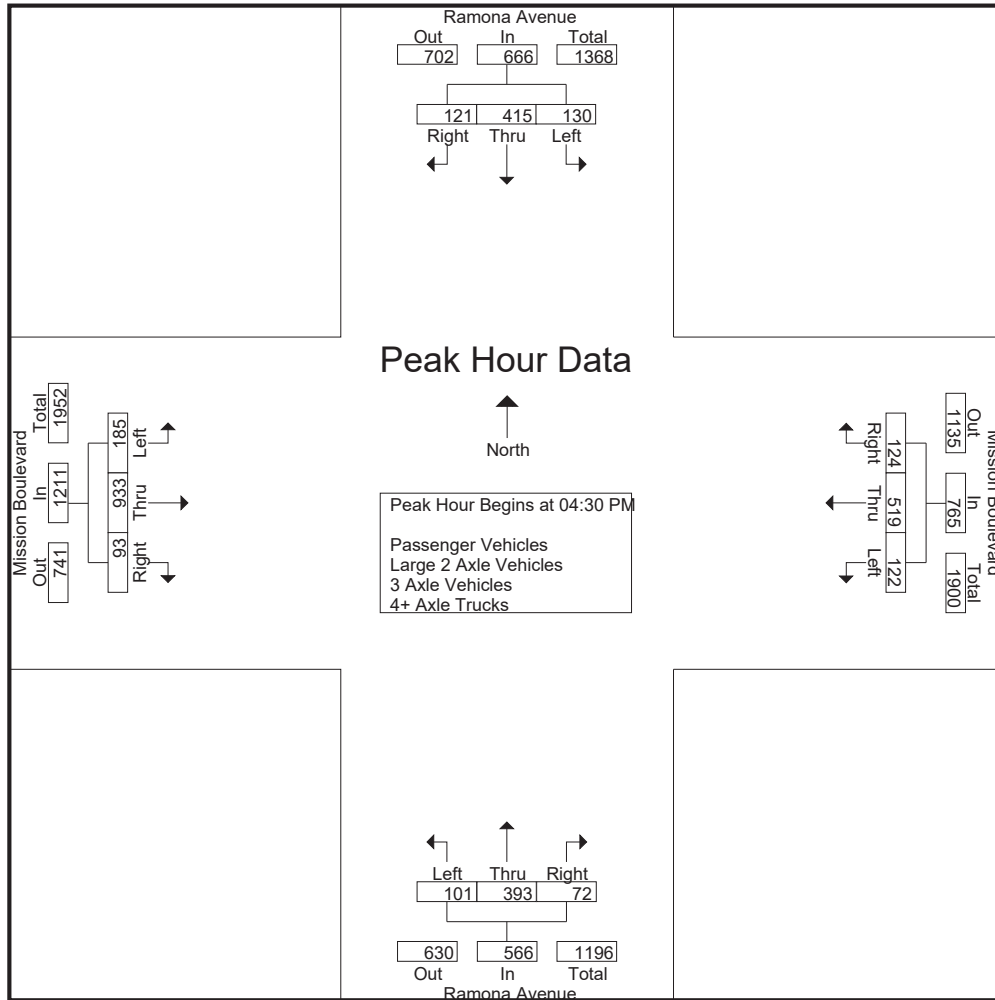
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	27	93	33	153	22	107	21	150	31	91	27	149	36	219	18	273	725
04:15 PM	35	79	28	142	17	141	29	187	21	110	33	164	38	231	23	292	785
04:30 PM	28	105	37	170	35	128	41	204	21	107	15	143	51	203	33	287	804
04:45 PM	35	92	27	154	25	116	25	166	35	95	20	150	41	223	21	285	755
Total	125	369	125	619	99	492	116	707	108	403	95	606	166	876	95	1137	3069
05:00 PM	37	86	33	156	37	150	24	211	16	98	20	134	50	260	23	333	834
05:15 PM	30	132	24	186	25	125	34	184	29	93	17	139	43	247	16	306	815
05:30 PM	32	94	20	146	23	117	21	161	14	87	18	119	48	235	15	298	724
05:45 PM	25	116	28	169	26	115	22	163	20	124	18	162	38	194	17	249	743
Total	124	428	105	657	111	507	101	719	79	402	73	554	179	936	71	1186	3116
Grand Total	249	797	230	1276	210	999	217	1426	187	805	168	1160	345	1812	166	2323	6185
Apprch %	19.5	62.5	18		14.7	70.1	15.2		16.1	69.4	14.5		14.9	78	7.1		
Total %	4	12.9	3.7	20.6	3.4	16.2	3.5	23.1	3	13	2.7	18.8	5.6	29.3	2.7	37.6	
Passenger Vehicles	245	789	220	1254	206	955	210	1371	182	796	162	1140	339	1748	163	2250	6015
% Passenger Vehicles	98.4	99	95.7	98.3	98.1	95.6	96.8	96.1	97.3	98.9	96.4	98.3	98.3	96.5	98.2	96.9	97.3
Large 2 Axle Vehicles	4	8	7	19	3	29	4	36	4	9	6	19	4	45	2	51	125
% Large 2 Axle Vehicles	1.6	1	3	1.5	1.4	2.9	1.8	2.5	2.1	1.1	3.6	1.6	1.2	2.5	1.2	2.2	2
3 Axle Vehicles	0	0	0	0	1	6	0	7	1	0	0	1	1	3	0	4	12
% 3 Axle Vehicles	0	0	0	0	0.5	0.6	0	0.5	0.5	0	0	0.1	0.3	0.2	0	0.2	0.2
4+ Axle Trucks	0	0	3	3	0	9	3	12	0	0	0	0	1	16	1	18	33
% 4+ Axle Trucks	0	0	1.3	0.2	0	0.9	1.4	0.8	0	0	0	0	0.3	0.9	0.6	0.8	0.5

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	28	105	37	170	35	128	41	204	21	107	15	143	51	203	33	287	804
04:45 PM	35	92	27	154	25	116	25	166	35	95	20	150	41	223	21	285	755
05:00 PM	37	86	33	156	37	150	24	211	16	98	20	134	50	260	23	333	834
05:15 PM	30	132	24	186	25	125	34	184	29	93	17	139	43	247	16	306	815
Total Volume	130	415	121	666	122	519	124	765	101	393	72	566	185	933	93	1211	3208
% App. Total	19.5	62.3	18.2		15.9	67.8	16.2		17.8	69.4	12.7		15.3	77	7.7		
PHF	.878	.786	.818	.895	.824	.865	.756	.906	.721	.918	.900	.943	.907	.897	.705	.909	.962

City of Montclair
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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:

	04:30 PM				04:15 PM				04:00 PM				04:45 PM			
+0 mins.	28	105	37	170	17	141	29	187	31	91	27	149	41	223	21	285
+15 mins.	35	92	27	154	35	128	41	204	21	110	33	164	50	260	23	333
+30 mins.	37	86	33	156	25	116	25	166	21	107	15	143	43	247	16	306
+45 mins.	30	132	24	186	37	150	24	211	35	95	20	150	48	235	15	298
Total Volume	130	415	121	666	114	535	119	768	108	403	95	606	182	965	75	1222
% App. Total	19.5	62.3	18.2		14.8	69.7	15.5		17.8	66.5	15.7		14.9	79	6.1	
PHF	.878	.786	.818	.895	.770	.892	.726	.910	.771	.916	.720	.924	.910	.928	.815	.917

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 06_MON_Ramona_Mission PM
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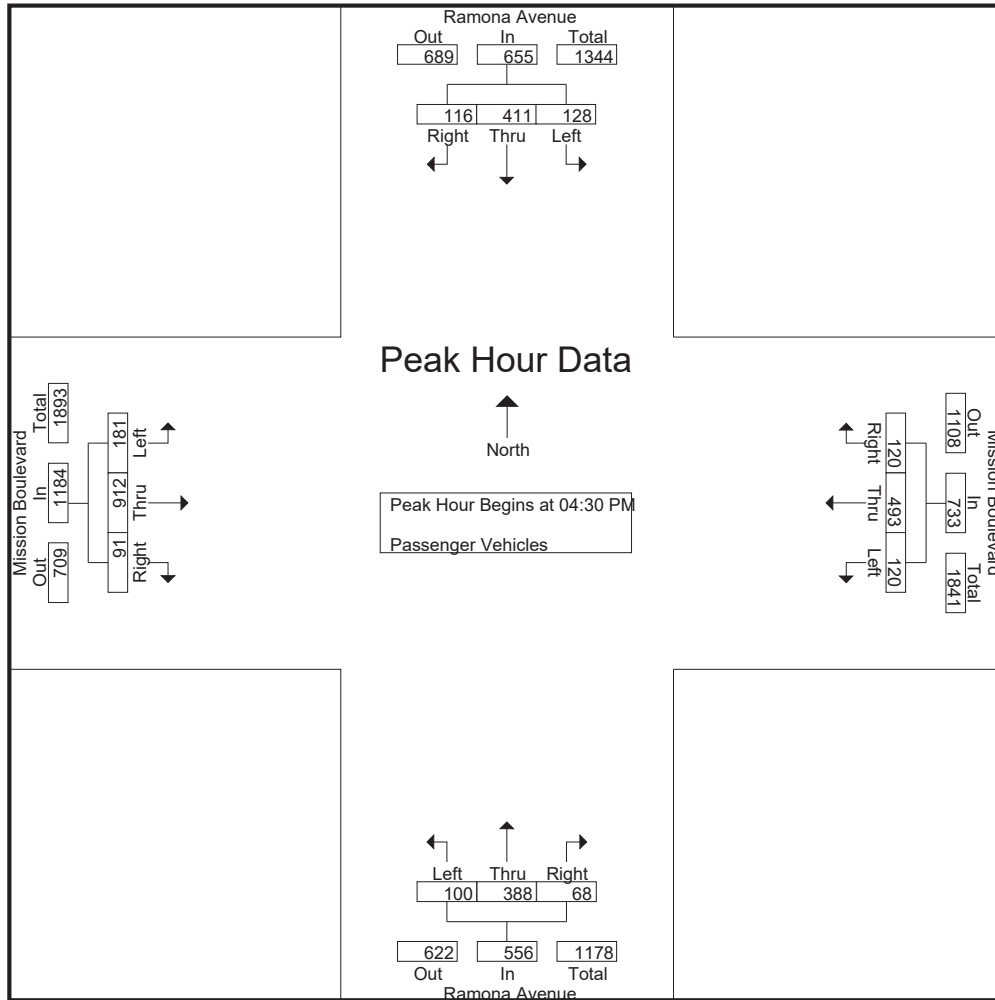
Groups Printed- Passenger Vehicles

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	26	90	31	147	20	100	20	140	29	89	25	143	36	205	17	258	688
04:15 PM	35	79	26	140	17	137	27	181	20	109	33	162	37	214	23	274	757
04:30 PM	28	103	34	165	35	125	39	199	21	105	14	140	51	200	33	284	788
04:45 PM	34	91	26	151	23	105	23	151	35	94	18	147	40	216	21	277	726
Total	123	363	117	603	95	467	109	671	105	397	90	592	164	835	94	1093	2959
05:00 PM	37	86	32	155	37	144	24	205	15	97	19	131	48	253	22	323	814
05:15 PM	29	131	24	184	25	119	34	178	29	92	17	138	42	243	15	300	800
05:30 PM	32	94	20	146	23	112	21	156	13	86	18	117	47	229	15	291	710
05:45 PM	24	115	27	166	26	113	22	161	20	124	18	162	38	188	17	243	732
Total	122	426	103	651	111	488	101	700	77	399	72	548	175	913	69	1157	3056
Grand Total	245	789	220	1254	206	955	210	1371	182	796	162	1140	339	1748	163	2250	6015
Apprch %	19.5	62.9	17.5		15	69.7	15.3		16	69.8	14.2		15.1	77.7	7.2		
Total %	4.1	13.1	3.7	20.8	3.4	15.9	3.5	22.8	3	13.2	2.7	19	5.6	29.1	2.7	37.4	

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	28	103	34	165	35	125	39	199	21	105	14	140	51	200	33	284	788
04:45 PM	34	91	26	151	23	105	23	151	35	94	18	147	40	216	21	277	726
05:00 PM	37	86	32	155	37	144	24	205	15	97	19	131	48	253	22	323	814
05:15 PM	29	131	24	184	25	119	34	178	29	92	17	138	42	243	15	300	800
Total Volume	128	411	116	655	120	493	120	733	100	388	68	556	181	912	91	1184	3128
% App. Total	19.5	62.7	17.7		16.4	67.3	16.4		18	69.8	12.2		15.3	77	7.7		
PHF	.865	.784	.853	.890	.811	.856	.769	.894	.714	.924	.895	.946	.887	.901	.689	.916	.961

City of Montclair
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 Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	28	103	34	165	35	125	39	199	21	105	14	140	51	200	33	284
+15 mins.	34	91	26	151	23	105	23	151	35	94	18	147	40	216	21	277
+30 mins.	37	86	32	155	37	144	24	205	15	97	19	131	48	253	22	323
+45 mins.	29	131	24	184	25	119	34	178	29	92	17	138	42	243	15	300
Total Volume	128	411	116	655	120	493	120	733	100	388	68	556	181	912	91	1184
% App. Total	19.5	62.7	17.7		16.4	67.3	16.4		18	69.8	12.2		15.3	77	7.7	
PHF	.865	.784	.853	.890	.811	.856	.769	.894	.714	.924	.895	.946	.887	.901	.689	.916

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

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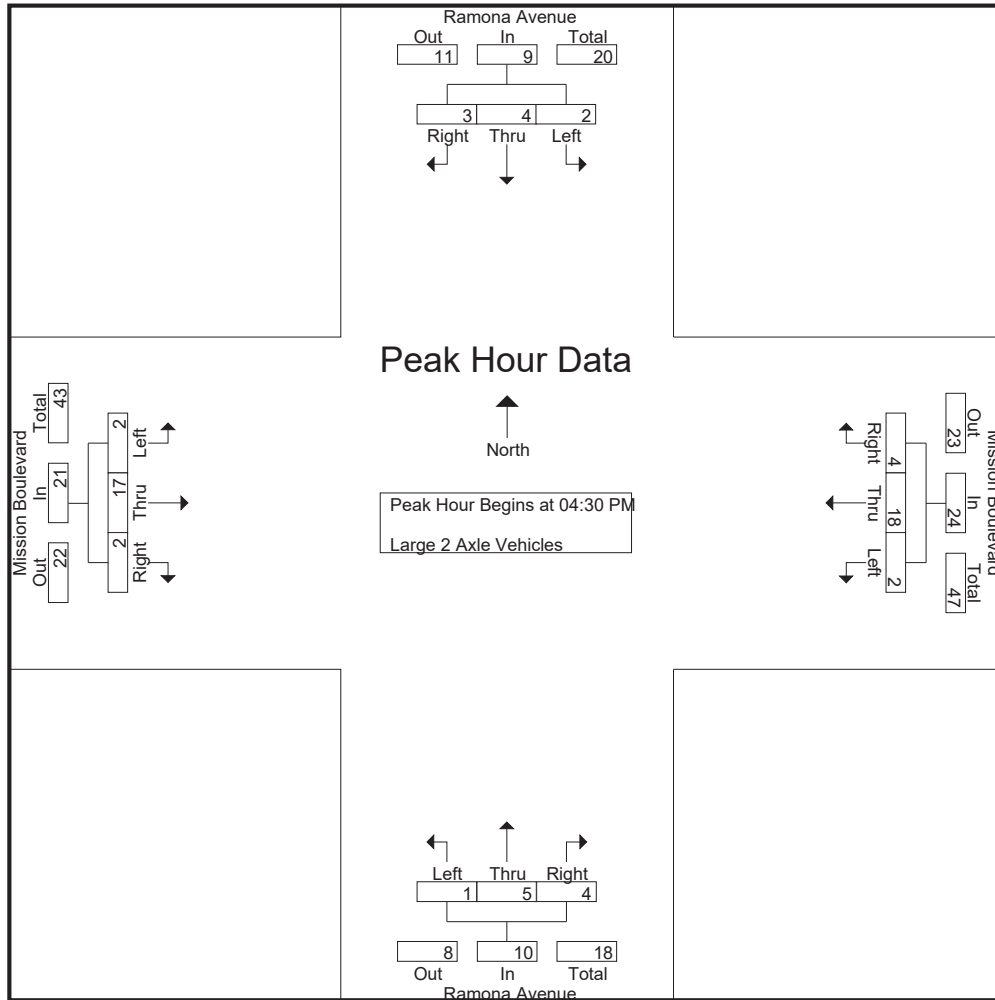
Groups Printed- Large 2 Axle Vehicles

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	3	2	6	1	3	0	4	1	2	2	5	0	9	0	9	24
04:15 PM	0	0	1	1	0	3	0	3	1	1	0	2	1	12	0	13	19
04:30 PM	0	2	2	4	0	1	2	3	0	2	1	3	0	2	0	2	12
04:45 PM	1	1	1	3	2	7	2	11	0	1	2	3	0	7	0	7	24
Total	2	6	6	14	3	14	4	21	2	6	5	13	1	30	0	31	79
05:00 PM	0	0	0	0	0	6	0	6	1	1	1	3	1	5	1	7	16
05:15 PM	1	1	0	2	0	4	0	4	0	1	0	1	1	3	1	5	12
05:30 PM	0	0	0	0	0	4	0	4	1	1	0	2	1	3	0	4	10
05:45 PM	1	1	1	3	0	1	0	1	0	0	0	0	0	4	0	4	8
Total	2	2	1	5	0	15	0	15	2	3	1	6	3	15	2	20	46
Grand Total	4	8	7	19	3	29	4	36	4	9	6	19	4	45	2	51	125
Apprch %	21.1	42.1	36.8		8.3	80.6	11.1		21.1	47.4	31.6		7.8	88.2	3.9		
Total %	3.2	6.4	5.6	15.2	2.4	23.2	3.2	28.8	3.2	7.2	4.8	15.2	3.2	36	1.6	40.8	

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	2	2	4	0	1	2	3	0	2	1	3	0	2	0	2	12
04:45 PM	1	1	1	3	2	7	2	11	0	1	2	3	0	7	0	7	24
05:00 PM	0	0	0	0	0	6	0	6	1	1	1	3	1	5	1	7	16
05:15 PM	1	1	0	2	0	4	0	4	0	1	0	1	1	3	1	5	12
Total Volume	2	4	3	9	2	18	4	24	1	5	4	10	2	17	2	21	64
% App. Total	22.2	44.4	33.3		8.3	75	16.7		10	50	40		9.5	81	9.5		
PHF	.500	.500	.375	.563	.250	.643	.500	.545	.250	.625	.500	.833	.500	.607	.500	.750	.667

City of Montclair
 N/S: Ramona Avenue
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 Weather: Clear

File Name : 06_MON_Ramona_Mission PM
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	2	2	4	0	1	2	3	0	2	1	3	0	2	0	2
+15 mins.	1	1	1	3	2	7	2	11	0	1	2	3	0	7	0	7
+30 mins.	0	0	0	0	0	6	0	6	1	1	1	3	1	5	1	7
+45 mins.	1	1	0	2	0	4	0	4	0	1	0	1	1	3	1	5
Total Volume	2	4	3	9	2	18	4	24	1	5	4	10	2	17	2	21
% App. Total	22.2	44.4	33.3		8.3	75	16.7		10	50	40		9.5	81	9.5	
PHF	.500	.500	.375	.563	.250	.643	.500	.545	.250	.625	.500	.833	.500	.607	.500	.750

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 06_MON_Ramona_Mission PM
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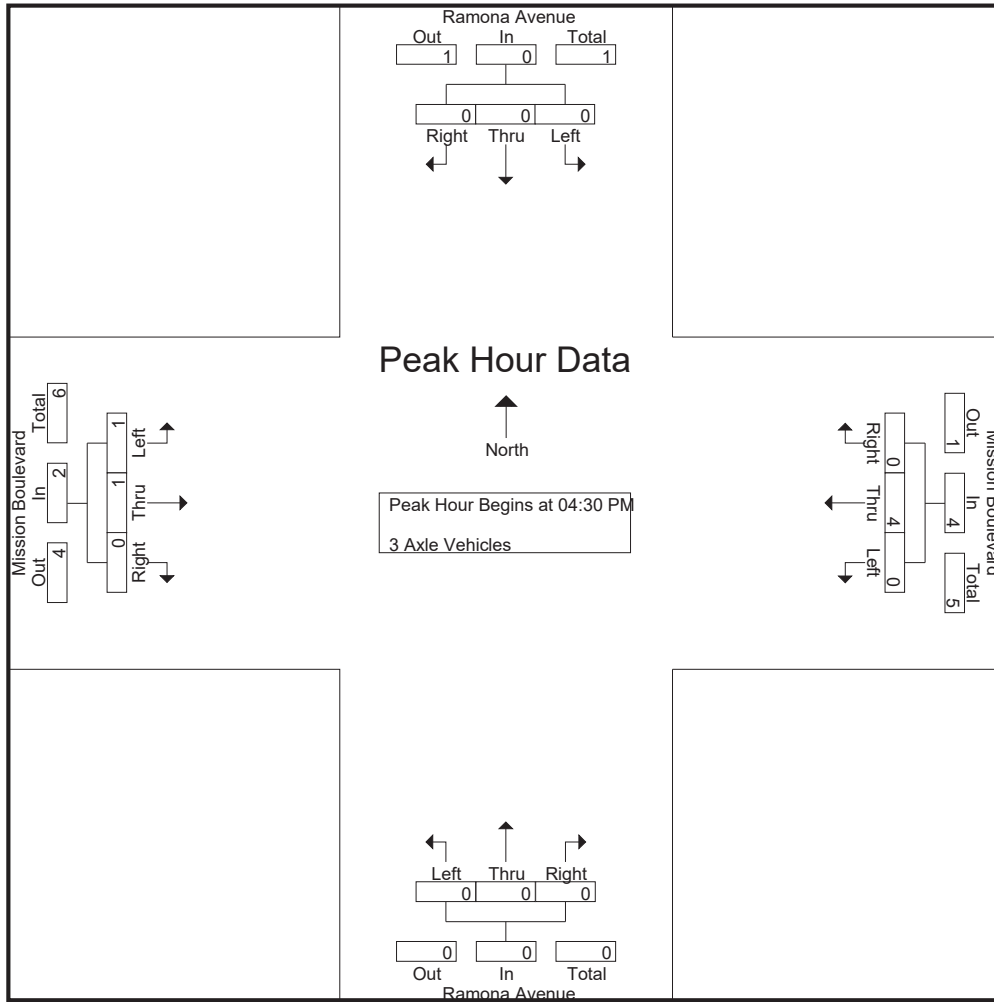
Groups Printed- 3 Axle Vehicles

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	1	2	0	3	1	0	0	1	0	0	0	0	4
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	1	0	0	1	4
Total	0	0	0	0	1	6	0	7	1	0	0	1	1	1	0	2	10
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	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	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Grand Total	0	0	0	0	1	6	0	7	1	0	0	1	1	3	0	4	12
Apprch %	0	0	0		14.3	85.7	0		100	0	0		25	75	0		
Total %	0	0	0		8.3	50	0	58.3	8.3	0	0	8.3	8.3	25	0	33.3	

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	1	0	0	1	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	4	0	4	0	0	0	0	1	1	0	2	6
% App. Total	0	0	0		0	100	0		0	0	0		50	50	0		
PHF	.000	.000	.000	.000	.000	.333	.000	.333	.000	.000	.000	.000	.250	.250	.000	.500	.375

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 06_MON_Ramona_Mission PM
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	3	0	3	0	0	0	0	1	0	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	4	0	4	0	0	0	0	1	1	0	2
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	50	50	0	0
PHF	.000	.000	.000	.000	.000	.333	.000	.333	.000	.000	.000	.000	.250	.250	.000	.500

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 06_MON_Ramona_Mission PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

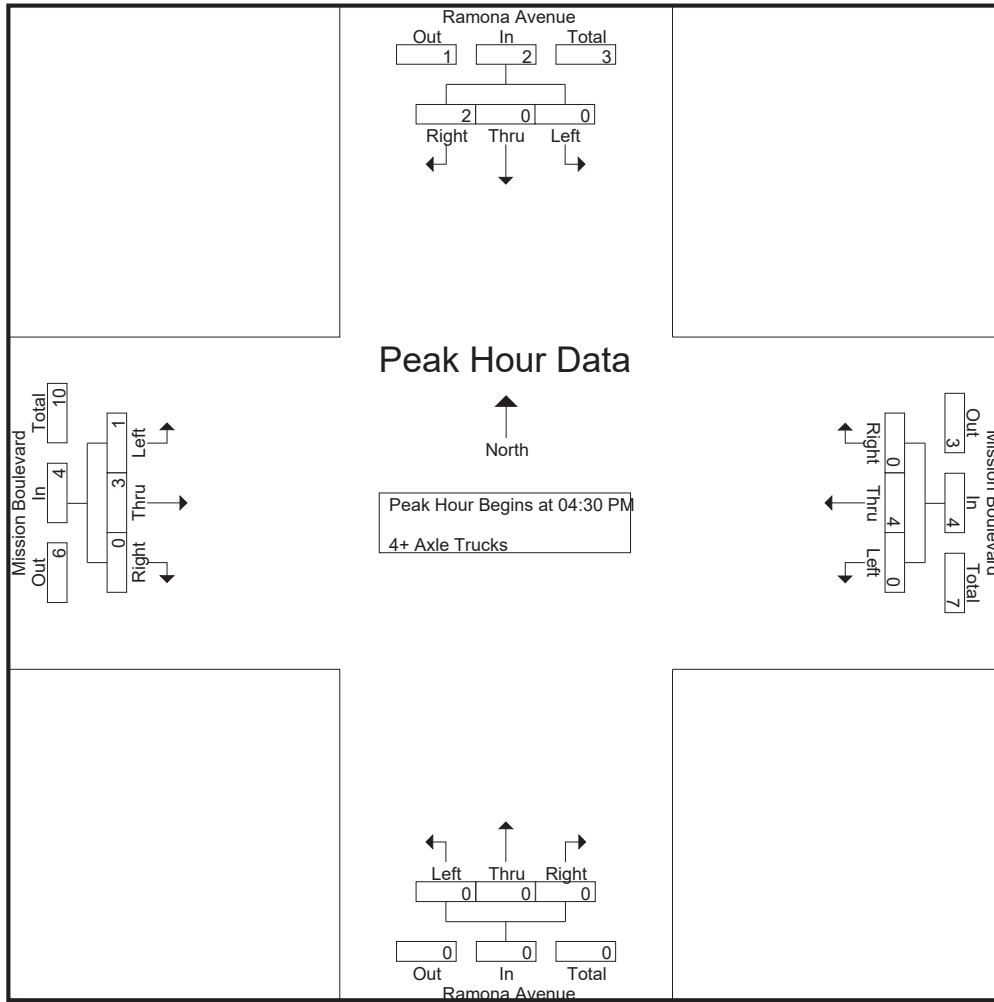
Groups Printed- 4+ Axle Trucks

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	2	1	3	0	0	0	0	0	5	1	6	9
04:15 PM	0	0	1	1	0	1	2	3	0	0	0	0	0	4	0	4	8
04:30 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	3
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	2	2	0	5	3	8	0	0	0	0	0	10	1	11	21
05:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	2	3
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	1	1	0	4	0	4	0	0	0	0	1	6	0	7	12
Grand Total	0	0	3	3	0	9	3	12	0	0	0	0	1	16	1	18	33
Apprch %	0	0	100		0	75	25		0	0	0		5.6	88.9	5.6		
Total %	0	0	9.1	9.1	0	27.3	9.1	36.4	0	0	0	0	3	48.5	3	54.5	

Start Time	Ramona Avenue Southbound				Mission Boulevard Westbound				Ramona Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	3
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	2	3
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total Volume	0	0	2	2	0	4	0	4	0	0	0	0	1	3	0	4	10
% App. Total	0	0	100		0	100	0		0	0	0		25	75	0		
PHF	.000	.000	.500	.500	.000	.500	.000	.500	.000	.000	.000	.000	.250	.750	.000	.500	.833

City of Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 06_MON_Ramona_Mission PM
 Site Code : 99919768
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	2
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1
Total Volume	0	0	2	2	0	4	0	4	0	0	0	0	1	3	0	4
% App. Total	0	0	100		0	100	0		0	0	0		25	75	0	
PHF	.000	.000	.500	.500	.000	.500	.000	.500	.000	.000	.000	.000	.250	.750	.000	.500

Location: Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard



Date: 11/5/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Ramona Avenue Pedestrians	East Leg Mission Boulevard Pedestrians	South Leg Ramona Avenue Pedestrians	West Leg Mission Boulevard Pedestrians	
7:00 AM	0	2	1	2	5
7:15 AM	0	0	1	1	2
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	1	1
8:00 AM	0	2	2	0	4
8:15 AM	0	0	0	0	0
8:30 AM	0	0	2	0	2
8:45 AM	0	0	1	0	1
TOTAL VOLUMES:	0	4	7	4	15

	North Leg Ramona Avenue Pedestrians	East Leg Mission Boulevard Pedestrians	South Leg Ramona Avenue Pedestrians	West Leg Mission Boulevard Pedestrians	
4:00 PM	3	0	0	1	4
4:15 PM	0	1	0	2	3
4:30 PM	0	2	1	1	4
4:45 PM	0	0	5	1	6
5:00 PM	1	2	3	3	9
5:15 PM	0	0	2	2	4
5:30 PM	0	0	0	0	0
5:45 PM	0	0	3	0	3
TOTAL VOLUMES:	4	5	14	10	33

Location: Montclair
 N/S: Ramona Avenue
 E/W: Mission Boulevard



Date: 11/5/2019
 Day: Tuesday

BICYCLES

	Southbound Ramona Avenue			Westbound Mission Boulevard			Northbound Ramona Avenue			Eastbound Mission 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	2	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
TOTAL VOLUMES:	0	1	0	0	1	0	0	2	1	0	1	0	6

	Southbound Ramona Avenue			Westbound Mission Boulevard			Northbound Ramona Avenue			Eastbound Mission Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	1	1	0	0	0	1	0	0	1	1	5
4:15 PM	0	0	0	1	0	0	0	1	0	0	0	0	2
4:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
4:45 PM	0	0	0	0	2	0	0	0	0	2	0	0	4
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	1	2
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	1	0	1
5:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
TOTAL VOLUMES:	0	0	1	2	4	0	0	4	0	2	3	2	18

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

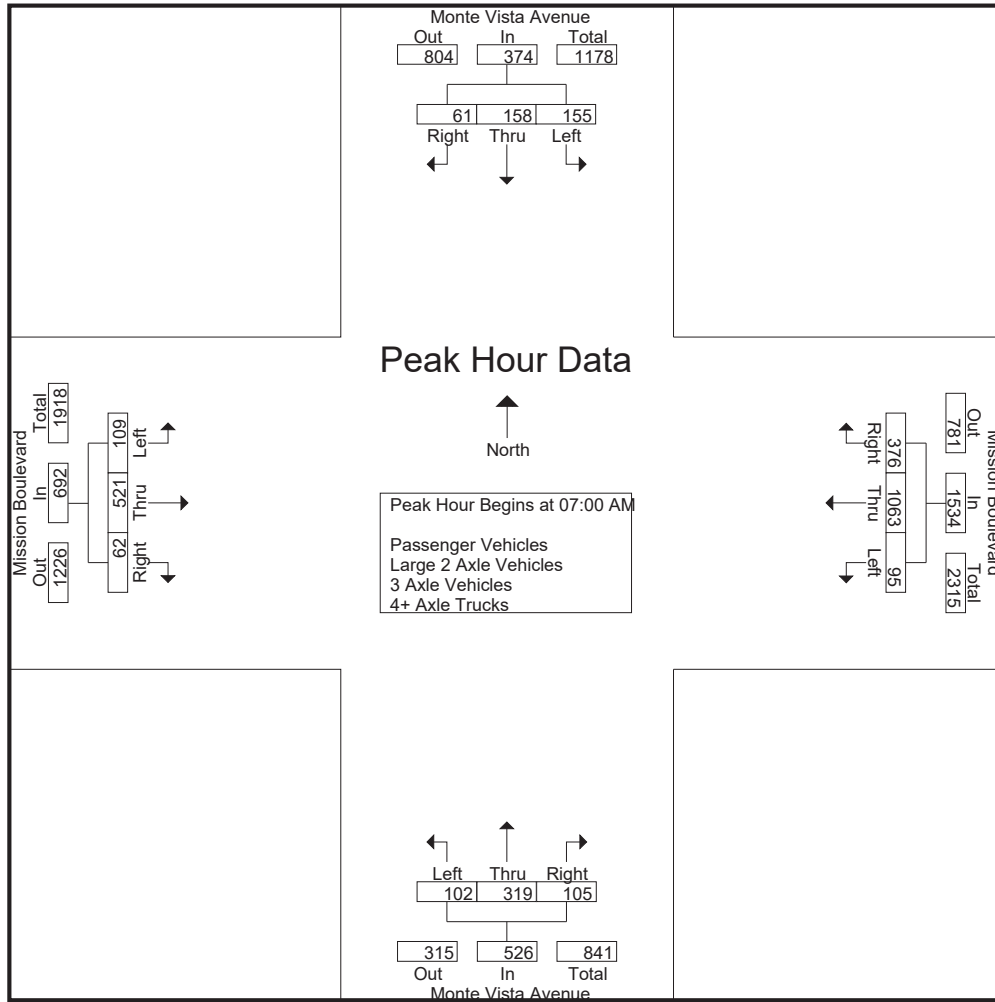
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	33	38	11	82	29	275	68	372	21	60	12	93	24	110	16	150	697
07:15 AM	26	34	17	77	32	264	87	383	27	65	19	111	25	138	13	176	747
07:30 AM	44	37	9	90	15	239	108	362	25	107	43	175	28	162	19	209	836
07:45 AM	52	49	24	125	19	285	113	417	29	87	31	147	32	111	14	157	846
Total	155	158	61	374	95	1063	376	1534	102	319	105	526	109	521	62	692	3126
08:00 AM	38	45	12	95	21	243	65	329	22	60	14	96	10	124	9	143	663
08:15 AM	34	48	15	97	12	177	45	234	9	41	8	58	14	112	14	140	529
08:30 AM	28	20	9	57	9	148	44	201	9	50	11	70	14	106	11	131	459
08:45 AM	33	35	14	82	7	161	46	214	9	53	15	77	19	123	9	151	524
Total	133	148	50	331	49	729	200	978	49	204	48	301	57	465	43	565	2175
Grand Total	288	306	111	705	144	1792	576	2512	151	523	153	827	166	986	105	1257	5301
Apprch %	40.9	43.4	15.7		5.7	71.3	22.9		18.3	63.2	18.5		13.2	78.4	8.4		
Total %	5.4	5.8	2.1	13.3	2.7	33.8	10.9	47.4	2.8	9.9	2.9	15.6	3.1	18.6	2	23.7	
Passenger Vehicles	262	296	106	664	141	1689	555	2385	148	516	146	810	162	919	101	1182	5041
% Passenger Vehicles	91	96.7	95.5	94.2	97.9	94.3	96.4	94.9	98	98.7	95.4	97.9	97.6	93.2	96.2	94	95.1
Large 2 Axle Vehicles	23	9	1	33	2	70	12	84	3	6	5	14	2	42	4	48	179
% Large 2 Axle Vehicles	8	2.9	0.9	4.7	1.4	3.9	2.1	3.3	2	1.1	3.3	1.7	1.2	4.3	3.8	3.8	3.4
3 Axle Vehicles	2	0	2	4	1	12	2	15	0	1	2	3	0	13	0	13	35
% 3 Axle Vehicles	0.7	0	1.8	0.6	0.7	0.7	0.3	0.6	0	0.2	1.3	0.4	0	1.3	0	1	0.7
4+ Axle Trucks	1	1	2	4	0	21	7	28	0	0	0	0	2	12	0	14	46
% 4+ Axle Trucks	0.3	0.3	1.8	0.6	0	1.2	1.2	1.1	0	0	0	0	1.2	1.2	0	1.1	0.9

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	33	38	11	82	29	275	68	372	21	60	12	93	24	110	16	150	697
07:15 AM	26	34	17	77	32	264	87	383	27	65	19	111	25	138	13	176	747
07:30 AM	44	37	9	90	15	239	108	362	25	107	43	175	28	162	19	209	836
07:45 AM	52	49	24	125	19	285	113	417	29	87	31	147	32	111	14	157	846
Total Volume	155	158	61	374	95	1063	376	1534	102	319	105	526	109	521	62	692	3126
% App. Total	41.4	42.2	16.3		6.2	69.3	24.5		19.4	60.6	20		15.8	75.3	9		
PHF	.745	.806	.635	.748	.742	.932	.832	.920	.879	.745	.610	.751	.852	.804	.816	.828	.924

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission AM
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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:

	07:30 AM				07:00 AM				07:15 AM				07:00 AM			
+0 mins.	44	37	9	90	29	275	68	372	27	65	19	111	24	110	16	150
+15 mins.	52	49	24	125	32	264	87	383	25	107	43	175	25	138	13	176
+30 mins.	38	45	12	95	15	239	108	362	29	87	31	147	28	162	19	209
+45 mins.	34	48	15	97	19	285	113	417	22	60	14	96	32	111	14	157
Total Volume	168	179	60	407	95	1063	376	1534	103	319	107	529	109	521	62	692
% App. Total	41.3	44	14.7		6.2	69.3	24.5		19.5	60.3	20.2		15.8	75.3	9	
PHF	.808	.913	.625	.814	.742	.932	.832	.920	.888	.745	.622	.756	.852	.804	.816	.828

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission AM
 Site Code : 99919768
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 Page No : 1

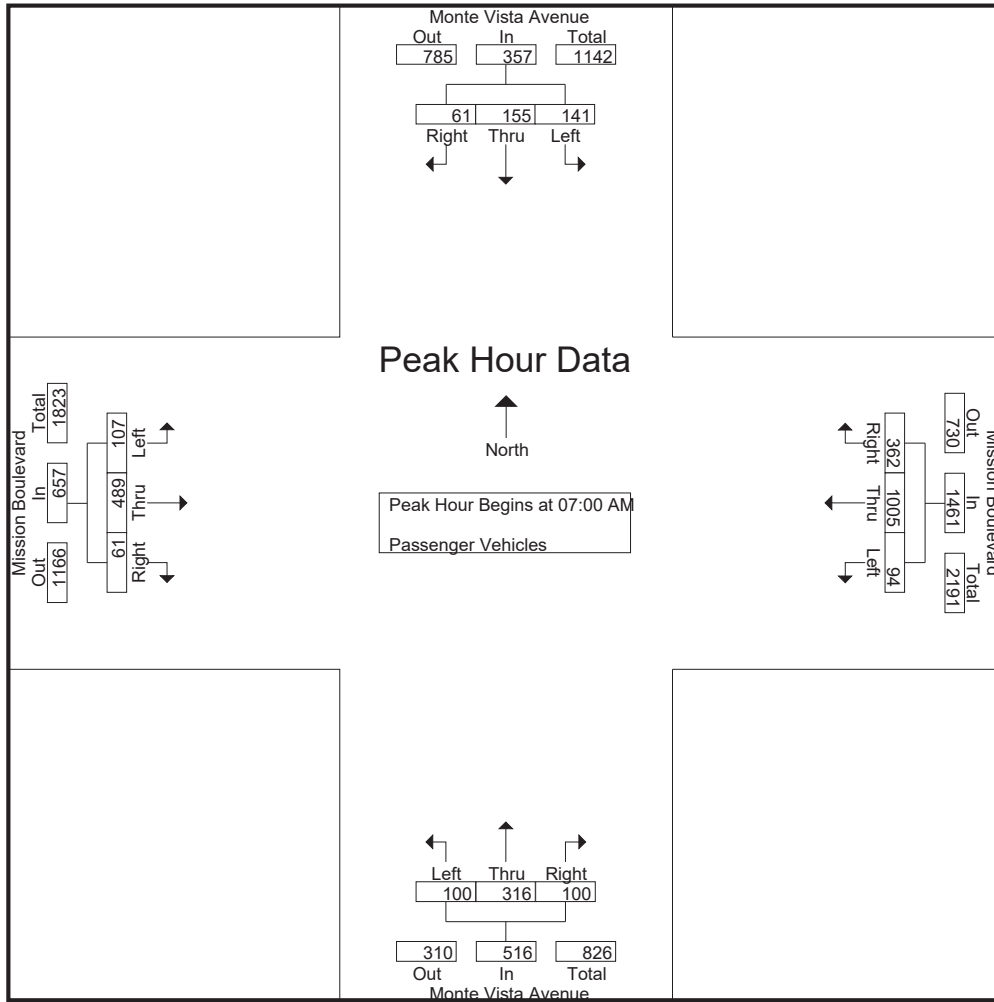
Groups Printed- Passenger Vehicles

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	27	37	11	75	29	258	68	355	21	59	12	92	24	99	16	139	661
07:15 AM	24	34	17	75	31	257	83	371	26	65	18	109	25	132	13	170	725
07:30 AM	40	36	9	85	15	223	104	342	25	106	40	171	27	151	19	197	795
07:45 AM	50	48	24	122	19	267	107	393	28	86	30	144	31	107	13	151	810
Total	141	155	61	357	94	1005	362	1461	100	316	100	516	107	489	61	657	2991
08:00 AM	35	44	10	89	21	236	64	321	21	59	13	93	10	117	8	135	638
08:15 AM	32	44	13	89	12	168	44	224	9	39	7	55	14	102	14	130	498
08:30 AM	25	19	8	52	8	135	44	187	9	50	11	70	14	99	9	122	431
08:45 AM	29	34	14	77	6	145	41	192	9	52	15	76	17	112	9	138	483
Total	121	141	45	307	47	684	193	924	48	200	46	294	55	430	40	525	2050
Grand Total	262	296	106	664	141	1689	555	2385	148	516	146	810	162	919	101	1182	5041
Apprch %	39.5	44.6	16		5.9	70.8	23.3		18.3	63.7	18		13.7	77.7	8.5		
Total %	5.2	5.9	2.1	13.2	2.8	33.5	11	47.3	2.9	10.2	2.9	16.1	3.2	18.2	2	23.4	

