

RTIP ID# SBD4 120213, FTIP ID 20190015, RTP ID 4120213			
TCWG Consideration Date			
Project Description			
<p>The San Bernardino County Transportation Authority—in cooperation with the cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana—proposes implementation of the West Valley Connector Project, a 35-mile-long bus rapid transit (BRT) project that will provide speed and quality improvements to the public transit system within the corridor and increase ridership. The proposed project is located primarily at the eastern end of Los Angeles County in the City of Pomona and at the southwestern end of San Bernardino County in the cities of Montclair, Ontario, Rancho Cucamonga, and Fontana. The proposed project alignment is generally running along Holt Boulevard/Avenue and Foothill Boulevard. The project limits are bounded on the north by Church Street, on the west by Main Street, on the east by Sierra Avenue, and on the south by Ontario International Airport (see Figure 1 and Figure 2). The project includes BRT stations at 33 locations/major intersections and associated improvements, premium transit service, Transit Signal Priority and queue jump lanes, dedicated lanes, and integration with other bus routes.</p> <p>The project alignment consists of two phases. Phase I of the project would construct the “Milliken Alignment”, from the Regional Transit Center in Pomona to Victoria Gardens in Rancho Cucamonga. Phase II of the project would construct the “Haven Alignment”, from Ontario International Airport to Kaiser Permanente Medical Center in Fontana. The Phase I Milliken Alignment would be constructed first and is proposed to have 10-minute peak and 15-minute off-peak headways. Phase II is intended to be constructed immediately following the completion of Phase I, depending on the availability of funding, and is proposed to have 20-minute peak and 30-minute off-peak headways.</p> <p>Several alternatives were considered during the project development phase of the project. A No Build Alternative and two build alternatives (Alternatives A and B) are being analyzed in the Environmental Assessment (see Figure 3):</p> <ul style="list-style-type: none"> • No Build Alternative – Involves no improvements to existing bus services, which maintain current service of 15-minute headways (total of four buses per hour in each direction) along Routes 61 and 66. • Build Alternative A – Full BRT corridor with 60 side-running stations at 33 locations/major intersections. No dedicated bus-only lanes. • Build Alternative B – Full BRT with Dedicated Bus-only lanes in Ontario. With exception to the 3.5-mile Dedicated Bus-only lanes in Ontario, the remainder of “Alternative B” is identical to “Alternative A”. Within the 3.5-mile Dedicated Bus-only segment proposed for “Alternative B”, “Alternative A” plans for side running stations instead of center running stations. The dedicated lanes would include two mixed-flow lanes and one transit lane in each direction. To accommodate the dedicated lanes, roadway widening, and additional utilities, this alternative requires permanent and temporary right-of-way acquisitions. 			
Type of Project Bus, rail, or inter-modal facility/terminal/transfer point.			
County San Bernardino	Narrative Location/Route & Postmiles From the Metrolink station on S Garey Ave in Pomona, extending eastward along Holt Ave/Blvd to the Ontario Airport, then along Foothill Blvd through Rancho Cucamonga to Sierra Ave in Fontana, turning south and terminating at Kaiser Permanente Medical Center in Fontana.		
Lead Agency: San Bernardino County Transportation Authority			
Contact Person Victor Lopez	Phone# (909) 889-6811	Fax#	Email vlopez@gosbcta.com
Hot Spot Pollutant of Concern (check one or both) PM2.5 <input checked="" type="checkbox"/> PM10 <input checked="" type="checkbox"/>			

Federal Action for which Project-Level PM Conformity is Needed				
Categorical Exclusion (NEPA)	<input checked="" type="checkbox"/> EA or Draft EIS	FONSI or Final EIS	PS&E or Construction	Other
Scheduled Date of Federal Action: August 2018				
NEPA Assignment – Project Type				
Exempt	Section 326 – Categorical Exemption	<input checked="" type="checkbox"/> Section 327 – Non-Categorical Exemption		
Current Programming Dates (as appropriate)				
	PE/Environmental	ENG	ROW	CON
Start	11/15	7/18	3/19	9/23
End	10/22	3/23	3/23	9/25
<p>Project Purpose and Need (Summary): The purpose of the proposed project is to improve corridor mobility and transit efficiency in the San Bernardino Valley from the City of Pomona to the City of Fontana with an enhanced, state-of-the-art BRT system. The proposed project would address the growing traffic congestion and travel demands of the one million people that would be added to San Bernardino County by 2030. Improved rapid transit along the project corridor would help SBCTA/Omnitrans achieve its long-range goals to cost effectively enhance lifeline mobility and accessibility, improve transit operations, increase ridership, support economic growth and redevelopment, conserve nonrenewable resources, and improve corridor safety.</p> <p>Recognizing the importance of the West Valley Connector transit corridor, SBCTA proposes a project that is designed to achieve the following objectives:</p> <ul style="list-style-type: none"> • Improve transit service by better accommodating high existing bus ridership. • Improve ridership by providing a viable and competitive transit alternative to the automobile. • Improve efficiency of transit service delivery while lowering Omnitrans' operating costs per rider. • Support local and regional planning goals to organize development along transit corridors and around transit stations. <p>The project purpose and objectives stated above would respond to the following needs:</p> <ul style="list-style-type: none"> • Current and future population and employment conditions establish a need for higher-quality transit service. • Current and future transportation conditions establish a need for an improved transit system. • Transit-related opportunities exist in the project area. 				
<p>Surrounding Land Use/Traffic Generators (especially effect on diesel traffic) The 35-mile project corridor transects portions of the cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana. These municipal areas are characterized by various types of land uses and traffic generators. The corridor includes areas of substantial residential, retail, commercial, medical, and industrial land uses as well as the Ontario International Airport.</p>				

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

Opening Year: AADT, % and # trucks, truck AADT of proposed facility														
Jurisdiction	Route	From	To	Year 2025										
				No Build ADT	No Build Truck %	No Build Truck ADT	Alt A ADT	Alt A Truck %	Alt A Truck ADT	Alt A Truck Volume Change	Alt B ADT	Alt B Truck %	Alt B Truck ADT	Alt B Truck Volume Change
Pomona	Holt Blvd	East End Ave	Via Del Paseo	32,938	4.02%	1326	33,388	3.97%	1,326	0	33,388	3.97%	1,326	0
Pomona	Holt Blvd	Via Del Paseo	Indian Hill Blvd	31,338	4.02%	1261	31,788	3.97%	1,261	0	31,788	3.97%	1,261	0
Montclair	Holt Blvd	Mills Ave	Amherst Ave	23,850	3.24%	772	24,300	3.18%	772	0	24,300	3.18%	772	0
Montclair	Holt Blvd	Amherst Ave	Ramona Ave	23,600	3.24%	764	24,050	3.18%	764	0	24,050	3.18%	764	0
Ontario	Holt Blvd	Euclid Ave	Plum Ave	23,538	2.46%	578	23,988	2.41%	578	0	23,013	2.51%	578	0
Ontario	Holt Blvd	Plum Ave	Sultana Ave	23,288	2.46%	572	23,738	2.41%	572	0	24,175	2.37%	572	0
Ontario	Holt Blvd	Sultana Ave	Campus Ave	23,963	2.46%	589	24,413	2.41%	589	0	24,563	2.40%	589	0
Ontario	Inland Empire Blvd	Center Ave	Haven Ave	16,288	4.80%	782	16,963	4.61%	782	0	16,963	4.61%	782	0
Ontario	Inland Empire Blvd	Haven Ave	Porsche Wy	17,438	4.80%	837	17,888	4.68%	837	0	17,888	4.68%	837	0
Rancho Cucamonga	Milliken Ave	7th St	Jersey Blvd	39,625	4.80%	1902	40,075	4.75%	1,902	0	40,075	4.75%	1,902	0
Rancho Cucamonga	Milliken Ave	Jersey Blvd	Arrow Rte	37,900	4.80%	1820	38,350	4.74%	1,820	0	38,350	4.74%	1,820	0
Rancho Cucamonga	Foothill Blvd	Day Creek Blvd	I-15 SB Ramps	65,463	1.89%	1234	65,688	1.88%	1,234	0	65,688	1.88%	1,234	0
Rancho Cucamonga	Foothill Blvd	I-15 SB Ramps	I-15 NB Ramps	50,113	1.89%	945	50,338	1.88%	945	0	50,338	1.88%	945	0
Fontana	Foothill Blvd	Almeria Ave	Tokay Ave	27,850	1.89%	525	28,075	1.87%	525	0	28,075	1.87%	525	0
Fontana	Foothill Blvd	Tokay Ave	Citrus Ave	29,450	1.89%	555	29,675	1.87%	555	0	29,675	1.87%	555	0
Fontana	Sierra Ave	Merrill Ave	Randall Ave	28,938	2.12%	613	29,163	2.10%	613	0	29,163	2.10%	613	0
Fontana	Sierra Ave	Randall Ave	San Bernardino Ave	31,563	2.12%	668	31,788	2.10%	668	0	31,788	2.10%	668	0

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

Opening Year: Build and No Build LOS

Jurisdiction	Route	Intersecting Signal	Year 2025 - AM Peak Hour			Year 2025 - PM Peak Hour		
			No Build	Alt A	Alt B	No Build	Alt A	Alt B
Pomona	Holt Blvd	East End Ave	C	C	C	D	D	D
Pomona	Holt Blvd	Via Del Paseo	A	A	A	A	A	A
Montclair	Holt Blvd	Mills Ave	A	A	A	B	B	B
Montclair	Holt Blvd	Amherst Ave	A	A	A	A	A	A
Ontario	Holt Blvd	Euclid Ave	A	A	B	A	A	A
Ontario	Holt Blvd	Plum Ave	C	D	C	C	C	C
Ontario	Holt Blvd	Sultana Ave	A	A	A	A	A	A
Ontario	Inland Empire Blvd	Center Ave	B	B	B	C	C	C
Ontario	Inland Empire Blvd	Haven Ave	A	A	A	A	A	A
Rancho Cucamonga	Milliken Ave	7th St	B	B	B	B	B	B
Rancho Cucamonga	Milliken Ave	Jersey Blvd	C	C	C	E	E	E
Rancho Cucamonga	Foothill Blvd	Day Creek Blvd	B	B	B	B	B	B
Rancho Cucamonga	Foothill Blvd	I-15 SB Ramps	B	B	B	A	A	A
Fontana	Foothill Blvd	Almeria Ave	B	B	B	A	A	A
Fontana	Foothill Blvd	Tokay Ave	B	B	B	C	C	C
Fontana	Sierra Ave	Merrill Ave	C	B	B	B	B	B
Fontana	Sierra Ave	Randall Ave	C	C	C	D	D	D

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

RTP Horizon Year / Design Year: AADT, % and # trucks, truck AADT of proposed facility														
Jurisdiction	Route	From	To	Year 2040										
				No Build ADT	No Build Truck %	No Build Truck ADT	Alt A ADT	Alt A Truck %	Alt A Truck ADT	Alt A Truck Volume Change	Alt B ADT	Alt B Truck %	Alt B Truck ADT	Alt B Truck Volume Change
Pomona	Holt Blvd	East End Ave	Via Del Paseo	37,963	4.02%	1528	38,413	3.98%	1,528	0	38,413	3.98%	1,528	0
Pomona	Holt Blvd	Via Del Paseo	Indian Hill Blvd	34,925	4.02%	1406	35,375	3.97%	1,406	0	35,375	3.97%	1,406	0
Montclair	Holt Blvd	Mills Ave	Amherst Ave	27,963	3.24%	905	28,413	3.19%	905	0	28,413	3.19%	905	0
Montclair	Holt Blvd	Amherst Ave	Ramona Ave	26,563	3.24%	860	27,013	3.18%	860	0	27,013	3.18%	860	0
Ontario	Holt Blvd	Euclid Ave	Plum Ave	27,113	2.46%	666	27,563	2.42%	666	0	26,450	2.52%	666	0
Ontario	Holt Blvd	Plum Ave	Sultana Ave	26,838	2.46%	659	27,288	2.42%	659	0	27,725	2.38%	659	0
Ontario	Holt Blvd	Sultana Ave	Campus Ave	27,713	2.46%	681	28,163	2.42%	681	0	28,313	2.40%	681	0
Ontario	Inland Empire Blvd	Center Ave	Haven Ave	18,650	4.80%	895	19,325	4.63%	895	0	19,325	4.63%	895	0
Ontario	Inland Empire Blvd	Haven Ave	Porsche Wy	20,088	4.80%	964	20,538	4.70%	964	0	20,538	4.70%	964	0
Rancho Cucamonga	Milliken Ave	7th St	Jersey Blvd	42,238	4.80%	2028	42,688	4.75%	2,028	0	42,688	4.75%	2,028	0
Rancho Cucamonga	Milliken Ave	Jersey Blvd	Arrow Rte	40,975	4.80%	1967	41,425	4.75%	1,967	0	41,425	4.75%	1,967	0
Rancho Cucamonga	Foothill Blvd	Day Creek Blvd	I-15 SB Ramps	71,750	1.89%	1352	71,975	1.88%	1,352	0	71,975	1.88%	1,352	0
Rancho Cucamonga	Foothill Blvd	I-15 SB Ramps	I-15 NB Ramps	57,075	1.89%	1076	57,300	1.88%	1,076	0	57,300	1.88%	1,076	0
Fontana	Foothill Blvd	Almeria Ave	Tokay Ave	31,288	1.89%	590	31,513	1.87%	590	0	31,513	1.87%	590	0
Fontana	Foothill Blvd	Tokay Ave	Citrus Ave	33,275	1.89%	627	33,500	1.87%	627	0	33,500	1.87%	627	0
Fontana	Sierra Ave	Merrill Ave	Randall Ave	31,638	2.12%	670	31,863	2.10%	670	0	31,863	2.10%	670	0
Fontana	Sierra Ave	Randall Ave	San Bernardino Ave	34,125	2.12%	723	34,350	2.10%	723	0	34,350	2.10%	723	0

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

RTP Horizon Year / Design Year: Build and No Build LOS

Jurisdiction	Route	Intersecting Signal	Year 2040 - AM Peak Hour			Year 2040 - PM Peak Hour		
			No Build	Alt A	Alt B	No Build	Alt A	Alt B
Pomona	Holt Blvd	East End Ave	C	C	C	E	D	D
Pomona	Holt Blvd	Via Del Paseo	A	A	A	A	A	A
Montclair	Holt Blvd	Mills Ave	B	A	A	B	B	B
Montclair	Holt Blvd	Amherst Ave	A	A	A	A	A	A
Ontario	Holt Blvd	Euclid Ave	A	A	B	B	A	A
Ontario	Holt Blvd	Plum Ave	B	D	C	C	C	C
Ontario	Holt Blvd	Sultana Ave	A	A	A	A	A	A
Ontario	Inland Empire Blvd	Center Ave	B	B	B	D	C	C
Ontario	Inland Empire Blvd	Haven Ave	A	A	A	B	A	A
Rancho Cucamonga	Milliken Ave	7th St	B	B	B	C	B	B
Rancho Cucamonga	Milliken Ave	Jersey Blvd	C	C	C	F	E	E
Rancho Cucamonga	Foothill Blvd	Day Creek Blvd	B	B	B	B	B	B
Rancho Cucamonga	Foothill Blvd	I-15 SB Ramps	B	B	B	B	A	A
Fontana	Foothill Blvd	Almeria Ave	B	B	B	A	A	A
Fontana	Foothill Blvd	Tokay Ave	C	B	B	D	C	C
Fontana	Sierra Ave	Merrill Ave	C	B	B	C	B	B
Fontana	Sierra Ave	Randall Ave	C	C	C	E	D	D

<p>Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT The proposed project is not an interchange or intersection, and therefore these data are not applicable.</p> <p>RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT The proposed project is not an interchange or intersection, and therefore these data are not applicable.</p>
<p>Describe potential traffic redistribution effects of congestion relief (<i>impact on other facilities</i>) The proposed project would improve overall performance and reduce congestion within the project limits by providing a transportation mode alternative to passenger vehicles. The project will encourage patrons to use the BRT service instead of operating passenger vehicles, thereby reducing traffic volumes throughout the project corridor. The project will not result in additional diesel vehicle trips or passenger vehicle trips. Improved rapid transit along the project corridor would enhance lifeline mobility and accessibility, improve transit operations, increase ridership, and improve corridor safety.</p>
<p>Comments/Explanation/Details (<i>attach additional sheets as necessary</i>) Under 40 CFR 93.123(b)—PM₁₀ and PM_{2.5} Hot Spots—the following criteria are utilized to determine the potential for a proposed project to qualify as a Project of Air Quality Concern.</p> <p>(i) <i>New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;</i></p> <p>As shown in the tables above, the proposed project is a BRT project that would not result in a significant increase in the number of diesel vehicles along the 33.5-mile-long project corridor. There is no increase in daily truck traffic associated with implementation of the proposed project. Therefore, the proposed project would not result in a significant increase in the number of diesel vehicles and would not be considered a Project of Air Quality Concern under this criterion.</p> <p>(ii) <i>Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;</i></p> <p>The proposed project will not increase the number of diesel vehicles on the road. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.</p> <p>(iii) <i>New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;</i></p> <p>The proposed project would not implement a new bus or retail terminal or transfer point at which diesel vehicles would be congregating. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.</p> <p>(iv) <i>Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and</i></p> <p>The proposed project does not involve expansion of a bus or rail terminal or transfer point. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.</p> <p>(v) <i>Projects in or affecting locations, areas, or categories of sites which are identified in the PM₁₀ or PM_{2.5} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.</i></p> <p>The proposed project is not in or affecting a site of PM₁₀ or PM_{2.5} air quality standard violation. Therefore, the proposed project would not be considered a Project of Air Quality Concern under this criterion.</p>

