



APPENDIX 5.12-1

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Ontario International Airport South Airport Cargo Center Transportation Impact Study

Prepared for:

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FEHR  PEERS

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Executive Summary

Fehr & Peers prepared this transportation impact assessment for the Ontario International Airport South Airport Cargo Center (Project) in Ontario, California. The Project is an air cargo facility proposed on a 97-acre site at Ontario International Airport (ONT). The Project site is located south of the Airport airfield and west of the Cucamonga Canyon Channel.

Per the City of Ontario's adopted Vehicle Miles Traveled (VMT) Impact Analysis Resolution (No. 2020-071), a VMT assessment consistent with the requirements of Senate Bill 743 (SB 743) was performed to review the potential for significant VMT impacts associated with the Project. A review of the consistency of the Project with applicable regional transportation plans and policies was also completed.

Per the City's General Plan Mobility Element Level of Service (LOS) Policy and the San Bernardino County Transportation Authority (SBCTA) Congestion Management Program (CMP), LOS analysis was completed for intersections to determine the consistency of the Project with the transportation policies in the City's General Plan and the CMP Program. A review of off-ramp queueing was also performed to evaluate the Project's effect on Caltrans facilities.

Project Description

The proposed Project consists of the following main components:

- Main Cargo Building
- Aircraft Apron
- Truck Yard
- Parking Structure

At full buildout (Phase 1 and 2), the Project is anticipated to have approximately 1,315 on-site employees and be served by 112 trucks per day (224 bidirectional truck trips).

Vehicle Miles Traveled (VMT)

A VMT assessment was performed to review potential significant impacts associated with the Project. The VMT analysis is consistent with requirements of Senate Bill 743 (SB 743), the Office of Planning and Research's (OPR's) Technical Advisory, and the City of Ontario's adopted VMT Impact Analysis Resolution (No. 2020-071). The Project-level VMT/SP is forecast to be higher than the Citywide average (threshold of significance) under Phase 1 (2025, Opening Year), Phase 2 (2029), and under conditions for the long range planning horizon analysis year of 2040. The Project is anticipated to increase Citywide daily VMT within the City boundary. Feasible mitigation measures were recommended that are anticipated to reduce VMT but not to a less-than-

significant level. For these reasons noted above, the Project is expected to result in a **significant and unavoidable** transportation impact related to VMT.

Consistency with Transportation Plans and Policies

The Project does not conflict with adopted policies, plans, or programs regarding transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Therefore, the Project would result in a **less-than-significant impact** related to active transportation.

Level of Service (LOS) Analysis

The following scenarios were analyzed for the LOS analysis consistent with the City of Ontario's General Plan Mobility Element LOS Policy and the SBCTA CMP:

- Existing (2021)
- Opening Year (2025) No Project
- Opening Year (2025) Plus Phase 1 Project
- Opening Year (2029) No Project
- Opening Year (2029) Plus Phase 1 and Phase 2 Project
- Year (2040) No Project
- Year (2040) Plus Phase 1 and Phase 2 Project

Traffic forecasts for each scenario, with and without project alternatives, were prepared and LOS was calculated to identify the operating conditions of each intersection. Existing (2021) operating conditions were calculated based on traffic counts collected at each intersection.

- Under Existing (2021) Conditions, all study intersections operate at LOS E or better except the intersection of Mission Boulevard and Bon View Avenue.
- Under Opening Year (2025) Plus Phase 1 Project Conditions, two intersections operate at LOS F. These two intersections were already operating at LOS F under Opening Year (2025) No Project Conditions. Because the addition of Project traffic did not add delay at these intersections, no improvements are recommended.
- Under Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions, the addition of Project traffic is forecast to add delay to two intersections already operating at LOS F. Improvements are identified that will improve that operating conditions at this intersection to better than pre-project conditions.
- Under Year (2040) Plus Phase 1 and Phase 2 Project Conditions, the addition of project traffic is forecast to add delay at three intersections already operating at LOS F. Improvements are identified that will improve operating conditions at these intersections to acceptable conditions (LOS E or better).

Freeway Ramp Queuing

Freeway off-ramp queuing was analyzed at SR-60, I-10, and I-15 off-ramps in the study area. For each scenario analyzed, it was determined there is enough storage capacity provided at each off-ramp.

Construction Traffic

The operations, duration, and intensity of construction conditions that would produce construction related traffic are less than the traffic forecast project operating conditions. Any deficiencies and improvements identified in the opening year analyses would be sufficient to alleviate construction related activity.

1. Introduction

This report presents the analysis and findings of the transportation impact assessment prepared in support of the Ontario International Airport South Airport Cargo Center (Project) located in Ontario, California. This chapter discusses the transportation study purpose, project description, and report organization.

1.1 CEQA Transportation Impact Study

In response to California Senate Bill 743 (SB 743), the Office of Planning and Research (OPR) has updated the *California Environmental Quality Act Statutes and Guidelines* to include new transportation-related evaluation metrics. For the purposes of CEQA, level of service (LOS), a qualitative description of traffic on a roadway facility or intersection, can no longer be used to determine a project's environmental impact. The final proposed Guidelines include a new Section 15064.3 on Vehicle Miles of Travel (VMT) analysis and thresholds for land use developments. OPR also released a *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018) which was applied to this TIA.

1.2 Level of Service (LOS) Analysis

LOS analysis was completed to provide information to decision makers and the public, and to assist the City staff and the Ontario International Airport Authority (OIAA)¹ in understanding the consistency of the proposed project with the City's General Plan LOS policy and with the San Bernardino County Transportation Authority (SBCTA) Congestion Management Plan (CMP) Program, as required by the City of Ontario.

1.3 Project Description

The Project is an air cargo facility proposed on a 97-acre site at Ontario International Airport (ONT). This Project is proposed by an air cargo service company to meet the need for additional facilities to accommodate growth in cargo volumes in the region. The Project site is located south of the Airport airfield and west of the Cucamonga Canyon Channel. As shown in **Figure 1**, most of the Project site is located north of East Avion Street with the rest of the site located south of East Avion Street and east of South Hellman Avenue.

The Project includes the demolition of existing buildings and site improvements on the Project site, and development of the proposed air cargo facility. The Project also includes onsite roadway/driveway improvements, site improvements, and landscaping and utility improvements.

¹ OIAA is a separate and independent public agency from the City. OIAA does, however, utilize the City General Plan, Zoning Code, and other regulations and standards to analyze ONT project traffic impacts.





-  Project Site
-  Airport Boundary

Figure 1



Project Boundary Area

The existing buildings on the site include vacant and occupied buildings. The OIAA occupies facilities on a portion of the Project Site and their operations would be relocated to existing facilities both on and off-airport.

The Project would facilitate the delivery of goods and cargo to and from planes onto trucks to predetermined locations on a fixed trucking schedule. Fehr & Peers was provided detailed information about truck departure and arrival times, types of trips, and final destinations. In addition, the following information on the number of employees by shift was provided:

- Three employee shifts, seven days a week
 - Shift 1: 7:00 AM to 3:00 PM with 640 employees
 - Shift 2: 3:00 PM to 11:00 PM with 95 employees
 - Shift 3: 11:00 PM to 7:00 AM with 580 employees

Development of the Project is proposed in two phases. The proposed Opening Year for Phase 1 is 2025 and the proposed Opening Year of Phase 2 is 2029. Phases 1 and 2 are assumed to have the same number of employees while Phase 2 will have a higher cargo capacity and more truck trips scheduled. The Project site can be accessed through Avion Street, Jurupa Street, and Vineyard Avenue.

Currently an aviation fuel line is not available on the southern side of the airport. Until an aviation fuel line is available to serve the southern portion of the airport, aviation fuel will be delivered by truck to the Project. It is currently anticipated that an aviation fuel line to the Project site will be available by 2029, when Phase 2 of the Project would be completed, but it will not be operational when Phase 1 of the Project would be completed and operational. Up to 24 fuel trucks per day will bring fuel from the existing aviation fuel tank at the northwest end of the airport to the site during Phase 1 operations.

1.4 Report Organization

The report is divided into the remaining chapters as described below:

Chapter 2 – Analysis Methodology describes the criteria used to analyze VMT, LOS, and Queuing.

Chapter 3 – Existing Conditions describes the transportation system in the Project vicinity, including the surrounding roadway network, morning and evening peak period intersection turning movement volumes, and existing bicycle, pedestrian, and transit facilities.

Chapter 4 – Data Collection describes the data collected for this study which includes traffic counts, roadway classification counts, at-grade crossing counts, pending and approved development projects within a two-mile radius, and signal timing.

Chapter 5 – Project Characteristics presents relevant Project information, such as the Project components and Project trip generation, distribution, and assignment.

Chapter 6 – Vehicle Miles Travelled Impact Analysis presents the results of the VMT assessment conducted for the Project based on the VMT Analysis thresholds and methodology adopted by the City of Ontario.

Chapter 7 – Level of Service (LOS) Analysis describes the LOS results for the Existing (2021), Opening Year (2025), Opening Year (2029), and Year (2040) analysis scenarios.

Chapter 8 – Freeway Off-Ramp Queuing Analysis lists the queue lengths of the off-ramps within the study area.

Chapter 9 – Construction Traffic assesses the potential effects of traffic generated during construction of the Project.

2. Analysis Methodology

The following is a discussion of the approach and analysis methodologies associated with Vehicle Miles Traveled (VMT) assessment, traffic forecasting, active transportation and public transit impact analysis, and Level of Service (LOS) analysis.

2.1 Vehicle Miles Traveled (VMT)

A VMT assessment was performed for the Project consistent with the City of Ontario's adopted VMT thresholds of significance (June 2020). This analysis uses the most current, available San Bernardino Transportation Analysis Model (SBTAM) version consistent with the City of Ontario's VMT Impact Resolution. Per the City's VMT significance threshold for a Project, *a significant impact is identified if:*

- *The project VMT per Service Population exceeds the Citywide average for VMT per Service Population under General Plan Buildout Conditions*
- *The project is determined to be inconsistent with the RTP/SCS*
- *The project causes the total daily VMT within the City to be higher than the no project alternative under cumulative conditions*

2.2 Traffic Forecasting

The City of Ontario recommends SBTAM as the most appropriate tool for testing changes in land use and roadway network in San Bernardino County; therefore, SBTAM was used to develop traffic volume forecasts and VMT for this study. This is based on the City's adopted VMT resolution, consultations with the City, and the approved Scoping Memorandum provided in **Appendix A**.

The latest version of SBTAM that was updated as part of The Ontario Plan (TOP) Environmental Impact Report (EIR) has a Base Year (2019) scenario model and a Future Year (2050) scenario model. Within the City of Ontario, the Base Year (2019) model assumes a roadway network and Socio-Economic Dataset (SED) consistent with year 2019 and the Future Year (2050) model represents the Adopted General Plan Buildout roadway network and SED; Outside of the City of Ontario, this model assumes datasets consistent with the 2016 Southern California Association of Governments (SCAG) Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) with a base year of 2012 and future year of 2040².

² Please note that SBTAM does not have an available dataset consistent with the SCAG 2020 RTP/SCS. At the time of this analysis, SBTAM was in the process of being updated with the SCAG 2020 RTP/SCS data, but the data was not available.

2.2.1 Turning Movement Forecasts

The Base Year and Future year models produce link and intersection turning movement volumes.³ National Cooperative Highway Research Program (NCHRP) Report 765 prescribes a variety of methods for developing intersection turning movement volume forecasts from travel demand model outputs. For typical applications, the Base Year and Future Year model outputs are compared to one another and used in conjunction with existing traffic counts to develop future traffic forecasts. In this study, the proportional difference between the Base Year and Future Year model outputs were utilized to interpolate Horizon Year (2040) volume forecasts. This method is known as the difference method and is a state of the practice approach consistent with NCHRP Report 765.

SBTAM growth in the study area from base to future year was reviewed and a one percent ambient growth rate was determined appropriate for forecasting Opening Year (2025) and Opening Year (2029) No Project conditions, in addition to the traffic volumes associated with pending and approved development projects.

2.2.2 VMT Forecasting

As described in more detail in **Chapter 6**, a hybrid approach to estimating VMT was utilized for the Project because the proposed air cargo facility is a unique use that is not adequately represented by the SBTAM traffic model alone. Some of the model traffic data is appropriate, such as employee commute trip lengths and empty truck average trip lengths, while other metrics were estimated outside the model, such as trip generation and fixed-route truck trip lengths. This approach is described in detail below. The same version of SBTAM described in **Section 2.2.1** was utilized to prepare metrics to complete the VMT forecasts.

2.3 Active Transportation and Public Transit Analysis

Potential impacts to public transit, pedestrian facilities and travel, and bicycle facilities and travel were evaluated using the following criteria.

A significant impact is identified if the project conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decreases the performance⁴ or safety of such facilities.

Therefore, the assessment includes analysis of a project to examine if it is inconsistent with adopted policies, plans, or programs regarding active transportation or public transit facilities, or

³ As recommended in the SBTAM model documentation, model assignment parameters were set to run up-to five loops with a minimum convergence criterion of 0.01. Convergence criteria refers to the acceptable difference in the traffic volumes produced by different loops of the vehicle assignment. A convergence criterion of 0.01 indicates that the model is producing similar outputs with an allowance of one percent difference between each loop. This criterion is outlined in the model documentation as the recommended convergence criteria for the model.

⁴ Per the OPR Technical Advisory, decrease of performance does not include increase in users.

otherwise decreases the performance or safety of such facilities and make a determination as to whether it has the potential to conflict with existing or proposed facilities supporting these travel modes.

2.4 LOS Analysis Methodology

Intersection operating conditions in the study area were evaluated using the *Highway Capacity Manual (HCM) 7th Edition* Transportation Research Board (TRB) methodology, which is considered the state-of-the-practice methodology for evaluating intersection operations and is consistent with the City of Ontario, County of San Bernardino, and Caltrans analysis requirements. Traffic Ware's Synchro 11 software⁵ was utilized to perform all delay estimates at study intersections.

The HCM 7th Edition methodology for signalized intersections estimates the average control delay for vehicles at the intersection. The HCM 7th Edition methodology for unsignalized intersections estimate the average control delay for vehicles at all-way stop-controlled intersections and the worst movement delay for side-street stop-controlled intersections. After the quantitative delay estimates are complete, the methodology assigns a qualitative letter grade that represents the operations of the intersection. These grades range from level of service (LOS) A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. Descriptions of the LOS letter grades for signalized and unsignalized intersections are provided in **Table 1**.

⁵ Synchro 11 prepares delay estimates and reports referencing the HCM 6th Edition Methodology, which are consistent with HCM 7th Edition Methodology for isolated intersection analysis used in this study.

Table 1: Intersection Level of Service (LOS) Grades

Level of Service	Description	Signalized Volume-to-Capacity (V/C) Ratio	Signalized Delay (Seconds)	Unsignalized Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length	0.000-0.600	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths	0.601-0.700	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear	0.701-0.800	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable	0.801-0.900	> 35.0 to 55.0	> 25.0 to 35.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences	0.901-1.000	> 55.0 to 80.0	> 35.0 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	Greater than 1.000	> 80.0	> 50.0

Source: *Highway Capacity Manual 6th Edition* (Transportation Research Board, 2017).

As discussed in later chapters, Fehr & Peers consulted with the City to determine the most appropriate peak hours to analyze in the LOS assessment. Based on the Project’s employee shift scheduling, it is anticipated that the Project will generate the most trips within hours outside of typical commute hours (7:00-9:00 AM and 4:00-6:00 PM). However, the Project is still anticipated to generate trips during typical commute hours when adjacent streets are most congested. For these reasons, it was determined that typical commute hours would be most appropriate to analyze in the study in order to best determine the Project’s effect on traffic conditions.

2.5 Intersection LOS Criteria

The following performance criteria and thresholds of significance were used to determine impacts at study facilities.

City of Ontario – The Mobility Element of the City’s General Plan identifies LOS “E” as the minimum acceptable standard for intersection operations.

SBCTA CMP – SBCTA, as the congestion management agency for San Bernardino County, identifies LOS “E” as the minimum acceptable threshold for CMP facilities.

Caltrans – Caltrans no longer defines acceptable LOS standards with their latest adoption of the *Vehicle Miles Traveled-Focused Transportation Impact Study Guide (TISG)*, May 2020. Caltrans ramps were analyzed for storage capacities by comparing against 95th percentile queue estimates using the Synchro 11 software.

The Project includes private roads analyzed using the City of Ontario’s criteria.

2.5.1 LOS Analysis Assumptions

The following assumptions were applied to the intersection analysis consistent with recommendations in the SBCTA CMP:

- Peak Hour Factors (PHF) were based on traffic counts collected in the field in October 2021 for all Existing Conditions and Opening Year Conditions analyses
- PHF for all Year (2040) analyses were set to 0.95, unless the existing PHF is higher
- All heavy vehicle traffic volumes were converted to passenger car equivalents (PCE) and heavy vehicle percentage was assigned to zero in the analysis

The effects of heavy vehicles on traffic operations were calculated by converting them to PCE. Heavy vehicles are classified as Classes 4-13. Medium-duty trucks typically represent Classes 4-5, whereas the heaviest trucks are represented by Classes 7-13. The most common heavy-duty trucks are Class 8 heavy-duty three or four-axle tractor-trailers. Due to the length and slower starting speeds, these trucks represent approximately three passenger cars at an intersection, which is consistent with Federal Highway Administration (FHWA) methods.⁶ Weighted PCE factor adjustments were applied to each roadway based on roadway classification data collected in October 2021 as shown in **Table 2** and **Table 3**. The AM and PM peak hour totals for each heavy vehicle classification were converted to PCEs. The totals for each heavy vehicle classification were assigned a PCE factor as listed in **Table 2**.

Table 2: PCE Factor

FHWA Classification	Heavy Vehicle Classification	PCE Factor
Classes 1, 2, 3	Passenger Cars	1.0
Classes 4, 5	2-axle	1.5
Class 6	3-axle	2.0
Classes 7-13	4-axle	3.0

Source: *San Bernardino County Congestion Management Program 2016 Update* (SBCTA, June 2016)

⁶ FHWA Traffic Data Computation Method. Publication No. FHWA-PL-18-027. U.S. Department of Transportation. Accessed March 2022

Table 3 includes the weighted PCE factor adjustment for each roadway. The PCE factors for each roadway were determined by multiplying the percent of each heavy vehicle classification by the assigned PCE factor. The PCE factors in **Table 3** were applied to all the study intersection volumes. Study intersections with multiple data points have multiple weighted PCE factor adjustments applied to one or more approaches.

Table 3: PCE Weighted Adjustment

Roadway Segments	AM	PM
Roadway 1 Mission Blvd west of Grove Ave	1.09	1.06
Roadway 2 Vineyard Ave north of Philadelphia St	1.10	1.09
Roadway 3 Archibald Ave south of Cedar St	1.17	1.13
Roadway 4 Mission Blvd east of Archibald Ave	1.11	1.10
Roadway 5 Jurupa St east of Tower Dr	1.22	1.18
Roadway 6 Haven St south of Airport Dr	1.10	1.08
Roadway 7 Jurupa St east of Milliken Ave	1.22	1.21
Roadway 8 Vineyard Ave north of Mission Blvd ¹	1.10/1.22	1.09/1.18

Notes:

1. Roadway 8 consists of multiple PCE factors from Roadways 2 and 5. Roadway 2's PCE factor applies to the north/south volumes, and Roadway 5's weighted PCE factor adjustment applies to the east/west volumes.

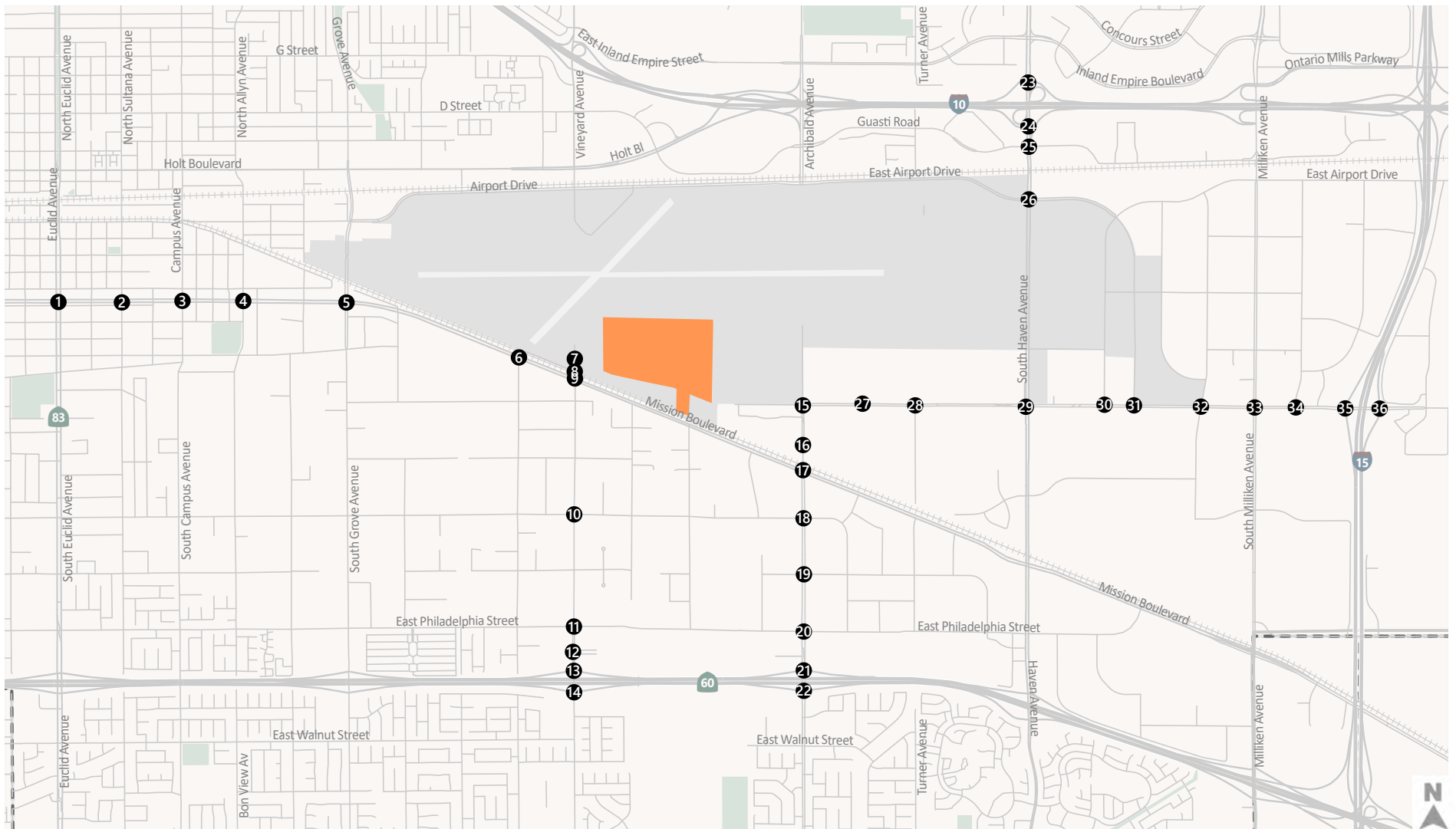
2.6 LOS Analysis Study Area

Project generation and trip distribution, discussed in detail later in this report, were used to identify study intersections. Consistent with San Bernardino County Congestion Management Plan (CMP) requirements, intersections classified as collectors or higher, which the Project is anticipated to add 50 or more peak hour trips to, were selected as study locations and analyzed. This process is detailed further in the Scoping Agreement, provided as **Appendix A**, that was approved by the City of Ontario.

Figure 2 shows the Project study area and study intersections. The Project's study intersections are either in the City of Ontario or Caltrans jurisdictions. The study locations for the Project are:

1. Euclid Avenue (SR-83) at Mission Boulevard
2. Sultana Avenue at Mission Boulevard
3. Campus Avenue at Mission Boulevard
4. Bon View Avenue at Mission Boulevard
5. Grove Avenue at Mission Boulevard

6. Baker Avenue at Mission Boulevard
7. Avion Street at Vineyard Avenue
8. Avion Drive at Vineyard Avenue
9. Mission Boulevard at Vineyard Avenue
10. Francis Street at Vineyard Avenue
11. Philadelphia Street at Vineyard Avenue
12. Raymond Kay Way at Vineyard Avenue
13. SR-60 Westbound Ramps at Vineyard Avenue
14. SR-60 Eastbound Ramps at Vineyard Avenue
15. Jurupa Street at Archibald Avenue
16. Tracy Paseo at Archibald Avenue
17. Mission Boulevard at Archibald Avenue
18. Francis Street at Archibald Avenue
19. Cedar Avenue at Archibald Avenue
20. Philadelphia Street at Archibald Avenue
21. SR-60 Westbound Ramps at Archibald Avenue
22. SR-60 Eastbound Ramps at Archibald Avenue
23. I-10 Westbound Ramps at Haven Avenue
24. I-10 Eastbound Ramps at Haven Avenue
25. Guasti Road at Haven Avenue
26. Airport Drive at Haven Avenue
27. Hofer Ranch Road at Jurupa Street
28. Turner Avenue at Jurupa Street
29. Haven Avenue at Jurupa Street
30. Carnegie Avenue at Jurupa Street
31. Commerce Parkway at Jurupa Street
32. Dupont Avenue at Jurupa Street
33. Milliken Avenue at Jurupa Street
34. Rockefeller Avenue/Toyota Way at Jurupa Street
35. I-15 Southbound Ramps at Jurupa Street
36. I-15 Northbound Ramps at Jurupa Street



- Study Intersection
- Project Site
- Airport Boundary



Figure 2

Project Study Area and Study Intersections

2.7 Freeway Off-Ramp Queuing Methodology

Storage capacities for all SR-60, I-10, and I-15 off ramps in the study area were evaluated using HCM 6th methodologies. Storage capacities were compared against 95th percentile queue estimates using the Synchro 11 software.

95th percentile queues were evaluated using HCM 6th methodologies for the following off-ramps that access the Project:

- SR-60 Westbound Off Ramp at Vineyard Avenue
- SR-60 Eastbound Off Ramp at Vineyard Avenue
- SR-60 Westbound Off Ramp at Archibald Avenue
- SR-60 Eastbound Off Ramp at Archibald Avenue
- I-10 Westbound Off Ramp at Haven Avenue
- I-10 Eastbound Off Ramp at Haven Avenue
- I-15 Southbound Off Ramp at Jurupa Street
- I-15 Northbound Off Ramp at Jurupa Street

3. Existing Conditions

This chapter describes transportation facilities in the Project study area, including the roadway network, transit, pedestrian, and bicycle facilities in the Project site vicinity. Existing (2021) intersection operations are also described.

3.1 Roadway System

Regional access to the study area is provided from State Route 60 (SR-60), Interstate 15 (I-15), and Interstate 10 (I-10). Local access to the site is provided from Haven Avenue, Jurupa Avenue, Milliken Avenue, Airport Drive, and Commerce Parkway.

State Route 60 (SR-60) is a major east-west highway that traverses Southern California. SR-60 branches off from I-10 in Santa Monica and passes through East Los Angeles and continues east, terminating at I-10 in the City of Beaumont. Within the city limits, the corridor has eight lanes and two high occupancy vehicles lanes with a posted speed limit of 65 miles per hour.

Interstate 15 (I-15) is a major north-south freeway that traverses through the states of Arizona, California, Idaho, Nevada, and Utah. Within the study area, I-15 is an eight-to-ten lane freeway. South of the SR-60 and I-15 Junction, I-15 has three general purpose lanes and two express lanes in each direction. In between SR-60 and I-10, I-15 has four general purpose lanes in each direction. North of I-10 and I-15 Junction, I-15 has four general purpose lanes in each direction.

Interstate 10 (I-10) is a major east-west freeway that traverses through the states of Arizona, Alabama, California, Florida, Louisiana, New Mexico, and Texas. Within the study area, I-10 is a six-to-eight lane freeway.

Haven Avenue is an eight-lane north-south principal arterial located in the City of Ontario. Haven Avenue begins at Snowdrop Road in the City of Rancho Cucamonga and continues south as Sumner Avenue in the City of Eastvale. Haven Avenue has a speed limit of 55 miles per hour in between I-15 and SR-60. Haven Avenue is classified as a truck route by the City of Ontario.

Jurupa Street is a six-lane east-west principal arterial located in the City of Ontario. Jurupa Street begins at Archibald Avenue and continues east to Riverside Avenue in Bloomington. Jurupa Street has a speed limit of 45 miles per hour in between Archibald Avenue and I-15. Jurupa Street is classified as a truck route by the City of Ontario.

Milliken Avenue is a six-lane north-south principal arterial located in the City of Ontario. Milliken Avenue begins at Wilson Avenue in the City of Rancho Cucamonga and continues south as Hamner Avenue below SR-60 in the City of Eastvale. Milliken Avenue has a speed limit of 50 miles

per hour in between I-15 and SR-60. Milliken Avenue is classified as a truck route by the City of Ontario.

Mission Boulevard is a six-lane east-west principal arterial located in the City of Ontario. Milliken Avenue begins at Temple Avenue as Diamond Bar Boulevard in the City of Diamond Bar and continues east as Van Buren Boulevard below SR-60 in the City of Mira Loma. Mission Boulevard has a speed limit of 55 miles per hour in between Haven Avenue and Grove Avenue. Mission Boulevard is classified as a truck route by the City of Ontario.

Airport Drive is an east-west minor arterial located in the City of Ontario. Airport Drive is a six-lane arterial between Milliken Avenue and Etiwanda Avenue and a four-lane arterial in between Grove Avenue and Milliken Avenue. Airport Drive begins at Grove Avenue and continues east past Etiwanda Avenue as Slover Avenue in the City of Fontana. Airport Drive has a speed limit of 45 miles per hour east of Haven Avenue and 50 miles per hour west of Rental Car Road. Airport Drive is classified as a truck route by the City of Ontario.

Vineyard Avenue is a four-lane north-south principal arterial located in the City of Ontario. Vineyard Avenue begins at Mission Boulevard and continues south to East Riverside Drive. Vineyard Avenue has a speed limit of 45 miles per hour east throughout the entire arterial. Vineyard Avenue is classified as a truck route north of SR-60 by the City of Ontario.

Grove Avenue is a six-lane north-south principal arterial located in the City of Ontario. Grove Avenue begins at 15th Street in the City of Upland and continues south to Merrill Avenue in the City of Chino. Grove Avenue has a speed limit of 50 miles per hour in between Belmont Street and SR-60 and has a speed limit of 45 miles per hour north of Belmont Street. Grove Avenue is classified as a truck route north of SR-60 by the City of Ontario.

Archibald Avenue is a six-lane north-south principal arterial located in the City of Ontario. Archibald Avenue begins at Lowell Street and continues south past SR-60 as River Road in the City of Corona. Archibald Avenue has a speed limit ranging between 40-45 miles per hour below Mission Boulevard. Archibald Avenue is classified as a truck route by the City of Ontario.

Avion Street is not classified by the City of Ontario as it is on private property. No street parking is permitted on Avion Street. Avion Street has a speed limit of 30 miles per hour east of Vineyard Avenue. Avion Street will be widened in a separate project.

Fourth Street is a six-lane east-west principal arterial east of Grove Avenue located in the City of Ontario. This arterial is known as Fourth Street/4th Street in between Benson Avenue in the City of Montclair and Etiwanda Avenue and known as San Bernardino Avenue/Street elsewhere. Fourth Street has a speed limit of 45 miles per hour in between Archibald Avenue and I-15.

3.2 Existing Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signals, and multi-use trails. Several roadways in the study area provide sidewalks at least on one side of the street intermittently along the roadway segment. There are multiple gaps in the pedestrian network in the study area. Key corridors with significant gaps in pedestrian facilities are primarily located in the City's industrial areas, such as:

- Philadelphia Street from Grove Avenue to Proforma Avenue
- East Francis Street
- South Grove Avenue
- Mission Boulevard
- South Campus Avenue
- Euclid Avenue south of Riverside Drive

3.3 Existing Bicycle Facilities

There are four bicycle facility classifications recognized by the City of Ontario and are classified as follows:

3.3.1 Class I Bikeways (Bike Paths)

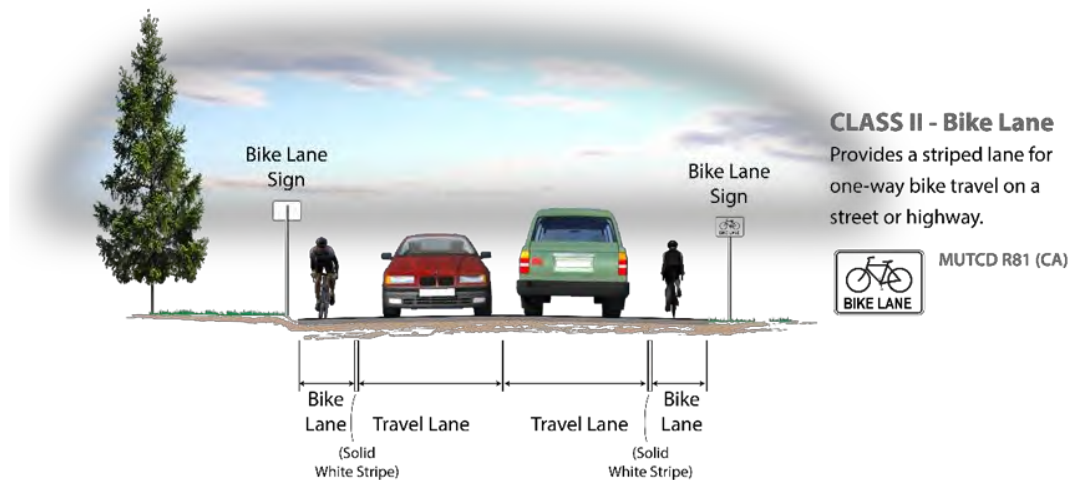
Class I bicycle facilities are bicycle trails or paths that are off-street and separated from automobiles. They are a minimum of eight feet in width for two-way travel and include bike lane signage and designated street crossings where needed. A Class I Bike Path may parallel a roadway (within the parkway) or may be a completely separate right-of-way that meanders through a neighborhood or along a flood control channel or utility right-of-way.



3.3.2 Class II Bikeways (Bike Lanes)

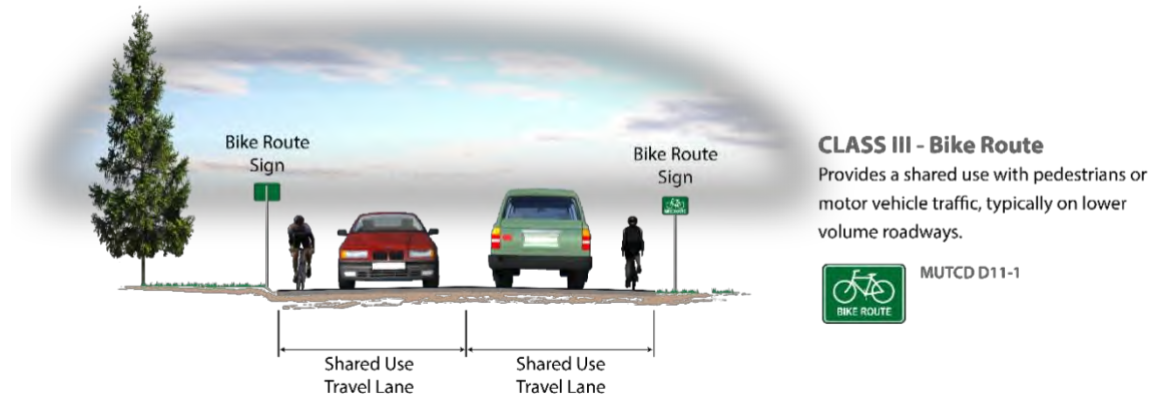
Class II bicycle facilities are striped lanes that provide bike travel and can be either located next to a curb or parking lane. If located next to a curb, a minimum width of five feet is recommended.

However, a bike lane adjacent to a parking lane can be four feet in width. Bike lanes are exclusively for the use of bicycles and include bike lane signage, special lane lines, and pavement markings.



3.3.3 Class III Bikeways (Bike Routes)

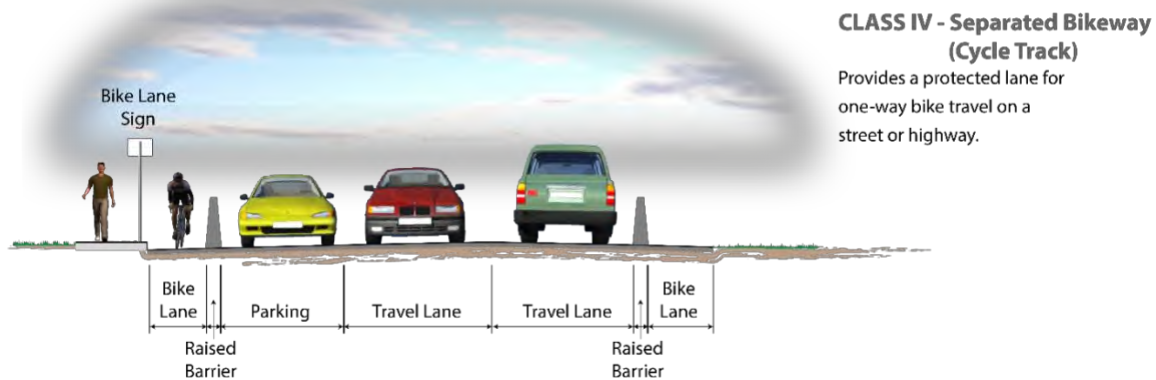
Class III Bikeways are streets providing for shared use by motor vehicles and bicyclists. While bicyclists have no exclusive use or priority, signage both by the side of the street and stenciled on the roadway surface alerts motorists to bicyclists sharing the roadway space and denotes that the street is an official bike route.



3.3.4 Class IV Bikeways (Cycle Tracks)

Class IV bicycle facilities, sometimes called cycle tracks or separated bikeways, provide a right-of-way designated exclusively for bicycle travel adjacent to a roadway and are protected from

vehicular traffic via separations (e.g., grade separation, flexible posts, inflexible physical barriers, on-street parking). California Assembly Bill 1193 (AB 1193) legalized and established design standards for Class IV bikeways in 2015.



Existing bike lanes (Class II) and bike routes (Class III) within the City of Ontario can be found north of the Project site along Inland Empire Boulevard and G Street. The West Cucamonga Creek Flood Control Channel has an existing Class I bike trail located from Mission Boulevard to Philadelphia Street between Grove Avenue and Baker Avenue.

The following roadways in the study area have proposed bike facilities per the City of Ontario General Plan:

- Mission Boulevard between Benson Avenue and Milliken Avenue (Bicycle Corridor⁷)
- Haven Avenue between Fourth Street and Riverside Drive (Bicycle Corridor)
- Euclid Avenue/SR-83 between I-10 Eastbound Ramps and Riverside Drive (Bicycle Corridor)
- Grove Avenue between 8th Street and Mission Boulevard (Bicycle Corridor)
- Philadelphia Street between West Cucamonga Creek Flood Control Channel and Cucamonga Creek Multipurpose Trail (Class I)

⁷ Bicycle Corridors denote ideal bike routes wherein the exact facility type and alignment are not known at this time. Bicycle Corridors require further study to determine the exact alignment and may include combinations of off-street Multipurpose Trails, Class II, and Class III bikeways. In some cases, the bikeway may need to be rerouted to create a safer and/or more efficient connection.

3.4 Existing Transit Service

There are bus and regional transit service options available to the City of Ontario. Along with those options, Amtrak provides rail service across the United States and has a station located in the City of Ontario.

3.4.1 Omnitrans

Omnitrans provides local and express services to San Bernardino County, which includes the City of Ontario. The following Omnitrans routes operate near the Project:

Route 61 operates Monday to Friday between 4:30 AM and 10:00 PM with 20 to 30-minute headways and provides service to Pomona, Montclair, Ontario, and Fontana. On weekends the route operates between 5:20 AM and 10:30 PM with 30-minute headways. The closest bus stops are located at the Ontario International Airport east of baggage claim near Terminals 2 and 4.