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	27	37	11	75	29	258	68	355	21	59	12	92	24	99	16	139	661
07:15 AM	24	34	17	75	31	257	83	371	26	65	18	109	25	132	13	170	725
07:30 AM	40	36	9	85	15	223	104	342	25	106	40	171	27	151	19	197	795
07:45 AM	50	48	24	122	19	267	107	393	28	86	30	144	31	107	13	151	810
Total Volume	141	155	61	357	94	1005	362	1461	100	316	100	516	107	489	61	657	2991
% App. Total	39.5	43.4	17.1		6.4	68.8	24.8		19.4	61.2	19.4		16.3	74.4	9.3		
PHF	.705	.807	.635	.732	.758	.941	.846	.929	.893	.745	.625	.754	.863	.810	.803	.834	.923

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission AM
 Site Code : 99919768
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 Page No : 2



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				07:00 AM			
+0 mins.	27	37	11	75	29	258	68	355	21	59	12	92	24	99	16	139
+15 mins.	24	34	17	75	31	257	83	371	26	65	18	109	25	132	13	170
+30 mins.	40	36	9	85	15	223	104	342	25	106	40	171	27	151	19	197
+45 mins.	50	48	24	122	19	267	107	393	28	86	30	144	31	107	13	151
Total Volume	141	155	61	357	94	1005	362	1461	100	316	100	516	107	489	61	657
% App. Total	39.5	43.4	17.1		6.4	68.8	24.8		19.4	61.2	19.4		16.3	74.4	9.3	
PHF	.705	.807	.635	.732	.758	.941	.846	.929	.893	.745	.625	.754	.863	.810	.803	.834

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission AM
 Site Code : 99919768
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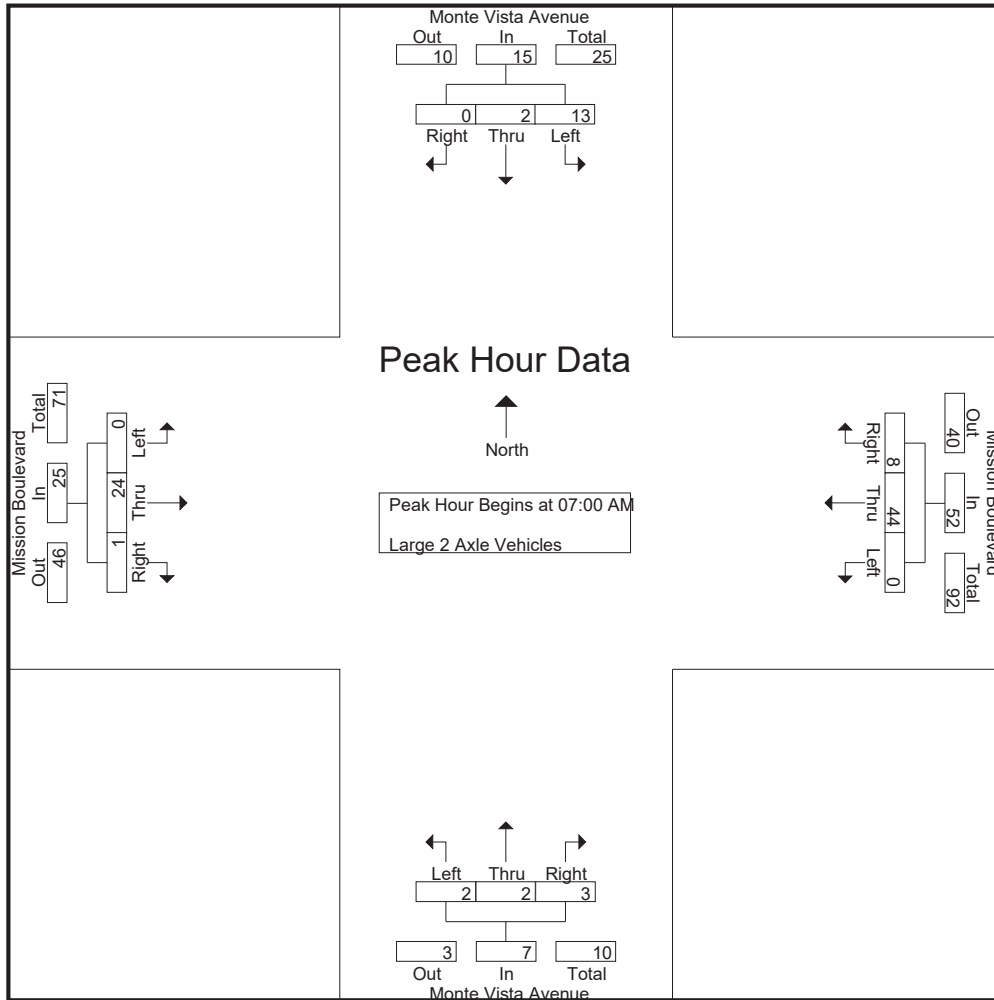
Groups Printed- Large 2 Axle Vehicles

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	6	1	0	7	0	15	0	15	0	1	0	1	0	8	0	8	31
07:15 AM	2	0	0	2	0	3	2	5	1	0	0	1	0	4	0	4	12
07:30 AM	4	0	0	4	0	14	3	17	0	0	2	2	0	9	0	9	32
07:45 AM	1	1	0	2	0	12	3	15	1	1	1	3	0	3	1	4	24
Total	13	2	0	15	0	44	8	52	2	2	3	7	0	24	1	25	99
08:00 AM	3	1	0	4	0	5	0	5	1	1	1	3	0	3	1	4	16
08:15 AM	2	4	1	7	0	4	1	5	0	2	1	3	0	7	0	7	22
08:30 AM	2	1	0	3	1	9	0	10	0	0	0	0	0	3	2	5	18
08:45 AM	3	1	0	4	1	8	3	12	0	1	0	1	2	5	0	7	24
Total	10	7	1	18	2	26	4	32	1	4	2	7	2	18	3	23	80
Grand Total	23	9	1	33	2	70	12	84	3	6	5	14	2	42	4	48	179
Apprch %	69.7	27.3	3		2.4	83.3	14.3		21.4	42.9	35.7		4.2	87.5	8.3		
Total %	12.8	5	0.6	18.4	1.1	39.1	6.7	46.9	1.7	3.4	2.8	7.8	1.1	23.5	2.2	26.8	

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	6	1	0	7	0	15	0	15	0	1	0	1	0	8	0	8	31
07:15 AM	2	0	0	2	0	3	2	5	1	0	0	1	0	4	0	4	12
07:30 AM	4	0	0	4	0	14	3	17	0	0	2	2	0	9	0	9	32
07:45 AM	1	1	0	2	0	12	3	15	1	1	1	3	0	3	1	4	24
Total Volume	13	2	0	15	0	44	8	52	2	2	3	7	0	24	1	25	99
% App. Total	86.7	13.3	0		0	84.6	15.4		28.6	28.6	42.9		0	96	4		
PHF	.542	.500	.000	.536	.000	.733	.667	.765	.500	.500	.375	.583	.000	.667	.250	.694	.773

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission AM
 Site Code : 99919768
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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				07:00 AM			
+0 mins.	6	1	0	7	0	15	0	15	0	1	0	1	0	8	0	8
+15 mins.	2	0	0	2	0	3	2	5	1	0	0	1	0	4	0	4
+30 mins.	4	0	0	4	0	14	3	17	0	0	2	2	0	9	0	9
+45 mins.	1	1	0	2	0	12	3	15	1	1	1	3	0	3	1	4
Total Volume	13	2	0	15	0	44	8	52	2	2	3	7	0	24	1	25
% App. Total	86.7	13.3	0		0	84.6	15.4		28.6	28.6	42.9		0	96	4	
PHF	.542	.500	.000	.536	.000	.733	.667	.765	.500	.500	.375	.583	.000	.667	.250	.694

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission AM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

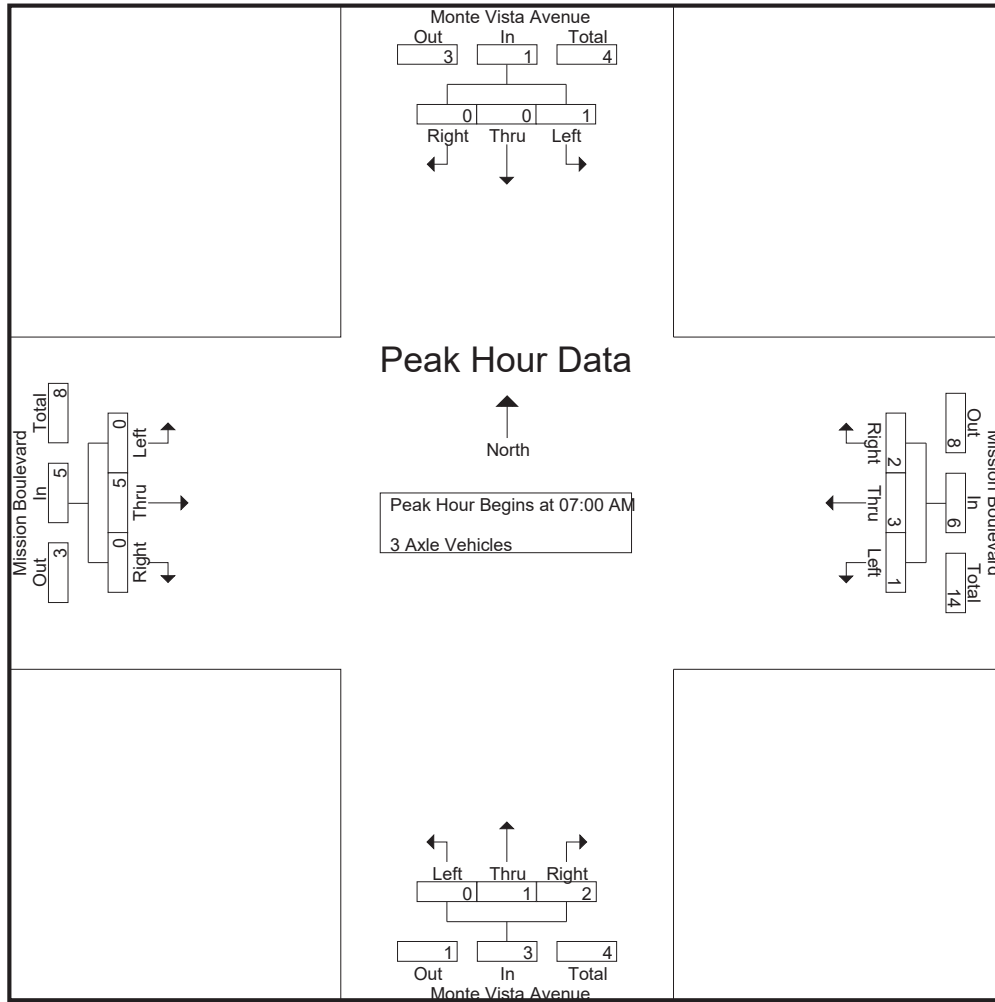
Groups Printed- 3 Axle Vehicles

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	1	2	0	3	0	0	1	1	0	2	0	2	6
07:30 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	1	3
07:45 AM	1	0	0	1	0	1	2	3	0	0	0	0	0	1	0	1	5
Total	1	0	0	1	1	3	2	6	0	1	2	3	0	5	0	5	15
08:00 AM	0	0	1	1	0	2	0	2	0	0	0	0	0	2	0	2	5
08:15 AM	0	0	1	1	0	2	0	2	0	0	0	0	0	1	0	1	4
08:30 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	3	0	3	5
08:45 AM	0	0	0	0	0	4	0	4	0	0	0	0	0	2	0	2	6
Total	1	0	2	3	0	9	0	9	0	0	0	0	0	8	0	8	20
Grand Total	2	0	2	4	1	12	2	15	0	1	2	3	0	13	0	13	35
Apprch %	50	0	50		6.7	80	13.3		0	33.3	66.7		0	100	0		
Total %	5.7	0	5.7	11.4	2.9	34.3	5.7	42.9	0	2.9	5.7	8.6	0	37.1	0	37.1	

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	1	2	0	3	0	0	1	1	0	2	0	2	6
07:30 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	1	3
07:45 AM	1	0	0	1	0	1	2	3	0	0	0	0	0	1	0	1	5
Total Volume	1	0	0	1	1	3	2	6	0	1	2	3	0	5	0	5	15
% App. Total	100	0	0		16.7	50	33.3		0	33.3	66.7		0	100	0		
PHF	.250	.000	.000	.250	.250	.375	.250	.500	.000	.250	.500	.375	.000	.625	.000	.625	.625

City of Montclair
 N/S: Monte Vista Avenue
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 Weather: Clear

File Name : 07_MON_Monte V_Mission 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				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	1	2	0	3	0	0	1	1	0	2	0	2
+30 mins.	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	1
+45 mins.	1	0	0	1	0	1	2	3	0	0	0	0	0	1	0	1
Total Volume	1	0	0	1	1	3	2	6	0	1	2	3	0	5	0	5
% App. Total	100	0	0		16.7	50	33.3		0	33.3	66.7		0	100	0	
PHF	.250	.000	.000	.250	.250	.375	.250	.500	.000	.250	.500	.375	.000	.625	.000	.625

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission AM
 Site Code : 99919768
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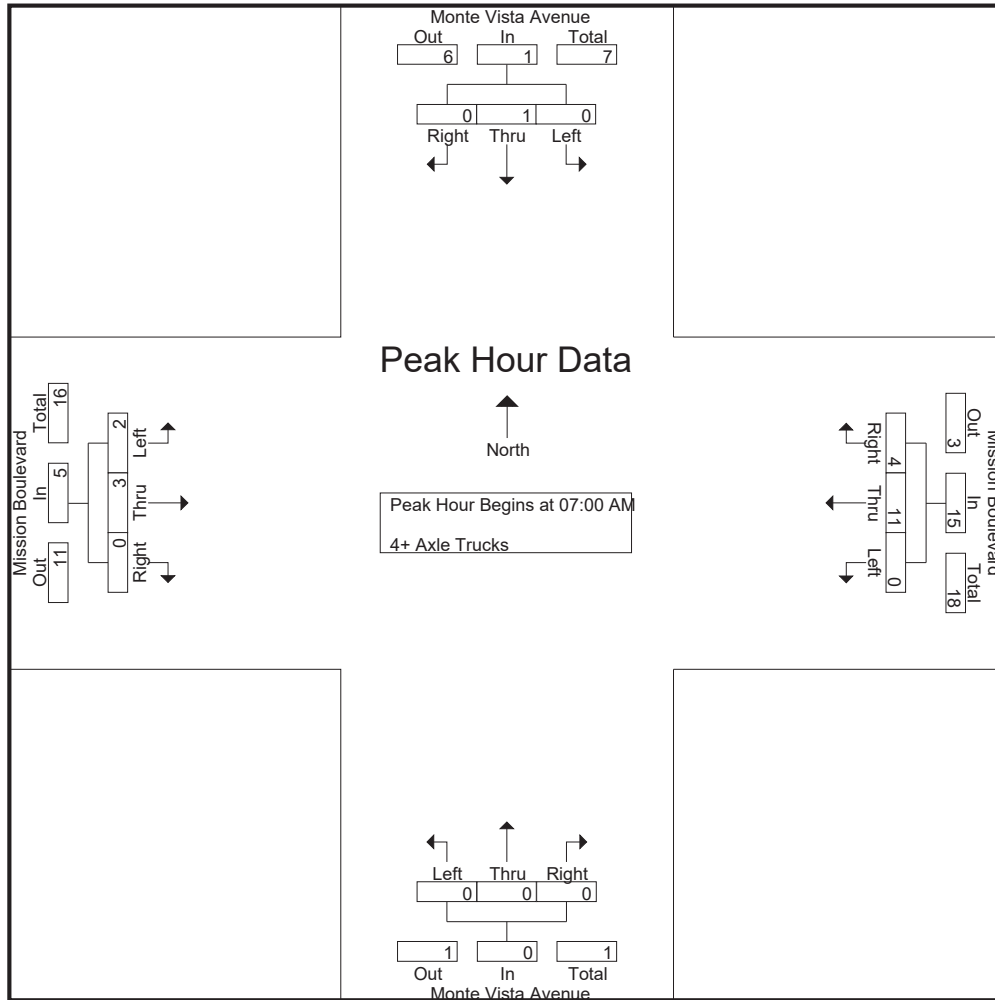
Groups Printed- 4+ Axle Trucks

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
07:15 AM	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	4
07:30 AM	0	1	0	1	0	2	1	3	0	0	0	0	1	1	0	2	6
07:45 AM	0	0	0	0	0	5	1	6	0	0	0	0	1	0	0	1	7
Total	0	1	0	1	0	11	4	15	0	0	0	0	2	3	0	5	21
08:00 AM	0	0	1	1	0	0	1	1	0	0	0	0	0	2	0	2	4
08:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
08:30 AM	0	0	1	1	0	3	0	3	0	0	0	0	0	1	0	1	5
08:45 AM	1	0	0	1	0	4	2	6	0	0	0	0	0	4	0	4	11
Total	1	0	2	3	0	10	3	13	0	0	0	0	0	9	0	9	25
Grand Total	1	1	2	4	0	21	7	28	0	0	0	0	2	12	0	14	46
Apprch %	25	25	50		0	75	25		0	0	0		14.3	85.7	0		
Total %	2.2	2.2	4.3	8.7	0	45.7	15.2	60.9	0	0	0	0	4.3	26.1	0	30.4	

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. 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	2	0	2	0	0	0	0	0	2	0	2	4
07:15 AM	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	4
07:30 AM	0	1	0	1	0	2	1	3	0	0	0	0	1	1	0	2	6
07:45 AM	0	0	0	0	0	5	1	6	0	0	0	0	1	0	0	1	7
Total Volume	0	1	0	1	0	11	4	15	0	0	0	0	2	3	0	5	21
% App. Total	0	100	0		0	73.3	26.7		0	0	0		40	60	0		
PHF	.000	.250	.000	.250	.000	.550	.500	.625	.000	.000	.000	.000	.500	.375	.000	.625	.750

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission AM
 Site Code : 99919768
 Start Date : 11/5/2019
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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				07:00 AM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	2	1	3	0	0	0	0	1	1	0	2
+45 mins.	0	0	0	0	0	5	1	6	0	0	0	0	1	0	0	1
Total Volume	0	1	0	1	0	11	4	15	0	0	0	0	2	3	0	5
% App. Total	0	100	0	0	0	73.3	26.7	0	0	0	0	0	40	60	0	0
PHF	.000	.250	.000	.250	.000	.550	.500	.625	.000	.000	.000	.000	.500	.375	.000	.625

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

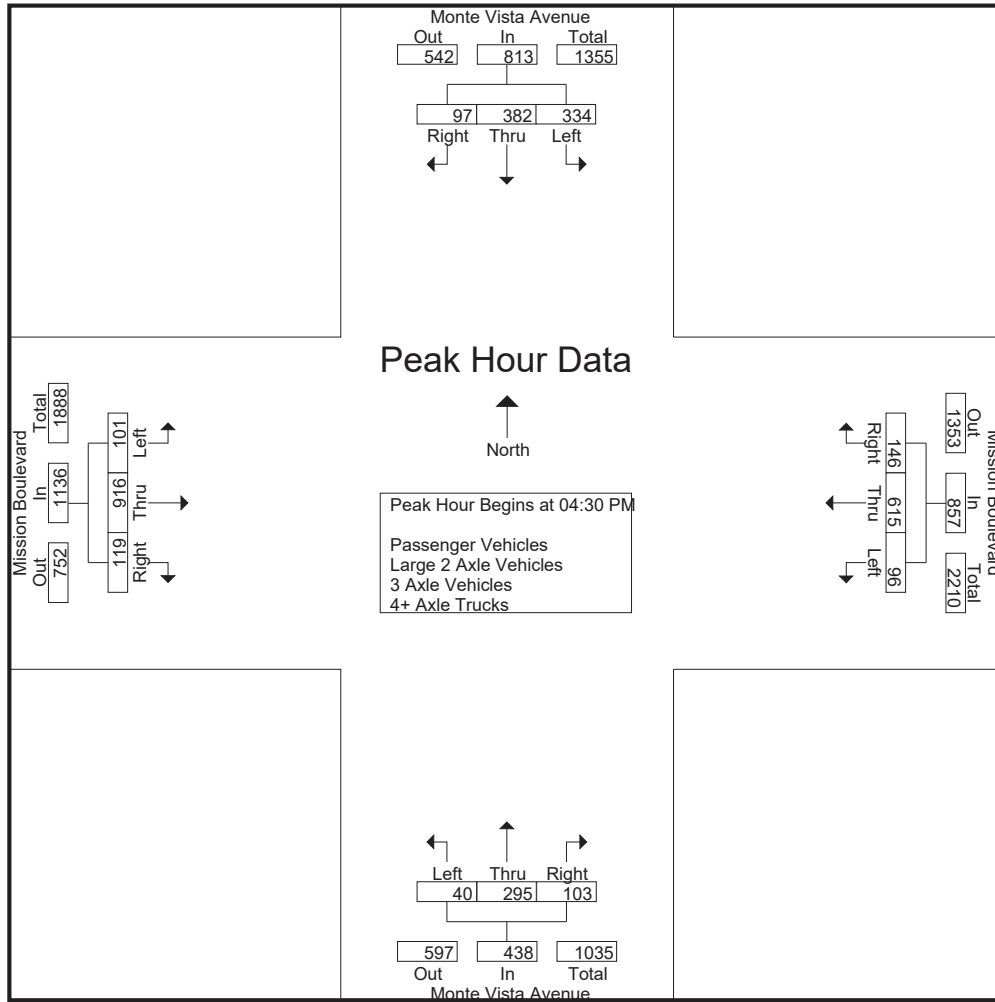
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	78	75	23	176	23	129	40	192	12	48	27	87	31	201	14	246	701
04:15 PM	65	82	30	177	22	156	32	210	18	76	34	128	37	246	23	306	821
04:30 PM	79	92	28	199	27	146	34	207	10	85	21	116	28	226	26	280	802
04:45 PM	77	78	25	180	27	155	41	223	11	76	23	110	32	221	29	282	795
Total	299	327	106	732	99	586	147	832	51	285	105	441	128	894	92	1114	3119
05:00 PM	78	93	25	196	19	164	37	220	11	62	23	96	23	224	32	279	791
05:15 PM	100	119	19	238	23	150	34	207	8	72	36	116	18	245	32	295	856
05:30 PM	61	83	15	159	34	144	51	229	12	61	24	97	26	226	23	275	760
05:45 PM	72	58	22	152	22	115	26	163	12	82	14	108	28	210	18	256	679
Total	311	353	81	745	98	573	148	819	43	277	97	417	95	905	105	1105	3086
Grand Total	610	680	187	1477	197	1159	295	1651	94	562	202	858	223	1799	197	2219	6205
Apprch %	41.3	46	12.7		11.9	70.2	17.9		11	65.5	23.5		10	81.1	8.9		
Total %	9.8	11	3	23.8	3.2	18.7	4.8	26.6	1.5	9.1	3.3	13.8	3.6	29	3.2	35.8	
Passenger Vehicles	589	673	179	1441	192	1119	284	1595	92	560	199	851	216	1737	193	2146	6033
% Passenger Vehicles	96.6	99	95.7	97.6	97.5	96.5	96.3	96.6	97.9	99.6	98.5	99.2	96.9	96.6	98	96.7	97.2
Large 2 Axle Vehicles	16	6	2	24	4	27	8	39	2	2	3	7	5	43	2	50	120
% Large 2 Axle Vehicles	2.6	0.9	1.1	1.6	2	2.3	2.7	2.4	2.1	0.4	1.5	0.8	2.2	2.4	1	2.3	1.9
3 Axle Vehicles	3	1	3	7	1	3	1	5	0	0	0	0	1	5	0	6	18
% 3 Axle Vehicles	0.5	0.1	1.6	0.5	0.5	0.3	0.3	0.3	0	0	0	0	0.4	0.3	0	0.3	0.3
4+ Axle Trucks	2	0	3	5	0	10	2	12	0	0	0	0	1	14	2	17	34
% 4+ Axle Trucks	0.3	0	1.6	0.3	0	0.9	0.7	0.7	0	0	0	0	0.4	0.8	1	0.8	0.5

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	79	92	28	199	27	146	34	207	10	85	21	116	28	226	26	280	802
04:45 PM	77	78	25	180	27	155	41	223	11	76	23	110	32	221	29	282	795
05:00 PM	78	93	25	196	19	164	37	220	11	62	23	96	23	224	32	279	791
05:15 PM	100	119	19	238	23	150	34	207	8	72	36	116	18	245	32	295	856
Total Volume	334	382	97	813	96	615	146	857	40	295	103	438	101	916	119	1136	3244
% App. Total	41.1	47	11.9		11.2	71.8	17		9.1	67.4	23.5		8.9	80.6	10.5		
PHF	.835	.803	.866	.854	.889	.938	.890	.961	.909	.868	.715	.944	.789	.935	.930	.963	.947

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission PM
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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:

	04:30 PM				04:45 PM				04:15 PM				04:15 PM			
+0 mins.	79	92	28	199	27	155	41	223	18	76	34	128	37	246	23	306
+15 mins.	77	78	25	180	19	164	37	220	10	85	21	116	28	226	26	280
+30 mins.	78	93	25	196	23	150	34	207	11	76	23	110	32	221	29	282
+45 mins.	100	119	19	238	34	144	51	229	11	62	23	96	23	224	32	279
Total Volume	334	382	97	813	103	613	163	879	50	299	101	450	120	917	110	1147
% App. Total	41.1	47	11.9		11.7	69.7	18.5		11.1	66.4	22.4		10.5	79.9	9.6	
PHF	.835	.803	.866	.854	.757	.934	.799	.960	.694	.879	.743	.879	.811	.932	.859	.937

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission PM
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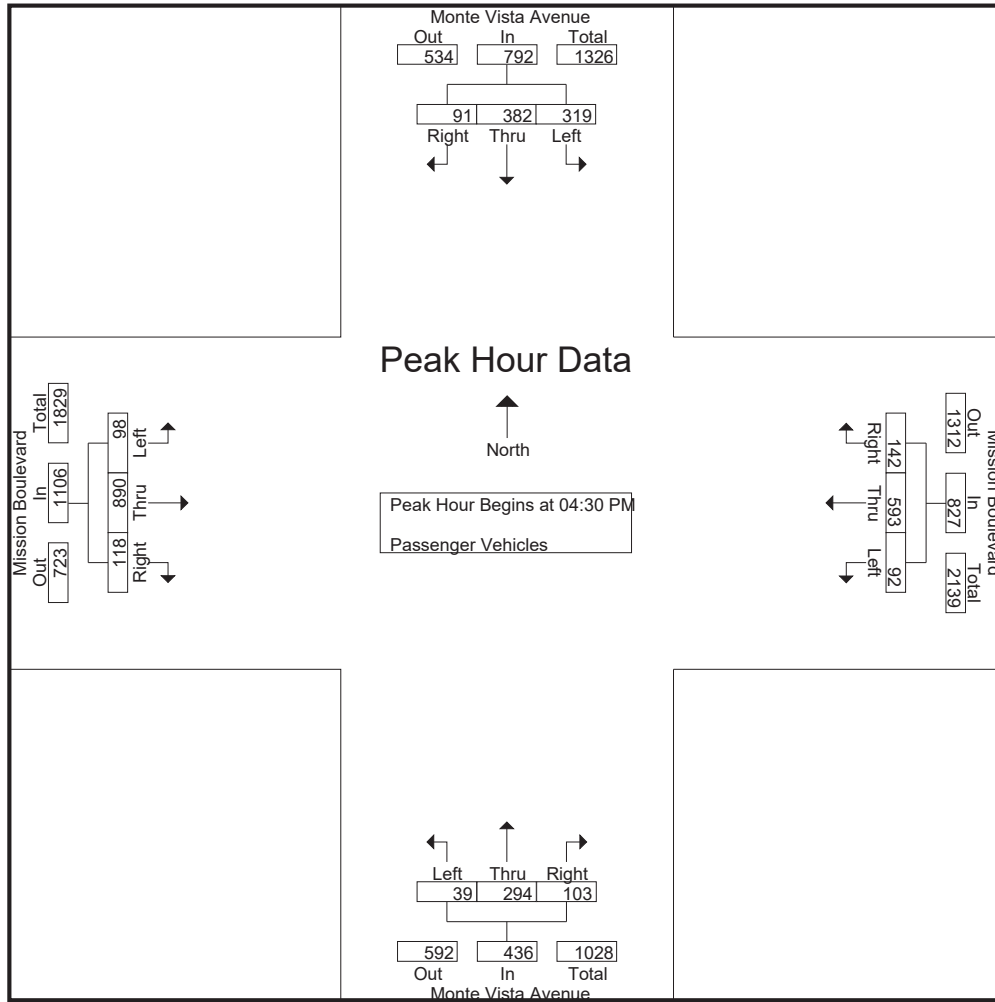
Groups Printed- Passenger Vehicles

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	76	69	21	166	23	123	37	183	11	48	27	86	29	190	14	233	668
04:15 PM	64	81	30	175	21	151	29	201	18	75	31	124	36	234	22	292	792
04:30 PM	76	92	27	195	26	142	31	199	10	85	21	116	27	218	25	270	780
04:45 PM	74	78	22	174	25	146	41	212	10	76	23	109	31	214	29	274	769
Total	290	320	100	710	95	562	138	795	49	284	102	435	123	856	90	1069	3009
05:00 PM	73	93	25	191	19	159	37	215	11	61	23	95	22	217	32	271	772
05:15 PM	96	119	17	232	22	146	33	201	8	72	36	116	18	241	32	291	840
05:30 PM	60	83	15	158	34	139	50	223	12	61	24	97	25	220	23	268	746
05:45 PM	70	58	22	150	22	113	26	161	12	82	14	108	28	203	16	247	666
Total	299	353	79	731	97	557	146	800	43	276	97	416	93	881	103	1077	3024
Grand Total	589	673	179	1441	192	1119	284	1595	92	560	199	851	216	1737	193	2146	6033
Apprch %	40.9	46.7	12.4		12	70.2	17.8		10.8	65.8	23.4		10.1	80.9	9		
Total %	9.8	11.2	3	23.9	3.2	18.5	4.7	26.4	1.5	9.3	3.3	14.1	3.6	28.8	3.2	35.6	

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	76	92	27	195	26	142	31	199	10	85	21	116	27	218	25	270	780
04:45 PM	74	78	22	174	25	146	41	212	10	76	23	109	31	214	29	274	769
05:00 PM	73	93	25	191	19	159	37	215	11	61	23	95	22	217	32	271	772
05:15 PM	96	119	17	232	22	146	33	201	8	72	36	116	18	241	32	291	840
Total Volume	319	382	91	792	92	593	142	827	39	294	103	436	98	890	118	1106	3161
% App. Total	40.3	48.2	11.5		11.1	71.7	17.2		8.9	67.4	23.6		8.9	80.5	10.7		
PHF	.831	.803	.843	.853	.885	.932	.866	.962	.886	.865	.715	.940	.790	.923	.922	.950	.941

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	76	92	27	195	26	142	31	199	10	85	21	116	27	218	25	270
+15 mins.	74	78	22	174	25	146	41	212	10	76	23	109	31	214	29	274
+30 mins.	73	93	25	191	19	159	37	215	11	61	23	95	22	217	32	271
+45 mins.	96	119	17	232	22	146	33	201	8	72	36	116	18	241	32	291
Total Volume	319	382	91	792	92	593	142	827	39	294	103	436	98	890	118	1106
% App. Total	40.3	48.2	11.5		11.1	71.7	17.2		8.9	67.4	23.6		8.9	80.5	10.7	
PHF	.831	.803	.843	.853	.885	.932	.866	.962	.886	.865	.715	.940	.790	.923	.922	.950

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission PM
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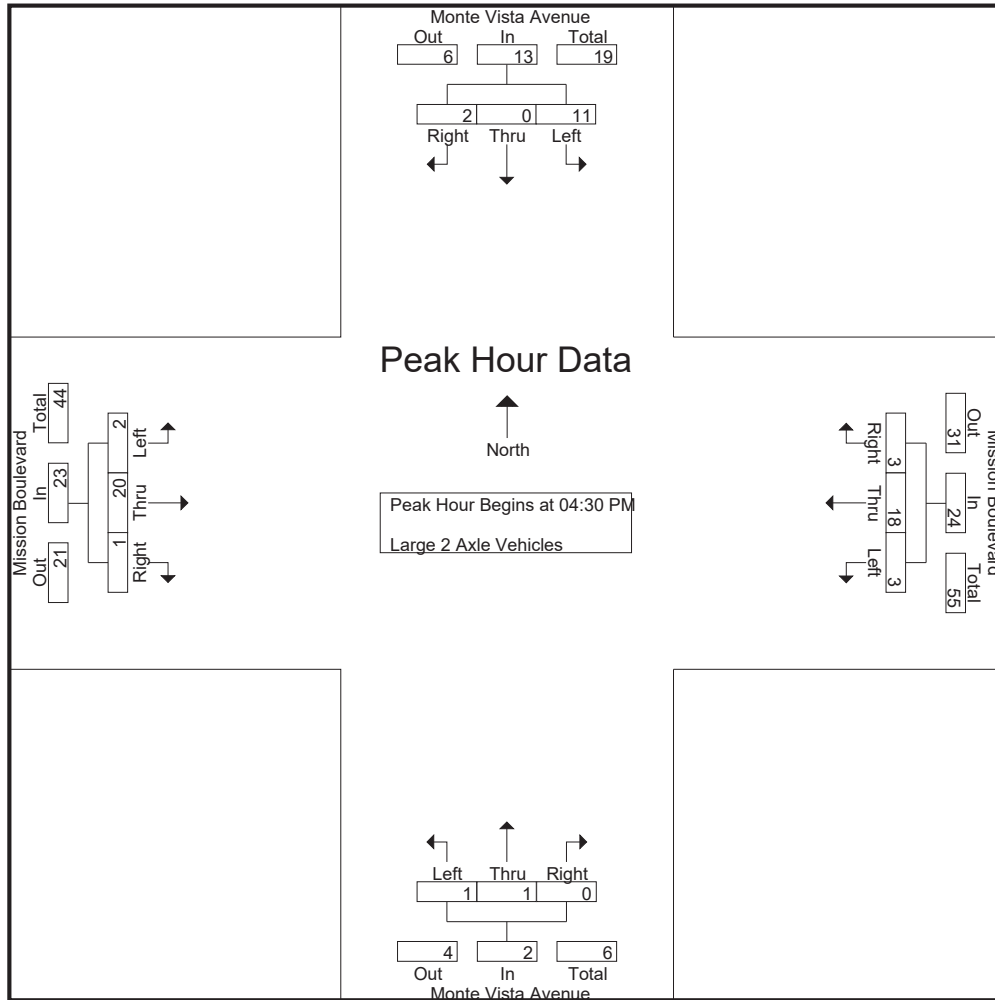
Groups Printed- Large 2 Axle Vehicles

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	2	6	0	8	0	2	3	5	1	0	0	1	2	5	0	7	21
04:15 PM	0	0	0	0	1	3	2	6	0	1	3	4	1	9	0	10	20
04:30 PM	2	0	0	2	0	3	2	5	0	0	0	0	0	4	1	5	12
04:45 PM	2	0	1	3	2	7	0	9	1	0	0	1	1	7	0	8	21
Total	6	6	1	13	3	15	7	25	2	1	3	6	4	25	1	30	74
05:00 PM	5	0	0	5	0	5	0	5	0	1	0	1	1	6	0	7	18
05:15 PM	2	0	1	3	1	3	1	5	0	0	0	0	0	3	0	3	11
05:30 PM	1	0	0	1	0	4	0	4	0	0	0	0	0	4	0	4	9
05:45 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	5	1	6	8
Total	10	0	1	11	1	12	1	14	0	1	0	1	1	18	1	20	46
Grand Total	16	6	2	24	4	27	8	39	2	2	3	7	5	43	2	50	120
Apprch %	66.7	25	8.3		10.3	69.2	20.5		28.6	28.6	42.9		10	86	4		
Total %	13.3	5	1.7	20	3.3	22.5	6.7	32.5	1.7	1.7	2.5	5.8	4.2	35.8	1.7	41.7	

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	2	0	0	2	0	3	2	5	0	0	0	0	0	4	1	5	12
04:45 PM	2	0	1	3	2	7	0	9	1	0	0	1	1	7	0	8	21
05:00 PM	5	0	0	5	0	5	0	5	0	1	0	1	1	6	0	7	18
05:15 PM	2	0	1	3	1	3	1	5	0	0	0	0	0	3	0	3	11
Total Volume	11	0	2	13	3	18	3	24	1	1	0	2	2	20	1	23	62
% App. Total	84.6	0	15.4		12.5	75	12.5		50	50	0		8.7	87	4.3		
PHF	.550	.000	.500	.650	.375	.643	.375	.667	.250	.250	.000	.500	.500	.714	.250	.719	.738

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	2	0	0	2	0	3	2	5	0	0	0	0	0	4	1	5
+15 mins.	2	0	1	3	2	7	0	9	1	0	0	1	1	7	0	8
+30 mins.	5	0	0	5	0	5	0	5	0	1	0	1	1	6	0	7
+45 mins.	2	0	1	3	1	3	1	5	0	0	0	0	0	3	0	3
Total Volume	11	0	2	13	3	18	3	24	1	1	0	2	2	20	1	23
% App. Total	84.6	0	15.4		12.5	75	12.5		50	50	0		8.7	87	4.3	
PHF	.550	.000	.500	.650	.375	.643	.375	.667	.250	.250	.000	.500	.500	.714	.250	.719