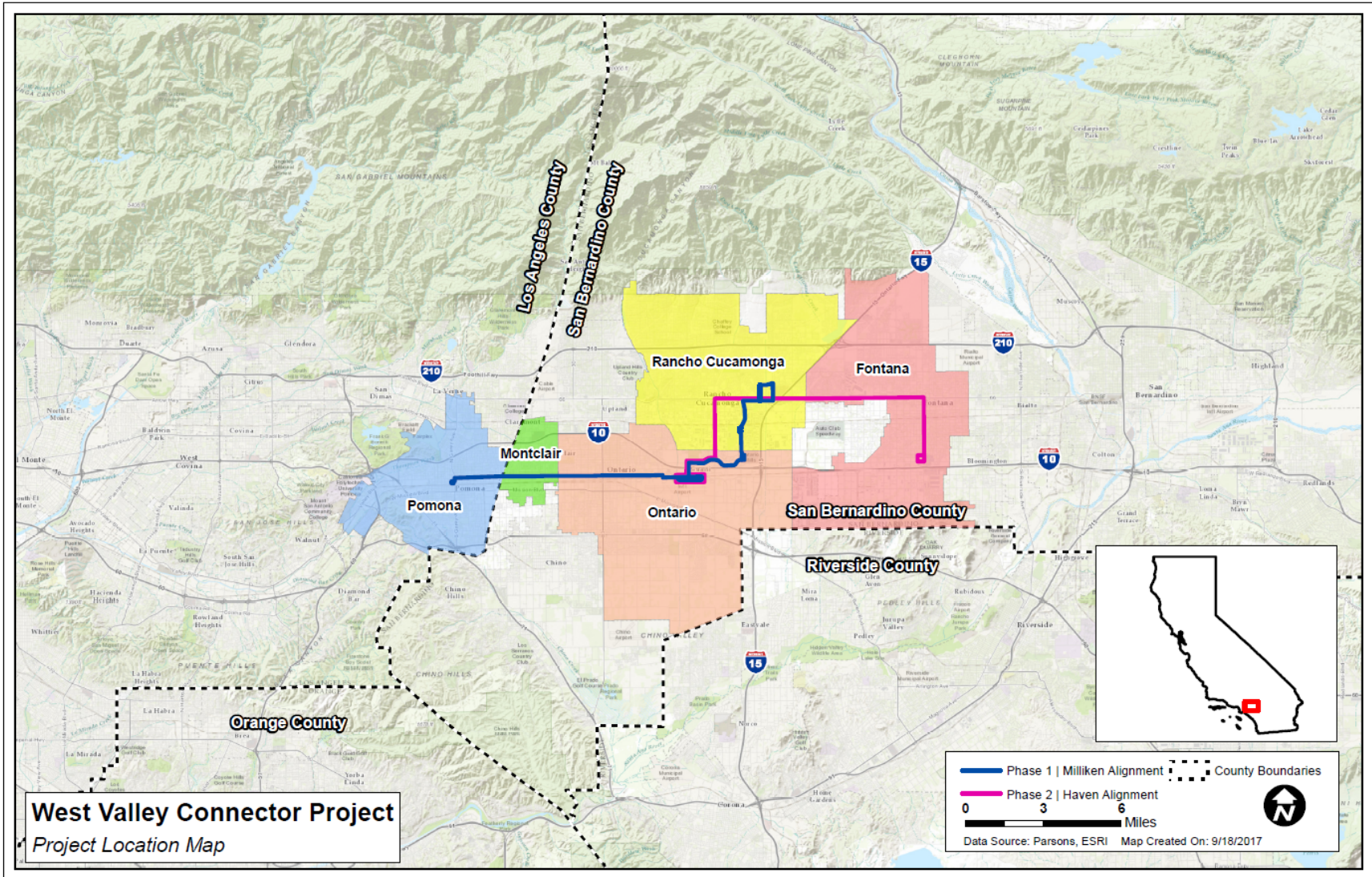


Figure 1 Project Location Map

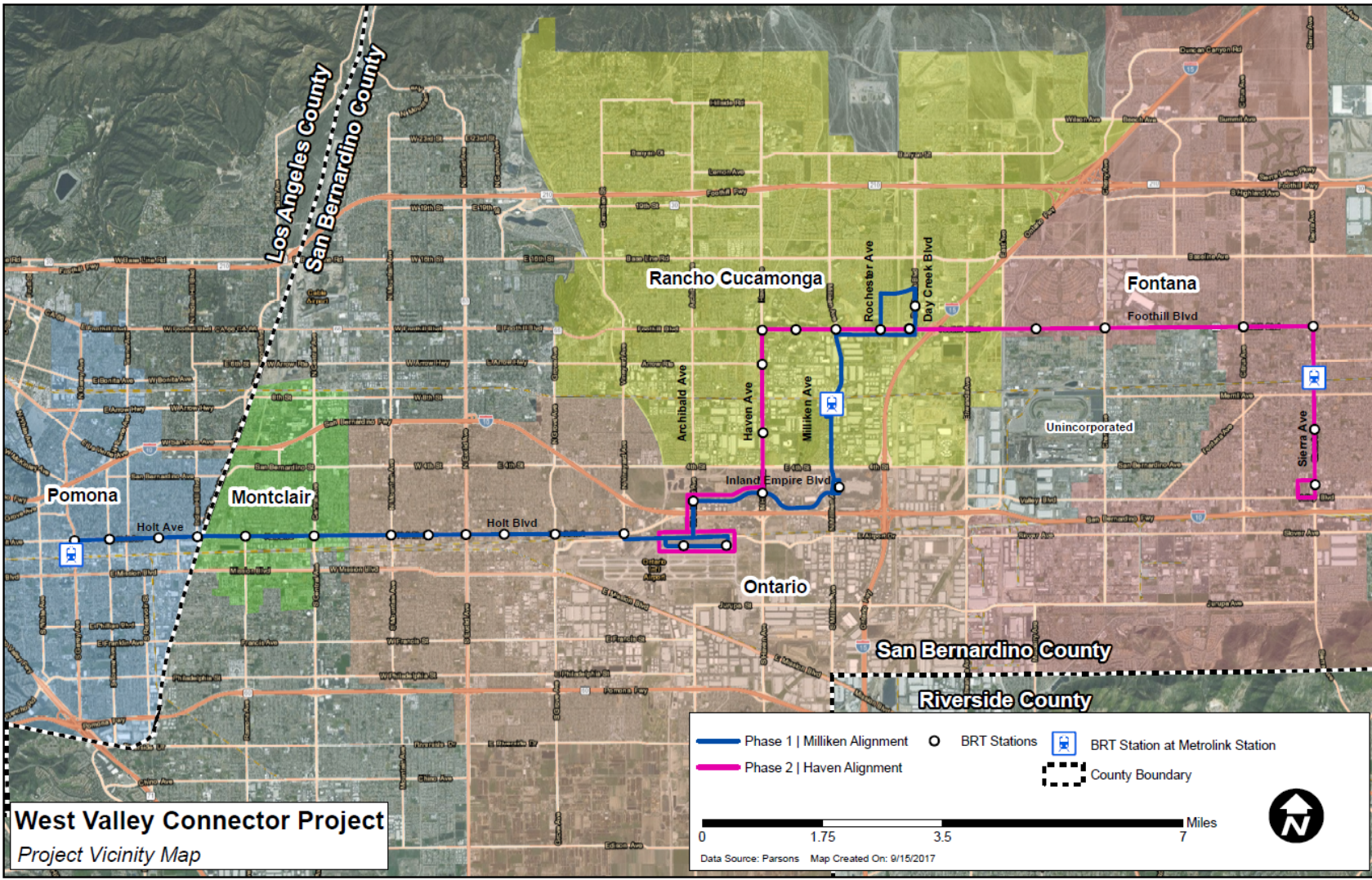


Figure 2 Project Vicinity Map

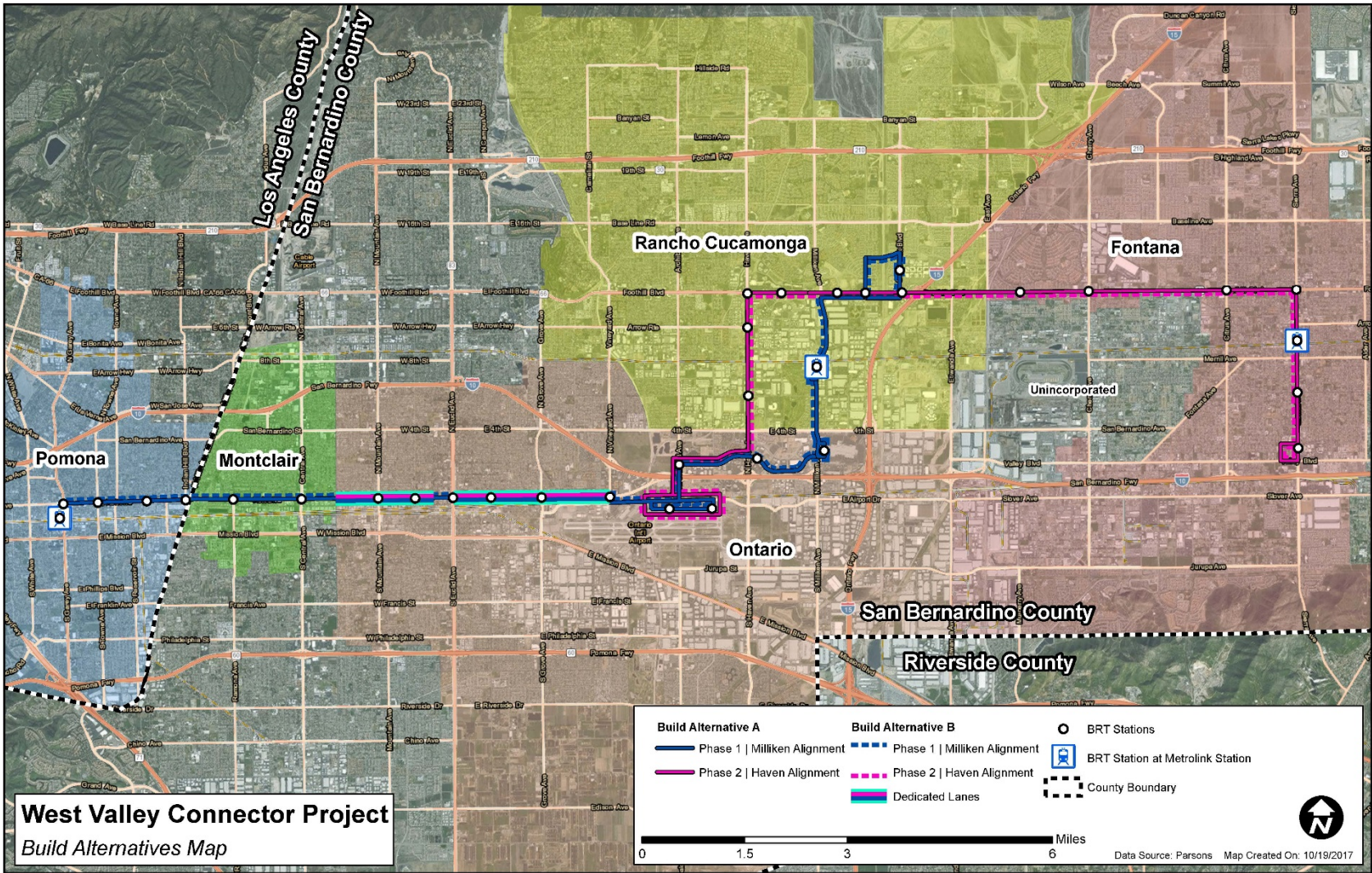


Figure 3 Build Alternatives Map

West Valley Connector Corridor Bus Rapid Transit Project Supplemental Traffic Analysis

June 2022

1.0 PURPOSE OF THIS DOCUMENT

The Traffic Operations Analysis Report and Operations and Maintenance Facility Traffic Analysis Report for the West Valley Connector Corridor (WVCC) Bus Rapid Transit (BRT) Project were prepared in 2018 in support of the Final Environmental Impact Report (EIR) and the Environmental Assessment (EA) for the project. Since the certification of the Final EIR by the San Bernardino County Transportation Authority (SBCTA) Board and the issuance of the Finding of No Significant Impact (FONSI) by the Federal Transit Administration (FTA) in May 2020, changes have occurred to the Project. The purpose of this Supplemental Operations and Maintenance Facility Traffic Analysis is to assess whether there are any new traffic impacts that would result due to changes to the project.

2.0 BACKGROUND

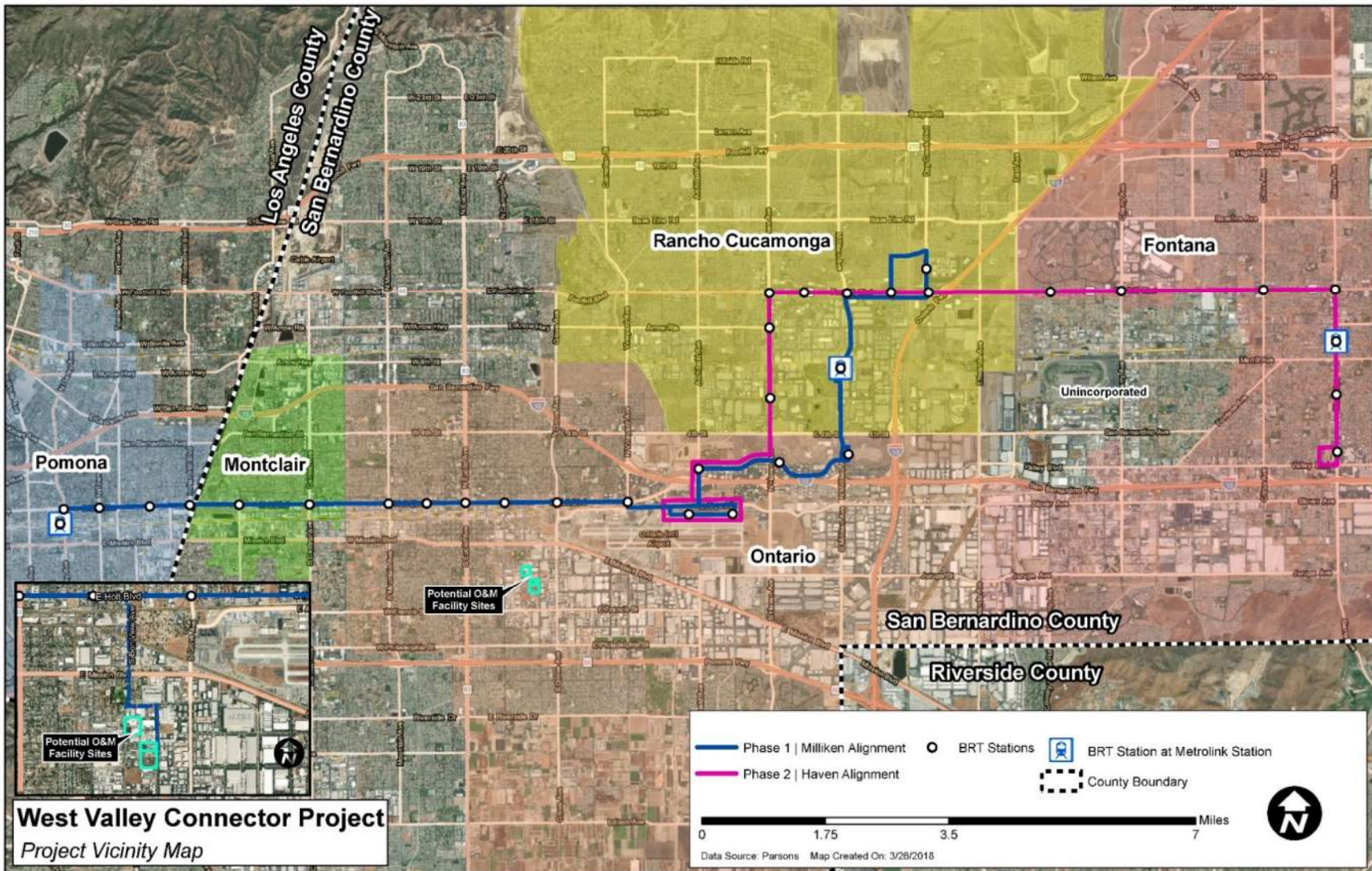
The SBCTA, in cooperation with the cities of Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana, proposes construction of the 35-mile-long WVCC Project, which would decrease travel times and improve the existing public transit system within the corridor.

The project includes up to 60 station platforms at 33 locations/major intersections and associated improvements. The environmental review process for the project was completed in accordance with California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) requirements.. The Final EIR under CEQA and FONSI under NEPA were completed in March 2020. The SBCTA and the participating cities identified Alternative B (Full BRT with 3.5 miles of dedicated bus-only lanes on Holt Boulevard in Ontario) as the preferred alternative. The SBCTA Board certified the Final EIR in May 2020, and FTA issued a FONSI for the project shortly after the Final EIR was certified. Figure 1 presents the original project map.

Description of the Preferred Alternative (Alternative B)

Alternative B, the Preferred Alternative, includes the full 35-mile-long BRT corridor, which is composed of the Phase I/Milliken Alignment, Phase II/Haven Alignment, 3.5 miles of dedicated bus-only lanes in Ontario, and 5 center-running stations and 50 side-running stations at up to 33 locations/major intersections.

Figure 1. WVCC BRT Original Project Map (Final EIR/FONSI, March 2020)



The dedicated lanes segment includes 2 mixed-flow lanes and 1 transit lane in each direction and 5 center-running stations. To accommodate dedicated lanes, right-of-way acquisition and temporary construction easements are required for roadway widening and placement of electrical and fiber optic utility lines. This process is currently ongoing and is scheduled to be completed by late 2022. Land acquisition along the corridor will also accommodate roadway reconfiguration and station construction. In addition, some areas of the project corridor involve relocation or extension of adjacent driveways, curbs, medians, sidewalks, parking lots, and local bus stops.

The project would be constructed in two phases: Phase I/Milliken Alignment, from the Pomona Regional Transit Center to Victoria Gardens in Rancho Cucamonga, and Phase II/ Haven Alignment, from Ontario International Airport to Kaiser Permanente Medical Center in Fontana. Phase I is scheduled for completion in late 2024. Construction of the Phase II/ Haven Alignment is scheduled to occur after completion of Phase I when funding is available.

The project's bus fleet would be composed of 60-foot-long articulated compressed natural gas (CNG) propulsion buses. A new operations and maintenance (O&M) facility for light maintenance activities would be constructed as part of the project during the Phase I/Milliken Alignment. As part of the environmental analysis, three potential sites in Ontario were considered for the proposed new O&M facility, with Site 3, a parcel owned by the City of Ontario (1333 S. Bon View Avenue), selected as the preferred site through the CEQA/NEPA process.

3.0 CHANGES TO PROJECT

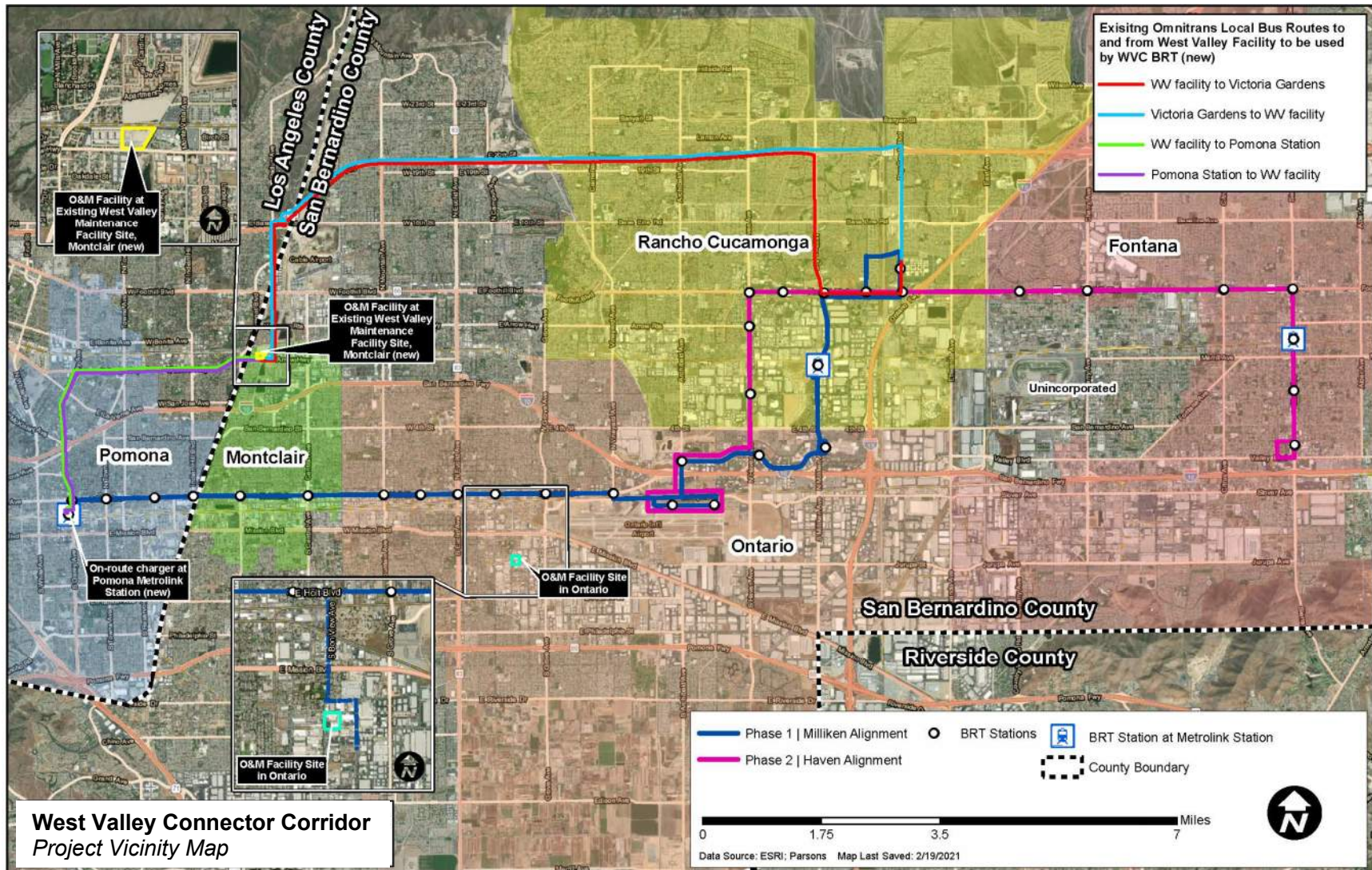
Subsequent to environmental approval of the WVCC Project in 2020, as described earlier, the SBCTA proceeded with project design of the Phase I/Milliken Alignment. To deliver the most cost-effective project, the SBCTA has continued to review the project for savings. Subsequently, the SBCTA has identified changes that could be implemented to help achieve significant cost savings and also meet California's health-based air quality standards and greenhouse gas emission reduction goals while adhering to the project's purpose and need.

The following paragraphs and Figure 2 summarize the proposed changes to the WVCC project description stated in the Final EIR/FONSI (March 2020).

3.1 Change in Bus Type and Length

The SBCTA had identified the use of 40-foot-long buses over the 60-foot-long CNG buses (proposed in the environmental document) as one of the opportunities for savings. Based on the evaluation, the SBCTA determined that the seated passenger capacity of the 40-foot and 60-foot buses is similar and can accommodate ridership projections for the project. Design adjustments can be incorporated that allow for the loading of bikes on the front of the 40-foot bus as opposed to bringing them onto 60-foot buses. In addition, a 3-door, 40-foot bus is available that will serve the planned center platforms along Holt

Figure 2. WVCC BRT Proposed Changes



Boulevard. Finally, the center platform can be designed in such a way that it could accommodate 60-foot buses in the future, both from a platform length and platform height perspective. Therefore, the use of 40-foot-buses can still meet the high-quality transit system and the projected demand as stated in the purpose and need of the project.

As the final design proceeded, the SBCTA recently received a Transit and Intercity Rail Capital Program (TIRCP) funding award of \$15 million administered by the California State Transportation Agency (CalSTA), for the purchase of zero-emission battery electric buses (BEB) for the WVCC Project. The use of BEBs would also help the SBCTA to meet the State Zero-Emission Vehicle (ZEV) program aimed at reducing air pollutant and greenhouse gas emissions. Due to the unavailability of the 60-foot-long BEBs, the SBCTA decided to purchase 18 of the 40-foot-long BEBs as part of Phase I operations to take advantage of available grant funding. To maintain future flexibility, the WVCC stations are being designed to accommodate the use of both 40-foot-long and 60-foot-long buses.

3.2 Change in O&M Facility and Charging Infrastructure

The Omnitrans recently implemented the Connect Forward service reduction plan at its West Valley Vehicle Maintenance Facility (WVVMF), located at 4748 E. Arrow Highway, Montclair (Figure 3), which reduces the number of fixed route buses in service thus freeing up capacity. The SBCTA, working in partnership with the Omnitrans, has identified that the 18 bus fleet required for Phase I operations can be serviced at the WVVMF. The use of the Omnitrans' existing facility provides cost savings opportunity by deferring the construction of the new O&M facility at 1333 S. Bon View Avenue in Ontario until funding is available or when the bus fleet is expanded as part of the Phase II/Haven Alignment operations. Other than the phasing, there are no additional changes to the new O&M facility in Ontario (e.g., description, anticipated impacts or previous mitigation pertaining to the new O&M facility).

To use the existing WVVMF site in Montclair as an O&M facility to service the BEBs for the WVCC Project, some retrofits would be required, including electrical infrastructure upgrades and installation of charging stations within the facility's premises (Figure 4). The use of BEBs would also require installation of on-route chargers at the Pomona Transit Center Station located at the Pomona Transit Center/MetroLink station area (Figure 5). However, there would be no change to the footprint of either facility. Installation of the on-route chargers would occur concurrently with the WVCC Project's station construction program. No additional property acquisition is required to convert the existing WVVMF in Montclair to handle the O&M needs associated with implementation of the WVCC Project.

The BRT buses accessing the proposed O&M site in Montclair are expected to follow the current routes used by Omnitrans' local buses. Except for the proposed changes outlined above, all other WVCC Project elements as described in the 2020 Final EIR/FONSI would remain the same.

Figure 3. Aerial View of Existing Omnitrans West Valley Vehicle Maintenance Facility



Figure 4. O&M Facility Conceptual Site Plan at WVVMF

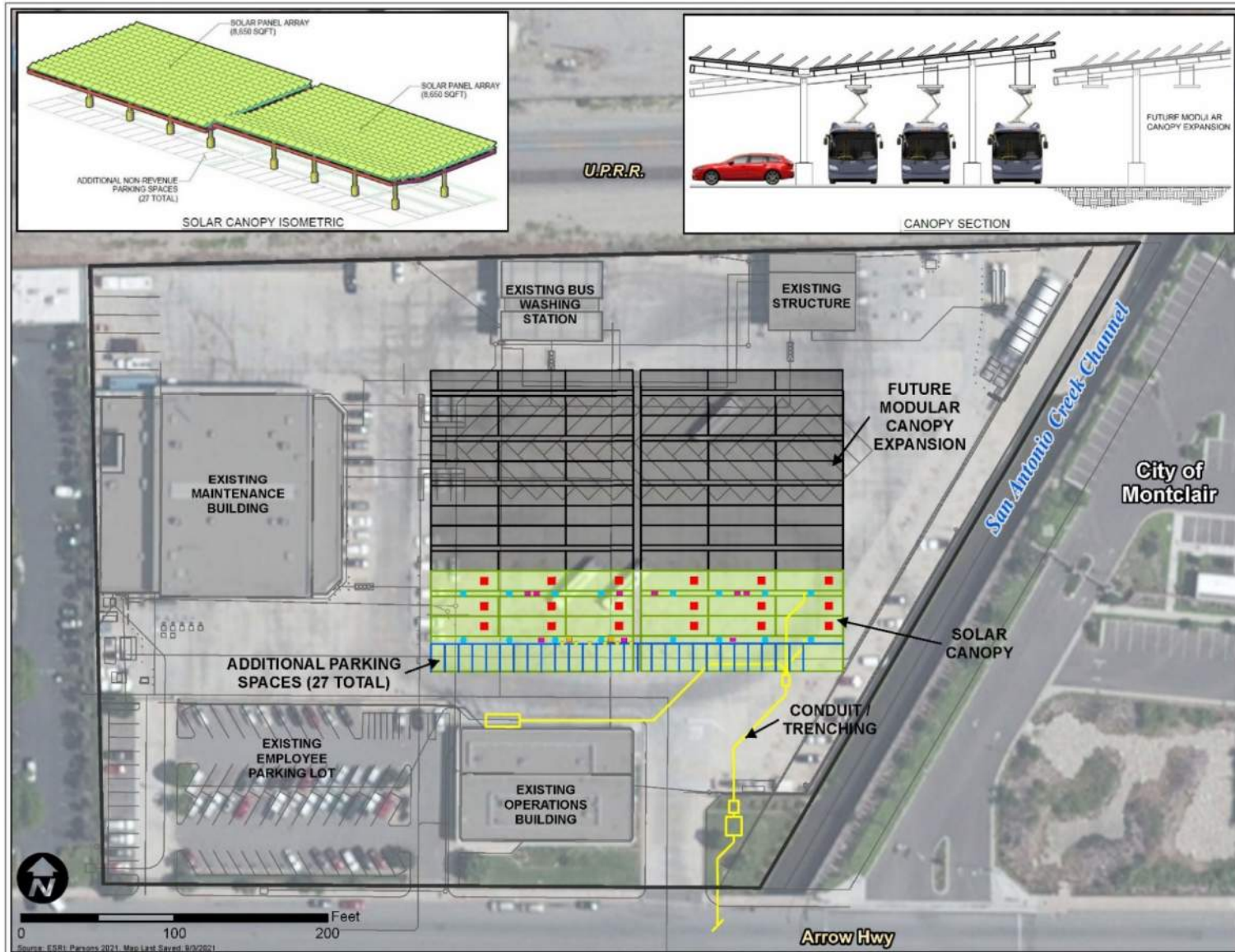
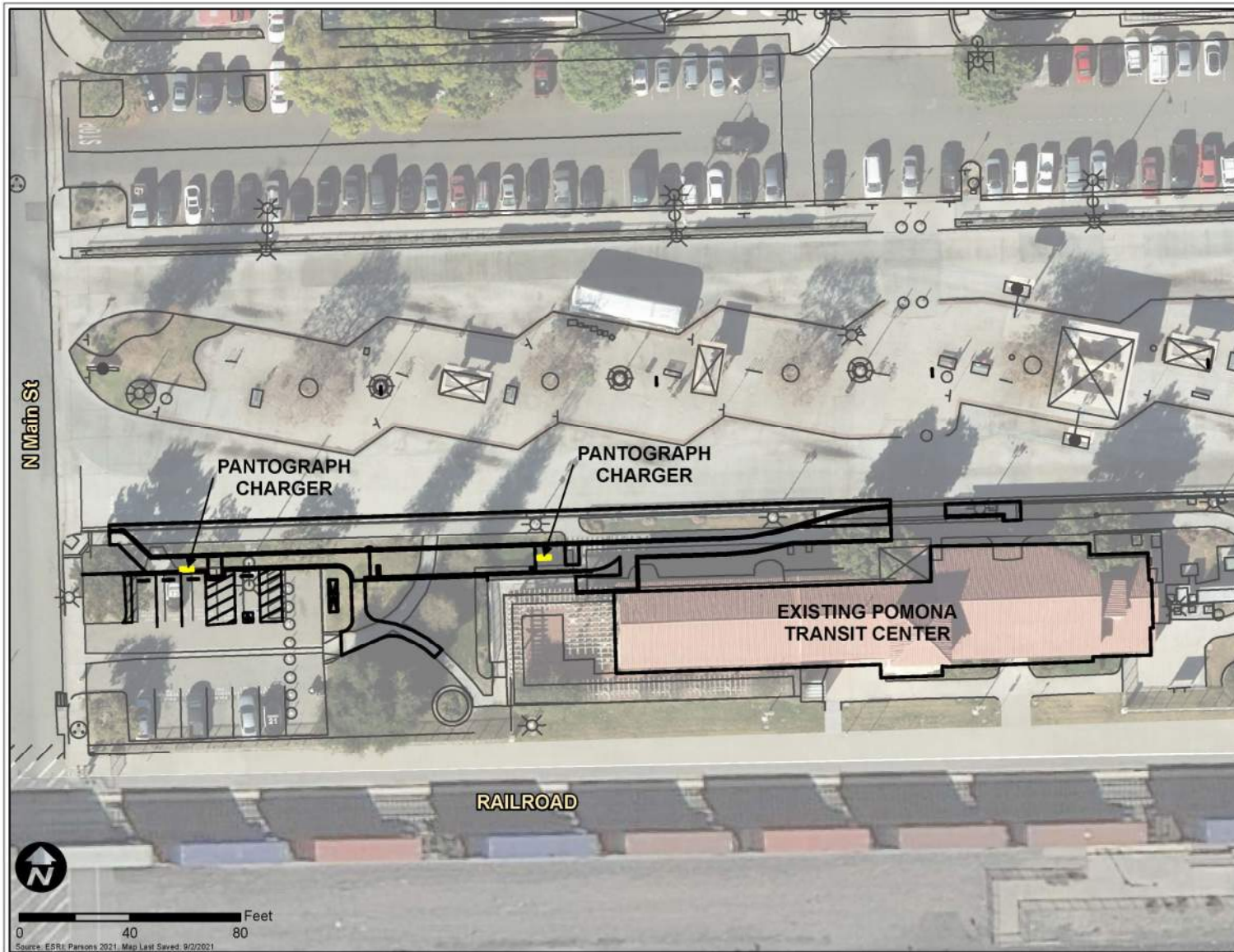


Figure 5. Two Chargers to be Installed at Pomona Transit Center Station



Proposed New Use of WVVMF

Conversion of the existing WVVMF to support O&M functions of the WVCC Project requires changes to the facility. The BEB parking and charging stations would be located at the open paved area at the central section of the WVVMF site, while parking spaces for employee and visitor vehicles would be located just north of the office building area (see Figure 4). BEB charging areas would consist of three rows and be covered by a solar canopy supported by concrete columns and located immediately to the north of the new vehicle parking spaces. Nine 150-kilowatt electric bus chargers and two 150-kilowatt electric vehicle chargers would be provided under this canopy. The remaining area between the proposed charging areas and the existing bus wash facility and fueling station to the north would continue to be used for bus parking. Underground conduits would extend from the charging area to the battery backup, switchboard, transformer, and the power line service connection at Arrow Highway.