Route 80 operates Monday to Friday between 5:00 AM and 10:30 PM with 10 to 20-minute headways and provides service to Ontario and Rancho Cucamonga. On weekends the route operates between 5:40 AM and 7:30 PM with 20-minute headways. The closest bus stops are located at the Ontario International Airport east of baggage claim near Terminals 2 and 4.

Route 81 operates Monday to Friday between 5:00 AM and 8:45 PM with 20-minute headways and provides service to Ontario and Rancho Cucamonga. On Saturday the route operates between 6:00 AM and 8:50 PM with 10 to 20-minute headways. The closest bus stop is located east of Intersection 17 and south of Intersection 29 at the Ontario-East Metrolink station.

Route 82 operates Monday to Friday between 4:25 AM and 10:40 PM with 60-minute headways and provides service between Rancho Cucamonga, Ontario, South Fontana, and Fontana. On weekends the route operates between 6:15 AM and 8:00 PM with 20 to 30-minute headways. The closest bus stop is located at Ontario Mills Mall northeast of Intersection 23.

Route 87 operates Monday to Friday between 5:00 AM and 9:45 PM with 60-minute headways and provides service Rancho Cucamonga, Ontario, and Eastvale. On Saturday the route operates between 5:30 AM and 8:30 PM with 60-minute headways. There are several bus stops located at intersections three, four, 11, and 12 that service Route 87.

Route 290 operates freeway express service Monday to Friday between 4:15 AM to 9:40 AM and 3:00 PM to 8:45 PM with 15 to 20-minute headways and provides service between San Bernardino, Ontario, and Montclair. The closest bus stop is located at Ontario Mills Mall northeast of Intersection 23.

3.4.2 Metrolink

Commuter train service in the City of Ontario is provided by Metrolink, which provides service throughout the Southern California region. The Ontario-East Metrolink Station is located near the corner of Mission Boulevard and Haven Avenue, approximately three miles south of the Ontario International Airport. Ontario is served by the Riverside Line, which links downtown Riverside to Union Station in downtown Los Angeles. Metrolink operates on tracks owned by Union Pacific Railroad (UP) that run east-west through the middle of the City, with grade separations at Milliken and Haven Avenues. UP serves customers between Riverside and Ontario who have spurs connecting to this line, but most of UP's intermodal and carload traffic originates in or is destined for Long Beach, Los Angeles or City of Industry. These trains typically remain on the UP mainline along I-10 unless a full or partial shutdown occurs and there is a need to use this line as a bypass. Local freight train traffic in the city includes switches on various spur lines serving the industrial areas at the southern section of the City.

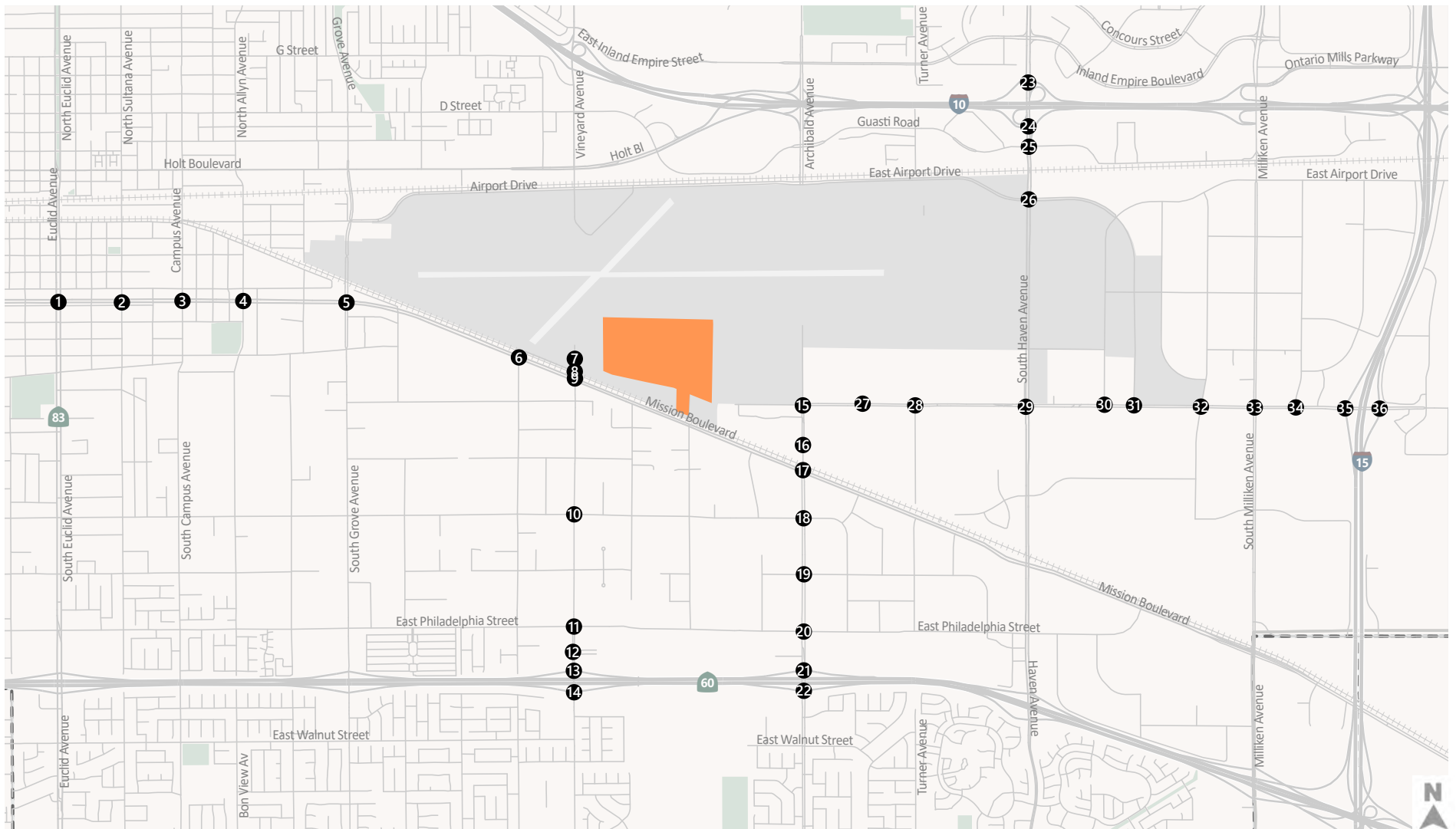
3.4.3 Amtrak

Sunset Limited Line provides intercity rail service three times per week between Los Angeles and New Orleans, Louisiana, with stops in Pomona and Ontario at the Ontario Train Station at 10:54 PM from Los Angeles.

Texas Eagle Line provides intercity rail service three times per week between Los Angeles and Chicago, Illinois, with stops in Pomona and Ontario at the Ontario Train Station at 10:54 from Los Angeles

3.5 Freight

The City of Ontario has historically been a hub for manufacturing and industrial activities, in part due to ONT, but also due to its ideal location at the crossroads of I-10 and I-15, two major freight corridors, and access to the Union Pacific Railroad's Sunset line with service to the Nation. It is also home to the two closest commercial truck stops to the largest container port complex in the Nation – the San Pedro Bay Ports of Long Beach and Los Angeles. The City is currently experiencing growth in industrial warehousing development where goods are stored, transloaded, assembled, repackaged, or other value-added services are provided. Most of the development is occurring near ONT and along the eastern and southern edges of the City. As both waterborne trade at the San Pedro Ports and air cargo at LAX and ONT have increased, there is a growing need for additional freight gateway options. The Project will result in more air cargo imports and exports in the Region that is being driven by population increase and a strong economy, but most notably by the new consumer demand for e-commerce that was accelerated by the COVID-19 Pandemic beginning in 2020. The truck routes in Ontario are shown in **Figure 3**.



- Study Intersection
- Project Site

Figure 3



Project Study Area and Study Intersections

4. Data Collection

Fehr & Peers consulted with the City of Ontario to determine the study locations and time periods to collect traffic count data. As discussed in Chapter 2, typical commute hours (7:00-9:00 AM and 4:00-6:00 PM) were selected as the appropriate analysis periods to measure the Project's effect on traffic conditions. Based on the Project's employee shift schedule, it is anticipated that the Project will generate the most trips within hours outside of typical commute hours (7:00-9:00 AM and 4:00-6:00 PM). However, the Project is still anticipated to generate trips during typical commute hours when adjacent streets are most congested. As discussed in the Trip Generation section, empirical data collection indicates that projects of this nature are anticipated to generate trips other than during shift changes and do generate trips during typical peak hours. As such, it was determined that typical commute hours would be most appropriate to analyze in the study to best determine the Project's effect on traffic conditions. Data collection parameters, including time periods, number of days of collection, and study locations were confirmed with the City of Ontario and documented in the Scoping Agreement, provided in **Appendix A**.

Traffic counts were collected in October 2021 during AM peak period (7:00-9:00 AM) and PM peak period (4:00-6:00 PM) at the 36 study intersections listed in Chapter 2. Consistent with industry standards and as identified in the San Bernardino CMP Guidelines, counts were collected over one day during fair weather, while school was in session, and during a typical (non-holiday) Thursday. The turning movement counts can be found in **Appendix B**.

Roadway segment classification counts were also collected in October 2021 to determine heavy vehicle percentages and to develop passenger car equivalent (PCE) factors for analysis purposes. The roadways selected provide a representative sample of the fleet mix that can be applied across all major corridors in the study. The roadway classification counts can be found in **Appendix C**. Roadway segment classification counts were collected at the following locations:

1. Mission Boulevard west of Grove Avenue
2. Mission Boulevard east of Archibald Avenue
3. Jurupa Street east of Tower Drive
4. Jurupa Street east of Milliken Drive
5. Archibald Avenue south of Cedar Street
6. Avion Street east of Vineyard Avenue
7. Vineyard Avenue north of Philadelphia Street
8. Grove Avenue north of Mission Boulevard
9. Grove Avenue south of I Street/I-10 Freeway
10. Haven Avenue south of Airport Drive

As discussed in more detail in Chapter 5, Roadway segment classification counts were also collected at a nearby logistic facility with similar operations to develop comparable trip generation rates:

1. FedEx (Employee) Driveway south of Airport Drive

An at-grade crossing delay study was performed to measure delays associated with trains at the following locations:

1. Vineyard Avenue north of Mission Boulevard
2. Archibald Avenue north of Mission of Boulevard

The at-grade crossing delay study at the two locations can be found in **Appendix D**. At Vineyard Avenue north of Mission Boulevard, some movements experience an average delay of seven minutes per hour associated with trains in the AM and PM peak hours. At Archibald Avenue north of Mission Boulevard, some movements experience an average delay of seven minutes associated with trains in the AM and PM peak hours.

Existing (2021) traffic volumes are presented in **Figure 9** in Chapter 6 along with existing lane configurations and traffic control at study locations.

Fehr & Peers collected the following information during a field visit to the study area:

- Lane configurations
- Signal phasing
- Land uses in the study area
- Existing pedestrian and bicycle facilities
- On-street parking conditions
- Transit service

Fehr & Peers requested and reviewed the following information from the City of Ontario and Caltrans for use in the study:

- Traffic signal timing information at all signalized intersections
- Pending and approved development projects within a two-mile radius

5. Project Characteristics

This chapter provides an overview of the proposed Project components and addresses the proposed Project trip generation, distribution, and assignment characteristics, allowing for an evaluation of Project effects on the surrounding roadway network. The amount of traffic associated with the Project was estimated using a three-step process:

1. **Trip Generation** – The *amount* of vehicle traffic entering/exiting the Project site was estimated.
2. **Trip Distribution** – The *direction* trips would use to approach and depart the site was projected.
3. **Trip Assignment** – Trips were then *assigned* to specific roadway segments and intersection turning movements.

5.1 Trip Generation

The Project contains a mix of cargo warehouse employees, office employees and deliveries with trip making behaviors unique to an air cargo facility. Fehr & Peers reviewed and compared three trip generation approaches as described in the scoping memo provided in **Appendix A**. Fehr & Peers proceeded with using the custom daily and peak hour trip generation rates for air cargo facilities based on empirical data collected at a similar cargo facility at ONT, consistent with the *ITE Trip Generation Handbook, 3rd Edition* that recommends using locally validated trip generation data when the characteristics of a study site are not covered by a land use description.

The following three types of users generate trips at the Project:

- Employees
- Trucks
- Deliveries

5.1.1 Employee Trips

Employees are the primary generator of Project trips. However, employee shift change times do not occur during the typical commute peak periods of 7:00-9:00 AM & 4:00-6:00 PM.

- The morning shifts are anticipated to begin between 5:00 and 7:00 AM with approximately 640 employees arriving and 47 employees leaving during the morning shift change.
- The midday shifts are anticipated to begin between noon and 3:00 PM with 95 employees arriving. The morning shifts leave between 11:00 AM and 4:30 PM.

- The evening shifts are anticipated to begin between 7:00 and 9:30 PM with approximately 580 employees arriving. Most of the evening shift (533 employees) are anticipated to leave by 5:00 AM.

Observations at similar facilities have shown that actual trip arrivals and departures vary on a less rigid schedule. Therefore, trips at a similar facility were counted and used to prepare the trip generation estimate for the Project. As discussed in more detail in the Scoping Agreement in **Appendix A**, daily driveway counts were collected at a similar air cargo facility (FedEx) that currently operates at ONT. Trip generation data collected at logistics facilities shows that arrival/departure patterns tend to be fluid and spread out over the course of the day. This existing facility is most similar to the Project. The FedEx facility also operates in a schedule with shifts that generated more peak hour trips outside the typical commute hours.

5.1.2 Truck Trips

The air cargo operation proposes trucks on a daily fixed schedule with predetermined destinations throughout California and to neighboring states of Nevada and Arizona. Detailed truck trip information was provided by the Project proponent and describes precise operational arrival times, departure times, origins and destinations that are routine and scheduled daily. Peak hour and daily truck distributions are shown in **Figure 5** for Phase I and in **Figure 6** for Phase II.

Some of the trucks are owned by the cargo facility operator and travel back and forth between its distribution sites only. Others are independently owned and may arrive empty before their delivery trip or arrive with goods and leave empty without a destination related to the cargo facility.

In addition to the air cargo truck trips, Phase 1 includes 24 round trips (48 total trips in and out) to account for fuel truck deliveries. The fuel truck trips are omitted in the Phase 2 and horizon year forecast.

5.1.3 Deliveries

Delivery trips for fuel, materials and supplies would occur throughout the day but not typically during shift changes. Delivery trips were estimated based on empirically collected data from nearby similar air cargo facilities and other air cargo operations operated by the Project proponent.

Phase 1 operations include the assumption that the underground fuel line serving the Project will not yet be in operation and up to 24 fuel trucks per day will bring fuel from the northwest corner of the airport. These trips are assumed to occur outside of the peak hours. Phase 2 anticipates the underground fuel line will be in place and the fuel trucks will not be needed.

5.1.4 Project Trip Generation

Empirical data was collected at a similar facility in order to develop a custom trip generation rate based on an operational air cargo facility. Fehr & Peers collected driveway counts at the FedEx facility that currently operates at ONT Airport. Counts were collected at the employee driveway in order to isolate employee and delivery trips since the exact truck trip schedule is already defined for the proposed Project. The counts were collected for a full day in November 2021, which is a peak time of the year for cargo facilities as retail stores ramp up for the busy holiday shopping season. This should provide a conservatively high estimate during the peak hours as overtime for employees is standard during peak seasons. This means that employees may be working earlier or later than the typical shift times. **Table 4** shows the trip generation rates and estimates used for Opening Year (2025). **Table 5** shows the trip generation rates and estimates used for Opening Year (2029) and Year (2040).

As shown in **Table 4: Trip Generation Rates and Estimates for Phase 1** and **Table 5**, the daily trip estimate accounts for typical daily trips other than the regular commute trips. The typical commute AM and PM trip generation rates developed from the FedEx facility are significantly higher than estimating trip generation based on shift change and employment estimates. However, as noted above, during the peak seasons it is anticipated that peak hour travel may be more regular to account for overtime.

The size of the FedEx facility is approximately 195 KSF (approximately 40 percent smaller than the proposed Project). The FedEx trips were scaled to match the proposed Project size to estimate the trips shown in **Table 4** and **Table 5**. The trip generation for employees is based on the full size of the Project after completion of Phase 2 since the number of employees is not anticipated to change between Phase 1 and Phase 2; only the number of trucks will increase from Phase 1 to Phase 2.

Last, it should be noted that the custom trip generation estimates developed for air cargo facilities and used in this study differ from the ITE rates for the comparable land use categories of High-Cube Fulfilment Center Warehouse (ITE Code 155) and High-Cube Parcel Hub Warehouse (ITE Code 156). These uses are similar in nature to an air cargo facility but operate different enough from air cargo facilities that these trip generation rates are not representative of the proposed Project. This is due to the specialized nature of air cargo facilities which include:

- Higher number of employees needed for cargo sorting and transfer from planes to trucks
- Fixed truck schedule that results in off-peak employee travel that is not reflected in any of the ITE trip generation codes
- Custom trip generation estimates developed differ from ITE rates in that they are typically lower in the peak hour and higher at the daily level

Table 4: Trip Generation Rates and Estimates for Phase 1

Project Trip Type	Quantity	Units ¹	Daily Trip Rate	AM Peak		PM Peak		Daily Total	AM Peak			PM Peak		
				Trip Rate	In/Out %	Trip Rate	In/Out %		In	Out	Total	In	Out	Total
Phase 1														
Project Employees & Deliveries (No Trucks)	320	KSF	7.96	0.46	53/47	0.77	46/54	2,531	77	68	146	114	134	247
Truck Trips (empty) (PCE = 3.0)	48	trucks	-	-	-	-	-	144	21	3	24	12	0	12
Truck Trips (PCE = 3.0)	102	trucks	-	-	-	-	-	306	9	42	51	3	21	24
Fuel Truck Trips (PCE = 3.0)	48	trucks	-	-	-	-	-	144						
Net External Trips								3,125	107	114	221	129	155	283

Notes:

1. KSF = 1,000 square feet
2. The trip generation for employees is based on the final buildout size of the Project since the number of employees is not anticipated to change between Phase 1 and Phase 2; only the number of trucks will increase from Phase 1 to Phase 2.

Source: Fehr & Peers

Table 5: Trip Generation Rates and Estimates for Phase 1 and 2 Combined

Project Trip Type	Quantity	Units ¹	Daily Trip Rate	AM Peak		PM Peak		Daily Total	AM Peak			PM Peak		
				Trip Rate	In/Out %	Trip Rate	In/Out %		In	Out	Total	In	Out	Total
Phase 1 and 2 Combined														
Project Employees & Deliveries (No Trucks)	320	KSF	7.96	0.46	53/47	0.77	46/54	2,531	77	68	146	114	134	247
Truck Trips (empty) (PCE = 3.0)	69	trucks	-	-	-	-	-	207	21	6	27	12	0	12
Truck Trips (PCE = 3.0)	155	trucks	-	-	-	-	-	465	12	48	60	3	21	24
Net External Trips								3,202	110	123	233	129	155	283

Notes:

1. KSF = 1,000 square feet
2. The trip generation for employees is based on the full size of the Project after completion of Phase 2 since the number of employees is not anticipated to change between Phase 1 and Phase 2; only the number of trucks will increase from Phase 1 to Phase 2.

Source: Fehr & Peers

5.1.5 Trip Generation Estimates

As presented in **Table 4**, the Project is expected to generate approximately 3,125 daily net external trips for Opening Year (2025) Plus Phase 1 Project, including approximately 221 net external trips (107 inbound/114 outbound) during the morning peak hour, and approximately 283 net external trips (129 inbound/155 outbound) during the evening peak hour. As presented in **Table 5**, the Project is expected to generate approximately 3,202 daily net external trips for Opening Year (2029) Plus Phase 1 and 2 Project and Year (2040) Plus Phase 1 and Phase 2 Project, including approximately 233 net external trips (110 inbound/123 outbound) during the morning peak hour, and approximately 283 net external trips (129 inbound/155 outbound) during the evening peak hour.

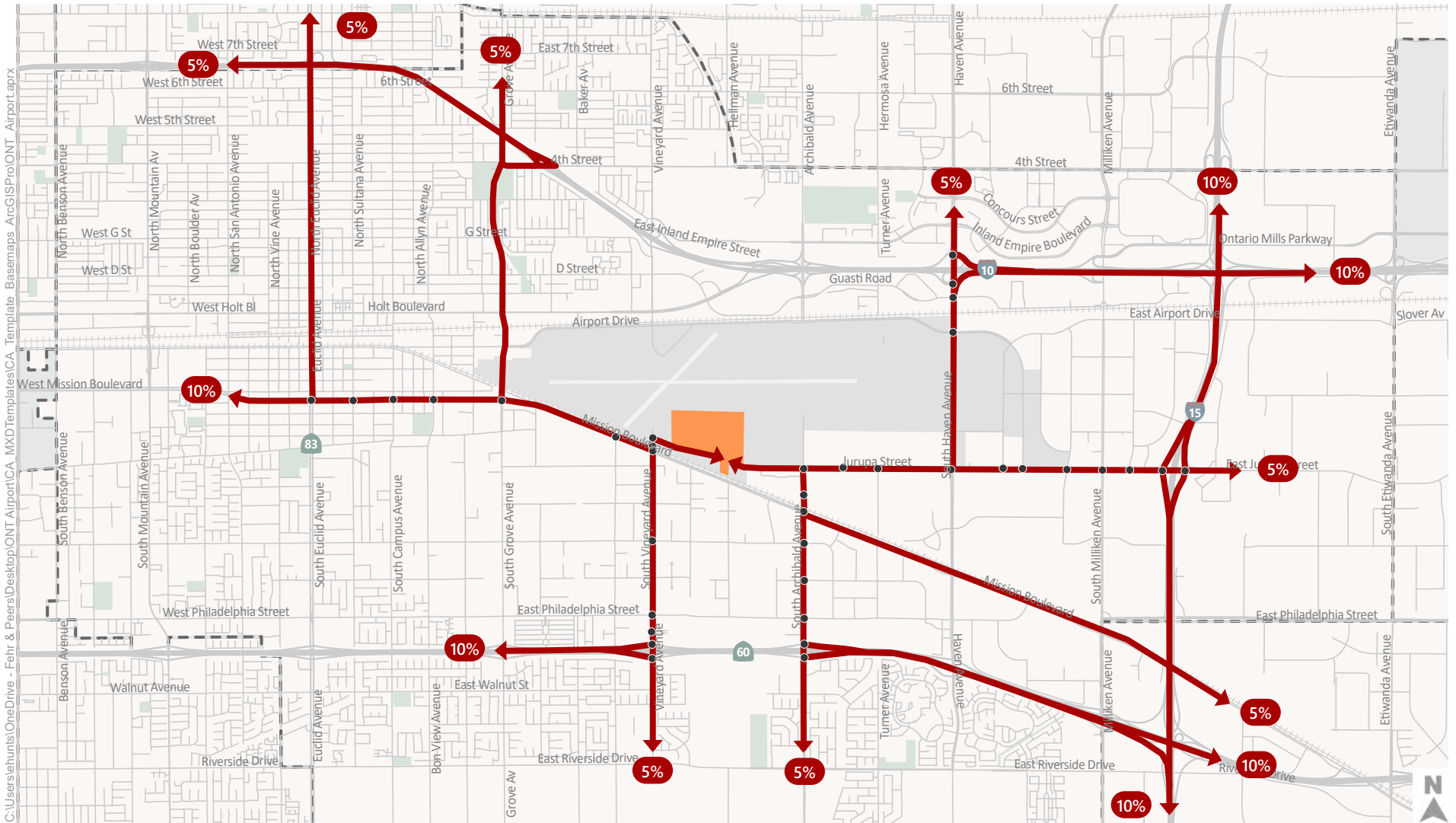
5.2 Trip Distribution and Assignment

5.2.1 Trip Distribution

Project trip distribution refers to the directions of approach and departure that vehicles would use to travel to and from the Project site. Travel pattern data and statistics, local knowledge of the study area, and professional judgment were used to develop a Project trip distribution for the respective trip generators.

For the employee trip distribution, home-to-work travel patterns were referenced from the SBTAM and Census Bureau Longitudinal Employer-Household Dynamics (LEHD) data. SBTAM is a socio-economic model (population and employment), so the Project employment was added to a Traffic Analysis Zone (TAZ) representative of the Project in the model. The results of a select zone model run from SBTAM shows the AM trip distribution, which is the highest trip generating period and can be found in **Appendix A. Appendix H** provides the LEHD data to confirm how far employees travel and from which directions. **Figure 4** presents the proposed project trip distribution for employees (non-truck trips).

The truck trip distribution is based on the known destinations of each truck trip along the shortest designated truck routes, per the City of Ontario Truck Route Map as provided in **Figure 3** and the trucking schedules provided by the Project proponent. **Figure 5** presents the truck assignment for Phase 1 and **Figure 6** presents the truck assignment for Phase 2. Both total truck trips and PCE conversions are presented in the figures. **Figure 7** presents the project only trip assignment for Phase 1 in PCE for all trips including trucks. **Figure 8** presents the project only trip assignment for Phase 2 in PCE for all trips including trucks.



- Study Intersection
- Project Site
- City Boundary



Figure 4
Project Employee Trip Distribution

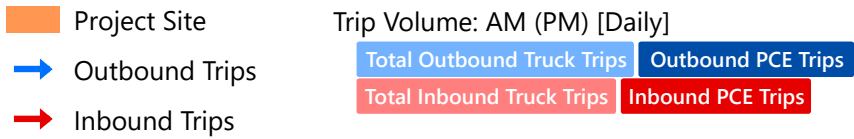
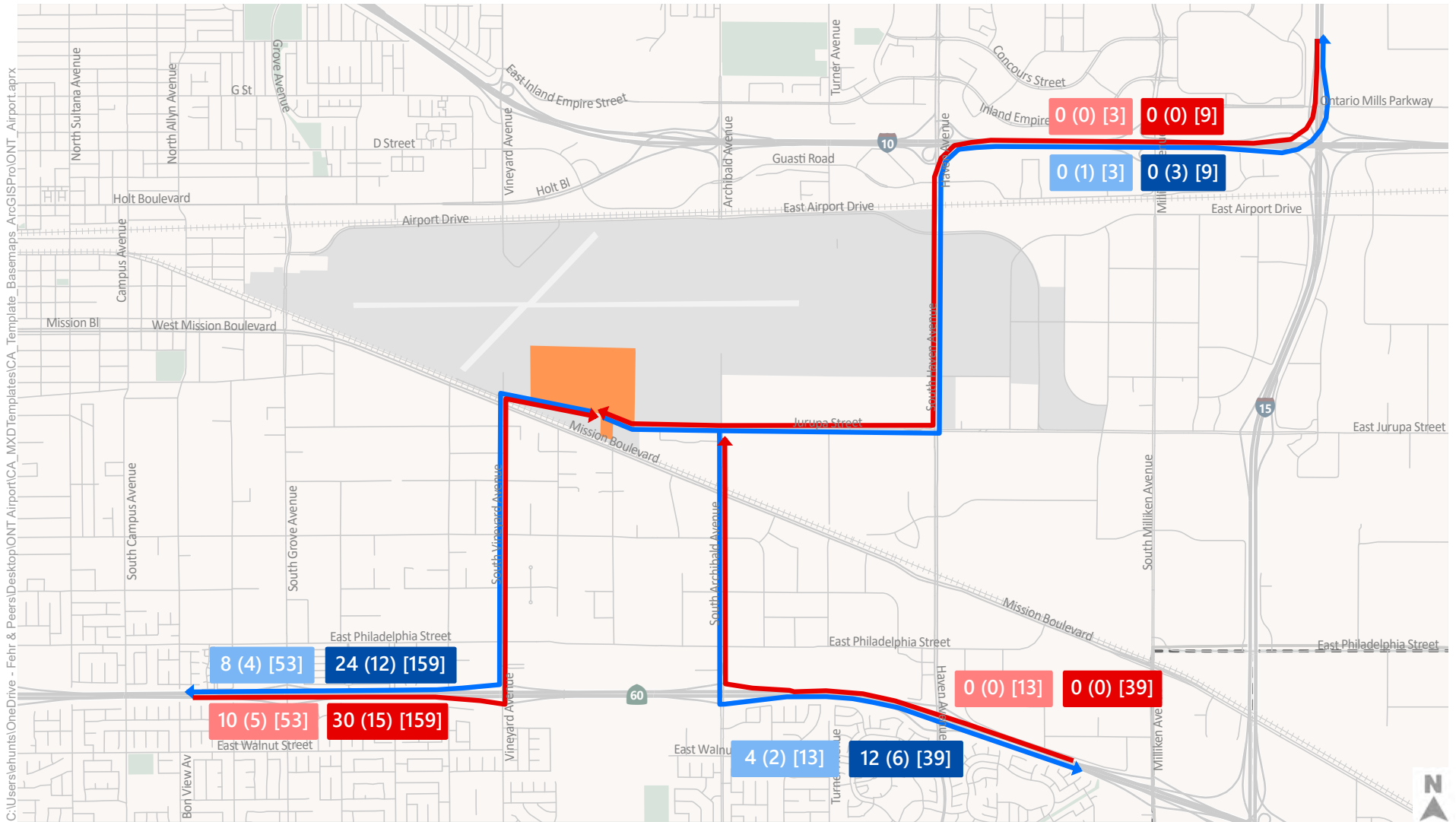
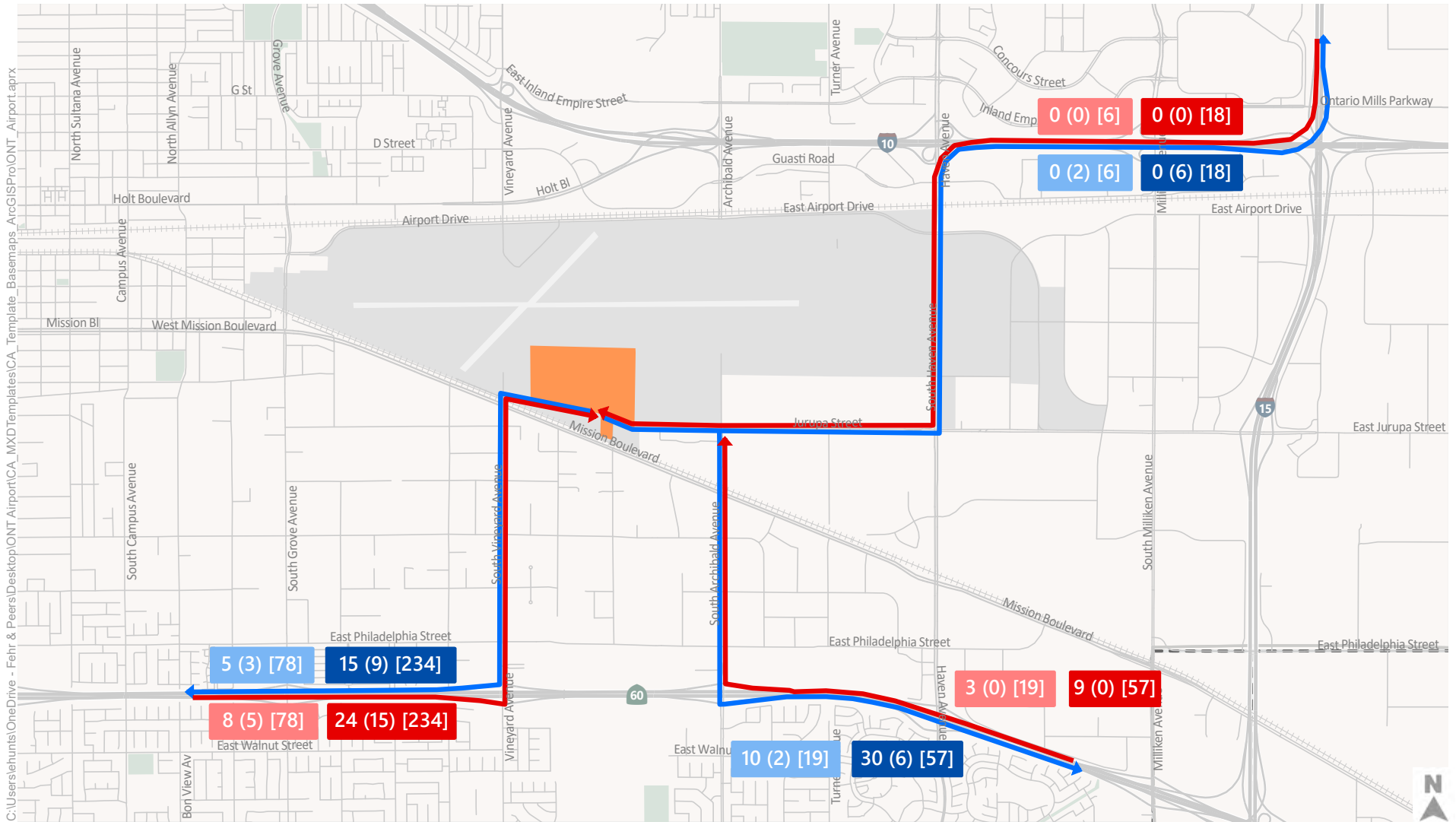


Figure 5
Project Phase 1 Truck Trip Assignment



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Project Site

Outbound Trips

Inbound Trips

Trip Volume: AM (PM) [Daily]

Total Outbound Truck Trips	Outbound PCE Trips
Total Inbound Truck Trips	Inbound PCE Trips



Figure 6

Project Phase 2 Truck Trip Assignment

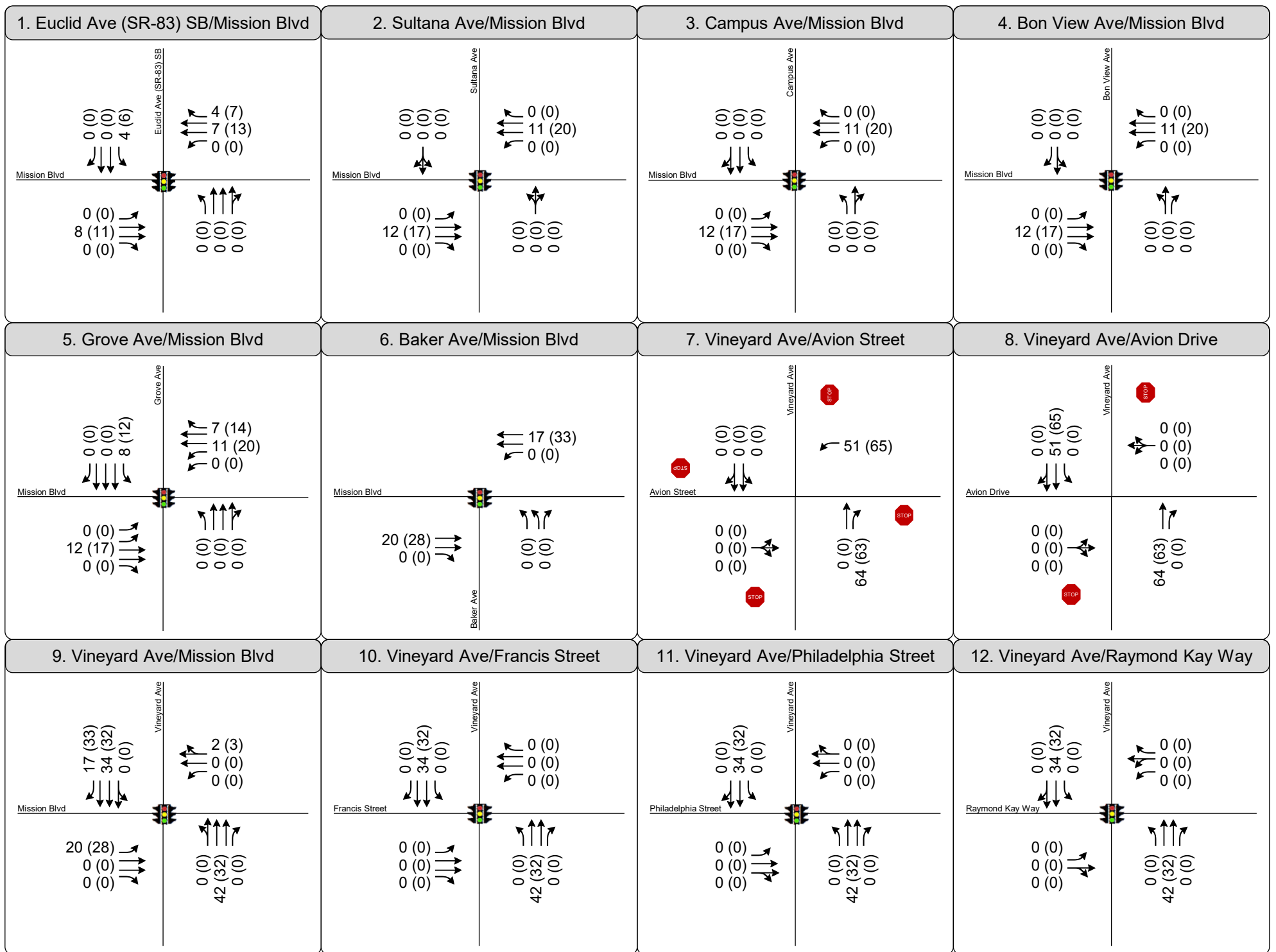
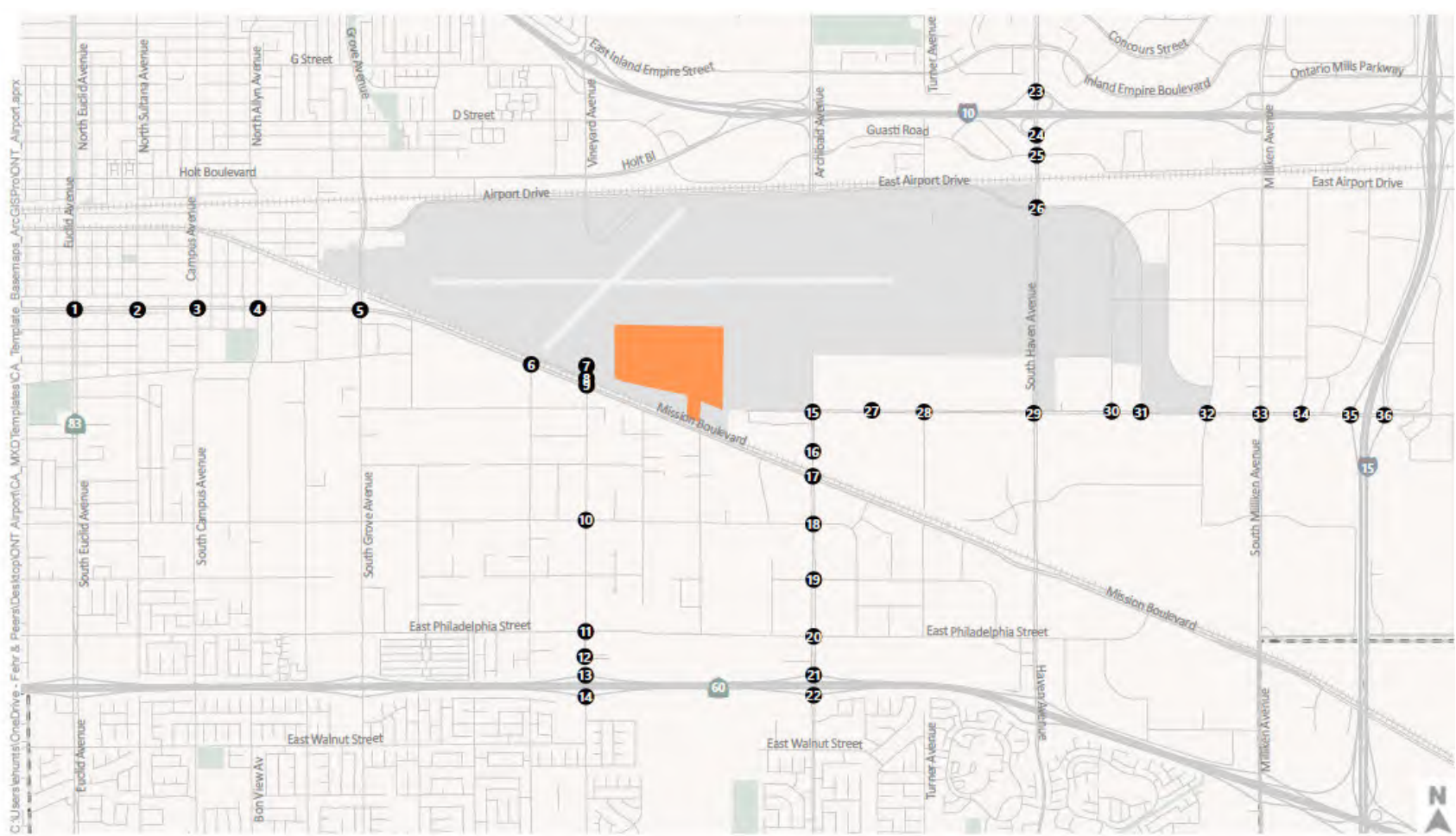
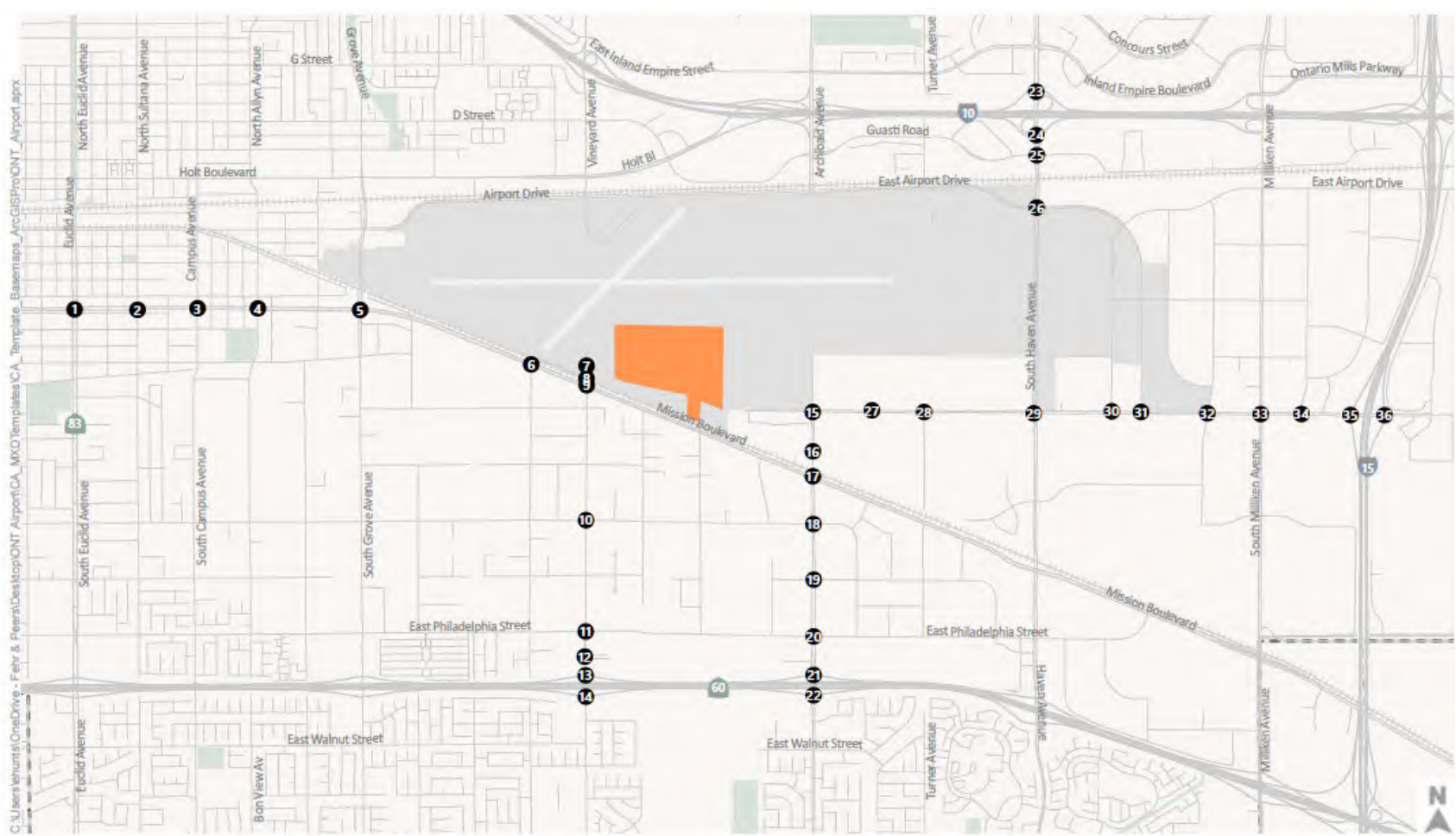