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

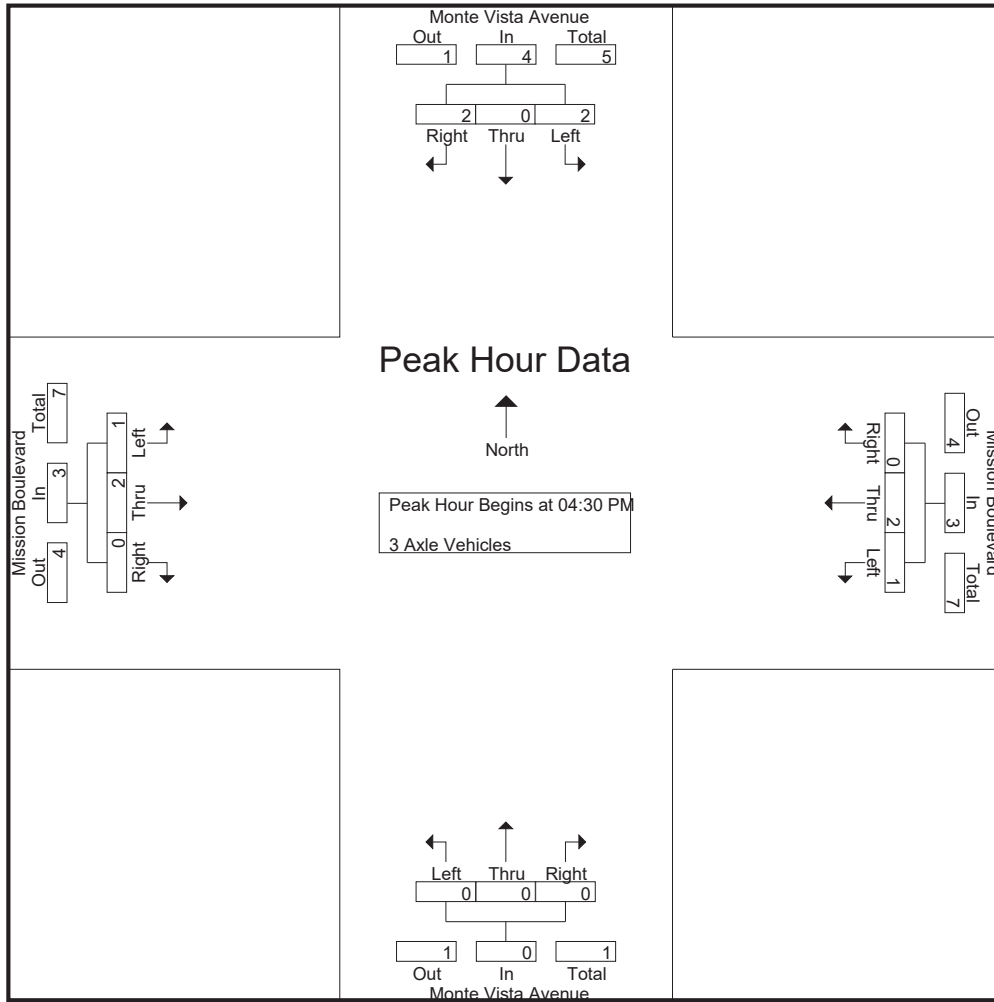
Groups Printed- 3 Axle Vehicles

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
04:15 PM	1	1	0	2	0	1	1	2	0	0	0	0	0	1	0	1	5
04:30 PM	1	0	1	2	1	0	0	1	0	0	0	0	1	1	0	2	5
04:45 PM	0	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	3
Total	2	1	3	6	1	3	1	5	0	0	0	0	1	3	0	4	15
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
05:30 PM	0	0	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	1	0	1	1
Total	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2	3
Grand Total	3	1	3	7	1	3	1	5	0	0	0	0	1	5	0	6	18
Apprch %	42.9	14.3	42.9		20	60	20		0	0	0		16.7	83.3	0		
Total %	16.7	5.6	16.7	38.9	5.6	16.7	5.6	27.8	0	0	0	0	5.6	27.8	0	33.3	

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	0	1	2	1	0	0	1	0	0	0	0	1	1	0	2	5
04:45 PM	0	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total Volume	2	0	2	4	1	2	0	3	0	0	0	0	1	2	0	3	10
% App. Total	50	0	50		33.3	66.7	0		0	0	0		33.3	66.7	0		
PHF	.500	.000	.500	.500	.250	.250	.000	.375	.000	.000	.000	.000	.250	.500	.000	.375	.500

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission PM
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	1	0	1	2	1	0	0	1	0	0	0	0	1	1	0	2
+15 mins.	0	0	1	1	0	2	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	2	0	2	4	1	2	0	3	0	0	0	0	1	2	0	3
% App. Total	50	0	50		33.3	66.7	0		0	0	0		33.3	66.7	0	
PHF	.500	.000	.500	.500	.250	.250	.000	.375	.000	.000	.000	.000	.250	.500	.000	.375

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission PM
 Site Code : 99919768
 Start Date : 11/5/2019
 Page No : 1

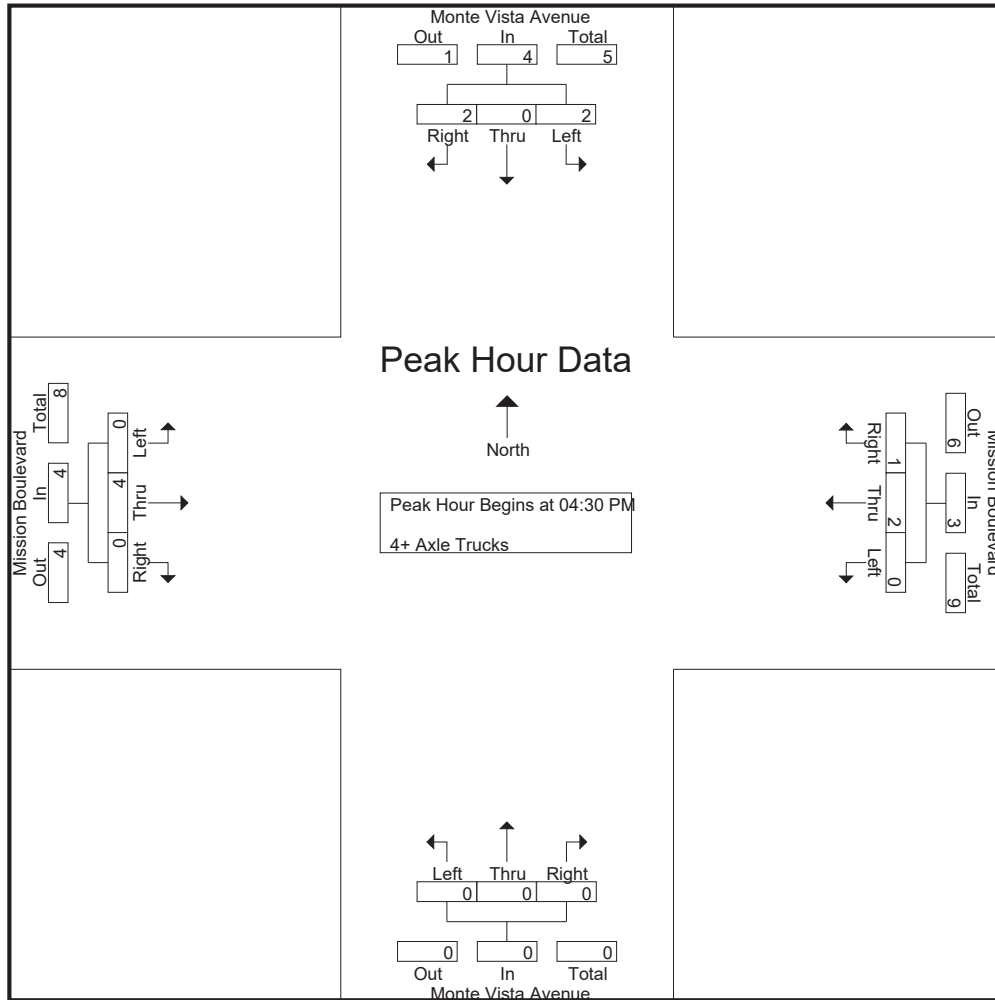
Groups Printed- 4+ Axle Trucks

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	1	1	0	4	0	4	0	0	0	0	0	5	0	5	10
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1	3	4
04:30 PM	0	0	0	0	0	1	1	2	0	0	0	0	0	3	0	3	5
04:45 PM	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	1	0	2	3	0	6	1	7	0	0	0	0	0	10	1	11	21
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	1	0	1	2	0	1	0	1	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	1	1	2	0	0	0	0	1	2	0	3	5
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	1	2	4
Total	1	0	1	2	0	4	1	5	0	0	0	0	1	4	1	6	13
Grand Total	2	0	3	5	0	10	2	12	0	0	0	0	1	14	2	17	34
Apprch %	40	0	60		0	83.3	16.7		0	0	0		5.9	82.4	11.8		
Total %	5.9	0	8.8	14.7	0	29.4	5.9	35.3	0	0	0	0	2.9	41.2	5.9	50	

Start Time	Monte Vista Avenue Southbound				Mission Boulevard Westbound				Monte Vista Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	1	1	2	0	0	0	0	0	3	0	3	5
04:45 PM	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:15 PM	1	0	1	2	0	1	0	1	0	0	0	0	0	0	0	0	3
Total Volume	2	0	2	4	0	2	1	3	0	0	0	0	0	4	0	4	11
% App. Total	50	0	50		0	66.7	33.3		0	0	0		0	100	0		
PHF	.500	.000	.500	.500	.000	.500	.250	.375	.000	.000	.000	.000	.000	.333	.000	.333	.550

City of Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 07_MON_Monte V_Mission PM
 Site Code : 99919768
 Start Date : 11/5/2019
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	1	1	2	0	0	0	0	0	3	0	3
+15 mins.	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	1	0	1	2	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	2	0	2	4	0	2	1	3	0	0	0	0	0	4	0	4
% App. Total	50	0	50		0	66.7	33.3		0	0	0		0	100	0	
PHF	.500	.000	.500	.500	.000	.500	.250	.375	.000	.000	.000	.000	.000	.333	.000	.333

Location: Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard



Date: 11/5/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Monte Vista Avenue Pedestrians	East Leg Mission Boulevard Pedestrians	South Leg Monte Vista Avenue Pedestrians	West Leg Mission Boulevard Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	1	0	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	3	0	3
8:15 AM	0	0	0	1	1
8:30 AM	1	0	0	1	2
8:45 AM	0	0	1	1	2
TOTAL VOLUMES:	2	0	5	3	10

	North Leg Monte Vista Avenue Pedestrians	East Leg Mission Boulevard Pedestrians	South Leg Monte Vista Avenue Pedestrians	West Leg Mission Boulevard Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	0	1
4:30 PM	0	1	0	0	1
4:45 PM	0	1	2	2	5
5:00 PM	2	0	0	2	4
5:15 PM	0	0	2	0	2
5:30 PM	1	0	1	2	4
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	3	2	6	6	17

Location: Montclair
 N/S: Monte Vista Avenue
 E/W: Mission Boulevard



Date: 11/5/2019
 Day: Tuesday

BICYCLES

	Southbound Monte Vista Avenue			Westbound Mission Boulevard			Northbound Monte Vista Avenue			Eastbound Mission 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	1	0	0	1	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
7:45 AM	0	0	1	0	0	0	0	2	0	0	0	0	3
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	1	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL VOLUMES:	1	0	1	0	1	0	0	4	0	0	2	0	9

	Southbound Monte Vista Avenue			Westbound Mission Boulevard			Northbound Monte Vista Avenue			Eastbound Mission Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
4:15 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
4:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
4:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	1	1	0	2	0	0	0	0	4
5:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	3	1	0	6	1	0	3	0	0	3	0	17

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission AM
 Site Code : 99919732
 Start Date : 10/24/2019
 Page No : 1

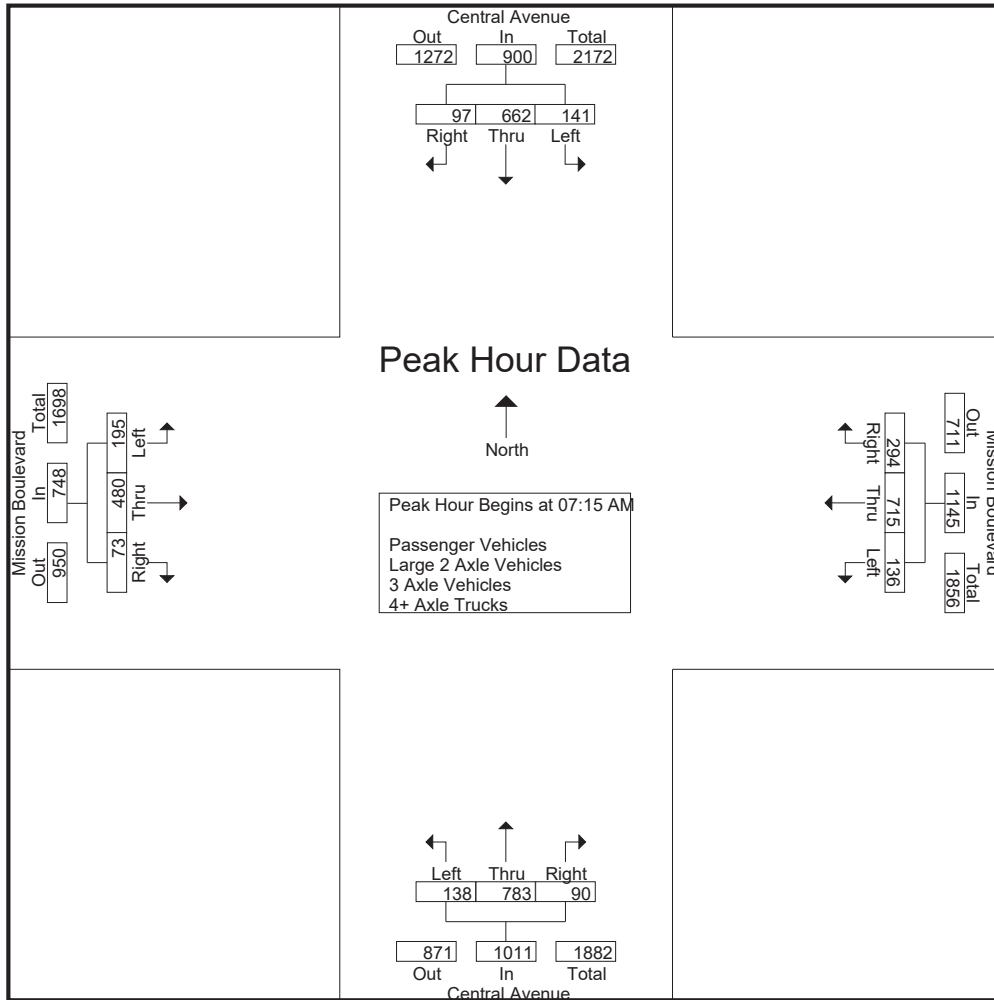
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	32	147	27	206	21	170	63	254	30	175	7	212	36	91	21	148	820
07:15 AM	23	144	26	193	40	204	69	313	32	184	20	236	55	117	12	184	926
07:30 AM	45	165	23	233	35	188	72	295	42	199	27	268	47	124	19	190	986
07:45 AM	42	177	24	243	29	173	87	289	37	244	24	305	46	126	23	195	1032
Total	142	633	100	875	125	735	291	1151	141	802	78	1021	184	458	75	717	3764
08:00 AM	31	176	24	231	32	150	66	248	27	156	19	202	47	113	19	179	860
08:15 AM	35	168	22	225	23	117	56	196	30	182	12	224	32	99	17	148	793
08:30 AM	21	140	19	180	30	117	56	203	26	165	15	206	29	78	7	114	703
08:45 AM	31	135	22	188	30	122	48	200	30	164	27	221	45	86	18	149	758
Total	118	619	87	824	115	506	226	847	113	667	73	853	153	376	61	590	3114
Grand Total	260	1252	187	1699	240	1241	517	1998	254	1469	151	1874	337	834	136	1307	6878
Apprch %	15.3	73.7	11		12	62.1	25.9		13.6	78.4	8.1		25.8	63.8	10.4		
Total %	3.8	18.2	2.7	24.7	3.5	18	7.5	29	3.7	21.4	2.2	27.2	4.9	12.1	2	19	
Passenger Vehicles	250	1207	179	1636	223	1169	495	1887	236	1415	140	1791	312	778	119	1209	6523
% Passenger Vehicles	96.2	96.4	95.7	96.3	92.9	94.2	95.7	94.4	92.9	96.3	92.7	95.6	92.6	93.3	87.5	92.5	94.8
Large 2 Axle Vehicles	8	33	5	46	12	50	14	76	11	39	8	58	17	44	12	73	253
% Large 2 Axle Vehicles	3.1	2.6	2.7	2.7	5	4	2.7	3.8	4.3	2.7	5.3	3.1	5	5.3	8.8	5.6	3.7
3 Axle Vehicles	1	5	2	8	3	6	6	15	1	4	2	7	4	7	2	13	43
% 3 Axle Vehicles	0.4	0.4	1.1	0.5	1.2	0.5	1.2	0.8	0.4	0.3	1.3	0.4	1.2	0.8	1.5	1	0.6
4+ Axle Trucks	1	7	1	9	2	16	2	20	6	11	1	18	4	5	3	12	59
% 4+ Axle Trucks	0.4	0.6	0.5	0.5	0.8	1.3	0.4	1	2.4	0.7	0.7	1	1.2	0.6	2.2	0.9	0.9

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	23	144	26	193	40	204	69	313	32	184	20	236	55	117	12	184	926
07:30 AM	45	165	23	233	35	188	72	295	42	199	27	268	47	124	19	190	986
07:45 AM	42	177	24	243	29	173	87	289	37	244	24	305	46	126	23	195	1032
08:00 AM	31	176	24	231	32	150	66	248	27	156	19	202	47	113	19	179	860
Total Volume	141	662	97	900	136	715	294	1145	138	783	90	1011	195	480	73	748	3804
% App. Total	15.7	73.6	10.8		11.9	62.4	25.7		13.6	77.4	8.9		26.1	64.2	9.8		
PHF	.783	.935	.933	.926	.850	.876	.845	.915	.821	.802	.833	.829	.886	.952	.793	.959	.922

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission AM
 Site Code : 99919732
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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:

	07:30 AM				07:00 AM				07:00 AM				07:15 AM			
+0 mins.	45	165	23	233	21	170	63	254	30	175	7	212	55	117	12	184
+15 mins.	42	177	24	243	40	204	69	313	32	184	20	236	47	124	19	190
+30 mins.	31	176	24	231	35	188	72	295	42	199	27	268	46	126	23	195
+45 mins.	35	168	22	225	29	173	87	289	37	244	24	305	47	113	19	179
Total Volume	153	686	93	932	125	735	291	1151	141	802	78	1021	195	480	73	748
% App. Total	16.4	73.6	10		10.9	63.9	25.3		13.8	78.6	7.6		26.1	64.2	9.8	
PHF	.850	.969	.969	.959	.781	.901	.836	.919	.839	.822	.722	.837	.886	.952	.793	.959

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission AM
 Site Code : 99919732
 Start Date : 10/24/2019
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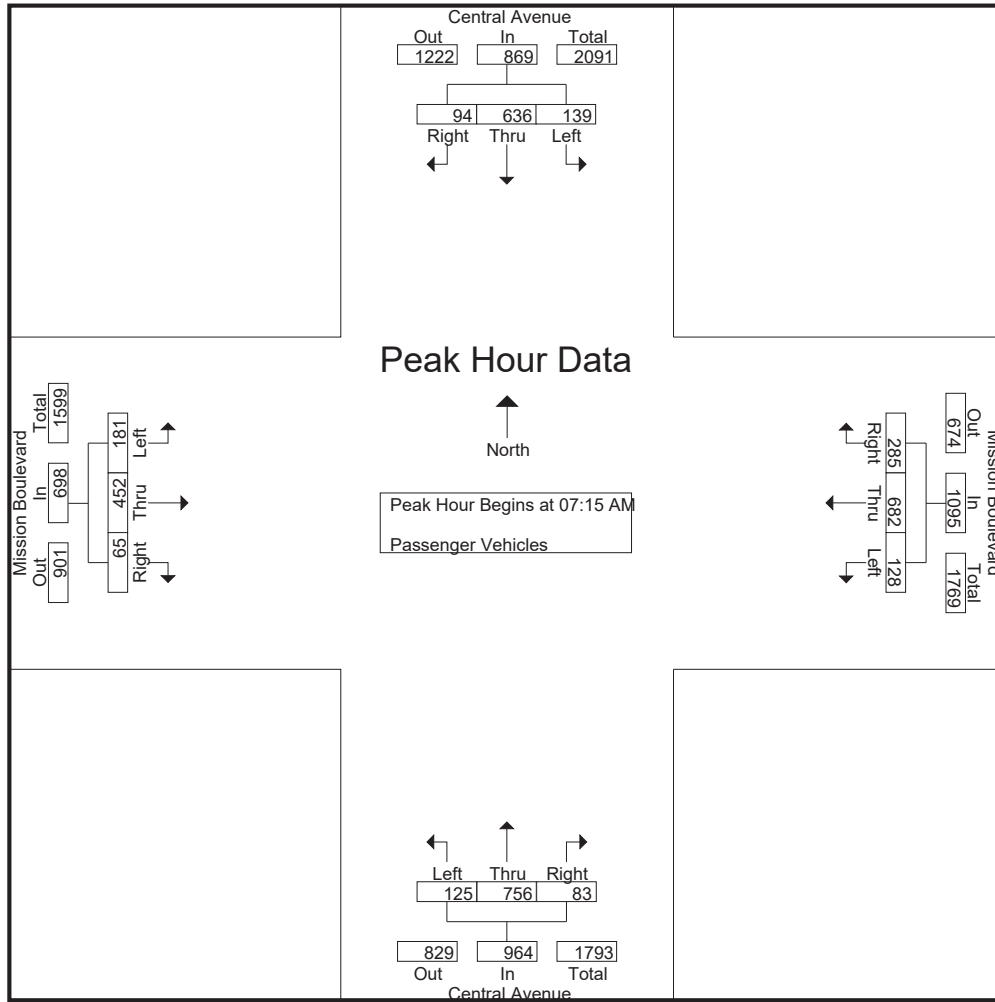
Groups Printed- Passenger Vehicles

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	30	143	27	200	17	160	55	232	29	167	6	202	31	86	17	134	768
07:15 AM	23	134	26	183	35	198	65	298	28	175	18	221	51	111	9	171	873
07:30 AM	45	159	22	226	34	176	71	281	35	192	25	252	43	118	17	178	937
07:45 AM	42	174	23	239	28	165	85	278	36	237	24	297	45	117	22	184	998
Total	140	610	98	848	114	699	276	1089	128	771	73	972	170	432	65	667	3576
08:00 AM	29	169	23	221	31	143	64	238	26	152	16	194	42	106	17	165	818
08:15 AM	33	160	21	214	21	111	54	186	27	176	12	215	28	94	14	136	751
08:30 AM	21	136	17	174	29	110	54	193	26	160	13	199	28	69	6	103	669
08:45 AM	27	132	20	179	28	106	47	181	29	156	26	211	44	77	17	138	709
Total	110	597	81	788	109	470	219	798	108	644	67	819	142	346	54	542	2947
Grand Total	250	1207	179	1636	223	1169	495	1887	236	1415	140	1791	312	778	119	1209	6523
Apprch %	15.3	73.8	10.9		11.8	62	26.2		13.2	79	7.8		25.8	64.4	9.8		
Total %	3.8	18.5	2.7	25.1	3.4	17.9	7.6	28.9	3.6	21.7	2.1	27.5	4.8	11.9	1.8	18.5	

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	23	134	26	183	35	198	65	298	28	175	18	221	51	111	9	171	873
07:30 AM	45	159	22	226	34	176	71	281	35	192	25	252	43	118	17	178	937
07:45 AM	42	174	23	239	28	165	85	278	36	237	24	297	45	117	22	184	998
08:00 AM	29	169	23	221	31	143	64	238	26	152	16	194	42	106	17	165	818
Total Volume	139	636	94	869	128	682	285	1095	125	756	83	964	181	452	65	698	3626
% App. Total	16	73.2	10.8		11.7	62.3	26		13	78.4	8.6		25.9	64.8	9.3		
PHF	.772	.914	.904	.909	.914	.861	.838	.919	.868	.797	.830	.811	.887	.958	.739	.948	.908

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	23	134	26	183	35	198	65	298	28	175	18	221	51	111	9	171
+15 mins.	45	159	22	226	34	176	71	281	35	192	25	252	43	118	17	178
+30 mins.	42	174	23	239	28	165	85	278	36	237	24	297	45	117	22	184
+45 mins.	29	169	23	221	31	143	64	238	26	152	16	194	42	106	17	165
Total Volume	139	636	94	869	128	682	285	1095	125	756	83	964	181	452	65	698
% App. Total	16	73.2	10.8		11.7	62.3	26		13	78.4	8.6		25.9	64.8	9.3	
PHF	.772	.914	.904	.909	.914	.861	.838	.919	.868	.797	.830	.811	.887	.958	.739	.948

County of San Bernardino
 N/S: Central Avenue
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 Weather: Clear

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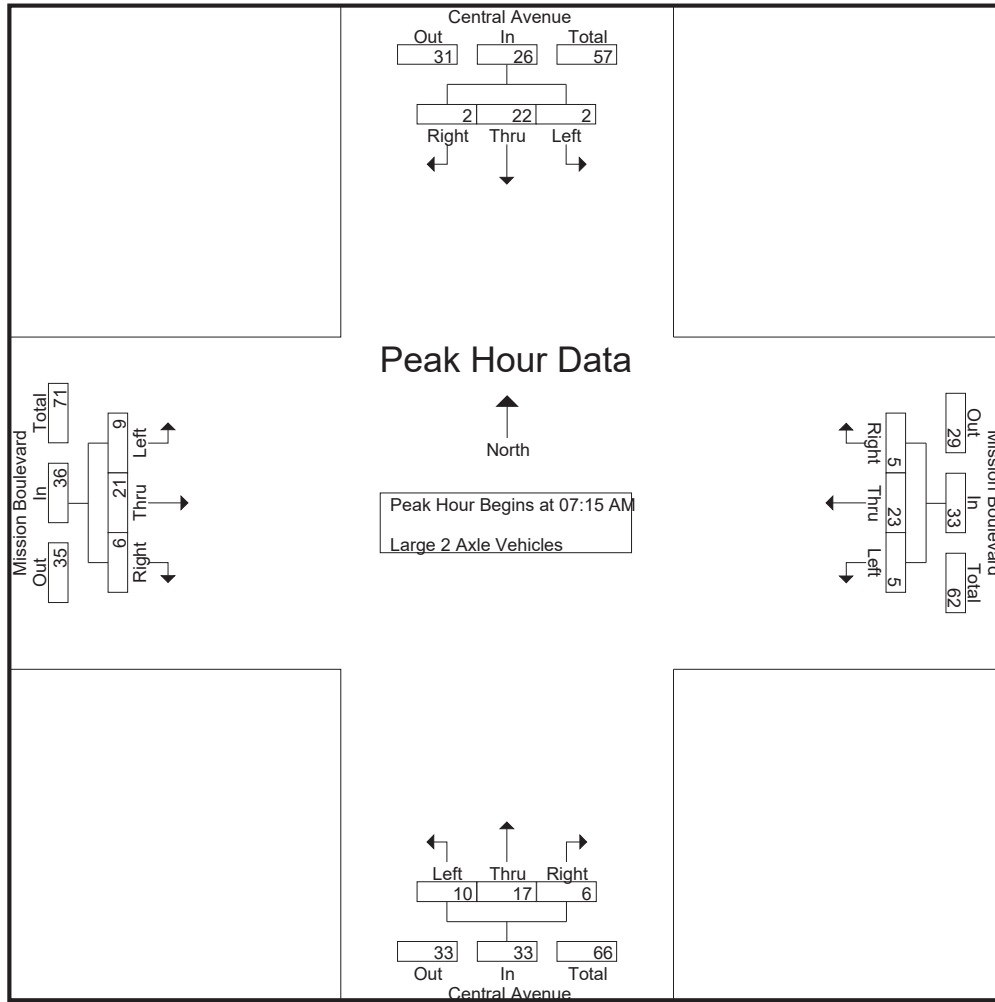
Groups Printed- Large 2 Axle Vehicles

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	2	3	0	5	4	9	5	18	0	7	1	8	3	5	3	11	42
07:15 AM	0	9	0	9	2	5	2	9	3	5	1	9	2	5	3	10	37
07:30 AM	0	6	1	7	1	11	1	13	5	5	2	12	4	5	2	11	43
07:45 AM	0	2	1	3	1	4	2	7	1	4	0	5	0	6	0	6	21
Total	2	20	2	24	8	29	10	47	9	21	4	34	9	21	8	38	143
08:00 AM	2	5	0	7	1	3	0	4	1	3	3	7	3	5	1	9	27
08:15 AM	1	6	1	8	1	6	2	9	1	3	0	4	3	4	3	10	31
08:30 AM	0	1	1	2	1	2	2	5	0	5	1	6	1	6	0	7	20
08:45 AM	3	1	1	5	1	10	0	11	0	7	0	7	1	8	0	9	32
Total	6	13	3	22	4	21	4	29	2	18	4	24	8	23	4	35	110
Grand Total	8	33	5	46	12	50	14	76	11	39	8	58	17	44	12	73	253
Apprch %	17.4	71.7	10.9		15.8	65.8	18.4		19	67.2	13.8		23.3	60.3	16.4		
Total %	3.2	13	2	18.2	4.7	19.8	5.5	30	4.3	15.4	3.2	22.9	6.7	17.4	4.7	28.9	

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	9	0	9	2	5	2	9	3	5	1	9	2	5	3	10	37
07:30 AM	0	6	1	7	1	11	1	13	5	5	2	12	4	5	2	11	43
07:45 AM	0	2	1	3	1	4	2	7	1	4	0	5	0	6	0	6	21
08:00 AM	2	5	0	7	1	3	0	4	1	3	3	7	3	5	1	9	27
Total Volume	2	22	2	26	5	23	5	33	10	17	6	33	9	21	6	36	128
% App. Total	7.7	84.6	7.7		15.2	69.7	15.2		30.3	51.5	18.2		25	58.3	16.7		
PHF	.250	.611	.500	.722	.625	.523	.625	.635	.500	.850	.500	.688	.563	.875	.500	.818	.744

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	9	0	9	2	5	2	9	3	5	1	9	2	5	3	10
+15 mins.	0	6	1	7	1	11	1	13	5	5	2	12	4	5	2	11
+30 mins.	0	2	1	3	1	4	2	7	1	4	0	5	0	6	0	6
+45 mins.	2	5	0	7	1	3	0	4	1	3	3	7	3	5	1	9
Total Volume	2	22	2	26	5	23	5	33	10	17	6	33	9	21	6	36
% App. Total	7.7	84.6	7.7		15.2	69.7	15.2		30.3	51.5	18.2		25	58.3	16.7	
PHF	.250	.611	.500	.722	.625	.523	.625	.635	.500	.850	.500	.688	.563	.875	.500	.818

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 Weather: Clear

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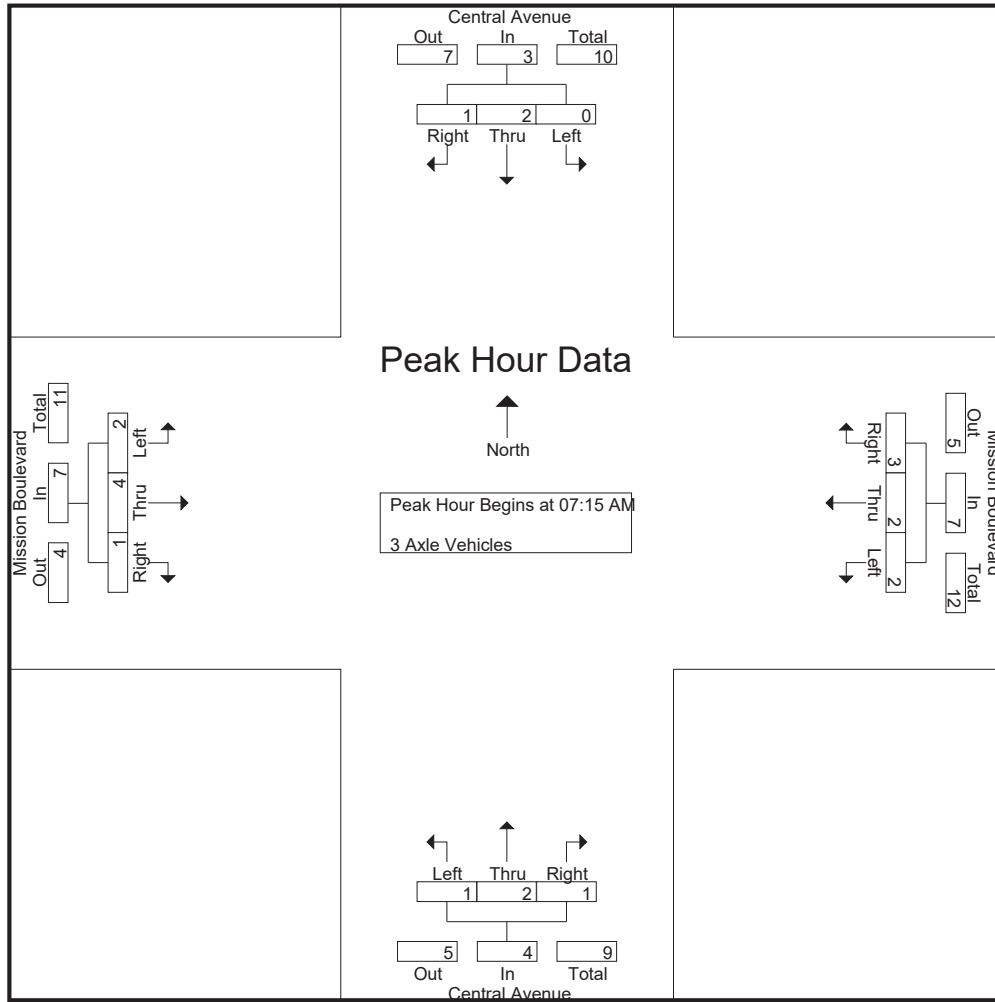
Groups Printed- 3 Axle Vehicles

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	2	2	0	1	0	1	2	0	1	3	6
07:15 AM	0	1	0	1	2	0	2	4	1	2	1	4	1	1	0	2	11
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	0	1	0	1	0	1	0	1	0	0	0	0	1	1	1	3	5
Total	0	2	0	2	2	2	4	8	1	3	1	5	4	3	2	9	24
08:00 AM	0	0	1	1	0	0	1	1	0	0	0	0	0	1	0	1	3
08:15 AM	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
08:30 AM	0	0	1	1	0	2	0	2	0	0	1	1	0	2	0	2	6
08:45 AM	0	1	0	1	1	2	1	4	0	1	0	1	0	1	0	1	7
Total	1	3	2	6	1	4	2	7	0	1	1	2	0	4	0	4	19
Grand Total	1	5	2	8	3	6	6	15	1	4	2	7	4	7	2	13	43
Apprch %	12.5	62.5	25		20	40	40		14.3	57.1	28.6		30.8	53.8	15.4		
Total %	2.3	11.6	4.7	18.6	7	14	14	34.9	2.3	9.3	4.7	16.3	9.3	16.3	4.7	30.2	

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	1	0	1	2	0	2	4	1	2	1	4	1	1	0	2	11
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	0	1	0	1	0	1	0	1	0	0	0	0	1	1	1	3	5
08:00 AM	0	0	1	1	0	0	1	1	0	0	0	0	0	1	0	1	3
Total Volume	0	2	1	3	2	2	3	7	1	2	1	4	2	4	1	7	21
% App. Total	0	66.7	33.3		28.6	28.6	42.9		25	50	25		28.6	57.1	14.3		
PHF	.000	.500	.250	.750	.250	.500	.375	.438	.250	.250	.250	.250	.500	1.00	.250	.583	.477

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	1	0	1	2	0	2	4	1	2	1	4	1	1	0	2
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	1	0	1	0	1	0	1	0	0	0	0	1	1	1	3
+45 mins.	0	0	1	1	0	0	1	1	0	0	0	0	0	1	0	1
Total Volume	0	2	1	3	2	2	3	7	1	2	1	4	2	4	1	7
% App. Total	0	66.7	33.3		28.6	28.6	42.9		25	50	25		28.6	57.1	14.3	
PHF	.000	.500	.250	.750	.250	.500	.375	.438	.250	.250	.250	.250	.500	1.000	.250	.583

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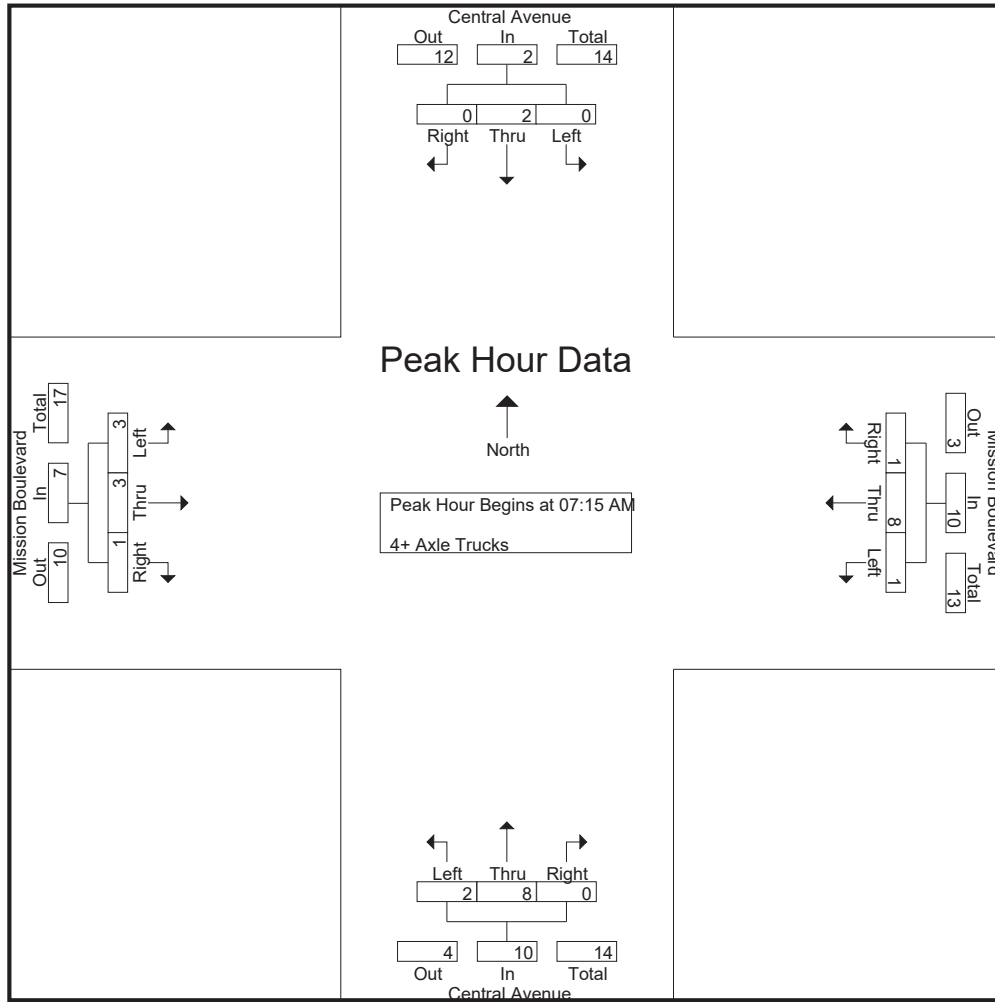
Groups Printed- 4+ Axle Trucks