On-Route Charger

The use of 40-foot BEBs will also require the installation of on-route chargers at the Pomona Transit Center Station. The installation of on-route chargers will occur within the existing footprint of the original proposed station to be located within the Pomona Transit Center Station (see Figure 5), and the area and depth of which has been previously disturbed.

Construction Activities

Modification of the existing Montclair WVVMF to support the BEB maintenance would occur as part of the Phase I/Milliken Alignment construction, which would start in March 2023 and be completed in late 2024. Installation of the on-route chargers at the Pomona Transit Center Station would occur at the same time as the WVCC Project construction.

Construction activities at the WVVMF site would include mobilization and staging, site clearing, grading and paving, charging structure construction, equipment installation, and minor landscaping and finishing. The charging structure would require soil excavation of approximately 15 feet below existing ground surface, subject to the verification of the geotechnical investigation. Trenching for electrical and communication equipment, and if any wet or dry utility relocations are needed, would have an excavation depth of approximately 6 feet.

Construction activities at the Pomona Transit Center Station would include installation of two electric pantograph chargers. The maximum excavation depth for these chargers is 10 feet.

In all, ground disturbance is limited to the above described locations. No extensive backfill or grading are expected given the relatively flat elevation of the project site.

On-site Operational Activities

BEB buses would be parked, charged, and maintained at the Omnitrans WVVMF. A total of nine 150- kW chargers would be installed at the WVVMF, two of which would be reserved for future uses. Bus charging would likely occur during the nighttime.

A total of 48 new employees would be added to the site, aside from the existing 157 employees of the facility. The operating hours of the facility are currently from 3:00 a.m. to 11:30 p.m. for operations and from 5:30 a.m. to 2:30 p.m. for maintenance, every day except for select holidays.

Implementation Schedule

The implementation schedule has been updated as follows:

- Completion of the environmental compliance phase (March 2020)
- Completion of Final Design (December 2022) and begin construction in March 2023
- Completion of Phase I/Milliken Alignment and O&M facility construction in October 2024
- Completion of vehicle procurement and system testing in December 2024
- System operation in February 2025

Construction of Phase II/Haven Alignment is scheduled to occur after completion of the Phase I/Milliken Alignment pending funding availability.

4.0 CHANGES IN ENVIRONMENTAL SETTING

The changes to the WVCC Project include additional transportation-related facilities to be constructed at the existing Omnitrans' WVVMF and the existing Pomona Transit Center Station. The Pomona Transit Center Station is the location of one of the BRT stations included in the WVCC Project. The on-route chargers would be installed within an area of pavement and ornamental landscaping within the southern portion of the Pomona Transit Center Station.

The Omnitrans WVVMF occupies approximately 5.3 acres and currently operates as a terminal and service facility for Omnitrans buses. The facility includes an office building at the southeastern section, a surface parking lot for employees at the southwestern section, repair shop and storage at the western section, bus wash facility at the northern section, fueling station at the northeastern section, aboveground storage tanks and parking spaces along the eastern edge, and bus parking areas at the central section.

An access driveway is located at the southeastern corner and the site is surrounded by block walls and wrought iron fence on the south (Arrow Highway), block walls on the north and west, and a chain-link fence on the east. An aerial view of the existing Omnitrans WVVMF and its vicinity is shown in Figure 3.

The following describes the characteristics/configurations of key roadways in the study area in the vicinity of the WVVMF:

- Monte Vista Avenue, oriented in a north-south direction, is a six-lane divided roadway north of Arrow Highway and is a four-lane divided roadway south of Arrow Highway. Monte Vista Avenue provides direct access to Interstate (I) 10 on the south and indirect access to SR-210 via Base Line Road.

- Arrow Highway is a four-lane divided roadway, oriented in an east-west direction, in the vicinity of the WVVMF. The posted speed limit is 45 miles per hour.
- Base Line Road is a four-lane divided roadway, oriented in an east-west direction, providing access to State Route (SR) 210 east of Monte Vista Avenue. The roadway includes bicycle lanes in each direction and consists of a 45 miles per hour posted speed limit.
- Garey Avenue is a four-lane divided roadway, oriented in a north-south direction, providing access to I-10 on the south. The posted speed limit on Garey Avenue is 40 miles per hour in the vicinity of Arrow Highway.

5.0 CHANGES IN REGULATORY SETTING

No changes to the regulatory setting pertaining governing traffic operations and transportation analysis has occurred since the preparation of the Final EIR/FONSI.

6.0 IMPACTS OF PROJECT CHANGES

Change in Opening Year

The change in opening date from 2023 to 2025 would not change the results of the traffic impact analysis prepared for Phase I and Phase II implementation. The project's incremental effects (i.e., new vehicle trips generated) would remain the same in opening year 2025, as only the "no project" background traffic volumes would be anticipated to increase slightly.

Relocation of O&M Facility Site

The analysis of project changes focuses on potential near-term traffic impacts to three key intersections along the route(s) to/from the WVVMF. The three intersections selected as locations of potential traffic impacts are:

- Garey Avenue/Arrow Highway (City of Pomona)
- Monte Vista Avenue/Base Line Road (City of Claremont)
- Monte Vista Avenue/Arrow Highway (City of Montclair)

These intersections were selected for this analysis due to the fact that they are significant intersections along the bus routes to/from, and in near vicinity of, the WVVMF site. Further, these are locations where turning movements of new bus and passenger vehicle trips would occur (as opposed to through movements only). Turning movements, especially left-turn movements, have lower capacities than through movements. Therefore, additional trips to turning movements have the potential to result in greater impacts than additional trips to through movements. The intersection locations are shown in Figure 6.

Figure 6. Study Intersection Locations



Existing peak period traffic counts were acquired at each location from historical count data, in lieu of collecting new counts during the Covid-19 pandemic. The historical counts were adjusted to account for traffic growth, in order to develop a 2020-equivalent existing scenario. Traffic count data is provided in Attachment A.

Based on the traffic count data, the existing peak hour levels of service at the study intersections are summarized in Table 1. Detailed LOS calculation sheets are provided in Attachment B.

Table 1 – Existing Conditions Peak Hour Intersection LOS

	Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
1	Garey Avenue/Arrow Highway	Pomona	27.5	C	33.1	C
2	Monte Vista Avenue/Base Line Road	Claremont	34.8	C	52.4	D
3	Monte Vista Avenue/Arrow Highway	Montclair	26.9	C	34.4	C

As shown in Table 1, the key study intersections in the vicinity of the existing WVVMF site are currently operating at LOS D or better during peak hours, which is considered acceptable LOS within the three jurisdictions.

Based on the bus schedules and number of new employees (operators and maintenance staff) on site, the daily, peak hour, and off-peak period vehicle trip generation calculations were estimated. The bus operators are assumed to arrive at and depart from the facility outside of peak hours due to the bus route run time. The trip generation estimates are shown in Table 2.

Table 2 – O&M Facility Trip Generation

Trip Generation Component		AM Peak Hour Trips			PM Peak Hour Trips			Off-Peak Hour Trips			Daily Trips
		In	Out	Total	In	Out	Total	In	Out	Total	
Staff	Maintenance/Mechanics Staff	6	0	6	0	6	6	2	2	4	16
	Bus Operators	0	0	0	0	0	0	40	40	80	80
Bus	Bus Trips	0	0	0	0	0	0	24	24	48	48
	Bus Trips PCE-adjusted (3.0 factor)	0	0	0	0	0	0	72	72	144	144
Total (PCE-adjusted trips)		6	0	6	0	6	6	114	114	228	240

PCE = Passenger car equivalent

As shown in Table 2, the change in project description is forecast to generate 240 new PCE-adjusted daily trips at the WVVMF. However, the majority of new vehicle trips are anticipated to occur outside of peak periods.

Using the trip generation described and assuming a trip distribution of employee trips along major streets within the vicinity of the WVVMF, new trips were assigned to the study intersections to derive an existing plus project condition. The existing plus project peak hour levels of service at the study intersections are summarized in Table 3. Detailed LOS calculation sheets are provided in Attachment B.

Table 3 – Existing Plus Project Conditions Peak Hour Intersection LOS

Intersection		Jurisdiction	AM Peak Hour		PM Peak Hour	
			Delay (s)	LOS	Delay (s)	LOS
1	Garey Avenue/Arrow Highway	Pomona	27.5	C	33.3	C
2	Monte Vista Avenue/Base Line Road	Claremont	34.9	C	52.8	D
3	Monte Vista Avenue/Arrow Highway	Montclair	26.9	C	34.4	C

As shown in Table 3, with the addition of new peak hour trips associated with the WVVMF, the study intersections in the vicinity of the proposed O & M facility at the WVVMF site are forecast to continue to operate at LOS D or better. While the three intersections are only a sub-set of the intersections affected by new vehicle trips, the limited changes in vehicle delay at these three intersections can generally be assumed to be representative of the effects at other intersections within the vicinity. Thus, modifications to the proposed project are not anticipated to result in any additional impacts at these intersections.

Since the operation and maintenance of the O&M facility in Ontario and Montclair are of similar in nature and both are located within the vicinity of the proposed corridor alignments, no significant change to Vehicle Miles Traveled (VMT) within the overall study area is anticipated.

Finally, relocation of the O&M facility from Ontario to Montclair would not result in additional impacts to intersections along the main project alignment. It should be noted that because there will be no construction and implementation of the O&M facility in Ontario during the Phase I/Milliken Alignment implementation, impacts at the following intersections will not occur because of the project implementation as predicted in the 2018 Operations and Maintenance Facility Traffic Analysis Report.

- #2 Campus Avenue/Belmont Street (years 2025 and 2040)
- #4 Bon View Avenue/Belmont Street (years 2025 and 2040)
- #6 Grove Avenue/Mission Boulevard (year 2040)

7.0 CONCLUSION

Iteris reviewed the potential traffic impacts of changes in the project description, which includes use of the existing WVVMF, located at 4748 E Arrow Highway in Montclair, instead of the construction of a new facility. The analysis focused on traffic impacts to three significant intersections along the route(s) to/from the existing facility.

Based on the anticipated trip generation and trip distribution of peak hour traffic at the facility, no new traffic impacts are anticipated to occur at the key intersection locations. This result at key locations is assumed to be generally representative of the effects at other locations in the vicinity. Thus, modifications to the proposed project are not anticipated to result in any additional impacts at these intersections.

Since the operation and maintenance of the O&M facility in Ontario and Montclair are similar in nature and both are located within the vicinity of the proposed corridor alignments, no significant change to Vehicle Miles Traveled (VMT) within the overall study area is anticipated.

Finally, relocation of the O&M facility from Ontario to Montclair would not result in additional impacts to intersections along the main project alignment. It should be noted that because there will be no construction and implementation of the O&M facility in Ontario during the Phase I/Milliken Alignment implementation, impacts at the following intersections will not occur because of the project implementation as predicted in the 2018 Operations and Maintenance Facility Traffic Analysis Report.

- #2 Campus Avenue/Belmont Street (years 2025 and 2040)
- #4 Bon View Avenue/Belmont Street (years 2025 and 2040)
- #6 Grove Avenue/Mission Boulevard (year 2040)

8.0 CHANGES TO MITIGATION MEASURES

Because the changes to the project would not introduce any new traffic impacts to the main alignment during the Phase I/Milliken implementation and to the area in general vicinity of the new O&M facility in Montclair, no additional mitigation measures would be required.

Because there will be no construction and implementation of the O&M facility in Ontario during the Phase I/Milliken Alignment implementation, the following mitigation measure to minimize impacts at the Grove Avenue/Mission Boulevard intersection by the year 2040 will not be required:

- Modify the traffic signal to include a right-turn overlap phase at the westbound Mission Boulevard approach (Year 2040)

The 2018 Operations and Maintenance Facility Traffic Analysis Report indicated that no feasible mitigation measures are available to mitigate the impacts at Campus Avenue/Belmont Street and Bon View Avenue/Belmont Street intersections. Therefore, the relocation of the O&M facility from Ontario to Montclair would result in beneficial

impacts and would not require further coordination with local jurisdictions to identify appropriate traffic improvement compensation for these two intersections.

9.0 REFERENCES

Iteris. 2018. West Valley Connector Project Traffic Operations Analysis Report. April.

_____. 2018. West Valley Connector Project Operations and Maintenance Facility Traffic Analysis Report. April.

Parsons. 2020. Final Environmental Impact Report/Finding of No Significant Impact, West Valley Connector Project. March.

10.0 PREPARERS

Deepak Kaushik, Traffic Specialist, Iteris

Anne Kocheon, Environmental Manager, QC Review, Parsons

Attachment A – Traffic Count Data

City of Pomona
 N/S: Garey Avenue
 E/W: Arrow Highway
 Weather: Sunny

File Name : POMGAARAM TUE
 Site Code : 00000125
 Start Date : 4/23/2013
 Page No : 1

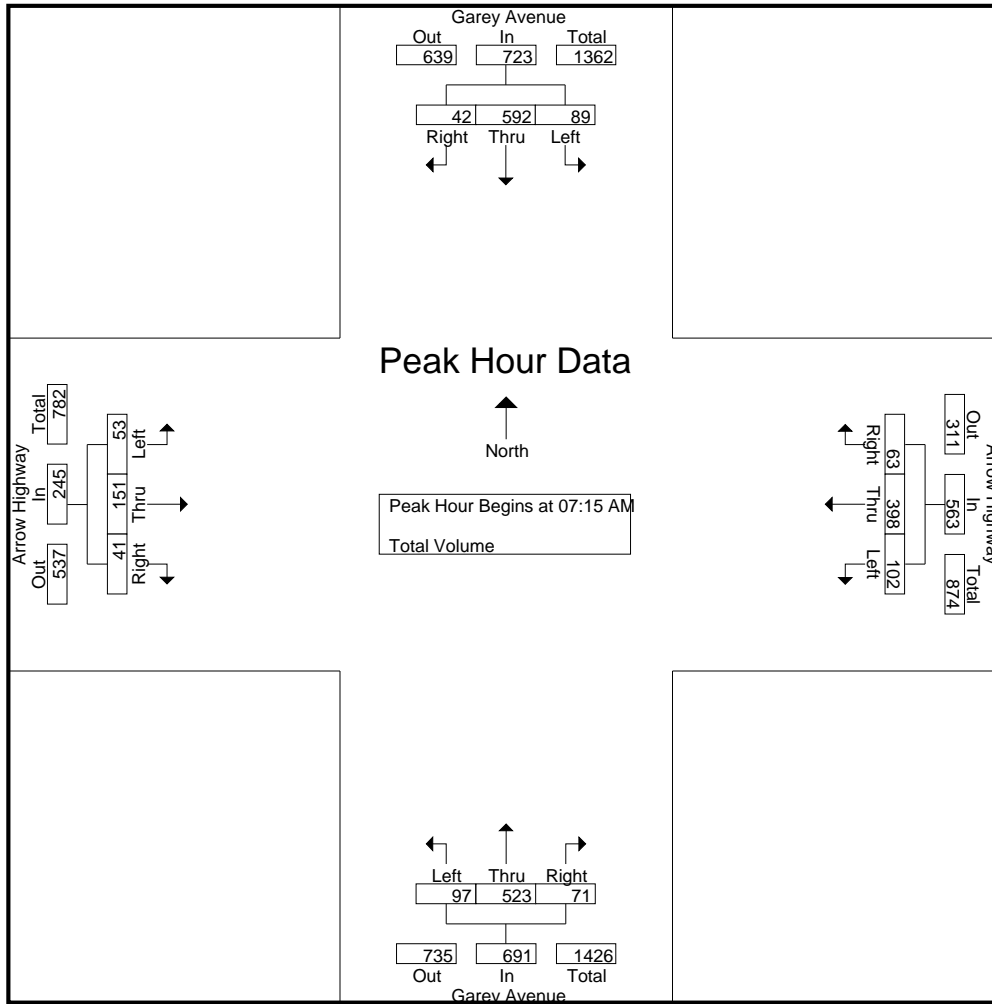
Groups Printed- Total Volume

Start Time	Garey Avenue Southbound				Arrow Highway Westbound				Garey Avenue Northbound				Arrow Highway 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	12	112	13	137	15	75	17	107	21	74	12	107	2	23	14	39	390
07:15 AM	11	133	7	151	21	98	14	133	17	113	13	143	13	26	10	49	476
07:30 AM	30	159	13	202	21	96	16	133	22	130	18	170	11	34	14	59	564
07:45 AM	24	172	13	209	32	119	14	165	35	154	25	214	9	54	10	73	661
Total	77	576	46	699	89	388	61	538	95	471	68	634	35	137	48	220	2091
08:00 AM	24	128	9	161	28	85	19	132	23	126	15	164	20	37	7	64	521
08:15 AM	24	146	10	180	15	55	8	78	23	111	19	153	8	36	9	53	464
08:30 AM	21	138	10	169	16	69	21	106	23	102	21	146	15	38	10	63	484
08:45 AM	26	121	9	156	19	53	12	84	18	109	14	141	8	37	6	51	432
Total	95	533	38	666	78	262	60	400	87	448	69	604	51	148	32	231	1901
Grand Total	172	1109	84	1365	167	650	121	938	182	919	137	1238	86	285	80	451	3992
Apprch %	12.6	81.2	6.2		17.8	69.3	12.9		14.7	74.2	11.1		19.1	63.2	17.7		
Total %	4.3	27.8	2.1	34.2	4.2	16.3	3	23.5	4.6	23	3.4	31	2.2	7.1	2	11.3	

Start Time	Garey Avenue Southbound				Arrow Highway Westbound				Garey Avenue Northbound				Arrow Highway 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	11	133	7	151	21	98	14	133	17	113	13	143	13	26	10	49	476
07:30 AM	30	159	13	202	21	96	16	133	22	130	18	170	11	34	14	59	564
07:45 AM	24	172	13	209	32	119	14	165	35	154	25	214	9	54	10	73	661
08:00 AM	24	128	9	161	28	85	19	132	23	126	15	164	20	37	7	64	521
Total Volume	89	592	42	723	102	398	63	563	97	523	71	691	53	151	41	245	2222
% App. Total	12.3	81.9	5.8		18.1	70.7	11.2		14	75.7	10.3		21.6	61.6	16.7		
PHF	.742	.860	.808	.865	.797	.836	.829	.853	.693	.849	.710	.807	.663	.699	.732	.839	.840

City of Pomona
 N/S: Garey Avenue
 E/W: Arrow Highway
 Weather: Sunny

File Name : POMGAARAM TUE
 Site Code : 00000125
 Start Date : 4/23/2013
 Page No : 2



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

	07:30 AM				07:15 AM				07:30 AM				07:45 AM			
+0 mins.	30	159	13	202	21	98	14	133	22	130	18	170	9	54	10	73
+15 mins.	24	172	13	209	21	96	16	133	35	154	25	214	20	37	7	64
+30 mins.	24	128	9	161	32	119	14	165	23	126	15	164	8	36	9	53
+45 mins.	24	146	10	180	28	85	19	132	23	111	19	153	15	38	10	63
Total Volume	102	605	45	752	102	398	63	563	103	521	77	701	52	165	36	253
% App. Total	13.6	80.5	6		18.1	70.7	11.2		14.7	74.3	11		20.6	65.2	14.2	
PHF	.850	.879	.865	.900	.797	.836	.829	.853	.736	.846	.770	.819	.650	.764	.900	.866

City of Pomona
 N/S: Garey Avenue
 E/W: Arrow Highway
 Weather: Sunny

File Name : POMGAARPM TUE
 Site Code : 00000125
 Start Date : 4/23/2013
 Page No : 1