Figure 7

Phase I Project Only PCE Trip Assignment
 Project Phase 1 Opening Year (2025) Plus Phase 1 Project Conditions





<p>13. Vineyard Ave/SR-60 WB Ramps</p>	<p>14. Vineyard Ave/SR-60 EB Ramps</p>	<p>15. Archibald Ave/Jurupa Street</p>	<p>16. Archibald Ave/Tracy Paseo</p>
<p>17. Archibald Ave/Mission Blvd</p>	<p>18. Archibald Ave/Francis Street</p>	<p>19. Archibald Ave/Cedar Ave</p>	<p>20. Archibald Ave/Philadelphia Street</p>
<p>21. Archibald Ave/SR-60 WB Ramps</p>	<p>22. Archibald Ave/SR-60 EB Ramps</p>	<p>23. Haven Ave/I-10 WB Ramps</p>	<p>24. Haven Ave/I-10 EB Ramps</p>

Figure 7

Phase I Project Only PCE Trip Assignment
 Project Phase 1 Opening Year (2025) Plus Phase 1 Project Conditions



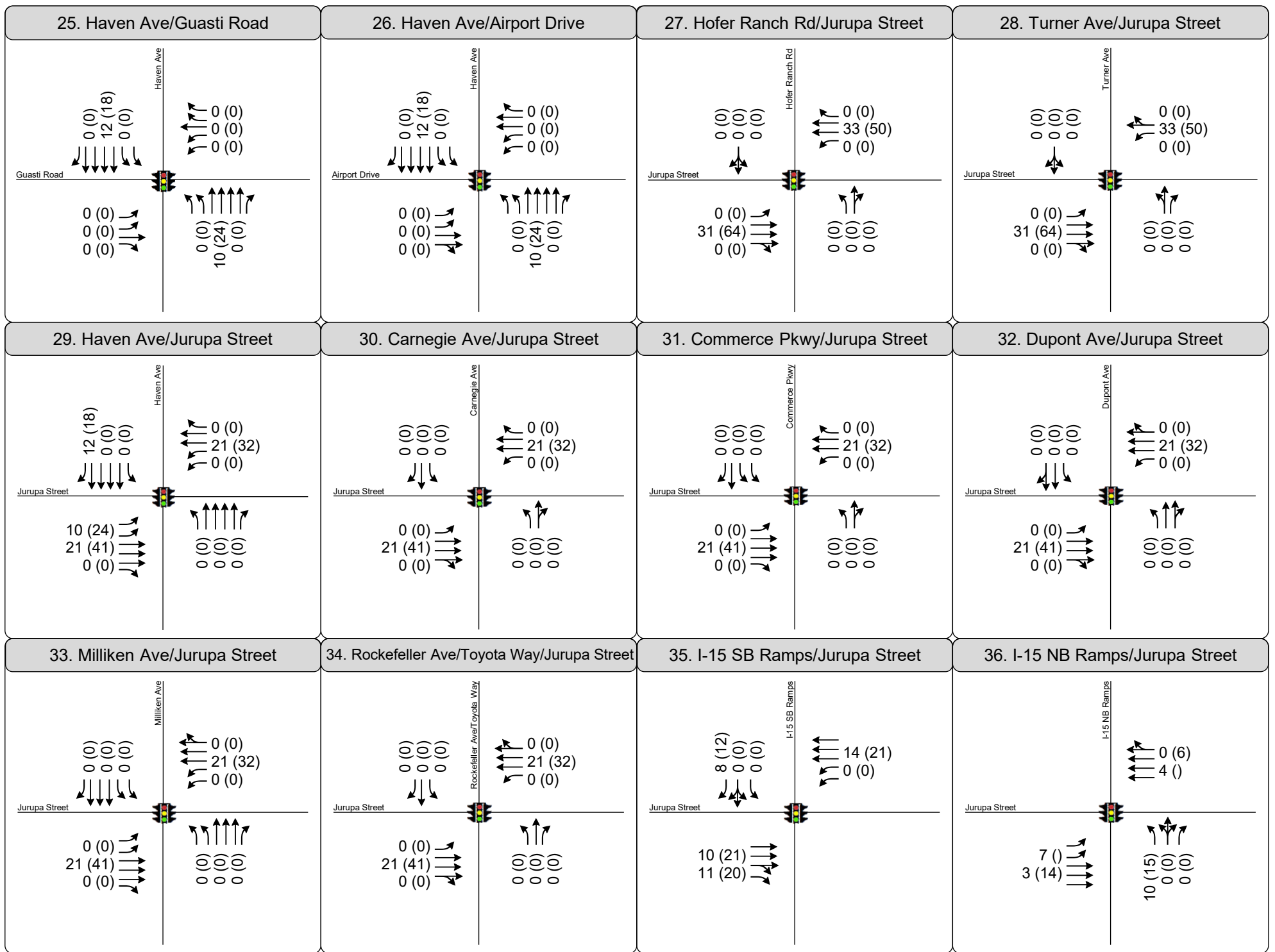
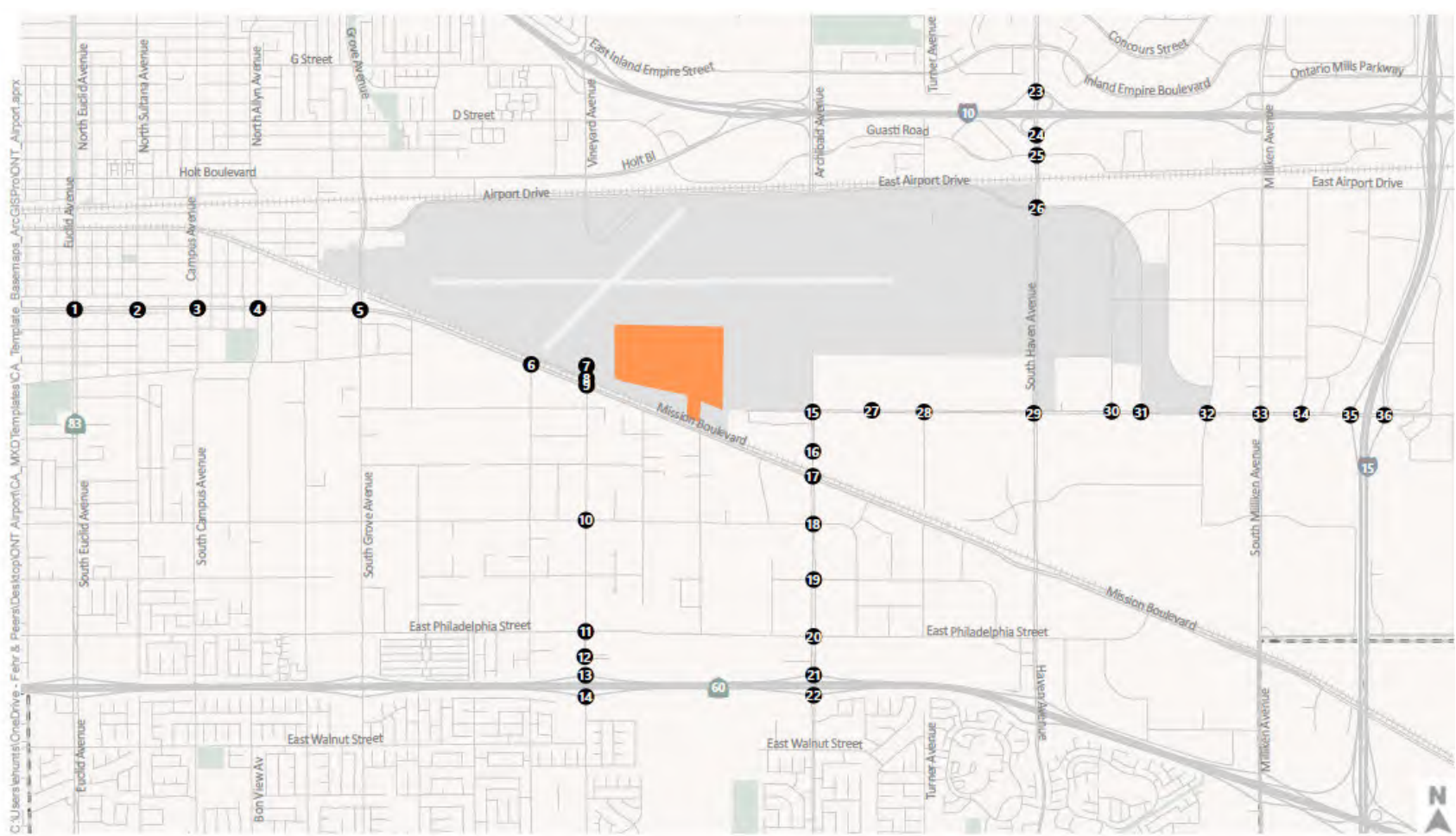


Figure 7
 Phase I Project Only PCE Trip Assignment
 Project Phase 1 Opening Year (2025) Plus Phase 1 Project Conditions



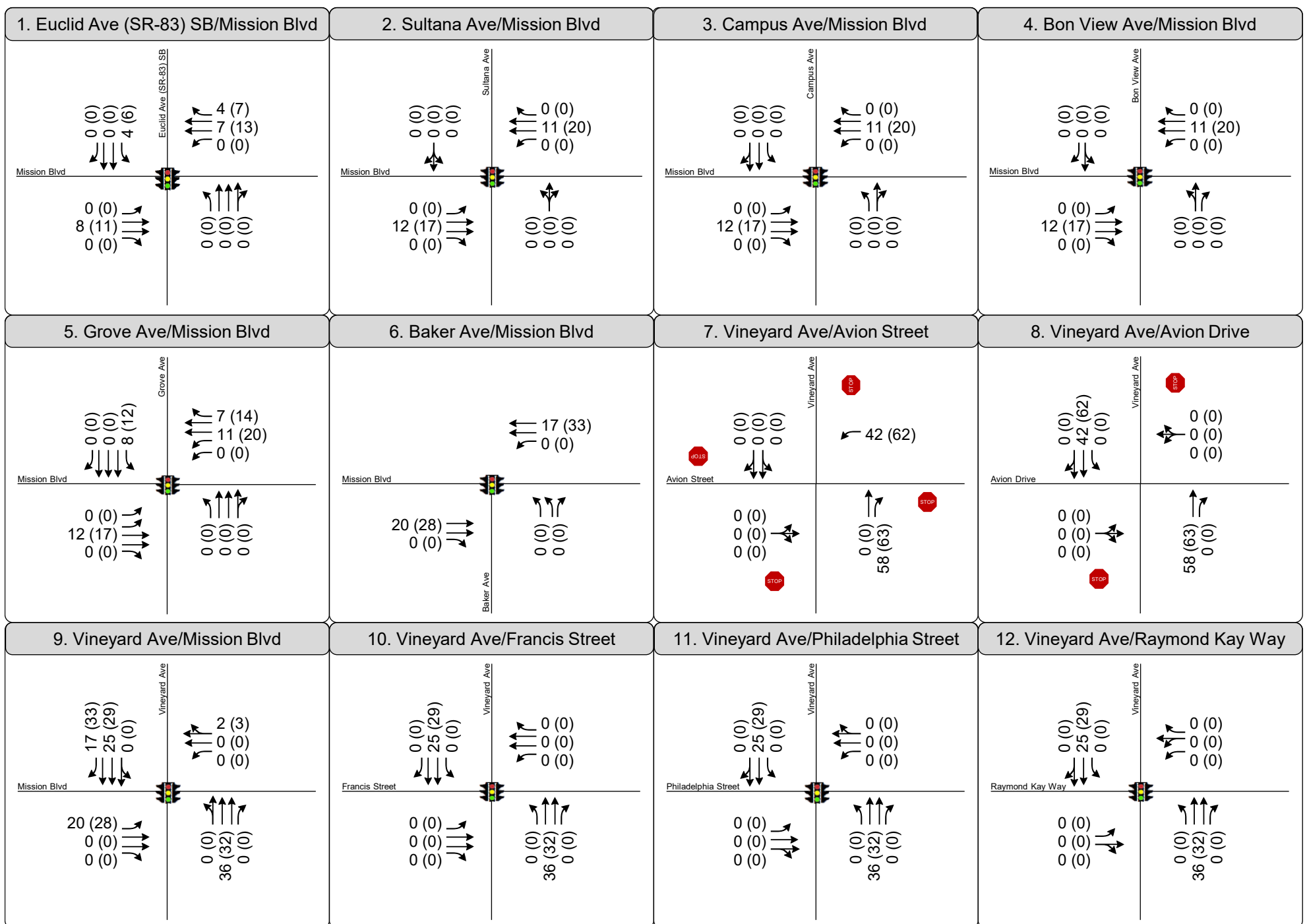
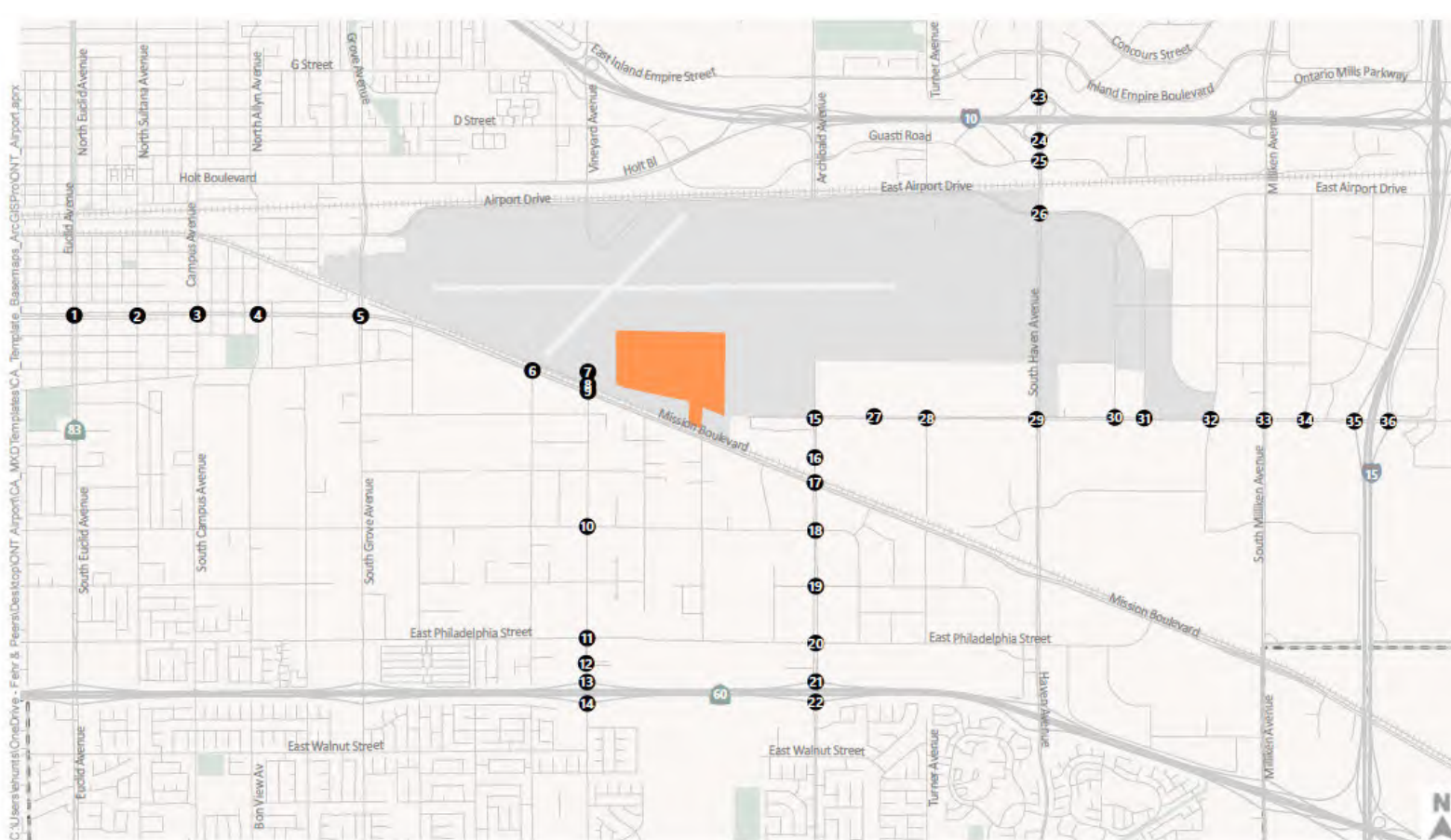


Figure 8

Phase 2 Project Only PCE Trip Assignment
 Project Phase 2 Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions



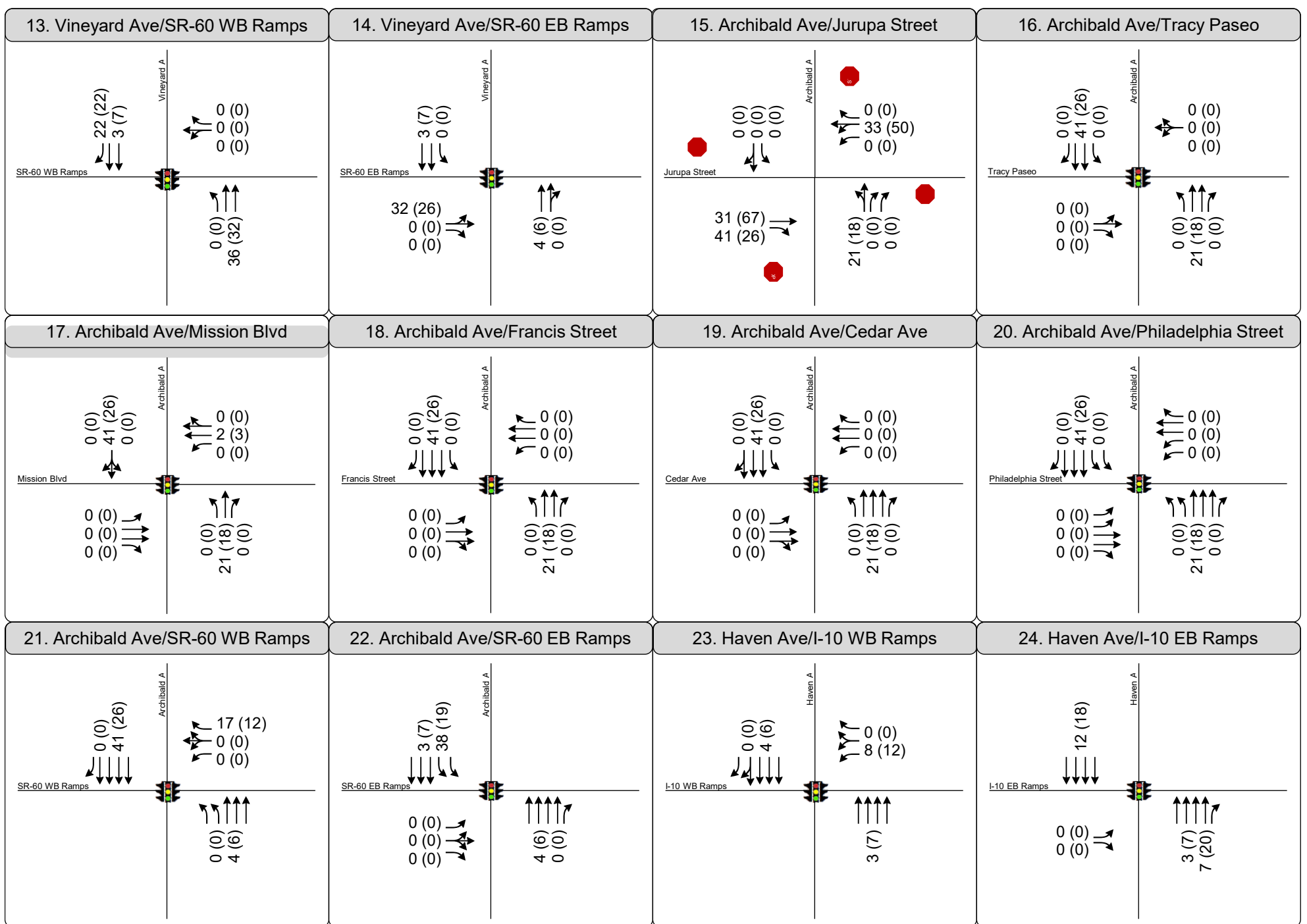
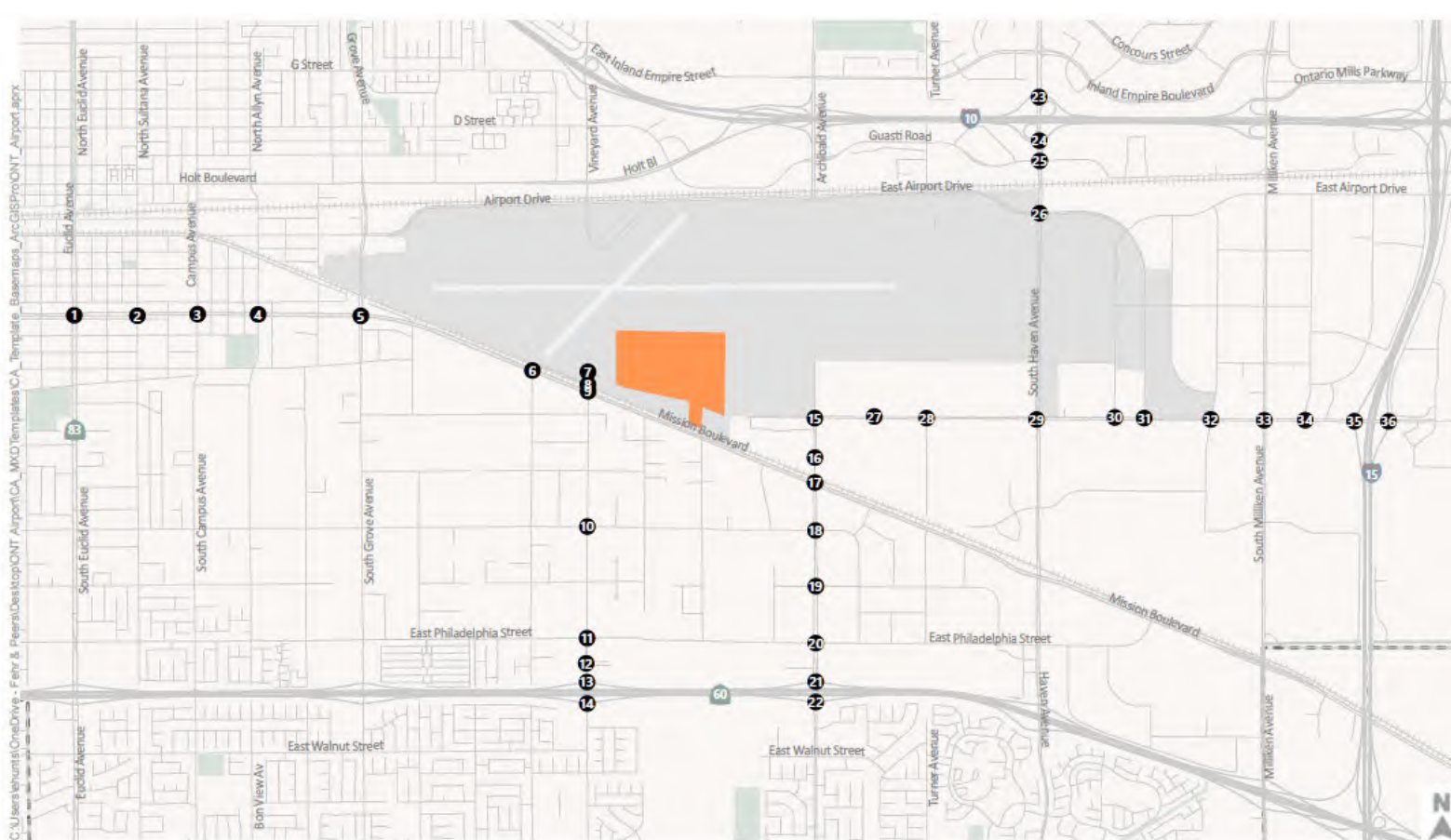


Figure 8

Phase 2 Project Only PCE Trip Assignment
 Project Phase 2 Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions



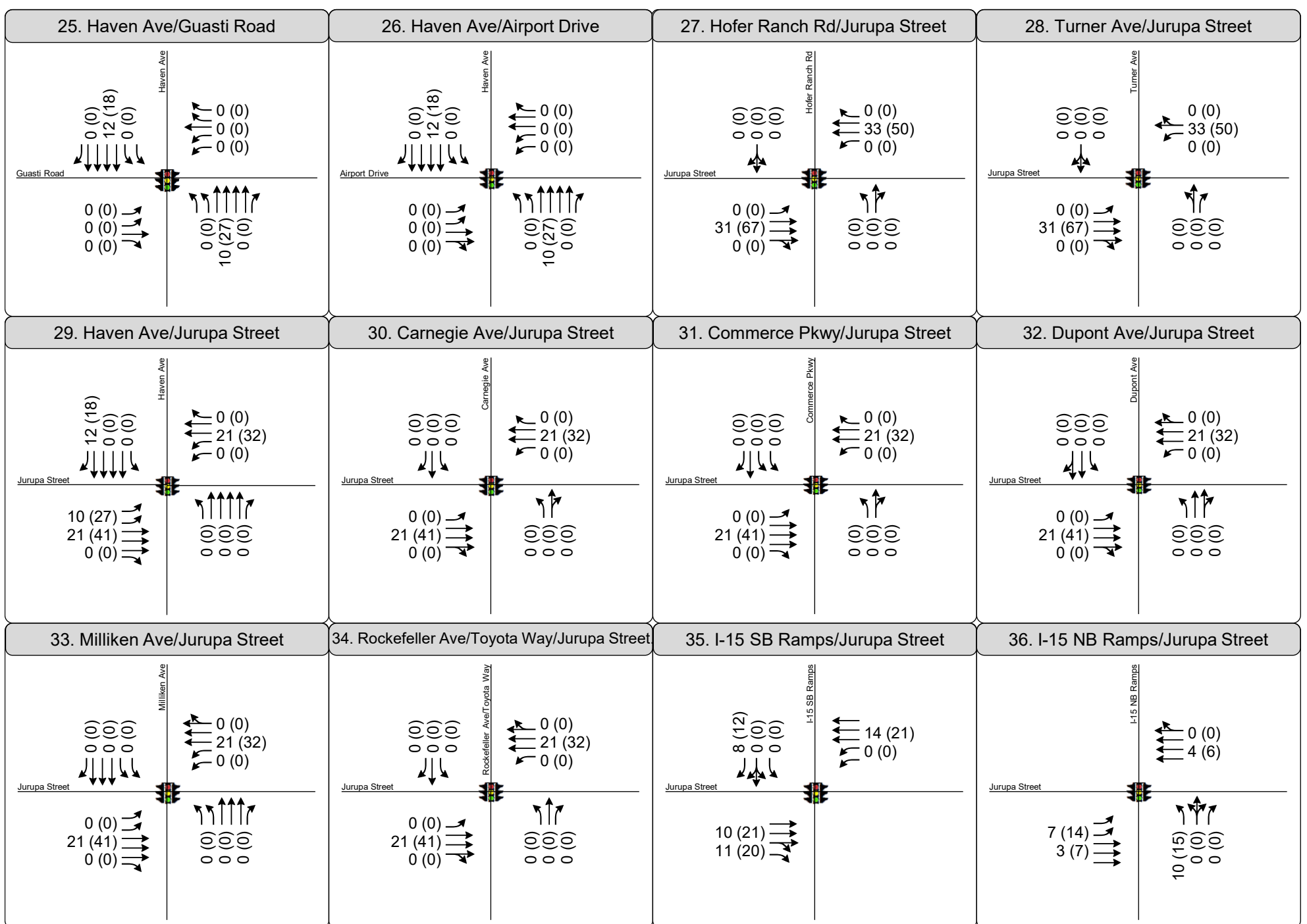
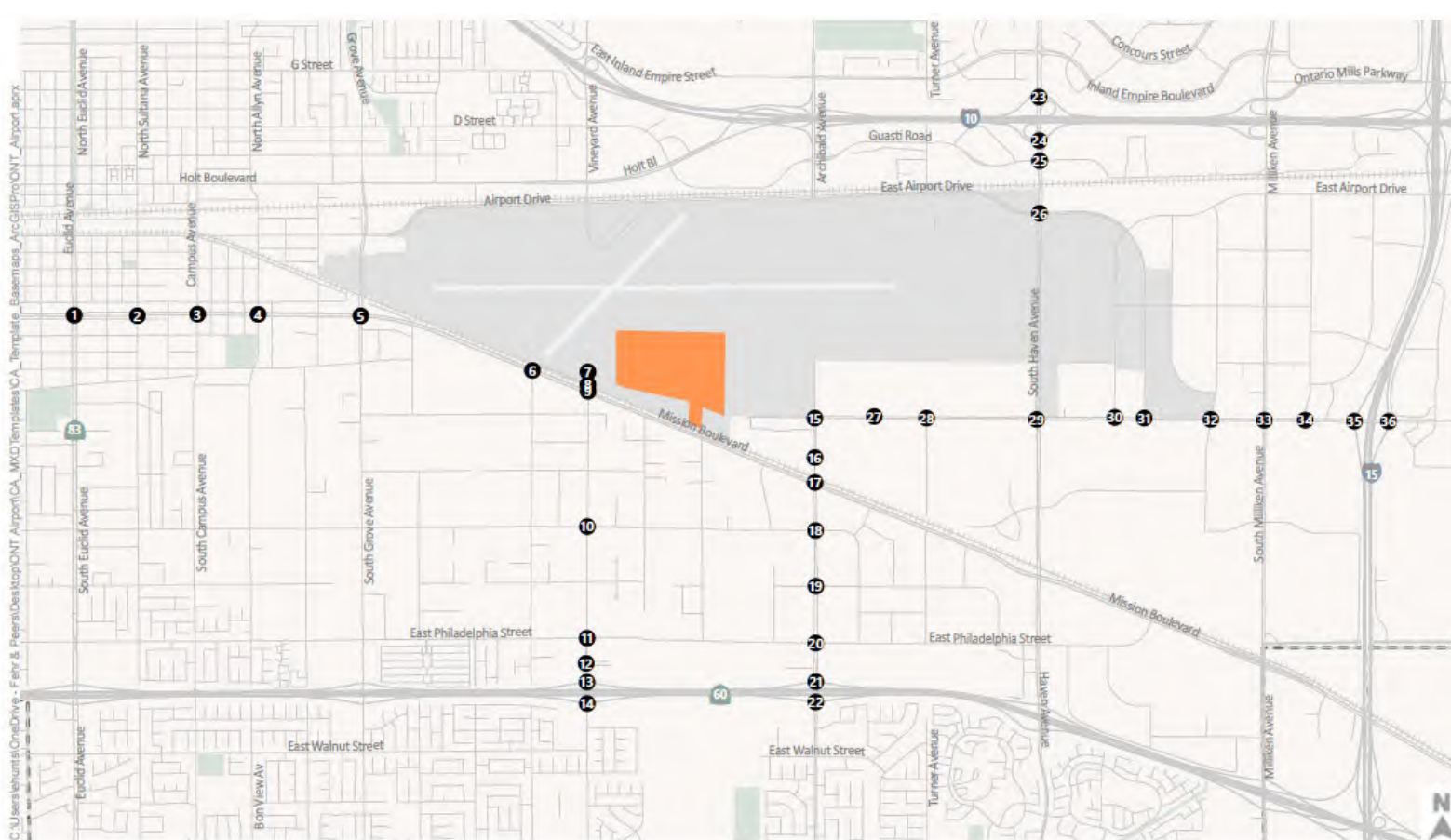


Figure 8

Phase 2 Project Only PCE Trip Assignment

Project Phase 2 Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions



6. Vehicle Miles Traveled Impact Analysis

Fehr & Peers prepared an estimate of the Vehicle Miles Traveled (VMT) that would be induced by the Project. This VMT analysis is consistent with requirements of Senate Bill 743 (SB 743), the Office of Planning and Research's (OPR's) Technical Advisory, and the City of Ontario's adopted VMT Impact Analysis Resolution (No. 2020-071).

A hybrid approach to estimating VMT was utilized for the Project because the proposed air cargo facility is a unique use that is not adequately represented by the SBTAM traffic model alone. Some of the model traffic data is appropriate, such as employee commute trip lengths and empty truck average trip lengths, while other metrics were estimated outside the model, such as trip generation and fixed-route truck trip lengths. This approach is described in detail below.

The following sections define the transportation impact analysis methodology, including Analysis Methodology, VMT Estimates and VMT Impact Assessment.

6.1 Analysis Methodology

The number of trips and the vehicle trip length used to estimate VMT can be estimated using different tools (travel surveys, ITE Trip Generation Manual, GPS data, travel demand forecasting models, air quality/GHG models, etc.), but the established best practice for estimating VMT as identified in the City of Ontario's VMT Impact Resolution is with a calibrated and validated travel demand forecasting model. The local validated and calibrated model for City of Ontario is the San Bernardino County Transportation Agency's (SBCTA) travel demand model (SBTAM). However, because the proposed air cargo facility is a unique use, and a review of the model identified that the truck trip lengths are not fully represented in the SBTAM model, VMT associated with truck operations was estimated outside the model using more accurate information on truck operations associated with the Project and employee shift data to estimate trip generation and trip distance information for these two VMT components.

More specifically, Fehr & Peers tested SBTAM for sensitivity for use in this assessment to verify if the model accurately projected the number of vehicle and truck trips as well as whether the model accurately estimated vehicle and truck trip lengths. The results of this review are summarized below:

- **Trip Generation Review.** SBTAM overestimated trips for the Project for both truck trips and non-truck trips. This was verified by comparing the model's estimated trips to empirically collected data at a similar air cargo facility as described in the next section.
- **Trip Length Review.** As discussed below, the project sponsor provided data on truck trips origin/destination. Fehr & Peers compared those trip lengths to SBTAM estimates and identified

that SBTAM underestimated trip lengths associated with truck trips. Fehr & Peers did compare the employee trip length information to available Longitudinal Employment Household Data (LEHD) data and found that the model was reasonable for estimating commute trip lengths for employees. As such, SBTAM is appropriate for estimating trip lengths for non-truck trips of the project.

6.1.1 Trip Generation

Project trip generation is described and defined in detail in Chapter 5. The same trip generation estimates used for the LOS analysis were used for the VMT assessment and are also shown in **Table 7**.

6.1.2 Trip Length

Trip lengths for employee and daily business operations were estimated by referencing average trip length data from SBTAM, consistent with recommendations in the City's adopted VMT Impact Analysis Resolution and determined to be the best available source for estimating potential automobile trip lengths to/from the site. As noted above, we compared the estimated trip lengths for the model against LEHD data compiled for The Ontario Plan (2050) Update and confirmed that the trip length data was an accurate and reasonable estimate as compared to existing City averages.