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	1	0	1	0	1	1	2	1	0	0	1	0	0	0	0	4
07:15 AM	0	0	0	0	1	1	0	2	0	2	0	2	1	0	0	1	5
07:30 AM	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	4
07:45 AM	0	0	0	0	0	3	0	3	0	3	0	3	0	2	0	2	8
Total	0	1	0	1	1	5	1	7	3	7	0	10	1	2	0	3	21
08:00 AM	0	2	0	2	0	4	1	5	0	1	0	1	2	1	1	4	12
08:15 AM	0	0	0	0	1	0	0	1	2	3	0	5	1	1	0	2	8
08:30 AM	0	3	0	3	0	3	0	3	0	0	0	0	0	1	1	2	8
08:45 AM	1	1	1	3	0	4	0	4	1	0	1	2	0	0	1	1	10
Total	1	6	1	8	1	11	1	13	3	4	1	8	3	3	3	9	38
Grand Total	1	7	1	9	2	16	2	20	6	11	1	18	4	5	3	12	59
Apprch %	11.1	77.8	11.1		10	80	10		33.3	61.1	5.6		33.3	41.7	25		
Total %	1.7	11.9	1.7	15.3	3.4	27.1	3.4	33.9	10.2	18.6	1.7	30.5	6.8	8.5	5.1	20.3	

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	1	1	0	2	0	2	0	2	1	0	0	1	5
07:30 AM	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	4
07:45 AM	0	0	0	0	0	3	0	3	0	3	0	3	0	2	0	2	8
08:00 AM	0	2	0	2	0	4	1	5	0	1	0	1	2	1	1	4	12
Total Volume	0	2	0	2	1	8	1	10	2	8	0	10	3	3	1	7	29
% App. Total	0	100	0		10	80	10		20	80	0		42.9	42.9	14.3		
PHF	.000	.250	.000	.250	.250	.500	.250	.500	.250	.667	.000	.625	.375	.375	.250	.438	.604

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	1	1	0	2	0	2	0	2	1	0	0	1
+15 mins.	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0
+30 mins.	0	0	0	0	0	3	0	3	0	3	0	3	0	2	0	2
+45 mins.	0	2	0	2	0	4	1	5	0	1	0	1	2	1	1	4
Total Volume	0	2	0	2	1	8	1	10	2	8	0	10	3	3	1	7
% App. Total	0	100	0		10	80	10		20	80	0		42.9	42.9	14.3	
PHF	.000	.250	.000	.250	.250	.500	.250	.500	.250	.667	.000	.625	.375	.375	.250	.438

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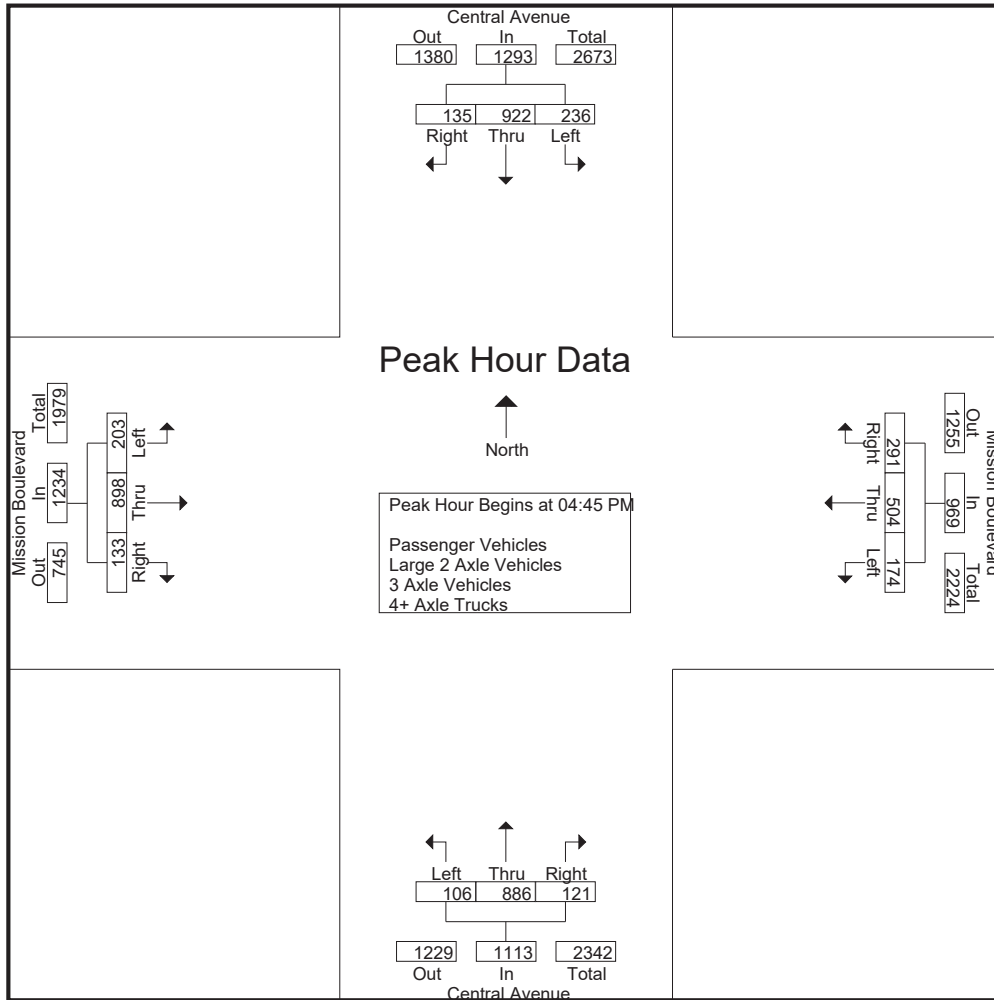
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	52	207	29	288	42	104	65	211	16	219	20	255	41	169	33	243	997
04:15 PM	42	206	24	272	23	116	72	211	20	210	27	257	48	244	40	332	1072
04:30 PM	60	182	31	273	37	86	66	189	25	219	29	273	51	178	40	269	1004
04:45 PM	55	237	31	323	31	122	74	227	28	233	32	293	46	210	29	285	1128
Total	209	832	115	1156	133	428	277	838	89	881	108	1078	186	801	142	1129	4201
05:00 PM	57	235	37	329	48	109	84	241	25	199	25	249	57	237	35	329	1148
05:15 PM	71	228	37	336	47	125	76	248	27	251	40	318	52	213	36	301	1203
05:30 PM	53	222	30	305	48	148	57	253	26	203	24	253	48	238	33	319	1130
05:45 PM	60	212	24	296	35	109	85	229	24	214	24	262	50	233	43	326	1113
Total	241	897	128	1266	178	491	302	971	102	867	113	1082	207	921	147	1275	4594
Grand Total	450	1729	243	2422	311	919	579	1809	191	1748	221	2160	393	1722	289	2404	8795
Apprch %	18.6	71.4	10		17.2	50.8	32		8.8	80.9	10.2		16.3	71.6	12		
Total %	5.1	19.7	2.8	27.5	3.5	10.4	6.6	20.6	2.2	19.9	2.5	24.6	4.5	19.6	3.3	27.3	
Passenger Vehicles	430	1700	235	2365	302	891	571	1764	185	1716	214	2115	388	1644	285	2317	8561
% Passenger Vehicles	95.6	98.3	96.7	97.6	97.1	97	98.6	97.5	96.9	98.2	96.8	97.9	98.7	95.5	98.6	96.4	97.3
Large 2 Axle Vehicles	6	27	4	37	3	24	8	35	4	28	3	35	3	40	4	47	154
% Large 2 Axle Vehicles	1.3	1.6	1.6	1.5	1	2.6	1.4	1.9	2.1	1.6	1.4	1.6	0.8	2.3	1.4	2	1.8
3 Axle Vehicles	7	1	2	10	3	2	0	5	1	2	2	5	1	19	0	20	40
% 3 Axle Vehicles	1.6	0.1	0.8	0.4	1	0.2	0	0.3	0.5	0.1	0.9	0.2	0.3	1.1	0	0.8	0.5
4+ Axle Trucks	7	1	2	10	3	2	0	5	1	2	2	5	1	19	0	20	40
% 4+ Axle Trucks	1.6	0.1	0.8	0.4	1	0.2	0	0.3	0.5	0.1	0.9	0.2	0.3	1.1	0	0.8	0.5

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	55	237	31	323	31	122	74	227	28	233	32	293	46	210	29	285	1128
05:00 PM	57	235	37	329	48	109	84	241	25	199	25	249	57	237	35	329	1148
05:15 PM	71	228	37	336	47	125	76	248	27	251	40	318	52	213	36	301	1203
05:30 PM	53	222	30	305	48	148	57	253	26	203	24	253	48	238	33	319	1130
Total Volume	236	922	135	1293	174	504	291	969	106	886	121	1113	203	898	133	1234	4609
% App. Total	18.3	71.3	10.4		18	52	30		9.5	79.6	10.9		16.5	72.8	10.8		
PHF	.831	.973	.912	.962	.906	.851	.866	.958	.946	.882	.756	.875	.890	.943	.924	.938	.958

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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:

	04:45 PM				05:00 PM				04:30 PM				05:00 PM			
+0 mins.	55	237	31	323	48	109	84	241	25	219	29	273	57	237	35	329
+15 mins.	57	235	37	329	47	125	76	248	28	233	32	293	52	213	36	301
+30 mins.	71	228	37	336	48	148	57	253	25	199	25	249	48	238	33	319
+45 mins.	53	222	30	305	35	109	85	229	27	251	40	318	50	233	43	326
Total Volume	236	922	135	1293	178	491	302	971	105	902	126	1133	207	921	147	1275
% App. Total	18.3	71.3	10.4		18.3	50.6	31.1		9.3	79.6	11.1		16.2	72.2	11.5	
PHF	.831	.973	.912	.962	.927	.829	.888	.959	.938	.898	.788	.891	.908	.967	.855	.969

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission PM
 Site Code : 99919732
 Start Date : 10/24/2019
 Page No : 1

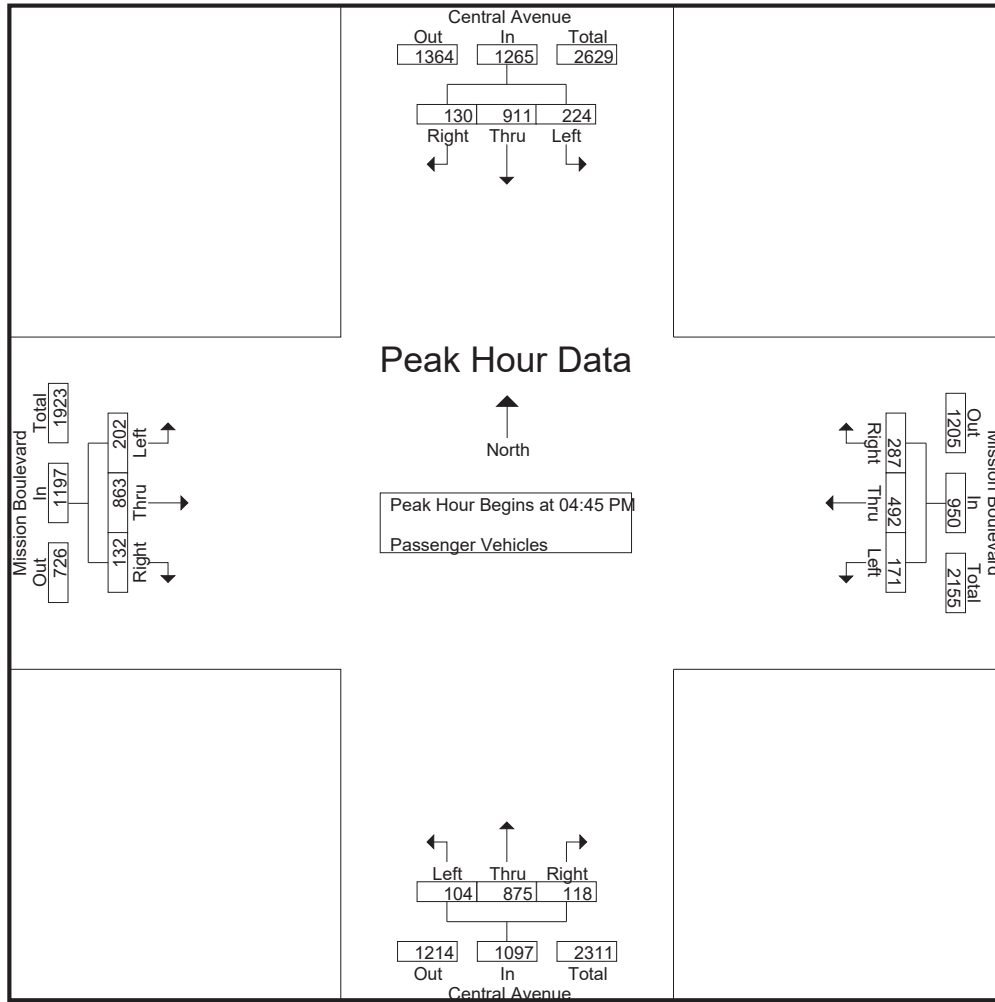
Groups Printed- Passenger Vehicles

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	48	203	29	280	42	102	63	207	14	214	19	247	40	161	31	232	966
04:15 PM	41	202	23	266	20	110	71	201	19	204	24	247	48	232	39	319	1033
04:30 PM	57	176	30	263	35	80	65	180	24	213	29	266	49	167	40	256	965
04:45 PM	52	232	29	313	30	119	73	222	27	227	30	284	45	201	28	274	1093
Total	198	813	111	1122	127	411	272	810	84	858	102	1044	182	761	138	1081	4057
05:00 PM	52	233	37	322	46	106	81	233	24	199	24	247	57	228	35	320	1122
05:15 PM	67	226	35	328	47	122	76	245	27	249	40	316	52	210	36	298	1187
05:30 PM	53	220	29	302	48	145	57	250	26	200	24	250	48	224	33	305	1107
05:45 PM	60	208	23	291	34	107	85	226	24	210	24	258	49	221	43	313	1088
Total	232	887	124	1243	175	480	299	954	101	858	112	1071	206	883	147	1236	4504
Grand Total	430	1700	235	2365	302	891	571	1764	185	1716	214	2115	388	1644	285	2317	8561
Apprch %	18.2	71.9	9.9		17.1	50.5	32.4		8.7	81.1	10.1		16.7	71	12.3		
Total %	5	19.9	2.7	27.6	3.5	10.4	6.7	20.6	2.2	20	2.5	24.7	4.5	19.2	3.3	27.1	

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	52	232	29	313	30	119	73	222	27	227	30	284	45	201	28	274	1093
05:00 PM	52	233	37	322	46	106	81	233	24	199	24	247	57	228	35	320	1122
05:15 PM	67	226	35	328	47	122	76	245	27	249	40	316	52	210	36	298	1187
05:30 PM	53	220	29	302	48	145	57	250	26	200	24	250	48	224	33	305	1107
Total Volume	224	911	130	1265	171	492	287	950	104	875	118	1097	202	863	132	1197	4509
% App. Total	17.7	72	10.3		18	51.8	30.2		9.5	79.8	10.8		16.9	72.1	11		
PHF	.836	.977	.878	.964	.891	.848	.886	.950	.963	.879	.738	.868	.886	.946	.917	.935	.950

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission PM
 Site Code : 99919732
 Start Date : 10/24/2019
 Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	52	232	29	313	30	119	73	222	27	227	30	284	45	201	28	274
+15 mins.	52	233	37	322	46	106	81	233	24	199	24	247	57	228	35	320
+30 mins.	67	226	35	328	47	122	76	245	27	249	40	316	52	210	36	298
+45 mins.	53	220	29	302	48	145	57	250	26	200	24	250	48	224	33	305
Total Volume	224	911	130	1265	171	492	287	950	104	875	118	1097	202	863	132	1197
% App. Total	17.7	72	10.3		18	51.8	30.2		9.5	79.8	10.8		16.9	72.1	11	
PHF	.836	.977	.878	.964	.891	.848	.886	.950	.963	.879	.738	.868	.886	.946	.917	.935

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission PM
 Site Code : 99919732
 Start Date : 10/24/2019
 Page No : 1

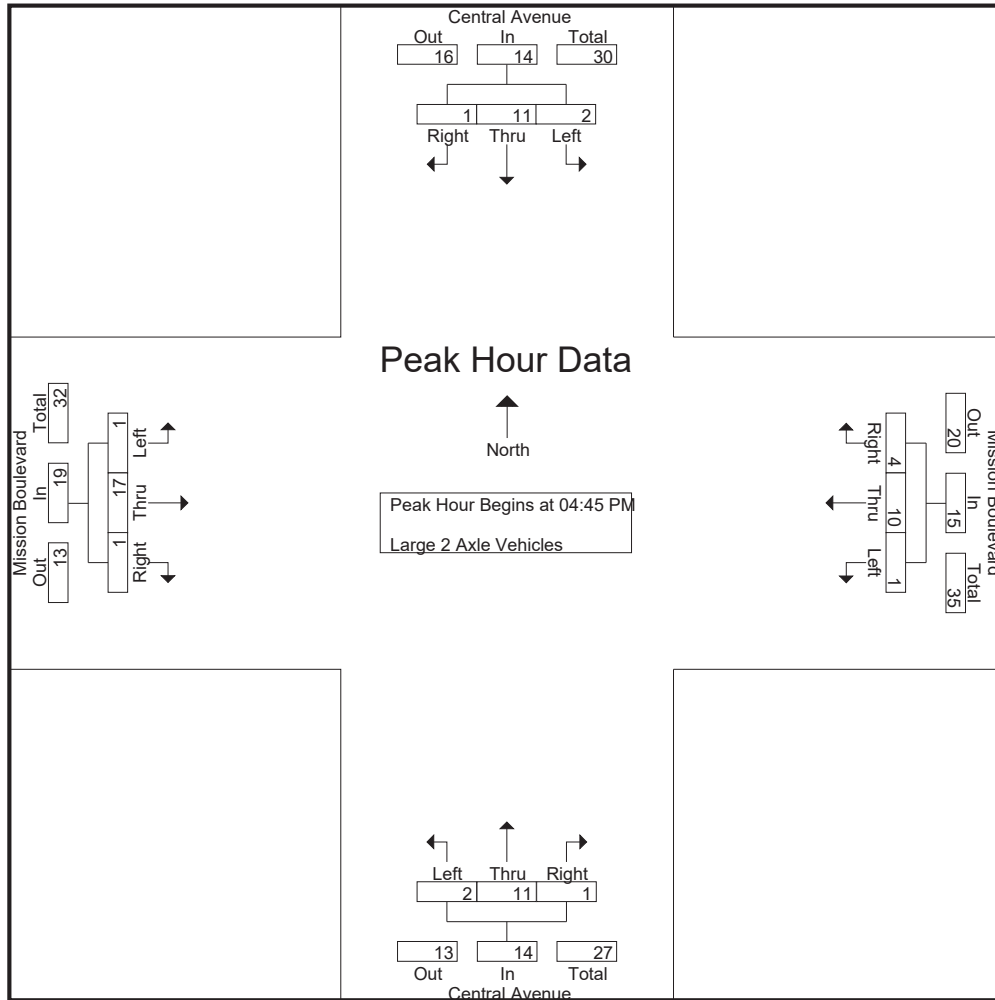
Groups Printed- Large 2 Axle Vehicles

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	2	4	0	6	0	2	2	4	0	5	1	6	1	4	2	7	23
04:15 PM	1	4	1	6	1	6	1	8	1	6	1	8	0	6	1	7	29
04:30 PM	1	4	1	6	0	4	1	5	1	4	0	5	0	5	0	5	21
04:45 PM	1	5	0	6	1	3	1	5	1	6	0	7	1	5	1	7	25
Total	5	17	2	24	2	15	5	22	3	21	2	26	2	20	4	26	98
05:00 PM	1	2	0	3	0	3	3	6	1	0	1	2	0	3	0	3	14
05:15 PM	0	2	0	2	0	1	0	1	0	2	0	2	0	3	0	3	8
05:30 PM	0	2	1	3	0	3	0	3	0	3	0	3	0	6	0	6	15
05:45 PM	0	4	1	5	1	2	0	3	0	2	0	2	1	8	0	9	19
Total	1	10	2	13	1	9	3	13	1	7	1	9	1	20	0	21	56
Grand Total	6	27	4	37	3	24	8	35	4	28	3	35	3	40	4	47	154
Apprch %	16.2	73	10.8		8.6	68.6	22.9		11.4	80	8.6		6.4	85.1	8.5		
Total %	3.9	17.5	2.6	24	1.9	15.6	5.2	22.7	2.6	18.2	1.9	22.7	1.9	26	2.6	30.5	

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	1	5	0	6	1	3	1	5	1	6	0	7	1	5	1	7	25
05:00 PM	1	2	0	3	0	3	3	6	1	0	1	2	0	3	0	3	14
05:15 PM	0	2	0	2	0	1	0	1	0	2	0	2	0	3	0	3	8
05:30 PM	0	2	1	3	0	3	0	3	0	3	0	3	0	6	0	6	15
Total Volume	2	11	1	14	1	10	4	15	2	11	1	14	1	17	1	19	62
% App. Total	14.3	78.6	7.1		6.7	66.7	26.7		14.3	78.6	7.1		5.3	89.5	5.3		
PHF	.500	.550	.250	.583	.250	.833	.333	.625	.500	.458	.250	.500	.250	.708	.250	.679	.620

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission PM
 Site Code : 99919732
 Start Date : 10/24/2019
 Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	1	5	0	6	1	3	1	5	1	6	0	7	1	5	1	7
+15 mins.	1	2	0	3	0	3	3	6	1	0	1	2	0	3	0	3
+30 mins.	0	2	0	2	0	1	0	1	0	2	0	2	0	3	0	3
+45 mins.	0	2	1	3	0	3	0	3	0	3	0	3	0	6	0	6
Total Volume	2	11	1	14	1	10	4	15	2	11	1	14	1	17	1	19
% App. Total	14.3	78.6	7.1		6.7	66.7	26.7		14.3	78.6	7.1		5.3	89.5	5.3	
PHF	.500	.550	.250	.583	.250	.833	.333	.625	.500	.458	.250	.500	.250	.708	.250	.679

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission PM
 Site Code : 99919732
 Start Date : 10/24/2019
 Page No : 1

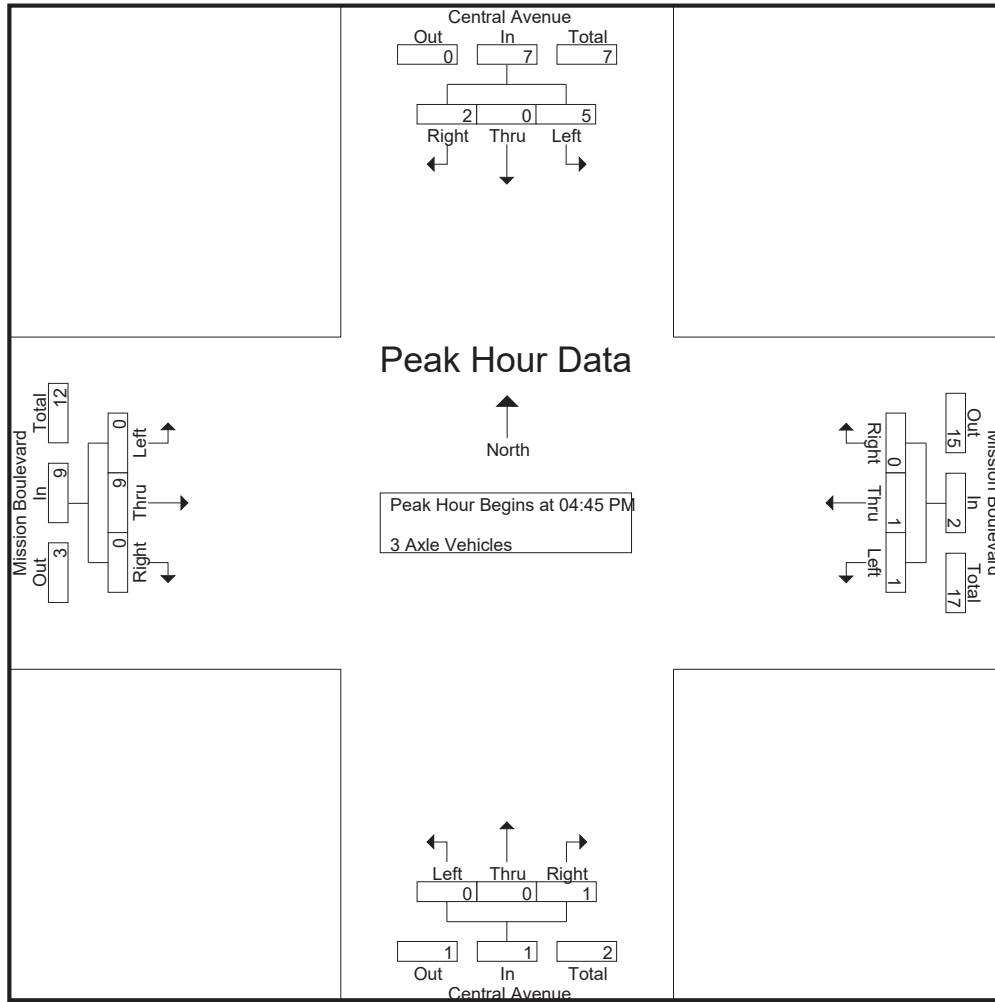
Groups Printed- 3 Axle Vehicles

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	0	0	1	0	0	0	0	1	0	0	1	0	2	0	2	4
04:15 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	3	0	3	5
04:30 PM	1	1	0	2	1	1	0	2	0	1	0	1	1	3	0	4	9
04:45 PM	1	0	1	2	0	0	0	0	0	0	1	1	0	2	0	2	5
Total	3	1	1	5	2	1	0	3	1	1	2	4	1	10	0	11	23
05:00 PM	2	0	0	2	1	0	0	1	0	0	0	0	0	3	0	3	6
05:15 PM	2	0	1	3	0	1	0	1	0	0	0	0	0	0	0	0	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
Total	4	0	1	5	1	1	0	2	0	1	0	1	0	9	0	9	17
Grand Total	7	1	2	10	3	2	0	5	1	2	2	5	1	19	0	20	40
Apprch %	70	10	20		60	40	0		20	40	40		5	95	0		
Total %	17.5	2.5	5	25	7.5	5	0	12.5	2.5	5	5	12.5	2.5	47.5	0	50	

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	1	0	1	2	0	0	0	0	0	0	1	1	0	2	0	2	5
05:00 PM	2	0	0	2	1	0	0	1	0	0	0	0	0	3	0	3	6
05:15 PM	2	0	1	3	0	1	0	1	0	0	0	0	0	0	0	0	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4
Total Volume	5	0	2	7	1	1	0	2	0	0	1	1	0	9	0	9	19
% App. Total	71.4	0	28.6		50	50	0		0	0	100		0	100	0		
PHF	.625	.000	.500	.583	.250	.250	.000	.500	.000	.000	.250	.250	.000	.563	.000	.563	.792

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission PM
 Site Code : 99919732
 Start Date : 10/24/2019
 Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	1	0	1	2	0	0	0	0	0	0	1	1	0	2	0	2
+15 mins.	2	0	0	2	1	0	0	1	0	0	0	0	0	3	0	3
+30 mins.	2	0	1	3	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
Total Volume	5	0	2	7	1	1	0	2	0	0	1	1	0	9	0	9
% App. Total	71.4	0	28.6		50	50	0		0	0	100		0	100	0	
PHF	.625	.000	.500	.583	.250	.250	.000	.500	.000	.000	.250	.250	.000	.563	.000	.563

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission PM
 Site Code : 99919732
 Start Date : 10/24/2019
 Page No : 1

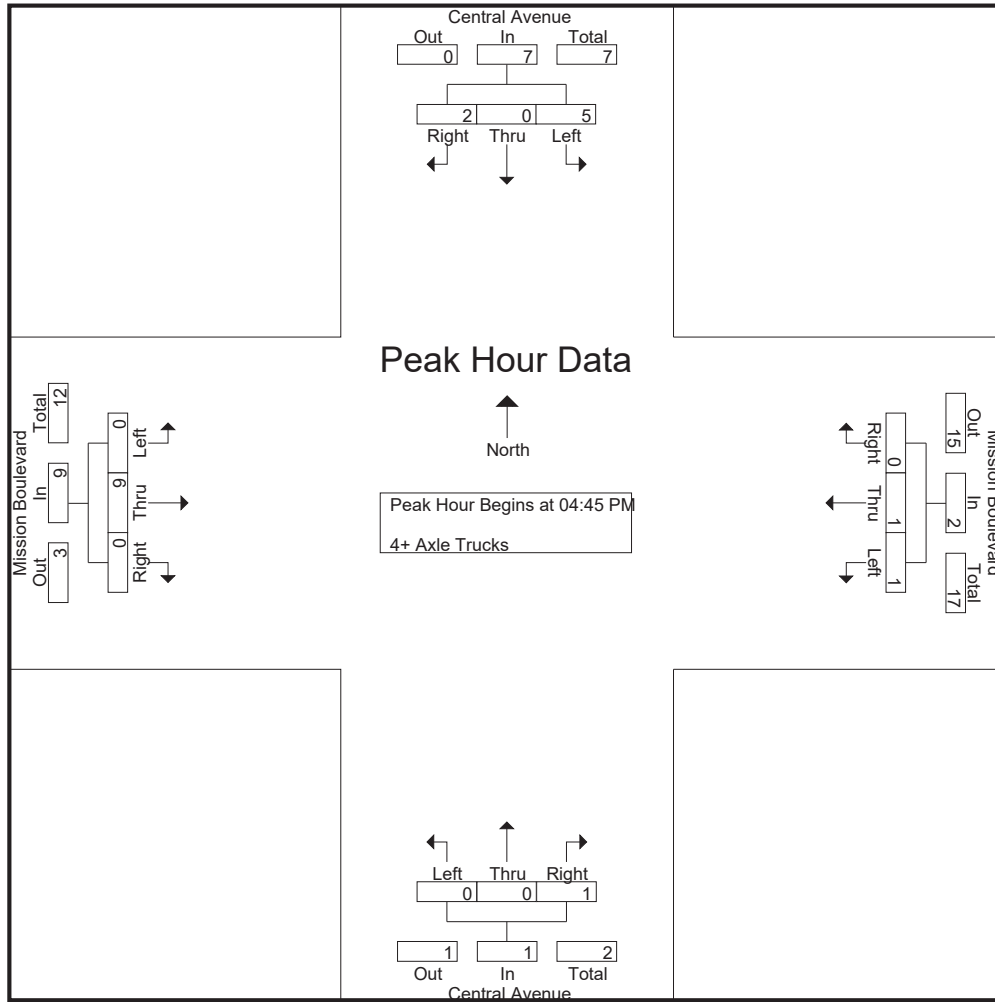
Groups Printed- 4+ Axle Trucks

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	1	0	0	1	0	0	0	0	1	0	0	1	0	2	0	2	4
04:15 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	3	0	3	5
04:30 PM	1	1	0	2	1	1	0	2	0	1	0	1	1	3	0	4	9
04:45 PM	1	0	1	2	0	0	0	0	0	0	1	1	0	2	0	2	5
Total	3	1	1	5	2	1	0	3	1	1	2	4	1	10	0	11	23
05:00 PM	2	0	0	2	1	0	0	1	0	0	0	0	0	3	0	3	6
05:15 PM	2	0	1	3	0	1	0	1	0	0	0	0	0	0	0	0	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
Total	4	0	1	5	1	1	0	2	0	1	0	1	0	9	0	9	17
Grand Total	7	1	2	10	3	2	0	5	1	2	2	5	1	19	0	20	40
Apprch %	70	10	20		60	40	0		20	40	40		5	95	0		
Total %	17.5	2.5	5	25	7.5	5	0	12.5	2.5	5	5	12.5	2.5	47.5	0	50	

Start Time	Central Avenue Southbound				Mission Boulevard Westbound				Central Avenue Northbound				Mission Boulevard Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	1	0	1	2	0	0	0	0	0	0	1	1	0	2	0	2	5
05:00 PM	2	0	0	2	1	0	0	1	0	0	0	0	0	3	0	3	6
05:15 PM	2	0	1	3	0	1	0	1	0	0	0	0	0	0	0	0	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4
Total Volume	5	0	2	7	1	1	0	2	0	0	1	1	0	9	0	9	19
% App. Total	71.4	0	28.6		50	50	0		0	0	100		0	100	0		
PHF	.625	.000	.500	.583	.250	.250	.000	.500	.000	.000	.250	.250	.000	.563	.000	.563	.792

County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard
 Weather: Clear

File Name : 50_CSB_Central_Mission PM
 Site Code : 99919732
 Start Date : 10/24/2019
 Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	1	0	1	2	0	0	0	0	0	0	1	1	0	2	0	2
+15 mins.	2	0	0	2	1	0	0	1	0	0	0	0	0	3	0	3
+30 mins.	2	0	1	3	0	1	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
Total Volume	5	0	2	7	1	1	0	2	0	0	1	1	0	9	0	9
% App. Total	71.4	0	28.6		50	50	0		0	0	100		0	100	0	
PHF	.625	.000	.500	.583	.250	.250	.000	.500	.000	.000	.250	.250	.000	.563	.000	.563

Location: County of San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard



Date: 10/24/2019
 Day: Thursday

PEDESTRIANS

	North Leg Central Avenue Pedestrians	East Leg Mission Boulevard Pedestrians	South Leg Central Avenue Pedestrians	West Leg Mission Boulevard Pedestrians	
7:00 AM	0	0	1	0	1
7:15 AM	1	0	0	1	2
7:30 AM	1	1	1	1	4
7:45 AM	1	0	2	1	4
8:00 AM	2	1	2	2	7
8:15 AM	1	0	2	0	3
8:30 AM	0	1	0	0	1
8:45 AM	0	2	1	0	3
TOTAL VOLUMES:	6	5	9	5	25

	North Leg Central Avenue Pedestrians	East Leg Mission Boulevard Pedestrians	South Leg Central Avenue Pedestrians	West Leg Mission Boulevard 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 San Bernardino
 N/S: Central Avenue
 E/W: Mission Boulevard



Date: 10/24/2019
 Day: Thursday

BICYCLES

	Southbound Central Avenue			Westbound Mission Boulevard			Northbound Central Avenue			Eastbound Mission 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	0	0	0	0	0
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	1	0	0	2	0	0	0	0	0	0	0	3
8:45 AM	0	1	0	0	0	0	0	0	0	0	1	0	2
TOTAL VOLUMES:	0	2	0	0	2	0	0	0	0	0	1	0	5

























	Southbound Central Avenue			Westbound Mission Boulevard			Northbound Central Avenue			Eastbound Mission Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
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	5	0	5
5:00 PM	0	0	0	1	0	0	0	0	0	0	1	0	2
5:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
5:45 PM	1	0	0	1	0	0	0	0	0	0	1	0	3
TOTAL VOLUMES:	1	1	0	2	2	1	0	0	0	0	8	0	15

Appendix D

Intersection LOS Worksheets

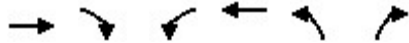
HCM 6th Signalized Intersection Summary
 1: Ramona Ave & Holt Ave/Holt Blvd

Existing
 Timing Plan: AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	306	179	114	573	40	242	311	150	47	340	52
Future Volume (veh/h)	49	306	179	114	573	40	242	311	150	47	340	52
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	56	352	206	131	659	46	278	357	172	54	391	60
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	630	281	164	797	355	425	710	602	246	522	443
Arrive On Green	0.04	0.17	0.17	0.09	0.22	0.22	0.23	0.37	0.37	0.14	0.28	0.28
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	56	352	206	131	659	46	278	357	172	54	391	60
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.4	7.1	5.6	5.7	13.9	1.2	11.1	11.6	4.0	2.1	15.0	1.8
Cycle Q Clear(g_c), s	2.4	7.1	5.6	5.7	13.9	1.2	11.1	11.6	4.0	2.1	15.0	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	630	281	164	797	355	425	710	602	246	523	443
V/C Ratio(X)	0.70	0.56	0.73	0.80	0.83	0.13	0.65	0.50	0.29	0.22	0.75	0.14
Avail Cap(c_a), veh/h	113	812	362	170	925	413	425	710	602	246	523	443
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	30.2	10.5	35.7	29.7	11.6	27.7	19.3	8.0	30.8	26.5	13.4
Incr Delay (d2), s/veh	10.3	0.8	5.5	22.3	5.5	0.2	3.6	2.5	1.2	0.4	9.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.9	3.7	3.4	6.2	0.7	4.9	5.2	2.1	0.9	7.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	31.0	16.0	58.0	35.3	11.8	31.3	21.9	9.2	31.2	35.9	14.0
LnGrp LOS	D	C	B	E	D	B	C	C	A	C	D	B
Approach Vol, veh/h		614			836			807			505	
Approach Delay, s/veh		27.5			37.5			22.4			32.8	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	34.4	11.8	18.5	23.3	26.5	8.1	22.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.6	29.9	7.5	18.0	14.5	22.0	5.0	20.5				
Max Q Clear Time (g_c+I1), s	4.1	13.6	7.7	9.1	13.1	17.0	4.4	15.9				
Green Ext Time (p_c), s	0.0	2.3	0.0	1.8	0.1	1.1	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay			30.0									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 2: Cumulos Ave & State St/State Street

Existing
 Timing Plan: AM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	109	23	9	342	47	50
Future Volume (veh/h)	109	23	9	342	47	50
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	27	11	407	56	60
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	443	92	103	544	856	762
Arrive On Green	0.29	0.29	0.29	0.29	0.47	0.47
Sat Flow, veh/h	1526	317	19	1871	1810	1610
Grp Volume(v), veh/h	0	157	418	0	56	60
Grp Sat Flow(s),veh/h/ln	0	1843	1890	0	1810	1610
Q Serve(g_s), s	0.0	2.5	0.8	0.0	0.6	0.8
Cycle Q Clear(g_c), s	0.0	2.5	7.6	0.0	0.6	0.8
Prop In Lane		0.17	0.03		1.00	1.00
Lane Grp Cap(c), veh/h	0	536	646	0	856	762
V/C Ratio(X)	0.00	0.29	0.65	0.00	0.07	0.08
Avail Cap(c_a), veh/h	0	872	988	0	856	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.5	12.3	0.0	5.5	5.5
Incr Delay (d2), s/veh	0.0	0.3	1.1	0.0	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/lr	0.0	0.7	2.3	0.0	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	10.8	13.4	0.0	5.6	5.7
LnGrp LOS	A	B	B	A	A	A
Approach Vol, veh/h	157			418	116	
Approach Delay, s/veh	10.8			13.4	5.6	
Approach LOS	B			B	A	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		22.5		15.6		15.6
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+l1), s		2.8		4.5		9.6
Green Ext Time (p_c), s		0.2		0.6		1.5
Intersection Summary						
HCM 6th Ctrl Delay			11.5			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	51	13	26	19	5	14
Future Vol, veh/h	51	13	26	19	5	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	81	21	41	30	8	22

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	94	56	0	0	71
Stage 1	56	-	-	-	-
Stage 2	38	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	911	1016	-	-	1542
Stage 1	972	-	-	-	-
Stage 2	990	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	906	1016	-	-	1542
Mov Cap-2 Maneuver	906	-	-	-	-
Stage 1	972	-	-	-	-
Stage 2	985	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	926	1542
HCM Lane V/C Ratio	-	-	0.11	0.005
HCM Control Delay (s)	-	-	9.4	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th Signalized Intersection Summary
4: Ramona Ave & Dale St