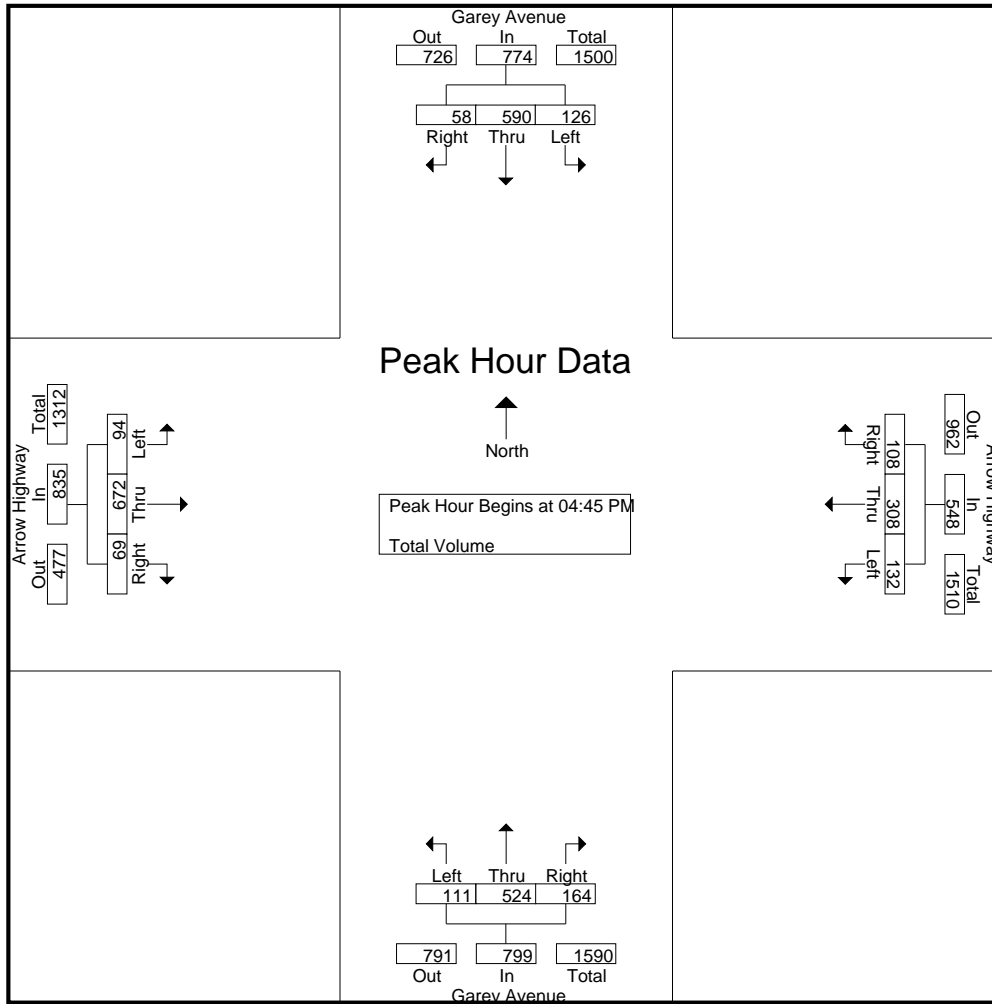
Groups Printed- Total Volume

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	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	40	155	9	204	27	77	24	128	22	118	31	171	14	117	19	150	653
04:15 PM	31	143	13	187	18	84	27	129	29	135	49	213	22	149	20	191	720
04:30 PM	39	162	8	209	29	65	35	129	30	129	33	192	16	145	15	176	706
04:45 PM	22	147	15	184	26	73	29	128	33	133	47	213	19	168	17	204	729
Total	132	607	45	784	100	299	115	514	114	515	160	789	71	579	71	721	2808
05:00 PM	37	135	12	184	34	75	30	139	25	122	35	182	22	143	22	187	692
05:15 PM	35	148	17	200	39	84	31	154	19	147	45	211	34	185	13	232	797
05:30 PM	32	160	14	206	33	76	18	127	34	122	37	193	19	176	17	212	738
05:45 PM	29	133	14	176	26	81	23	130	29	139	33	201	14	155	15	184	691
Total	133	576	57	766	132	316	102	550	107	530	150	787	89	659	67	815	2918
Grand Total	265	1183	102	1550	232	615	217	1064	221	1045	310	1576	160	1238	138	1536	5726
Apprch %	17.1	76.3	6.6		21.8	57.8	20.4		14	66.3	19.7		10.4	80.6	9		
Total %	4.6	20.7	1.8	27.1	4.1	10.7	3.8	18.6	3.9	18.3	5.4	27.5	2.8	21.6	2.4	26.8	

Start Time	Garey Avenue Southbound				Arrow Highway Westbound				Garey Avenue Northbound				Arrow Highway 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	22	147	15	184	26	73	29	128	33	133	47	213	19	168	17	204	729
05:00 PM	37	135	12	184	34	75	30	139	25	122	35	182	22	143	22	187	692
05:15 PM	35	148	17	200	39	84	31	154	19	147	45	211	34	185	13	232	797
05:30 PM	32	160	14	206	33	76	18	127	34	122	37	193	19	176	17	212	738
Total Volume	126	590	58	774	132	308	108	548	111	524	164	799	94	672	69	835	2956
% App. Total	16.3	76.2	7.5		24.1	56.2	19.7		13.9	65.6	20.5		11.3	80.5	8.3		
PHF	.851	.922	.853	.939	.846	.917	.871	.890	.816	.891	.872	.938	.691	.908	.784	.900	.927

City of Pomona
 N/S: Garey Avenue
 E/W: Arrow Highway
 Weather: Sunny

File Name : POMGAARPM TUE
 Site Code : 00000125
 Start Date : 4/23/2013
 Page No : 2



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

	04:00 PM				04:30 PM				04:15 PM				04:45 PM			
+0 mins.	40	155	9	204	29	65	35	129	29	135	49	213	19	168	17	204
+15 mins.	31	143	13	187	26	73	29	128	30	129	33	192	22	143	22	187
+30 mins.	39	162	8	209	34	75	30	139	33	133	47	213	34	185	13	232
+45 mins.	22	147	15	184	39	84	31	154	25	122	35	182	19	176	17	212
Total Volume	132	607	45	784	128	297	125	550	117	519	164	800	94	672	69	835
% App. Total	16.8	77.4	5.7		23.3	54	22.7		14.6	64.9	20.5		11.3	80.5	8.3	
PHF	.825	.937	.750	.938	.821	.884	.893	.893	.886	.961	.837	.939	.691	.908	.784	.900

City of Pomona
 N/S: Garey Avenue
 E/W: Arrow Highway
 Weather: Sunny

File Name : POMGAARAM WED
 Site Code : 00000125
 Start Date : 4/24/2013
 Page No : 1

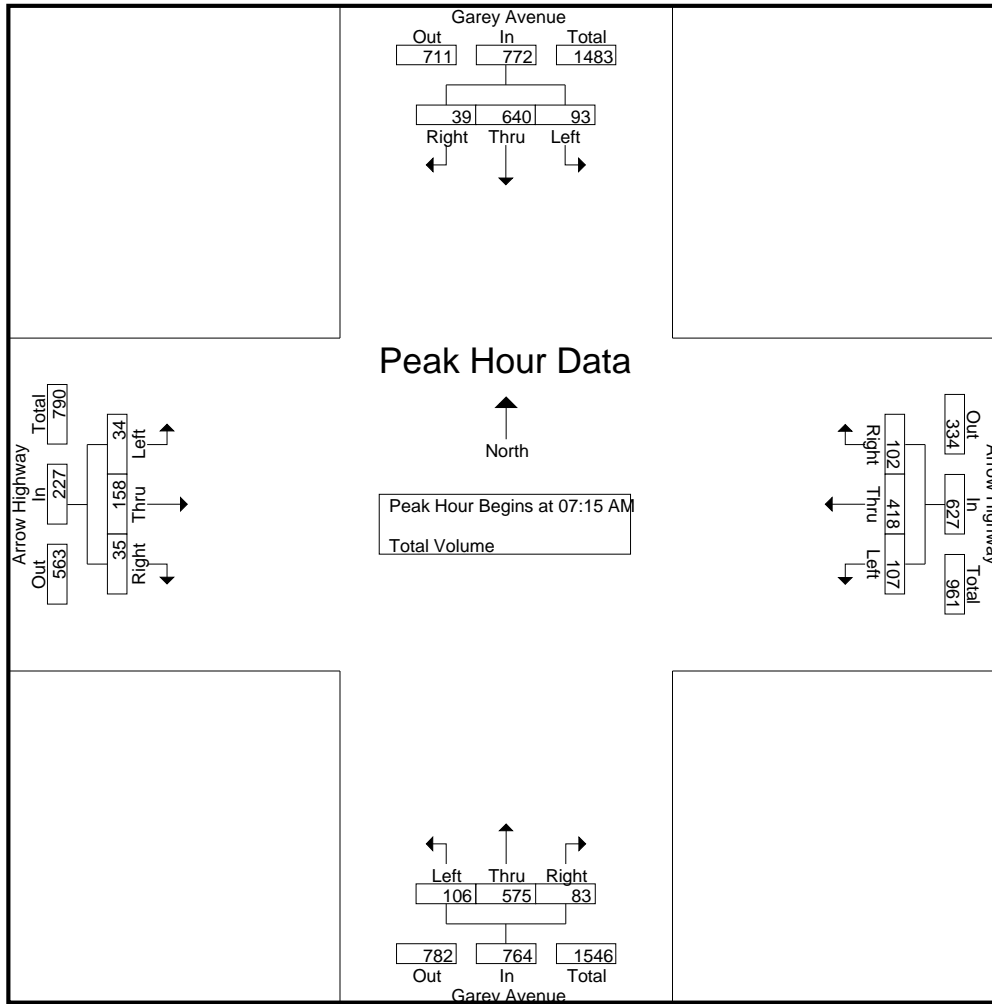
Groups Printed- Total Volume

Start Time	Garey Avenue Southbound				Arrow Highway Westbound				Garey Avenue Northbound				Arrow Highway 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	11	128	9	148	15	90	9	114	13	78	14	105	4	23	6	33	400
07:15 AM	7	140	8	155	22	98	19	139	22	132	13	167	6	25	5	36	497
07:30 AM	28	184	7	219	26	102	14	142	21	139	19	179	11	40	8	59	599
07:45 AM	32	184	12	228	28	125	36	189	33	166	33	232	4	55	8	67	716
Total	78	636	36	750	91	415	78	584	89	515	79	683	25	143	27	195	2212
08:00 AM	26	132	12	170	31	93	33	157	30	138	18	186	13	38	14	65	578
08:15 AM	15	151	8	174	23	62	22	107	23	98	23	144	10	39	11	60	485
08:30 AM	8	92	10	110	16	71	20	107	21	101	14	136	14	37	14	65	418
08:45 AM	19	140	4	163	25	59	23	107	22	118	21	161	8	47	9	64	495
Total	68	515	34	617	95	285	98	478	96	455	76	627	45	161	48	254	1976
Grand Total	146	1151	70	1367	186	700	176	1062	185	970	155	1310	70	304	75	449	4188
Apprch %	10.7	84.2	5.1		17.5	65.9	16.6		14.1	74	11.8		15.6	67.7	16.7		
Total %	3.5	27.5	1.7	32.6	4.4	16.7	4.2	25.4	4.4	23.2	3.7	31.3	1.7	7.3	1.8	10.7	

Start Time	Garey Avenue Southbound				Arrow Highway Westbound				Garey Avenue Northbound				Arrow Highway 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	7	140	8	155	22	98	19	139	22	132	13	167	6	25	5	36	497
07:30 AM	28	184	7	219	26	102	14	142	21	139	19	179	11	40	8	59	599
07:45 AM	32	184	12	228	28	125	36	189	33	166	33	232	4	55	8	67	716
08:00 AM	26	132	12	170	31	93	33	157	30	138	18	186	13	38	14	65	578
Total Volume	93	640	39	772	107	418	102	627	106	575	83	764	34	158	35	227	2390
% App. Total	12	82.9	5.1		17.1	66.7	16.3		13.9	75.3	10.9		15	69.6	15.4		
PHF	.727	.870	.813	.846	.863	.836	.708	.829	.803	.866	.629	.823	.654	.718	.625	.847	.834

City of Pomona
 N/S: Garey Avenue
 E/W: Arrow Highway
 Weather: Sunny

File Name : POMGAARAM WED
 Site Code : 00000125
 Start Date : 4/24/2013
 Page No : 2



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

	07:30 AM				07:15 AM				07:15 AM				07:45 AM			
+0 mins.	28	184	7	219	22	98	19	139	22	132	13	167	4	55	8	67
+15 mins.	32	184	12	228	26	102	14	142	21	139	19	179	13	38	14	65
+30 mins.	26	132	12	170	28	125	36	189	33	166	33	232	10	39	11	60
+45 mins.	15	151	8	174	31	93	33	157	30	138	18	186	14	37	14	65
Total Volume	101	651	39	791	107	418	102	627	106	575	83	764	41	169	47	257
% App. Total	12.8	82.3	4.9		17.1	66.7	16.3		13.9	75.3	10.9		16	65.8	18.3	
PHF	.789	.885	.813	.867	.863	.836	.708	.829	.803	.866	.629	.823	.732	.768	.839	.959

City of Pomona
 N/S: Garey Avenue
 E/W: Arrow Highway
 Weather: Sunny

File Name : POMGAARPM WED
 Site Code : 00000125
 Start Date : 4/24/2013
 Page No : 1

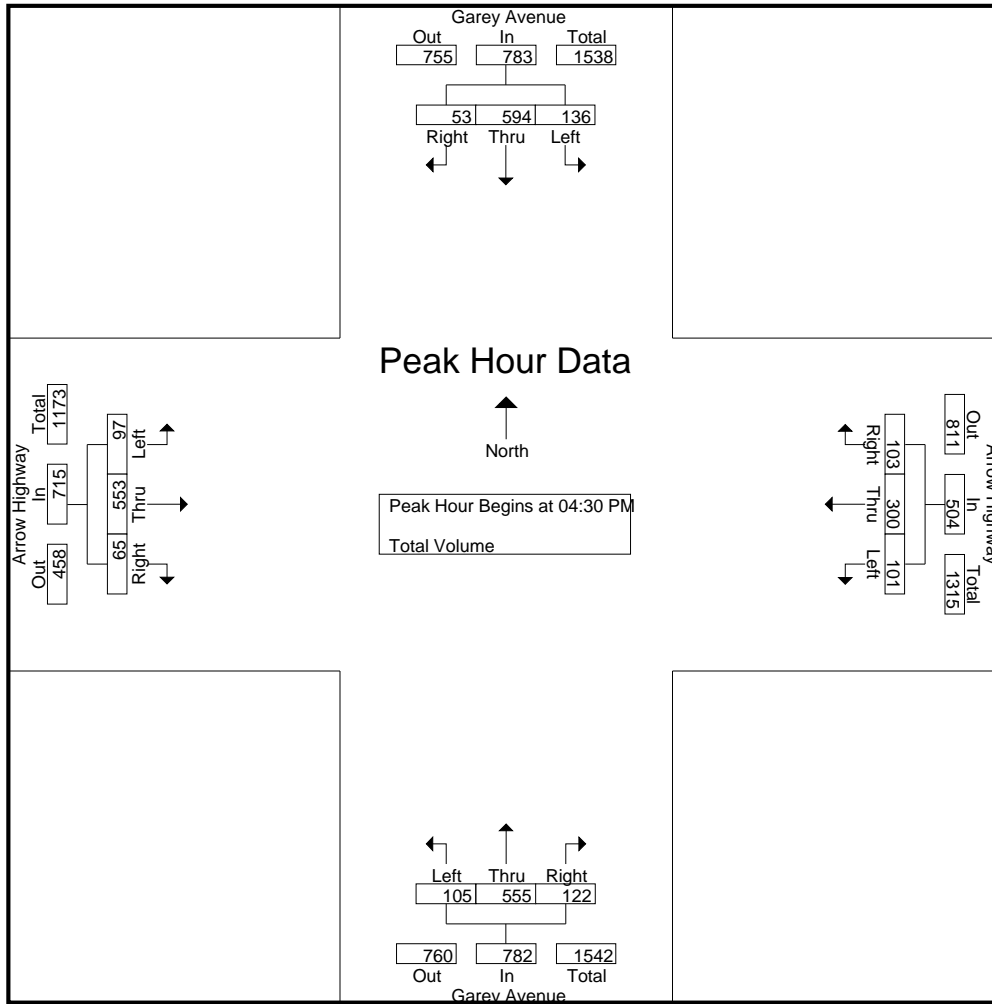
Groups Printed- Total Volume

Start Time	Garey Avenue Southbound				Arrow Highway Westbound				Garey Avenue Northbound				Arrow Highway 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	31	139	8	178	30	85	27	142	28	102	24	154	16	119	20	155	629
04:15 PM	26	134	15	175	19	47	21	87	20	115	29	164	20	110	13	143	569
04:30 PM	34	159	12	205	24	66	32	122	32	146	28	206	17	115	21	153	686
04:45 PM	27	135	12	174	19	76	24	119	28	137	33	198	24	112	14	150	641
Total	118	567	47	732	92	274	104	470	108	500	114	722	77	456	68	601	2525
05:00 PM	35	150	13	198	36	82	25	143	22	138	30	190	28	152	20	200	731
05:15 PM	40	150	16	206	22	76	22	120	23	134	31	188	28	174	10	212	726
05:30 PM	33	142	12	187	28	83	25	136	30	121	24	175	16	159	12	187	685
05:45 PM	28	131	15	174	19	68	19	106	27	133	28	188	16	144	13	173	641
Total	136	573	56	765	105	309	91	505	102	526	113	741	88	629	55	772	2783
Grand Total	254	1140	103	1497	197	583	195	975	210	1026	227	1463	165	1085	123	1373	5308
Apprch %	17	76.2	6.9		20.2	59.8	20		14.4	70.1	15.5		12	79	9		
Total %	4.8	21.5	1.9	28.2	3.7	11	3.7	18.4	4	19.3	4.3	27.6	3.1	20.4	2.3	25.9	

Start Time	Garey Avenue Southbound				Arrow Highway Westbound				Garey Avenue Northbound				Arrow Highway 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	34	159	12	205	24	66	32	122	32	146	28	206	17	115	21	153	686
04:45 PM	27	135	12	174	19	76	24	119	28	137	33	198	24	112	14	150	641
05:00 PM	35	150	13	198	36	82	25	143	22	138	30	190	28	152	20	200	731
05:15 PM	40	150	16	206	22	76	22	120	23	134	31	188	28	174	10	212	726
Total Volume	136	594	53	783	101	300	103	504	105	555	122	782	97	553	65	715	2784
% App. Total	17.4	75.9	6.8		20	59.5	20.4		13.4	71	15.6		13.6	77.3	9.1		
PHF	.850	.934	.828	.950	.701	.915	.805	.881	.820	.950	.924	.949	.866	.795	.774	.843	.952

City of Pomona
 N/S: Garey Avenue
 E/W: Arrow Highway
 Weather: Sunny

File Name : POMGAARPM WED
 Site Code : 00000125
 Start Date : 4/24/2013
 Page No : 2



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

	04:30 PM				04:45 PM				04:30 PM				05:00 PM			
+0 mins.	34	159	12	205	19	76	24	119	32	146	28	206	28	152	20	200
+15 mins.	27	135	12	174	36	82	25	143	28	137	33	198	28	174	10	212
+30 mins.	35	150	13	198	22	76	22	120	22	138	30	190	16	159	12	187
+45 mins.	40	150	16	206	28	83	25	136	23	134	31	188	16	144	13	173
Total Volume	136	594	53	783	105	317	96	518	105	555	122	782	88	629	55	772
% App. Total	17.4	75.9	6.8		20.3	61.2	18.5		13.4	71	15.6		11.4	81.5	7.1	
PHF	.850	.934	.828	.950	.729	.955	.960	.906	.820	.950	.924	.949	.786	.904	.688	.910

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line AM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 1

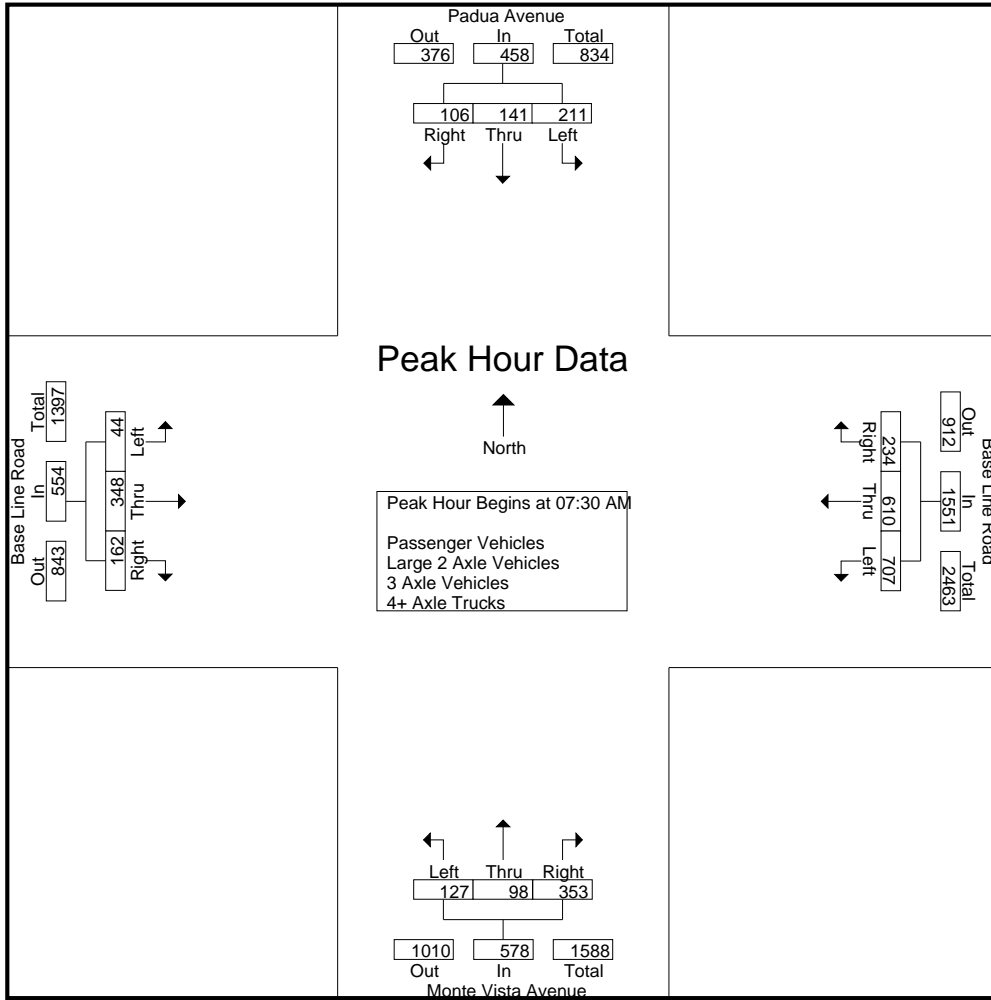
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	20	24	6	50	137	124	18	279	17	17	72	106	3	68	30	101	536
07:15 AM	40	37	23	100	148	149	51	348	21	30	94	145	17	62	30	109	702
07:30 AM	50	41	31	122	184	180	58	422	29	23	107	159	8	82	34	124	827
07:45 AM	46	33	29	108	195	162	55	412	33	25	83	141	9	77	44	130	791
Total	156	135	89	380	664	615	182	1461	100	95	356	551	37	289	138	464	2856
08:00 AM	52	33	20	105	153	122	87	362	37	31	79	147	15	115	48	178	792
08:15 AM	63	34	26	123	175	146	34	355	28	19	84	131	12	74	36	122	731
08:30 AM	41	21	16	78	152	214	33	399	27	20	69	116	4	77	45	126	719
08:45 AM	31	31	11	73	154	145	30	329	21	8	90	119	5	106	58	169	690
Total	187	119	73	379	634	627	184	1445	113	78	322	513	36	372	187	595	2932
Grand Total	343	254	162	759	1298	1242	366	2906	213	173	678	1064	73	661	325	1059	5788
Apprch %	45.2	33.5	21.3		44.7	42.7	12.6		20	16.3	63.7		6.9	62.4	30.7		
Total %	5.9	4.4	2.8	13.1	22.4	21.5	6.3	50.2	3.7	3	11.7	18.4	1.3	11.4	5.6	18.3	
Passenger Vehicles	334	251	161	746	1269	1234	363	2866	201	165	635	1001	72	654	312	1038	5651
% Passenger Vehicles	97.4	98.8	99.4	98.3	97.8	99.4	99.2	98.6	94.4	95.4	93.7	94.1	98.6	98.9	96	98	97.6
Large 2 Axle Vehicles	8	2	1	11	7	4	2	13	8	6	8	22	1	0	9	10	56
% Large 2 Axle Vehicles	2.3	0.8	0.6	1.4	0.5	0.3	0.5	0.4	3.8	3.5	1.2	2.1	1.4	0	2.8	0.9	1
3 Axle Vehicles	1	1	0	2	1	1	0	2	3	2	6	11	0	6	3	9	24
% 3 Axle Vehicles	0.3	0.4	0	0.3	0.1	0.1	0	0.1	1.4	1.2	0.9	1	0	0.9	0.9	0.8	0.4
4+ Axle Trucks	0	0	0	0	21	3	1	25	1	0	29	30	0	1	1	2	57
% 4+ Axle Trucks	0	0	0	0	1.6	0.2	0.3	0.9	0.5	0	4.3	2.8	0	0.2	0.3	0.2	1

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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 07:30 AM																	
07:30 AM	50	41	31	122	184	180	58	422	29	23	107	159	8	82	34	124	827
07:45 AM	46	33	29	108	195	162	55	412	33	25	83	141	9	77	44	130	791
08:00 AM	52	33	20	105	153	122	87	362	37	31	79	147	15	115	48	178	792
08:15 AM	63	34	26	123	175	146	34	355	28	19	84	131	12	74	36	122	731
Total Volume	211	141	106	458	707	610	234	1551	127	98	353	578	44	348	162	554	3141
% App. Total	46.1	30.8	23.1		45.6	39.3	15.1		22	17	61.1		7.9	62.8	29.2		
PHF	.837	.860	.855	.931	.906	.847	.672	.919	.858	.790	.825	.909	.733	.757	.844	.778	.950