Fehr & Peers reviewed the detailed truck routing information for the fixed-route trucks provided for the Project and measured the truck trip lengths between the identified distribution facility origins and destinations. These distribution facilities and one-way trip lengths are identified in **Table 6**.

While the truck trip lengths could be estimated off-model for fixed-route truck trips, there is no detailed data available on existing third-party, empty truck trips, because the travel characteristics of these third-party, empty trucks are not owned or operated by the Project proponent and information on ultimate origins, destinations or trip length are not known. Trips by empty trucks is typically low due to truck routing and scheduling by private trucking companies to minimize inefficient empty moves and reduce operating costs. Trucks from these third-party providers will typically start or finish as close to the Project as possible to maximize their own economic efficiencies. These trips were estimated by assuming similar trip lengths for an average truck trip in the region.

SBTAM Model Data

The latest version of SBTAM was run to extract trip length data noted above for automobile trips and empty truck load trips. Office and transportation/warehouse employment was coded into the Project TAZ in the base and future year models and Fehr & Peers extracted average trip length data for passenger cars and trucks for the empty loads.

The SBTAM roadway network and socio-economic data within the City of Ontario were updated to be consistent with The Ontario Plan (TOP) Environmental Impact Report (EIR) scenario modeling for Base Year (2019) and Adopted General Plan Buildout (2050). Outside of the City of Ontario, this model assumes datasets consistent with the 2016 Southern California Association of Governments (SCAG) Regional

Transportation Plan and Sustainable Communities Strategy (RTP/SCS).⁸ SBTAM was originally developed in 2012 but has undergone updates to the land use dataset and transportation network to reflect the 2016 SCAG RTP/SCS program. The SBTAM model used for this effort had an updated base year land use that reflected a 2012 base year and a 2040 future year, consistent with the 2020 SCAG RTP/SCS. As recommended in the SBTAM model documentation, model assignment parameters were set to run up-to five loops with a minimum convergence criterion⁹ of 0.01.

6.2 VMT Estimates

The VMT for the project was split into four separate users all with individual trip generation and average trip length estimates:

1. Employees, guests and deliveries
2. Trucks on fixed routes
3. Empty trucks by third parties
4. Fuel trucks

For employees, guests, deliveries and empty trucks, trip generation estimates were multiplied by average trip lengths to estimate average daily VMT. Average trip lengths from SBTAM were interpolated between base and future years to estimate project Opening Year Phase 1 (2025), Opening Year Phase 2 (2029) and Horizon Year (2040) trip lengths for the employee trips. The fixed-route truck trips were each multiplied by the route distance as shown in **Table 6** to estimate fixed-route truck VMT. Fuel truck trips were also multiplied by the route distance to estimate fuel truck trip VMT. The total daily Project-level VMT estimates are presented in **Table 7**.

Commute VMT, also known as home-based-work VMT, was estimated using the SBTAM base and future models for reference in the mitigation discussion as the recommended Transportation Demand Management (TDM) measures all would reduce this subset of the total project VMT. Commute VMT is presented in **Table 8**.

⁸ Please note that SBTAM does not have an available dataset consistent with the SCAG 2020 RTP/SCS. At the time of this analysis, SBTAM was in the process of being updated with the SCAG 2020 RTP/SCS data, but the data was not available. This analysis uses the most current, available SBTAM model version consistent with the City of Ontario's VMT Impact Resolution.

⁹ Convergence criteria refers to the acceptable difference in the traffic volumes produced by different loops of the vehicle assignment. A convergence criterion of 0.01 indicates that the model is producing similar outputs with an allowance of one percent difference between each loop. This criterion is outlined in the model documentation as the recommended convergence criteria for the model.

Table 6: Daily Fixed-Route Truck VMT Estimates

Origin/Destination	Trip Length (miles)	Ph I Trips	Ph I VMT	Ph II Trips	Ph II VMT
ELA (East Los Angeles)	40	11	440	18	720
LAS (Las Vegas)	230	4	920	8	1,840
LAX (Los Angeles)	55	9	495	15	825
LAX (Los Angeles)	55	20	1,100	27	1,485
LGB (Long Beach)	50	12	600	18	900
ONT (Ontario)	5	11	55	18	90
PHX (Phoenix)	350	1	350	1	350
SCK (Stockton)	380	1	380	1	380
SDM (San Diego)	130	7	910	10	1,300
SEE (El Cajon/San Diego)	115	10	1,150	16	1,840
SFO (San Francisco)	410	4	1,640	6	2,460
SMF (Sacramento)	430	1	430	1	430
VNY (Van Nuys)	60	9	540	14	840
SAN (San Diego)	115	2	230	2	230
Total	-	102	9,240	155	13,690

Sources:

Fehr & Peers, 2022

Project proponent's proposed trucking schedule, 2022

Table 7: Daily Project VMT Estimates

Attribute	Phase 1 Opening Year (2025)	Phase 2 Opening Year (2029)	Year (2040)
Employees, Guests, Deliveries			
Trips ¹	2,531	2,531	2,531
Average Trip Length ²	13.99	14.04	14.16
VMT	35,402	35,540	35,842
Trucks (Fixed Routes)			
Trips	102	155	155
Average Trip Length ³	90.59	88.32	88.32
VMT	9,240	13,690	13,690
Empty Trucks (Third Party Trucking Companies)			
Trips	48	69	69
Average Trip Length ²	13.52	13.52	13.52
VMT	649	933	933
Fuel Trucks⁴			
Trips	48	-	-
Average Trip Length	2.5	-	-
VMT	120	-	-
Total Project			
VMT	45,411	50,163	50,465

Notes:

- Trips based on 7.92 trips per KSF rate derived from counts collected at the FedEx Ontario Airport Hub.
- Base Year (2019) and Year (2040) model scenarios used for linear interpolation for average trip lengths for Phase 1 and Phase 2 for these trip types.
- Trip length estimates provided by the project sponsor based on actual truck routing and destination information.
- Fuel trip length information based on information provided by the project sponsor. Only Opening Year (2025) scenario assumes fuel trucks are part of the Project.

Sources:

Fehr & Peers, 2022
 SBTAM, 2022

Table 8: Daily Project Commute VMT Estimates

Attribute	Warehouse	Office	Total Project	City Average
Base Year (2019) Model Estimates				
Commute Trips	1,507	444	1,951	
Average Commute Trip Length	14.9	15.5	15.0	
Commute VMT	22,412	6,886	29,298	
Employees	1,035	280	1,315	
Commute VMT/Employee	21.65	24.59	22.28	19.74
Future Year (2050) Model Estimates				
Commute Trips	1,278	339	1,617	
Average Commute Trip Length	14.8	14.8	14.8	
Commute VMT	18,903	5,000	23,903	
Employees	1,035	280	1,315	
Commute VMT/Employee	18.26	17.86	18.18	16.33

Notes:

1. Base Year (2019) and Future Year (2050) model scenarios used to prepare estimates.

Sources:

Fehr & Peers, 2022

SBTAM, 2022

6.3 VMT Impact Assessment

Fehr & Peers compared the Project VMT forecasts against the City’s significance criteria to disclose potential significant impacts.

6.3.1 City of Ontario Significance Criteria

The City of Ontario VMT Impact Resolution defines the following thresholds of significance for identifying significant transportation impacts related to VMT for land use projects:

- Project Threshold: A significant impact would occur if the project VMT/SP¹⁰ exceeds the Citywide average for VMT/SP under General Plan Buildout Conditions
- Cumulative Threshold:
 - A significant impact would occur if the Project causes total daily VMT within the City to be higher than the no project alternative under cumulative conditions. This analysis should be performed using the ‘project effect’ or ‘boundary’ method
 - A significant impact would occur if the Project is determined to be inconsistent with the RTP/SCS

¹⁰ SP = Service Population; the sum of population and employment in a given area.

6.3.2 Project Threshold Analysis

SBTAM was utilized to estimate the Citywide average for VMT/SP under General Plan Buildout Conditions. Three Project VMT forecasts were prepared, consistent with the analysis scenarios utilized in the LOS assessment and consistent with the Scoping Memorandum provided in **Appendix A**. The Project VMT forecasts differ between Phase 1 and Phase 2 as Phase 2 assumes more truck traffic. The trip lengths are also assumed to change over time with travel trends in the traffic models projecting that trip lengths will decrease in the future.

VMT forecasts for the Project and Citywide average are presented in **Table 9**. As shown in **Table 9**, the Project is forecast to generate VMT/SP higher than the Citywide average for all three Project forecasts.

The Citywide average was estimated in accordance with the City’s VMT analysis requirements using the most current and available version of SBTAM, while the Project VMT was estimated outside the model using more conservative, Project-specific information. Although these estimates were made using two different tools, both the City and Project VMT were estimated using a reasonable approach with the best tools available.

Table 9: Project Daily VMT Estimates

Scenario	Population	Employment	Total VMT	Total VMT/SP
Phase 1 (2025) Conditions	-	1,315	45,411	34.53
Phase 2 (2029) Conditions	-	1,315	50,163	38.15
Horizon (2040) Conditions	-	1,315	50,465	38.38
Citywide Average (Threshold of Significance)	357,957	313,067	19,968,991	29.76

Notes:

1. **Bold** indicates that the total VMT/SP is above the Citywide average (threshold of significance).

Source: SBTAM, 2022

6.3.3 Cumulative Threshold Analysis

A hybrid approach was used to estimate Project VMT because the available travel demand models for the region (SBTAM and the SCAG Model) are not as accurate at estimating trips, trip length or VMT associated with the trucking activity associated with an air cargo facility serving a large region. The best way to perform Boundary Method VMT forecasts consistent with the City’s Adopted VMT Resolution would be with a travel demand model. Given the model limitations noted above, the value in the results of the boundary method assessment to understand the project’s effect on VMT would be erroneous for this project.

Given these limitations, a qualitative assessment of the project effect on VMT was performed. A qualitative assessment of VMT is a compilation of substantial evidence that describes why the project would or

would not have a significant impact on VMT. Qualitative assessments¹¹ may be used for projects that have unique characteristics that cannot be accurately analyzed using SBTAM or the SCAG RTP/SCS model. Qualitative assessments can include economic or market analysis, socioeconomic or demographic data, or other substantial evidence to support the significance finding.

Fehr & Peers evaluated the City Boundary VMT under base line conditions, 5,501,208 daily VMT, and under future general plan buildout conditions, 8,320,682 daily VMT. Based on the 2,824 new trips estimated for the Project with an average travel length of approximately five miles within the City boundary, it is estimated that the boundary VMT would increase by approximately 14,120 VMT. This would equate to an increase in baseline boundary VMT of approximately 0.25 percent in baseline conditions and 0.17 percent in future buildout conditions. Based on these estimates, it is reasonable to conclude that the Project would increase Citywide VMT on a daily level in the City of Ontario.

Fehr & Peers also reviewed Project VMT as compared to VMT at other airports in the SCAG region, including Long Beach Airport (LGB) and Los Angeles International Airport (LAX). Project origins and destinations for Project trucks and known truck routes were considered, and the estimated truck VMT for this Project at ONT is anticipated to be slightly higher when compared to more urbanized airports given the frequency of trips between Long Beach, LA, and other locations to the north. It is anticipated that commute VMT in Long Beach or LA would be lower due to higher densities and better access to transit, resulting in the overall VMT being higher in Ontario.

Based on this qualitative assessment, it is concluded that the Project would cause total daily VMT within the City to increase under conditions in 2040.

Fehr & Peers also conducted a review of the consistency of the Project with SCAG land use forecasts in the RTP/SCS. The SCAG Model (consistent with the 2020 RTP/SCS) employment assumptions in the City were reviewed and are summarized in **Table 10**. As shown, the amount of Project transportation employment growth and office employment growth is less than what is assumed in the land use forecasts and therefore consistent with the 2020 RTP/SCS.

Table 10: Land Use Forecast Review

Scenario	Office Emp Growth	Warehouse Emp Growth	Total Emp Growth
Project	280	1,035	1,315
City of Ontario	8,433	3,948	54,822

Notes:

1. Warehouse employment is coded as transportation employment and office employment is coded as professional employment in the model land use inputs.

Source: SCAG Model, 2022

¹¹ Technical Advisory on Evaluating Transportation Impacts in CEQA, The State of California Governor’s Office of Planning and Research, December 2018

6.3.4 VMT Reduction Strategies

To mitigate the significant VMT impact for the Project, total VMT per service population would need to be reduced by 23 percent. A majority of Project VMT is generated by trucks, which is difficult to modify as the Project is an air cargo facility serving a large region, and the operations and economic viability of the Project relies on trucks picking up and delivering cargo. To mitigate the impact for the Project focusing solely on passenger vehicles, the passenger car VMT would need to be reduced by 33 percent.

A range of TDM measures to reduce Project VMT, consistent with measures recommended in the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (California Air Pollution Control Officers Association (CAPCOA), 2021)*, are discussed below.

T-5. Commute Reduction Program

Commute Trip Reduction (CTR) programs discourage single-occupancy vehicle trips and encourage alternative modes of transportation, such as carpooling, taking transit, walking, and biking. CTR programs must include the following elements to apply the VMT reductions reported in literature.

- Employer-provided services, infrastructure, and/or incentives for commuting to work using alternative modes (e.g., walking, biking, carpooling/vanpooling or taking transit)
- Provide information, coordination, and marketing for employee rideshare services, provide onsite infrastructure to support carpools/vanpools, and provide incentives (e.g., free transit passes, monthly bonus for carpooling 3 or more times a week, etc.).

Employer costs may include recurring costs for carpool/vanpool subsidies, capital and maintenance costs for the alternative transportation infrastructure (e.g., showers and lockers), and labor costs for staff to manage the program.

T-8. Ridesharing Program

A ridesharing program for employees of the site designed to include the following elements to support this measure:

- Provide vanpool parking with designated passenger loading/unloading area near employee entrance
- Create a Carpool Incentive Program.
 - Provide a minimum of ten (10) carpool parking spaces provided closer to the employee entrance than standard parking spaces
 - Provide access to a carpool database (Metro rideshare) and/or an on-site matching program for employees
 - Provide a monthly incentive for employees that carpool a minimum of three (3) days per week (e.g., \$50 gas card or a \$50 green commuter bonus)

In addition, a staff person would be designated to provide rideshare information to employees and monitoring the effectiveness of the program.

For this measure, it is assumed that all employees are eligible and that additional carpool spaces could be designated if warranted by demand.

T-9. Implement Subsidized or Discounted Transit Program

This measure will provide subsidized, discounted, or free Omnitrans, Metrolink or Amtrak transit passes for employees to encourage use of transit routes/stops located less than a mile from the Project. Metro's monthly TAP transit pass is \$100. For this measure, we assumed free transit passes available to all employees.

The effectiveness of this measure would be reduced given the employee shift times of the Project. The shifts that start or end at 11:00 PM will have limited available options as most routes do not provide service that late. This would limit approximately half the employees from the ability to rely on transit.

T-10. Bicycle Facilities

The Project could provide on-site bicycle parking and end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers.

The Project could supplement bicycle facilities with a bike share program for employees. The bikes could be standard or electric.

T-11. Employer-Sponsored Vanpool Program

This measure would implement an employer-sponsored vanpool service that would be fully funded by the tenant as follows:

- Provide a minimum of one (1) and up to three (3) vanpool vehicles and associated parking with designated passenger loading/unloading area near employee entrance
- Pay for the lease of a minimum of one (1) van and up to three (3) vans for the purpose of employee vanpooling. (Monthly van lease is estimated at \$1,500. Los Angeles Metropolitan Transportation Authority (Metro) provides a vanpool subsidy of \$500/month. The tenant's share would be the remaining \$1,000/month per van)

For this measure, the resulting VMT reduction will vary based on the number of employees that join the vanpool. For example, if a six-person vanpool is formed providing vanpooling for six of the 1,315 anticipated employees on site, then the commute VMT reduction is estimated to be 0.38 percent and total VMT reduction is estimated to be 0.22 percent. If thirteen 10-person or larger vanpools are formed, which would be approximately 10 percent of the workforce, the commute VMT reduction is estimated to be 8.9 percent and the total VMT reduction is estimated to be 5.17 percent. A ten percent voluntary participation rate is assumed to be the high end of the range for this project.

6.4 Mitigation Effectiveness

A summary of the reduction potential of the recommended VMT reduction strategies is summarized in **Table 11**. As shown, implementation of all the recommended mitigation measures is not anticipated to reduce the VMT impact of the Project to a less-than significant level. Because of duplicative dampening, which occurs when multiple TDM measures are applied that target the same users, the effectiveness of these mitigation measures is reduced when they are implemented together. In addition, CAPCOA suggests that measures, such as the ones proposed above, have a maximum effectiveness of ten percent reduction on total or commute VMT under ideal conditions in dense urban environments. As the City of Ontario is not a dense urban environment, access to transit is limited for the employee shifts, and due to duplicative dampening, the reduction in VMT that is anticipated to result from implementation of these programs is 5.10 percent.

Table 11: VMT Mitigation Options

VMT Reduction Strategy	Reduction Potential
T-5. Voluntary Commute Reduction Program ¹	0.00-4.00%
T-8. Provide Ridesharing Program	0.00-4.00%
T-9a. Subsidized Transit Passes	0.00-0.25%
T10. Bike Facilities	0.00-0.75%
T-11. Employer Sponsored Vanpool	0.00-5.17%
Maximum Reduction for Project	5.10%

Notes:

1. Measure T-5 is a generic TDM program that doesn't specify details of required measures and has a high-end maximum of a four percent reduction. Due to the other recommended measures, that are more detailed measures part of a commute reduction program, reductions were not applied for this measure to avoid double counting.

Source: *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (California Air Pollution Control Officers Association (CAPCOA), 2021).

6.4.1 Other CEQA Transportation Impact Categories

The standard CEQA Environmental Checklist Form included in Appendix G of the CEQA Guidelines,¹² identifies several additional transportation impact categories other than VMT and freeway safety analysis. The remaining sections of this chapter summarize the other transportation impact categories and assess the Project for significant impacts under these categories.

Programs, Plans, Ordinances and Policies

CEQA Guideline: "Would the project...Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?"

¹² California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387.

The Project supports the City's General Plan and the SCAG RTP/SCS, as well as State goals for encouraging infill development and employment densification. Potential impacts to public transit, pedestrian facilities and travel, and bicycle facilities and travel were evaluated. Existing bike facilities and trails were identified previously in Chapter 3.

The Ontario Active Transportation Master Plan identifies several planned sidewalks and Americans with Disabilities Act (ADA) ramps along Mission Boulevard. There are no proposed pedestrian facilities on Avion Street or Avion Drive outside the Project area. **Appendix I** pinpoints the proposed pedestrian facilities along Mission Boulevard.

The Project land use plan does not propose any changes to the proposed or existing bicycle facilities in the study area. The Project will not conflict with any existing or planned pedestrian and bicycle facilities.

The Project does not conflict with adopted policies, plans, or programs regarding bicycle or pedestrian facilities, or otherwise decreases the performance or safety of such facilities. Therefore, the Project would result in a **less than significant impact** related to active transportation.

The potential impact to transit service or facilities was evaluated based on whether the Project would physically disrupt an existing facility/service or interfere with the implementation of a planned facility/service. In addition, the proposed Project was evaluated to determine if it would create potential conflicts with applicable policies, plans, or programs (as defined in the regulatory setting above) supporting transit such that the conflict could reduce transit trips or increase conflicts with other modes.

A review of the Project description did not identify any disruption to existing transit facilities. New transit trips are anticipated to be generated by the Project, but the Project would not modify transit stop locations or change transit headways. Additional transit ridership demand could increase boarding and alighting activity at existing bus stops and transit terminals located near the Project site.

The Project is consistent with the adopted plans regarding bicycle and pedestrian infrastructure and is not expected to decrease the performance or safety of these facilities. Therefore, the Project is considered to have a **less than significant impact** on public transit.

Geometric Design Features and Incompatible Uses

CEQA Guideline: *"Would the project...Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?"*

The Project does not increase hazards due to a geometric design feature. All driveway access points are perpendicular to the public right-of-way and adequately spaced from existing signalized intersections. Therefore, the Project does not cause significant impacts for this category.

Emergency Access

CEQA Guideline: *"Would the project...Result in inadequate emergency access?"*

The Project provides emergency access on Avion Street to major arterials Archibald Avenue, Jurupa Street and Vineyard Avenue. The location and design of these access points is adequate for emergency access. Therefore, the Project does not cause significant impacts for this category.

6.4.2 Conclusions

VMT forecasts for the unique Project land use were prepared using empirical data collected at a nearby similar use, SBTAM trip length information, and detailed truck route data. The Project-level VMT/SP is forecast to be higher than the Citywide average (threshold of significance) for all project scenarios. . The Project is anticipated to increase Citywide daily VMT within the City boundary. For these reasons noted above, the Project is expected to result in a **significant and unavoidable** transportation impact related to VMT. Feasible mitigation measures that would be appropriate for the Project are recommended. However, given the maximum reduction potential associated with the recommended mitigation measures does not surpass the needed reduction to mitigate the impact, it is not anticipated that the Project will be able to reduce the impact to a less-than-significant level.

7. Level of Service (LOS) Analysis

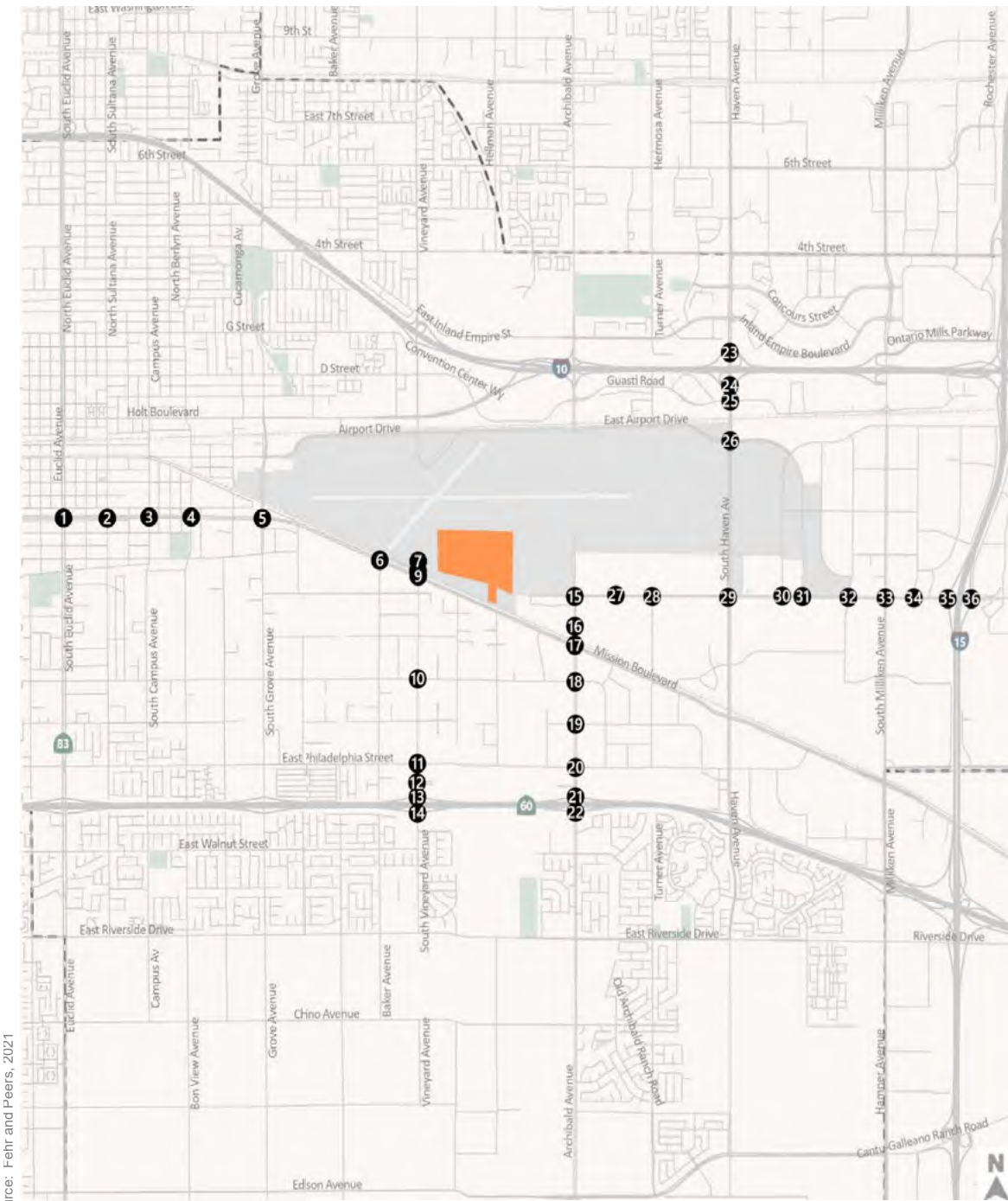
7.1 Analysis Scenarios

Fehr & Peers studied the intersection Level of Service (LOS) at the previously identified study intersections for the following scenarios, based on consultation with the City and as approved in the Coping Memo provided in **Appendix A**:

- Existing (2021) – Existing traffic counts and lane geometries collected in October 2021 were used to evaluate Existing (2021) Conditions
- Opening Year (2025) Without Project – Phase 1 Opening Year (2025) Without Project Conditions represent a scenario condition in 2025. Conditions were evaluated using an annual growth rate of one percent plus trips from pending and approved projects in the study area were added to Existing (2021) conditions to estimate Opening Year (2025) Without Project conditions
- Opening Year (2025) Plus Phase 1 Project – Phase 1 Project traffic volumes were added to the Opening Year (2025) Without Project conditions
- Opening Year (2029) Without Project – Phase 2 Opening Year (2029) Conditions represents a cumulative scenario in 2029. Conditions were evaluated using an annual growth rate of one percent plus trips from pending and approved Projects in the study area were added to Existing (2021) conditions to estimate Opening Year (2029) Without Project conditions
- Opening Year (2029) Plus Phase 1 and Phase 2 Project – Phase 1 and Phase 2 Project traffic volumes were added to the Opening Year (2029) Without Project conditions
- Year (2040) No Project –Year (2040) Conditions represents a cumulative scenario in 2040. were evaluated using the cumulative forecasts developed for the study area, using the travel demand model (SBTAM) and cumulative information including pending and approved development projects and funded improvements in the study area consistent with the 2020 SCAG RTP/SCS.
- Year (2040) Plus Phase 1 and Phase 2 Project – Phase 1 and Phase 2 Project traffic volumes were added to the Year (2040) No Project conditions

7.2 Existing (2021) Conditions Intersection Operations Analysis

This chapter summarizes the study area operations under Existing (2021) Conditions based on data collected in October 2021. The Existing (2021) No Project PCE traffic volumes developed in Chapter 4 are presented in **Figure 9**. These traffic volumes along with existing intersection lane configurations were used to calculate the LOS for the study intersections during each peak hour. The findings of this analysis are presented in **Table 12** and detailed intersection LOS worksheets are presented in Appendix F. All intersections, with the exception of Bon View Avenue at Mission Boulevard, operate at LOS E or better.



<p>1. Euclid Ave/SR-83/Mission Blvd</p>	<p>2. Sultana Ave/Mission Blvd</p>	<p>3. Campus Ave/Mission Blvd</p>	<p>4. Bon View Ave/Mission Blvd</p>	<p>5. Grove Ave/Mission Blvd</p>
<p>6. Baker Ave/Mission Blvd</p>	<p>7. Vineyard Ave/Avion St</p>	<p>8. Vineyard Ave/Avion Dr</p>	<p>9. Vineyard Ave/Mission Blvd</p>	<p>10. Vineyard Ave/Francis St</p>
<p>11. Vineyard Ave/Philadelphia St</p>	<p>12. Vineyard Ave/Raymond Kay Way</p>	<p>13. Vineyard Ave/SR-60 WB Ramps</p>	<p>14. Vineyard Ave/SR-60 EB Ramps</p>	<p>15. Archibald Ave/Jurupa St</p>
<p>16. Archibald Ave/Tracy Paseo</p>	<p>17. Archibald Ave/Mission Blvd</p>	<p>18. Archibald Ave/Francis St</p>	<p>19. Archibald Ave/Cedar St</p>	<p>20. Archibald Ave/Philadelphia St</p>

LEGEND

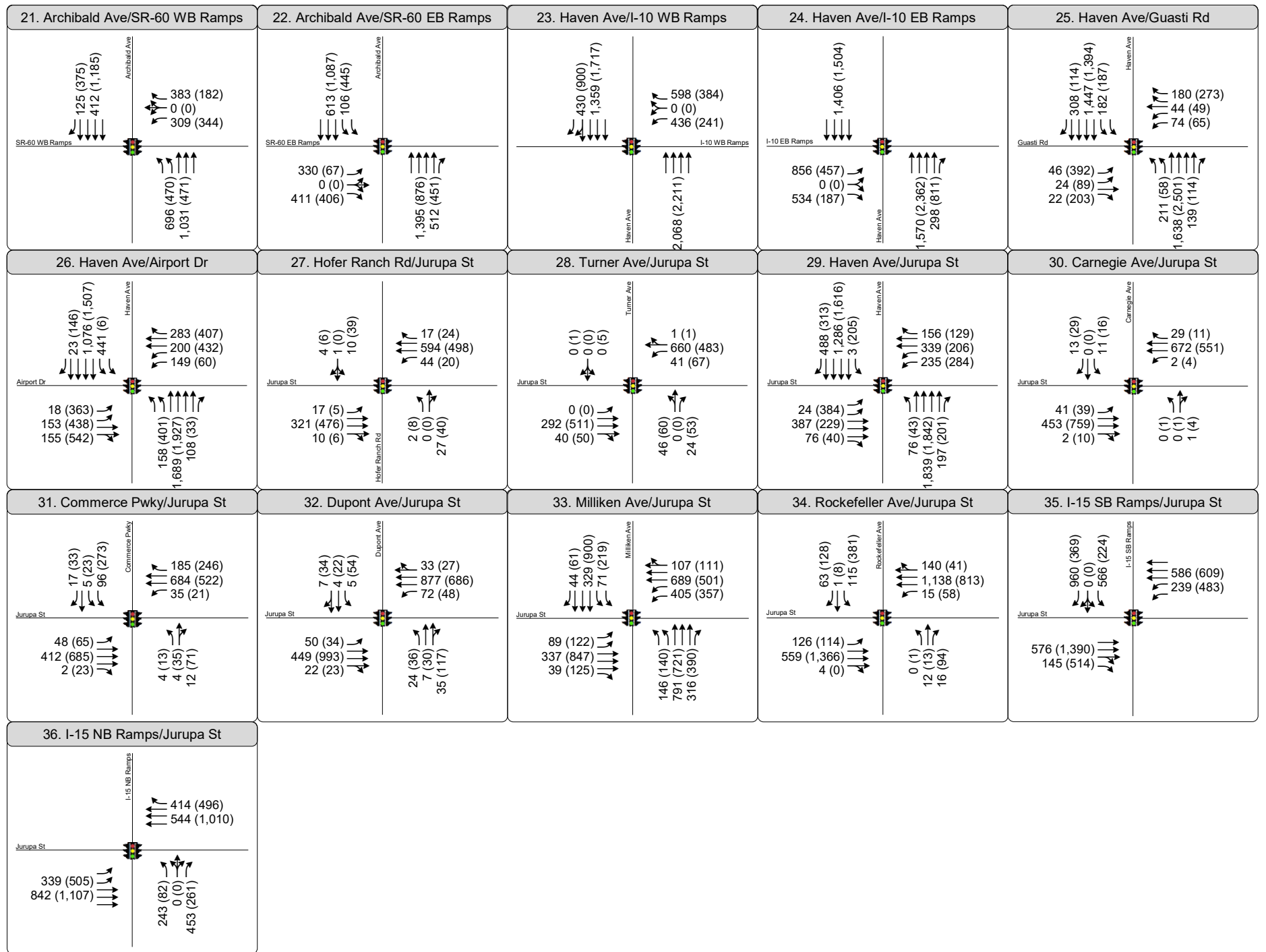
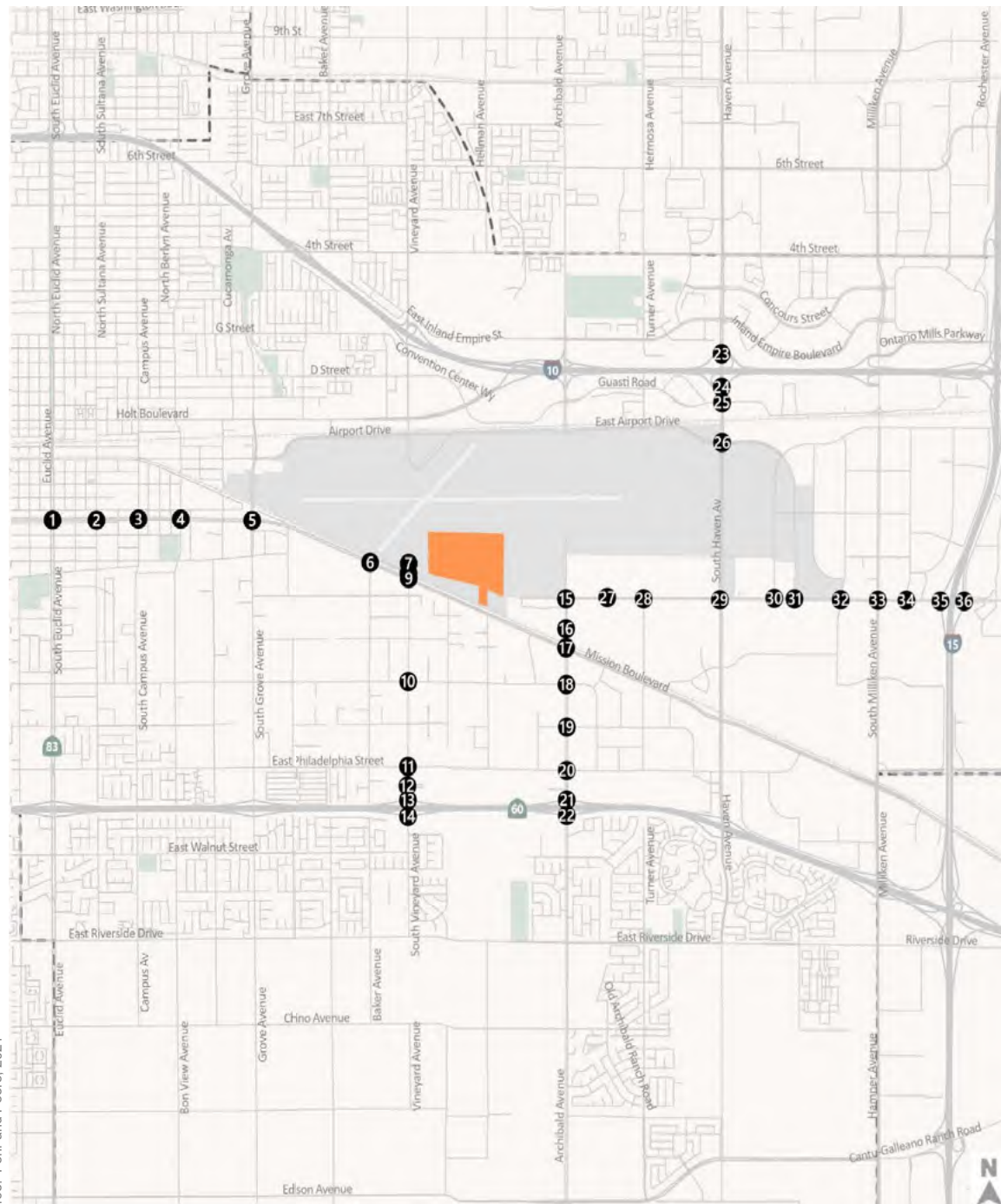
- Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized

Figure 9
Peak Hour PCE Traffic Volumes and Lane Configurations
Existing Year (2021) Conditions



Source: Fehr and Peers, 2021

Source: Fehr and Peers, 2021



LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized



Figure 9
Peak Hour PCE Traffic Volumes and Lane Configurations
Existing Year (2021) Conditions

Table 12: Existing (2021) Intersection Level of Service

Intersection		Control	Peak Hour	LOS / Average Delay
1	Mission Blvd & Euclid Ave/SR-83	Signalized	AM	D / 50
			PM	D / 45
2	Mission Blvd & Sultana Ave	Signalized	AM	B / 13
			PM	B / 14
3	Mission Blvd & Campus Ave	Signalized	AM	B / 19
			PM	C / 28
4	Mission Blvd & Bon View Ave	Signalized	AM	D / 49
			PM	F / 212
5	Mission Blvd & Grove Ave	Signalized	AM	D / 52
			PM	D / 53
6	Baker Ave & Mission Blvd	Signalized	AM	A / 7
			PM	A / 8
7	Vineyard Ave & Avion St	AWSC	AM	A / 8
			PM	A / 8
8	Vineyard Ave & Avion Dr	TWSC	AM	A / 0
			PM	A / 0
9	Vineyard Ave & Mission Blvd ⁴	Signalized	AM	B / 16
			PM	B / 19
10	Vineyard Ave & Francis St	Signalized	AM	B / 18
			PM	C / 24
11	Vineyard Ave & Philadelphia St	Signalized	AM	C / 21
			PM	C / 33
12	Vineyard Ave & Raymond Kay Way	Signalized	AM	C / 22
			PM	B / 16
13	Vineyard Ave & SR-60 WB Ramps	Signalized	AM	B / 17
			PM	C / 26
14	Vineyard Ave & SR-60 EB Ramps	Signalized	AM	C / 32
			PM	C / 25
15	Archibald Ave & Jurupa St	AWSC	AM	B / 14
			PM	B / 15
16	Archibald Ave & Tracy Paseo	Signalized	AM	A / 7
			PM	A / 9
17	Archibald Ave & Mission Blvd ⁴	Signalized	AM	D / 52
			PM	D / 54

Intersection		Control	Peak Hour	LOS / Average Delay
18	Archibald Ave & Francis St	Signalized	AM	C / 21
			PM	C / 26
19	Archibald Ave & Cedar St	Signalized	AM	B / 13
			PM	B / 19
20	Archibald Ave & Philadelphia St	Signalized	AM	C / 31
			PM	C / 32
21	Archibald Ave & SR-60 WB Ramps	Signalized	AM	C / 25
			PM	C / 29
22	Archibald Ave & SR-60 EB Ramps	Signalized	AM	C / 26
			PM	C / 21
23	Haven Ave & I-10 WB Ramps	Signalized	AM	C / 26
			PM	B / 16
24	Haven Ave & I-10 EB Ramps	Signalized	AM	C / 28
			PM	B / 18
25	Haven Ave & Guasti Rd	Signalized	AM	C / 23
			PM	C / 30
26	Haven Ave & Airport Dr	Signalized	AM	C / 31
			PM	D / 42
27	Hofer Ranch Rd & Jurupa St	Signalized	AM	C / 21
			PM	C / 21
28	Jurupa St & Turner Ave	Signalized	AM	A / 9
			PM	B / 11
29	Jurupa St & Haven Ave	Signalized	AM	C / 28
			PM	D / 37
30	Jurupa St & Carnegie Ave	Signalized	AM	A / 8
			PM	A / 8
31	Jurupa St & Commerce Pkwy	Signalized	AM	C / 25
			PM	C / 26
32	Jurupa St & Dupont Ave	Signalized	AM	B / 14
			PM	A / 9
33	Jurupa St & Milliken Ave	Signalized	AM	D / 36
			PM	D / 39
34	Jurupa St & Rockefeller Ave	Signalized	AM	B / 20
			PM	D / 36
35	Jurupa St & I-15 SB Ramps	Signalized	AM	C / 29
			PM	C / 28

	Intersection	Control	Peak Hour	LOS / Average Delay
36	Jurupa St & I-15 NB Ramps	Signalized	AM	C / 20
			PM	B / 19

Notes:

1. AWSC = All-Way Stop Controlled.
 2. TWSC = Two-Way Stop Controlled.
 3. Bolded results operate below adopted LOS standards.
 4. The LOS results at this intersection as reported by Synchro do not reflect the additional delays caused by trains. This intersection is expected to experience an additional average of seven minutes of delay per hour, which is not reflected in the LOS results.
- Source: Fehr & Peers, 2022.