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Volume (veh/h)	0	0	0	13	0	23	0	737	62	39	576	1
Future Volume (veh/h)	0	0	0	13	0	23	0	737	62	39	576	1
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	0	15	0	26	0	838	70	44	655	1
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	89	0	165	0	46	621	1762	147	520	2585	4
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.52	0.52	0.05	0.70	0.70
Sat Flow, veh/h	0	1900	0	565	0	979	1810	3373	282	1810	3698	6
Grp Volume(v), veh/h	0	0	0	41	0	0	0	448	460	44	320	336
Grp Sat Flow(s),veh/h/ln	0	1900	0	1543	0	0	1810	1805	1849	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	5.6	5.6	0.3	2.3	2.3
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	5.6	5.6	0.3	2.3	2.3
Prop In Lane	0.00		0.00	0.37		0.63	1.00		0.15	1.00		0.00
Lane Grp Cap(c), veh/h	0	89	0	211	0	0	621	943	966	520	1262	1327
V/C Ratio(X)	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.48	0.48	0.08	0.25	0.25
Avail Cap(c_a), veh/h	0	966	0	923	0	0	871	943	966	686	1262	1327
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	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.5	0.0	0.0	0.0	5.4	5.4	3.4	1.9	1.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	0.0	1.7	1.7	0.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.3	1.3	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	17.0	0.0	0.0	0.0	7.1	7.1	3.5	2.4	2.4
LnGrp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			41			908			700	
Approach Delay, s/veh		0.0			17.0			7.1			2.5	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	23.0		6.2	0.0	29.3		6.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	2.3	7.6		0.0	0.0	4.3		2.9				
Green Ext Time (p_c), s	0.0	4.1		0.0	0.0	3.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				5.4								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	597	9	21	1347	30	12	0	8	26	0	32
Future Vol, veh/h	28	597	9	21	1347	30	12	0	8	26	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	150	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	31	656	10	23	1480	33	13	0	9	29	0	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1513	0	0	666	0	0	1504	2277	328	1916	2254	740
Stage 1	-	-	-	-	-	-	718	718	-	1526	1526	-
Stage 2	-	-	-	-	-	-	786	1559	-	390	728	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	448	-	-	933	-	-	85	41	674	42	42	364
Stage 1	-	-	-	-	-	-	391	436	-	126	182	-
Stage 2	-	-	-	-	-	-	356	175	-	611	432	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	448	-	-	933	-	-	71	37	674	39	38	364
Mov Cap-2 Maneuver	-	-	-	-	-	-	71	37	-	39	38	-
Stage 1	-	-	-	-	-	-	364	406	-	117	177	-
Stage 2	-	-	-	-	-	-	314	171	-	561	402	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.1			45.3			150.5		
HCM LOS							E			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	111	448	-	-	933	-	-	77
HCM Lane V/C Ratio	0.198	0.069	-	-	0.025	-	-	0.828
HCM Control Delay (s)	45.3	13.6	-	-	9	-	-	150.5
HCM Lane LOS	E	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0.1	-	-	4.1

HCM 6th Signalized Intersection Summary
6: Ramona Ave & Mission Blvd

Existing
Timing Plan: AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	483	59	60	1106	116	168	523	164	135	295	147
Future Volume (veh/h)	156	483	59	60	1106	116	168	523	164	135	295	147
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	531	65	66	1215	127	185	575	180	148	324	162
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	208	1765	213	86	1473	154	223	989	441	183	592	290
Arrive On Green	0.11	0.38	0.38	0.05	0.31	0.31	0.12	0.27	0.27	0.10	0.25	0.25
Sat Flow, veh/h	1810	4690	566	1810	4770	498	1810	3610	1610	1810	2348	1150
Grp Volume(v), veh/h	171	390	206	66	881	461	185	575	180	148	247	239
Grp Sat Flow(s),veh/h/ln	1810	1729	1798	1810	1729	1810	1810	1805	1610	1810	1805	1693
Q Serve(g_s), s	8.3	7.1	7.2	3.2	21.1	21.1	8.9	12.3	6.5	7.2	10.6	11.0
Cycle Q Clear(g_c), s	8.3	7.1	7.2	3.2	21.1	21.1	8.9	12.3	6.5	7.2	10.6	11.0
Prop In Lane	1.00		0.31	1.00		0.28	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	208	1301	677	86	1068	559	223	989	441	183	455	427
V/C Ratio(X)	0.82	0.30	0.31	0.77	0.82	0.83	0.83	0.58	0.41	0.81	0.54	0.56
Avail Cap(c_a), veh/h	293	1389	722	184	1180	618	314	989	441	253	455	427
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	19.6	19.6	42.1	28.7	28.7	38.3	28.0	16.8	39.3	29.0	29.1
Incr Delay (d2), s/veh	12.1	0.1	0.3	13.4	4.5	8.3	12.2	2.5	2.8	12.8	4.6	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	2.6	2.8	1.7	8.7	9.7	4.5	5.4	3.2	3.7	4.9	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	19.7	19.9	55.5	33.2	36.9	50.5	30.5	19.6	52.1	33.6	34.3
LnGrp LOS	D	B	B	E	C	D	D	C	B	D	C	C
Approach Vol, veh/h		767			1408			940			634	
Approach Delay, s/veh		26.7			35.5			32.3			38.2	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.5	29.0	8.7	38.1	15.5	27.0	14.8	32.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	24.5	9.1	35.9	15.5	21.5	14.5	30.5				
Max Q Clear Time (g_c+I1), s	9.2	14.3	5.2	9.2	10.9	13.0	10.3	23.1				
Green Ext Time (p_c), s	0.1	3.1	0.0	3.6	0.2	1.8	0.2	4.5				
Intersection Summary												
HCM 6th Ctrl Delay				33.3								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

7: Monte Vista Ave & Mission Blvd

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	570	64	98	1156	403	106	329	113	173	165	62
Future Volume (veh/h)	115	570	64	98	1156	403	106	329	113	173	165	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	125	620	70	107	1257	438	115	358	123	188	179	67
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	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	155	1389	619	134	1347	601	467	710	240	381	776	280
Arrive On Green	0.09	0.38	0.38	0.15	0.75	0.75	0.06	0.27	0.27	0.09	0.30	0.30
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	2648	896	1810	2597	939
Grp Volume(v), veh/h	125	620	70	107	1257	438	115	242	239	188	122	124
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1805	1739	1810	1805	1731
Q Serve(g_s), s	6.8	12.8	2.8	5.7	29.1	10.7	4.5	11.3	11.6	7.3	5.1	5.4
Cycle Q Clear(g_c), s	6.8	12.8	2.8	5.7	29.1	10.7	4.5	11.3	11.6	7.3	5.1	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.54
Lane Grp Cap(c), veh/h	155	1389	619	134	1347	601	467	484	466	381	539	517
V/C Ratio(X)	0.81	0.45	0.11	0.80	0.93	0.73	0.25	0.50	0.51	0.49	0.23	0.24
Avail Cap(c_a), veh/h	190	1393	622	224	1462	652	471	484	466	385	539	517
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.76	0.76	0.76	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	22.9	19.8	41.9	11.6	4.9	23.9	30.9	31.0	23.3	26.4	26.5
Incr Delay (d2), s/veh	18.6	0.2	0.1	8.1	8.6	2.9	0.3	3.7	4.0	1.0	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	5.1	1.0	2.6	5.7	3.1	1.9	5.2	5.2	3.1	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.5	23.1	19.9	50.0	20.2	7.9	24.2	34.6	35.0	24.3	27.4	27.6
LnGrp LOS	E	C	B	D	C	A	C	C	C	C	C	C
Approach Vol, veh/h		815			1802			596			434	
Approach Delay, s/veh		29.0			19.0			32.7			26.1	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	3.8	31.3	11.9	43.0	10.8	34.4	13.1	41.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	9.5	21.5	12.4	38.6	6.5	24.5	10.5	40.5				
Max Q Clear Time (g_c+1), s	19.3	13.6	7.7	14.8	6.5	7.4	8.8	31.1				
Green Ext Time (p_c), s	0.0	1.7	0.1	4.1	0.0	1.1	0.0	6.2				
Intersection Summary												
HCM 6th Ctrl Delay											24.3	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
8: Central Ave & Mission Blvd




























Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑		↔↔	↑↑	
Traffic Volume (veh/h)	217	523	84	149	772	312	157	835	99	146	705	103
Future Volume (veh/h)	217	523	84	149	772	312	157	835	99	146	705	103
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	236	568	91	162	839	339	171	908	108	159	766	112
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	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	291	984	439	248	939	419	256	1073	128	244	1033	151
Arrive On Green	0.08	0.27	0.27	0.07	0.26	0.26	0.07	0.33	0.33	0.07	0.33	0.33
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3249	386	3510	3160	462
Grp Volume(v), veh/h	236	568	91	162	839	339	171	504	512	159	437	441
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1830	1755	1805	1817
Q Serve(g_s), s	4.6	9.5	3.1	3.1	15.7	13.8	3.3	18.2	18.2	3.1	15.1	15.1
Cycle Q Clear(g_c), s	4.6	9.5	3.1	3.1	15.7	13.8	3.3	18.2	18.2	3.1	15.1	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.25
Lane Grp Cap(c), veh/h	291	984	439	248	939	419	256	596	605	244	590	594
V/C Ratio(X)	0.81	0.58	0.21	0.65	0.89	0.81	0.67	0.85	0.85	0.65	0.74	0.74
Avail Cap(c_a), veh/h	291	984	439	271	954	426	256	596	605	256	590	594
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(l)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	22.0	19.6	31.7	25.0	24.3	31.6	21.8	21.8	31.7	20.9	20.9
Incr Delay (d2), s/veh	14.0	0.7	0.2	4.9	10.6	11.0	6.5	13.8	13.7	5.5	8.2	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	3.7	1.0	1.4	7.3	5.9	1.5	8.9	9.0	1.4	6.9	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.6	22.7	19.8	36.6	35.6	35.3	38.2	35.6	35.4	37.2	29.1	29.1
LnGrp LOS	D	C	B	D	D	D	D	D	D	D	C	C
Approach Vol, veh/h		895			1340			1187			1037	
Approach Delay, s/veh		28.4			35.6			35.9			30.3	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	27.6	9.4	23.6	9.6	27.4	10.3	22.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	22.6	5.4	18.9	5.1	22.6	5.8	18.5				
Max Q Clear Time (g_c+I1), s	5.1	20.2	5.1	11.5	5.3	17.1	6.6	17.7				
Green Ext Time (p_c), s	0.0	1.4	0.0	2.2	0.0	2.4	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				33.0								
HCM 6th LOS				C								

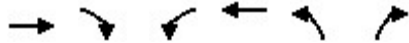
HCM 6th Signalized Intersection Summary
 1: Ramona Ave & Holt Ave/Holt Blvd

Existing
 Timing Plan: PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Traffic Volume (veh/h)	107	703	224	95	437	56	227	368	179	58	257	57
Future Volume (veh/h)	107	703	224	95	437	56	227	368	179	58	257	57
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	123	808	257	109	502	64	261	423	206	67	295	66
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	904	403	139	870	388	301	759	643	88	535	454
Arrive On Green	0.09	0.25	0.25	0.08	0.24	0.24	0.17	0.40	0.40	0.05	0.28	0.28
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	123	808	257	109	502	64	261	423	206	67	295	66
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	5.3	17.3	11.4	4.7	9.8	2.5	11.2	13.8	7.0	2.9	10.6	2.5
Cycle Q Clear(g_c), s	5.3	17.3	11.4	4.7	9.8	2.5	11.2	13.8	7.0	2.9	10.6	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	904	403	139	870	388	301	759	643	88	535	454
V/C Ratio(X)	0.79	0.89	0.64	0.79	0.58	0.16	0.87	0.56	0.32	0.77	0.55	0.15
Avail Cap(c_a), veh/h	192	925	413	147	870	388	328	759	643	118	535	454
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	29.0	26.8	36.3	26.8	24.0	32.5	18.5	16.5	37.6	24.4	21.5
Incr Delay (d2), s/veh	16.2	11.0	3.2	22.8	0.9	0.2	19.9	2.9	1.3	18.5	4.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	8.2	4.4	2.8	4.0	0.9	6.3	6.1	2.5	1.7	5.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	39.9	29.9	59.1	27.7	24.2	52.4	21.5	17.8	56.1	28.5	22.2
LnGrp LOS	D	D	C	E	C	C	D	C	B	E	C	C
Approach Vol, veh/h		1188			675			890			428	
Approach Delay, s/veh		39.0			32.4			29.7			31.8	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	36.5	10.6	24.5	17.8	27.0	11.4	23.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.2	29.8	6.5	20.5	14.5	20.5	8.5	18.5				
Max Q Clear Time (g_c+I1), s	4.9	15.8	6.7	19.3	13.2	12.6	7.3	11.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	0.7	0.1	1.1	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			34.1									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 2: Cumulos Ave & State St/State Street

Existing
 Timing Plan: PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	354	89	54	94	24	15
Future Volume (veh/h)	354	89	54	94	24	15
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	407	102	62	108	28	17
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	496	124	162	228	798	710
Arrive On Green	0.34	0.34	0.34	0.34	0.44	0.44
Sat Flow, veh/h	1466	367	123	673	1810	1610
Grp Volume(v), veh/h	0	509	170	0	28	17
Grp Sat Flow(s),veh/h/ln	0	1834	796	0	1810	1610
Q Serve(g_s), s	0.0	10.4	1.0	0.0	0.4	0.2
Cycle Q Clear(g_c), s	0.0	10.4	11.4	0.0	0.4	0.2
Prop In Lane		0.20	0.36		1.00	1.00
Lane Grp Cap(c), veh/h	0	621	390	0	798	710
V/C Ratio(X)	0.00	0.82	0.44	0.00	0.04	0.02
Avail Cap(c_a), veh/h	0	809	529	0	798	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	12.4	10.5	0.0	6.5	6.4
Incr Delay (d2), s/veh	0.0	5.2	0.8	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.0	0.0	3.7	0.8	0.0	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	17.6	11.3	0.0	6.6	6.5
LnGrp LOS	A	B	B	A	A	A
Approach Vol, veh/h	509			170	45	
Approach Delay, s/veh	17.6			11.3	6.5	
Approach LOS	B			B	A	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		22.5		18.3		18.3
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.4		12.4		13.4
Green Ext Time (p_c), s		0.1		1.4		0.3
Intersection Summary						
HCM 6th Ctrl Delay			15.4			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	9	14	15	4	26
Future Vol, veh/h	20	9	14	15	4	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	25	11	18	19	5	33




















Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	71	28	0	0	37
Stage 1	28	-	-	-	-
Stage 2	43	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	938	1053	-	-	1587
Stage 1	1000	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	935	1053	-	-	1587
Mov Cap-2 Maneuver	935	-	-	-	-
Stage 1	1000	-	-	-	-
Stage 2	982	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	969	1587
HCM Lane V/C Ratio	-	-	0.038	0.003
HCM Control Delay (s)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary
4: Ramona Ave & Dale St

Existing
Timing Plan: PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	65	0	90	0	696	22	25	616	1
Future Volume (veh/h)	0	0	0	65	0	90	0	696	22	25	616	1
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	0	69	0	96	0	740	23	27	655	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	269	0	211	13	128	567	1706	53	488	2315	4
Arrive On Green	0.00	0.00	0.00	0.14	0.00	0.14	0.00	0.48	0.48	0.03	0.63	0.63
Sat Flow, veh/h	0	1900	0	561	90	906	1810	3574	111	1810	3698	6
Grp Volume(v), veh/h	0	0	0	165	0	0	0	374	389	27	320	336
Grp Sat Flow(s),veh/h/ln	0	1900	0	1558	0	0	1810	1805	1880	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	3.2	0.0	0.0	0.0	5.3	5.3	0.3	3.1	3.1
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.9	0.0	0.0	0.0	5.3	5.3	0.3	3.1	3.1
Prop In Lane	0.00		0.00	0.42		0.58	1.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	0	269	0	352	0	0	567	862	898	488	1130	1189
V/C Ratio(X)	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.43	0.43	0.06	0.28	0.28
Avail Cap(c_a), veh/h	0	883	0	848	0	0	796	862	898	663	1130	1189
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	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	15.9	0.0	0.0	0.0	6.7	6.7	4.5	3.3	3.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.6	1.5	0.0	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.4	1.5	0.0	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	16.9	0.0	0.0	0.0	8.3	8.2	4.5	3.9	3.9
LnGrp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			165			763			683	
Approach Delay, s/veh		0.0			16.9			8.2			3.9	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	23.0		10.0	0.0	28.8		10.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	2.3	7.3		0.0	0.0	5.1		5.9				
Green Ext Time (p_c), s	0.0	3.4		0.0	0.0	3.1		0.7				
Intersection Summary												
HCM 6th Ctrl Delay				7.3								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	1184	13	31	707	28	8	0	13	23	0	22
Future Vol, veh/h	18	1184	13	31	707	28	8	0	13	23	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	150	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	19	1221	13	32	729	29	8	0	13	24	0	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	758	0	0	1234	0	0	1688	2081	611	1442	2065	365
Stage 1	-	-	-	-	-	-	1259	1259	-	793	793	-
Stage 2	-	-	-	-	-	-	429	822	-	649	1272	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	862	-	-	572	-	-	62	54	442	95	55	638
Stage 1	-	-	-	-	-	-	184	244	-	352	403	-
Stage 2	-	-	-	-	-	-	580	391	-	430	241	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	862	-	-	572	-	-	56	50	442	87	51	638
Mov Cap-2 Maneuver	-	-	-	-	-	-	56	50	-	87	51	-
Stage 1	-	-	-	-	-	-	180	239	-	344	380	-
Stage 2	-	-	-	-	-	-	528	369	-	408	236	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.5			40.8			39.1		
HCM LOS							E			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	122	862	-	-	572	-	-	151
HCM Lane V/C Ratio	0.177	0.022	-	-	0.056	-	-	0.307
HCM Control Delay (s)	40.8	9.3	-	-	11.7	-	-	39.1
HCM Lane LOS	E	A	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.2	-	-	1.2

HCM 6th Signalized Intersection Summary
6: Ramona Ave & Mission Blvd

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑↑		↗	↑↑↑		↗	↑↑	↗	↗	↑↑	
Traffic Volume (veh/h)	205	977	97	126	562	131	104	406	78	135	427	131
Future Volume (veh/h)	205	977	97	126	562	131	104	406	78	135	427	131
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	214	1018	101	131	585	136	108	423	81	141	445	136
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	259	1356	134	167	978	223	140	1088	485	179	882	267
Arrive On Green	0.14	0.28	0.28	0.09	0.23	0.23	0.08	0.30	0.30	0.10	0.32	0.32
Sat Flow, veh/h	1810	4797	475	1810	4222	963	1810	3610	1610	1810	2729	827
Grp Volume(v), veh/h	214	733	386	131	477	244	108	423	81	141	293	288
Grp Sat Flow(s),veh/h/ln	1810	1729	1814	1810	1729	1727	1810	1805	1610	1810	1805	1751
Q Serve(g_s), s	9.2	15.5	15.5	5.7	9.9	10.1	4.7	7.4	3.0	6.1	10.5	10.7
Cycle Q Clear(g_c), s	9.2	15.5	15.5	5.7	9.9	10.1	4.7	7.4	3.0	6.1	10.5	10.7
Prop In Lane	1.00		0.26	1.00		0.56	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	259	977	513	167	801	400	140	1088	485	179	583	566
V/C Ratio(X)	0.82	0.75	0.75	0.78	0.60	0.61	0.77	0.39	0.17	0.79	0.50	0.51
Avail Cap(c_a), veh/h	467	1247	654	332	988	493	282	1088	485	350	583	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	26.2	26.2	35.6	27.4	27.5	36.3	22.2	20.6	35.3	21.9	22.0
Incr Delay (d2), s/veh	6.5	1.9	3.7	7.8	0.7	1.5	8.8	1.0	0.7	7.5	3.1	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	6.0	6.6	2.7	3.8	4.0	2.3	3.1	1.1	2.9	4.6	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	28.1	29.9	43.4	28.1	29.0	45.1	23.2	21.3	42.8	25.0	25.2
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1333			852			612			722	
Approach Delay, s/veh		30.5			30.7			26.8			28.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	28.7	11.9	27.2	10.7	30.4	16.0	23.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.5	22.9	14.7	28.9	12.5	25.9	20.7	22.9				
Max Q Clear Time (g_c+I1), s	8.1	9.4	7.7	17.5	6.7	12.7	11.2	12.1				
Green Ext Time (p_c), s	0.2	2.4	0.2	5.1	0.1	2.8	0.4	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				29.5								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary

7: Monte Vista Ave & Mission Blvd

Existing
Timing Plan: PM


































Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	966	122	103	653	154	42	302	105	359	390	108
Future Volume (veh/h)	107	966	122	103	653	154	42	302	105	359	390	108
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	113	1017	128	108	687	162	44	318	111	378	411	114
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	270	1126	502	137	861	384	371	696	239	534	1112	305
Arrive On Green	0.15	0.31	0.31	0.02	0.08	0.08	0.04	0.26	0.26	0.17	0.40	0.40
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	2638	904	1810	2798	768
Grp Volume(v), veh/h	113	1017	128	108	687	162	44	216	213	378	264	261
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1805	1737	1810	1805	1762
Q Serve(g_s), s	5.7	27.0	4.9	5.9	18.7	6.3	1.7	10.0	10.3	14.5	10.3	10.5
Cycle Q Clear(g_c), s	5.7	27.0	4.9	5.9	18.7	6.3	1.7	10.0	10.3	14.5	10.3	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.44
Lane Grp Cap(c), veh/h	270	1126	502	137	861	384	371	476	459	534	717	700
V/C Ratio(X)	0.42	0.90	0.25	0.79	0.80	0.42	0.12	0.45	0.47	0.71	0.37	0.37
Avail Cap(c_a), veh/h	270	1177	525	172	1061	473	400	476	459	585	717	700
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	33.0	17.2	48.0	43.7	17.2	25.2	30.8	30.9	20.2	21.3	21.3
Incr Delay (d2), s/veh	1.0	9.6	0.3	16.2	3.3	0.7	0.1	3.1	3.4	3.5	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	12.5	2.2	3.3	9.3	3.8	0.7	4.6	4.6	6.2	4.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	42.6	17.5	64.2	47.0	17.9	25.3	33.8	34.2	23.7	22.7	22.9
LnGrp LOS	D	D	B	E	D	B	C	C	C	C	C	C
Approach Vol, veh/h		1258			957			473			903	
Approach Delay, s/veh		39.8			44.0			33.2			23.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.4	30.9	12.1	35.7	8.0	44.2	19.4	28.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	19.7	20.2	9.5	32.6	5.1	34.8	12.7	29.4				
Max Q Clear Time (g_c+11g_s), s	11.5	12.3	7.9	29.0	3.7	12.5	7.7	20.7				
Green Ext Time (p_c), s	0.4	1.5	0.0	2.2	0.0	3.0	0.1	3.1				
Intersection Summary												
HCM 6th Ctrl Delay											35.9	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary

























8: Central Ave & Mission Blvd

Existing
Timing Plan: PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	
Traffic Volume (veh/h)	208	966	137	182	528	301	110	915	128	261	952	146
Future Volume (veh/h)	208	966	137	182	528	301	110	915	128	261	952	146
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	217	1006	143	190	550	314	115	953	133	272	992	152
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	291	1063	474	238	1009	450	184	1092	152	332	1209	185
Arrive On Green	0.08	0.29	0.29	0.07	0.28	0.28	0.05	0.34	0.34	0.09	0.39	0.39
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3181	444	3510	3138	480
Grp Volume(v), veh/h	217	1006	143	190	550	314	115	541	545	272	570	574
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1820	1755	1805	1814
Q Serve(g_s), s	5.4	24.5	6.2	4.8	11.7	15.7	2.9	25.3	25.3	6.8	25.5	25.6
Cycle Q Clear(g_c), s	5.4	24.5	6.2	4.8	11.7	15.7	2.9	25.3	25.3	6.8	25.5	25.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.26
Lane Grp Cap(c), veh/h	291	1063	474	238	1009	450	184	620	625	332	696	699
V/C Ratio(X)	0.75	0.95	0.30	0.80	0.55	0.70	0.62	0.87	0.87	0.82	0.82	0.82
Avail Cap(c_a), veh/h	316	1063	474	238	1009	450	199	620	625	332	696	699
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)	0.40	0.40	0.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	31.1	24.6	41.3	27.6	29.0	41.8	27.7	27.7	40.0	24.9	24.9
Incr Delay (d2), s/veh	3.6	8.2	0.1	17.2	0.6	4.7	5.3	15.6	15.5	15.0	10.4	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	11.0	2.2	2.6	4.8	6.2	1.3	12.6	12.7	3.5	11.9	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	39.2	24.7	58.6	28.2	33.7	47.1	43.3	43.3	55.0	35.3	35.3
LnGrp LOS	D	D	C	E	C	C	D	D	D	E	D	D
Approach Vol, veh/h		1366			1054			1201			1416	
Approach Delay, s/veh		38.5			35.3			43.6			39.1	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	35.4	10.6	31.0	9.2	39.2	12.0	29.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.5	30.9	6.1	26.5	5.1	34.3	8.1	24.5				
Max Q Clear Time (g_c+I1), s	8.8	27.3	6.8	26.5	4.9	27.6	7.4	17.7				
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.0	3.6	0.0	2.5				
Intersection Summary												
HCM 6th Ctrl Delay			39.2									
HCM 6th LOS			D									

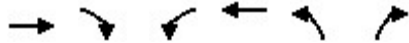
HCM 6th Signalized Intersection Summary
 1: Ramona Ave & Holt Ave/Holt Blvd

Existing plus Project
 Timing Plan: AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	306	226	140	573	40	254	313	158	47	347	52
Future Volume (veh/h)	49	306	226	140	573	40	254	313	158	47	347	52
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	56	352	260	161	659	46	292	360	182	54	399	60
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	619	276	170	797	355	425	710	602	246	522	443
Arrive On Green	0.04	0.17	0.17	0.09	0.22	0.22	0.23	0.37	0.37	0.14	0.28	0.28
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	56	352	260	161	659	46	292	360	182	54	399	60
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.4	7.2	7.4	7.1	13.9	1.2	11.8	11.7	4.3	2.1	15.4	1.8
Cycle Q Clear(g_c), s	2.4	7.2	7.4	7.1	13.9	1.2	11.8	11.7	4.3	2.1	15.4	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	619	276	170	797	355	425	710	602	246	523	443
V/C Ratio(X)	0.70	0.57	0.94	0.95	0.83	0.13	0.69	0.51	0.30	0.22	0.76	0.14
Avail Cap(c_a), veh/h	113	812	362	170	925	413	425	710	602	246	523	443
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	30.4	11.0	36.1	29.7	11.6	27.9	19.4	8.0	30.8	26.6	13.4
Incr Delay (d2), s/veh	10.3	0.8	28.3	54.1	5.5	0.2	4.6	2.6	1.3	0.4	10.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.0	6.4	5.5	6.2	0.7	5.3	5.2	2.2	0.9	8.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	31.3	39.4	90.2	35.3	11.8	32.5	21.9	9.2	31.2	36.8	14.0
LnGrp LOS	D	C	D	F	D	B	C	C	A	C	D	B
Approach Vol, veh/h		668			866			834			513	
Approach Delay, s/veh		35.8			44.2			22.9			33.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.4	34.4	12.0	18.2	23.3	26.5	8.1	22.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.6	29.9	7.5	18.0	14.5	22.0	5.0	20.5				
Max Q Clear Time (g_c+I1), s	4.1	13.7	9.1	9.4	13.8	17.4	4.4	15.9				
Green Ext Time (p_c), s	0.0	2.4	0.0	2.0	0.1	1.1	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay			34.2									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 2: Cumulos Ave & State St/State Street

Existing plus Project
 Timing Plan: AM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	109	43	9	342	122	50
Future Volume (veh/h)	109	43	9	342	122	50
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	51	11	407	145	60
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	378	148	103	544	856	761
Arrive On Green	0.29	0.29	0.29	0.29	0.47	0.47
Sat Flow, veh/h	1299	510	19	1871	1810	1610
Grp Volume(v), veh/h	0	181	418	0	145	60
Grp Sat Flow(s),veh/h/ln	0	1808	1890	0	1810	1610
Q Serve(g_s), s	0.0	3.0	0.8	0.0	1.7	0.8
Cycle Q Clear(g_c), s	0.0	3.0	7.6	0.0	1.7	0.8
Prop In Lane		0.28	0.03		1.00	1.00
Lane Grp Cap(c), veh/h	0	526	646	0	856	761
V/C Ratio(X)	0.00	0.34	0.65	0.00	0.17	0.08
Avail Cap(c_a), veh/h	0	855	987	0	856	761
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.6	12.3	0.0	5.7	5.5
Incr Delay (d2), s/veh	0.0	0.4	1.1	0.0	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.0	0.0	0.8	2.3	0.0	0.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	11.0	13.4	0.0	6.2	5.7
LnGrp LOS	A	B	B	A	A	A
Approach Vol, veh/h	181			418	205	
Approach Delay, s/veh	11.0			13.4	6.0	
Approach LOS	B			B	A	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		22.5		15.6		15.6
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		3.7		5.0		9.6
Green Ext Time (p_c), s		0.5		0.7		1.5
Intersection Summary						
HCM 6th Ctrl Delay			11.0			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	4.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	13	26	22	5	14
Future Vol, veh/h	52	13	26	22	5	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	83	21	41	35	8	22



















Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	97	59	0	0	76
Stage 1	59	-	-	-	-
Stage 2	38	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	907	1012	-	-	1536
Stage 1	969	-	-	-	-
Stage 2	990	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	902	1012	-	-	1536
Mov Cap-2 Maneuver	902	-	-	-	-
Stage 1	969	-	-	-	-
Stage 2	985	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	922	1536
HCM Lane V/C Ratio	-	-	0.112	0.005
HCM Control Delay (s)	-	-	9.4	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th Signalized Intersection Summary
4: Ramona Ave & Dale St

Existing plus Project
Timing Plan: AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	13	24	0	32	42	737	103	72	576	47
Future Volume (veh/h)	13	0	13	24	0	32	42	737	103	72	576	47
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	15	0	15	27	0	36	48	838	117	82	655	53
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	9	67	189	2	74	579	1548	216	508	1726	140
Arrive On Green	0.08	0.00	0.08	0.08	0.00	0.08	0.05	0.49	0.49	0.08	0.51	0.51
Sat Flow, veh/h	711	108	819	651	27	904	1810	3181	444	1810	3382	273
Grp Volume(v), veh/h	30	0	0	63	0	0	48	476	479	82	349	359
Grp Sat Flow(s),veh/h/ln	1639	0	0	1582	0	0	1810	1805	1820	1810	1805	1851
Q Serve(g_s), s	0.0	0.0	0.0	0.8	0.0	0.0	0.5	7.0	7.0	0.8	4.5	4.5
Cycle Q Clear(g_c), s	0.6	0.0	0.0	1.4	0.0	0.0	0.5	7.0	7.0	0.8	4.5	4.5
Prop In Lane	0.50		0.50	0.43		0.57	1.00		0.24	1.00		0.15
Lane Grp Cap(c), veh/h	277	0	0	265	0	0	579	878	886	508	921	945
V/C Ratio(X)	0.11	0.00	0.00	0.24	0.00	0.00	0.08	0.54	0.54	0.16	0.38	0.38
Avail Cap(c_a), veh/h	861	0	0	861	0	0	723	878	886	608	921	945
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(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	16.6	0.0	0.0	4.3	6.8	6.8	4.6	5.7	5.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.0	0.0	0.1	2.4	2.4	0.1	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.5	0.0	0.0	0.1	1.9	1.9	0.1	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.5	0.0	0.0	17.1	0.0	0.0	4.4	9.2	9.2	4.7	6.8	6.8
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		30			63			1003			790	
Approach Delay, s/veh		16.5			17.1			9.0			6.6	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	23.0		7.6	6.5	23.9		7.6				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	2.8	9.0		2.6	2.5	6.5		3.4				
Green Ext Time (p_c), s	0.0	4.0		0.1	0.0	3.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				8.4								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	616	9	21	1358	30	12	0	8	26	0	33
Future Vol, veh/h	31	616	9	21	1358	30	12	0	8	26	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	150	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	34	677	10	23	1492	33	13	0	9	29	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1525	0	0	687	0	0	1537	2316	339	1945	2293	746
Stage 1	-	-	-	-	-	-	745	745	-	1538	1538	-
Stage 2	-	-	-	-	-	-	792	1571	-	407	755	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	443	-	-	916	-	-	81	38	663	40	40	360
Stage 1	-	-	-	-	-	-	377	424	-	123	179	-
Stage 2	-	-	-	-	-	-	353	173	-	597	420	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	443	-	-	916	-	-	67	34	663	36	36	360
Mov Cap-2 Maneuver	-	-	-	-	-	-	67	34	-	36	36	-
Stage 1	-	-	-	-	-	-	348	391	-	114	175	-
Stage 2	-	-	-	-	-	-	309	169	-	544	388	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			0.1			48.1			176.7		
HCM LOS							E			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	105	443	-	-	916	-	-	72
HCM Lane V/C Ratio	0.209	0.077	-	-	0.025	-	-	0.9
HCM Control Delay (s)	48.1	13.8	-	-	9	-	-	176.7
HCM Lane LOS	E	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0.1	-	-	4.5

HCM 6th Signalized Intersection Summary
6: Ramona Ave & Mission Blvd

Existing plus Project
Timing Plan: AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	483	59	60	1128	175	170	528	164	149	297	147
Future Volume (veh/h)	175	483	59	60	1128	175	170	528	164	149	297	147
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	192	531	65	66	1240	192	187	580	180	164	326	162
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	1830	221	86	1413	219	223	943	420	198	582	283
Arrive On Green	0.13	0.39	0.39	0.05	0.31	0.31	0.12	0.26	0.26	0.11	0.25	0.25
Sat Flow, veh/h	1810	4690	566	1810	4530	701	1810	3610	1610	1810	2353	1145
Grp Volume(v), veh/h	192	390	206	66	946	486	187	580	180	164	248	240
Grp Sat Flow(s),veh/h/ln	1810	1729	1798	1810	1729	1774	1810	1805	1610	1810	1805	1694
Q Serve(g_s), s	9.7	7.3	7.4	3.4	24.3	24.3	9.5	13.3	7.0	8.3	11.3	11.6
Cycle Q Clear(g_c), s	9.7	7.3	7.4	3.4	24.3	24.3	9.5	13.3	7.0	8.3	11.3	11.6
Prop In Lane	1.00		0.31	1.00		0.40	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	227	1349	702	86	1079	553	223	943	420	198	446	419
V/C Ratio(X)	0.84	0.29	0.29	0.77	0.88	0.88	0.84	0.62	0.43	0.83	0.56	0.57
Avail Cap(c_a), veh/h	280	1349	702	176	1124	577	299	943	420	241	446	419
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	19.7	19.7	44.2	30.6	30.6	40.2	30.5	18.7	40.9	30.8	31.0
Incr Delay (d2), s/veh	17.5	0.1	0.2	13.4	7.9	14.0	14.4	3.0	3.2	17.8	4.9	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	2.7	2.9	1.8	10.5	11.8	5.0	5.9	3.5	4.6	5.3	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	19.8	19.9	57.6	38.4	44.6	54.6	33.5	21.9	58.7	35.8	36.5
LnGrp LOS	E	B	B	E	D	D	D	C	C	E	D	D
Approach Vol, veh/h		788			1498			947			652	
Approach Delay, s/veh		29.0			41.3			35.5			41.8	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.8	29.0	8.9	41.1	16.1	27.7	16.3	33.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	24.5	9.1	35.9	15.5	21.5	14.5	30.5				
Max Q Clear Time (g_c+I1), s	10.3	15.3	5.4	9.4	11.5	13.6	11.7	26.3				
Green Ext Time (p_c), s	0.1	2.9	0.0	3.6	0.2	1.7	0.1	2.9				
Intersection Summary												
HCM 6th Ctrl Delay											37.5	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary
7: Monte Vista Ave & Mission Blvd

Existing plus Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	583	65	98	1234	403	109	329	113	173	165	62
Future Volume (veh/h)	115	583	65	98	1234	403	109	329	113	173	165	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	125	634	71	107	1341	438	118	358	123	188	179	67
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	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	155	1454	649	136	1416	632	263	583	197	221	512	185
Arrive On Green	0.09	0.40	0.40	0.07	0.39	0.39	0.15	0.22	0.22	0.12	0.20	0.20
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	2648	896	1810	2597	939
Grp Volume(v), veh/h	125	634	71	107	1341	438	118	242	239	188	122	124
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1805	1739	1810	1805	1731
Q Serve(g_s), s	6.8	12.7	1.7	5.8	35.9	14.8	6.0	12.1	12.4	10.2	5.8	6.2
Cycle Q Clear(g_c), s	6.8	12.7	1.7	5.8	35.9	14.8	6.0	12.1	12.4	10.2	5.8	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.54
Lane Grp Cap(c), veh/h	155	1454	649	136	1416	632	263	397	383	221	356	341
V/C Ratio(X)	0.81	0.44	0.11	0.79	0.95	0.69	0.45	0.61	0.62	0.85	0.34	0.36
Avail Cap(c_a), veh/h	181	1454	649	224	1426	636	263	397	383	255	356	341
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(l)	1.00	1.00	1.00	0.36	0.36	0.36	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	21.6	6.9	45.5	29.4	10.8	39.1	35.1	35.2	43.0	34.6	34.7
Incr Delay (d2), s/veh	20.5	0.2	0.1	3.7	5.9	1.2	1.2	6.8	7.4	20.9	2.6	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	5.1	1.0	2.7	15.4	4.7	2.7	5.9	5.9	5.7	2.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	21.8	6.9	49.2	35.3	11.9	40.3	41.9	42.7	63.9	37.2	37.7
LnGrp LOS	E	C	A	D	D	B	D	D	D	E	D	D
Approach Vol, veh/h		830			1886			599			434	
Approach Delay, s/veh		27.1			30.7			41.9			48.9	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	26.5	12.0	44.8	19.0	24.2	13.0	43.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	18.4	18.4	12.4	37.1	12.8	19.7	10.0	39.5				
Max Q Clear Time (g_c+1/2), s	14.4	14.4	7.8	14.7	8.0	8.2	8.8	37.9				
Green Ext Time (p_c), s	0.1	1.0	0.1	4.2	0.1	0.9	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay											33.8	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
8: Central Ave & Mission Blvd

Existing plus Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑		↔↔	↑↑	
Traffic Volume (veh/h)	217	526	94	149	781	312	219	835	99	146	705	109
Future Volume (veh/h)	217	526	94	149	781	312	219	835	99	146	705	109
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	236	572	102	162	849	339	238	908	108	159	766	118
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	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	291	988	441	248	944	421	286	1069	127	244	994	153
Arrive On Green	0.08	0.27	0.27	0.07	0.26	0.26	0.08	0.33	0.33	0.07	0.32	0.32
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3249	386	3510	3135	483
Grp Volume(v), veh/h	236	572	102	162	849	339	238	504	512	159	441	443
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1830	1755	1805	1813
Q Serve(g_s), s	4.6	9.6	3.4	3.1	15.9	13.8	4.7	18.2	18.2	3.1	15.5	15.5
Cycle Q Clear(g_c), s	4.6	9.6	3.4	3.1	15.9	13.8	4.7	18.2	18.2	3.1	15.5	15.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.27
Lane Grp Cap(c), veh/h	291	988	441	248	944	421	286	594	603	244	572	575
V/C Ratio(X)	0.81	0.58	0.23	0.65	0.90	0.81	0.83	0.85	0.85	0.65	0.77	0.77
Avail Cap(c_a), veh/h	291	988	441	271	954	426	286	594	603	256	572	575
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)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	21.9	19.7	31.7	25.0	24.2	31.7	21.9	21.9	31.7	21.6	21.6
Incr Delay (d2), s/veh	13.4	0.7	0.2	4.9	11.3	10.7	18.5	14.1	13.9	5.5	9.6	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.7	1.2	1.4	7.5	5.9	2.6	9.0	9.1	1.4	7.2	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	22.6	19.9	36.6	36.3	34.9	50.2	36.0	35.8	37.2	31.2	31.2
LnGrp LOS	D	C	B	D	D	C	D	D	D	D	C	C
Approach Vol, veh/h		910			1350			1254			1043	
Approach Delay, s/veh		28.1			36.0			38.6			32.1	
Approach LOS		C			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	27.5	9.4	23.7	10.2	26.7	10.3	22.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	22.6	5.4	18.9	5.7	22.0	5.8	18.5				
Max Q Clear Time (g_c+1/3), s	15.5	20.2	5.1	11.6	6.7	17.5	6.6	17.9				
Green Ext Time (p_c), s	0.0	1.4	0.0	2.2	0.0	2.1	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay											34.3	
HCM 6th LOS											C	