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line AM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 2



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

	07:30 AM				07:30 AM				07:15 AM				08:00 AM			
+0 mins.	50	41	31	122	184	180	58	422	21	30	94	145	15	115	48	178
+15 mins.	46	33	29	108	195	162	55	412	29	23	107	159	12	74	36	122
+30 mins.	52	33	20	105	153	122	87	362	33	25	83	141	4	77	45	126
+45 mins.	63	34	26	123	175	146	34	355	37	31	79	147	5	106	58	169
Total Volume	211	141	106	458	707	610	234	1551	120	109	363	592	36	372	187	595
% App. Total	46.1	30.8	23.1		45.6	39.3	15.1		20.3	18.4	61.3		6.1	62.5	31.4	
PHF	.837	.860	.855	.931	.906	.847	.672	.919	.811	.879	.848	.931	.600	.809	.806	.836

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line AM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 1

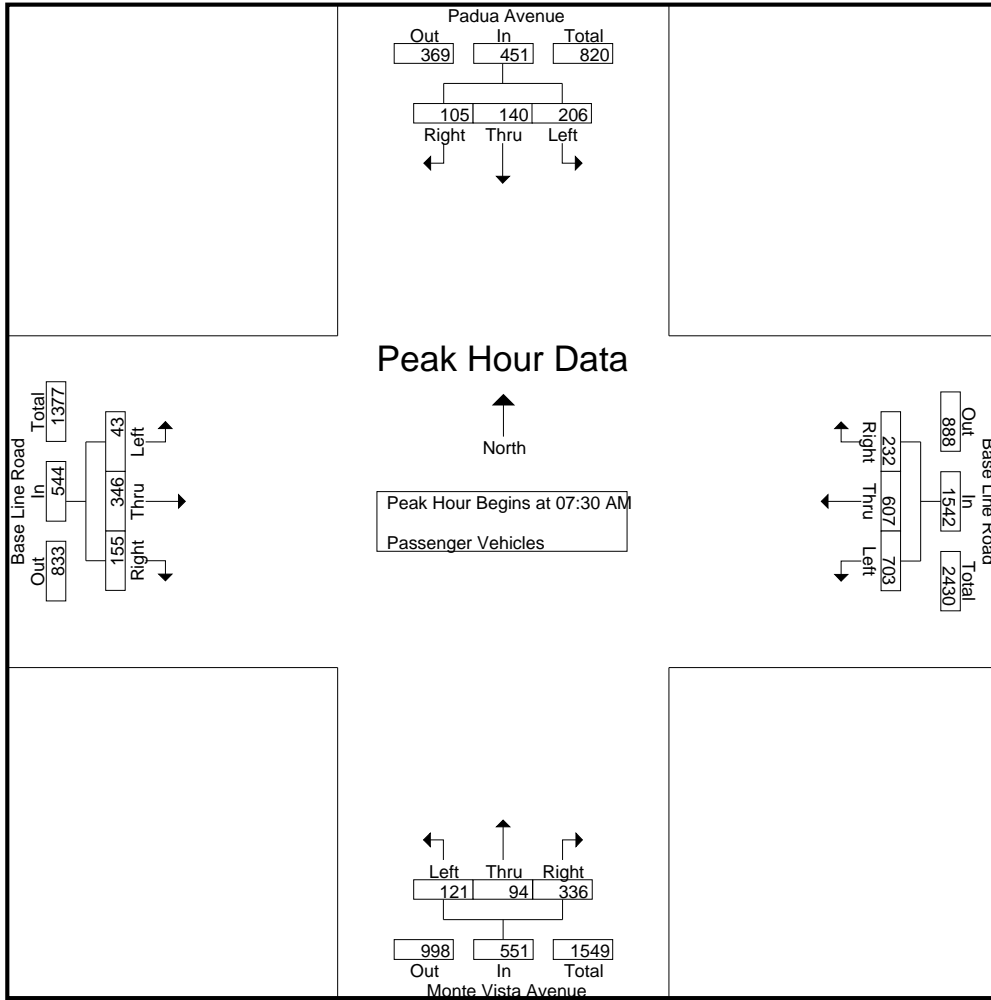
Groups Printed- Passenger Vehicles

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	19	23	6	48	135	122	18	275	17	16	65	98	3	67	29	99	520
07:15 AM	40	37	23	100	144	148	50	342	20	29	83	132	17	60	29	106	680
07:30 AM	48	41	31	120	182	179	57	418	27	22	100	149	8	82	33	123	810
07:45 AM	46	32	29	107	195	161	54	410	32	23	80	135	9	76	44	129	781
Total	153	133	89	375	656	610	179	1445	96	90	328	514	37	285	135	457	2791
08:00 AM	52	33	19	104	151	122	87	360	36	30	75	141	14	114	45	173	778
08:15 AM	60	34	26	120	175	145	34	354	26	19	81	126	12	74	33	119	719
08:30 AM	41	21	16	78	142	213	33	388	25	18	67	110	4	76	42	122	698
08:45 AM	28	30	11	69	145	144	30	319	18	8	84	110	5	105	57	167	665
Total	181	118	72	371	613	624	184	1421	105	75	307	487	35	369	177	581	2860
Grand Total	334	251	161	746	1269	1234	363	2866	201	165	635	1001	72	654	312	1038	5651
Apprch %	44.8	33.6	21.6		44.3	43.1	12.7		20.1	16.5	63.4		6.9	63	30.1		
Total %	5.9	4.4	2.8	13.2	22.5	21.8	6.4	50.7	3.6	2.9	11.2	17.7	1.3	11.6	5.5	18.4	

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	48	41	31	120	182	179	57	418	27	22	100	149	8	82	33	123	810
07:45 AM	46	32	29	107	195	161	54	410	32	23	80	135	9	76	44	129	781
08:00 AM	52	33	19	104	151	122	87	360	36	30	75	141	14	114	45	173	778
08:15 AM	60	34	26	120	175	145	34	354	26	19	81	126	12	74	33	119	719
Total Volume	206	140	105	451	703	607	232	1542	121	94	336	551	43	346	155	544	3088
% App. Total	45.7	31	23.3		45.6	39.4	15		22	17.1	61		7.9	63.6	28.5		
PHF	.858	.854	.847	.940	.901	.848	.667	.922	.840	.783	.840	.924	.768	.759	.861	.786	.953

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line AM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	48	41	31	120	182	179	57	418	27	22	100	149	8	82	33	123
+15 mins.	46	32	29	107	195	161	54	410	32	23	80	135	9	76	44	129
+30 mins.	52	33	19	104	151	122	87	360	36	30	75	141	14	114	45	173
+45 mins.	60	34	26	120	175	145	34	354	26	19	81	126	12	74	33	119
Total Volume	206	140	105	451	703	607	232	1542	121	94	336	551	43	346	155	544
% App. Total	45.7	31	23.3		45.6	39.4	15		22	17.1	61		7.9	63.6	28.5	
PHF	.858	.854	.847	.940	.901	.848	.667	.922	.840	.783	.840	.924	.768	.759	.861	.786

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line AM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 1

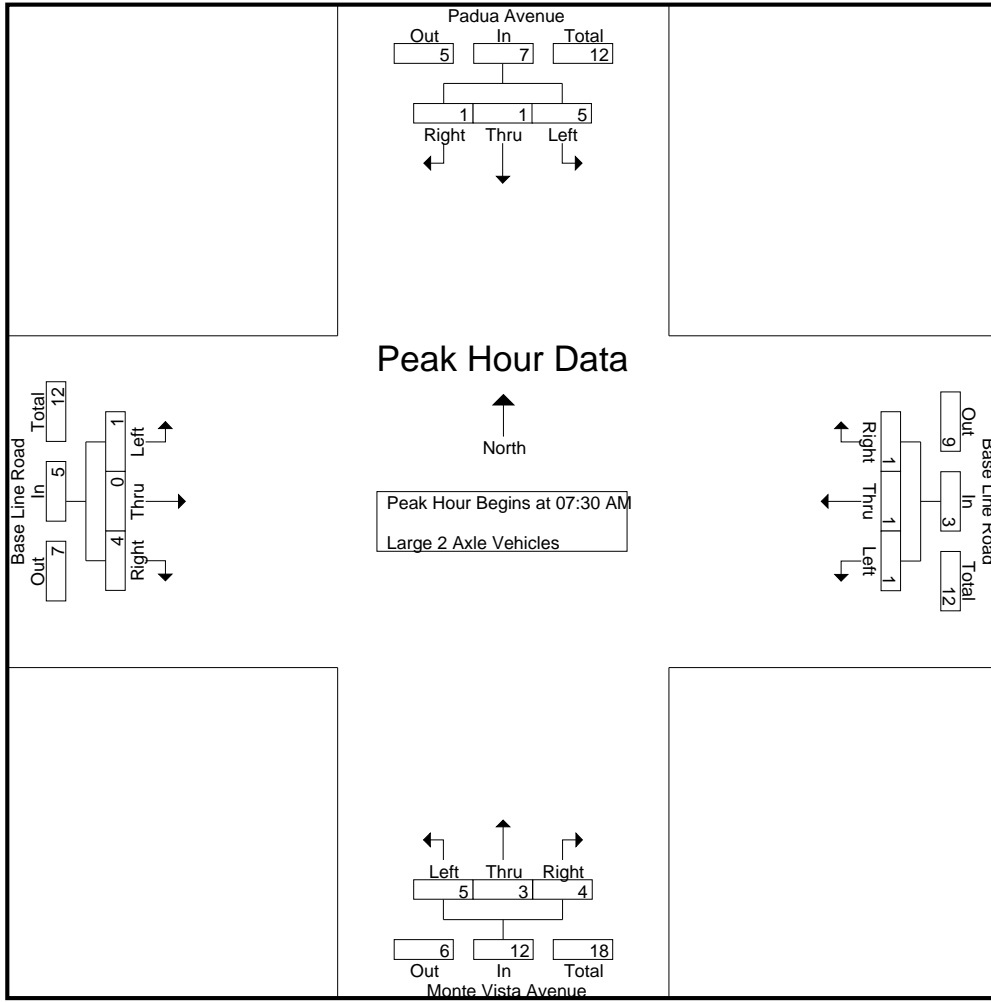
Groups Printed- Large 2 Axle Vehicles

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	1	1	0	2	0	1	1	2	0	0	1	1	5
07:15 AM	0	0	0	0	4	1	1	6	1	1	2	4	0	0	1	1	11
07:30 AM	2	0	0	2	0	1	1	2	2	1	1	4	0	0	0	0	8
07:45 AM	0	1	0	1	0	0	0	0	1	1	0	2	0	0	0	0	3
Total	2	1	0	3	5	3	2	10	4	4	4	12	0	0	2	2	27
08:00 AM	0	0	1	1	1	0	0	1	1	1	2	4	1	0	2	3	9
08:15 AM	3	0	0	3	0	0	0	0	1	0	1	2	0	0	2	2	7
08:30 AM	0	0	0	0	1	1	0	2	1	1	1	3	0	0	3	3	8
08:45 AM	3	1	0	4	0	0	0	0	1	0	0	1	0	0	0	0	5
Total	6	1	1	8	2	1	0	3	4	2	4	10	1	0	7	8	29
Grand Total	8	2	1	11	7	4	2	13	8	6	8	22	1	0	9	10	56
Apprch %	72.7	18.2	9.1		53.8	30.8	15.4		36.4	27.3	36.4		10	0	90		
Total %	14.3	3.6	1.8	19.6	12.5	7.1	3.6	23.2	14.3	10.7	14.3	39.3	1.8	0	16.1	17.9	

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	2	0	0	2	0	1	1	2	2	1	1	4	0	0	0	0	8
07:45 AM	0	1	0	1	0	0	0	0	1	1	0	2	0	0	0	0	3
08:00 AM	0	0	1	1	1	0	0	1	1	1	2	4	1	0	2	3	9
08:15 AM	3	0	0	3	0	0	0	0	1	0	1	2	0	0	2	2	7
Total Volume	5	1	1	7	1	1	1	3	5	3	4	12	1	0	4	5	27
% App. Total	71.4	14.3	14.3		33.3	33.3	33.3		41.7	25	33.3		20	0	80		
PHF	.417	.250	.250	.583	.250	.250	.250	.375	.625	.750	.500	.750	.250	.000	.500	.417	.750

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line AM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	2	0	0	2	0	1	1	2	2	1	1	4	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	1	1	0	2	0	0	0	0
+30 mins.	0	0	1	1	1	0	0	1	1	1	2	4	1	0	2	3
+45 mins.	3	0	0	3	0	0	0	0	1	0	1	2	0	0	2	2
Total Volume	5	1	1	7	1	1	1	3	5	3	4	12	1	0	4	5
% App. Total	71.4	14.3	14.3		33.3	33.3	33.3		41.7	25	33.3		20	0	80	
PHF	.417	.250	.250	.583	.250	.250	.250	.375	.625	.750	.500	.750	.250	.000	.500	.417

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line AM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 1

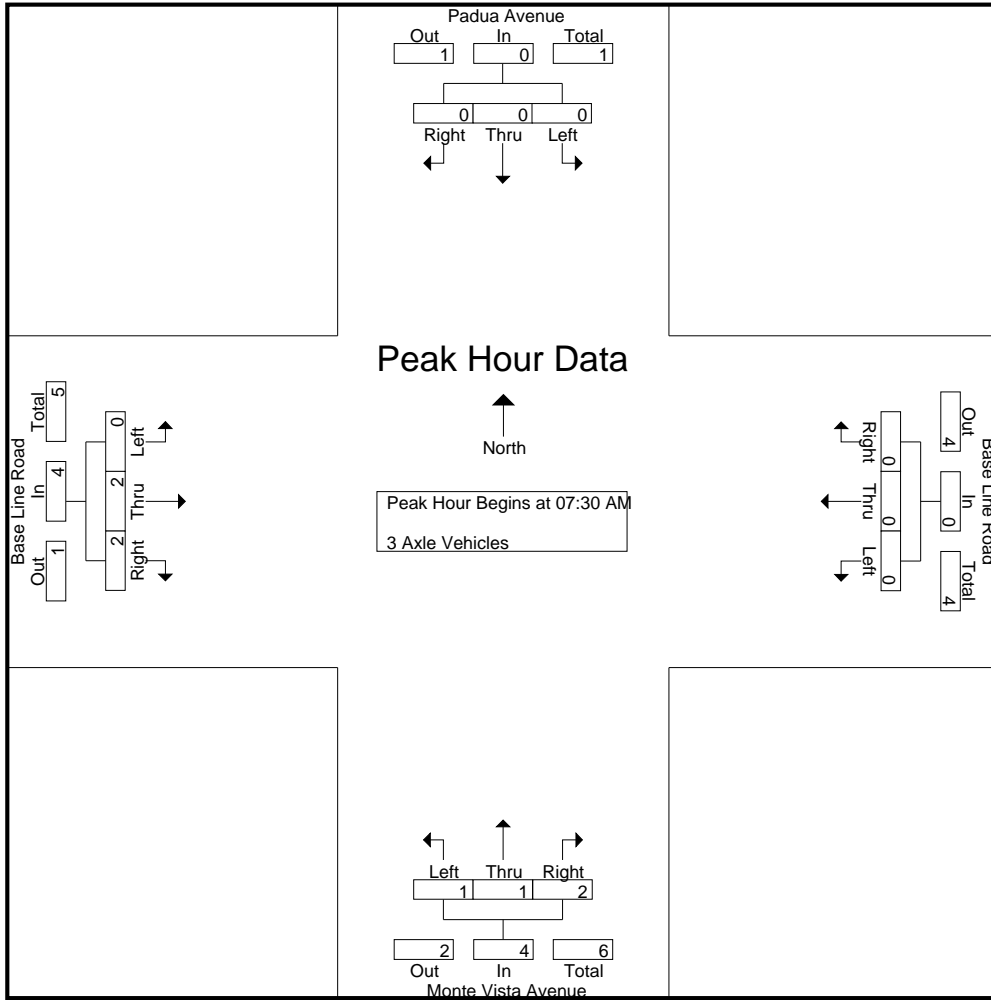
Groups Printed- 3 Axle Vehicles

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	1	0	2	0	0	0	0	0	0	3	3	0	0	0	0	5
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	2
Total	1	1	0	2	0	0	0	0	0	1	4	5	0	3	0	3	10
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2	3
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
08:30 AM	0	0	0	0	1	0	0	1	1	1	1	3	0	1	0	1	5
08:45 AM	0	0	0	0	0	1	0	1	1	0	0	1	0	1	1	2	4
Total	0	0	0	0	1	1	0	2	3	1	2	6	0	3	3	6	14
Grand Total	1	1	0	2	1	1	0	2	3	2	6	11	0	6	3	9	24
Apprch %	50	50	0		50	50	0		27.3	18.2	54.5		0	66.7	33.3		
Total %	4.2	4.2	0	8.3	4.2	4.2	0	8.3	12.5	8.3	25	45.8	0	25	12.5	37.5	

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2	3
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
Total Volume	0	0	0	0	0	0	0	0	1	1	2	4	0	2	2	4	8
% App. Total	0	0	0		0	0	0		25	25	50		0	50	50		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.500	1.00	.000	.500	.500	.500	.667

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line AM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+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	1	0	1	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	2
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	1	1	2	4	0	2	2	4
% App. Total	0	0	0	0	0	0	0	0	.25	.25	.50	1.000	0	.50	.50	1.000
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.500	1.000	.000	.500	.500	.500

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line AM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 1

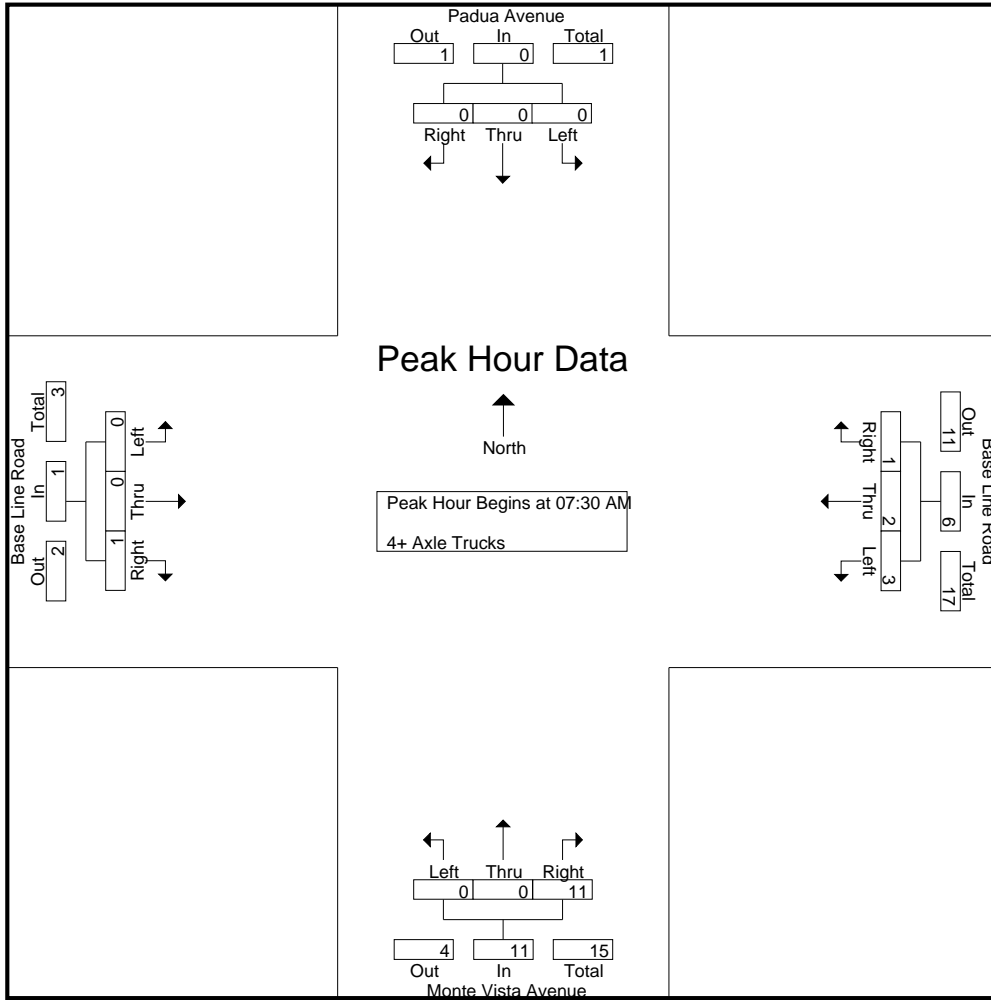
Groups Printed- 4+ Axle Trucks

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	1	1	0	2	0	0	3	3	0	1	0	1	6
07:15 AM	0	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	9
07:30 AM	0	0	0	0	2	0	0	2	0	0	5	5	0	0	1	1	8
07:45 AM	0	0	0	0	0	1	1	2	0	0	3	3	0	0	0	0	5
Total	0	0	0	0	3	2	1	6	0	0	20	20	0	1	1	2	28
08:00 AM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
08:15 AM	0	0	0	0	0	1	0	1	0	0	2	2	0	0	0	0	3
08:30 AM	0	0	0	0	8	0	0	8	0	0	0	0	0	0	0	0	8
08:45 AM	0	0	0	0	9	0	0	9	1	0	6	7	0	0	0	0	16
Total	0	0	0	0	18	1	0	19	1	0	9	10	0	0	0	0	29
Grand Total	0	0	0	0	21	3	1	25	1	0	29	30	0	1	1	2	57
Apprch %	0	0	0		84	12	4		3.3	0	96.7		0	50	50		
Total %	0	0	0	0	36.8	5.3	1.8	43.9	1.8	0	50.9	52.6	0	1.8	1.8	3.5	

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	2	0	0	2	0	0	5	5	0	0	1	1	8
07:45 AM	0	0	0	0	0	1	1	2	0	0	3	3	0	0	0	0	5
08:00 AM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
08:15 AM	0	0	0	0	0	1	0	1	0	0	2	2	0	0	0	0	3
Total Volume	0	0	0	0	3	2	1	6	0	0	11	11	0	0	1	1	18
% App. Total	0	0	0		50	33.3	16.7		0	0	100		0	0	100		
PHF	.000	.000	.000	.000	.375	.500	.250	.750	.000	.000	.550	.550	.000	.000	.250	.250	.563

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line AM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM							
+0 mins.	0	0	0	0	2	0	0	2	0	0	5	5	0	0	1	1
+15 mins.	0	0	0	0	0	1	1	2	0	0	3	3	0	0	0	0
+30 mins.	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	2	2	0	0	0	0
Total Volume	0	0	0	0	3	2	1	6	0	0	11	11	0	0	1	1
% App. Total	0	0	0	0	50	33.3	16.7		0	0	100		0	0	100	
PHF	.000	.000	.000	.000	.375	.500	.250	.750	.000	.000	.550	.550	.000	.000	.250	.250

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line PM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 1