7.3 Opening Year (2025) Conditions Intersection Operations Analysis

This section analyzes Opening Year (2025) Traffic Conditions and compares the LOS results of Opening Year (2025) Without Project and Plus Phase 1 Project.

7.3.1 Pending and Approved Development Projects

The City of Ontario identified nearby approved and pending development projects within two miles of the Project site that could affect intersections traffic from the Project could also affect. A list of approved development projects can be found in **Appendix E**. Trip generation rates were applied for each approved project from *Trip Generation, 11th Edition* (Institute of Transportation Engineers [ITE], 2021), and the trips were assigned to the study area based on professional judgement, and knowledge of the land uses and their typical peak hour travel patterns. The forecast trip assignments were converted to appropriate PCEs based on the land use types, as shown in **Appendix E**. All pending and approved development projects provided by the City of Ontario were assumed to be in operation by Opening Year (2025).

7.3.2 Planned Roadway Improvements

The following planned roadway improvements are expected to be in place by the Project Opening Year (2025):

- Avion Street widening between Vineyard Street and Jurupa Street from two to four lanes. This includes the realignment of Avion Street to connect with (instead of intersecting at) Jurupa Street. OIAA has identified that this project will be constructed by another development project within ONT.

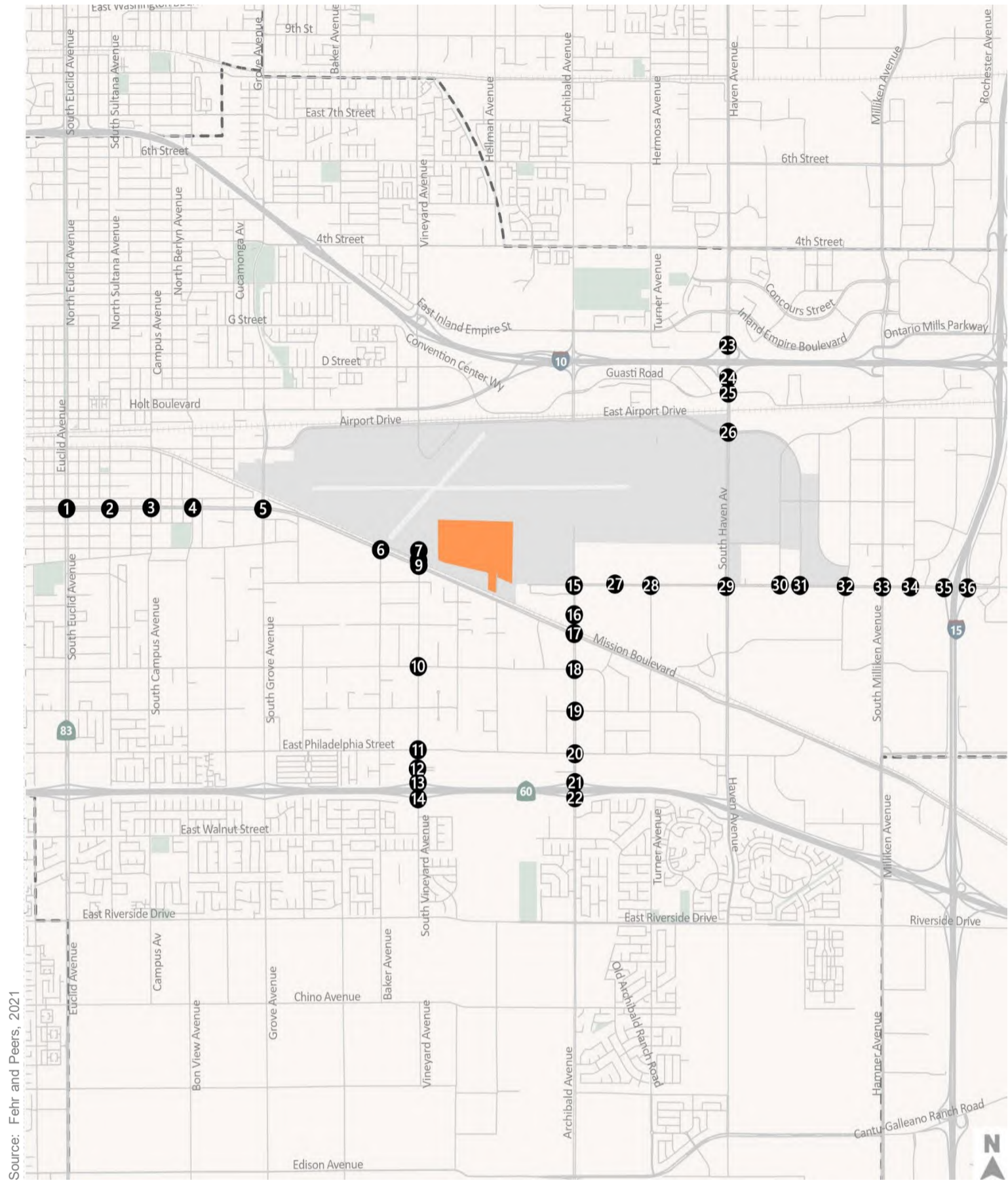
7.3.3 Opening Year (2025) Without Project Conditions

As described in Chapter 2, the traffic volumes for Opening Year (2025) consist of existing counts plus the addition of growth derived from SBTAM (ambient growth rate of one percent per year) and the addition

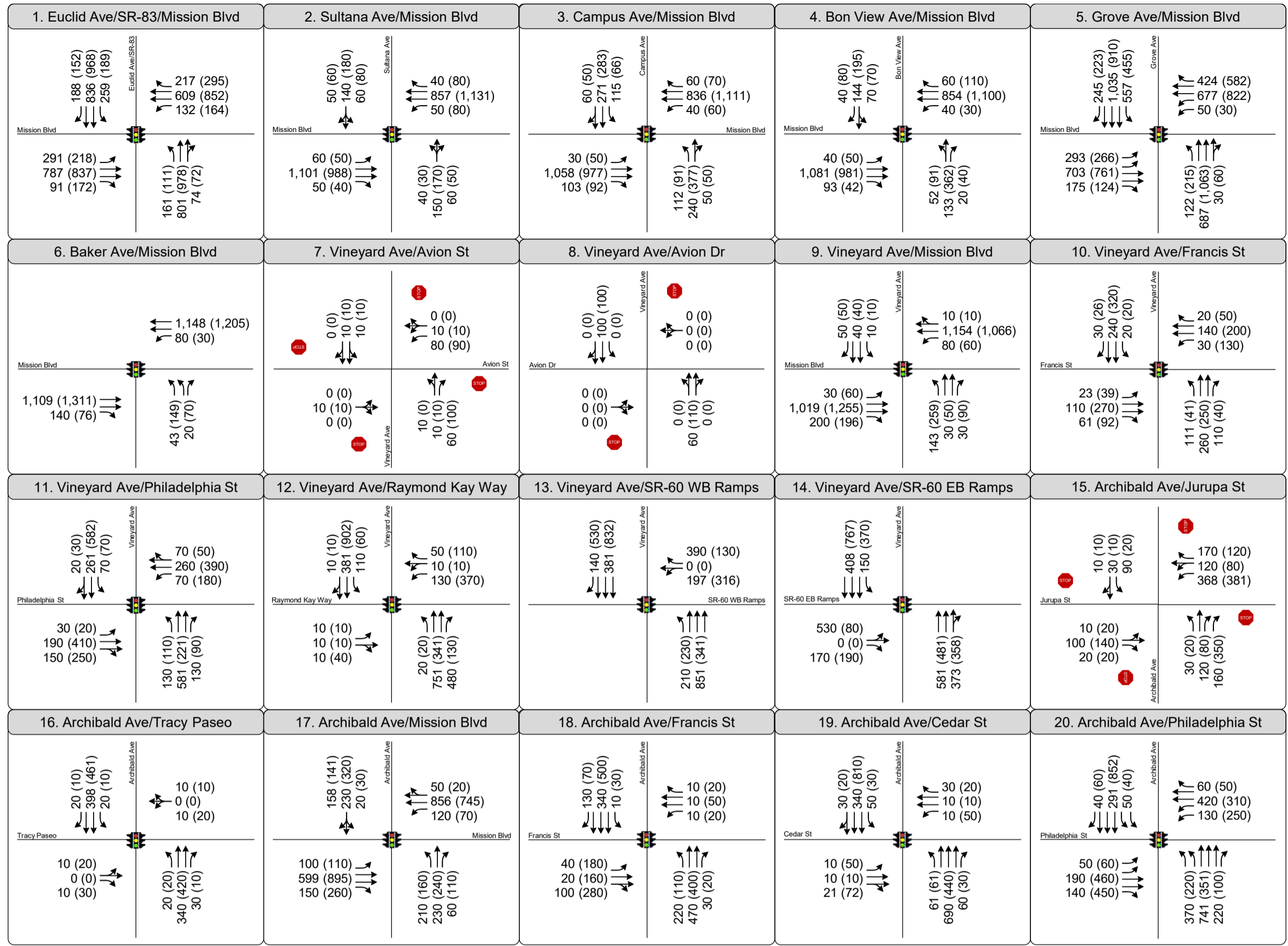
of pending and approved development projects. **Figure 10** presents the traffic forecasts utilized for Opening Year (2025) Without Project Conditions.

The Opening Year (2025) Without Project Conditions peak hour volumes were used to calculate LOS for the study intersections during each peak hour. The findings of our analysis are presented in **Table 13**. Detailed intersection LOS worksheets are presented in **Appendix F**. As shown in **Table 13**, the following intersections are projected to operate at LOS F under Opening Year (2025) conditions:

1. Euclid Avenue/SR-83 at Mission Boulevard
4. Bon View Avenue at Mission Boulevard



Source: Fehr and Peers, 2021

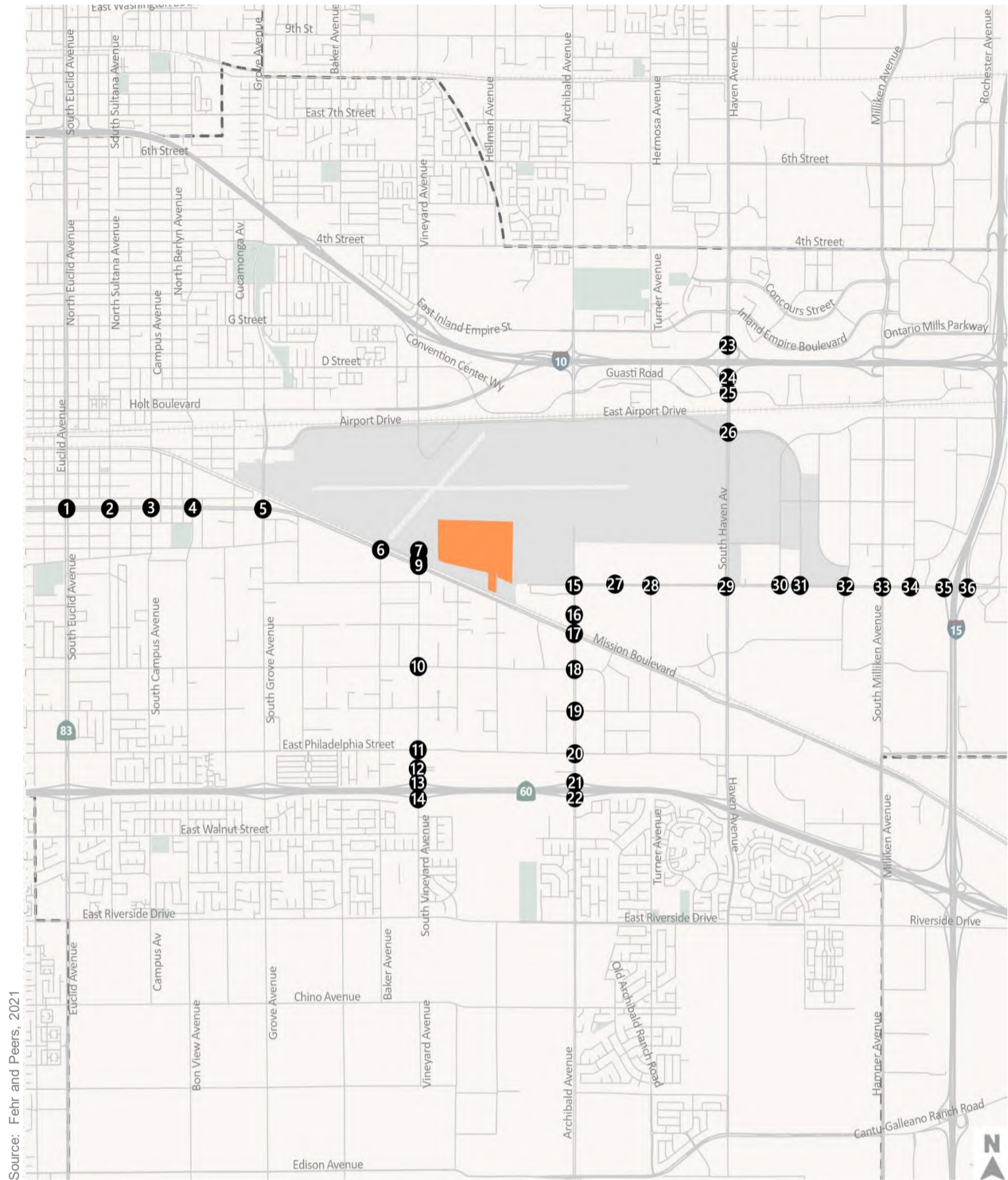


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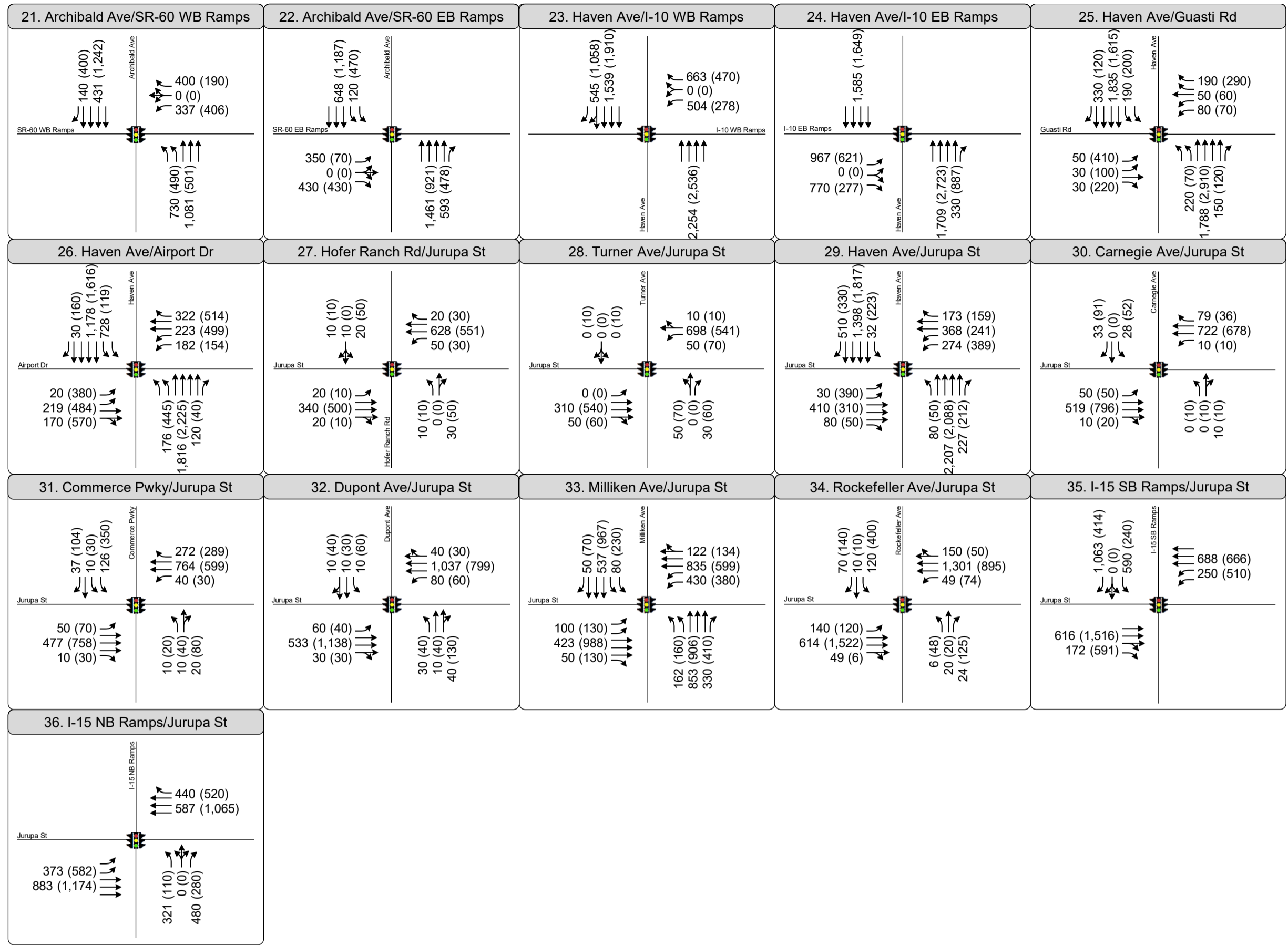
- Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized



Figure 10
Peak Hour PCE Traffic Volumes
Opening Year (2025) Without Project Conditions



Source: Fehr and Peers, 2021



LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized



Figure 10
Peak Hour PCE Traffic Volumes
Opening Year (2025) Without Project Conditions

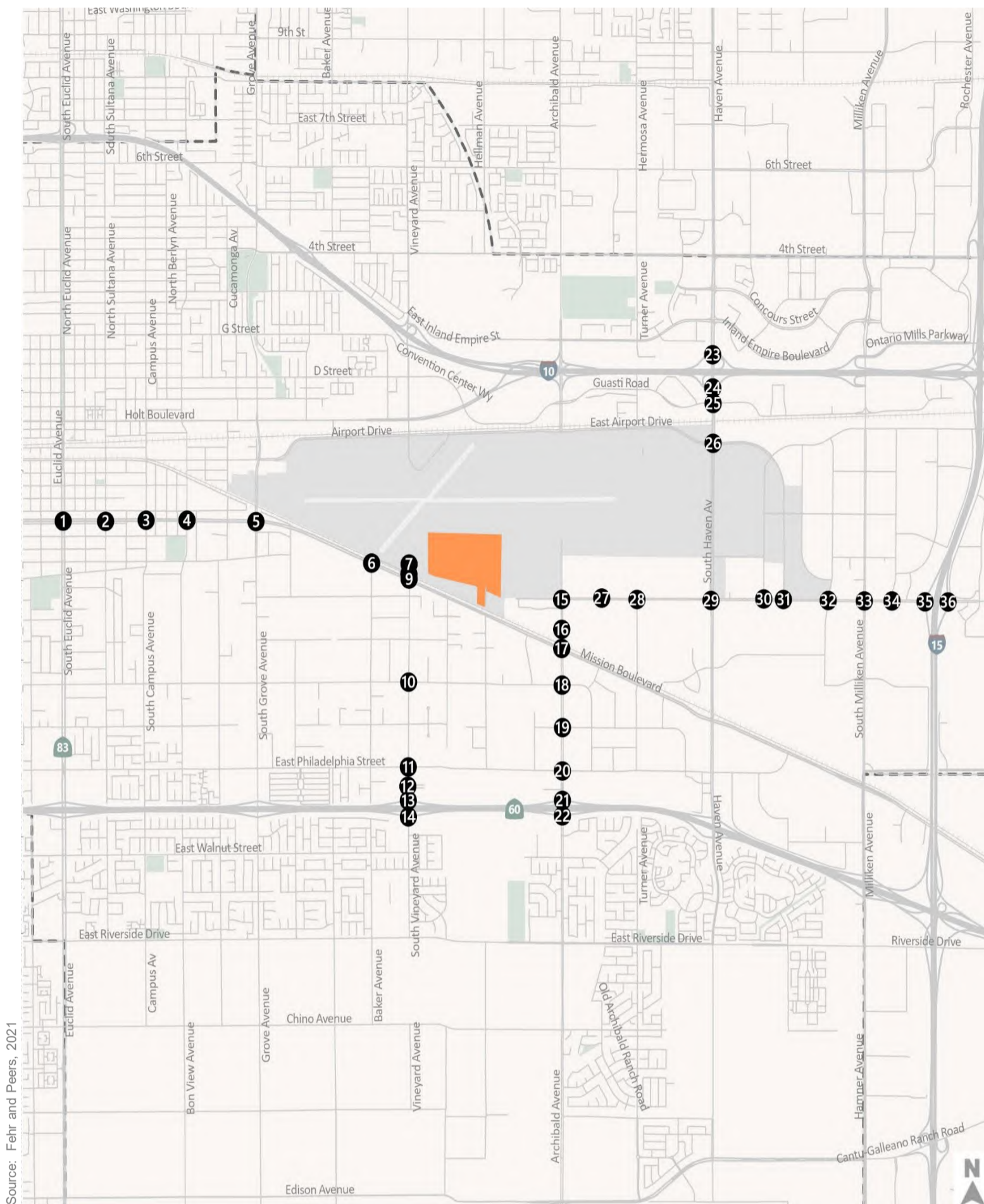
7.3.4 Opening Year (2025) Plus Phase 1 Project Conditions

Figure 11 presents the traffic forecasts utilized for Opening Year (2025) Plus Phase 1 Project Conditions. The operations analysis results for Opening Year (2025) Plus Phase 1 Project summarized in **Table 13**: Opening Year (2025) Intersection Level of Service show vehicular LOS at the study intersections. Detailed intersection LOS worksheets are presented in **Appendix F**. As shown in **Table 13**, the following intersections are projected to operate at LOS F under Opening Year (2025) Plus Phase 1 Project Conditions:

1. Euclid Avenue/SR-83 at Mission Boulevard
4. Bon View Avenue at Mission Boulevard

Although these intersections are operating below adopted LOS standards under Opening Year (2025) Plus Phase 1 Project Conditions, the Project will not degrade the intersections or add additional delay to those intersections. Generally, most intersections operate with similar delay relative to Opening Year (2025) Without Project Conditions.

The Project is forecast to add trips to these intersections projected to operate at LOS F, yet the addition of this Project traffic decreases the estimate of average delay at both intersections. This occurs because the average delay estimates in isolated intersection analysis are a weighted average of all movements. When trips are added to movements with excess green time that experience lower delay than the weighted average, such as the east/west through movements on Mission Boulevard, this results in the overall weighted average delay estimate being slightly reduced.



1. Euclid Ave/SR-83/Mission Blvd	2. Sultana Ave/Mission Blvd	3. Campus Ave/Mission Blvd	4. Bon View Ave/Mission Blvd	5. Grove Ave/Mission Blvd
<p>188 (152) 836 (958) 263 (195)</p> <p>221 (302) 616 (855) 132 (164)</p> <p>291 (218) 795 (848) 91 (172)</p> <p>161 (111) 801 (968) 74 (72)</p>	<p>50 (60) 140 (180) 60 (80)</p> <p>40 (80) 868 (1,141) 50 (80)</p> <p>60 (50) 1,113 (995) 50 (40)</p> <p>40 (30) 150 (170) 60 (50)</p>	<p>60 (50) 271 (283) 115 (66)</p> <p>60 (70) 847 (1,121) 40 (60)</p> <p>30 (50) 1,070 (984) 103 (92)</p> <p>112 (91) 240 (377) 50 (30)</p>	<p>40 (80) 144 (195) 70 (70)</p> <p>60 (110) 865 (1,120) 40 (30)</p> <p>40 (50) 1,093 (988) 93 (42)</p> <p>52 (91) 133 (362) 20 (40)</p>	<p>245 (223) 1,036 (900) 965 (457)</p> <p>431 (596) 688 (832) 50 (30)</p> <p>293 (266) 715 (768) 175 (124)</p> <p>122 (215) 687 (1,053) 30 (60)</p>
6. Baker Ave/Mission Blvd	7. Vineyard Ave/Avion St	8. Vineyard Ave/Avion Dr	9. Vineyard Ave/Mission Blvd	10. Vineyard Ave/Francis St
<p>1,165 (1,228) 80 (30)</p> <p>1,129 (1,329) 140 (76)</p> <p>43 (149) 20 (70)</p>	<p>0 (0) 10 (10) 10 (10)</p> <p>0 (0) 10 (10) 134 (155)</p> <p>0 (0) 10 (10) 0 (0)</p> <p>10 (0) 10 (10) 124 (169)</p>	<p>0 (10) 154 (165) 0 (0)</p> <p>0 (0) 0 (0) 0 (0)</p> <p>0 (0) 0 (0) 0 (0)</p> <p>0 (0) 124 (179) 0 (0)</p>	<p>67 (83) 77 (72) 10 (10)</p> <p>12 (13) 1,154 (1,056) 80 (60)</p> <p>50 (88) 1,019 (1,245) 200 (186)</p> <p>143 (249) 72 (88) 30 (90)</p>	<p>30 (26) 274 (342) 23 (20)</p> <p>20 (50) 140 (200) 30 (130)</p> <p>23 (39) 110 (270) 61 (92)</p> <p>111 (41) 302 (282) 110 (46)</p>
11. Vineyard Ave/Philadelphia St	12. Vineyard Ave/Raymond Kay Way	13. Vineyard Ave/SR-60 WB Ramps	14. Vineyard Ave/SR-60 EB Ramps	15. Archibald Ave/Jurupa St
<p>20 (30) 295 (604) 70 (60)</p> <p>70 (50) 260 (380) 70 (180)</p> <p>30 (20) 190 (400) 150 (250)</p> <p>130 (110) 623 (253) 130 (60)</p>	<p>10 (10) 415 (934) 110 (60)</p> <p>50 (110) 10 (10) 130 (370)</p> <p>10 (10) 10 (10) 10 (40)</p> <p>20 (20) 793 (373) 480 (130)</p>	<p>171 (545) 384 (829)</p> <p>390 (130) 0 (0) 197 (306)</p> <p>210 (230) 893 (363)</p>	<p>411 (774) 150 (370)</p> <p>568 (106) 170 (180)</p> <p>585 (477) 373 (356)</p>	<p>10 (10) 30 (10) 90 (20)</p> <p>170 (120) 153 (130) 368 (381)</p> <p>10 (20) 131 (194) 43 (46)</p> <p>42 (38) 120 (60) 160 (350)</p>
16. Archibald Ave/Tracy Paseo	17. Archibald Ave/Mission Blvd	18. Archibald Ave/Francis St	19. Archibald Ave/Cedar St	20. Archibald Ave/Philadelphia St
<p>20 (10) 421 (487) 20 (10)</p> <p>10 (10) 0 (0) 10 (20)</p> <p>10 (20) 0 (0) 10 (30)</p> <p>20 (20) 352 (428) 30 (10)</p>	<p>158 (141) 253 (346) 20 (30)</p> <p>50 (20) 858 (738) 120 (70)</p> <p>100 (110) 599 (885) 150 (260)</p> <p>210 (160) 242 (258) 60 (110)</p>	<p>130 (70) 363 (526) 10 (30)</p> <p>10 (20) 10 (50) 10 (20)</p> <p>40 (180) 20 (160) 100 (270)</p> <p>220 (110) 482 (418) 30 (20)</p>	<p>30 (20) 363 (826) 50 (30)</p> <p>30 (20) 10 (10) 10 (50)</p> <p>10 (50) 21 (72)</p> <p>61 (61) 702 (448) 60 (30)</p>	<p>40 (60) 314 (868) 50 (40)</p> <p>60 (50) 420 (310) 130 (250)</p> <p>50 (60) 190 (450) 140 (440)</p> <p>370 (220) 753 (369) 220 (100)</p>

LEGEND



Study Intersection

AM (PM) Peak Hour Traffic Volume



Lane Configuration



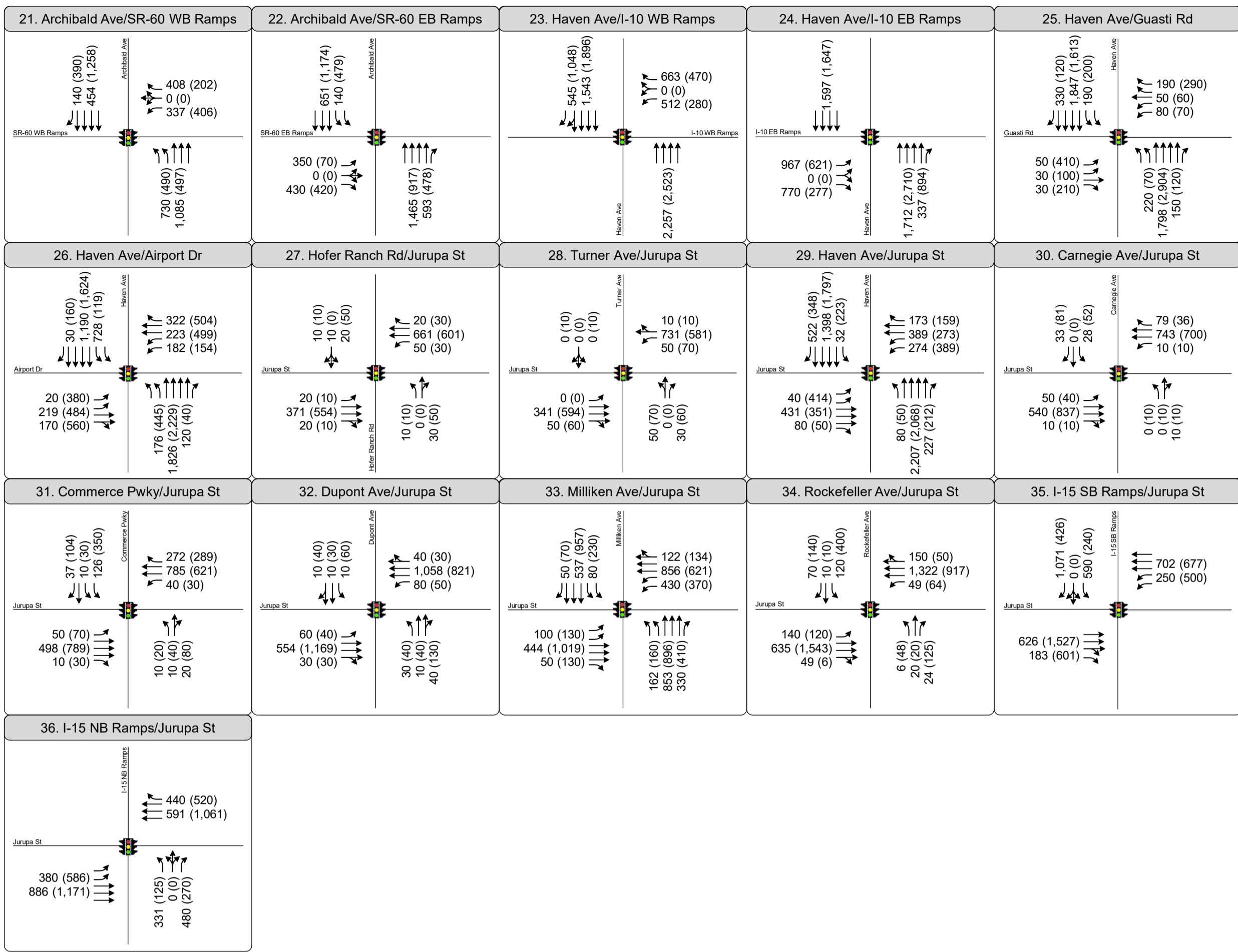
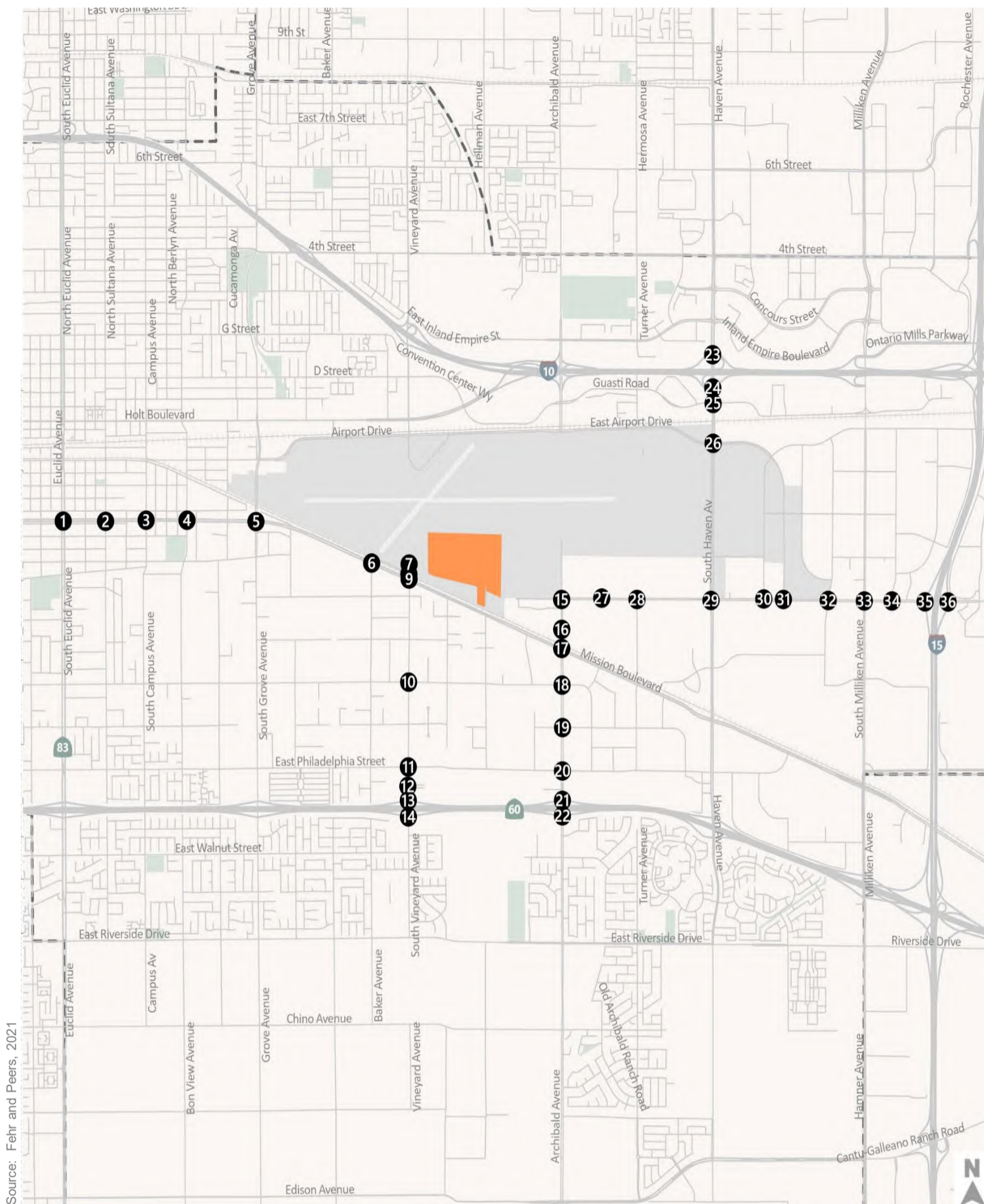
Stop Sign



Signalized



Figure 11
Peak Hour PCE Traffic Volumes
Opening Year (2025) Plus Project Phase 1 Conditions



LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized



Figure 11
Peak Hour PCE Traffic Volumes
Opening Year (2025) Plus Project Phase 1 Conditions

Table 13: Opening Year (2025) Intersection Level of Service

	Intersection	Control	Peak Hour	Opening Year (2025)	Opening Year (2025)
				Without Project	Plus Phase 1 Project
				LOS / Average Delay	LOS / Average Delay
1	Mission Blvd & Euclid Ave/SR-83 ⁴	Signalized	AM	E / 78	E / 79
			PM	F / 88	F / 86
2	Mission Blvd & Sultana Ave	Signalized	AM	B / 15	B / 15
			PM	B / 16	B / 16
3	Mission Blvd & Campus Ave	Signalized	AM	C / 21	C / 21
			PM	C / 24	C / 24
4	Mission Blvd & Bon View Ave ⁵	Signalized	AM	E / 72	E / 72
			PM	F / 320	F / 318
5	Mission Blvd & Grove Ave	Signalized	AM	E / 68	E / 69
			PM	E / 69	E / 69
6	Baker Ave & Mission Blvd	Signalized	AM	A / 8	A / 8
			PM	A / 8	A / 8
7	Vineyard Ave & Avion St ⁴	AWSC ¹	AM	A / 8	A / 8
			PM	A / 8	A / 9
8	Vineyard Ave & Avion Dr	TWSC ²	AM	A / 0	A / 0
			PM	A / 0	A / 0
9	Vineyard Ave & Mission Blvd	Signalized	AM	B / 19	C / 22
			PM	C / 24	C / 24
10	Vineyard Ave & Francis St	Signalized	AM	B / 18	B / 18
			PM	C / 25	C / 24
11	Vineyard Ave & Philadelphia St	Signalized	AM	C / 22	C / 22
			PM	D / 36	C / 35
12	Vineyard Ave & Raymond Kay Way	Signalized	AM	C / 25	C / 25
			PM	B / 18	B / 18
13	Vineyard Ave & SR-60 WB Ramps	Signalized	AM	B / 17	B / 17
			PM	C / 26	C / 25
14	Vineyard Ave & SR-60 EB Ramps	Signalized	AM	C / 33	D / 40
			PM	C / 24	C / 24
15	Archibald Ave & Jurupa St	Signalized	AM	C / 16	C / 19
			PM	C / 17	C / 22
16	Archibald Ave & Tracy Paseo	Signalized	AM	A / 9	A / 9
			PM	A / 10	A / 9
17	Archibald Ave & Mission Blvd ⁵	Signalized	AM	E / 64	E / 68
			PM	E / 74	E / 80

	Intersection	Control	Peak Hour	Opening Year (2025)	Opening Year (2025)
				Without Project	Plus Phase 1 Project
				LOS / Average Delay	LOS / Average Delay
18	Archibald Ave & Francis St	Signalized	AM	C / 23	C / 23
			PM	C / 28	C / 27
19	Archibald Ave & Cedar St	Signalized	AM	B / 16	B / 16
			PM	C / 20	C / 20
20	Archibald Ave & Philadelphia St	Signalized	AM	C / 32	C / 32
			PM	C / 33	C / 33
21	Archibald Ave & SR-60 WB Ramps	Signalized	AM	B / 18	B / 19
			PM	C / 29	C / 29
22	Archibald Ave & SR-60 EB Ramps	Signalized	AM	C / 26	C / 27
			PM	C / 22	C / 22
23	Haven Ave & I-10 WB Ramps	Signalized	AM	C / 29	C / 29
			PM	B / 17	B / 17
24	Haven Ave & I-10 EB Ramps	Signalized	AM	C / 34	C / 34
			PM	C / 27	C / 27
25	Haven Ave & Guasti Rd	Signalized	AM	C / 24	C / 24
			PM	C / 32	C / 32
26	Haven Ave & Airport Dr	Signalized	AM	D / 43	D / 43
			PM	D / 54	D / 54
27	Hofer Ranch Rd & Jurupa St	Signalized	AM	C / 21	C / 21
			PM	C / 21	C / 21
28	Jurupa St & Turner Ave	Signalized	AM	A / 9	A / 9
			PM	B / 11	B / 11
29	Jurupa St & Haven Ave	Signalized	AM	D / 41	D / 42
			PM	D / 48	D / 48
30	Jurupa St & Carnegie Ave	Signalized	AM	A / 8	A / 8
			PM	A / 8	A / 8
31	Jurupa St & Commerce Pkwy	Signalized	AM	C / 26	C / 27
			PM	D / 45	D / 44
32	Jurupa St & Dupont Ave	Signalized	AM	B / 14	B / 14
			PM	A / 8	A / 8
33	Jurupa St & Milliken Ave	Signalized	AM	D / 38	D / 39
			PM	D / 42	D / 42
34	Jurupa St & Rockefeller Ave	Signalized	AM	C / 22	C / 22
			PM	D / 41	D / 41

	Intersection	Control	Peak Hour	Opening Year (2025) Without Project	Opening Year (2025) Plus Phase 1 Project
				LOS / Average Delay	LOS / Average Delay
35	Jurupa St & I-15 SB Ramps	Signalized	AM	C / 33	C / 34
			PM	C / 29	C / 29
36	Jurupa St & I-15 NB Ramps	Signalized	AM	C / 23	C / 24
			PM	B / 19	B / 19

Notes:

1. AWSC = All-Way Stop Controlled.
 2. TWSC = Two-Way Stop Controlled.
 3. Bolded results operate below adopted LOS standards.
 4. Intersection delay decreases from Opening Year (2025) Without Project with the addition of project traffic in one or both peak hours.
 5. The LOS results at this intersection as reported by Synchro do not reflect the additional delays caused by trains. This intersection is expected to experience an additional average of seven minutes of delay per hour, which is not reflected in the LOS results.
- Source: Fehr & Peers, 2022.