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	132	0	25	389	0	6
Future Vol, veh/h	132	0	25	389	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	143	0	27	423	0	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	143	0	620
Stage 1	-	-	-	-	143
Stage 2	-	-	-	-	477
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1452	-	455
Stage 1	-	-	-	-	889
Stage 2	-	-	-	-	629
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1452	-	444
Mov Cap-2 Maneuver	-	-	-	-	444
Stage 1	-	-	-	-	889
Stage 2	-	-	-	-	614

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	910	-	-	1452	-
HCM Lane V/C Ratio	0.007	-	-	0.019	-
HCM Control Delay (s)	9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	138	0	50	414	0	13
Future Vol, veh/h	138	0	50	414	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	150	0	54	450	0	14

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	150	708
Stage 1	-	-	-	150
Stage 2	-	-	-	558
Critical Hdwy	-	-	4.1	6.4
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	3.5
Pot Cap-1 Maneuver	-	-	1444	404
Stage 1	-	-	-	883
Stage 2	-	-	-	577
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1444	384
Mov Cap-2 Maneuver	-	-	-	384
Stage 1	-	-	-	883
Stage 2	-	-	-	548

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	902	-	-	1444	-
HCM Lane V/C Ratio	0.016	-	-	0.038	-
HCM Control Delay (s)	9.1	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	717	1432	4	0	0
Future Vol, veh/h	0	717	1432	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	779	1557	4	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	717	1434	13	0	1
Future Vol, veh/h	0	717	1434	13	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	779	1559	14	0	1

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	291
HCM Lane V/C Ratio	-	-	-	0.004
HCM Control Delay (s)	-	-	-	17.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	0	0	882	592	8
Future Vol, veh/h	0	0	0	882	592	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	959	643	9




























Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	326	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	676	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	676	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

HCM 6th Signalized Intersection Summary
1: Ramona Ave & Holt Ave/Holt Blvd

Existing plus Project
Timing Plan: PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Traffic Volume (veh/h)	107	703	238	102	437	56	273	375	210	58	259	57
Future Volume (veh/h)	107	703	238	102	437	56	273	375	210	58	259	57
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	123	808	274	117	502	64	314	431	241	67	298	66
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	904	403	147	886	395	328	750	636	88	498	422
Arrive On Green	0.09	0.25	0.25	0.08	0.25	0.25	0.18	0.39	0.39	0.05	0.26	0.26
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	123	808	274	117	502	64	314	431	241	67	298	66
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	5.3	17.3	12.3	5.1	9.7	2.5	13.8	14.2	8.5	2.9	11.0	2.5
Cycle Q Clear(g_c), s	5.3	17.3	12.3	5.1	9.7	2.5	13.8	14.2	8.5	2.9	11.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	904	403	147	886	395	328	750	636	88	498	422
V/C Ratio(X)	0.79	0.89	0.68	0.80	0.57	0.16	0.96	0.57	0.38	0.77	0.60	0.16
Avail Cap(c_a), veh/h	192	925	413	147	886	395	328	750	636	118	498	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	29.0	27.1	36.1	26.4	23.7	32.4	18.9	17.2	37.6	25.8	22.7
Incr Delay (d2), s/veh	16.2	11.0	4.4	25.4	0.8	0.2	38.4	3.2	1.7	18.5	5.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	8.2	4.8	3.1	4.0	0.9	9.1	6.3	3.1	1.7	5.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	39.9	31.4	61.5	27.3	23.9	70.8	22.1	18.9	56.1	31.1	23.5
LnGrp LOS	D	D	C	E	C	C	E	C	B	E	C	C
Approach Vol, veh/h		1205			683			986			431	
Approach Delay, s/veh		39.2			32.8			36.8			33.8	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	36.1	11.0	24.5	19.0	25.5	11.4	24.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.2	29.8	6.5	20.5	14.5	20.5	8.5	18.5				
Max Q Clear Time (g_c+I1), s	4.9	16.2	7.1	19.3	15.8	13.0	7.3	11.7				
Green Ext Time (p_c), s	0.0	2.8	0.0	0.7	0.0	1.1	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			36.5									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
2: Cumulos Ave & State St/State Street

Existing plus Project
Timing Plan: PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	354	164	54	94	46	15
Future Volume (veh/h)	354	164	54	94	46	15
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	407	189	62	108	53	17
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	474	220	150	215	740	659
Arrive On Green	0.39	0.39	0.39	0.39	0.41	0.41
Sat Flow, veh/h	1227	570	100	556	1810	1610
Grp Volume(v), veh/h	0	596	170	0	53	17
Grp Sat Flow(s),veh/h/ln	0	1797	656	0	1810	1610
Q Serve(g_s), s	0.0	13.4	1.5	0.0	0.8	0.3
Cycle Q Clear(g_c), s	0.0	13.4	14.9	0.0	0.8	0.3
Prop In Lane		0.32	0.36		1.00	1.00
Lane Grp Cap(c), veh/h	0	694	365	0	740	659
V/C Ratio(X)	0.00	0.86	0.47	0.00	0.07	0.03
Avail Cap(c_a), veh/h	0	735	395	0	740	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	12.4	10.4	0.0	7.9	7.8
Incr Delay (d2), s/veh	0.0	9.6	0.9	0.0	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/lr0.0	0.0	5.4	0.8	0.0	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	22.0	11.3	0.0	8.1	7.8
LnGrp LOS	A	C	B	A	A	A
Approach Vol, veh/h	596			170	70	
Approach Delay, s/veh	22.0			11.3	8.0	
Approach LOS	C			B	A	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		22.5		21.5		21.5
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.8		15.4		16.9
Green Ext Time (p_c), s		0.1		0.9		0.1
Intersection Summary						
HCM 6th Ctrl Delay			18.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	9	14	16	4	26
Future Vol, veh/h	22	9	14	16	4	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	28	11	18	20	5	33

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	71	28	0	0	38
Stage 1	28	-	-	-	-
Stage 2	43	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	938	1053	-	-	1585
Stage 1	1000	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	935	1053	-	-	1585
Mov Cap-2 Maneuver	935	-	-	-	-
Stage 1	1000	-	-	-	-
Stage 2	982	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	966	1585
HCM Lane V/C Ratio	-	-	0.041	0.003
HCM Control Delay (s)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary
4: Ramona Ave & Dale St

Existing plus Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Volume (veh/h)	51	0	50	107	0	123	13	696	34	35	616	16
Future Volume (veh/h)	51	0	50	107	0	123	13	696	34	35	616	16
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	0	53	114	0	131	14	740	36	37	655	17
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	265	39	174	254	22	176	461	1515	74	441	1639	43
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.21	0.02	0.43	0.43	0.04	0.46	0.46
Sat Flow, veh/h	656	184	824	622	106	836	1810	3504	170	1810	3595	93
Grp Volume(v), veh/h	107	0	0	245	0	0	14	381	395	37	329	343
Grp Sat Flow(s),veh/h/ln	1663	0	0	1563	0	0	1810	1805	1869	1810	1805	1883
Q Serve(g_s), s	0.0	0.0	0.0	3.9	0.0	0.0	0.2	6.5	6.5	0.5	5.2	5.2
Cycle Q Clear(g_c), s	2.2	0.0	0.0	6.1	0.0	0.0	0.2	6.5	6.5	0.5	5.2	5.2
Prop In Lane	0.50		0.50	0.47		0.53	1.00		0.09	1.00		0.05
Lane Grp Cap(c), veh/h	477	0	0	453	0	0	461	780	808	441	823	859
V/C Ratio(X)	0.22	0.00	0.00	0.54	0.00	0.00	0.03	0.49	0.49	0.08	0.40	0.40
Avail Cap(c_a), veh/h	776	0	0	765	0	0	640	780	808	578	823	859
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(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	0.0	15.6	0.0	0.0	6.7	8.7	8.7	6.6	7.7	7.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.0	0.0	0.0	0.0	2.2	2.1	0.1	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	2.1	0.0	0.0	0.0	2.1	2.2	0.1	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	0.0	16.6	0.0	0.0	6.8	10.9	10.9	6.6	9.2	9.1
LnGrp LOS	B	A	A	B	A	A	A	B	B	A	A	A
Approach Vol, veh/h		107			245			790			709	
Approach Delay, s/veh		14.4			16.6			10.8			9.0	
Approach LOS		B			B			B			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	23.0		13.5	5.3	24.0		13.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	2.5	8.5		4.2	2.2	7.2		8.1				
Green Ext Time (p_c), s	0.0	3.2		0.4	0.0	2.9		1.0				

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	1190	13	31	750	28	8	0	13	23	0	24
Future Vol, veh/h	19	1190	13	31	750	28	8	0	13	23	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	150	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	1227	13	32	773	29	8	0	13	24	0	25



























Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	802	0	0	1240	0	0	1718	2133	614	1491	2117	387
Stage 1	-	-	-	-	-	-	1267	1267	-	837	837	-
Stage 2	-	-	-	-	-	-	451	866	-	654	1280	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	830	-	-	569	-	-	59	50	440	87	51	617
Stage 1	-	-	-	-	-	-	182	242	-	332	385	-
Stage 2	-	-	-	-	-	-	563	373	-	427	239	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	830	-	-	569	-	-	53	46	440	79	47	617
Mov Cap-2 Maneuver	-	-	-	-	-	-	53	46	-	79	47	-
Stage 1	-	-	-	-	-	-	178	236	-	324	363	-
Stage 2	-	-	-	-	-	-	510	352	-	404	233	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			43			42.9		
HCM LOS							E			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	116	830	-	-	569	-	-	142
HCM Lane V/C Ratio	0.187	0.024	-	-	0.056	-	-	0.341
HCM Control Delay (s)	43	9.4	-	-	11.7	-	-	42.9
HCM Lane LOS	E	A	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.2	-	-	1.4

HCM 6th Signalized Intersection Summary
6: Ramona Ave & Mission Blvd

Existing plus Project
Timing Plan: PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (veh/h)	211	977	97	126	568	149	105	408	78	188	434	165
Future Volume (veh/h)	211	977	97	126	568	149	105	408	78	188	434	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	220	1018	101	131	592	155	109	425	81	196	452	172
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	311	1339	133	167	820	210	140	1010	451	237	854	322
Arrive On Green	0.17	0.28	0.28	0.09	0.20	0.20	0.08	0.28	0.28	0.13	0.33	0.33
Sat Flow, veh/h	1810	4797	475	1810	4113	1055	1810	3610	1610	1810	2563	967
Grp Volume(v), veh/h	220	733	386	131	496	251	109	425	81	196	317	307
Grp Sat Flow(s),veh/h/ln	1810	1729	1814	1810	1729	1710	1810	1805	1610	1810	1805	1726
Q Serve(g_s), s	9.5	16.0	16.1	5.8	11.1	11.4	4.9	7.9	2.3	8.7	11.7	11.9
Cycle Q Clear(g_c), s	9.5	16.0	16.1	5.8	11.1	11.4	4.9	7.9	2.3	8.7	11.7	11.9
Prop In Lane	1.00		0.26	1.00		0.62	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	311	965	507	167	689	341	140	1010	451	237	601	575
V/C Ratio(X)	0.71	0.76	0.76	0.79	0.72	0.74	0.78	0.42	0.18	0.83	0.53	0.53
Avail Cap(c_a), veh/h	454	1211	635	322	959	474	274	1010	451	335	601	575
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	27.2	27.2	36.7	30.9	31.0	37.4	24.3	11.7	35.0	22.3	22.3
Incr Delay (d2), s/veh	2.9	2.2	4.2	7.9	1.6	3.8	8.8	1.3	0.9	11.1	3.3	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	6.3	6.9	2.8	4.4	4.7	2.4	3.4	1.2	4.4	5.1	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	29.4	31.4	44.6	32.5	34.8	46.2	25.6	12.6	46.1	25.6	25.9
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h		1339			878			615			820	
Approach Delay, s/veh		30.9			35.0			27.5			30.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.3	27.6	12.1	27.5	10.9	32.0	18.7	21.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.3	23.1	14.7	28.9	12.5	25.9	20.7	22.9				
Max Q Clear Time (g_c+I1), s	10.7	9.9	7.8	18.1	6.9	13.9	11.5	13.4				
Green Ext Time (p_c), s	0.2	2.3	0.2	5.0	0.1	2.9	0.4	3.1				
Intersection Summary												
HCM 6th Ctrl Delay				31.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 7: Monte Vista Ave & Mission Blvd

Existing plus Project
 Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	1016	125	103	677	154	43	302	105	359	390	108
Future Volume (veh/h)	107	1016	125	103	677	154	43	302	105	359	390	108
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	113	1069	132	108	713	162	45	318	111	378	411	114
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	280	1153	514	136	865	386	364	673	231	527	1091	300
Arrive On Green	0.15	0.32	0.32	0.08	0.24	0.24	0.04	0.26	0.26	0.17	0.39	0.39
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	2638	904	1810	2798	768
Grp Volume(v), veh/h	113	1069	132	108	713	162	45	216	213	378	264	261
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1805	1737	1810	1805	1762
Q Serve(g_s), s	5.6	28.6	5.0	5.9	18.7	5.6	1.8	10.1	10.4	14.6	10.4	10.6
Cycle Q Clear(g_c), s	5.6	28.6	5.0	5.9	18.7	5.6	1.8	10.1	10.4	14.6	10.4	10.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.44
Lane Grp Cap(c), veh/h	280	1153	514	136	865	386	364	461	443	527	704	687
V/C Ratio(X)	0.40	0.93	0.26	0.79	0.82	0.42	0.12	0.47	0.48	0.72	0.37	0.38
Avail Cap(c_a), veh/h	280	1177	525	172	1061	473	392	461	443	576	704	687
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(l)	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	32.9	16.8	45.5	36.0	13.9	25.8	31.5	31.6	20.7	21.8	21.9
Incr Delay (d2), s/veh	0.9	12.3	0.3	14.6	3.6	0.6	0.2	3.4	3.7	3.9	1.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	13.6	2.2	3.1	8.2	3.1	0.8	4.7	4.7	6.3	4.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	45.2	17.0	60.1	39.6	14.5	25.9	34.9	35.3	24.6	23.3	23.5
LnGrp LOS	D	D	B	E	D	B	C	C	D	C	C	C
Approach Vol, veh/h		1314			983			474			903	
Approach Delay, s/veh		41.9			37.7			34.2			23.9	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.5	30.0	12.0	36.4	8.1	43.5	20.0	28.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	19.7	20.2	9.5	32.6	5.1	34.8	12.7	29.4				
Max Q Clear Time (g_c+110), s	110.6	12.4	7.9	30.6	3.8	12.6	7.6	20.7				
Green Ext Time (p_c), s	0.4	1.4	0.0	1.3	0.0	2.9	0.1	3.2				

Intersection Summary

HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
8: Central Ave & Mission Blvd

Existing plus Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑		↖↗	↑↑	
Traffic Volume (veh/h)	208	975	178	182	531	301	129	915	128	261	952	148
Future Volume (veh/h)	208	975	178	182	531	301	129	915	128	261	952	148
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	217	1016	185	190	553	314	134	953	133	272	992	154
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	291	1077	480	238	1023	456	199	1080	151	332	1181	183
Arrive On Green	0.08	0.30	0.30	0.07	0.28	0.28	0.06	0.34	0.34	0.09	0.38	0.38
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3181	444	3510	3132	486
Grp Volume(v), veh/h	217	1016	185	190	553	314	134	541	545	272	571	575
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1820	1755	1805	1813
Q Serve(g_s), s	5.4	24.7	8.2	4.8	11.7	15.6	3.4	25.4	25.4	6.8	26.0	26.0
Cycle Q Clear(g_c), s	5.4	24.7	8.2	4.8	11.7	15.6	3.4	25.4	25.4	6.8	26.0	26.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.27
Lane Grp Cap(c), veh/h	291	1077	480	238	1023	456	199	613	618	332	681	684
V/C Ratio(X)	0.75	0.94	0.39	0.80	0.54	0.69	0.67	0.88	0.88	0.82	0.84	0.84
Avail Cap(c_a), veh/h	316	1079	481	238	1023	456	199	613	618	332	681	684
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)	0.34	0.34	0.34	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	30.8	25.0	41.3	27.3	28.7	41.6	28.0	28.0	40.0	25.5	25.6
Incr Delay (d2), s/veh	3.1	6.8	0.2	17.2	0.6	4.3	8.6	16.7	16.7	15.0	11.9	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	10.9	2.9	2.6	4.8	6.1	1.6	12.8	12.9	3.5	12.3	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	37.6	25.2	58.6	27.9	33.0	50.2	44.8	44.7	55.0	37.4	37.5
LnGrp LOS	D	D	C	E	C	C	D	D	D	E	D	D
Approach Vol, veh/h		1418			1057			1220			1418	
Approach Delay, s/veh		36.9			34.9			45.3			40.8	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	3.0	35.0	10.6	31.4	9.6	38.4	12.0	30.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	3.5	30.5	6.1	26.9	5.1	33.9	8.1	24.9				
Max Q Clear Time (g_c+1/3), s	1.5	27.4	6.8	26.7	5.4	28.0	7.4	17.6				
Green Ext Time (p_c), s	0.0	1.8	0.0	0.1	0.0	3.3	0.0	2.6				
Intersection Summary												
HCM 6th Ctrl Delay											39.6	
HCM 6th LOS											D	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	443	0	7	119	0	25
Future Vol, veh/h	443	0	7	119	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	482	0	8	129	0	27

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	482	0	627
Stage 1	-	-	-	-	482
Stage 2	-	-	-	-	145
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1091	-	451
Stage 1	-	-	-	-	625
Stage 2	-	-	-	-	887
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1091	-	447
Mov Cap-2 Maneuver	-	-	-	-	447
Stage 1	-	-	-	-	625
Stage 2	-	-	-	-	880

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	588	-	-	1091	-
HCM Lane V/C Ratio	0.046	-	-	0.007	-
HCM Control Delay (s)	11.4	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	468	0	15	126	0	50
Future Vol, veh/h	468	0	15	126	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	509	0	16	137	0	54

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	509	0	678
Stage 1	-	-	-	-	509
Stage 2	-	-	-	-	169
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1066	-	421
Stage 1	-	-	-	-	608
Stage 2	-	-	-	-	866
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1066	-	414
Mov Cap-2 Maneuver	-	-	-	-	414
Stage 1	-	-	-	-	608
Stage 2	-	-	-	-	852

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	568	-	-	1066	-
HCM Lane V/C Ratio	0.096	-	-	0.015	-
HCM Control Delay (s)	12	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	1284	839	1	0	2
Future Vol, veh/h	0	1284	839	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1396	912	1	0	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	475
HCM Lane V/C Ratio	-	-	-	0.005
HCM Control Delay (s)	-	-	-	12.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	1284	834	4	0	6
Future Vol, veh/h	0	1284	834	4	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1396	907	4	0	7

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	476
HCM Lane V/C Ratio	-	-	-	0.014
HCM Control Delay (s)	-	-	-	12.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	4	0	744	787	2
Future Vol, veh/h	0	4	0	744	787	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	4	0	809	855	2

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	429	-	0	0
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	580	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	580	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	580	-	-
HCM Lane V/C Ratio	-	0.007	-	-
HCM Control Delay (s)	-	11.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

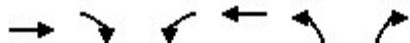
HCM 6th Signalized Intersection Summary
 1: Ramona Ave & Holt Ave/Holt Blvd

Opening Year 2024
 Timing Plan: AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	357	191	120	621	45	252	321	154	55	353	54
Future Volume (veh/h)	50	357	191	120	621	45	252	321	154	55	353	54
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	57	410	220	138	714	52	290	369	177	63	406	62
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	663	296	170	839	374	426	703	596	231	499	423
Arrive On Green	0.04	0.18	0.18	0.09	0.23	0.23	0.24	0.37	0.37	0.13	0.26	0.26
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	57	410	220	138	714	52	290	369	177	63	406	62
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.5	8.4	5.9	6.0	15.1	1.4	11.7	12.1	4.2	2.5	16.0	1.9
Cycle Q Clear(g_c), s	2.5	8.4	5.9	6.0	15.1	1.4	11.7	12.1	4.2	2.5	16.0	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	663	296	170	839	374	426	703	596	231	499	423
V/C Ratio(X)	0.70	0.62	0.74	0.81	0.85	0.14	0.68	0.52	0.30	0.27	0.81	0.15
Avail Cap(c_a), veh/h	113	812	362	170	925	413	426	703	596	231	499	423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	30.1	10.2	35.6	29.4	11.5	27.9	19.7	8.1	31.5	27.7	14.0
Incr Delay (d2), s/veh	10.7	1.0	6.4	25.2	7.1	0.2	4.4	2.8	1.3	0.6	13.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.5	4.0	3.7	6.8	0.7	5.2	5.4	2.2	1.1	8.7	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	31.1	16.6	60.7	36.5	11.7	32.3	22.5	9.3	32.2	41.3	14.7
LnGrp LOS	D	C	B	E	D	B	C	C	A	C	D	B
Approach Vol, veh/h		687			904			836			531	
Approach Delay, s/veh		27.9			38.8			23.1			37.1	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	34.1	12.0	19.2	23.3	25.5	8.1	23.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.9	29.6	7.5	18.0	15.5	21.0	5.0	20.5				
Max Q Clear Time (g_c+I1), s	4.5	14.1	8.0	10.4	13.7	18.0	4.5	17.1				
Green Ext Time (p_c), s	0.0	2.4	0.0	2.0	0.2	0.8	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			31.5									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 2: Cumulos Ave & State St/State Street

Opening Year 2024
 Timing Plan: AM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	112	24	9	352	48	51
Future Volume (veh/h)	112	24	9	352	48	51
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	133	29	11	419	57	61
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	448	98	102	555	849	755
Arrive On Green	0.30	0.30	0.30	0.30	0.47	0.47
Sat Flow, veh/h	1511	330	18	1872	1810	1610
Grp Volume(v), veh/h	0	162	430	0	57	61
Grp Sat Flow(s),veh/h/ln	0	1841	1890	0	1810	1610
Q Serve(g_s), s	0.0	2.6	0.8	0.0	0.7	0.8
Cycle Q Clear(g_c), s	0.0	2.6	7.9	0.0	0.7	0.8
Prop In Lane		0.18	0.03		1.00	1.00
Lane Grp Cap(c), veh/h	0	545	656	0	849	755
V/C Ratio(X)	0.00	0.30	0.66	0.00	0.07	0.08
Avail Cap(c_a), veh/h	0	864	980	0	849	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.4	12.3	0.0	5.6	5.6
Incr Delay (d2), s/veh	0.0	0.3	1.1	0.0	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	0.0	0.7	2.4	0.0	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	10.7	13.4	0.0	5.7	5.8
LnGrp LOS	A	B	B	A	A	A
Approach Vol, veh/h	162			430	118	
Approach Delay, s/veh	10.7			13.4	5.8	
Approach LOS	B			B	A	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		22.5		15.9		15.9
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.8		4.6		9.9
Green Ext Time (p_c), s		0.3		0.6		1.5
Intersection Summary						
HCM 6th Ctrl Delay			11.5			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	14	26	19	5	15
Future Vol, veh/h	53	14	26	19	5	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	84	22	41	30	8	24

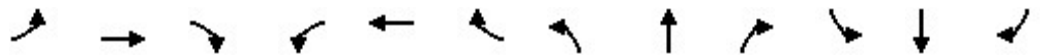
Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	96	56	0	0	71
Stage 1	56	-	-	-	-
Stage 2	40	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	908	1016	-	-	1542
Stage 1	972	-	-	-	-
Stage 2	988	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	903	1016	-	-	1542
Mov Cap-2 Maneuver	903	-	-	-	-
Stage 1	972	-	-	-	-
Stage 2	983	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	924	1542
HCM Lane V/C Ratio	-	-	0.115	0.005
HCM Control Delay (s)	-	-	9.4	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th Signalized Intersection Summary
 4: Ramona Ave & Dale St

Opening Year 2024
 Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (veh/h)	0	0	0	14	0	24	0	768	64	40	597	1
Future Volume (veh/h)	0	0	0	14	0	24	0	768	64	40	597	1
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	0	16	0	27	0	873	73	45	678	1
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	92	0	167	0	47	610	1756	147	507	2581	4
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.05	0.00	0.52	0.52	0.05	0.70	0.70
Sat Flow, veh/h	0	1900	0	574	0	968	1810	3372	282	1810	3699	5
Grp Volume(v), veh/h	0	0	0	43	0	0	0	467	479	45	331	348
Grp Sat Flow(s),veh/h/ln	0	1900	0	1542	0	0	1810	1805	1849	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	0.0	0.0	5.9	5.9	0.3	2.4	2.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.0	0.0	0.0	0.0	5.9	5.9	0.3	2.4	2.4
Prop In Lane	0.00		0.00	0.37		0.63	1.00		0.15	1.00		0.00
Lane Grp Cap(c), veh/h	0	92	0	214	0	0	610	940	963	507	1260	1325
V/C Ratio(X)	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.50	0.50	0.09	0.26	0.26
Avail Cap(c_a), veh/h	0	963	0	921	0	0	860	940	963	670	1260	1325
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(l)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	16.5	0.0	0.0	0.0	5.5	5.5	3.5	2.0	2.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.9	1.8	0.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.4	1.4	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	17.0	0.0	0.0	0.0	7.4	7.3	3.6	2.5	2.5
LnGrp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			43			946			724	
Approach Delay, s/veh		0.0			17.0			7.4			2.5	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	23.0		6.2	0.0	29.3		6.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	2.3	7.9		0.0	0.0	4.4		3.0				
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	3.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	5.6
HCM 6th LOS	A

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↔			↔	
Traffic Vol, veh/h	28	640	9	22	1420	31	13	0	8	26	0	33
Future Vol, veh/h	28	640	9	22	1420	31	13	0	8	26	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	150	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	31	703	10	24	1560	34	14	0	9	29	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1594	0	0	713	0	0	1593	2407	352	2022	2383	780
Stage 1	-	-	-	-	-	-	765	765	-	1608	1608	-
Stage 2	-	-	-	-	-	-	828	1642	-	414	775	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	417	-	-	896	-	-	73	34	650	35	35	342
Stage 1	-	-	-	-	-	-	366	415	-	112	166	-
Stage 2	-	-	-	-	-	-	336	159	-	592	411	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	417	-	-	896	-	-	60	31	650	32	32	342
Mov Cap-2 Maneuver	-	-	-	-	-	-	60	31	-	32	32	-
Stage 1	-	-	-	-	-	-	339	384	-	104	162	-
Stage 2	-	-	-	-	-	-	292	155	-	541	381	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.1			56.8			217.5		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	92	417	-	-	896	-	-	65
HCM Lane V/C Ratio	0.251	0.074	-	-	0.027	-	-	0.997
HCM Control Delay (s)	56.8	14.3	-	-	9.1	-	-	217.5
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0.1	-	-	4.9

HCM 6th Signalized Intersection Summary
6: Ramona Ave & Mission Blvd

Opening Year 2024
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑↑		↗	↑↑↑		↗	↑↑	↗	↗	↑↑	
Traffic Volume (veh/h)	164	520	61	66	1171	121	173	544	175	139	306	152
Future Volume (veh/h)	164	520	61	66	1171	121	173	544	175	139	306	152
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	180	571	67	73	1287	133	190	598	192	153	336	167
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	216	1827	212	95	1530	158	227	933	416	188	556	271
Arrive On Green	0.12	0.39	0.39	0.05	0.32	0.32	0.13	0.26	0.26	0.10	0.24	0.24
Sat Flow, veh/h	1810	4713	546	1810	4776	494	1810	3610	1610	1810	2352	1146
Grp Volume(v), veh/h	180	417	221	73	932	488	190	598	192	153	256	247
Grp Sat Flow(s),veh/h/ln	1810	1729	1802	1810	1729	1811	1810	1805	1610	1810	1805	1694
Q Serve(g_s), s	8.8	7.6	7.8	3.6	22.8	22.8	9.3	13.4	7.3	7.5	11.5	11.8
Cycle Q Clear(g_c), s	8.8	7.6	7.8	3.6	22.8	22.8	9.3	13.4	7.3	7.5	11.5	11.8
Prop In Lane	1.00		0.30	1.00		0.27	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	216	1340	698	95	1108	580	227	933	416	188	427	401
V/C Ratio(X)	0.83	0.31	0.32	0.77	0.84	0.84	0.84	0.64	0.46	0.82	0.60	0.62
Avail Cap(c_a), veh/h	288	1388	723	189	1198	627	308	933	416	249	427	401
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	19.4	19.4	42.6	28.7	28.7	38.9	30.0	18.0	39.9	30.9	31.0
Incr Delay (d2), s/veh	14.2	0.1	0.3	12.3	5.2	9.4	13.6	3.4	3.7	14.4	6.1	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	2.8	3.0	1.9	9.5	10.6	4.8	6.0	3.6	4.0	5.5	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	19.5	19.7	54.8	34.0	38.2	52.5	33.4	21.6	54.3	37.0	38.0
LnGrp LOS	D	B	B	D	C	D	D	C	C	D	D	D
Approach Vol, veh/h		818			1493			980			656	
Approach Delay, s/veh		27.0			36.4			34.8			41.4	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.9	28.0	9.3	39.8	15.9	26.0	15.4	33.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	23.5	9.5	36.5	15.5	20.5	14.5	31.5				
Max Q Clear Time (g_c+I1), s	9.5	15.4	5.6	9.8	11.3	13.8	10.8	24.8				
Green Ext Time (p_c), s	0.1	2.8	0.0	3.9	0.2	1.6	0.1	4.3				
Intersection Summary												
HCM 6th Ctrl Delay			34.9									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 7: Monte Vista Ave & Mission Blvd

Opening Year 2024
 Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	616	67	107	1225	419	112	347	129	180	175	64
Future Volume (veh/h)	119	616	67	107	1225	419	112	347	129	180	175	64
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	129	670	73	116	1332	455	122	377	140	196	190	70
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	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	1438	641	144	1408	628	438	630	231	351	723	258
Arrive On Green	0.09	0.40	0.40	0.16	0.78	0.78	0.06	0.24	0.24	0.10	0.28	0.28
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	2587	947	1810	2608	929
Grp Volume(v), veh/h	129	670	73	116	1332	455	122	261	256	196	130	130
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1805	1729	1810	1805	1733
Q Serve(g_s), s	7.0	13.7	2.9	6.2	31.0	9.9	5.0	12.8	13.1	7.9	5.6	5.9
Cycle Q Clear(g_c), s	7.0	13.7	2.9	6.2	31.0	9.9	5.0	12.8	13.1	7.9	5.6	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.55	1.00		0.54
Lane Grp Cap(c), veh/h	159	1438	641	144	1408	628	438	439	421	351	500	480
V/C Ratio(X)	0.81	0.47	0.11	0.81	0.95	0.72	0.28	0.60	0.61	0.56	0.26	0.27
Avail Cap(c_a), veh/h	190	1438	641	233	1498	668	438	439	421	363	500	480
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	22.2	19.0	41.3	10.1	4.0	25.7	33.5	33.6	24.9	28.1	28.3
Incr Delay (d2), s/veh	19.6	0.2	0.1	8.0	10.2	2.9	0.3	5.8	6.4	1.8	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	5.5	1.0	2.8	5.7	2.9	2.1	6.1	6.0	3.4	2.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	22.5	19.0	49.4	20.3	6.8	26.0	39.3	40.0	26.7	29.4	29.6
LnGrp LOS	E	C	B	D	C	A	C	D	D	C	C	C
Approach Vol, veh/h		872			1903			639			456	
Approach Delay, s/veh		28.4			18.9			37.0			28.3	
Approach LOS		C			B			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.4	28.8	12.4	44.3	11.0	32.2	13.3	43.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	19.5	12.9	39.1	6.5	23.5	10.5	41.5				
Max Q Clear Time (g_c+19.5), s	19.5	15.1	8.2	15.7	7.0	7.9	9.0	33.0				
Green Ext Time (p_c), s	0.0	1.2	0.1	4.5	0.0	1.2	0.0	6.0				

Intersection Summary

HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
8: Central Ave & Mission Blvd

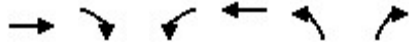
Opening Year 2024
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑		↖↗	↑↑	
Traffic Volume (veh/h)	251	551	90	159	822	342	164	889	105	160	741	121
Future Volume (veh/h)	251	551	90	159	822	342	164	889	105	160	741	121
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		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	273	599	98	173	893	372	178	966	114	174	805	132
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	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	382	1643	733	595	1643	733	455	1480	175	375	1412	232
Arrive On Green	0.15	0.15	0.15	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	864	3610	1610	1475	3610	1610	1178	3252	384	1029	3104	509
Grp Volume(v), veh/h	273	599	98	173	893	372	178	536	544	174	468	469
Grp Sat Flow(s),veh/h/ln	432	1805	1610	737	1805	1610	589	1805	1831	515	1805	1808
Q Serve(g_s), s	27.6	14.9	5.3	9.2	17.9	16.4	13.1	23.0	23.0	15.8	19.1	19.1
Cycle Q Clear(g_c), s	45.5	14.9	5.3	24.1	17.9	16.4	32.2	23.0	23.0	38.8	19.1	19.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.28
Lane Grp Cap(c), veh/h	382	1643	733	595	1643	733	455	821	833	375	821	823
V/C Ratio(X)	0.71	0.36	0.13	0.29	0.54	0.51	0.39	0.65	0.65	0.46	0.57	0.57
Avail Cap(c_a), veh/h	382	1643	733	595	1643	733	455	821	833	375	821	823
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	29.5	25.4	27.3	19.7	19.3	31.9	21.1	21.1	36.2	20.1	20.1
Incr Delay (d2), s/veh	5.3	0.1	0.1	0.3	0.4	0.6	2.5	4.0	4.0	4.1	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	3.9	7.1	2.0	1.6	6.9	5.7	1.9	9.7	9.9	2.1	8.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	29.6	25.5	27.6	20.1	19.9	34.4	25.1	25.1	40.3	22.9	22.9
LnGrp LOS	E	C	C	C	C	B	C	C	C	D	C	C
Approach Vol, veh/h		970			1438			1258			1111	
Approach Delay, s/veh		37.3			20.9			26.4			25.6	
Approach LOS		D			C			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		50.0		50.0		50.0		50.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		45.5		45.5		45.5		45.5				
Max Q Clear Time (g_c+I1), s		34.2		47.5		40.8		26.1				
Green Ext Time (p_c), s		6.1		0.0		2.9		8.5				
Intersection Summary												
HCM 6th Ctrl Delay											26.8	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 17: Pipeline Ave & Mission Blvd

Opening Year 2024
 Timing Plan: AM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖	↗
Traffic Volume (veh/h)	678	0	0	1465	0	0
Future Volume (veh/h)	678	0	0	1465	0	0
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	737	0	0	1592	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1796	801	3	1796	606	539
Arrive On Green	0.50	0.00	0.00	0.50	0.00	0.00
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	737	0	0	1592	0	0
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	6.9	0.0	0.0	21.3	0.0	0.0
Cycle Q Clear(g_c), s	6.9	0.0	0.0	21.3	0.0	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1796	801	3	1796	606	539
V/C Ratio(X)	0.41	0.00	0.00	0.89	0.00	0.00
Avail Cap(c_a), veh/h	1796	801	168	1848	606	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	5.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	8.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.7	0.0	0.0	17.7	0.0	0.0
LnGrp LOS	A	A	A	B	A	A
Approach Vol, veh/h	737			1592	0	
Approach Delay, s/veh	8.7			17.7	0.0	
Approach LOS	A			B		
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		22.5	0.0	31.2		31.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.0	5.0	18.0		27.5
Max Q Clear Time (g_c+I1), s		0.0	0.0	8.9		23.3
Green Ext Time (p_c), s		0.0	0.0	3.4		3.4
Intersection Summary						
HCM 6th Ctrl Delay			14.8			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	96	10	10	390	0	40
Future Vol, veh/h	96	10	10	390	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	104	11	11	424	0	43

























Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	115	0	556 110
Stage 1	-	-	-	-	110 -
Stage 2	-	-	-	-	446 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	1487	-	496 949
Stage 1	-	-	-	-	920 -
Stage 2	-	-	-	-	649 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1487	-	491 949
Mov Cap-2 Maneuver	-	-	-	-	491 -
Stage 1	-	-	-	-	920 -
Stage 2	-	-	-	-	643 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	949	-	-	1487	-
HCM Lane V/C Ratio	0.046	-	-	0.007	-
HCM Control Delay (s)	9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

























HCM 6th Signalized Intersection Summary
8: Central Ave & Mission Blvd

Opening Year 2024
Timing Plan: AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	551	90	159	822	342	164	889	105	160	741	121
Future Volume (veh/h)	251	551	90	159	822	342	164	889	105	160	741	121
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	273	599	98	173	893	372	178	966	114	174	805	132
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	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	326	1022	456	260	954	426	265	1017	120	256	963	158
Arrive On Green	0.09	0.28	0.28	0.07	0.26	0.26	0.08	0.31	0.31	0.07	0.31	0.31
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3252	384	3510	3104	509
Grp Volume(v), veh/h	273	599	98	173	893	372	178	536	544	174	468	469
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1831	1755	1805	1808
Q Serve(g_s), s	5.4	10.0	3.3	3.4	16.9	15.5	3.5	20.3	20.3	3.4	16.9	16.9
Cycle Q Clear(g_c), s	5.4	10.0	3.3	3.4	16.9	15.5	3.5	20.3	20.3	3.4	16.9	16.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.28
Lane Grp Cap(c), veh/h	326	1022	456	260	954	426	265	565	573	256	560	561
V/C Ratio(X)	0.84	0.59	0.22	0.67	0.94	0.87	0.67	0.95	0.95	0.68	0.84	0.84
Avail Cap(c_a), veh/h	326	1022	456	281	954	426	266	565	573	256	560	561
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)	0.85	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	21.6	19.2	31.6	25.2	24.6	31.5	23.5	23.5	31.7	22.5	22.5
Incr Delay (d2), s/veh	15.0	0.7	0.2	5.3	16.0	17.9	6.4	27.2	27.0	7.1	13.8	13.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	3.8	1.1	1.5	8.5	7.3	1.6	11.7	11.9	1.6	8.4	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	22.3	19.4	36.8	41.1	42.6	37.9	50.7	50.5	38.8	36.3	36.3
LnGrp LOS	D	C	B	D	D	D	D	D	D	D	D	D
Approach Vol, veh/h		970			1438			1258			1111	
Approach Delay, s/veh		28.7			41.0			48.8			36.7	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	26.4	9.7	24.3	9.8	26.2	11.0	23.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.1	21.9	5.6	19.4	5.3	21.7	6.5	18.5				
Max Q Clear Time (g_c+I1), s	5.4	22.3	5.4	12.0	5.5	18.9	7.4	18.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	1.5	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				39.6								
HCM 6th LOS				D								

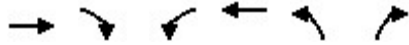
HCM 6th Signalized Intersection Summary
 1: Ramona Ave & Holt Ave/Holt Blvd