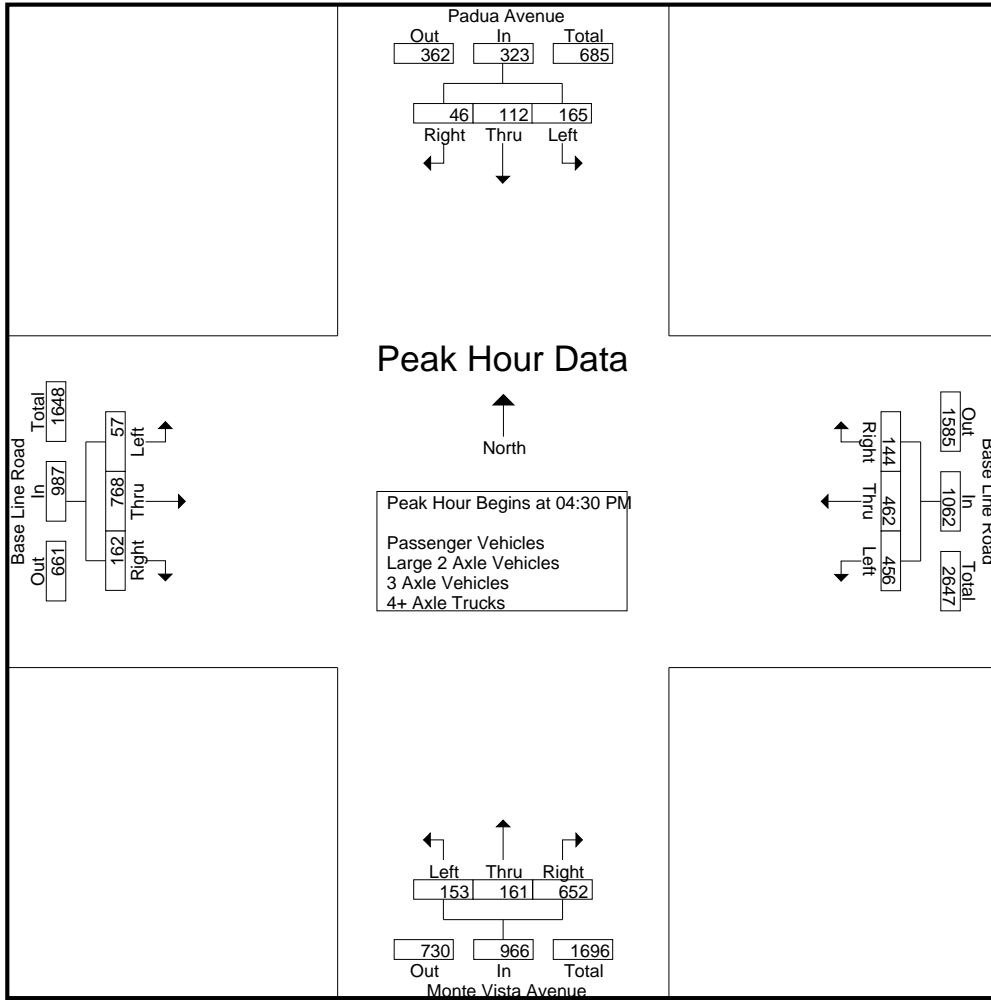
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	37	16	13	66	106	91	29	226	39	31	174	244	3	139	44	186	722
04:15 PM	28	28	19	75	119	73	51	243	27	40	150	217	23	175	31	229	764
04:30 PM	49	29	8	86	115	120	29	264	43	38	159	240	12	179	37	228	818
04:45 PM	40	30	15	85	142	131	32	305	32	43	149	224	18	164	44	226	840
Total	154	103	55	312	482	415	141	1038	141	152	632	925	56	657	156	869	3144
05:00 PM	53	26	15	94	79	101	41	221	46	35	183	264	13	214	41	268	847
05:15 PM	23	27	8	58	120	110	42	272	32	45	161	238	14	211	40	265	833
05:30 PM	28	27	9	64	104	119	33	256	51	34	175	260	11	157	35	203	783
05:45 PM	30	33	10	73	146	113	42	301	38	42	161	241	18	155	33	206	821
Total	134	113	42	289	449	443	158	1050	167	156	680	1003	56	737	149	942	3284
Grand Total	288	216	97	601	931	858	299	2088	308	308	1312	1928	112	1394	305	1811	6428
Apprch %	47.9	35.9	16.1		44.6	41.1	14.3		16	16	68		6.2	77	16.8		
Total %	4.5	3.4	1.5	9.3	14.5	13.3	4.7	32.5	4.8	4.8	20.4	30	1.7	21.7	4.7	28.2	
Passenger Vehicles	285	212	97	594	921	853	294	2068	305	308	1299	1912	112	1387	304	1803	6377
% Passenger Vehicles	99	98.1	100	98.8	98.9	99.4	98.3	99	99	100	99	99.2	100	99.5	99.7	99.6	99.2
Large 2 Axle Vehicles	3	4	0	7	4	4	3	11	3	0	7	10	0	5	1	6	34
% Large 2 Axle Vehicles	1	1.9	0	1.2	0.4	0.5	1	0.5	1	0	0.5	0.5	0	0.4	0.3	0.3	0.5
3 Axle Vehicles	0	0	0	0	2	0	0	2	0	0	1	1	0	0	0	0	3
% 3 Axle Vehicles	0	0	0	0	0.2	0	0	0.1	0	0	0.1	0.1	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	4	1	2	7	0	0	5	5	0	2	0	2	14
% 4+ Axle Trucks	0	0	0	0	0.4	0.1	0.7	0.3	0	0	0.4	0.3	0	0.1	0	0.1	0.2

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	49	29	8	86	115	120	29	264	43	38	159	240	12	179	37	228	818
04:45 PM	40	30	15	85	142	131	32	305	32	43	149	224	18	164	44	226	840
05:00 PM	53	26	15	94	79	101	41	221	46	35	183	264	13	214	41	268	847
05:15 PM	23	27	8	58	120	110	42	272	32	45	161	238	14	211	40	265	833
Total Volume	165	112	46	323	456	462	144	1062	153	161	652	966	57	768	162	987	3338
% App. Total	51.1	34.7	14.2		42.9	43.5	13.6		15.8	16.7	67.5		5.8	77.8	16.4		
PHF	.778	.933	.767	.859	.803	.882	.857	.870	.832	.894	.891	.915	.792	.897	.920	.921	.985

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line PM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 2



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

	04:15 PM				04:30 PM				05:00 PM				04:30 PM			
+0 mins.	28	28	19	75	115	120	29	264	46	35	183	264	12	179	37	228
+15 mins.	49	29	8	86	142	131	32	305	32	45	161	238	18	164	44	226
+30 mins.	40	30	15	85	79	101	41	221	51	34	175	260	13	214	41	268
+45 mins.	53	26	15	94	120	110	42	272	38	42	161	241	14	211	40	265
Total Volume	170	113	57	340	456	462	144	1062	167	156	680	1003	57	768	162	987
% App. Total	50	33.2	16.8		42.9	43.5	13.6		16.7	15.6	67.8		5.8	77.8	16.4	
PHF	.802	.942	.750	.904	.803	.882	.857	.870	.819	.867	.929	.950	.792	.897	.920	.921

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line PM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 1

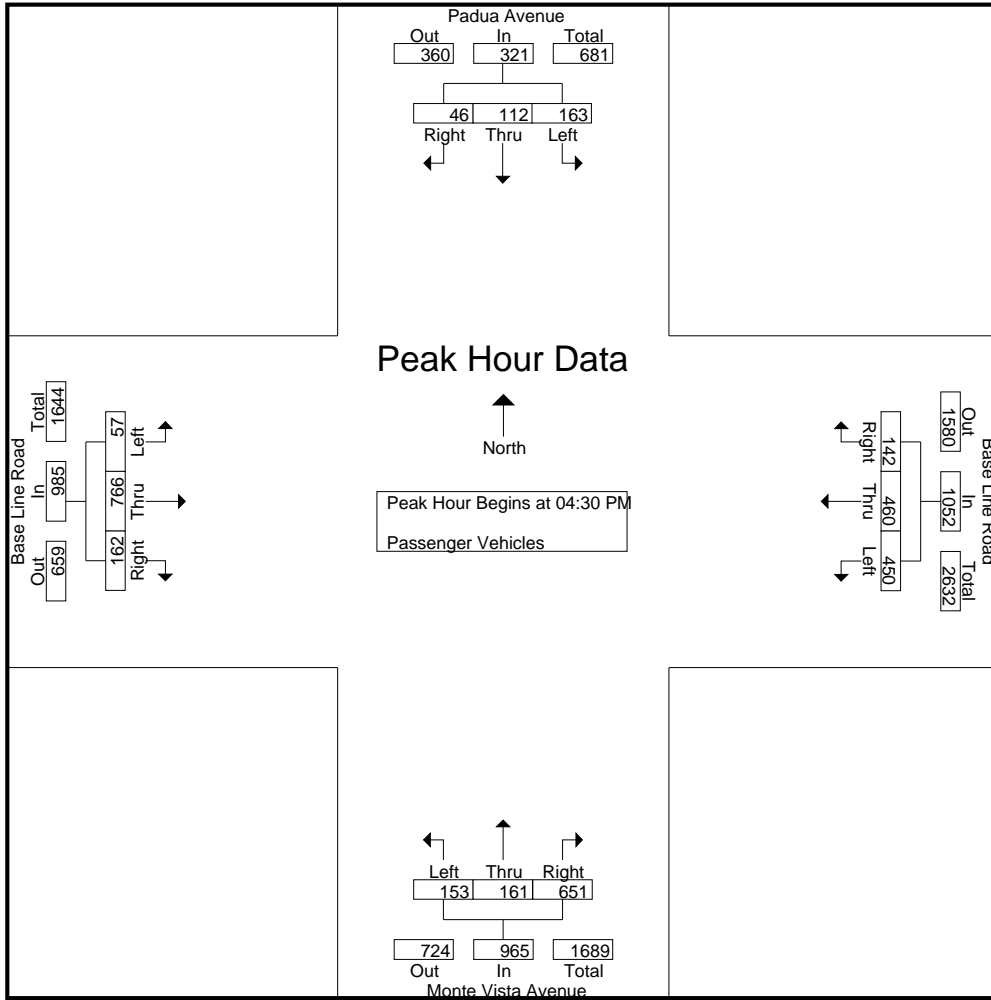
Groups Printed- Passenger Vehicles

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	36	14	13	63	106	88	27	221	37	31	173	241	3	135	44	182	707
04:15 PM	28	27	19	74	117	73	50	240	26	40	149	215	23	175	30	228	757
04:30 PM	48	29	8	85	113	119	29	261	43	38	159	240	12	178	37	227	813
04:45 PM	40	30	15	85	140	131	30	301	32	43	149	224	18	164	44	226	836
Total	152	100	55	307	476	411	136	1023	138	152	630	920	56	652	155	863	3113
05:00 PM	52	26	15	93	77	100	41	218	46	35	182	263	13	214	41	268	842
05:15 PM	23	27	8	58	120	110	42	272	32	45	161	238	14	210	40	264	832
05:30 PM	28	26	9	63	102	119	33	254	51	34	167	252	11	157	35	203	772
05:45 PM	30	33	10	73	146	113	42	301	38	42	159	239	18	154	33	205	818
Total	133	112	42	287	445	442	158	1045	167	156	669	992	56	735	149	940	3264
Grand Total	285	212	97	594	921	853	294	2068	305	308	1299	1912	112	1387	304	1803	6377
Apprch %	48	35.7	16.3		44.5	41.2	14.2		16	16.1	67.9		6.2	76.9	16.9		
Total %	4.5	3.3	1.5	9.3	14.4	13.4	4.6	32.4	4.8	4.8	20.4	30	1.8	21.8	4.8	28.3	

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	48	29	8	85	113	119	29	261	43	38	159	240	12	178	37	227	813
04:45 PM	40	30	15	85	140	131	30	301	32	43	149	224	18	164	44	226	836
05:00 PM	52	26	15	93	77	100	41	218	46	35	182	263	13	214	41	268	842
05:15 PM	23	27	8	58	120	110	42	272	32	45	161	238	14	210	40	264	832
Total Volume	163	112	46	321	450	460	142	1052	153	161	651	965	57	766	162	985	3323
% App. Total	50.8	34.9	14.3		42.8	43.7	13.5		15.9	16.7	67.5		5.8	77.8	16.4		
PHF	.784	.933	.767	.863	.804	.878	.845	.874	.832	.894	.894	.917	.792	.895	.920	.919	.987

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line PM
 Site Code : 99918442
 Start Date : 5/23/2018
 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.	48	29	8	85	113	119	29	261	43	38	159	240	12	178	37	227
+15 mins.	40	30	15	85	140	131	30	301	32	43	149	224	18	164	44	226
+30 mins.	52	26	15	93	77	100	41	218	46	35	182	263	13	214	41	268
+45 mins.	23	27	8	58	120	110	42	272	32	45	161	238	14	210	40	264
Total Volume	163	112	46	321	450	460	142	1052	153	161	651	965	57	766	162	985
% App. Total	50.8	34.9	14.3		42.8	43.7	13.5		15.9	16.7	67.5		5.8	77.8	16.4	
PHF	.784	.933	.767	.863	.804	.878	.845	.874	.832	.894	.894	.917	.792	.895	.920	.919

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line PM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 1

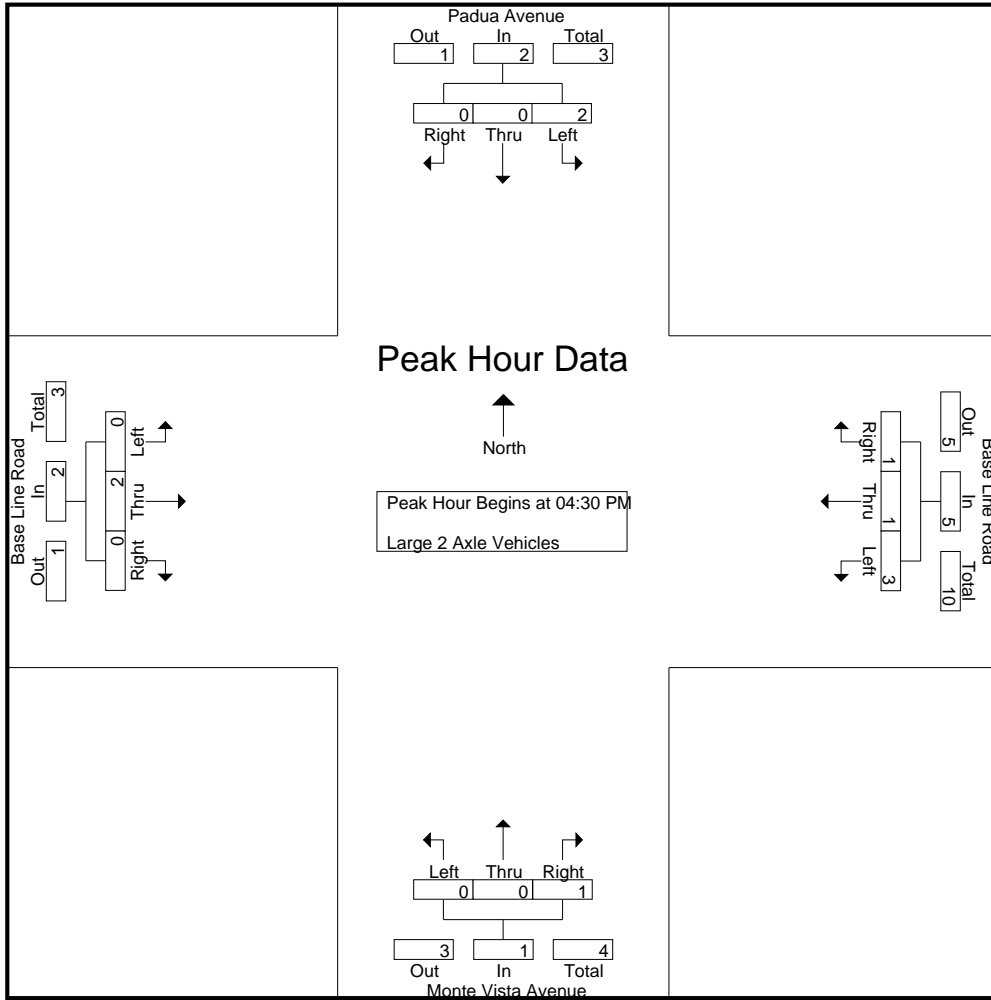
Groups Printed- Large 2 Axle Vehicles

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	0	3	0	3	1	4	2	0	1	3	0	2	0	2	12
04:15 PM	0	1	0	1	0	0	1	1	1	0	0	1	0	0	1	1	4
04:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	2	0	1	3	0	0	0	0	0	0	0	0	3
Total	2	3	0	5	2	3	3	8	3	0	1	4	0	3	1	4	21
05:00 PM	1	0	0	1	1	1	0	2	0	0	1	1	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	1	0	1	1	0	0	1	0	0	3	3	0	0	0	0	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	1	3
Total	1	1	0	2	2	1	0	3	0	0	6	6	0	2	0	2	13
Grand Total	3	4	0	7	4	4	3	11	3	0	7	10	0	5	1	6	34
Apprch %	42.9	57.1	0		36.4	36.4	27.3		30	0	70		0	83.3	16.7		
Total %	8.8	11.8	0	20.6	11.8	11.8	8.8	32.4	8.8	0	20.6	29.4	0	14.7	2.9	17.6	

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	2	0	1	3	0	0	0	0	0	0	0	0	3
05:00 PM	1	0	0	1	1	1	0	2	0	0	1	1	0	0	0	0	4
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	2	0	0	2	3	1	1	5	0	0	1	1	0	2	0	2	10
% App. Total	100	0	0		60	20	20		0	0	100		0	100	0		
PHF	.500	.000	.000	.500	.375	.250	.250	.417	.000	.000	.250	.250	.000	.500	.000	.500	.625

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line PM
 Site Code : 99918442
 Start Date : 5/23/2018
 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.	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	2	0	1	3	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	1	1	1	0	2	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	2	0	0	2	3	1	1	5	0	0	1	1	0	2	0	2
% App. Total	100	0	0		60	20	20		0	0	100		0	100	0	
PHF	.500	.000	.000	.500	.375	.250	.250	.417	.000	.000	.250	.250	.000	.500	.000	.500

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line PM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 1

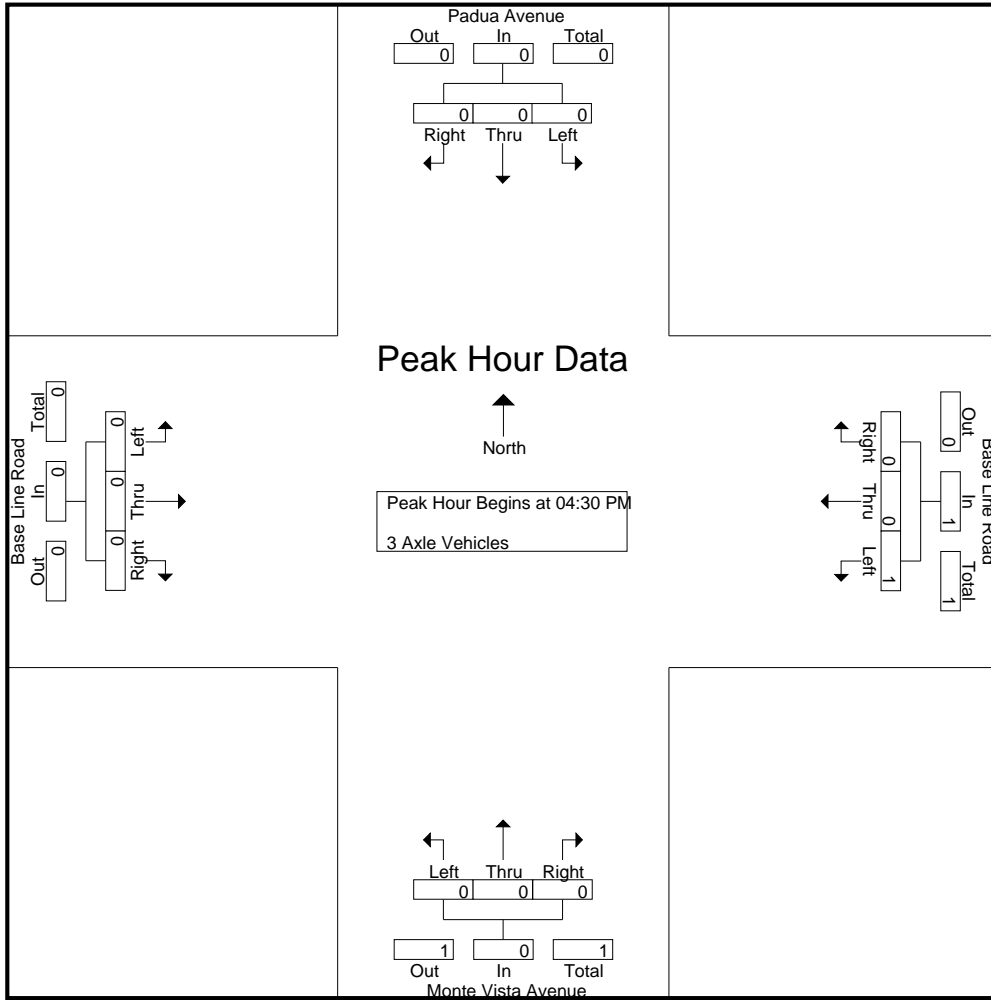
Groups Printed- 3 Axle Vehicles

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	1	0	0	1	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	0	0	0	0	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	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	1	1	0	0	0	0	1
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	1	0	0	1	0	0	1	1	0	0	0	0	2
Grand Total	0	0	0	0	2	0	0	2	0	0	1	1	0	0	0	0	3
Apprch %	0	0	0		100	0	0		0	0	100		0	0	0		
Total %	0	0	0		66.7	0	0	66.7	0	0	33.3	33.3	0	0	0		

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	1	0	0	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	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		100	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line PM
 Site Code : 99918442
 Start Date : 5/23/2018
 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	1	0	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	0	0	0
Total Volume	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line PM
 Site Code : 99918442
 Start Date : 5/23/2018
 Page No : 1

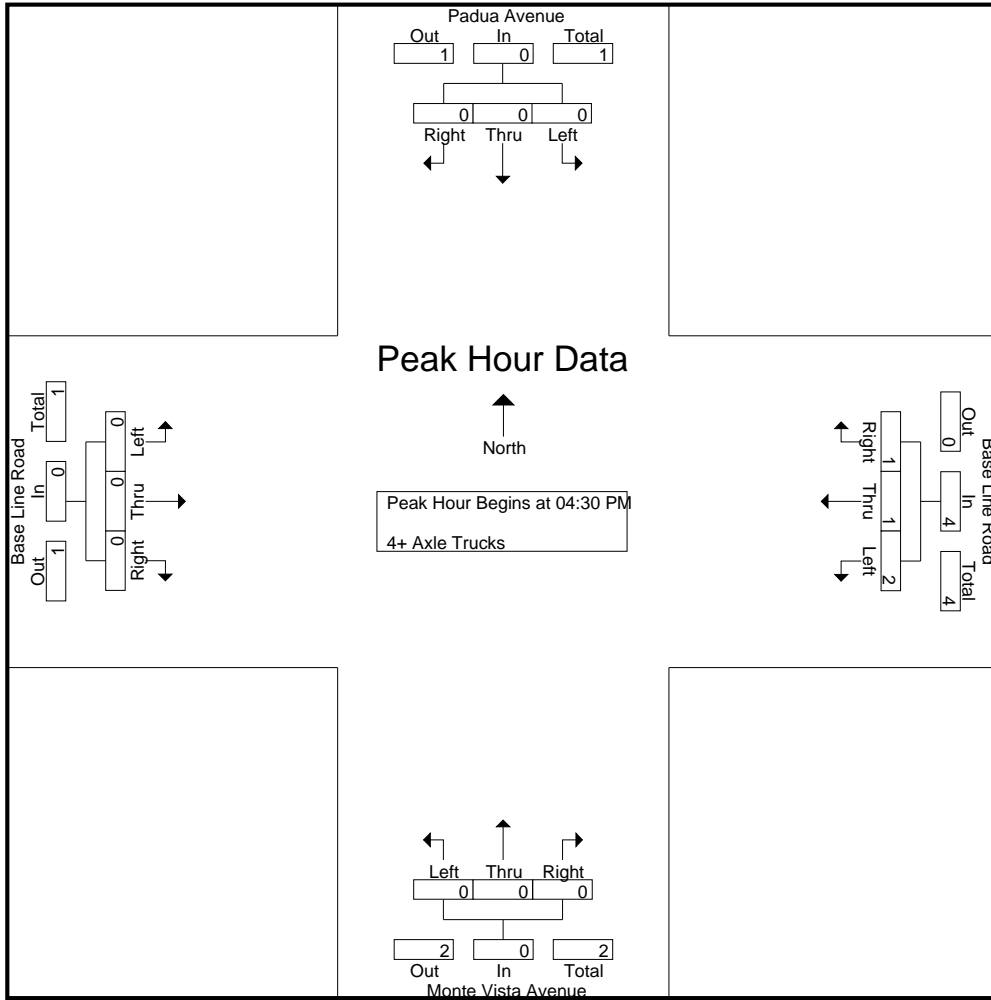
Groups Printed- 4+ Axle Trucks

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	0	0	0	0	2	0	2	3
04:15 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
04:30 PM	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	3	1	2	6	0	0	1	1	0	2	0	2	9
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	1	0	0	1	0	0	4	4	0	0	0	0	5
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	1	0	0	1	0	0	4	4	0	0	0	0	5
Grand Total	0	0	0	0	4	1	2	7	0	0	5	5	0	2	0	2	14
Apprch %	0	0	0		57.1	14.3	28.6		0	0	100		0	100	0		
Total %	0	0	0		28.6	7.1	14.3	50	0	0	35.7	35.7	0	14.3	0	14.3	