7.4 Opening Year (2029) Conditions Intersection Operations Analysis

This section analyzes Opening Year (2029) Traffic Conditions and compares the LOS results between Without Project and Plus Phase 1 and Phase 2 Project.

7.4.1 Pending and Approved Development Projects

All pending and approved development projects provided by the City of Ontario were assumed to be in operation by Opening Year (2029).

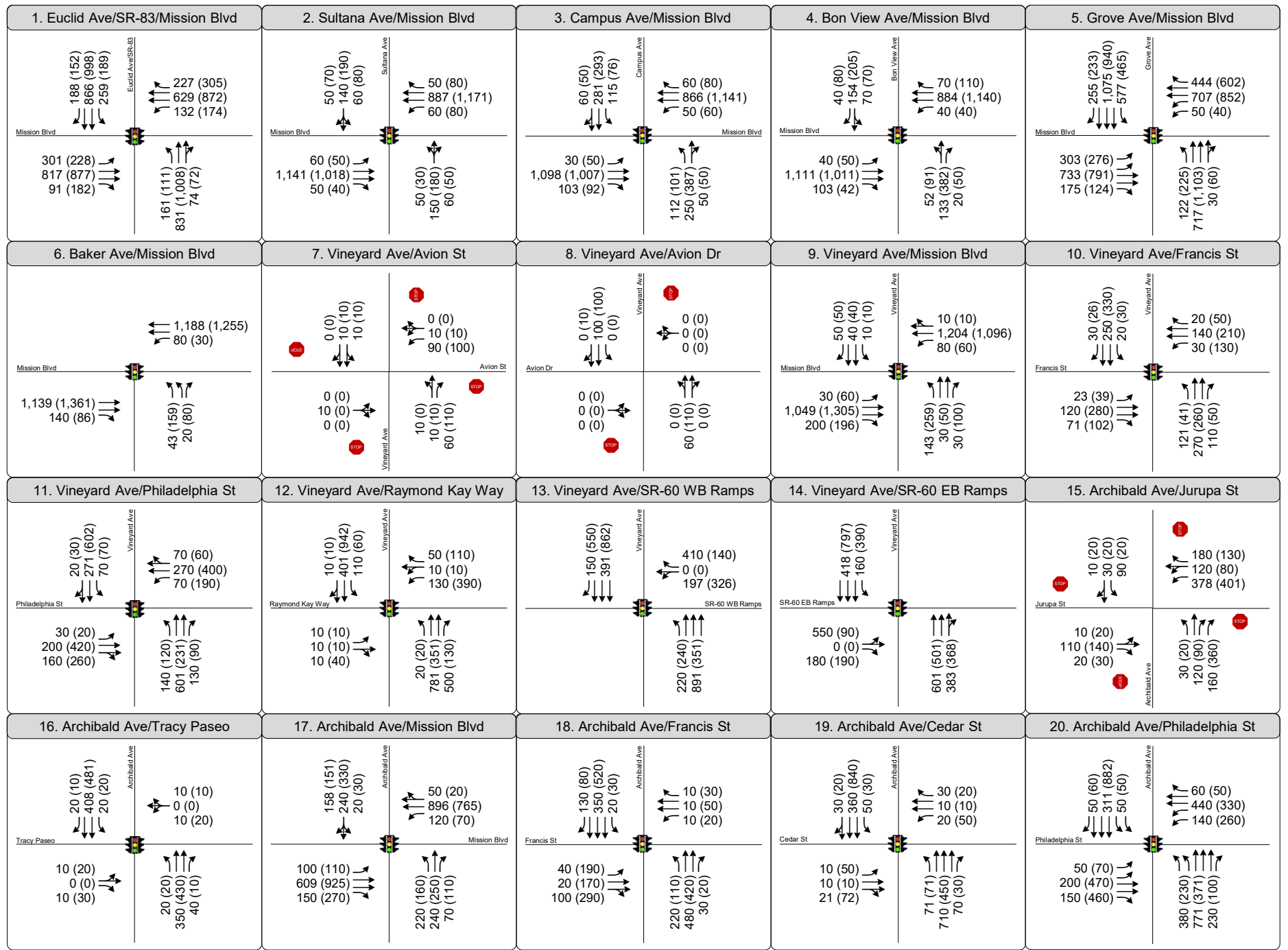
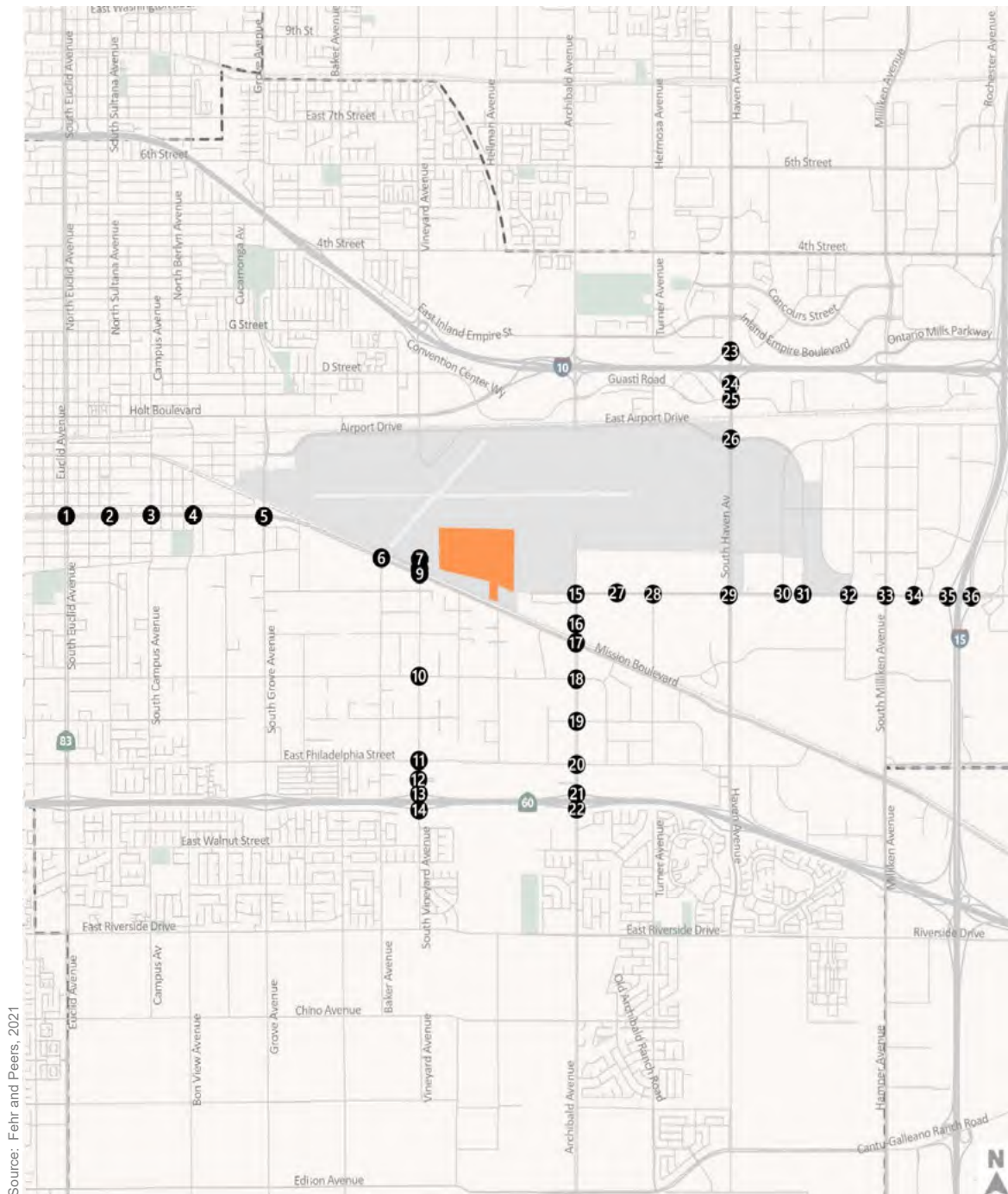
7.4.2 Planned Roadway Improvements

The Avion Street widening and realignment between Vineyard and Jurupa Street was assumed to be completed by Opening Year (2025). No additional planned roadway improvements were assumed to be completed by Opening Year (2029).

7.4.3 Opening Year (2029) Without Project Conditions

As described in Chapter 2, the traffic volumes for Opening Year (2029) consist of existing counts plus the addition of growth derived from SBTAM (ambient growth rate of one percent per year) and the addition of pending and approved development projects. **Figure 12** presents the traffic forecasts utilized for Opening Year (2029) Without Project Conditions.

The Opening Year (2029) Without Project Conditions peak hour volumes were used to calculate LOS for the study intersections during each peak hour. The findings of our analysis are presented in **Table 14**.



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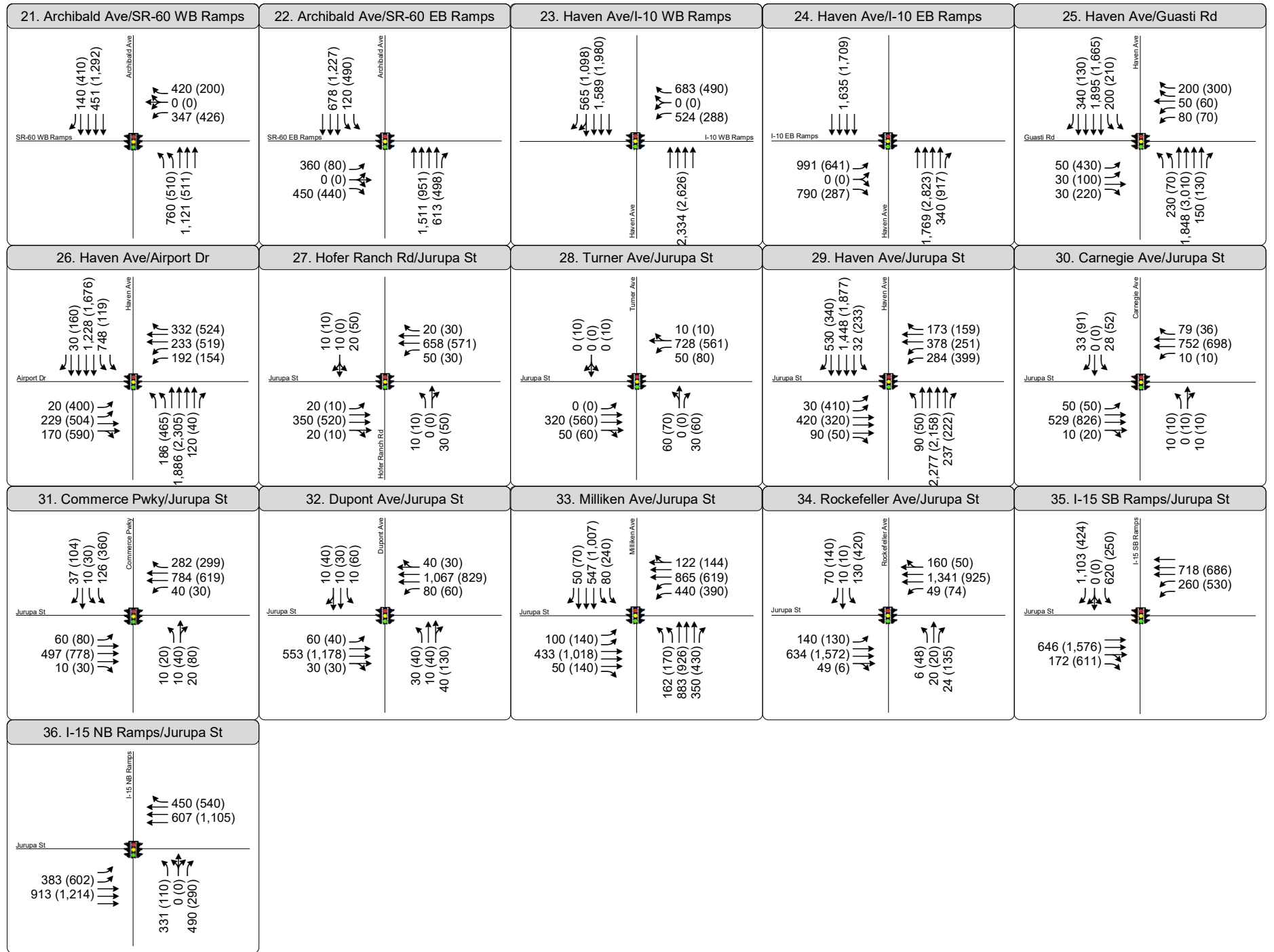
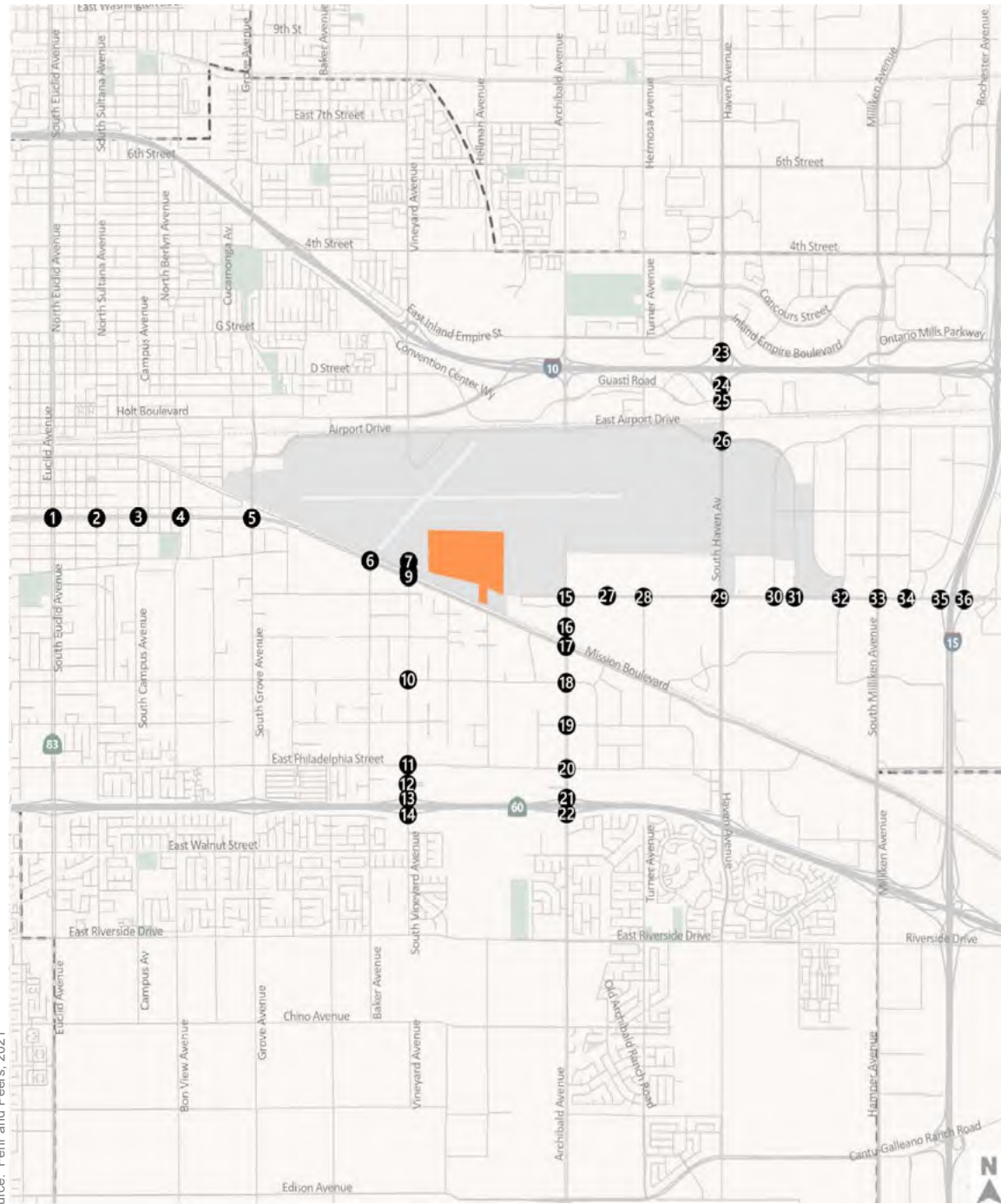
- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized

Source: Fehr and Peers, 2021



Figure 12
Peak Hour PCE Traffic Volumes and Lane Configurations
Opening Year (2029) Without Project Conditions

Source: Fehr and Peers, 2021



LEGEND

- Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized



Figure 12
Peak Hour PCE Traffic Volumes and Lane Configurations
Opening Year (2029) Without Project Conditions

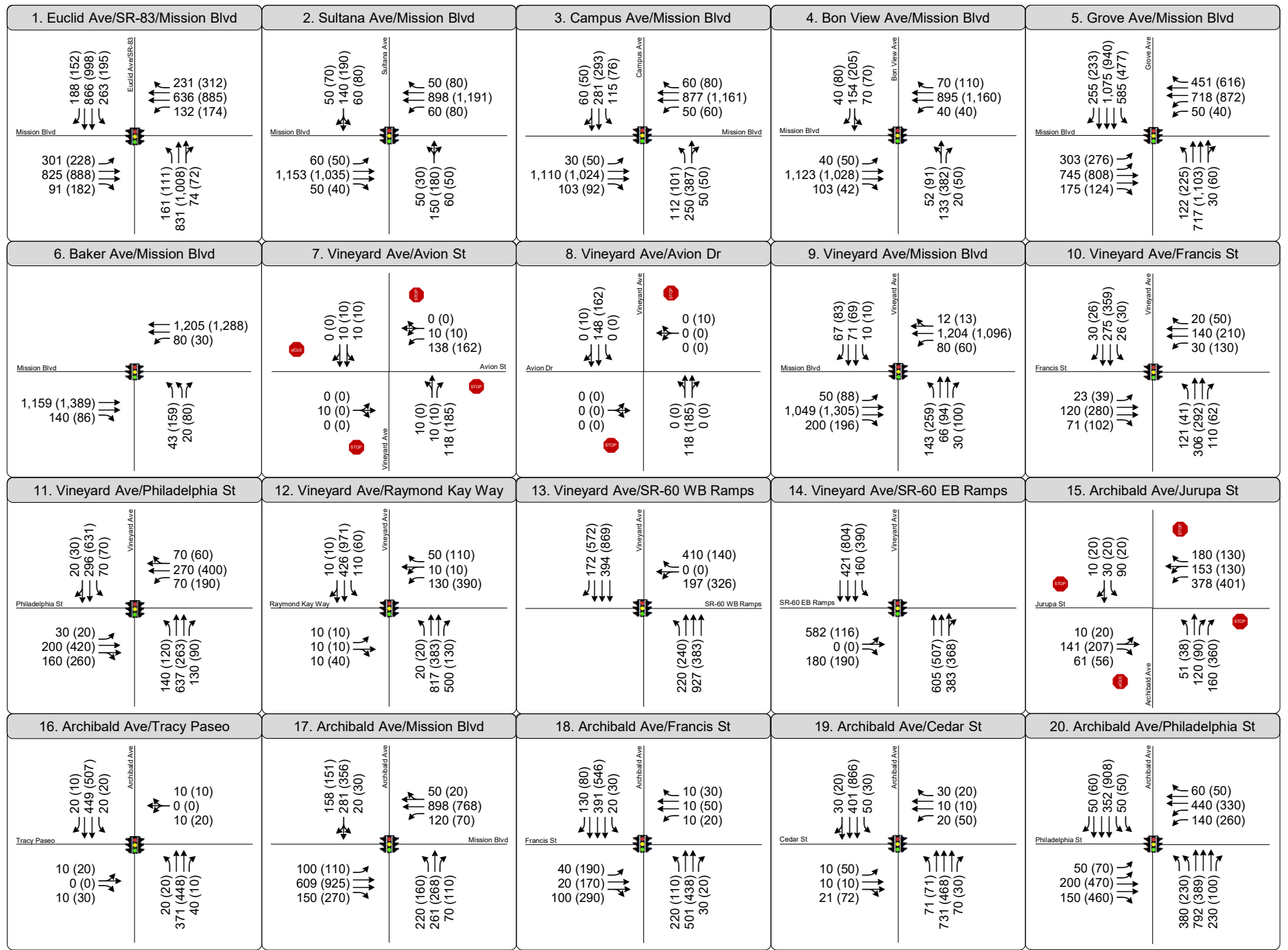
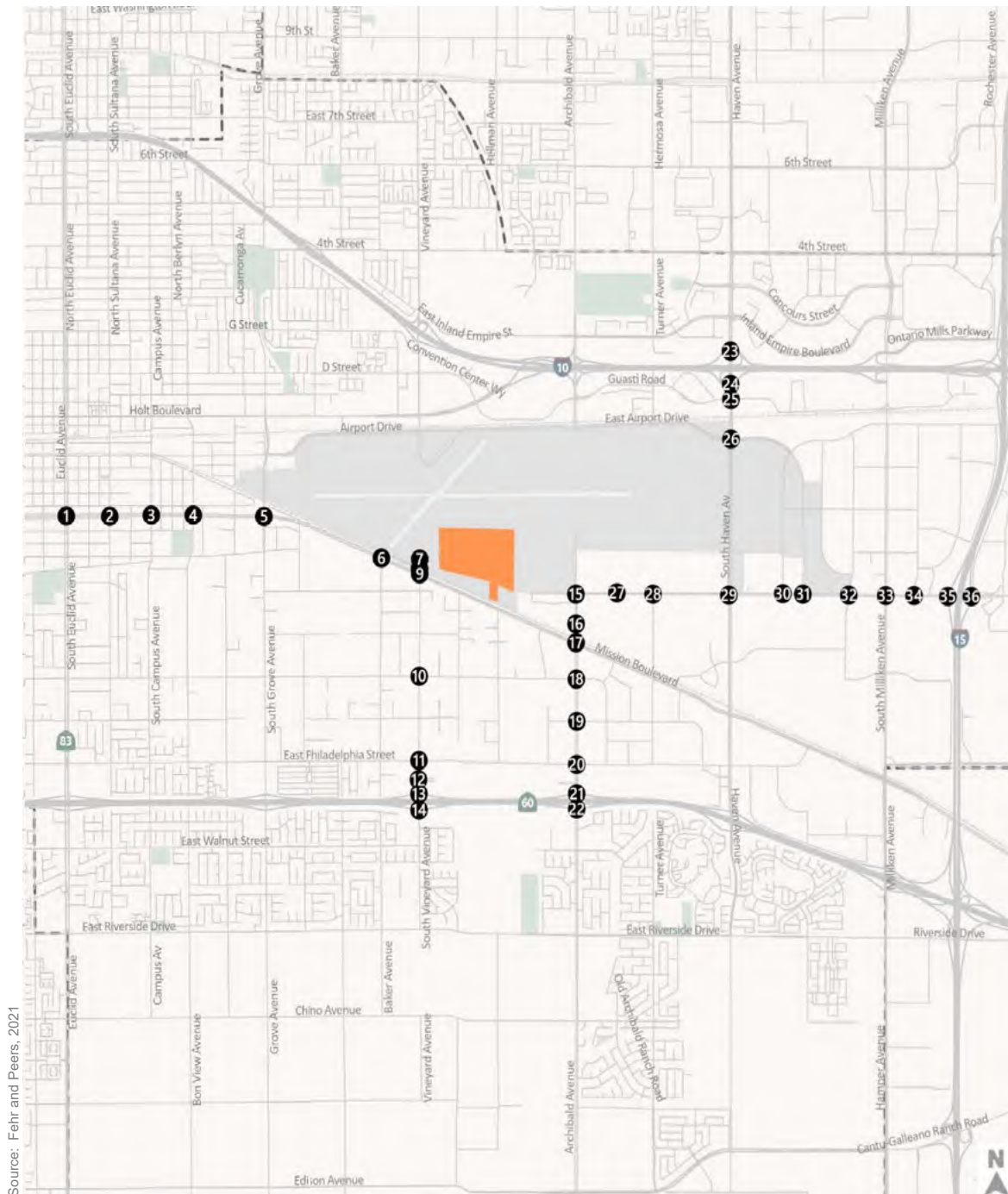
Detailed intersection LOS worksheets are presented in **Appendix F**. As shown in **Table 14**, the following intersections are projected to operate at LOS F in Opening Year (2029) Without Project Conditions:

1. Euclid Ave/SR-83 at Mission Boulevard
4. Bon View Avenue at Mission Boulevard
17. Archibald Avenue & Mission Boulevard

7.4.4 Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions

Figure 13 presents the traffic forecasts utilized for Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions. The operations analysis results for Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions summarized in **Table 14** show vehicular LOS at the study intersections. Detailed intersection LOS worksheets are presented in **Appendix F**. As shown in **Table 14**, the following intersections are projected to operate at LOS F in Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions:

1. Euclid Avenue/SR-83 at Mission Boulevard
 - a. The Project is anticipated to add zero seconds of delay in the AM peak hour to the intersection operating at LOS F and one second of delay in the PM peak hour to the intersection operating at LOS F
4. Bon View Avenue at Mission Boulevard
 - a. Although intersection 4 is operating below adopted LOS standards under Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions, the Project is not forecast to degrade the intersection or add additional delay to this intersection
17. Archibald Avenue & Mission Boulevard
 - a. The Project is anticipated to add eight seconds of delay in the PM peak hour to the intersection operating at LOS F



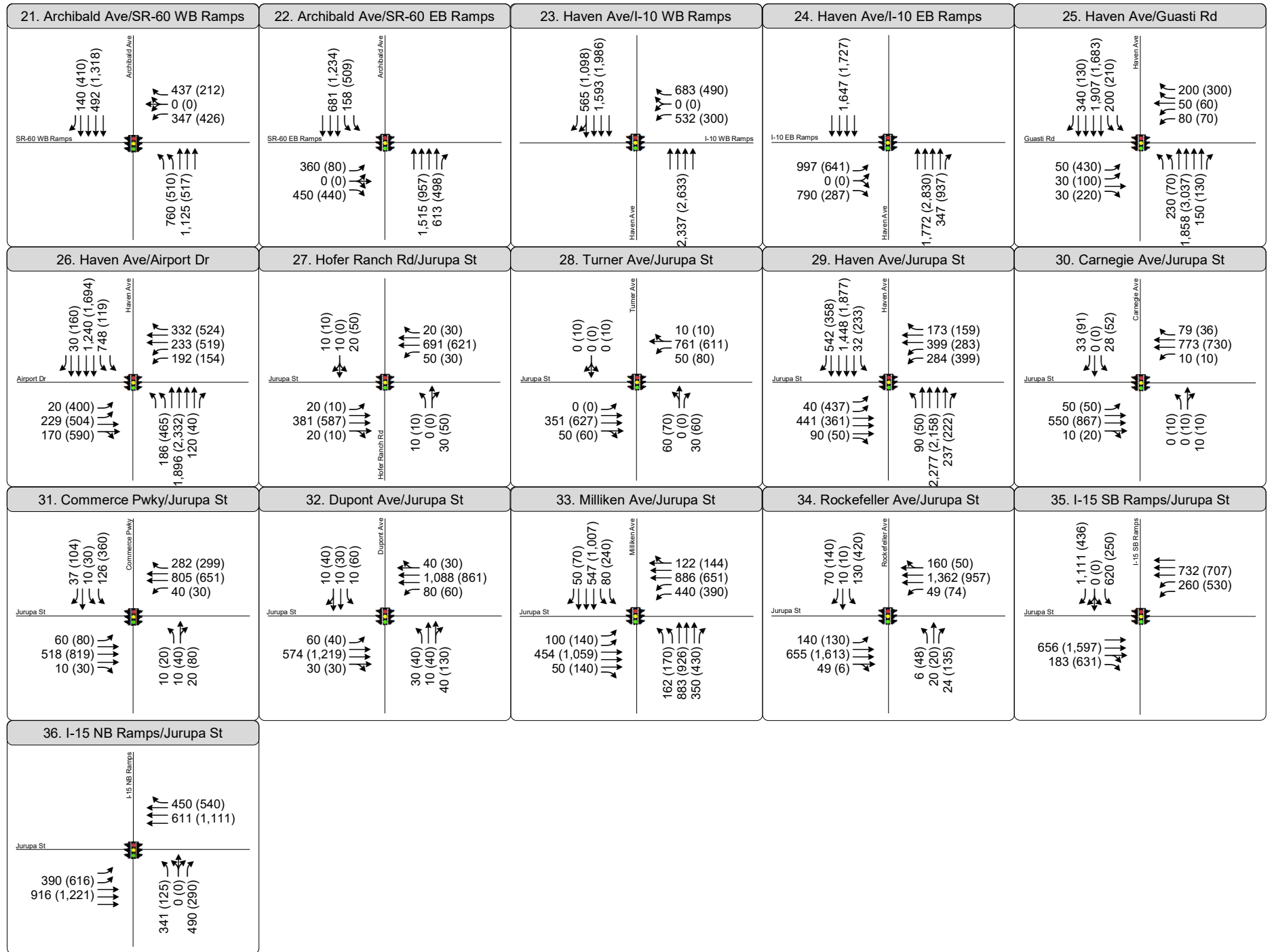
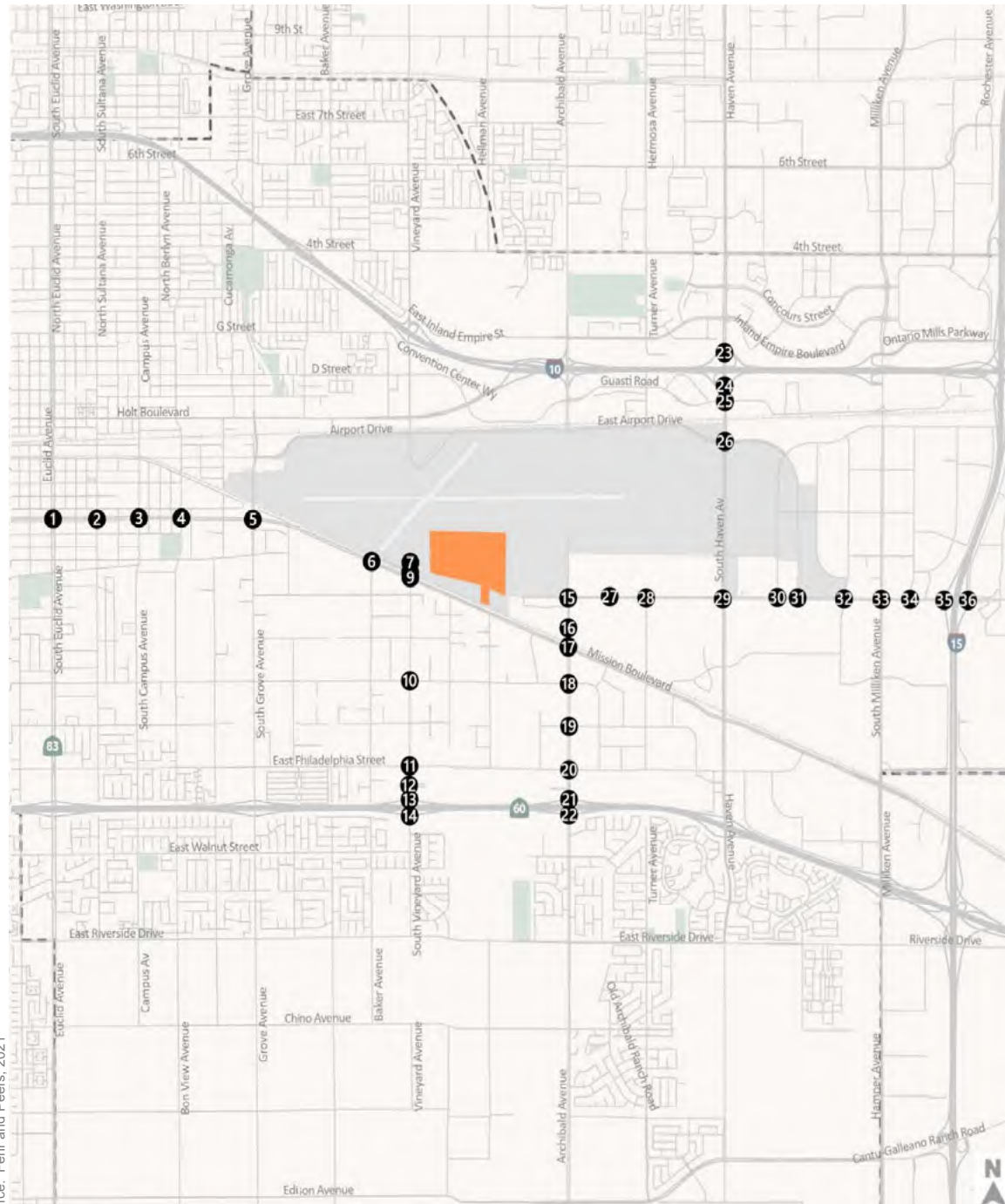
LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized

Figure 13
Peak Hour PCE Traffic Volumes and Lane Configurations
Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions



Source: Fehr and Peers, 2021



LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized



Figure 13
Peak Hour PCE Traffic Volumes and Lane Configurations
Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions

Table 14: Opening Year (2029) Intersection Level of Service

	Intersection	Control	Peak Hour	Opening Year (2029)	Opening Year (2029)
				Without Project	Plus Phase 1 and Phase 2 Project
				LOS / Average Delay	LOS / Average Delay
1	Mission Blvd & Euclid Ave/SR-83	Signalized	AM	F / 87	F / 87
			PM	F / 96	F / 97
2	Mission Blvd & Sultana Ave	Signalized	AM	B / 15	B / 15
			PM	B / 16	B / 16
3	Mission Blvd & Campus Ave	Signalized	AM	C / 22	C / 22
			PM	C / 25	C / 25
4	Mission Blvd & Bon View Ave ⁵	Signalized	AM	E / 76	E / 76
			PM	F / 341	F / 337
5	Mission Blvd & Grove Ave	Signalized	AM	E / 73	E / 75
			PM	E / 76	E / 79
6	Baker Ave & Mission Blvd	Signalized	AM	A / 8	A / 8
			PM	A / 9	A / 9
7	Vineyard Ave & Avion St	AWSC ¹	AM	A / 8	A / 8
			PM	A / 8	A / 9
8	Vineyard Ave & Avion Dr	TWSC ²	AM	A / 0	A / 0
			PM	A / 0	A / 0
9	Vineyard Ave & Mission Blvd	Signalized	AM	C / 20	C / 23
			PM	C / 27	C / 27
10	Vineyard Ave & Francis St	Signalized	AM	B / 19	B / 18
			PM	C / 25	C / 25
11	Vineyard Ave & Philadelphia St	Signalized	AM	C / 23	C / 22
			PM	D / 38	D / 38
12	Vineyard Ave & Raymond Kay Way	Signalized	AM	C / 25	C / 25
			PM	B / 18	B / 17
13	Vineyard Ave & SR-60 WB Ramps	Signalized	AM	B / 18	B / 18
			PM	C / 27	C / 26
14	Vineyard Ave & SR-60 EB Ramps	Signalized	AM	D / 35	D / 40
			PM	C / 25	C / 25
15	Archibald Ave & Jurupa St	Signalized	AM	B / 18	B / 19
			PM	B / 16	B / 18
16	Archibald Ave & Tracy Paseo	Signalized	AM	A / 10	A / 9
			PM	B / 10	A / 10

Intersection	Control	Peak Hour	Opening Year (2029)	Opening Year (2029)
			Without Project	Plus Phase 1 and Phase 2 Project
			LOS / Average Delay	LOS / Average Delay
17 Archibald Ave & Mission Blvd ⁵	Signalized	AM	E / 71	E / 78
		PM	F / 82	F / 90
18 Archibald Ave & Francis St	Signalized	AM	C / 24	C / 23
		PM	C / 28	C / 28
19 Archibald Ave & Cedar St	Signalized	AM	B / 17	B / 17
		PM	C / 21	C / 21
20 Archibald Ave & Philadelphia St	Signalized	AM	C / 33	C / 32
		PM	C / 33	C / 33
21 Archibald Ave & SR-60 WB Ramps	Signalized	AM	C / 25	B / 18
		PM	C / 30	C / 30
22 Archibald Ave & SR-60 EB Ramps	Signalized	AM	C / 27	C / 27
		PM	C / 23	C / 24
23 Haven Ave & I-10 WB Ramps	Signalized	AM	C / 32	C / 32
		PM	B / 18	B / 17
24 Haven Ave & I-10 EB Ramps	Signalized	AM	D / 36	D / 36
		PM	C / 29	C / 29
25 Haven Ave & Guasti Rd	Signalized	AM	C / 24	C / 24
		PM	C / 34	C / 34
26 Haven Ave & Airport Dr	Signalized	AM	D / 47	D / 47
		PM	E / 58	E / 59
27 Hofer Ranch Rd & Jurupa St	Signalized	AM	C / 21	C / 21
		PM	C / 21	C / 21
28 Jurupa St & Turner Ave	Signalized	AM	A / 10	B / 10
		PM	B / 12	B / 12
29 Jurupa St & Haven Ave	Signalized	AM	D / 46	D / 47
		PM	D / 53	D / 55
30 Jurupa St & Carnegie Ave	Signalized	AM	A / 8	A / 8
		PM	A / 8	A / 8
31 Jurupa St & Commerce Pkwy	Signalized	AM	C / 27	C / 27
		PM	D / 47	D / 46
32 Jurupa St & Dupont Ave	Signalized	AM	B / 14	B / 14
		PM	A / 9	A / 9

Intersection	Control	Peak Hour	Opening Year (2029) Without Project	Opening Year (2029) Plus Phase 1 and Phase 2 Project
			LOS / Average Delay	LOS / Average Delay
33 Jurupa St & Milliken Ave	Signalized	AM	D / 39	D / 39
		PM	D / 44	D / 44
34 Jurupa St & Rockefeller Ave	Signalized	AM	C / 23	C / 23
		PM	D / 44	D / 45
35 Jurupa St & I-15 SB Ramps	Signalized	AM	D / 48	D / 41
		PM	C / 29	C / 29
36 Jurupa St & I-15 NB Ramps	Signalized	AM	C / 24	C / 25
		PM	B / 20	B / 20

Notes:

1. AWSC = All-Way Stop Controlled.
 2. TWSC = Two-Way Stop Controlled.
 3. Bolded results operate below adopted LOS standards.
 4. Intersection delay decreases from Opening Year (2029) Without Project with the addition of project traffic in one or both peak hours.
 5. The LOS results at this intersection as reported by Synchro do not reflect the additional delays caused by trains. This intersection is expected to experience an additional average of seven minutes of delay per hour, which is not reflected in the LOS results.
- Source: Fehr & Peers, 2022.