Opening Year 2024
 Timing Plan: PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	780	235	99	514	71	241	383	186	72	265	59
Future Volume (veh/h)	110	780	235	99	514	71	241	383	186	72	265	59
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	126	897	270	114	591	82	277	440	214	83	305	68
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	968	432	145	939	419	316	698	592	107	480	406
Arrive On Green	0.09	0.27	0.27	0.08	0.26	0.26	0.17	0.37	0.37	0.06	0.25	0.25
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	126	897	270	114	591	82	277	440	214	83	305	68
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	5.5	19.4	11.8	4.9	11.6	3.2	11.9	15.2	7.8	3.6	11.4	2.6
Cycle Q Clear(g_c), s	5.5	19.4	11.8	4.9	11.6	3.2	11.9	15.2	7.8	3.6	11.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	968	432	145	939	419	316	698	592	107	480	406
V/C Ratio(X)	0.79	0.93	0.63	0.79	0.63	0.20	0.88	0.63	0.36	0.77	0.64	0.17
Avail Cap(c_a), veh/h	195	970	433	147	939	419	328	698	592	145	480	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	28.5	25.7	36.1	26.2	23.1	32.2	20.8	18.4	37.1	26.6	23.3
Incr Delay (d2), s/veh	16.4	14.4	2.8	23.9	1.4	0.2	22.0	4.3	1.7	16.4	6.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	9.5	4.5	3.0	4.7	1.1	6.8	7.0	2.9	2.0	5.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	42.9	28.5	60.1	27.5	23.3	54.2	25.1	20.2	53.5	32.9	24.2
LnGrp LOS	D	D	C	E	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1293			787			931			456	
Approach Delay, s/veh		40.8			31.8			32.6			35.4	
Approach LOS		D			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	33.9	10.9	26.0	18.5	24.7	11.5	25.3				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.4	27.6	6.5	21.5	14.5	19.5	8.6	19.4				
Max Q Clear Time (g_c+I1), s	5.6	17.2	6.9	21.4	13.9	13.4	7.5	13.6				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.1	0.1	1.0	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			35.9									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 2: Cumulos Ave & State St/State Street

Opening Year 2024
 Timing Plan: PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	365	91	55	97	25	16
Future Volume (veh/h)	365	91	55	97	25	16
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	420	105	63	111	29	18
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	507	127	159	227	790	703
Arrive On Green	0.35	0.35	0.35	0.35	0.44	0.44
Sat Flow, veh/h	1467	367	117	657	1810	1610
Grp Volume(v), veh/h	0	525	174	0	29	18
Grp Sat Flow(s),veh/h/ln	0	1834	774	0	1810	1610
Q Serve(g_s), s	0.0	10.8	1.1	0.0	0.4	0.3
Cycle Q Clear(g_c), s	0.0	10.8	11.9	0.0	0.4	0.3
Prop In Lane		0.20	0.36		1.00	1.00
Lane Grp Cap(c), veh/h	0	633	386	0	790	703
V/C Ratio(X)	0.00	0.83	0.45	0.00	0.04	0.03
Avail Cap(c_a), veh/h	0	800	509	0	790	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	12.4	10.5	0.0	6.7	6.6
Incr Delay (d2), s/veh	0.0	5.9	0.8	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.0	0.0	3.9	0.8	0.0	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	18.3	11.3	0.0	6.7	6.7
LnGrp LOS	A	B	B	A	A	A
Approach Vol, veh/h	525			174	47	
Approach Delay, s/veh	18.3			11.3	6.7	
Approach LOS	B			B	A	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		22.5		18.7		18.7
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.4		12.8		13.9
Green Ext Time (p_c), s		0.1		1.4		0.3
Intersection Summary						
HCM 6th Ctrl Delay			15.9			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	9	15	16	4	26
Future Vol, veh/h	21	9	15	16	4	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	11	19	20	5	33

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	72	29	0	0	39
Stage 1	29	-	-	-	-
Stage 2	43	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	937	1052	-	-	1584
Stage 1	999	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	934	1052	-	-	1584
Mov Cap-2 Maneuver	934	-	-	-	-
Stage 1	999	-	-	-	-
Stage 2	982	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	967	1584
HCM Lane V/C Ratio	-	-	0.039	0.003
HCM Control Delay (s)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary
4: Ramona Ave & Dale St

Opening Year 2024
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	↗
Traffic Volume (veh/h)	0	0	0	67	0	92	0	721	23	26	645	1
Future Volume (veh/h)	0	0	0	67	0	92	0	721	23	26	645	1
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	0	0	71	0	98	0	767	24	28	686	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	276	0	213	14	131	554	1697	53	476	2307	3
Arrive On Green	0.00	0.00	0.00	0.15	0.00	0.15	0.00	0.47	0.47	0.03	0.62	0.62
Sat Flow, veh/h	0	1900	0	561	93	903	1810	3573	112	1810	3699	5
Grp Volume(v), veh/h	0	0	0	169	0	0	0	387	404	28	335	352
Grp Sat Flow(s),veh/h/ln	0	1900	0	1558	0	0	1810	1805	1880	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	3.3	0.0	0.0	0.0	5.6	5.6	0.3	3.3	3.3
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.0	0.0	0.0	0.0	5.6	5.6	0.3	3.3	3.3
Prop In Lane	0.00		0.00	0.42		0.58	1.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	0	276	0	357	0	0	554	857	893	476	1126	1185
V/C Ratio(X)	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.45	0.45	0.06	0.30	0.30
Avail Cap(c_a), veh/h	0	878	0	843	0	0	781	857	893	648	1126	1185
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	0.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	15.9	0.0	0.0	0.0	6.8	6.8	4.6	3.4	3.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.7	1.7	0.1	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.6	1.6	0.0	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	16.9	0.0	0.0	0.0	8.6	8.5	4.7	4.1	4.0
LnGrp LOS	A	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			169			791			715	
Approach Delay, s/veh		0.0			16.9			8.5			4.1	
Approach LOS					B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	23.0		10.2	0.0	28.8		10.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	2.3	7.6		0.0	0.0	5.3		6.0				
Green Ext Time (p_c), s	0.0	3.5		0.0	0.0	3.2		0.7				

Intersection Summary

HCM 6th Ctrl Delay				7.5								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	1269	14	32	771	28	8	0	14	24	0	23
Future Vol, veh/h	19	1269	14	32	771	28	8	0	14	24	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	150	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	1308	14	33	795	29	8	0	14	25	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	824	0	0	1322	0	0	1812	2238	654	1555	2223	398
Stage 1	-	-	-	-	-	-	1348	1348	-	861	861	-
Stage 2	-	-	-	-	-	-	464	890	-	694	1362	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	815	-	-	529	-	-	50	43	414	78	44	607
Stage 1	-	-	-	-	-	-	162	221	-	321	375	-
Stage 2	-	-	-	-	-	-	553	364	-	404	218	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	815	-	-	529	-	-	45	39	414	70	40	607
Mov Cap-2 Maneuver	-	-	-	-	-	-	45	39	-	70	40	-
Stage 1	-	-	-	-	-	-	158	215	-	313	352	-
Stage 2	-	-	-	-	-	-	498	341	-	380	213	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.5			49			52.1		
HCM LOS							E			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	104	815	-	-	529	-	-	123
HCM Lane V/C Ratio	0.218	0.024	-	-	0.062	-	-	0.394
HCM Control Delay (s)	49	9.5	-	-	12.3	-	-	52.1
HCM Lane LOS	E	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0.2	-	-	1.7

HCM 6th Signalized Intersection Summary
6: Ramona Ave & Mission Blvd

Opening Year 2024
Timing Plan: PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	212	1054	100	142	617	136	107	421	92	140	446	139
Future Volume (veh/h)	212	1054	100	142	617	136	107	421	92	140	446	139
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	1098	104	148	643	142	111	439	96	146	465	145
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	341	1383	131	185	855	186	142	993	443	227	873	270
Arrive On Green	0.19	0.29	0.29	0.10	0.20	0.20	0.08	0.27	0.27	0.13	0.32	0.32
Sat Flow, veh/h	1810	4820	456	1810	4264	927	1810	3610	1610	1810	2714	840
Grp Volume(v), veh/h	221	787	415	148	520	265	111	439	96	146	308	302
Grp Sat Flow(s),veh/h/ln	1810	1729	1818	1810	1729	1733	1810	1805	1610	1810	1805	1749
Q Serve(g_s), s	9.6	18.0	18.0	6.8	12.1	12.4	5.1	8.6	3.9	6.6	11.9	12.1
Cycle Q Clear(g_c), s	9.6	18.0	18.0	6.8	12.1	12.4	5.1	8.6	3.9	6.6	11.9	12.1
Prop In Lane	1.00		0.25	1.00		0.54	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	341	992	522	185	693	347	142	993	443	227	581	563
V/C Ratio(X)	0.65	0.79	0.79	0.80	0.75	0.76	0.78	0.44	0.22	0.64	0.53	0.54
Avail Cap(c_a), veh/h	447	1153	606	307	886	444	244	993	443	328	581	563
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(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	28.1	28.1	37.5	32.1	32.3	38.7	25.6	23.9	35.6	23.7	23.8
Incr Delay (d2), s/veh	2.1	3.4	6.3	7.8	2.7	5.9	8.9	1.4	1.1	3.0	3.4	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	7.3	8.1	3.3	5.0	5.4	2.5	3.7	1.5	3.0	5.3	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	31.5	34.4	45.3	34.8	38.1	47.6	27.0	25.0	38.6	27.1	27.4
LnGrp LOS	C	C	C	D	C	D	D	C	C	D	C	C
Approach Vol, veh/h		1423			933			646			756	
Approach Delay, s/veh		32.8			37.4			30.2			29.5	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	28.0	13.2	29.0	11.2	32.0	20.6	21.6				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.5	23.5	14.5	28.5	11.5	27.5	21.1	21.9				
Max Q Clear Time (g_c+I1), s	8.6	10.6	8.8	20.0	7.1	14.1	11.6	14.4				
Green Ext Time (p_c), s	0.2	2.4	0.2	4.5	0.1	2.9	0.4	2.8				
Intersection Summary												
HCM 6th Ctrl Delay			32.8									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 7: Monte Vista Ave & Mission Blvd

























Opening Year 2024
 Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1054	130	122	723	160	45	319	122	374	412	111
Future Volume (veh/h)	110	1054	130	122	723	160	45	319	122	374	412	111
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	1109	137	128	761	168	47	336	128	394	434	117
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	285	1190	531	159	938	418	330	569	213	496	1031	276
Arrive On Green	0.16	0.33	0.33	0.03	0.09	0.09	0.04	0.22	0.22	0.18	0.37	0.37
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	2570	962	1810	2817	753
Grp Volume(v), veh/h	116	1109	137	128	761	168	47	234	230	394	277	274
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1805	1727	1810	1805	1764
Q Serve(g_s), s	5.8	29.7	5.1	7.0	20.7	6.3	2.0	11.6	12.0	16.1	11.5	11.7
Cycle Q Clear(g_c), s	5.8	29.7	5.1	7.0	20.7	6.3	2.0	11.6	12.0	16.1	11.5	11.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.56	1.00		0.43
Lane Grp Cap(c), veh/h	285	1190	531	159	938	418	330	399	382	496	661	646
V/C Ratio(X)	0.41	0.93	0.26	0.80	0.81	0.40	0.14	0.59	0.60	0.79	0.42	0.42
Avail Cap(c_a), veh/h	285	1209	539	172	1108	494	357	399	382	503	661	646
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	32.4	16.2	47.7	43.3	15.4	28.3	34.8	35.0	23.0	23.7	23.8
Incr Delay (d2), s/veh	0.9	12.8	0.3	20.5	3.6	0.6	0.2	6.2	6.9	8.5	1.9	2.0
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	2.5	14.2	2.2	4.1	10.4	3.9	0.8	5.6	5.6	7.5	5.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	45.2	16.4	68.1	46.9	15.9	28.5	41.0	41.8	31.5	25.7	25.8
LnGrp LOS	D	D	B	E	D	B	C	D	D	C	C	C
Approach Vol, veh/h		1362			1057			511			945	
Approach Delay, s/veh		41.8			44.6			40.2			28.1	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.6	26.6	13.3	37.5	8.1	41.1	20.3	30.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	18.5	20.5	9.5	33.5	5.1	33.9	12.3	30.7				
Max Q Clear Time (g_c+11g), s	11.9	14.0	9.0	31.7	4.0	13.7	7.8	22.7				
Green Ext Time (p_c), s	0.1	1.4	0.0	1.2	0.0	3.0	0.1	3.3				
Intersection Summary												
HCM 6th Ctrl Delay					39.0							
HCM 6th LOS					D							

HCM 6th Signalized Intersection Summary
8: Central Ave & Mission Blvd

Opening Year 2024
Timing Plan: PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	1023	145	192	558	340	117	981	139	303	1026	199
Future Volume (veh/h)	259	1023	145	192	558	340	117	981	139	303	1026	199
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	270	1066	151	200	581	354	122	1022	145	316	1069	207
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	345	1063	474	234	949	423	188	1079	153	347	1163	224
Arrive On Green	0.10	0.29	0.29	0.07	0.26	0.26	0.05	0.34	0.34	0.10	0.39	0.39
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3174	450	3510	3018	582
Grp Volume(v), veh/h	270	1066	151	200	581	354	122	581	586	316	638	638
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1819	1755	1805	1795
Q Serve(g_s), s	6.8	26.5	6.6	5.1	12.7	18.7	3.1	28.2	28.2	8.0	30.3	30.5
Cycle Q Clear(g_c), s	6.8	26.5	6.6	5.1	12.7	18.7	3.1	28.2	28.2	8.0	30.3	30.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.32
Lane Grp Cap(c), veh/h	345	1063	474	234	949	423	188	614	618	347	695	692
V/C Ratio(X)	0.78	1.00	0.32	0.85	0.61	0.84	0.65	0.95	0.95	0.91	0.92	0.92
Avail Cap(c_a), veh/h	378	1063	474	234	949	423	199	614	618	347	695	692
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)	0.29	0.29	0.29	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	31.7	24.7	41.6	29.1	31.3	41.8	28.9	28.9	40.2	26.3	26.4
Incr Delay (d2), s/veh	2.9	15.5	0.1	25.2	1.2	13.6	6.6	25.3	25.4	27.1	19.0	19.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	12.9	2.4	2.9	5.3	8.3	1.4	15.4	15.6	4.6	15.3	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	47.3	24.8	66.8	30.3	45.0	48.4	54.2	54.3	67.2	45.3	46.2
LnGrp LOS	D	F	C	E	C	D	D	D	D	E	D	D
Approach Vol, veh/h		1487			1135			1289			1592	
Approach Delay, s/veh		44.2			41.3			53.7			50.0	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	35.1	10.5	31.0	9.3	39.2	13.3	28.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.9	30.6	6.0	26.5	5.1	34.4	9.7	22.8				
Max Q Clear Time (g_c+I1), s	10.0	30.2	7.1	28.5	5.1	32.5	8.8	20.7				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.0	0.0	1.3	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			47.5									
HCM 6th LOS			D									

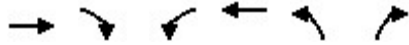
HCM 6th Signalized Intersection Summary
 1: Ramona Ave & Holt Ave/Holt Blvd

Opening Year (2024) plus Project
 Timing Plan: AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	357	238	146	621	45	264	323	162	55	360	54
Future Volume (veh/h)	50	357	238	146	621	45	264	323	162	55	360	54
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	57	410	274	168	714	52	303	371	186	63	414	62
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	663	296	170	839	374	426	703	596	231	499	423
Arrive On Green	0.04	0.18	0.18	0.09	0.23	0.23	0.24	0.37	0.37	0.13	0.26	0.26
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	57	410	274	168	714	52	303	371	186	63	414	62
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.5	8.4	7.7	7.4	15.1	1.4	12.3	12.2	4.4	2.5	16.4	1.9
Cycle Q Clear(g_c), s	2.5	8.4	7.7	7.4	15.1	1.4	12.3	12.2	4.4	2.5	16.4	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	663	296	170	839	374	426	703	596	231	499	423
V/C Ratio(X)	0.70	0.62	0.93	0.99	0.85	0.14	0.71	0.53	0.31	0.27	0.83	0.15
Avail Cap(c_a), veh/h	113	812	362	170	925	413	426	703	596	231	499	423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	30.1	10.6	36.2	29.4	11.5	28.1	19.7	8.1	31.5	27.8	14.0
Incr Delay (d2), s/veh	10.7	1.0	26.4	66.1	7.1	0.2	5.5	2.8	1.4	0.6	14.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.5	6.5	6.2	6.8	0.7	5.6	5.5	2.3	1.1	9.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	31.1	37.0	102.3	36.5	11.7	33.6	22.6	9.5	32.2	42.6	14.7
LnGrp LOS	D	C	D	F	D	B	C	C	A	C	D	B
Approach Vol, veh/h		741			934			860			539	
Approach Delay, s/veh		34.6			46.9			23.6			38.2	
Approach LOS		C			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	34.1	12.0	19.2	23.3	25.5	8.1	23.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.9	29.6	7.5	18.0	15.5	21.0	5.0	20.5				
Max Q Clear Time (g_c+I1), s	4.5	14.2	9.4	10.4	14.3	18.4	4.5	17.1				
Green Ext Time (p_c), s	0.0	2.4	0.0	2.1	0.1	0.7	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			35.9									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 2: Cumulos Ave & State St/State Street

Opening Year (2024) plus Project
 Timing Plan: AM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	112	44	9	352	123	51
Future Volume (veh/h)	112	44	9	352	123	51
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	133	52	11	419	146	61
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	385	151	102	555	849	755
Arrive On Green	0.30	0.30	0.30	0.30	0.47	0.47
Sat Flow, veh/h	1300	508	18	1872	1810	1610
Grp Volume(v), veh/h	0	185	430	0	146	61
Grp Sat Flow(s),veh/h/ln	0	1808	1890	0	1810	1610
Q Serve(g_s), s	0.0	3.1	0.8	0.0	1.8	0.8
Cycle Q Clear(g_c), s	0.0	3.1	7.9	0.0	1.8	0.8
Prop In Lane		0.28	0.03		1.00	1.00
Lane Grp Cap(c), veh/h	0	536	656	0	849	755
V/C Ratio(X)	0.00	0.35	0.66	0.00	0.17	0.08
Avail Cap(c_a), veh/h	0	848	980	0	849	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.6	12.3	0.0	5.9	5.6
Incr Delay (d2), s/veh	0.0	0.4	1.1	0.0	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.0	0.0	0.9	2.4	0.0	0.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	11.0	13.4	0.0	6.3	5.8
LnGrp LOS	A	B	B	A	A	A
Approach Vol, veh/h	185			430	207	
Approach Delay, s/veh	11.0			13.4	6.2	
Approach LOS	B			B	A	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		22.5		15.9		15.9
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		3.8		5.1		9.9
Green Ext Time (p_c), s		0.5		0.7		1.5
Intersection Summary						
HCM 6th Ctrl Delay			11.0			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	14	26	22	5	15
Future Vol, veh/h	54	14	26	22	5	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	86	22	41	35	8	24




















Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	99	59	0	0	76
Stage 1	59	-	-	-	-
Stage 2	40	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	905	1012	-	-	1536
Stage 1	969	-	-	-	-
Stage 2	988	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	900	1012	-	-	1536
Mov Cap-2 Maneuver	900	-	-	-	-
Stage 1	969	-	-	-	-
Stage 2	983	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	921	1536
HCM Lane V/C Ratio	-	-	0.117	0.005
HCM Control Delay (s)	-	-	9.4	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th Signalized Intersection Summary
4: Ramona Ave & Dale St

Opening Year (2024) plus Project
Timing Plan: AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	13	25	0	33	42	768	105	73	597	47
Future Volume (veh/h)	13	0	13	25	0	33	42	768	105	73	597	47
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	15	0	15	28	0	38	48	873	119	83	678	53
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	10	69	188	3	76	569	1549	211	496	1729	135
Arrive On Green	0.08	0.00	0.08	0.08	0.00	0.08	0.05	0.49	0.49	0.08	0.51	0.51
Sat Flow, veh/h	702	119	821	639	32	910	1810	3192	435	1810	3392	265
Grp Volume(v), veh/h	30	0	0	66	0	0	48	494	498	83	360	371
Grp Sat Flow(s),veh/h/ln	1642	0	0	1581	0	0	1810	1805	1822	1810	1805	1852
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.0	0.5	7.4	7.4	0.8	4.7	4.7
Cycle Q Clear(g_c), s	0.6	0.0	0.0	1.5	0.0	0.0	0.5	7.4	7.4	0.8	4.7	4.7
Prop In Lane	0.50		0.50	0.42		0.58	1.00		0.24	1.00		0.14
Lane Grp Cap(c), veh/h	279	0	0	267	0	0	569	876	884	496	920	944
V/C Ratio(X)	0.11	0.00	0.00	0.25	0.00	0.00	0.08	0.56	0.56	0.17	0.39	0.39
Avail Cap(c_a), veh/h	859	0	0	859	0	0	711	876	884	594	920	944
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(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	16.6	0.0	0.0	4.4	6.9	6.9	4.7	5.7	5.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.0	0.0	0.1	2.6	2.6	0.2	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.5	0.0	0.0	0.1	2.1	2.1	0.1	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.4	0.0	0.0	17.1	0.0	0.0	4.4	9.6	9.5	4.8	7.0	6.9
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		30			66			1040			814	
Approach Delay, s/veh		16.4			17.1			9.3			6.7	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	23.0		7.7	6.5	23.9		7.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	2.8	9.4		2.6	2.5	6.7		3.5				
Green Ext Time (p_c), s	0.0	4.0		0.1	0.0	3.3		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				8.6								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↔			↔	
Traffic Vol, veh/h	31	659	9	22	1431	31	13	0	8	26	0	34
Future Vol, veh/h	31	659	9	22	1431	31	13	0	8	26	0	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	150	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	34	724	10	24	1573	34	14	0	9	29	0	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1607	0	0	734	0	0	1627	2447	362	2051	2423	787
Stage 1	-	-	-	-	-	-	792	792	-	1621	1621	-
Stage 2	-	-	-	-	-	-	835	1655	-	430	802	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	412	-	-	880	-	-	69	32	641	33	33	339
Stage 1	-	-	-	-	-	-	353	404	-	109	163	-
Stage 2	-	-	-	-	-	-	333	157	-	579	399	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	412	-	-	880	-	-	56	29	641	30	29	339
Mov Cap-2 Maneuver	-	-	-	-	-	-	56	29	-	30	29	-
Stage 1	-	-	-	-	-	-	324	370	-	100	159	-
Stage 2	-	-	-	-	-	-	288	153	-	524	366	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.1			61.6			244.6		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	86	412	-	-	880	-	-	62
HCM Lane V/C Ratio	0.268	0.083	-	-	0.027	-	-	1.063
HCM Control Delay (s)	61.6	14.5	-	-	9.2	-	-	244.6
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1	0.3	-	-	0.1	-	-	5.2

HCM 6th Signalized Intersection Summary
6: Ramona Ave & Mission Blvd

Opening Year (2024) plus Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗↗		↗	↗↗↗		↗	↗↗	↗	↗	↗↗	
Traffic Volume (veh/h)	183	520	61	66	1193	180	175	549	175	153	308	152
Future Volume (veh/h)	183	520	61	66	1193	180	175	549	175	153	308	152
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	201	571	67	73	1311	198	192	603	192	168	338	167
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	236	1885	219	95	1465	221	228	892	398	202	549	266
Arrive On Green	0.13	0.40	0.40	0.05	0.32	0.32	0.13	0.25	0.25	0.11	0.23	0.23
Sat Flow, veh/h	1810	4713	546	1810	4548	687	1810	3610	1610	1810	2357	1142
Grp Volume(v), veh/h	201	417	221	73	997	512	192	603	192	168	257	248
Grp Sat Flow(s),veh/h/ln	1810	1729	1802	1810	1729	1776	1810	1805	1610	1810	1805	1694
Q Serve(g_s), s	10.3	7.8	8.0	3.8	26.1	26.1	9.9	14.4	7.8	8.7	12.1	12.5
Cycle Q Clear(g_c), s	10.3	7.8	8.0	3.8	26.1	26.1	9.9	14.4	7.8	8.7	12.1	12.5
Prop In Lane	1.00		0.30	1.00		0.39	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	236	1383	721	95	1114	572	228	892	398	202	420	394
V/C Ratio(X)	0.85	0.30	0.31	0.77	0.90	0.90	0.84	0.68	0.48	0.83	0.61	0.63
Avail Cap(c_a), veh/h	276	1383	721	181	1145	588	295	892	398	238	420	394
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	19.5	19.5	44.5	30.7	30.7	40.7	32.4	19.8	41.4	32.7	32.8
Incr Delay (d2), s/veh	19.6	0.1	0.2	12.3	9.2	16.0	15.8	4.1	4.1	19.2	6.5	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	2.9	3.1	2.0	11.5	12.9	5.2	6.5	3.9	4.8	5.8	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	19.6	19.8	56.8	39.9	46.7	56.5	36.5	24.0	60.6	39.2	40.2
LnGrp LOS	E	B	B	E	D	D	E	D	C	E	D	D
Approach Vol, veh/h		839			1582			987			673	
Approach Delay, s/veh		29.3			42.9			37.9			44.9	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.1	28.0	9.5	42.5	16.5	26.6	16.9	35.1				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	12.5	23.5	9.5	36.5	15.5	20.5	14.5	31.5				
Max Q Clear Time (g_c+I1), s	10.7	16.4	5.8	10.0	11.9	14.5	12.3	28.1				
Green Ext Time (p_c), s	0.1	2.6	0.0	3.9	0.2	1.5	0.1	2.5				
Intersection Summary												
HCM 6th Ctrl Delay												39.2
HCM 6th LOS												D

HCM 6th Signalized Intersection Summary
7: Monte Vista Ave & Mission Blvd

Opening Year (2024) plus Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	629	68	107	1303	419	115	347	129	180	175	64
Future Volume (veh/h)	119	629	68	107	1303	419	115	347	129	180	175	64
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	129	684	74	116	1416	455	125	377	140	196	190	70
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	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	1516	676	146	1489	664	410	565	207	329	664	237
Arrive On Green	0.09	0.42	0.42	0.08	0.41	0.41	0.06	0.22	0.22	0.10	0.25	0.25
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	2587	947	1810	2608	929
Grp Volume(v), veh/h	129	684	74	116	1416	455	125	261	256	196	130	130
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1805	1729	1810	1805	1733
Q Serve(g_s), s	7.0	13.6	2.8	6.3	37.9	15.6	5.3	13.2	13.6	8.1	5.8	6.1
Cycle Q Clear(g_c), s	7.0	13.6	2.8	6.3	37.9	15.6	5.3	13.2	13.6	8.1	5.8	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.55	1.00		0.54
Lane Grp Cap(c), veh/h	159	1516	676	146	1489	664	410	394	378	329	459	441
V/C Ratio(X)	0.81	0.45	0.11	0.80	0.95	0.68	0.30	0.66	0.68	0.60	0.28	0.30
Avail Cap(c_a), veh/h	190	1516	676	233	1498	668	410	394	378	336	459	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.26	0.26	0.26	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	20.8	17.6	45.2	28.4	10.9	27.6	35.7	35.8	26.5	29.9	30.1
Incr Delay (d2), s/veh	19.6	0.2	0.1	2.6	4.6	0.8	0.4	8.5	9.4	2.7	1.5	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	3.9	5.3	1.0	2.8	15.8	4.9	2.3	6.6	6.5	3.6	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	21.0	17.7	47.8	33.0	11.7	28.0	44.2	45.2	29.2	31.5	31.8
LnGrp LOS	E	C	B	D	C	B	C	D	D	C	C	C
Approach Vol, veh/h		887			1987			642			456	
Approach Delay, s/veh		27.0			29.0			41.5			30.6	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	26.3	12.6	46.5	11.0	29.9	13.3	45.8				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	10.5	19.5	12.9	39.1	6.5	23.5	10.5	41.5				
Max Q Clear Time (g_c+T1), s	11.0	15.6	8.3	15.6	7.3	8.1	9.0	39.9				
Green Ext Time (p_c), s	0.0	1.1	0.1	4.6	0.0	1.2	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay											30.7	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
8: Central Ave & Mission Blvd

Opening Year (2024) plus Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑		↔↔	↑↑	
Traffic Volume (veh/h)	251	554	100	159	831	342	226	889	105	160	741	127
Future Volume (veh/h)	251	554	100	159	831	342	226	889	105	160	741	127
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	273	602	109	173	903	372	246	966	114	174	805	138
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	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	323	1027	458	256	958	427	290	1088	128	239	986	169
Arrive On Green	0.09	0.28	0.28	0.07	0.27	0.27	0.08	0.33	0.33	0.07	0.32	0.32
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3252	384	3510	3082	528
Grp Volume(v), veh/h	273	602	109	173	903	372	246	536	544	174	472	471
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1831	1755	1805	1805
Q Serve(g_s), s	5.7	10.7	3.9	3.6	18.4	16.6	5.2	21.1	21.1	3.6	18.0	18.0
Cycle Q Clear(g_c), s	5.7	10.7	3.9	3.6	18.4	16.6	5.2	21.1	21.1	3.6	18.0	18.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.21	1.00		0.29
Lane Grp Cap(c), veh/h	323	1027	458	256	958	427	290	604	613	239	578	578
V/C Ratio(X)	0.85	0.59	0.24	0.68	0.94	0.87	0.85	0.89	0.89	0.73	0.82	0.82
Avail Cap(c_a), veh/h	323	1027	458	281	958	427	290	604	613	239	578	578
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)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	23.0	20.6	33.9	27.0	26.3	33.9	23.6	23.6	34.3	23.5	23.5
Incr Delay (d2), s/veh	15.8	0.7	0.2	5.6	17.0	17.4	20.3	17.5	17.3	10.7	12.1	12.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	3.0	4.2	1.4	1.6	9.3	7.7	2.9	10.8	10.9	1.8	8.7	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	23.8	20.8	39.5	44.0	43.7	54.2	41.1	40.9	45.0	35.6	35.6
LnGrp LOS	D	C	C	D	D	D	D	D	D	D	D	D
Approach Vol, veh/h		984			1448			1326			1117	
Approach Delay, s/veh		30.5			43.4			43.4			37.0	
Approach LOS		C			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	29.6	10.0	25.8	10.7	28.5	11.4	24.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	5.5	25.1	6.0	20.8	6.2	24.0	6.9	19.9				
Max Q Clear Time (g_c+1/3), s	15.6	23.1	5.6	12.7	7.2	20.0	7.7	20.4				
Green Ext Time (p_c), s	0.0	1.2	0.0	2.5	0.0	2.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay											39.3	
HCM 6th LOS											D	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	136	0	25	400	0	6
Future Vol, veh/h	136	0	25	400	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	148	0	27	435	0	7
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	148	0	637	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	489	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1446	-	445	904
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	621	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1446	-	434	904
Mov Cap-2 Maneuver	-	-	-	-	434	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	605	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	0.4	9			
HCM LOS				A		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	904	-	-	1446	-	
HCM Lane V/C Ratio	0.007	-	-	0.019	-	
HCM Control Delay (s)	9	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0.1	-	

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	142	0	50	425	0	13
Future Vol, veh/h	142	0	50	425	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	154	0	54	462	0	14

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	154	0	724
Stage 1	-	-	-	-	154
Stage 2	-	-	-	-	570
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1439	-	396
Stage 1	-	-	-	-	879
Stage 2	-	-	-	-	570
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1439	-	376
Mov Cap-2 Maneuver	-	-	-	-	376
Stage 1	-	-	-	-	879
Stage 2	-	-	-	-	542

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	897	-	-	1439	-
HCM Lane V/C Ratio	0.016	-	-	0.038	-
HCM Control Delay (s)	9.1	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑	
Traffic Vol, veh/h	0	763	1508	4	0	0
Future Vol, veh/h	0	763	1508	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	829	1639	4	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	1973 822
Stage 1	-	-	-	-	1641 -
Stage 2	-	-	-	-	332 -
Critical Hdwy	-	-	-	-	5.7 7.1
Critical Hdwy Stg 1	-	-	-	-	6.6 -
Critical Hdwy Stg 2	-	-	-	-	6 -
Follow-up Hdwy	-	-	-	-	3.8 3.9
Pot Cap-1 Maneuver	0	-	-	-	99 276
Stage 1	0	-	-	-	98 -
Stage 2	0	-	-	-	646 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	99 276
Mov Cap-2 Maneuver	-	-	-	-	99 -
Stage 1	-	-	-	-	98 -
Stage 2	-	-	-	-	646 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	-	-	0
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑	
Traffic Vol, veh/h	0	763	1510	13	0	1
Future Vol, veh/h	0	763	1510	13	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	829	1641	14	0	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	1980 828
Stage 1	-	-	-	-	1648 -
Stage 2	-	-	-	-	332 -
Critical Hdwy	-	-	-	-	5.7 7.1
Critical Hdwy Stg 1	-	-	-	-	6.6 -
Critical Hdwy Stg 2	-	-	-	-	6 -
Follow-up Hdwy	-	-	-	-	3.8 3.9
Pot Cap-1 Maneuver	0	-	-	-	98 273
Stage 1	0	-	-	-	97 -
Stage 2	0	-	-	-	646 -
Platoon blocked, %	-	-	-	-	
Mov Cap-1 Maneuver	-	-	-	-	98 273
Mov Cap-2 Maneuver	-	-	-	-	98 -
Stage 1	-	-	-	-	97 -
Stage 2	-	-	-	-	646 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	273
HCM Lane V/C Ratio	-	-	-	0.004
HCM Control Delay (s)	-	-	-	18.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	0	0	915	613	8
Future Vol, veh/h	0	0	0	915	613	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	995	666	9

























Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	338	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	664	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			
Mov Cap-1 Maneuver	-	664	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

HCM 6th Signalized Intersection Summary
 1: Ramona Ave & Holt Ave/Holt Blvd

Opening Year (2024) plus Project
 Timing Plan: PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	780	249	106	514	71	287	390	217	72	267	59
Future Volume (veh/h)	110	780	249	106	514	71	287	390	217	72	267	59
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	126	897	286	122	591	82	330	448	249	83	307	68
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	968	432	147	944	421	328	696	590	107	464	393
Arrive On Green	0.09	0.27	0.27	0.08	0.26	0.26	0.18	0.37	0.37	0.06	0.24	0.24
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	126	897	286	122	591	82	330	448	249	83	307	68
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	5.5	19.4	12.6	5.3	11.6	3.2	14.5	15.6	9.3	3.6	11.7	2.7
Cycle Q Clear(g_c), s	5.5	19.4	12.6	5.3	11.6	3.2	14.5	15.6	9.3	3.6	11.7	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	968	432	147	944	421	328	696	590	107	464	393
V/C Ratio(X)	0.79	0.93	0.66	0.83	0.63	0.19	1.01	0.64	0.42	0.77	0.66	0.17
Avail Cap(c_a), veh/h	195	970	433	147	944	421	328	696	590	145	464	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	28.5	26.0	36.2	26.1	23.0	32.8	21.0	19.0	37.1	27.2	23.8
Incr Delay (d2), s/veh	16.4	14.4	3.7	31.1	1.3	0.2	51.3	4.5	2.2	16.4	7.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	9.5	4.9	3.5	4.7	1.1	10.6	7.2	3.5	2.0	5.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	42.9	29.8	67.3	27.4	23.2	84.0	25.6	21.2	53.5	34.5	24.8
LnGrp LOS	D	D	C	E	C	C	F	C	C	D	C	C
Approach Vol, veh/h		1309			795			1027			458	
Approach Delay, s/veh		40.9			33.1			43.3			36.5	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	33.8	11.0	26.0	19.0	24.0	11.5	25.4				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	6.4	27.6	6.5	21.5	14.5	19.5	8.6	19.4				
Max Q Clear Time (g_c+I1), s	5.6	17.6	7.3	21.4	16.5	13.7	7.5	13.6				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.1	0.0	1.0	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			39.3									
HCM 6th LOS			D									

HCM 6th Signalized Intersection Summary
 2: Cumulos Ave & State St/State Street

Opening Year (2024) plus Project
 Timing Plan: PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	365	166	55	97	47	16
Future Volume (veh/h)	365	166	55	97	47	16
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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	420	191	63	111	54	18
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	487	222	149	215	731	650
Arrive On Green	0.39	0.39	0.39	0.39	0.40	0.40
Sat Flow, veh/h	1236	562	98	546	1810	1610
Grp Volume(v), veh/h	0	611	174	0	54	18
Grp Sat Flow(s),veh/h/ln	0	1799	643	0	1810	1610
Q Serve(g_s), s	0.0	13.9	1.6	0.0	0.8	0.3
Cycle Q Clear(g_c), s	0.0	13.9	15.5	0.0	0.8	0.3
Prop In Lane		0.31	0.36		1.00	1.00
Lane Grp Cap(c), veh/h	0	709	364	0	731	650
V/C Ratio(X)	0.00	0.86	0.48	0.00	0.07	0.03
Avail Cap(c_a), veh/h	0	727	376	0	731	650
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	12.4	10.4	0.0	8.2	8.0
Incr Delay (d2), s/veh	0.0	10.2	1.0	0.0	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/lr0.0	0.0	5.6	0.9	0.0	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	22.6	11.4	0.0	8.4	8.1
LnGrp LOS	A	C	B	A	A	A
Approach Vol, veh/h	611			174	72	
Approach Delay, s/veh	22.6			11.4	8.3	
Approach LOS	C			B	A	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		22.5		22.1		22.1
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.8		15.9		17.5
Green Ext Time (p_c), s		0.1		0.8		0.0
Intersection Summary						
HCM 6th Ctrl Delay			19.1			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	9	15	17	4	26
Future Vol, veh/h	23	9	15	17	4	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	29	11	19	22	5	33

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	73	30	0	0	41
Stage 1	30	-	-	-	-
Stage 2	43	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	936	1050	-	-	1581
Stage 1	998	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	933	1050	-	-	1581
Mov Cap-2 Maneuver	933	-	-	-	-
Stage 1	998	-	-	-	-
Stage 2	982	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	963	1581
HCM Lane V/C Ratio	-	-	0.042	0.003
HCM Control Delay (s)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary
 4: Ramona Ave & Dale St

Opening Year (2024) plus Project
 Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Volume (veh/h)	51	0	50	109	0	125	13	721	35	36	645	16
Future Volume (veh/h)	51	0	50	109	0	125	13	721	35	36	645	16
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	0	53	116	0	133	14	767	37	38	686	17
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	266	39	175	256	22	178	447	1508	73	430	1637	41
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.21	0.02	0.43	0.43	0.04	0.45	0.45
Sat Flow, veh/h	654	181	820	623	105	834	1810	3506	169	1810	3600	89
Grp Volume(v), veh/h	107	0	0	249	0	0	14	395	409	38	344	359
Grp Sat Flow(s),veh/h/ln	1655	0	0	1562	0	0	1810	1805	1870	1810	1805	1884
Q Serve(g_s), s	0.0	0.0	0.0	4.0	0.0	0.0	0.2	6.9	6.9	0.5	5.5	5.5
Cycle Q Clear(g_c), s	2.2	0.0	0.0	6.3	0.0	0.0	0.2	6.9	6.9	0.5	5.5	5.5
Prop In Lane	0.50		0.50	0.47		0.53	1.00		0.09	1.00		0.05
Lane Grp Cap(c), veh/h	479	0	0	456	0	0	447	777	804	430	821	857
V/C Ratio(X)	0.22	0.00	0.00	0.55	0.00	0.00	0.03	0.51	0.51	0.09	0.42	0.42
Avail Cap(c_a), veh/h	771	0	0	762	0	0	625	777	804	564	821	857
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(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	0.0	15.6	0.0	0.0	6.8	8.9	8.9	6.7	7.9	7.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.0	0.0	0.0	0.0	2.4	2.3	0.1	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	2.1	0.0	0.0	0.0	2.3	2.3	0.1	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	0.0	16.7	0.0	0.0	6.9	11.3	11.2	6.8	9.5	9.4
LnGrp LOS	B	A	A	B	A	A	A	B	B	A	A	A
Approach Vol, veh/h		107			249			818				741
Approach Delay, s/veh		14.4			16.7			11.2				9.3
Approach LOS		B			B			B				A
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	23.0		13.7	5.3	24.1		13.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.5		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	2.5	8.9		4.2	2.2	7.5		8.3				
Green Ext Time (p_c), s	0.0	3.3		0.4	0.0	3.0		1.1				