Start Time	Padua Avenue Southbound				Base Line Road Westbound				Monte Vista Avenue Northbound				Base Line Road 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	2	1	0	3	0	0	0	0	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
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	2	1	1	4	0	0	0	0	0	0	0	0	4
% App. Total	0	0	0		50	25	25		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.250	.250	.250	.333	.000	.000	.000	.000	.000	.000	.000	.000	.333

City of Upland
 N/S: Padua Avenue/Monte Vista Avenue
 E/W: Base Line Road
 Weather: Clear

File Name : 01_UPL_Padua_Monte Vista_Base Line PM
 Site Code : 99918442
 Start Date : 5/23/2018
 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	2	1	0	3	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	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	2	1	1	4	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	50	25	25		0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.250	.250	.250	.333	.000	.000	.000	.000	.000	.000	.000	.000

City of Monte Vista
 N/S: Monte Vista Avenue
 E/W: Arrow Highway
 Weather: Clear

File Name : 01_MON_Monte Vista_Arrow AM
 Site Code : 99920059
 Start Date : 1/28/2020
 Page No : 1

Groups Printed- Total Volume

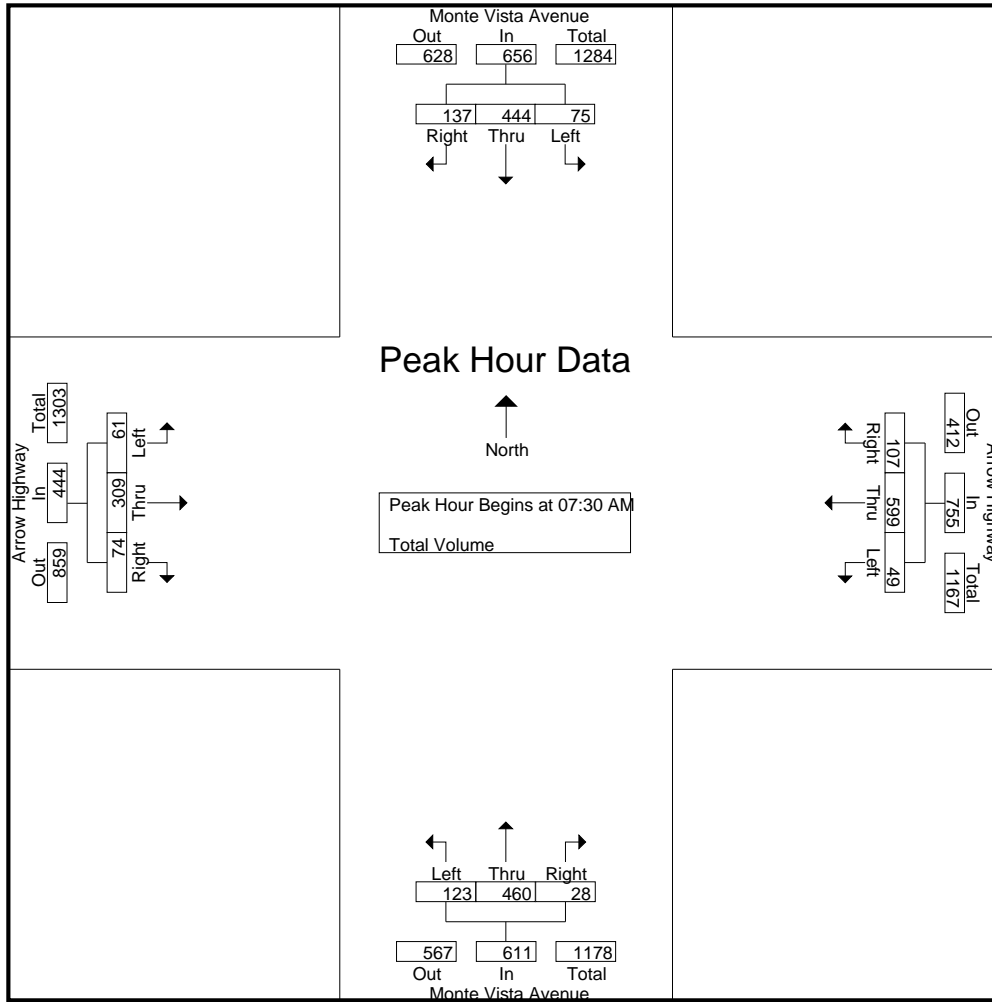
Start Time	Monte Vista Avenue Southbound				Arrow Highway Westbound				Monte Vista Avenue Northbound				Arrow Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
06:00 AM	6	55	14	75	2	61	10	73	12	40	5	57	10	11	6	27	232
06:15 AM	1	58	15	74	8	80	11	99	11	76	2	89	9	22	8	39	301
06:30 AM	9	82	31	122	9	93	21	123	28	76	0	104	8	25	13	46	395
06:45 AM	13	123	28	164	15	120	22	157	28	110	4	142	13	29	13	55	518
Total	29	318	88	435	34	354	64	452	79	302	11	392	40	87	40	167	1446
07:00 AM	16	129	36	181	13	91	11	115	19	83	5	107	9	28	16	53	456
07:15 AM	16	104	27	147	16	131	17	164	28	122	5	155	12	48	19	79	545
07:30 AM	18	107	32	157	18	170	33	221	33	132	5	170	14	52	10	76	624
07:45 AM	18	108	54	180	9	192	34	235	29	128	11	168	15	94	19	128	711
Total	68	448	149	665	56	584	95	735	109	465	26	600	50	222	64	336	2336
08:00 AM	22	124	25	171	11	107	22	140	35	80	7	122	19	86	27	132	565
08:15 AM	17	105	26	148	11	130	18	159	26	120	5	151	13	77	18	108	566
08:30 AM	16	82	19	117	11	109	17	137	32	105	8	145	10	55	14	79	478
08:45 AM	15	91	33	139	10	99	17	126	31	106	4	141	10	68	14	92	498
Total	70	402	103	575	43	445	74	562	124	411	24	559	52	286	73	411	2107
Grand Total	167	1168	340	1675	133	1383	233	1749	312	1178	61	1551	142	595	177	914	5889
Apprch %	10	69.7	20.3		7.6	79.1	13.3		20.1	76	3.9		15.5	65.1	19.4		
Total %	2.8	19.8	5.8	28.4	2.3	23.5	4	29.7	5.3	20	1	26.3	2.4	10.1	3	15.5	

Start Time	Monte Vista Avenue Southbound				Arrow Highway Westbound				Monte Vista Avenue Northbound				Arrow Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:30 AM	18	107	32	157	18	170	33	221	33	132	5	170	14	52	10	76	624
07:45 AM	18	108	54	180	9	192	34	235	29	128	11	168	15	94	19	128	711
08:00 AM	22	124	25	171	11	107	22	140	35	80	7	122	19	86	27	132	565
08:15 AM	17	105	26	148	11	130	18	159	26	120	5	151	13	77	18	108	566
Total Volume	75	444	137	656	49	599	107	755	123	460	28	611	61	309	74	444	2466
% App. Total	11.4	67.7	20.9		6.5	79.3	14.2		20.1	75.3	4.6		13.7	69.6	16.7		
PHF	.852	.895	.634	.911	.681	.780	.787	.803	.879	.871	.636	.899	.803	.822	.685	.841	.867

Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:30 AM

City of Monte Vista
 N/S: Monte Vista Avenue
 E/W: Arrow Highway
 Weather: Clear

File Name : 01_MON_Monte Vista_Arrow AM
 Site Code : 99920059
 Start Date : 1/28/2020
 Page No : 2



Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:30 AM				07:45 AM			
+0 mins.	16	129	36	181	16	131	17	164	28	122	5	155	15	94	19	128
+15 mins.	16	104	27	147	18	170	33	221	33	132	5	170	19	86	27	132
+30 mins.	18	107	32	157	9	192	34	235	29	128	11	168	13	77	18	108
+45 mins.	18	108	54	180	11	107	22	140	35	80	7	122	10	55	14	79
Total Volume	68	448	149	665	54	600	106	760	125	462	28	615	57	312	78	447
% App. Total	10.2	67.4	22.4		7.1	78.9	13.9		20.3	75.1	4.6		12.8	69.8	17.4	
PHF	.944	.868	.690	.919	.750	.781	.779	.809	.893	.875	.636	.904	.750	.830	.722	.847

City of Monte Vista
 N/S: Monte Vista Avenue
 E/W: Arrow Highway
 Weather: Clear

File Name : 01_MON_Monte Vista_Arrow PM
 Site Code : 99920059
 Start Date : 1/28/2020
 Page No : 1

Groups Printed- Total Volume

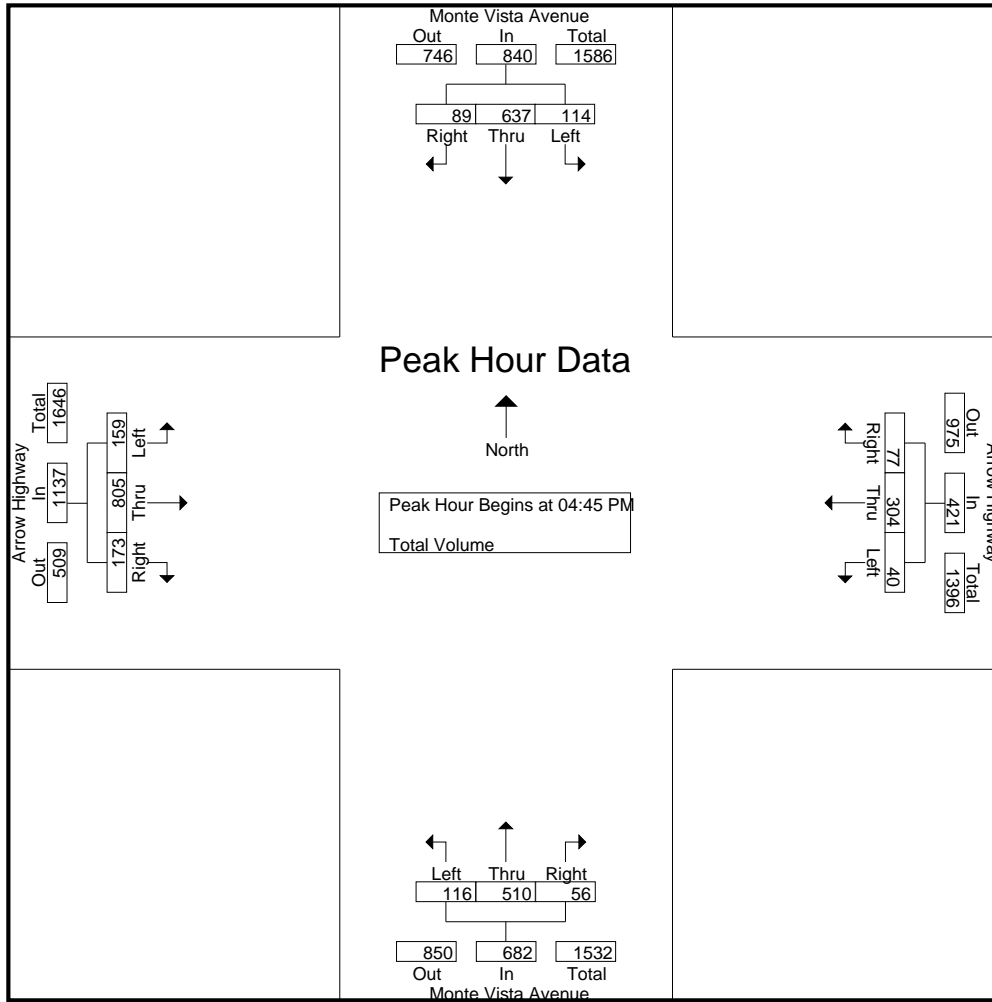
Start Time	Monte Vista Avenue Southbound				Arrow Highway Westbound				Monte Vista Avenue Northbound				Arrow Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	26	137	29	192	12	80	14	106	24	100	15	139	29	118	28	175	612
03:15 PM	30	123	23	176	8	76	23	107	23	137	18	178	28	155	24	207	668
03:30 PM	24	126	33	183	6	67	18	91	26	119	13	158	36	164	32	232	664
03:45 PM	24	113	23	160	16	80	19	115	39	116	11	166	39	178	43	260	701
Total	104	499	108	711	42	303	74	419	112	472	57	641	132	615	127	874	2645
04:00 PM	20	172	28	220	8	73	16	97	29	112	7	148	41	135	44	220	685
04:15 PM	25	123	14	162	7	66	18	91	14	114	12	140	45	203	43	291	684
04:30 PM	26	131	17	174	8	72	17	97	26	131	15	172	48	183	43	274	717
04:45 PM	23	150	23	196	10	71	16	97	40	122	14	176	34	192	43	269	738
Total	94	576	82	752	33	282	67	382	109	479	48	636	168	713	173	1054	2824
05:00 PM	35	181	21	237	12	92	22	126	28	113	17	158	44	207	44	295	816
05:15 PM	30	140	26	196	13	67	20	100	24	141	17	182	37	224	43	304	782
05:30 PM	26	166	19	211	5	74	19	98	24	134	8	166	44	182	43	269	744
05:45 PM	29	142	20	191	7	65	17	89	18	132	19	169	41	193	43	277	726
Total	120	629	86	835	37	298	78	413	94	520	61	675	166	806	173	1145	3068
Grand Total	318	1704	276	2298	112	883	219	1214	315	1471	166	1952	466	2134	473	3073	8537
Apprch %	13.8	74.2	12		9.2	72.7	18		16.1	75.4	8.5		15.2	69.4	15.4		
Total %	3.7	20	3.2	26.9	1.3	10.3	2.6	14.2	3.7	17.2	1.9	22.9	5.5	25	5.5	36	

Start Time	Monte Vista Avenue Southbound				Arrow Highway Westbound				Monte Vista Avenue Northbound				Arrow Highway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	23	150	23	196	10	71	16	97	40	122	14	176	34	192	43	269	738
05:00 PM	35	181	21	237	12	92	22	126	28	113	17	158	44	207	44	295	816
05:15 PM	30	140	26	196	13	67	20	100	24	141	17	182	37	224	43	304	782
05:30 PM	26	166	19	211	5	74	19	98	24	134	8	166	44	182	43	269	744
Total Volume	114	637	89	840	40	304	77	421	116	510	56	682	159	805	173	1137	3080
% App. Total	13.6	75.8	10.6		9.5	72.2	18.3		17	74.8	8.2		14	70.8	15.2		
PHF	.814	.880	.856	.886	.769	.826	.875	.835	.725	.904	.824	.937	.903	.898	.983	.935	.944

Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:45 PM

City of Monte Vista
 N/S: Monte Vista Avenue
 E/W: Arrow Highway
 Weather: Clear

File Name : 01_MON_Monte Vista_Arrow PM
 Site Code : 99920059
 Start Date : 1/28/2020
 Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				05:00 PM							
+0 mins.	23	150	23	196	10	71	16	97	26	131	15	172	44	207	44	295
+15 mins.	35	181	21	237	12	92	22	126	40	122	14	176	37	224	43	304
+30 mins.	30	140	26	196	13	67	20	100	28	113	17	158	44	182	43	269
+45 mins.	26	166	19	211	5	74	19	98	24	141	17	182	41	193	43	277
Total Volume	114	637	89	840	40	304	77	421	118	507	63	688	166	806	173	1145
% App. Total	13.6	75.8	10.6		9.5	72.2	18.3		17.2	73.7	9.2		14.5	70.4	15.1	
PHF	.814	.880	.856	.886	.769	.826	.875	.835	.738	.899	.926	.945	.943	.900	.983	.942



Attachment B – LOS Calculation Sheets



Existing Conditions

WVC O&M Site Re-evaluation
1: Garey Ave & Arrow Hwy

Existing Conditions
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↖↗		↖	↗↖↗		↖	↗↖		↖	↗↖	
Traffic Volume (veh/h)	47	166	41	112	437	88	109	589	83	98	660	43
Future Volume (veh/h)	47	166	41	112	437	88	109	589	83	98	660	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	198	49	133	520	105	130	701	99	117	786	51
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	590	138	166	818	162	163	1366	193	149	1453	94
Arrive On Green	0.04	0.14	0.14	0.09	0.19	0.19	0.09	0.44	0.44	0.08	0.43	0.43
Sat Flow, veh/h	1781	4132	968	1781	4277	845	1781	3127	441	1781	3388	220
Grp Volume(v), veh/h	56	161	86	133	412	213	130	398	402	117	412	425
Grp Sat Flow(s),veh/h/ln	1781	1702	1696	1781	1702	1718	1781	1777	1791	1781	1777	1831
Q Serve(g_s), s	2.4	3.4	3.6	5.8	8.8	9.0	5.6	12.8	12.8	5.1	13.6	13.6
Cycle Q Clear(g_c), s	2.4	3.4	3.6	5.8	8.8	9.0	5.6	12.8	12.8	5.1	13.6	13.6
Prop In Lane	1.00		0.57	1.00		0.49	1.00		0.25	1.00		0.12
Lane Grp Cap(c), veh/h	80	486	242	166	651	328	163	776	782	149	762	785
V/C Ratio(X)	0.70	0.33	0.35	0.80	0.63	0.65	0.80	0.51	0.51	0.79	0.54	0.54
Avail Cap(c_a), veh/h	181	1339	667	181	1339	676	181	776	782	203	762	785
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	37.1	30.4	30.5	35.0	29.3	29.4	35.1	16.1	16.1	35.4	16.7	16.7
Incr Delay (d2), s/veh	10.6	0.4	0.9	20.7	1.0	2.2	20.0	2.4	2.4	13.2	2.7	2.7
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	1.4	1.5	3.4	3.6	3.8	3.3	5.4	5.4	2.7	5.7	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	30.8	31.4	55.7	30.3	31.6	55.1	18.5	18.5	48.6	19.5	19.4
LnGrp LOS	D	C	C	E	C	C	E	B	B	D	B	B
Approach Vol, veh/h		303			758			930			954	
Approach Delay, s/veh		34.1			35.1			23.6			23.0	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	39.8	11.3	17.0	11.2	39.2	7.5	20.9				
Change Period (Y+Rc), s	4.0	5.4	4.0	5.8	4.0	5.4	4.0	5.8				
Max Green Setting (Gmax), s	9.0	32.8	8.0	31.0	8.0	33.8	8.0	31.0				
Max Q Clear Time (g_c+I1), s	7.1	14.8	7.8	5.6	7.6	15.6	4.4	11.0				
Green Ext Time (p_c), s	0.0	4.9	0.0	1.5	0.0	5.2	0.0	4.0				
Intersection Summary												
HCM 6th Ctrl Delay				27.5								
HCM 6th LOS				C								

WVC O&M Site Re-evaluation
2: Monte Vista Ave/Padua Ave & Base Line Rd






























Existing Conditions
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	355	165	721	622	239	130	100	360	215	144	108
Future Volume (veh/h)	45	355	165	721	622	239	130	100	360	215	144	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	374	174	759	655	252	137	105	379	226	152	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	63	516	230	854	1268	566	527	671	569	488	731	513
Arrive On Green	0.04	0.15	0.15	0.25	0.36	0.36	0.06	0.36	0.36	0.07	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1994	1401
Grp Volume(v), veh/h	47	374	174	759	655	252	137	105	379	226	134	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1618
Q Serve(g_s), s	2.8	10.6	11.1	22.3	15.3	12.8	5.1	4.0	21.2	7.5	5.5	5.9
Cycle Q Clear(g_c), s	2.8	10.6	11.1	22.3	15.3	12.8	5.1	4.0	21.2	7.5	5.5	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.87
Lane Grp Cap(c), veh/h	63	516	230	854	1268	566	527	671	569	488	651	593
V/C Ratio(X)	0.74	0.73	0.76	0.89	0.52	0.45	0.26	0.16	0.67	0.46	0.21	0.22
Avail Cap(c_a), veh/h	135	844	376	1017	1620	722	527	671	569	488	651	593
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	50.3	43.0	43.2	38.2	26.7	25.9	19.2	22.9	28.4	20.2	22.9	23.0
Incr Delay (d2), s/veh	15.7	2.0	5.0	8.6	0.3	0.6	0.3	0.5	6.1	0.7	0.7	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	1.5	4.6	4.5	10.0	6.2	4.7	2.0	1.8	8.5	3.5	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	45.0	48.3	46.9	27.0	26.5	19.4	23.4	34.5	20.9	23.6	23.9
LnGrp LOS	E	D	D	D	C	C	B	C	C	C	C	C
Approach Vol, veh/h		595			1666			621			492	
Approach Delay, s/veh		47.6			36.0			29.3			22.4	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	42.7	30.0	20.6	11.2	43.5	7.7	42.9				
Change Period (Y+Rc), s	4.5	4.9	4.0	5.3	4.5	4.9	4.0	5.3				
Max Green Setting (Gmax), s	7.5	37.8	31.0	25.0	6.7	38.6	8.0	48.0				
Max Q Clear Time (g_c+I1), s	9.5	23.2	24.3	13.1	7.1	7.9	4.8	17.3				
Green Ext Time (p_c), s	0.0	1.6	1.7	2.2	0.0	1.5	0.0	5.4				
Intersection Summary												
HCM 6th Ctrl Delay			34.8									
HCM 6th LOS			C									

WVC O&M Site Re-evaluation
3: Monte Vista Ave & Arrow Hwy

Existing Conditions
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			 		 	 	
Traffic Volume (veh/h)	61	309	74	49	599	107	123	460	28	75	444	137
Future Volume (veh/h)	61	309	74	49	599	107	123	460	28	75	444	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	355	85	56	689	123	141	529	32	86	510	157
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	723	171	149	886	395	177	1433	87	111	1364	608
Arrive On Green	0.05	0.25	0.25	0.04	0.25	0.25	0.10	0.42	0.42	0.06	0.38	0.38
Sat Flow, veh/h	3456	2851	674	3456	3554	1585	1781	3405	206	1781	3554	1585
Grp Volume(v), veh/h	70	220	220	56	689	123	141	276	285	86	510	157
Grp Sat Flow(s),veh/h/ln	1728	1777	1749	1728	1777	1585	1781	1777	1833	1781	1777	1585
Q Serve(g_s), s	1.7	8.9	9.1	1.3	15.3	5.3	6.5	9.0	9.0	4.0	8.7	5.7
Cycle Q Clear(g_c), s	1.7	8.9	9.1	1.3	15.3	5.3	6.5	9.0	9.0	4.0	8.7	5.7
Prop In Lane	1.00		0.39	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	165	451	444	149	886	395	177	748	772	111	1364	608
V/C Ratio(X)	0.42	0.49	0.50	0.37	0.78	0.31	0.80	0.37	0.37	0.77	0.37	0.26
Avail Cap(c_a), veh/h	221	639	629	204	1260	562	326	748	772	219	1364	608
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	39.2	26.9	27.0	39.4	29.6	25.8	37.3	16.8	16.8	39.1	18.8	17.8
Incr Delay (d2), s/veh	1.7	0.8	0.9	1.6	2.0	0.4	7.9	1.4	1.4	10.9	0.8	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	0.7	3.6	3.6	0.6	6.3	1.9	3.1	3.6	3.7	2.0	3.4	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	27.7	27.8	40.9	31.6	26.3	45.2	18.2	18.2	49.9	19.5	18.9
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		510			868			702			753	
Approach Delay, s/veh		29.6			31.4			23.6			22.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	41.4	7.2	27.3	11.9	38.3	7.5	26.9				
Change Period (Y+Rc), s	3.5	5.8	3.5	5.8	3.5	5.8	3.5	5.8				
Max Green Setting (Gmax), s	10.4	35.6	5.0	30.4	15.5	30.5	5.4	30.0				
Max Q Clear Time (g_c+I1), s	6.0	11.0	3.3	11.1	8.5	10.7	3.7	17.3				
Green Ext Time (p_c), s	0.1	3.1	0.0	2.2	0.2	3.5	0.0	3.8				
Intersection Summary												
HCM 6th Ctrl Delay				26.9								
HCM 6th LOS				C								