7.5 Year (2040) Conditions Intersection Operations Analysis

This section analyzes the Year (2040) Traffic Conditions and compares the LOS results with No Project and Plus Project. “No Project” conditions assume development at the Project site remains as is. Note that signal timings were optimized at most signalized intersections.

7.5.1 Pending and Approved Development Projects

Fehr & Peers reviewed the SBTAM Future Year land use data set for all pending and approved development projects provided by the City of Ontario.

7.5.2 Planned Roadway Improvements

The following planned roadway improvements are assumed to be in place by Year (2040), consistent with the financially constrained project list in the 2020 SCAG RTP/SCS, indicating that funding is allocated towards these projects, and they are reasonably anticipated to be completed by 2040:

- RTP ID 4160002: Widen interchange for I-10 at Vineyard Avenue from four to six lanes, widen on/off ramps from two to four lanes

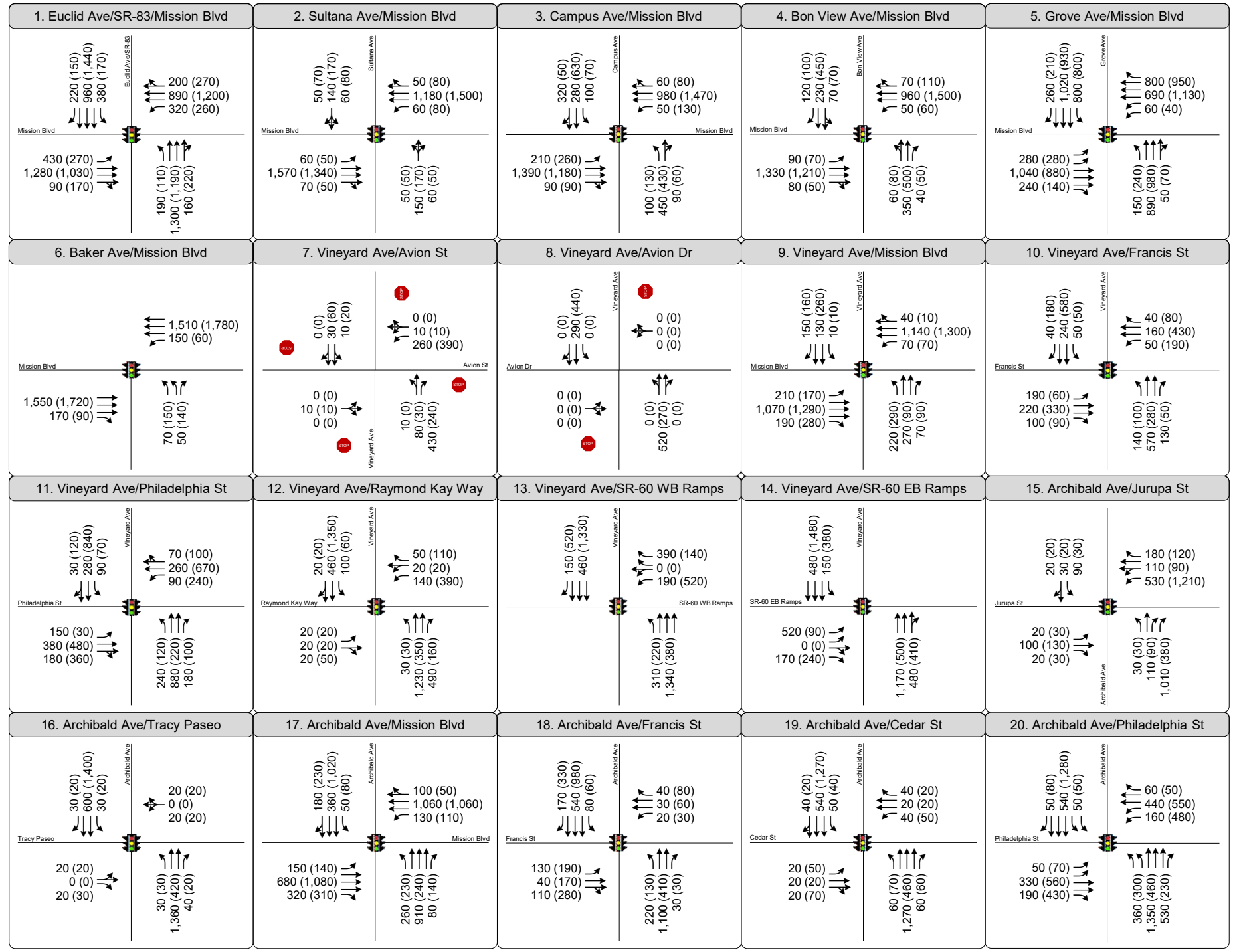
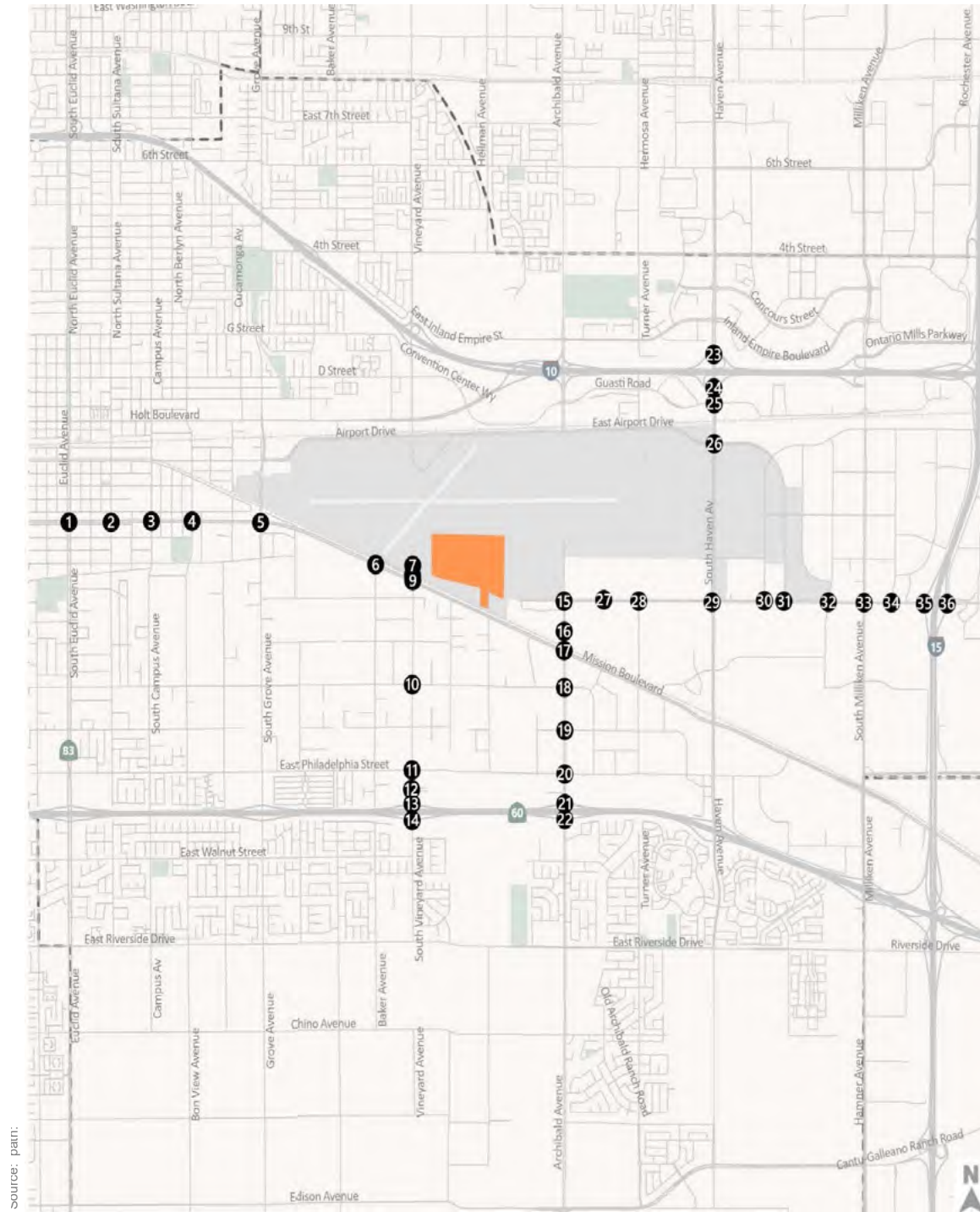
- RTP ID 4A07233: Widen Mission Boulevard from Benson Avenue to Milliken Avenue from four to six lanes
- RTP ID 4160025: Widen Bon View Avenue from Mission Boulevard to Belmont Avenue from two to four lanes
- RTP ID 4A07138: Widen Philadelphia Street from Vineyard Avenue to Cucamonga Creek from two to four lanes, including bridge over Cucamonga Creek
- RTP ID 4A07215: Construct bridge on Mission Boulevard over West Cucamonga Creek and widen from four to six lanes
- RTP ID 4A01213: Widen Jurupa Street from Turner Avenue to Hofer Ranch Road from two to six lanes
- RTP ID 200804: South Archibald Avenue grade separation (at Mission Boulevard). Construct grade separation at existing at-grade crossing south of Archibald Avenue and the upper Los Angeles line. Widen from two to six lanes
 - Assumed future configuration of Archibald Avenue at Mission Boulevard will require protected phasing with the widening to six lanes with dedicated left-turn lanes

The intersection of Archibald Avenue and Jurupa Street is also planned to be signalized and widened by Year (2040), as identified by OIAA by another development project within ONT. This intersection is forecast to meet peak hour signal warrant under Opening Year (2025) Plus Phase 1 and Phase 2 Project Conditions in the PM peak hour. Peak hour traffic signal warrants for Opening Year (2025), Opening Year (2029), and Year (2040) conditions are provided in **Appendix J**.

7.5.3 Year (2040) No Project Conditions

As described in Chapter 2, the traffic volumes for Year (2040) consist of forecasts derived using the difference method from SBTAM model runs to represent 2040 conditions. **Figure 14** presents the traffic forecast utilized for Year (2040) No Project Conditions. Detailed LOS worksheets can be found in **Appendix F**. As shown in **Table 15**, the following intersections are projected to operate at LOS F in Year (2040) No Project Conditions:

1. Euclid Avenue/SR-83 at Mission Boulevard
5. Grove Avenue at Mission Boulevard
26. Airport Drive at Haven Avenue

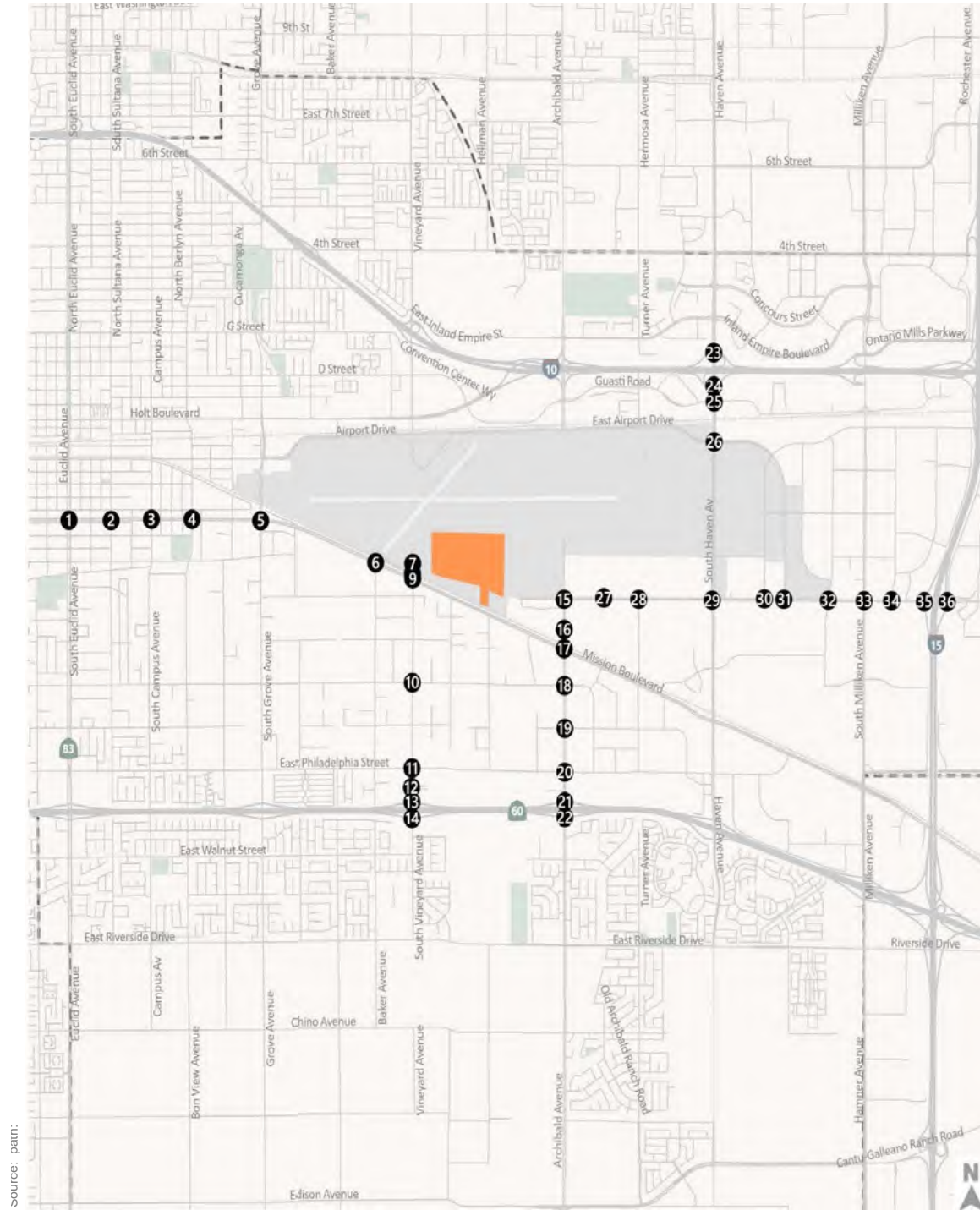


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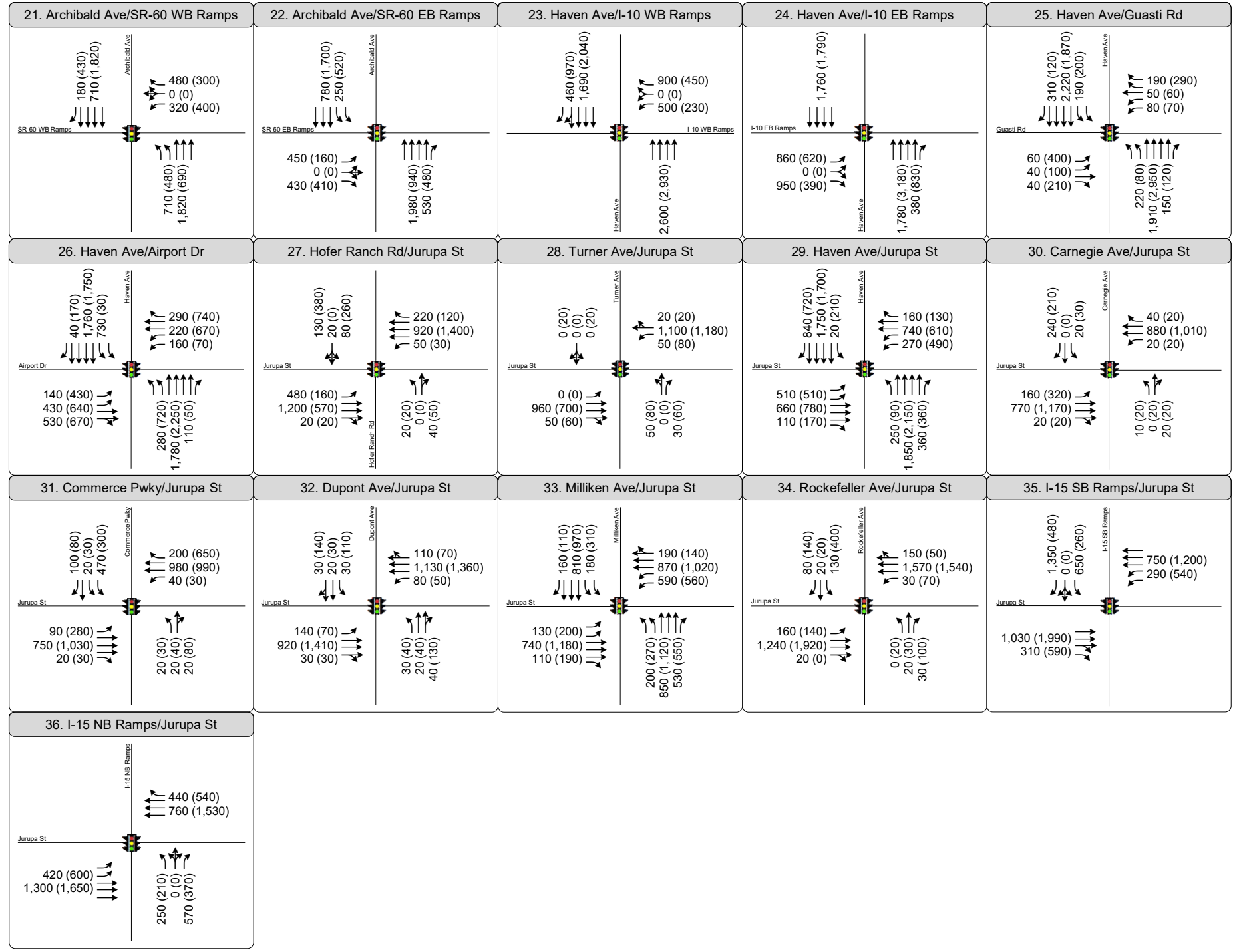
- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized

Figure 14
Peak Hour PCE Traffic Volumes and Lane Configurations
Year (2040) No Project Conditions





Source: pstrn



LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized

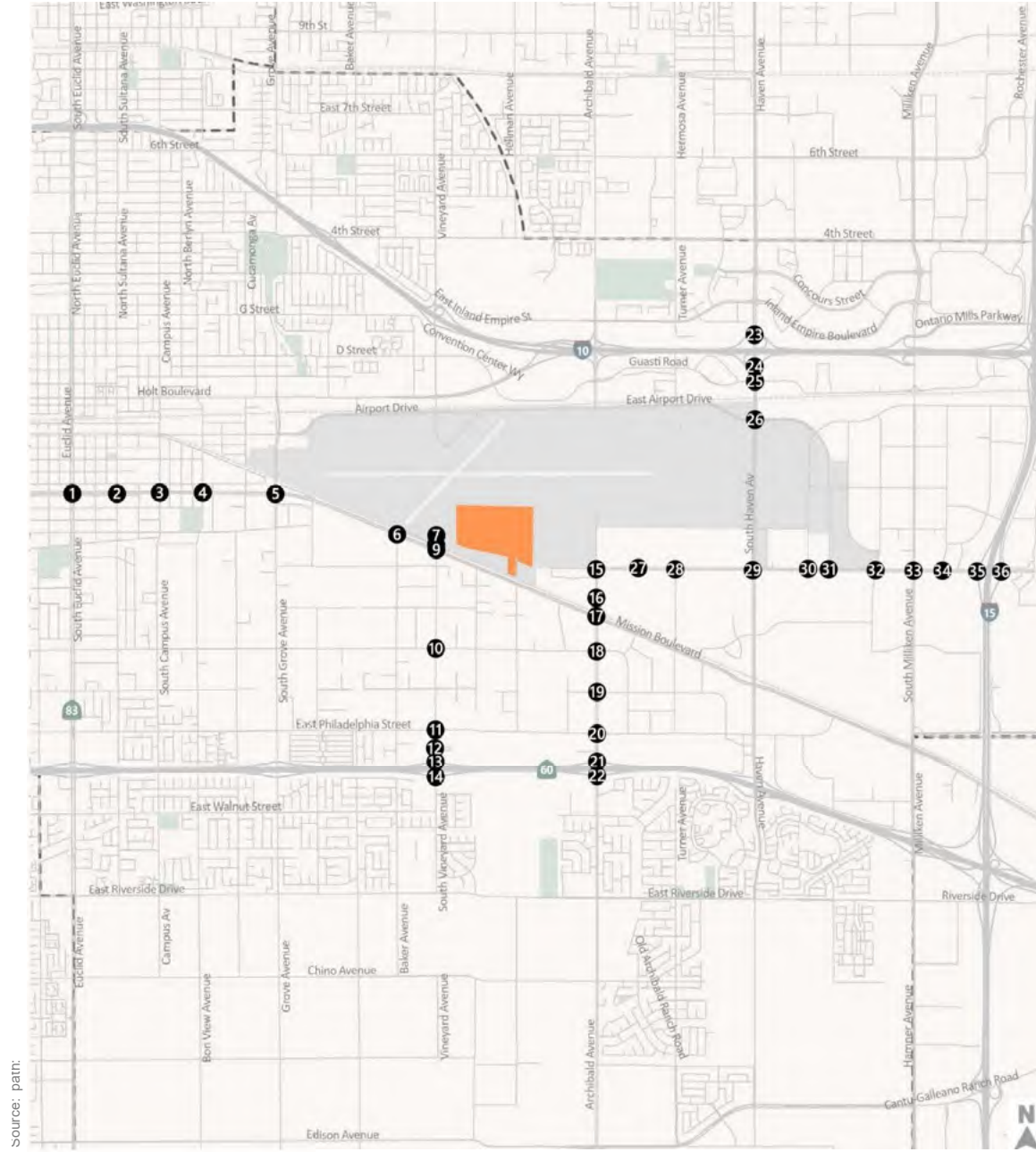


Figure 14
Peak Hour PCE Traffic Volumes and Lane Configurations
Cumulative Year (2040) No Project Conditions

7.5.4 Year (2040) Plus Phase 1 and Phase 2 Project Conditions

Figure 15 presents the traffic forecast utilized for Year (2040) Plus Phase 1 and Phase 2 Project Conditions. The operations analysis results for Year (2040) Plus Phase 1 and Phase 2 summarized in **Table 15** show vehicular LOS at the study intersections. As shown in **Table 15**, the following intersections are projected to operate at LOS F in Year (2040) Plus Phase 1 and Phase 2 Project Conditions:

1. Euclid Avenue/SR-83 at Mission Boulevard
 - a. The Project is anticipated to add zero seconds of delay in the AM peak hour to the intersection operating at LOS F and one second of delay in the PM peak hour to the intersection operating at LOS F
5. Grove Avenue at Mission Boulevard
 - a. The Project is anticipated to add one second of delay in the AM peak hour to the intersection operating at LOS F and five seconds of delay in the PM peak hour to the intersection operating at LOS F
26. Airport Drive at Haven Avenue
 - a. The Project is anticipated to add one second of delay in the AM peak hour to the intersection operating at LOS E and one second of delay in the PM peak hour to the intersection operating at LOS F



source: pattn

<p>1. Euclid Ave/SR-83/Mission Blvd</p>	<p>2. Sultana Ave/Mission Blvd</p>	<p>3. Campus Ave/Mission Blvd</p>	<p>4. Bon View Ave/Mission Blvd</p>	<p>5. Grove Ave/Mission Blvd</p>
<p>6. Baker Ave/Mission Blvd</p>	<p>7. Vineyard Ave/Avion St</p>	<p>8. Vineyard Ave/Avion Dr</p>	<p>9. Vineyard Ave/Mission Blvd</p>	<p>10. Vineyard Ave/Francis St</p>
<p>11. Vineyard Ave/Philadelphia St</p>	<p>12. Vineyard Ave/Raymond Kay Way</p>	<p>13. Vineyard Ave/SR-60 WB Ramps</p>	<p>14. Vineyard Ave/SR-60 EB Ramps</p>	<p>15. Archibald Ave/Jurupa St</p>
<p>16. Archibald Ave/Tracy Paseo</p>	<p>17. Archibald Ave/Mission Blvd</p>	<p>18. Archibald Ave/Francis St</p>	<p>19. Archibald Ave/Cedar St</p>	<p>20. Archibald Ave/Philadelphia St</p>

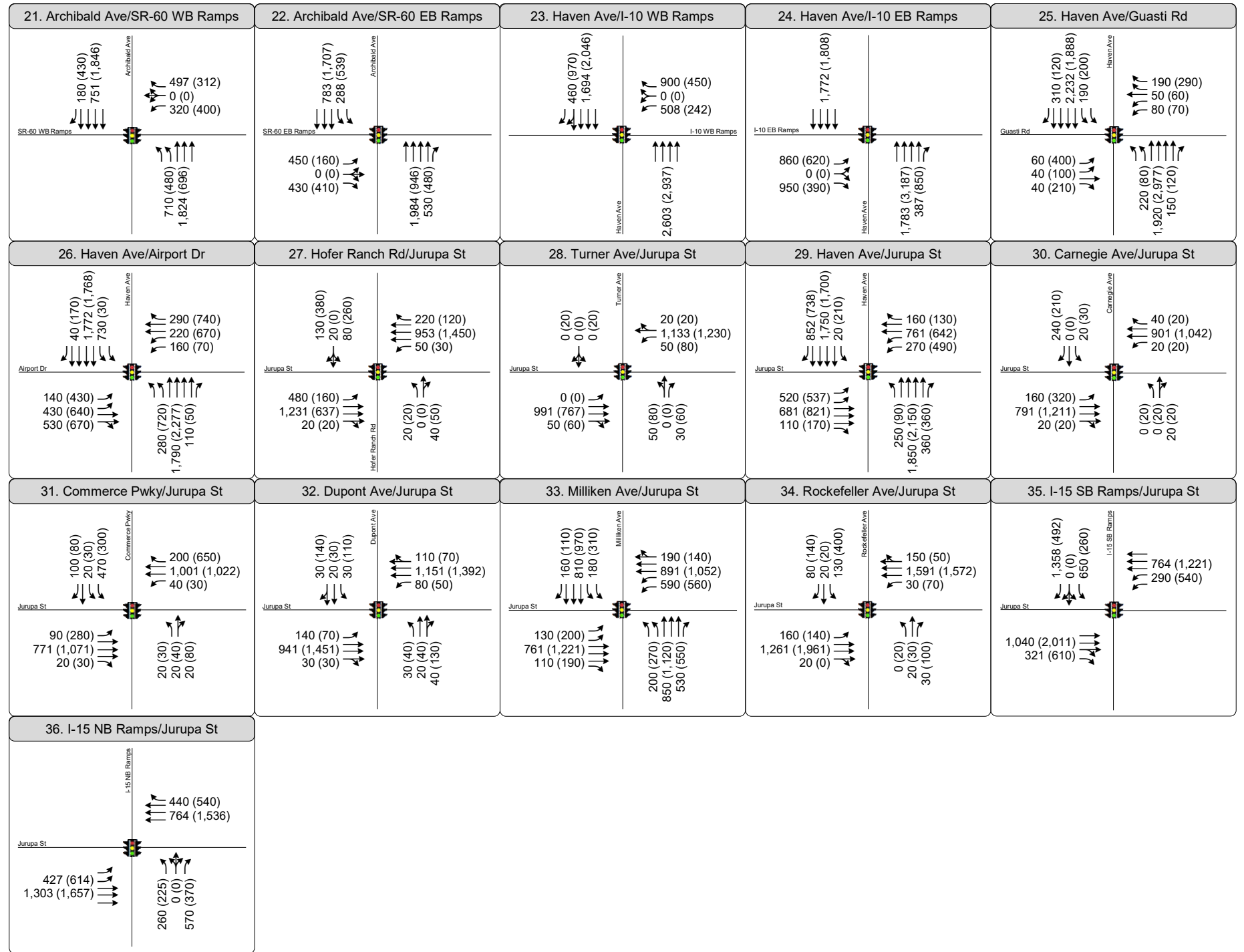
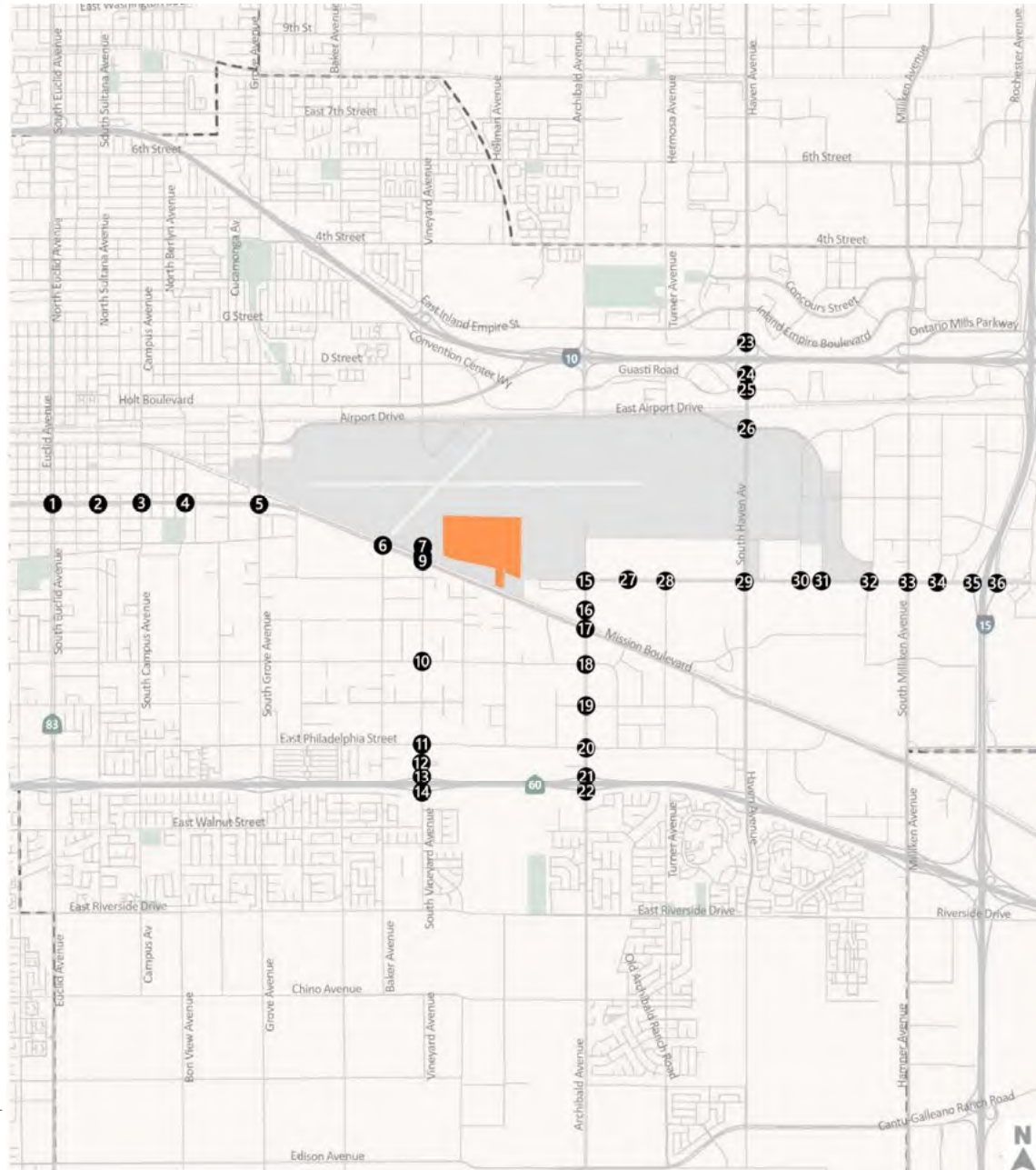
LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized



Figure 15
Peak Hour PCE Traffic Volumes and Lane Configurations
Year (2040) Plus Phase 1 and Phase 2 Project Conditions

source: patn:



LEGEND

- # Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Lane Configuration
- Stop Sign
- Signalized



Figure 15
Peak Hour PCE Traffic Volumes and Lane Configurations
Cumulative Year (2040) Plus Phase 1 and Phase 2 Project Conditions

**Table 15: Year (2040) No Project and Year (2040) Plus Phase 1 and Phase 2 Project
 Intersection Level of Service**

	Intersection	Control	Peak Hour	Year (2040) No Project	Year (2040) Plus Phase 1 and Phase 2 Project
				LOS / Average Delay	LOS / Average Delay
1	Mission Blvd & Euclid Ave/SR-83	Signalized	AM	F / 115	F / 115
			PM	F / 88	F / 89
2	Mission Blvd & Sultana Ave	Signalized	AM	B / 13	B / 13
			PM	B / 15	B / 15
3	Mission Blvd & Campus Ave	Signalized	AM	D / 38	D / 37
			PM	D / 50	D / 50
4	Mission Blvd & Bon View Ave	Signalized	AM	B / 19	B / 19
			PM	C / 29	C / 29
5	Mission Blvd & Grove Ave	Signalized	AM	F / 103	F / 104
			PM	F / 132	F / 137
6	Baker Ave & Mission Blvd	Signalized	AM	A / 10	A / 10
			PM	A / 8	A / 8
7	Vineyard Ave & Avion St	AWSC ¹	AM	B / 13	C / 15
			PM	B / 11	B / 13
8	Vineyard Ave & Avion Dr	TWSC ²	AM	A / 0	A / 0
			PM	A / 0	A / 0
9	Vineyard Ave & Mission Blvd ⁴	Signalized	AM	C / 25	C / 27
			PM	C / 28	C / 30
10	Vineyard Ave & Francis St	Signalized	AM	C / 22	C / 22
			PM	C / 25	C / 25
11	Vineyard Ave & Philadelphia St	Signalized	AM	D / 38	D / 37
			PM	E / 66	E / 68
12	Vineyard Ave & Raymond Kay Way	Signalized	AM	C / 23	C / 23
			PM	B / 15	B / 15
13	Vineyard Ave & SR-60 WB Ramps	Signalized	AM	B / 15	B / 15
			PM	C / 26	C / 26
14	Vineyard Ave & SR-60 EB Ramps	Signalized	AM	C / 32	C / 31
			PM	C / 24	C / 24
15	Archibald Ave & Jurupa St	Signalized	AM	B / 19	B / 19
			PM	B / 17	C / 22

	Intersection	Control	Peak Hour	Year (2040) No	Year (2040) Plus
				Project	Phase 1 and Phase 2
				LOS / Average Delay	LOS / Average Delay
16	Archibald Ave & Tracy Paseo	Signalized	AM	B / 11	B / 11
			PM	B / 11	B / 11
17	Archibald Ave & Mission Blvd	Signalized	AM	C / 31	C / 32
			PM	E / 60	E / 61
18	Archibald Ave & Francis St	Signalized	AM	C / 28	C / 28
			PM	C / 28	C / 28
19	Archibald Ave & Cedar St	Signalized	AM	C / 20	C / 20
			PM	C / 23	C / 23
20	Archibald Ave & Philadelphia St	Signalized	AM	C / 32	C / 32
			PM	D / 48	D / 50
21	Archibald Ave & SR-60 WB Ramps	Signalized	AM	C / 29	C / 26
			PM	C / 27	C / 27
22	Archibald Ave & SR-60 EB Ramps	Signalized	AM	C / 27	C / 26
			PM	C / 26	C / 26
23	Haven Ave & I-10 WB Ramps	Signalized	AM	D / 51	C / 24
			PM	B / 18	B / 18
24	Haven Ave & I-10 EB Ramps	Signalized	AM	C / 29	C / 30
			PM	C / 28	C / 28
25	Haven Ave & Guasti Rd	Signalized	AM	C / 25	C / 25
			PM	C / 32	C / 32
26	Haven Ave & Airport Dr	Signalized	AM	E / 74	E / 75
			PM	F / 90	F / 91
27	Hofer Ranch Rd & Jurupa St	Signalized	AM	D / 43	D / 44
			PM	D / 42	D / 43
28	Jurupa St & Turner Ave	Signalized	AM	B / 11	B / 11
			PM	B / 16	B / 17
29	Jurupa St & Haven Ave	Signalized	AM	E / 67	E / 69
			PM	E / 63	E / 66
30	Jurupa St & Carnegie Ave	Signalized	AM	A / 8	A / 8
			PM	A / 8	A / 9
31	Jurupa St & Commerce Pkwy	Signalized	AM	D / 50	D / 50
			PM	D / 55	D / 55

Intersection	Control	Peak Hour	Year (2040) No Project	Year (2040) Plus Phase 1 and Phase 2 Project
			LOS / Average Delay	LOS / Average Delay
32 Jurupa St & Dupont Ave	Signalized	AM	B / 19	B / 19
		PM	B / 11	B / 11
33 Jurupa St & Milliken Ave	Signalized	AM	D / 46	D / 46
		PM	E / 60	E / 69
34 Jurupa St & Rockefeller Ave	Signalized	AM	C / 25	C / 25
		PM	D / 50	D / 52
35 Jurupa St & I-15 SB Ramps	Signalized	AM	D / 44	D / 45
		PM	C / 30	C / 29
36 Jurupa St & I-15 NB Ramps	Signalized	AM	C / 25	C / 26
		PM	C / 22	C / 22

Notes:

1. AWSC = All-Way Stop Controlled.
 2. TWSC = Two-Way Stop Controlled.
 3. Bolded results operate below adopted LOS standards.
 4. The LOS results at this intersection as reported by Synchro do not reflect the additional delays caused by trains. This intersection is expected to experience an additional average of seven minutes of delay per hour, which is not reflected in the LOS results.
- Source: Fehr & Peers, 2022.

7.6 Recommended Improvements

Improvements are provided below for study locations affected by the addition of Project traffic to maintain operating conditions at these intersections consistent with the applicable performance standards. The Project would not result in the degradation of any intersection that is currently operating at an acceptable level of service (LOS E or better); however, the Project would add delay to intersections already operating at LOS F under each analysis year. The identified improvements would improve intersection operations to better than pre-project conditions in the Opening Year (2025) and Opening Year (2029), and to acceptable conditions in Year (2040).

7.6.1 Opening Year (2025) Plus Phase 1 Project Intersection Improvements

Since the Project is not forecast to worsen delay at any intersections operating at LOS F, improvements are not needed at any study locations for Opening Year (2025) Plus Phase 1 Project conditions to maintain consistency with applicable performance standards.

7.6.2 Opening Year (2029) Plus Phase 1 and Phase 2 Project Intersection Improvements

As discussed earlier in Chapter 6, additional delay is added to one intersection that is currently operating below adopted LOS standards under the Opening Year (2029) Plus Phase 1 and Phase 2 Project

Conditions. Improvements are identified that would improve intersection operations to better than pre-project conditions. LOS reports are provided in **Appendix F**.

1. Euclid Avenue/SR-83 at Mission Boulevard

The addition of project traffic adds delay to the intersection, which is forecast to operate at LOS F in the AM and PM peak hours under Opening Year (2029) Conditions. Optimizing signal timing in the AM and PM peak hours would improve intersection operations to better than pre-project conditions.

This intersection is within both the City of Ontario and Caltrans jurisdiction and the improvement will require cooperation with Caltrans, which is standard engineering practice with the City responsible to implement the improvement. With the identified improvement, intersection operations improve to better than pre-project conditions during both peak hours.

17. Archibald Avenue at Mission Boulevard

The addition of project traffic adds delay to the intersection, which is forecast to operate at LOS F in the PM peak hours under Opening Year (2029) Conditions.

With the following improvements, the intersection would operate at LOS E under OY 2029 No Project and Plus Phase 1 and 2 Project Conditions:

- Add a dedicated left-turn pocket for the southbound approach with protected left-turn phasing for the northbound and southbound left-turn phases



With the identified improvement, intersection operations improve to better than pre-project conditions during both peak hours. Please note that Archibald is programmed in the SCAG RTP to be widened to six lanes in each direction which is greater than the improvements identified as needed to improve this intersection to better than pre-project conditions.

7.6.3 Opening Year (2029) Intersection LOS Comparison

Table 16 below compares the delay and LOS for the Opening Year (2029) Without Project and Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions with the identified improvements noted above. The identified measures improve the intersection operations to better than pre-project conditions.