Intersection Summary

HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	1275	14	32	814	28	8	0	14	24	0	25
Future Vol, veh/h	20	1275	14	32	814	28	8	0	14	24	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	150	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	1314	14	33	839	29	8	0	14	25	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	868	0	0	1328	0	0	1842	2290	657	1604	2275	420
Stage 1	-	-	-	-	-	-	1356	1356	-	905	905	-
Stage 2	-	-	-	-	-	-	486	934	-	699	1370	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	785	-	-	527	-	-	48	40	412	72	41	588
Stage 1	-	-	-	-	-	-	160	219	-	302	358	-
Stage 2	-	-	-	-	-	-	537	347	-	401	216	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	785	-	-	527	-	-	43	36	412	65	37	588
Mov Cap-2 Maneuver	-	-	-	-	-	-	43	36	-	65	37	-
Stage 1	-	-	-	-	-	-	156	213	-	294	335	-
Stage 2	-	-	-	-	-	-	481	325	-	377	210	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			51.3			55.9		
HCM LOS							F			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	100	785	-	-	527	-	-	119
HCM Lane V/C Ratio	0.227	0.026	-	-	0.063	-	-	0.424
HCM Control Delay (s)	51.3	9.7	-	-	12.3	-	-	55.9
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0.2	-	-	1.8

HCM 6th Signalized Intersection Summary

6: Ramona Ave & Mission Blvd

Opening Year (2024) plus Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑↑		↗	↑↑↑		↗	↑↑	↗	↗	↑↑	
Traffic Volume (veh/h)	218	1054	100	142	623	154	108	423	92	193	453	173
Future Volume (veh/h)	218	1054	100	142	623	154	108	423	92	193	453	173
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	227	1098	104	148	649	160	112	441	96	201	472	180
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	331	1376	130	184	850	206	156	981	438	240	814	308
Arrive On Green	0.18	0.29	0.29	0.10	0.20	0.20	0.09	0.27	0.27	0.13	0.32	0.32
Sat Flow, veh/h	1810	4820	456	1810	4165	1011	1810	3610	1610	1810	2561	970
Grp Volume(v), veh/h	227	787	415	148	537	272	112	441	96	201	332	320
Grp Sat Flow(s),veh/h/ln	1810	1729	1818	1810	1729	1718	1810	1805	1610	1810	1805	1725
Q Serve(g_s), s	10.1	18.2	18.3	6.9	12.7	12.9	5.2	8.8	4.0	9.4	13.3	13.4
Cycle Q Clear(g_c), s	10.1	18.2	18.3	6.9	12.7	12.9	5.2	8.8	4.0	9.4	13.3	13.4
Prop In Lane	1.00		0.25	1.00		0.59	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	331	987	519	184	706	351	156	981	438	240	574	549
V/C Ratio(X)	0.68	0.80	0.80	0.80	0.76	0.78	0.72	0.45	0.22	0.84	0.58	0.58
Avail Cap(c_a), veh/h	442	1140	599	303	876	435	241	981	438	324	574	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	28.6	28.6	38.0	32.4	32.5	38.5	26.1	24.4	36.6	24.6	24.7
Incr Delay (d2), s/veh	2.8	3.6	6.6	7.9	3.1	6.8	6.0	1.5	1.2	13.2	4.2	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	7.4	8.2	3.3	5.2	5.7	2.5	3.8	1.6	4.8	6.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.7	32.2	35.2	45.8	35.5	39.4	44.4	27.6	25.5	49.8	28.8	29.2
LnGrp LOS	D	C	D	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		1429			957			649			853	
Approach Delay, s/veh		33.6			38.2			30.2			33.9	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	28.0	13.3	29.2	12.0	32.0	20.3	22.2				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	15.5	23.5	14.5	28.5	11.5	27.5	21.1	21.9				
Max Q Clear Time (g_c+I1), s	11.4	10.8	8.9	20.3	7.2	15.4	12.1	14.9				
Green Ext Time (p_c), s	0.2	2.4	0.2	4.4	0.1	3.0	0.4	2.7				
Intersection Summary												
HCM 6th Ctrl Delay				34.2								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
7: Monte Vista Ave & Mission Blvd

Opening Year (2024) plus Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1104	133	122	747	160	46	319	122	374	412	111
Future Volume (veh/h)	110	1104	133	122	747	160	46	319	122	374	412	111
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		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	116	1162	140	128	786	168	48	336	128	394	434	117
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	293	1209	539	158	939	419	326	554	207	492	1017	272
Arrive On Green	0.16	0.34	0.34	0.09	0.26	0.26	0.04	0.22	0.22	0.18	0.36	0.36
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	1810	2570	962	1810	2817	753
Grp Volume(v), veh/h	116	1162	140	128	786	168	48	234	230	394	277	274
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1810	1805	1727	1810	1805	1764
Q Serve(g_s), s	5.7	31.6	5.1	6.9	20.6	5.4	2.0	11.7	12.0	16.2	11.6	11.8
Cycle Q Clear(g_c), s	5.7	31.6	5.1	6.9	20.6	5.4	2.0	11.7	12.0	16.2	11.6	11.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.56	1.00		0.43
Lane Grp Cap(c), veh/h	293	1209	539	158	939	419	326	389	372	492	652	637
V/C Ratio(X)	0.40	0.96	0.26	0.81	0.84	0.40	0.15	0.60	0.62	0.80	0.42	0.43
Avail Cap(c_a), veh/h	293	1209	539	172	1108	494	352	389	372	496	652	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	32.6	15.9	44.8	35.0	12.2	28.7	35.4	35.5	23.3	24.1	24.2
Incr Delay (d2), s/veh	0.9	17.3	0.3	17.7	3.7	0.4	0.2	6.8	7.5	9.1	2.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	15.7	2.3	3.8	9.0	3.1	0.9	5.7	5.7	7.7	5.1	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	49.9	16.1	62.5	38.7	12.6	28.9	42.1	43.0	32.4	26.1	26.3
LnGrp LOS	D	D	B	E	D	B	C	D	D	C	C	C
Approach Vol, veh/h		1418			1082			512			945	
Approach Delay, s/veh		45.6			37.5			41.3			28.8	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.7	26.0	13.2	38.0	8.2	40.6	20.7	30.5				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	18.5	20.5	9.5	33.5	5.1	33.9	12.3	30.7				
Max Q Clear Time (g_c+11g), s	11.2	14.0	8.9	33.6	4.0	13.8	7.7	22.6				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	3.0	0.1	3.4				
Intersection Summary												
HCM 6th Ctrl Delay											38.8	
HCM 6th LOS											D	

HCM 6th Signalized Intersection Summary
8: Central Ave & Mission Blvd

Opening Year (2024) plus Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑		↔↔	↑↑	
Traffic Volume (veh/h)	259	1032	186	192	561	340	136	981	139	303	1026	201
Future Volume (veh/h)	259	1032	186	192	561	340	136	981	139	303	1026	201
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	270	1075	194	200	584	354	142	1022	145	316	1069	209
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	345	1083	483	234	969	432	199	1062	150	347	1135	221
Arrive On Green	0.10	0.30	0.30	0.07	0.27	0.27	0.06	0.33	0.33	0.10	0.38	0.38
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3174	450	3510	3012	587
Grp Volume(v), veh/h	270	1075	194	200	584	354	142	581	586	316	639	639
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1819	1755	1805	1794
Q Serve(g_s), s	6.8	26.7	8.6	5.1	12.7	18.6	3.6	28.4	28.5	8.0	30.8	31.0
Cycle Q Clear(g_c), s	6.8	26.7	8.6	5.1	12.7	18.6	3.6	28.4	28.5	8.0	30.8	31.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.33
Lane Grp Cap(c), veh/h	345	1083	483	234	969	432	199	604	608	347	680	676
V/C Ratio(X)	0.78	0.99	0.40	0.85	0.60	0.82	0.71	0.96	0.96	0.91	0.94	0.95
Avail Cap(c_a), veh/h	378	1083	483	234	969	432	199	604	608	347	680	676
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(l)	0.23	0.23	0.23	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	31.4	25.1	41.6	28.7	30.9	41.7	29.4	29.4	40.2	27.1	27.2
Incr Delay (d2), s/veh	2.3	11.4	0.1	25.2	1.1	11.8	11.4	28.4	28.6	27.1	22.6	23.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	12.4	3.1	2.9	5.3	8.1	1.8	16.0	16.1	4.6	16.1	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	42.8	25.2	66.8	29.8	42.7	53.2	57.8	58.0	67.2	49.7	50.7
LnGrp LOS	D	D	C	E	C	D	D	E	E	E	D	D
Approach Vol, veh/h		1539			1138			1309			1594	
Approach Delay, s/veh		40.5			40.3			57.4			53.5	
Approach LOS		D			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.4	34.6	10.5	31.5	9.6	38.4	13.3	28.7				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	30.1	30.1	6.0	27.0	5.1	33.9	9.7	23.3				
Max Q Clear Time (g_c+110), s	30.5	30.5	7.1	28.7	5.6	33.0	8.8	20.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.6	0.1	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			48.1									
HCM 6th LOS			D									

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	456	0	7	122	0	25
Future Vol, veh/h	456	0	7	122	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	496	0	8	133	0	27

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	496	0	645
Stage 1	-	-	-	-	496
Stage 2	-	-	-	-	149
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1078	-	440
Stage 1	-	-	-	-	616
Stage 2	-	-	-	-	884
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1078	-	436
Mov Cap-2 Maneuver	-	-	-	-	436
Stage 1	-	-	-	-	616
Stage 2	-	-	-	-	877

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	578	-	-	1078	-
HCM Lane V/C Ratio	0.047	-	-	0.007	-
HCM Control Delay (s)	11.5	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	481	0	15	129	0	50
Future Vol, veh/h	481	0	15	129	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	523	0	16	140	0	54

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	523	0	695
Stage 1	-	-	-	-	523
Stage 2	-	-	-	-	172
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1054	-	411
Stage 1	-	-	-	-	599
Stage 2	-	-	-	-	863
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1054	-	404
Mov Cap-2 Maneuver	-	-	-	-	404
Stage 1	-	-	-	-	599
Stage 2	-	-	-	-	849

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	558	-	-	1054	-
HCM Lane V/C Ratio	0.097	-	-	0.015	-
HCM Control Delay (s)	12.1	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	1372	905	1	0	2
Future Vol, veh/h	0	1372	905	1	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1491	984	1	0	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	451
HCM Lane V/C Ratio	-	-	-	0.005
HCM Control Delay (s)	-	-	-	13
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↑
Traffic Vol, veh/h	0	1372	900	4	0	6
Future Vol, veh/h	0	1372	900	4	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1491	978	4	0	7

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	452
HCM Lane V/C Ratio	-	-	-	0.014
HCM Control Delay (s)	-	-	-	13.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	4	0	769	819	2
Future Vol, veh/h	0	4	0	769	819	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	4	0	836	890	2

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	446	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	565	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			
Mov Cap-1 Maneuver	-	565	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	565	-	-
HCM Lane V/C Ratio	-	0.008	-	-
HCM Control Delay (s)	-	11.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0	-	-

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑			↑			↑
Traffic Vol, veh/h	0	672	9	0	1379	61	0	0	20	0	0	58
Future Vol, veh/h	0	672	9	0	1379	61	0	0	20	0	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	738	10	0	1515	67	0	0	22	0	0	64

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	-	0	0	-	-	0	-	-	369	-	-	758
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	634	0	0	354
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	634	-	-	354
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	10.9	17.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	634	-	-	-	-	354
HCM Lane V/C Ratio	0.035	-	-	-	-	0.18
HCM Control Delay (s)	10.9	-	-	-	-	17.4
HCM Lane LOS	B	-	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.6

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑			↑			↑
Traffic Vol, veh/h	0	1233	13	0	781	47	0	0	21	0	0	48
Future Vol, veh/h	0	1233	13	0	781	47	0	0	21	0	0	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1271	13	0	805	48	0	0	22	0	0	49

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	-	0	0	-	-	0	-	-	636	-	-	403
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	425	0	0	603
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	425	-	-	603
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.9	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	425	-	-	-	-	603
HCM Lane V/C Ratio	0.051	-	-	-	-	0.082
HCM Control Delay (s)	13.9	-	-	-	-	11.5
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.3

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑			↑			↑
Traffic Vol, veh/h	0	717	9	0	1453	62	0	0	21	0	0	60
Future Vol, veh/h	0	717	9	0	1453	62	0	0	21	0	0	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	788	10	0	1597	68	0	0	23	0	0	66

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	-	0	0	-	-	0	-	-	394	-	-	799
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	611	0	0	333
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	611	-	-	333
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.1	18.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	611	-	-	-	-	333
HCM Lane V/C Ratio	0.038	-	-	-	-	0.198
HCM Control Delay (s)	11.1	-	-	-	-	18.5
HCM Lane LOS	B	-	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.7

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑			↑			↑
Traffic Vol, veh/h	0	1319	14	0	845	48	0	0	22	0	0	49
Future Vol, veh/h	0	1319	14	0	845	48	0	0	22	0	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1360	14	0	871	49	0	0	23	0	0	51

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	-	0	0	-	-	0	-	-	680	-	-	436
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	398	0	0	574
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	398	-	-	574
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0		0		14.6		11.9	
HCM LOS					B		B	

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	398	-	-	-	-	574
HCM Lane V/C Ratio	0.057	-	-	-	-	0.088
HCM Control Delay (s)	14.6	-	-	-	-	11.9
HCM Lane LOS	B	-	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	-	0.3

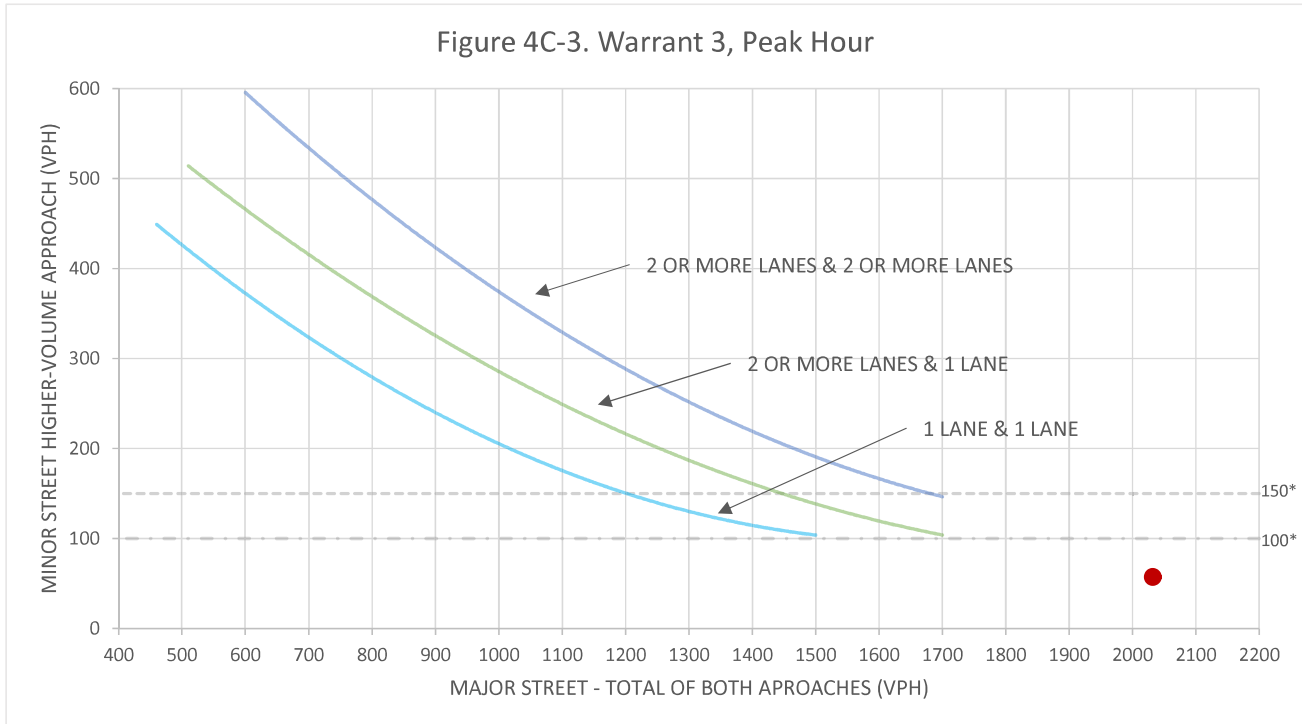
Appendix E

Traffic Signal Warrants

Project	Mission Ramona Industrial Park Project
Scenario	Existing
Peak Hour	AM Peak Hour

Intersection #	5
Major Street	Mission Boulevard
Minor Street	Silicon Street

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



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

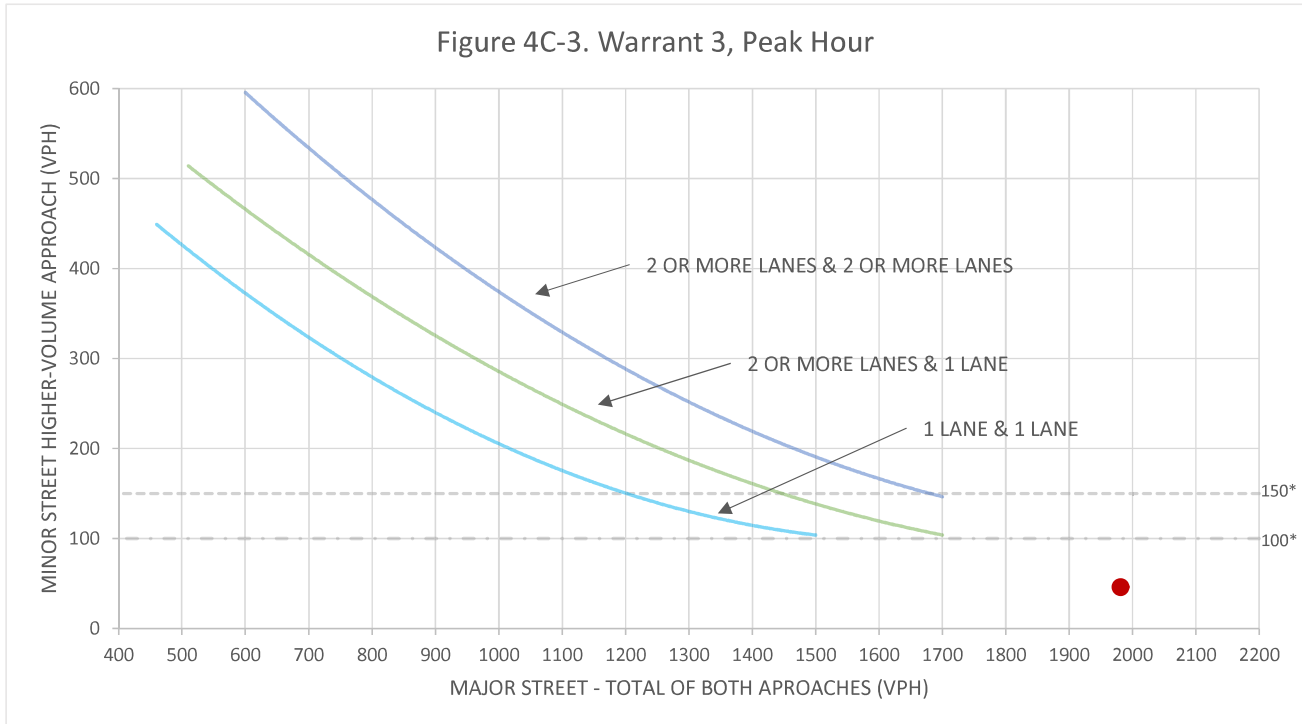
*Note: 150 vph applies as the lower threshold volumes for a minor-street approach with two or more lanes and a 100 vph applies as the lower threshold volumes for a minor-street approach with one lane.

	Major Street	Major Street	Warrant Met?
	Mission Boulevard	Silicon Street	
Number of Approach Lanes	2	1	No
Traffic Volume (VPH)*	2,032	57	
*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.			

Project	Mission Ramona Industrial Park Project
Scenario	Existing
Peak Hour	PM Peak Hour

Intersection #	Volumes
Major Street	Mission Boulevard
Minor Street	Silicon Street

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



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.

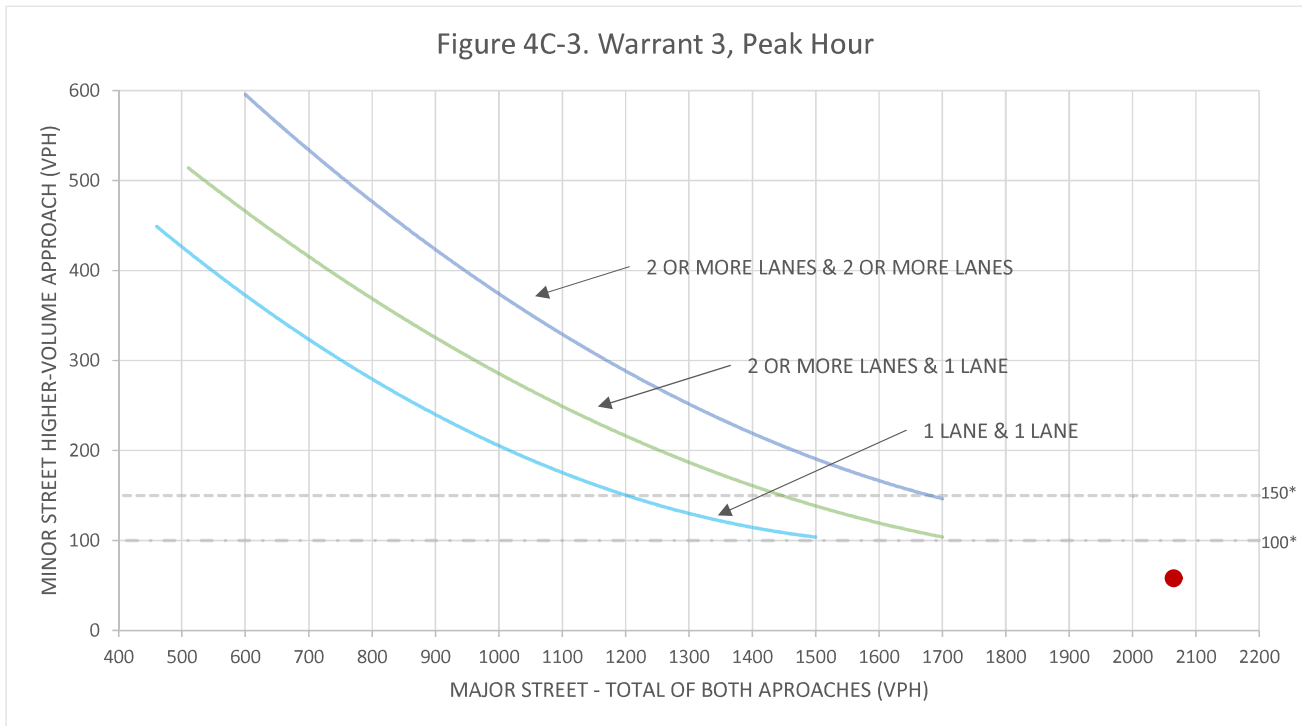
	Major Street	Major Street	Warrant Met?
	Mission Boulevard	Silicon Street	
Number of Approach Lanes	2	1	No
Traffic Volume (VPH)*	1,982	46	

*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.

Project	Mission Ramona Industrial Park Project
Scenario	Existing plus Project
Peak Hour	AM Peak Hour

Intersection #	5
Major Street	Mission Boulevard
Minor Street	Silicon Street

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



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.

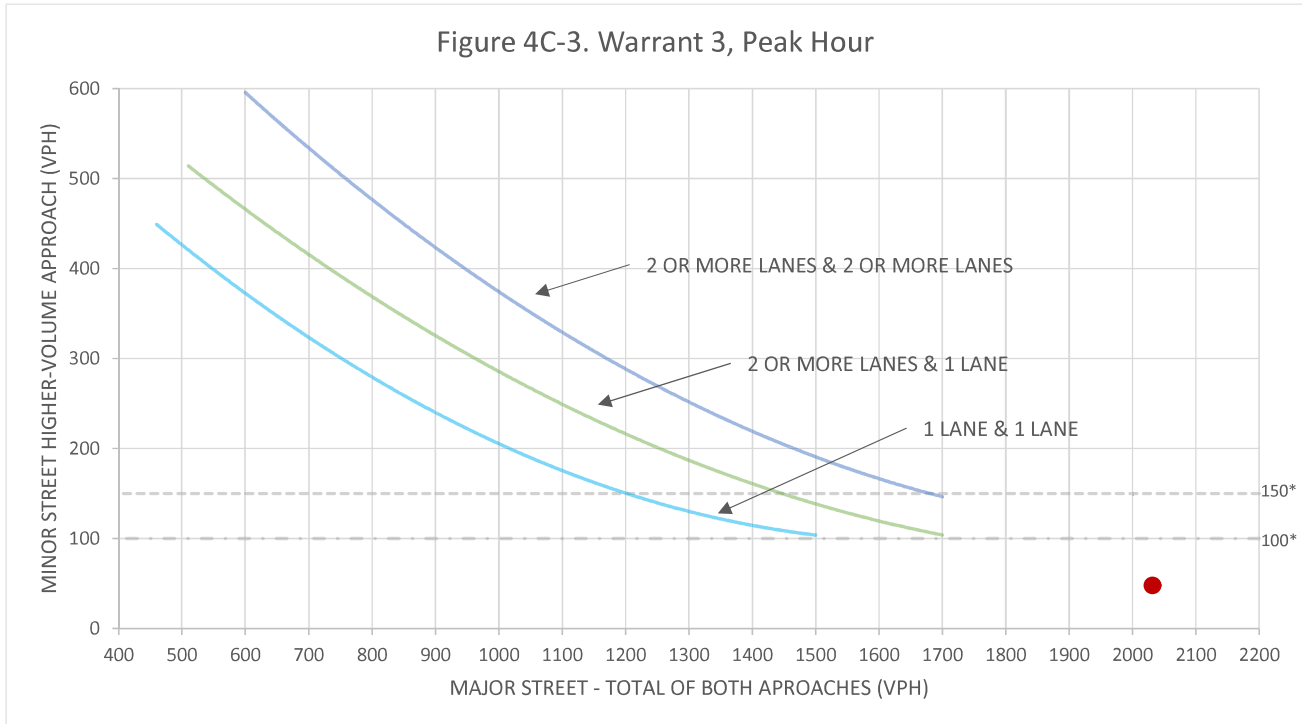
	Major Street	Major Street	Warrant Met?
	Mission Boulevard	Silicon Street	
Number of Approach Lanes	2	1	No
Traffic Volume (VPH)*	2,065	58	

*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.

Project	Mission Ramona Industrial Park Project
Scenario	Existing plus Project
Peak Hour	PM Peak Hour

Intersection #	5
Major Street	Mission Boulevard
Minor Street	Silicon Street

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



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.

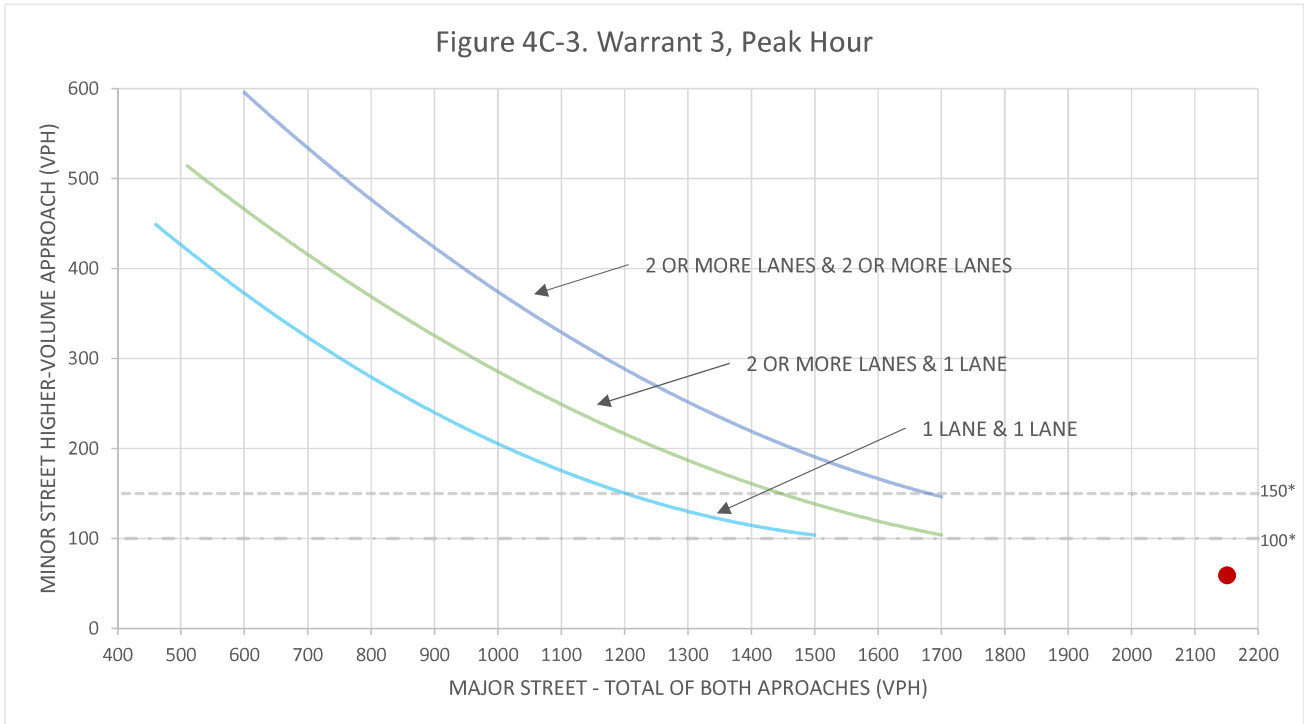
	Major Street	Major Street	Warrant Met?
	Mission Boulevard	Silicon Street	
Number of Approach Lanes	2	1	No
Traffic Volume (VPH)*	2,032	48	

*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.

Project	Mission Ramona Industrial Park Project
Scenario	Opening Year 2024
Peak Hour	AM Peak Hour

Intersection #	5
Major Street	Mission Boulevard
Minor Street	Silicon Street

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



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.

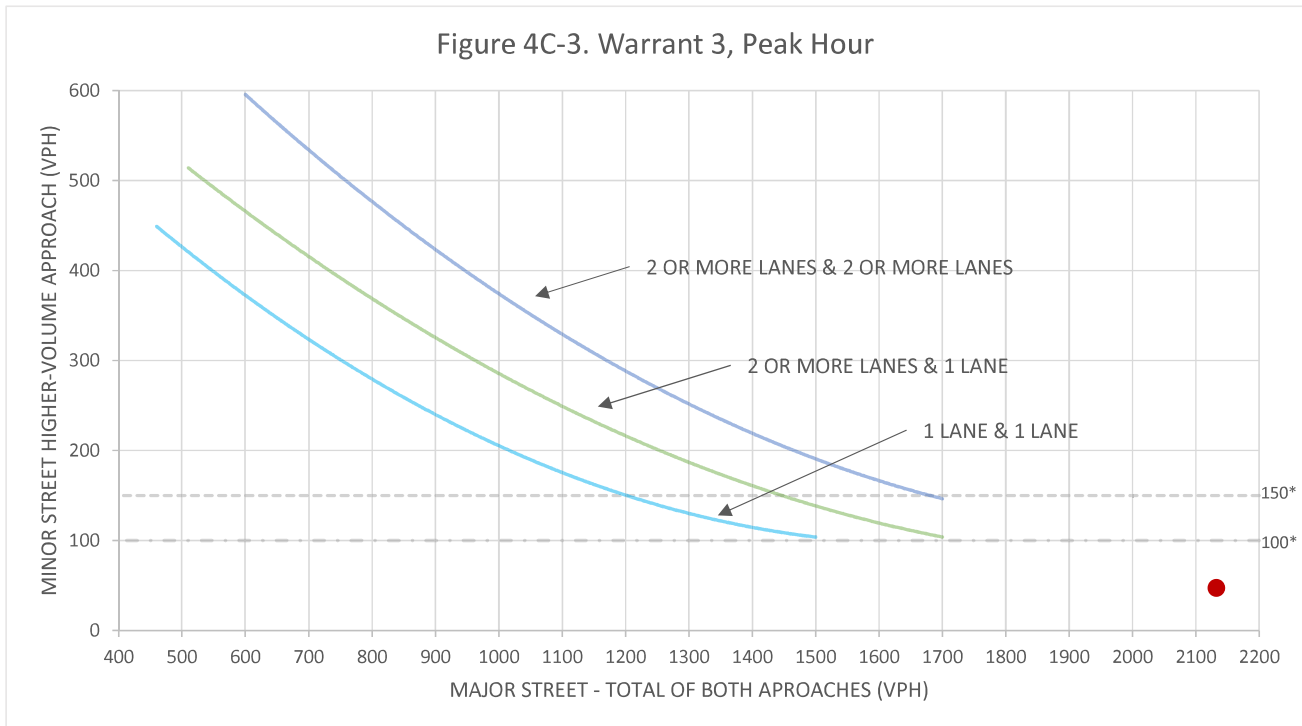
	Major Street	Major Street	Warrant Met?
	Mission Boulevard	Silicon Street	
Number of Approach Lanes	2	1	No
Traffic Volume (VPH)*	2,151	59	

*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.

Project	Mission Ramona Industrial Park Project
Scenario	Opening Year 2024
Peak Hour	PM Peak Hour

Intersection #	5
Major Street	Mission Boulevard
Minor Street	Silicon Street

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



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.

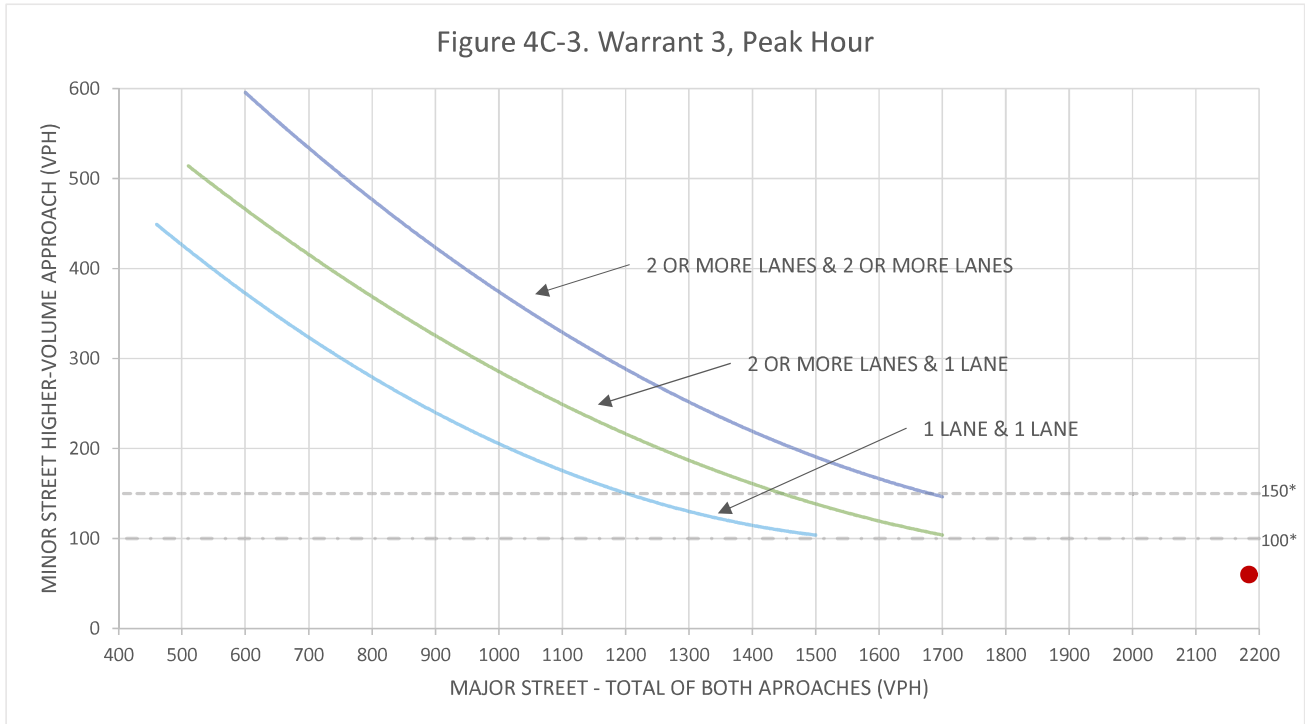
	Major Street	Major Street	Warrant Met?
	Mission Boulevard	Silicon Street	
Number of Approach Lanes	2	1	No
Traffic Volume (VPH)*	2,133	47	

*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.

Project	Mission Ramona Industrial Park Project
Scenario	Opening Year (2024) plus Project
Peak Hour	AM Peak Hour

Intersection #	5
Major Street	Mission Boulevard
Minor Street	Silicon Street

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



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.

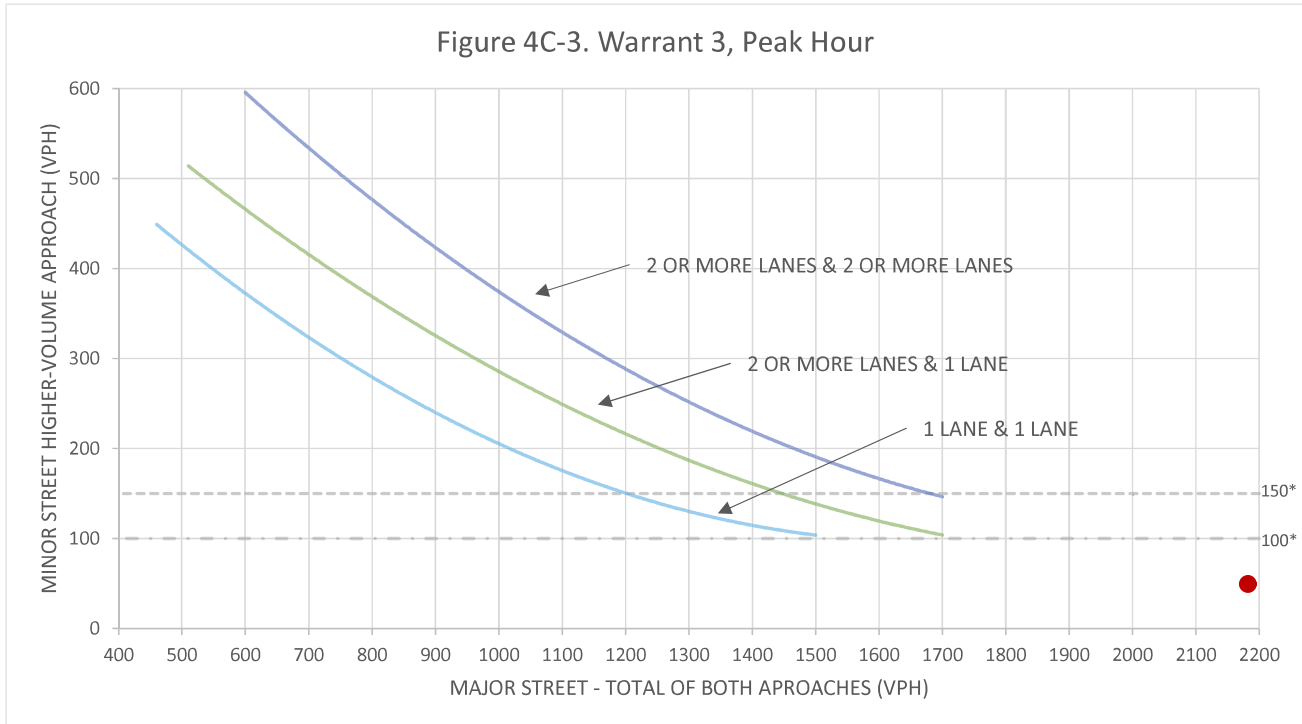
	Major Street	Major Street	Warrant Met?
	Mission Boulevard	Silicon Street	
Number of Approach Lanes	2	1	No
Traffic Volume (VPH)*	2,184	60	

*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.

Project	Mission Ramona Industrial Park Project
Scenario	Opening Year (2024) plus Project
Peak Hour	PM Peak Hour

Intersection #	5
Major Street	Mission Boulevard
Minor Street	Silicon Street

N-S	<input type="checkbox"/>	E-W	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>		<input type="checkbox"/>



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	Major Street	Warrant Met?
	Mission Boulevard	Silicon Street	
Number of Approach Lanes	2	1	No
Traffic Volume (VPH)*	2,183	49	

*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.