WVC O&M Site Re-evaluation
1: Garey Ave & Arrow Hwy

























Existing Conditions
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↖↗		↖	↗↖↗		↖	↗↖		↖	↗↖	
Traffic Volume (veh/h)	102	657	72	125	326	113	116	578	153	140	635	60
Future Volume (veh/h)	102	657	72	125	326	113	116	578	153	140	635	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	699	77	133	347	120	123	615	163	149	676	64
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1011	111	163	876	288	153	1029	272	182	1268	120
Arrive On Green	0.08	0.22	0.22	0.09	0.23	0.23	0.09	0.37	0.37	0.10	0.39	0.39
Sat Flow, veh/h	1781	4672	511	1781	3801	1249	1781	2779	735	1781	3281	310
Grp Volume(v), veh/h	109	508	268	133	309	158	123	393	385	149	366	374
Grp Sat Flow(s),veh/h/ln	1781	1702	1778	1781	1702	1646	1781	1777	1738	1781	1777	1814
Q Serve(g_s), s	5.3	12.0	12.2	6.4	6.7	7.2	5.9	15.6	15.7	7.2	13.9	13.9
Cycle Q Clear(g_c), s	5.3	12.0	12.2	6.4	6.7	7.2	5.9	15.6	15.7	7.2	13.9	13.9
Prop In Lane	1.00		0.29	1.00		0.76	1.00		0.42	1.00		0.17
Lane Grp Cap(c), veh/h	138	737	385	163	784	379	153	658	643	182	687	701
V/C Ratio(X)	0.79	0.69	0.70	0.82	0.39	0.42	0.80	0.60	0.60	0.82	0.53	0.53
Avail Cap(c_a), veh/h	183	1207	630	163	1168	564	163	658	643	204	687	701
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	39.6	31.6	31.6	39.0	28.5	28.7	39.2	22.3	22.3	38.5	20.7	20.7
Incr Delay (d2), s/veh	15.3	1.2	2.3	26.5	0.3	0.7	23.2	4.0	4.1	20.5	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/ln	2.9	4.9	5.3	4.0	2.7	2.8	3.5	7.0	6.9	4.1	6.1	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	32.7	33.9	65.5	28.8	29.4	62.4	26.2	26.4	58.9	23.7	23.6
LnGrp LOS	D	C	C	E	C	C	E	C	C	E	C	C
Approach Vol, veh/h		885			600			901			889	
Approach Delay, s/veh		35.8			37.1			31.2			29.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	37.8	12.0	24.7	11.5	39.2	10.8	25.9				
Change Period (Y+Rc), s	4.0	5.4	4.0	5.8	4.0	5.4	4.0	5.8				
Max Green Setting (Gmax), s	10.0	31.8	8.0	31.0	8.0	33.8	9.0	30.0				
Max Q Clear Time (g_c+I1), s	9.2	17.7	8.4	14.2	7.9	15.9	7.3	9.2				
Green Ext Time (p_c), s	0.0	4.3	0.0	4.8	0.0	4.4	0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay			33.1									
HCM 6th LOS			C									





























WVC O&M Site Re-evaluation
2: Monte Vista Ave/Padua Ave & Base Line Rd

Existing Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	783	165	465	471	147	156	164	665	168	114	47
Future Volume (veh/h)	58	783	165	465	471	147	156	164	665	168	114	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	791	167	470	476	148	158	166	672	170	115	47
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	897	400	535	1295	578	586	719	610	357	917	358
Arrive On Green	0.04	0.25	0.25	0.15	0.36	0.36	0.06	0.38	0.38	0.05	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2498	974
Grp Volume(v), veh/h	59	791	167	470	476	148	158	166	672	170	80	82
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1695
Q Serve(g_s), s	3.8	24.7	10.1	15.3	11.3	7.5	6.4	6.9	44.3	5.3	3.4	3.7
Cycle Q Clear(g_c), s	3.8	24.7	10.1	15.3	11.3	7.5	6.4	6.9	44.3	5.3	3.4	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	76	897	400	535	1295	578	586	719	610	357	652	622
V/C Ratio(X)	0.78	0.88	0.42	0.88	0.37	0.26	0.27	0.23	1.10	0.48	0.12	0.13
Avail Cap(c_a), veh/h	139	978	436	600	1317	588	586	719	610	357	652	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	41.4	36.0	47.6	26.9	25.7	20.6	23.9	35.4	23.4	24.2	24.2
Incr Delay (d2), s/veh	15.3	9.0	0.7	13.0	0.2	0.2	0.2	0.7	67.7	1.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	11.5	3.9	7.4	4.6	2.8	2.6	3.1	27.5	0.8	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.9	50.4	36.7	60.7	27.0	25.9	20.8	24.7	103.2	24.4	24.5	24.7
LnGrp LOS	E	D	D	E	C	C	C	C	F	C	C	C
Approach Vol, veh/h		1017			1094			996			332	
Approach Delay, s/veh		49.3			41.3			77.0			24.5	
Approach LOS		D			D			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	49.2	21.8	34.4	11.8	47.2	8.9	47.3				
Change Period (Y+Rc), s	4.5	4.9	4.0	5.3	4.5	4.9	4.0	5.3				
Max Green Setting (Gmax), s	5.3	44.3	20.0	31.7	7.3	42.3	9.0	42.7				
Max Q Clear Time (g_c+I1), s	7.3	46.3	17.3	26.7	8.4	5.7	5.8	13.3				
Green Ext Time (p_c), s	0.0	0.0	0.5	2.4	0.0	0.9	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay			52.4									
HCM 6th LOS			D									

WVC O&M Site Re-evaluation
3: Monte Vista Ave & Arrow Hwy

Existing Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			 			 	
Traffic Volume (veh/h)	159	805	173	40	304	77	116	510	56	114	637	89
Future Volume (veh/h)	159	805	173	40	304	77	116	510	56	114	637	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	169	856	184	43	323	82	123	543	60	121	678	95
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	972	209	125	1071	477	153	1108	122	152	1217	543
Arrive On Green	0.07	0.33	0.33	0.04	0.30	0.30	0.09	0.34	0.34	0.09	0.34	0.34
Sat Flow, veh/h	3456	2909	625	3456	3554	1585	1781	3228	356	1781	3554	1585
Grp Volume(v), veh/h	169	523	517	43	323	82	123	298	305	121	678	95
Grp Sat Flow(s),veh/h/ln	1728	1777	1758	1728	1777	1585	1781	1777	1806	1781	1777	1585
Q Serve(g_s), s	4.4	25.7	25.7	1.1	6.5	3.5	6.3	12.3	12.3	6.2	14.3	3.9
Cycle Q Clear(g_c), s	4.4	25.7	25.7	1.1	6.5	3.5	6.3	12.3	12.3	6.2	14.3	3.9
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	239	594	588	125	1071	477	153	610	620	152	1217	543
V/C Ratio(X)	0.71	0.88	0.88	0.34	0.30	0.17	0.80	0.49	0.49	0.79	0.56	0.17
Avail Cap(c_a), veh/h	280	657	650	187	1217	543	202	610	620	258	1217	543
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	42.2	29.1	29.1	43.5	24.9	23.8	41.5	24.0	24.0	41.5	24.7	21.3
Incr Delay (d2), s/veh	6.6	12.3	12.5	1.6	0.2	0.2	15.6	2.8	2.8	9.0	1.8	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	2.0	12.1	12.0	0.5	2.6	1.3	3.3	5.2	5.4	3.0	5.9	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.7	41.4	41.5	45.2	25.0	24.0	57.1	26.8	26.8	50.5	26.6	22.0
LnGrp LOS	D	D	D	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		1209			448			726			894	
Approach Delay, s/veh		42.5			26.8			31.9			29.3	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	37.6	6.8	36.7	11.5	37.5	9.9	33.7				
Change Period (Y+Rc), s	3.5	5.8	3.5	5.8	3.5	5.8	3.5	5.8				
Max Green Setting (Gmax), s	13.4	28.8	5.0	34.2	10.5	31.7	7.5	31.7				
Max Q Clear Time (g_c+I1), s	8.2	14.3	3.1	27.7	8.3	16.3	6.4	8.5				
Green Ext Time (p_c), s	0.1	2.8	0.0	3.2	0.1	4.0	0.1	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			34.4									
HCM 6th LOS			C									



Existing Plus Project Conditions

WVC O&M Site Re-evaluation
1: Garey Ave & Arrow Hwy

Existing Plus Project Conditions
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↖↗		↖	↗↖↗		↖	↗↖		↖	↗↖	
Traffic Volume (veh/h)	47	166	41	112	437	88	109	589	86	98	660	43
Future Volume (veh/h)	47	166	41	112	437	88	109	589	86	98	660	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	198	49	133	520	105	130	701	102	117	786	51
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	590	138	166	818	162	163	1360	198	149	1453	94
Arrive On Green	0.04	0.14	0.14	0.09	0.19	0.19	0.09	0.44	0.44	0.08	0.43	0.43
Sat Flow, veh/h	1781	4132	968	1781	4277	845	1781	3113	453	1781	3388	220
Grp Volume(v), veh/h	56	161	86	133	412	213	130	400	403	117	412	425
Grp Sat Flow(s),veh/h/ln	1781	1702	1696	1781	1702	1718	1781	1777	1789	1781	1777	1831
Q Serve(g_s), s	2.4	3.4	3.6	5.8	8.8	9.0	5.6	12.9	12.9	5.1	13.6	13.6
Cycle Q Clear(g_c), s	2.4	3.4	3.6	5.8	8.8	9.0	5.6	12.9	12.9	5.1	13.6	13.6
Prop In Lane	1.00		0.57	1.00		0.49	1.00		0.25	1.00		0.12
Lane Grp Cap(c), veh/h	80	486	242	166	651	328	163	776	782	149	762	785
V/C Ratio(X)	0.70	0.33	0.35	0.80	0.63	0.65	0.80	0.52	0.52	0.79	0.54	0.54
Avail Cap(c_a), veh/h	181	1339	667	181	1339	676	181	776	782	203	762	785
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	37.1	30.4	30.5	35.0	29.3	29.4	35.1	16.1	16.1	35.4	16.7	16.7
Incr Delay (d2), s/veh	10.6	0.4	0.9	20.7	1.0	2.2	20.0	2.4	2.4	13.2	2.7	2.7
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	1.4	1.5	3.4	3.6	3.8	3.3	5.4	5.4	2.7	5.7	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	30.8	31.4	55.7	30.3	31.6	55.1	18.6	18.6	48.6	19.5	19.4
LnGrp LOS	D	C	C	E	C	C	E	B	B	D	B	B
Approach Vol, veh/h		303			758			933			954	
Approach Delay, s/veh		34.1			35.1			23.7			23.0	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	39.8	11.3	17.0	11.2	39.2	7.5	20.9				
Change Period (Y+Rc), s	4.0	5.4	4.0	5.8	4.0	5.4	4.0	5.8				
Max Green Setting (Gmax), s	9.0	32.8	8.0	31.0	8.0	33.8	8.0	31.0				
Max Q Clear Time (g_c+I1), s	7.1	14.9	7.8	5.6	7.6	15.6	4.4	11.0				
Green Ext Time (p_c), s	0.0	4.9	0.0	1.5	0.0	5.2	0.0	4.0				
Intersection Summary												
HCM 6th Ctrl Delay			27.5									
HCM 6th LOS			C									

WVC O&M Site Re-evaluation
2: Monte Vista Ave/Padua Ave & Base Line Rd

Existing Plus Project Conditions
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	355	165	724	622	239	130	100	360	215	144	108
Future Volume (veh/h)	45	355	165	724	622	239	130	100	360	215	144	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	374	174	762	655	252	137	105	379	226	152	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	63	516	230	857	1271	567	527	671	568	487	730	513
Arrive On Green	0.04	0.15	0.15	0.25	0.36	0.36	0.06	0.36	0.36	0.07	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	1994	1401
Grp Volume(v), veh/h	47	374	174	762	655	252	137	105	379	226	134	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1618
Q Serve(g_s), s	2.8	10.6	11.1	22.4	15.3	12.8	5.1	4.0	21.3	7.5	5.5	5.9
Cycle Q Clear(g_c), s	2.8	10.6	11.1	22.4	15.3	12.8	5.1	4.0	21.3	7.5	5.5	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.87
Lane Grp Cap(c), veh/h	63	516	230	857	1271	567	527	671	568	487	651	592
V/C Ratio(X)	0.74	0.73	0.76	0.89	0.52	0.44	0.26	0.16	0.67	0.46	0.21	0.22
Avail Cap(c_a), veh/h	135	843	376	1016	1618	722	527	671	568	487	651	592
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	50.4	43.1	43.3	38.3	26.7	25.9	19.2	23.0	28.5	20.2	22.9	23.1
Incr Delay (d2), s/veh	15.8	2.0	5.0	8.7	0.3	0.5	0.3	0.5	6.1	0.7	0.7	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	1.5	4.6	4.5	10.1	6.2	4.7	2.1	1.8	8.5	3.5	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.1	45.0	48.3	47.0	27.0	26.4	19.5	23.5	34.6	20.9	23.6	23.9
LnGrp LOS	E	D	D	D	C	C	B	C	C	C	C	C
Approach Vol, veh/h		595			1669			621			492	
Approach Delay, s/veh		47.7			36.0			29.4			22.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	42.7	30.1	20.6	11.2	43.5	7.7	43.0				
Change Period (Y+Rc), s	4.5	4.9	4.0	5.3	4.5	4.9	4.0	5.3				
Max Green Setting (Gmax), s	7.5	37.8	31.0	25.0	6.7	38.6	8.0	48.0				
Max Q Clear Time (g_c+I1), s	9.5	23.3	24.4	13.1	7.1	7.9	4.8	17.3				
Green Ext Time (p_c), s	0.0	1.6	1.7	2.2	0.0	1.5	0.0	5.4				
Intersection Summary												
HCM 6th Ctrl Delay				34.9								
HCM 6th LOS				C								

WVC O&M Site Re-evaluation
3: Monte Vista Ave & Arrow Hwy

Existing Plus Project Conditions
Timing Plan: AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕		↖↗	↕	↗	↖	↕		↖	↕	↗
Traffic Volume (veh/h)	61	309	74	49	599	107	123	460	28	75	444	140
Future Volume (veh/h)	61	309	74	49	599	107	123	460	28	75	444	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	355	85	56	689	123	141	529	32	86	510	161
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	723	171	149	886	395	177	1433	87	111	1364	608
Arrive On Green	0.05	0.25	0.25	0.04	0.25	0.25	0.10	0.42	0.42	0.06	0.38	0.38
Sat Flow, veh/h	3456	2851	674	3456	3554	1585	1781	3405	206	1781	3554	1585
Grp Volume(v), veh/h	70	220	220	56	689	123	141	276	285	86	510	161
Grp Sat Flow(s),veh/h/ln	1728	1777	1749	1728	1777	1585	1781	1777	1833	1781	1777	1585
Q Serve(g_s), s	1.7	8.9	9.1	1.3	15.3	5.3	6.5	9.0	9.0	4.0	8.7	5.9
Cycle Q Clear(g_c), s	1.7	8.9	9.1	1.3	15.3	5.3	6.5	9.0	9.0	4.0	8.7	5.9
Prop In Lane	1.00		0.39	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	165	451	444	149	886	395	177	748	772	111	1364	608
V/C Ratio(X)	0.42	0.49	0.50	0.37	0.78	0.31	0.80	0.37	0.37	0.77	0.37	0.26
Avail Cap(c_a), veh/h	221	639	629	204	1260	562	326	748	772	219	1364	608
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	39.2	26.9	27.0	39.4	29.6	25.8	37.3	16.8	16.8	39.1	18.8	17.9
Incr Delay (d2), s/veh	1.7	0.8	0.9	1.6	2.0	0.4	7.9	1.4	1.4	10.9	0.8	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	0.7	3.6	3.6	0.6	6.3	1.9	3.1	3.6	3.7	2.0	3.4	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	27.7	27.8	40.9	31.6	26.3	45.2	18.2	18.2	49.9	19.5	18.9
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		510			868			702			757	
Approach Delay, s/veh		29.6			31.4			23.6			22.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	41.4	7.2	27.3	11.9	38.3	7.5	26.9				
Change Period (Y+Rc), s	3.5	5.8	3.5	5.8	3.5	5.8	3.5	5.8				
Max Green Setting (Gmax), s	10.4	35.6	5.0	30.4	15.5	30.5	5.4	30.0				
Max Q Clear Time (g_c+I1), s	6.0	11.0	3.3	11.1	8.5	10.7	3.7	17.3				
Green Ext Time (p_c), s	0.1	3.1	0.0	2.2	0.2	3.5	0.0	3.8				
Intersection Summary												
HCM 6th Ctrl Delay				26.9								
HCM 6th LOS				C								

WVC O&M Site Re-evaluation
1: Garey Ave & Arrow Hwy

Existing Plus Project Conditions
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕↕↕		↖	↕↕↕		↖	↕↕		↖	↕↕	
Traffic Volume (veh/h)	102	657	72	128	326	113	116	578	153	140	635	60
Future Volume (veh/h)	102	657	72	128	326	113	116	578	153	140	635	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	699	77	136	347	120	123	615	163	149	676	64
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1011	111	163	876	288	153	1029	272	182	1268	120
Arrive On Green	0.08	0.22	0.22	0.09	0.23	0.23	0.09	0.37	0.37	0.10	0.39	0.39
Sat Flow, veh/h	1781	4672	511	1781	3801	1249	1781	2779	735	1781	3281	310
Grp Volume(v), veh/h	109	508	268	136	309	158	123	393	385	149	366	374
Grp Sat Flow(s),veh/h/ln	1781	1702	1778	1781	1702	1646	1781	1777	1738	1781	1777	1814
Q Serve(g_s), s	5.3	12.0	12.2	6.6	6.7	7.2	5.9	15.6	15.7	7.2	13.9	13.9
Cycle Q Clear(g_c), s	5.3	12.0	12.2	6.6	6.7	7.2	5.9	15.6	15.7	7.2	13.9	13.9
Prop In Lane	1.00		0.29	1.00		0.76	1.00		0.42	1.00		0.17
Lane Grp Cap(c), veh/h	138	737	385	163	784	379	153	658	643	182	687	701
V/C Ratio(X)	0.79	0.69	0.70	0.83	0.39	0.42	0.80	0.60	0.60	0.82	0.53	0.53
Avail Cap(c_a), veh/h	183	1207	630	163	1168	564	163	658	643	204	687	701
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	39.6	31.6	31.6	39.1	28.5	28.7	39.2	22.3	22.3	38.5	20.7	20.7
Incr Delay (d2), s/veh	15.3	1.2	2.3	29.6	0.3	0.7	23.2	4.0	4.1	20.5	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/ln	2.9	4.9	5.3	4.2	2.7	2.8	3.5	7.0	6.9	4.1	6.1	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	32.7	33.9	68.6	28.8	29.4	62.4	26.2	26.4	58.9	23.7	23.6
LnGrp LOS	D	C	C	E	C	C	E	C	C	E	C	C
Approach Vol, veh/h		885			603			901			889	
Approach Delay, s/veh		35.8			37.9			31.2			29.6	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	37.8	12.0	24.7	11.5	39.2	10.8	25.9				
Change Period (Y+Rc), s	4.0	5.4	4.0	5.8	4.0	5.4	4.0	5.8				
Max Green Setting (Gmax), s	10.0	31.8	8.0	31.0	8.0	33.8	9.0	30.0				
Max Q Clear Time (g_c+I1), s	9.2	17.7	8.6	14.2	7.9	15.9	7.3	9.2				
Green Ext Time (p_c), s	0.0	4.3	0.0	4.8	0.0	4.4	0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay			33.3									
HCM 6th LOS			C									

WVC O&M Site Re-evaluation
2: Monte Vista Ave/Padua Ave & Base Line Rd






























Existing Plus Project Conditions
Timing Plan: PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	783	165	465	471	147	156	164	668	168	114	47
Future Volume (veh/h)	58	783	165	465	471	147	156	164	668	168	114	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	791	167	470	476	148	158	166	675	170	115	47
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	897	400	535	1295	578	586	719	610	357	917	358
Arrive On Green	0.04	0.25	0.25	0.15	0.36	0.36	0.06	0.38	0.38	0.05	0.37	0.37
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	1781	1870	1585	1781	2498	974
Grp Volume(v), veh/h	59	791	167	470	476	148	158	166	675	170	80	82
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1781	1870	1585	1781	1777	1695
Q Serve(g_s), s	3.8	24.7	10.1	15.3	11.3	7.5	6.4	6.9	44.3	5.3	3.4	3.7
Cycle Q Clear(g_c), s	3.8	24.7	10.1	15.3	11.3	7.5	6.4	6.9	44.3	5.3	3.4	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	76	897	400	535	1295	578	586	719	610	357	652	622
V/C Ratio(X)	0.78	0.88	0.42	0.88	0.37	0.26	0.27	0.23	1.11	0.48	0.12	0.13
Avail Cap(c_a), veh/h	139	978	436	600	1317	588	586	719	610	357	652	622
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	41.4	36.0	47.6	26.9	25.7	20.6	23.9	35.4	23.4	24.2	24.2
Incr Delay (d2), s/veh	15.3	9.0	0.7	13.0	0.2	0.2	0.2	0.7	69.5	1.0	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	11.5	3.9	7.4	4.6	2.8	2.6	3.1	27.7	0.8	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.9	50.4	36.7	60.7	27.0	25.9	20.8	24.7	104.9	24.4	24.5	24.7
LnGrp LOS	E	D	D	E	C	C	C	C	F	C	C	C
Approach Vol, veh/h		1017			1094			999			332	
Approach Delay, s/veh		49.3			41.3			78.3			24.5	
Approach LOS		D			D			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	49.2	21.8	34.4	11.8	47.2	8.9	47.3				
Change Period (Y+Rc), s	4.5	4.9	4.0	5.3	4.5	4.9	4.0	5.3				
Max Green Setting (Gmax), s	5.3	44.3	20.0	31.7	7.3	42.3	9.0	42.7				
Max Q Clear Time (g_c+I1), s	7.3	46.3	17.3	26.7	8.4	5.7	5.8	13.3				
Green Ext Time (p_c), s	0.0	0.0	0.5	2.4	0.0	0.9	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay			52.8									
HCM 6th LOS			D									

WVC O&M Site Re-evaluation
3: Monte Vista Ave & Arrow Hwy

Existing Plus Project Conditions
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			 		 	 	
Traffic Volume (veh/h)	162	805	173	40	304	77	116	510	56	114	637	89
Future Volume (veh/h)	162	805	173	40	304	77	116	510	56	114	637	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	856	184	43	323	82	123	543	60	121	678	95
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	972	209	125	1067	476	153	1108	122	152	1217	543
Arrive On Green	0.07	0.33	0.33	0.04	0.30	0.30	0.09	0.34	0.34	0.09	0.34	0.34
Sat Flow, veh/h	3456	2909	625	3456	3554	1585	1781	3228	356	1781	3554	1585
Grp Volume(v), veh/h	172	523	517	43	323	82	123	298	305	121	678	95
Grp Sat Flow(s),veh/h/ln	1728	1777	1758	1728	1777	1585	1781	1777	1806	1781	1777	1585
Q Serve(g_s), s	4.5	25.7	25.7	1.1	6.5	3.5	6.3	12.3	12.3	6.2	14.3	3.9
Cycle Q Clear(g_c), s	4.5	25.7	25.7	1.1	6.5	3.5	6.3	12.3	12.3	6.2	14.3	3.9
Prop In Lane	1.00		0.36	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	242	594	588	125	1067	476	153	610	620	152	1217	543
V/C Ratio(X)	0.71	0.88	0.88	0.34	0.30	0.17	0.80	0.49	0.49	0.79	0.56	0.17
Avail Cap(c_a), veh/h	280	657	650	187	1217	543	202	610	620	258	1217	543
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	42.1	29.1	29.1	43.5	24.9	23.9	41.5	24.0	24.0	41.5	24.7	21.3
Incr Delay (d2), s/veh	6.9	12.3	12.5	1.6	0.2	0.2	15.6	2.8	2.8	9.0	1.8	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	2.1	12.1	12.0	0.5	2.6	1.3	3.3	5.2	5.4	3.0	5.9	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	41.4	41.5	45.2	25.1	24.1	57.1	26.8	26.8	50.5	26.6	22.0
LnGrp LOS	D	D	D	D	C	C	E	C	C	D	C	C
Approach Vol, veh/h		1212			448			726			894	
Approach Delay, s/veh		42.5			26.8			31.9			29.3	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	37.6	6.8	36.7	11.5	37.5	10.0	33.6				
Change Period (Y+Rc), s	3.5	5.8	3.5	5.8	3.5	5.8	3.5	5.8				
Max Green Setting (Gmax), s	13.4	28.8	5.0	34.2	10.5	31.7	7.5	31.7				
Max Q Clear Time (g_c+I1), s	8.2	14.3	3.1	27.7	8.3	16.3	6.5	8.5				
Green Ext Time (p_c), s	0.1	2.8	0.0	3.2	0.1	4.0	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			34.4									
HCM 6th LOS			C									