Table 16: Opening Year (2029) LOS Comparison with Improvements

Intersection	Control	Peak Hour	Opening Year (2029) Without Project Conditions	Opening Year (2029) Plus Phase 1 and Phase 2 Project	Opening Year (2029) Plus Phase 1 and Phase 2 Project with Improvements
			LOS / Average Delay	LOS / Average Delay	LOS / Average Delay
1 Mission Blvd & Euclid Ave/SR-83	Signalized	AM	F / 87	F / 87	E / 75
		PM	F / 96	F / 97	F / 93
17 Archibald Ave & Mission Blvd	Signalized	AM	E / 71	E / 78	E / 63
		PM	F / 82	F / 90	E / 60

7.6.4 Year (2040) Plus Phase 1 and Phase 2 Project Intersection Improvements

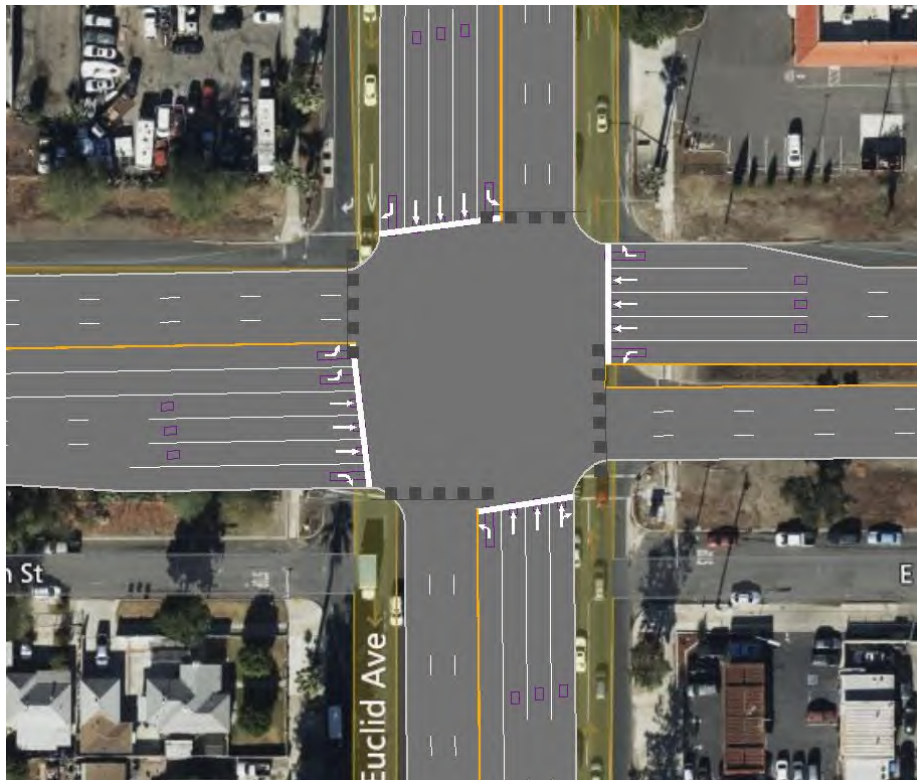
As discussed earlier in Chapter 6, additional delay is added to three intersections that are currently operating below adopted LOS standards under the Year (2040) Plus Phase 1 and Phase 2 Project Conditions. Improvements were identified that would result in acceptable operating conditions. LOS reports are provided in **Appendix F**.

1. Euclid Avenue/SR-83 at Mission Boulevard

The addition of project traffic adds delay to the intersection, which is forecast to operate at LOS F in both the AM and PM peak hours under Year (2040) conditions.

The following lane configurations would improve intersection operations to acceptable conditions under Year (2040) conditions:

- Add a second eastbound left-turn lane
- Convert the eastbound shared through-right lane into a through lane (three through lanes in total)
- Convert the westbound shared through-right lane into a through lane (three through lanes in total)
- Add a designated eastbound right-turn lane
- Add a designated westbound right-turn lane



The improvements are consistent with the Ontario General Plan, which classifies Mission Boulevard as six-lane facilities. This improvement is consistent with the Ontario General Plan designation as an enhanced intersection.¹³ With the improvements described, the improvements will require the removal the existing median so the improvements can be completed within the existing ROW. With the identified lane configurations, the intersection operations improve to LOS E or better. This intersection is within both the City of Ontario and Caltrans jurisdiction and the improvements will require cooperation with Caltrans, which is standard engineering practice with the City responsible to implement the improvement when needed. The estimated project fair share contribution towards the improvement is two percent.

5. Grove Avenue at Mission Boulevard

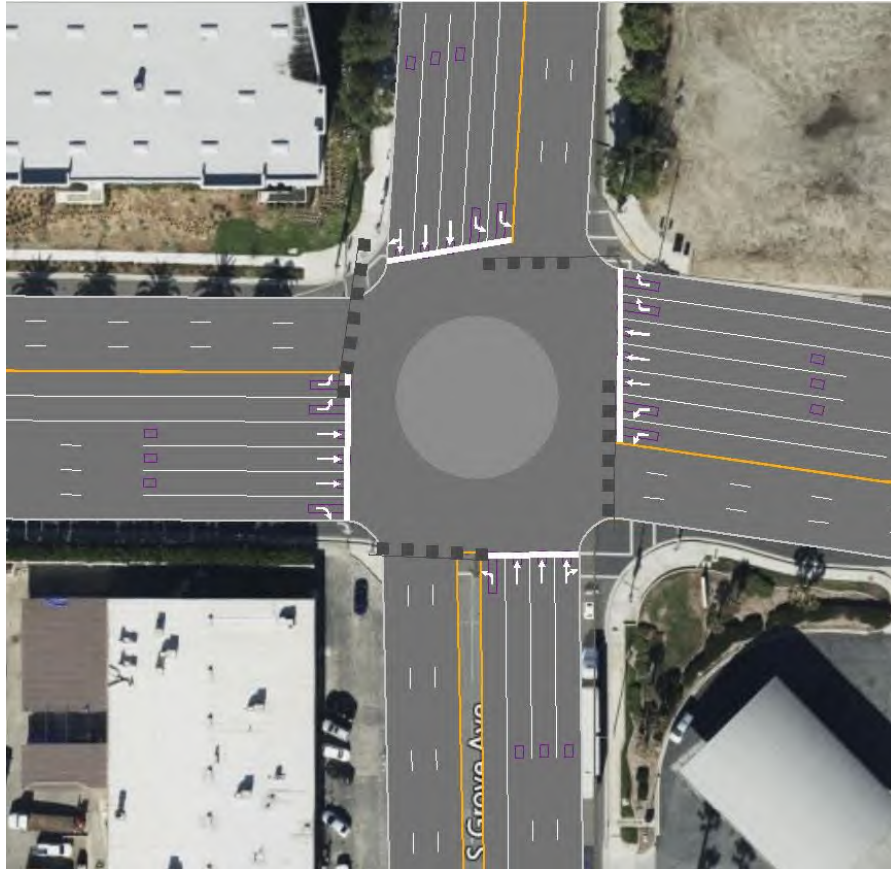
The addition of project traffic adds delay to the intersection, which is forecast to operate at LOS F in both the AM and PM peak hours under Year (2040) conditions.

The following lane configurations would improve intersection operations to acceptable conditions under Year (2040) conditions:

- Add an additional westbound right-turn lane

¹³ Enhanced intersection as classified by the Ontario General Plan allow flexibility from the standard intersection configuration to increase capacity, improve operation, and respond to local conditions. Enhancements may include additional lanes, reduced median width, increased right-of-way width, removal of on-street bike lanes, or reduction of parkway width. Detailed engineering studies are necessary to identify the most effective types of improvements.

- Add an additional southbound left turn lane (two left-turn lanes in total)
- Remove the southbound right turn to maintain three southbound through lanes by striping the southbound right turn lane as a southbound through-right turn lane
 - Will require removal of the existing southbound right-turn overlap phase



The improvements can be completed within the existing ROW but will require restriping of the WBR turn buffer marking. This improvement is consistent with the Ontario General Plan designation as an enhanced intersection. With the identified lane configurations, the intersection operations improve to LOS E or better. The City would be responsible for implementation of this improvement when needed. The estimated project fair share contribution towards the improvement is four percent.

26. Airport Drive at Haven Avenue

The addition of project traffic adds delay to the intersection, which is forecast to operate at LOS E in the AM peak hour and LOS F in the PM peak hour under Year (2040) conditions.

The following lane configurations would improve intersection operations to acceptable conditions under Year (2040) conditions:

- Convert the existing eastbound shared through-right lane to a through lane (two eastbound through lanes total)
- Add two designated eastbound right-turn lanes

These improvements would be consistent with The Ontario Plan Mobility Element Functional Roadway Classification Plan. The improvements are operational in nature to accommodate a forecasted increase in turning movements at this intersection; No additional through travel lanes would be added.



The improvements would require the acquisition of additional ROW to add the eastbound right-turn lane to the west leg of the intersection. This intersection is classified by the Ontario General Plan as an enhanced intersection which allows flexibility from the standard intersection configuration. With the identified improvements, the intersection operations improve to LOS E or better. The City would be responsible for implementation of this improvement when needed. The estimated project fair share contribution towards the improvement is two percent.

7.6.5 Year (2040) Intersection LOS Comparison

Table 17 below compares the delay and LOS for the Year (2040) and Year (2040) Plus Phase 1 and Phase 2 Project Conditions with the identified improvements noted above. For all locations, the identified measures improve the intersection operations to acceptable conditions.

Table 17: Year (2040) LOS Comparison with Improvements

	Intersection	Control	Peak Hour	Year (2040) No	Year (2040) Plus Phase	Year (2040) Plus
				Project Conditions	1 and 2 Project	Improvements
				LOS / Average Delay	LOS / Average Delay	LOS / Average Delay
1	Mission Blvd & Euclid Ave/SR-83	Signalized	AM	F / 115	F / 115	E / 77
			PM	F / 88	F / 89	E / 68
5	Mission Blvd & Grove Ave	Signalized	AM	F / 103	F / 104	D / 55
			PM	F / 131	F / 137	E / 63
26	Haven Ave & Airport Dr	Signalized	AM	E / 74	E / 75	D / 48
			PM	F / 90	F / 91	E / 80

8. Freeway Off Ramp Queuing Analysis

Storage capacities for all SR-60, I-10, and I-15 off ramps in the study area were evaluated using HCM 7th methodologies. Storage capacities were compared against 95th percentile queue estimates using the Synchro 11 software. The results of the queuing analysis are summarized in **Table 18** and the queuing information can be found in the LOS worksheets include in **Appendix F**. Because some of the turning movements have shared left-turn or shared right-turn lanes, these shared lanes provide additional capacity to the turn pockets. The queues of all these movements at the off-ramps do not exceed the storage capacity.

Table 18: Key Turning Movement 95th Percentile Queues

Intersection	Control	Turning Movement	Storage Length (ft)	Peak Hour	Existing (ft)	2025 No Project (ft)	2025 Plus Project (ft)	2029 No Project (ft)	2029 Plus Project (ft)	2040 No Project (ft)	2040 Plus Project (ft)
13. SR-60 WB Off Ramp at Vineyard Ave	Signal	WBL/T	>1,000	AM PM	150 200	150 300	150 275	150 300	150 300	150 525	150 525
		WBR	360	AM PM	250 50	275 50	300 50	325 50	325 50	325 50	325 50
14. SR-60 EB Off Ramp at Vineyard Ave	Signal	EBL/T	>1,100	AM PM	275 50	500 100	525 100	525 100	550 200	475 100	525 100
		EBR	430	AM PM	0 0	50 75	50 75	50 75	50 150	50 150	50 150
21. SR-60 WB Off Ramp at Archibald Ave	Signal	WBL	>1,000	AM PM	225 175	250 200	250 200	250 225	250 225	250 225	275 225
		WBLTR	>1,000	AM PM	150 125	175 150	175 150	175 150	200 150	200 175	200 175
		WBR	>1,000	AM PM	150 75	150 75	175 75	175 75	175 75	200 75	200 75
22. SR-60 EB Off Ramp at Archibald Ave	Signal	EBL	>1,000	AM PM	200 75	225 75	225 75	225 75	225 75	250 125	250 125
		EBLTR	>1,000	AM PM	125 125	150 125	150 125	150 150	150 150	200 125	200 125
		EBR	>1,000	AM PM	75 125	100 125	100 125	100 150	100 150	150 125	150 125
23. I-10 WB Off Ramp at Haven Ave	Signal	WBL	>800	AM PM	275 150	325 250	325 250	350 250	350 250	325 200	425 225
		WBL/R	>800	AM PM	175 150	200 200	200 200	200 200	200 200	300 200	375 200
		WBR	>1,000	AM PM	175 175	200 200	200 200	225 225	225 225	325 200	400 200

Intersection	Control	Turning Movement	Storage Length (ft)	Peak Hour	Existing (ft)	2025 No Project (ft)	2025 Plus Project (ft)	2029 No Project (ft)	2029 Plus Project (ft)	2040 No Project (ft)	2040 Plus Project (ft)
24. I-10 EB Off Ramp at Haven Ave	Signal	EBL	>1,200	AM PM	775 300	950 700	950 700	975 725	1,000 725	725 725	725 725
		EBL/R	>1,200	AM PM	0 0	225 125	225 125	225 125	225 125	300 150	300 150
		EBR	>1,200	AM PM	150 75	250 125	250 125	250 125	250 125	325 175	325 175
35. I-15 SB Off Ramp at Jurupa St	Signal	SBL	>1,500	AM PM	525 200	550 200	550 200	575 225	600 225	450 275	450 275
		SBLTR	>1,500	AM PM	450 75	575 100	600 100	625 100	650 100	700 250	725 250
		SBR	>1,500	AM PM	425 75	550 75	550 75	575 75	575 75	650 225	650 225
36. I-15 NB Off Ramp at Jurupa St	Signal	NBL	>1,200	AM PM	200 100	250 125	250 125	250 125	250 125	200 200	200 225
		NBLTR	>1,200	AM PM	150 75	175 100	175 100	200 100	200 100	225 150	225 150
		NBR	>1,200	AM PM	150 75	175 100	175 100	175 100	175 100	200 150	200 150

Note:

1. Queues are rounded up to the nearest 25-foot increments assuming each vehicle takes up approximately 25 feet.
2. **Bold** symbolizes queue lengths over available capacity.
3. Signal timing was optimized all intersections in all Year (2040) scenarios. Peak hour factor was set to 0.95 in all Year (2040) scenarios.

Source: Fehr & Peers, 2022

9. Construction Traffic

Fehr & Peers evaluated the potential effects of traffic that would be generated during construction of the Project. The operations, duration, and intensity of construction conditions that would produce construction related traffic are less than the traffic forecast project operating conditions as explained below.

The construction trip estimates for employees and trucks are presented in **Table 19** by construction activity and each phase of construction. The maximum daily construction trips, as converted to Passenger Car Equivalents (PCE), are approximately 82 percent less than the project daily trips (3,202 daily trips under Phase 2). The maximum PM peak hour construction trips are approximately 74 percent less than the project PM peak hour trips (283 PM peak hour trips under Phase 2).

As there are fewer construction trips than trips generated by the Project at completion of Phase 2, the improvements identified in the opening year analyses would provide sufficient capacity to accommodate traffic generated by construction of Phase 2 of the Project.

Table 19: Construction Trip Estimates

Construction Activity	Daily Employee Trips	Daily Truck Trips	Daily Truck Trips (PCE)	Total Daily Trips (PCE)	Peak Hour (PCE)
Phase 1 Construction Trips					
Demo	-	7	21	21	3
Site Prep	-	102	306	306	39
Construction	280	100	300	580	73
Phase 2 Construction Trips					
Demo	-	18	54	54	7
Site Prep	-	51	153	153	20
Construction	240	100	300	540	68

Notes:

1. PCE = Passenger Car Equivalent assumed to be three passenger cars per truck.

Source: Truck trip estimates were developed by the Project proponent based on the Project construction plans and schedule.

Appendix A

**Ontario International Airport South Airport
Cargo Center Traffic Study Scoping Assessment**

DRAFT MEMORANDUM

Date: January 6, 2022

To: Jay Bautista, P.E., City Traffic/Transportation Manager

From: Paul Herrmann, P.E.
Jolene Hayes, AICP

Subject: Ontario International Airport South Airport Cargo Center Traffic Study Scoping Assessment

OC21-0825

Fehr & Peers is conducting a traffic study in support of the Ontario International Airport South Airport Cargo Center project (Project) located in Ontario, California. This memorandum proposes the scoping information and parameters for the traffic study.

The remainder of this memorandum is divided into the following sections: Project Description, Trip Generation, Trip Distribution, Data Collection, Study Locations, Analysis Scenarios, and Next Steps.

Project Description

The proposed Project is a 97-acre air cargo facility within Ontario International Airport. The Project site is located south of the Airport airfield and west of the Cucamonga Canyon Channel. As shown in **Figure 1**, most of the Project site is located north of East Avion Street with the rest of the site located south of East Avion Street and east of South Hellman Avenue.

The Project site is identified as "Airport Development Area" in the Ontario Airport Layout Plan. The proposed Project would include the following components:

- Main Cargo Building
- Aircraft Apron
- Truck Yard
- Parking Structure

The main cargo building, truck yard and aircraft apron improvements are proposed on the portion of the Project site located north of East Avion Street. The parking structure is proposed on the portion of the site located south of East Avion Street.



The Project includes demolition of existing buildings, site improvements on the Project site, and development of the air cargo facility. The Project also includes onsite roadway/driveway improvements, site improvements, and landscaping and utility improvements. The existing buildings on the site include vacant and occupied buildings. Uses in these buildings would be relocated to other locations at Ontario Airport.

The Project is a relocation of a current facility from Los Angeles International Airport (LAX) to Ontario International Airport (ONT). The function of the Project is to facilitate the delivery of goods and cargo to and from planes onto trucks to predetermined locations on a fixed trucking schedule. Fehr & Peers was provided detailed information about truck departure and arrival times, types of trips, final destinations, and employee shift information. The Project will operate with 3 employee shifts 7 days a week. As shown in **Table 1**, the first shift is from 7:00 AM to 3:00 PM with 640 employees, the second shift is from 3:00 PM to 11:00 PM with 95 employees, and the third shift is from 11:00 PM to 7:00 AM with 580 employees.

Development of the Project is proposed in two phases. Proposed opening year of Phase 1 is 2024. Proposed opening year of Phase 2 is 2029. Phases 1 and 2 are assumed to have the same number of employees while Phase 2 will have a higher cargo capacity and more truck trips scheduled.

The Project site can be accessed through Avion Street, Jurupa Street, Vineyard Avenue, and Mission Boulevard. Separate from the proposed Project, the Ontario International Airport Authority will be realigning Avion Street from the existing western terminus of Jurupa Street to the segment of Avion Street, just east of South Hellman Avenue.

Trip Generation

This section describes how the Project trip generation estimates were developed.

Trip Generators

The following three types of users generate trips at the Project:

Employee trips

Employees are the primary generator of Project trips. However, employees shift change times do not occur during the typical commute peak periods (7:00-9:00AM & 4:00-6:00PM). The morning peak hour occurs between 5:30-6:30AM with approximately 436 employees arriving and 47 employees leaving during the heaviest waves of the morning shift change. The evening peak hour occurs between 8:30-9:30 PM with approximately 444 employees arriving during the heaviest waves of the night shift. During typical commute peak hours, it is estimated that only approximately ten employees would arrive at the tail end of the morning shift change and approximately 100 employees would leave following the afternoon shift change.



Truck Trips

Detailed truck trip information was provided by the Project applicant and describes precise operational arrival times, departure times, origins and destinations that are routine scheduled daily. Some trucks are owned by the applicant, and these trucks travel solely between the applicant's cargo facilities. Other trucks are third party drivers that have unknown origins or destinations when they arrive or leave empty.

Phase I operations include the assumption that the underground fuel line will not yet be in operation and up to 24 fuel trucks per day will bring fuel from the northwest corner of the airport. These trips are assumed to occur outside of the peak hours. Phase II anticipates the underground fuel line in place and the fuel trucks will not be needed.

Deliveries

Delivery trips for fuel, materials and supplies occur throughout the day but not typically during shift changes. Delivery trip estimates were provided by the Project applicant.

Project Trip Generation

Fehr & Peers compared three different trip generation options. Option one is based on applicant provided, detailed information about the number of employees working during each shift, scheduled inbound and outbound truck moves, and origins and destinations of inbound and outbound cargo moved by truck. Option two analyzed multiple trip generation rates for industrial warehousing types from *Trip Generation, 11th Edition* (Institute of Transportation Engineers [ITE], 2021). Option three is based on empirical data collected at a representative site within one-mile of the Project. The following describes each option.

Option One – Manual Trip Generation Estimates Based on Applicant Data

Based on the information about employee, truck and service trips provided by the applicant, Fehr & Peers prepared daily, AM, and PM trip generation estimates for the Project for all three trip types. Peak hour trips were based on the truck schedules and employee shift changes over times assuming an employee arrives within 30 min before their shift and leaves within 30 min after their shift ends. The Project estimates that 90% of employees drive to work while the remaining 10% use alternative forms of transportation such as carpool or transit. These estimates are provided in **Table 2**.

Option Two – ITE Trip Generation Estimates

The Project is not a typical use that is defined in the ITE Trip Generation Manual. The most similar land uses defined in the trip generation manual are provided in **Table 3** and are further described below:



- **ITE Code 155 High-Cube Fulfillment Warehouse (Sort)** is used primarily for the storage and/ or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical warehouse has a high level of on-site automation and logistics management. A sort facility is a fulfillment center that ships out smaller items, requiring extensive sorting, typically by manual means.
- **ITE Code 156 High-Cube Parcel Hub** is used primarily for the storage and/ or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical hub has a high level of on-site automation and logistics management. A high-cube parcel hub warehouses typically serves as a regional and local freight-forwarder facility for time sensitive shipments via airfreight and ground carriers. A site can also include truck maintenance, wash, or fueling facilities. Some limited assembly and repackaging may occur within the facility.

While these land uses are similar in nature to the air cargo center proposed, the processing of cargo from planes to trucks is fundamentally different enough that the trip making behavior of employees, trucks, and deliveries is not consistent with measured trip generation rates of ITE Code 155 or 156. In particular, air cargo operations handle smaller packages than ocean borne or rail cargo, therefore, more employees are needed to transfer cargo to/from trains/trucks. However, the volume of trucks is similar. The shifts and scheduled truck moves for air cargo facilities are also different than traditional distribution centers and fulfillment centers.

Option Three – Custom Trip Generation Rate

Empirical data was collected at a similar land use in order to develop a custom trip generation rate based on an operational air cargo facility. Fehr & Peers collected driveway counts at the FedEx facility that currently operates at Ontario Airport. Counts were collected at the employee driveway in order to isolate employee and delivery trips since the exact truck trip schedule is already defined for our proposed Project. The counts were collected in November 2021, which is a peak time of the year for cargo facilities as retail stores ramp up for the busy holiday shopping season. This should provide a conservatively high estimate during the peak hours as overtime for employees is standard during peak seasons. This means that employees may be working earlier or later than the typical shift times.

The size of the FedEx facility is approximately 195 KSF (approximately 40% smaller than our proposed Project). The FedEx trips were scaled up to match our proposed Project size to estimate the trips shown in **Table 4**.

As shown in **Table 4**, the daily trip estimates are similar (but higher) to the manual trips which were estimated based on number of employees. This estimate accounts for typical daily trips other than the regular commute trips. The typical commute AM and PM trip generation rates developed from the FedEx facility are significantly higher than the manual estimates as the shift changeover times



are not during the typical commute peak hours. However, as noted above, during the peak seasons, it is anticipated that peak hour travel may be more regular to account for overtime.

Lastly, it should be noted that the custom trip generation estimates differ from the ITE rates (typically lower in the peak hour and higher at the daily level). This is due to the specialized nature of the cargo facilities. A higher number of employees is needed for the sorting from planes to trucks, and the fixed truck schedule results in off-peak employee travel.

Project Trip Generation

Trip generation rates based on data provided by the applicant closely aligns with the empirical data collected from a nearby air cargo facility. The empirical data results in slightly higher daily and peak hour trip generation rates. The empirical data captures additional trips, such as employees running errands or going off-site for lunch. It also captures a busier time of the year (November) when more cargo is moving due to the coming Christmas holiday resulting in longer shifts and overtime for employees. We recommend using the custom daily and peak hour trip generation rates for air cargo facilities based on the empirical data. The final recommended Project trip generation estimate is provided in **Table 5** for Phase I and **Table 6** for Phase II. This estimate uses the custom trip generation rate from **Table 4** for employees, deliveries and other ancillary trips, and uses the Project truck trip information for truck trips. Truck trips were converted to Passenger Car Equivalent (PCE) using a 3.0 factor.

The custom trip generation rates developed are anticipated to be the best representation of the proposed Project and provide the most conservative estimates for AM, PM and daily trip generation. Based on Project shift change over times, the peak Project traffic is anticipated to occur in off-peak hours. However, this assessment will conservatively analyze the Project based on the higher peak hour trip generation rates based on the empirical data to account for nontypical shifts, such as overtime.

Trip Distribution

Project trip distribution refers to the directions of approach and departure that vehicles would use to travel to and from the Project site. Local knowledge of the study area, travel pattern data and statistics, and professional judgment were used to develop a Project trip distribution for the respective trip generators.

For the employee trip distribution, home-to-work travel patterns were referenced from the San Bernardino County travel demand forecasting model (SBTAM) and Census Bureau Longitudinal Employer-Household Dynamics (LEHD) data. SBTAM is a socio-economic model (population and employment) so the Project employment was added to a Traffic Analysis Zone (TAZ) representative of the Project in the model. **Figure 2** provides the results of a select zone model run from SBTAM and shows the AM trip distribution, which is the highest trip generating period. **Attachment A**



provides the LEHD data to confirm how far employees travel and from which directions. **Figure 3** presents the proposed project trip distribution for employees (non-truck trips).

The truck trip distribution is based on the known destinations of each truck trip along the shortest designated truck routes, per the City of Ontario Truck Route Map (provided in **Attachment B**) and the trucking schedules provided by the Project applicant. **Figure 4** presents the truck assignment for Phase I and **Figure 5** presents the truck assignment for Phase II. Both total truck trips and PCE conversions are presented in the figures.

Figure 6 presents the project only trip assignment for Phase I in PCE for all trips including trucks. **Figure 7** presents the project only trip assignment for Phase II in PCE for all trips including trucks.

Study Locations

The proposed Project trip generation and trip distribution were used to identify study locations. Consistent with City requirements, intersections classified as collectors or higher that the Project is anticipated to add 50 or more peak hour trips to were chosen as study intersections.

Figure 2 shows the Project study area and proposed study intersections. The proposed study locations for this Project are:

1. Euclid Avenue (SR-83) at Mission Boulevard
2. Sultana Avenue at Mission Boulevard
3. Campus Avenue at Mission Boulevard
4. Bon View Avenue at Mission Boulevard
5. Grove Avenue at Mission Boulevard
6. Baker Avenue at Mission Boulevard
7. Vineyard at Avion Street
8. Vineyard at Avion Drive
9. Vineyard Avenue at Mission Boulevard
10. Vineyard Avenue at Francis Street
11. Vineyard Avenue at Philadelphia Street
12. Vineyard Avenue at Raymond Kay Way
13. Vineyard Avenue at SR-60 Westbound Ramps
14. Vineyard Avenue at SR-60 Eastbound Ramps
15. Archibald Avenue at Jurupa Street
16. Archibald Avenue at Tracy Paseo
17. Archibald Avenue at Mission Boulevard
18. Archibald Avenue at Francis Street
19. Archibald Avenue at Cedar Avenue
20. Archibald Avenue at Philadelphia Street
21. Archibald Avenue at SR-60 Westbound Ramps
22. Archibald Avenue at SR-60 Eastbound Ramps



23. Haven Avenue at I-10 Westbound Ramps
24. Haven Avenue at I-10 Eastbound Ramps
25. Haven Avenue at Guasti Road
26. Haven Avenue at Airport Drive
27. Hofer Ranch Road at Jurupa Street
28. Turner Ave at Jurupa Street
29. Haven Avenue at Jurupa Street
30. Carnegie Avenue at Jurupa Street
31. Commerce Parkway at Jurupa Street
32. Dupont Avenue at Jurupa Street
33. Milliken Avenue at Jurupa Street
34. Rockefeller Avenue/Toyota Way at Jurupa Street
35. I-15 Southbound Ramps at Jurupa Street
36. I-15 Northbound Ramps at Jurupa Street

Data Collection

Fehr & Peers collected traffic counts in Fall 2021 during the AM peak period (7:00-9:00AM) and PM peak period (4:00-6:00PM) at 36 locations around the airport. Counts were collected during fair weather, while school was in session, and during a typical (non-holiday) Tuesday, Wednesday, or Thursday. Fehr & Peers also collected roadway classification counts at select roadways throughout the study area to estimate heavy vehicle percentage. Fehr & Peers also collected counts at the at-grade crossings at Archibald Avenue and Vineyard Avenue to measure delays associated with trains.

Fehr & Peers will collect the following information in a field visit to the study area:

- Lane configurations
- Signal phasing
- Land uses in the study area
- Existing pedestrian and bicycle facilities
- On-street parking conditions
- Transit service

Fehr & Peers will request the following from the City of Ontario for use in the study:

- Traffic signal timing information at all signalized intersections
- Pending and approved development Projects within a 3-mile radius

Analysis Scenarios

Fehr & Peers will study the intersection Level of Service (LOS) at the study intersections noted above for the following scenarios:

- **Existing (2021) Conditions** – Based on traffic counts collected in Fall of 2021



- **Project Phase 1 Opening Year (2024) Without Project Conditions** – Ambient growth plus trips from pending and approved Projects in the study area at Phase 1 Project Opening Year will be added to Existing (2021) conditions
- **Project Phase 1 Opening Year (2024) Plus Phase 1 Project Conditions** – Phase 1 Project traffic will be added to the No Project condition
- **Project Phase 2 Opening Year (2029) Without Project Conditions** – Ambient growth plus trips from pending and approved Projects in the study area at Phase 2 Project Opening Year will be added to Existing (2021) conditions
- **Project Phase 2 Opening Year (2029) Plus Phase 1 and Phase 2 Project Conditions** – Phase 1 and Phase 2 Project traffic will be added to the No Project condition
- **Cumulative Year (2040) No Project Conditions** – Estimated using SBTAM and the adopted general plan land use assumptions
- **Cumulative Year (2040) Plus Phase 1 and Phase 2 Project Conditions** – Phase 1 and Phase 2 Project traffic will be added to the No Project condition

Next Steps

Once the proposed trip generation estimates and study intersections are approved by the City, Fehr & Peers will begin the traffic operations analysis for this Project.

Attachments

- **Figure 1 – Project Site Location**
- **Figure 2 – Project Model Trip Distribution**
- **Figure 3 – Project Employee Trip Distribution**
- **Figure 4 – Phase I Truck Trip Assignment**
- **Figure 5 – Phase II Truck Trip Assignment**
- **Figure 6 – Phase I Project Only PCE Trip Assignment**
- **Figure 7 – Phase II Project Only PCE Trip Assignment**
- **Table 1 – Staffing by Shift**
- **Table 2 – Manual Trip Generation Estimates**
- **Table 3 – ITE Trip Generation Estimates**
- **Table 4 – Custom Trip Generation Estimates Based on FedEx Counts**
- **Table 5 – Final Ontario Airport Cargo Facility Phase I Trip Generation Estimates**
- **Table 6 – Final Ontario Airport Cargo Facility Phase II Trip Generation Estimates**
- **Attachment A – LEHD Home-To-Work Data**
- **Attachment B – City of Ontario Truck Route Map**



SOURCE: Google Earth - 2021

FIGURE 1

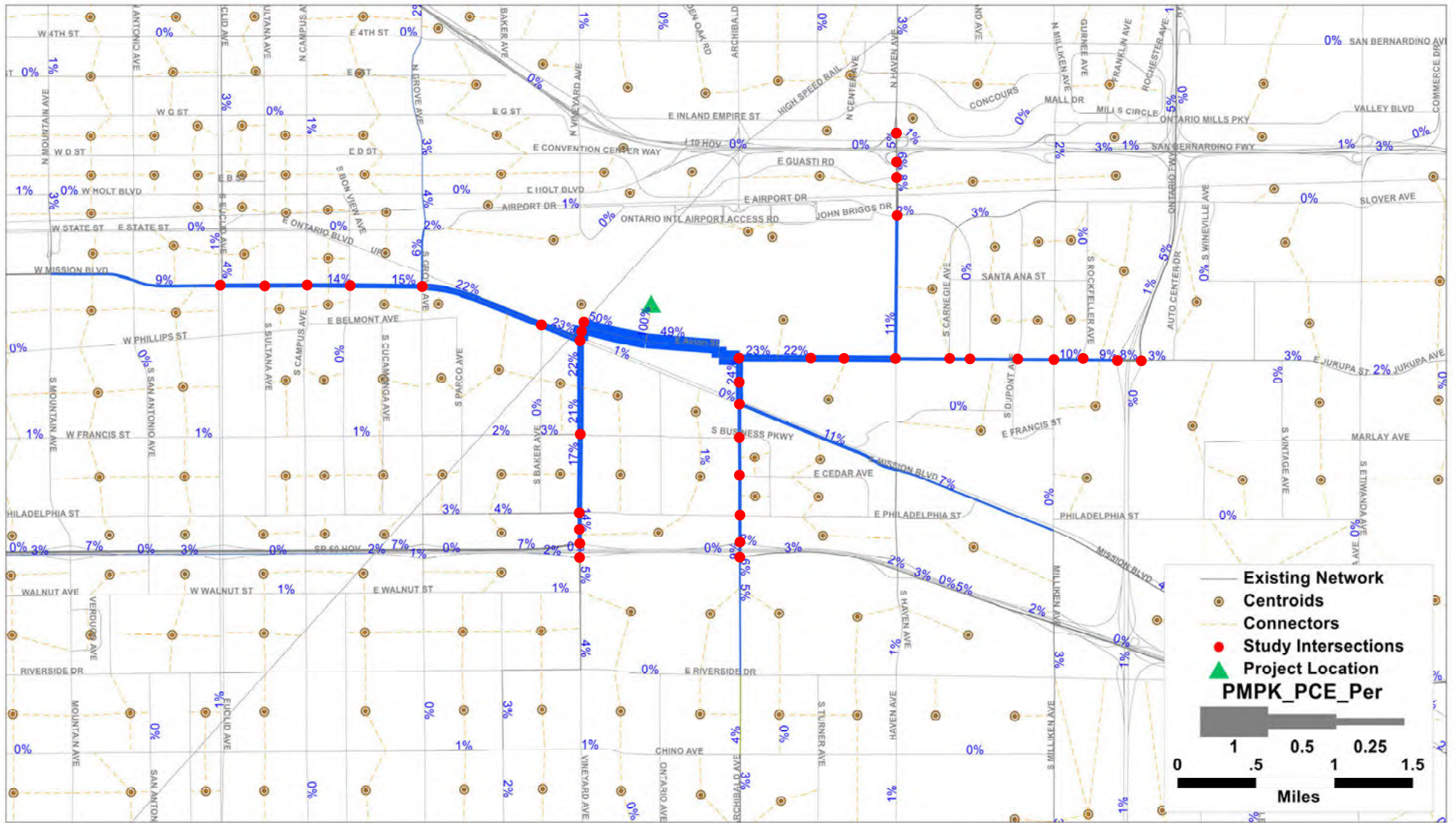
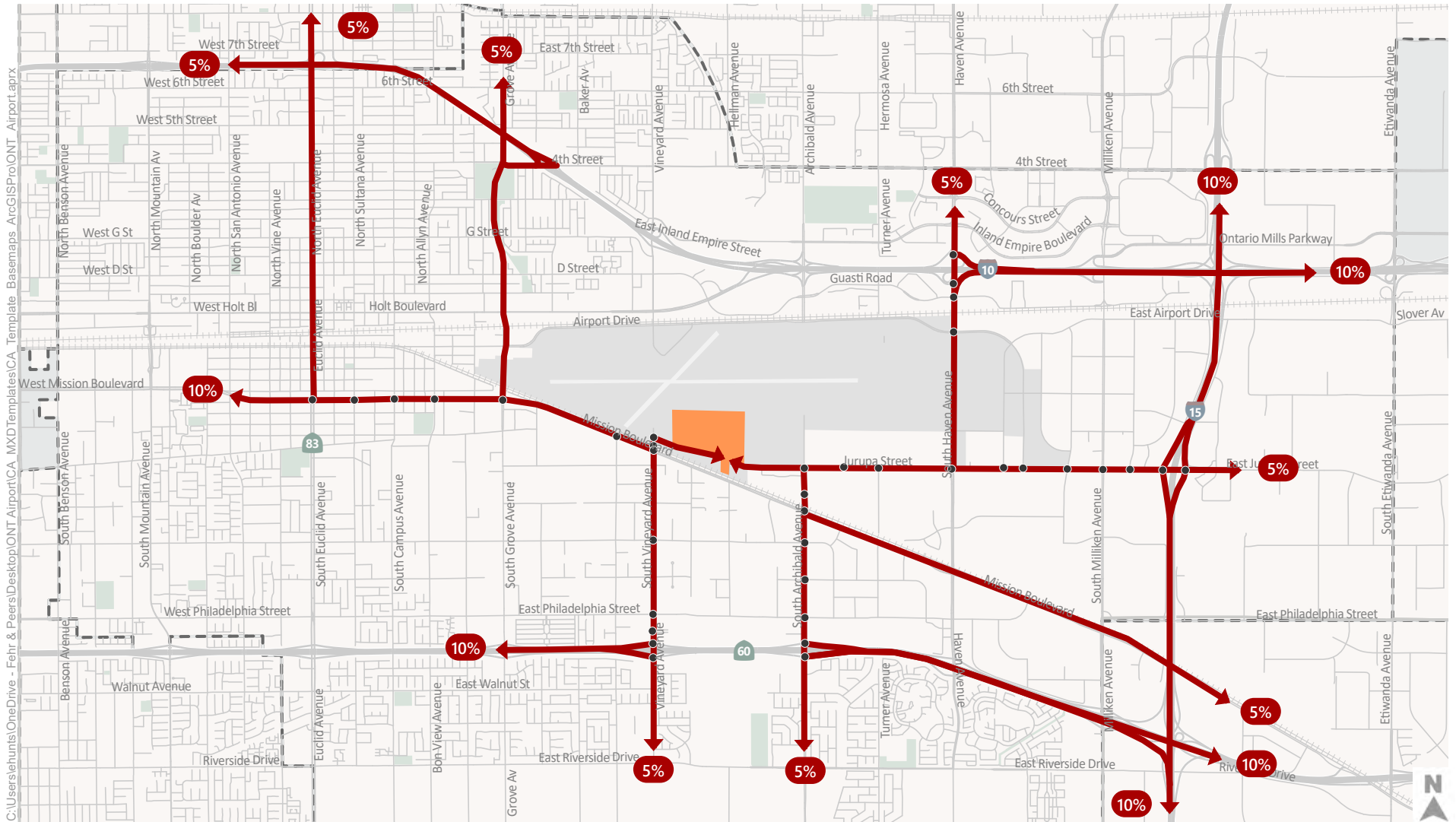


Figure 2

Project Model Trip Distribution





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- Study Intersection
- Project Site
- ▭ City Boundary



Figure 3

Project Employee Trip Distribution

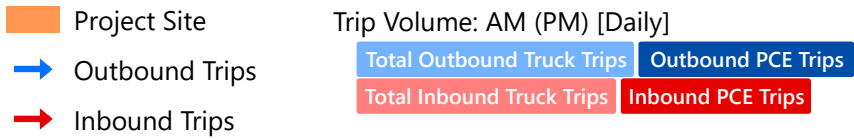
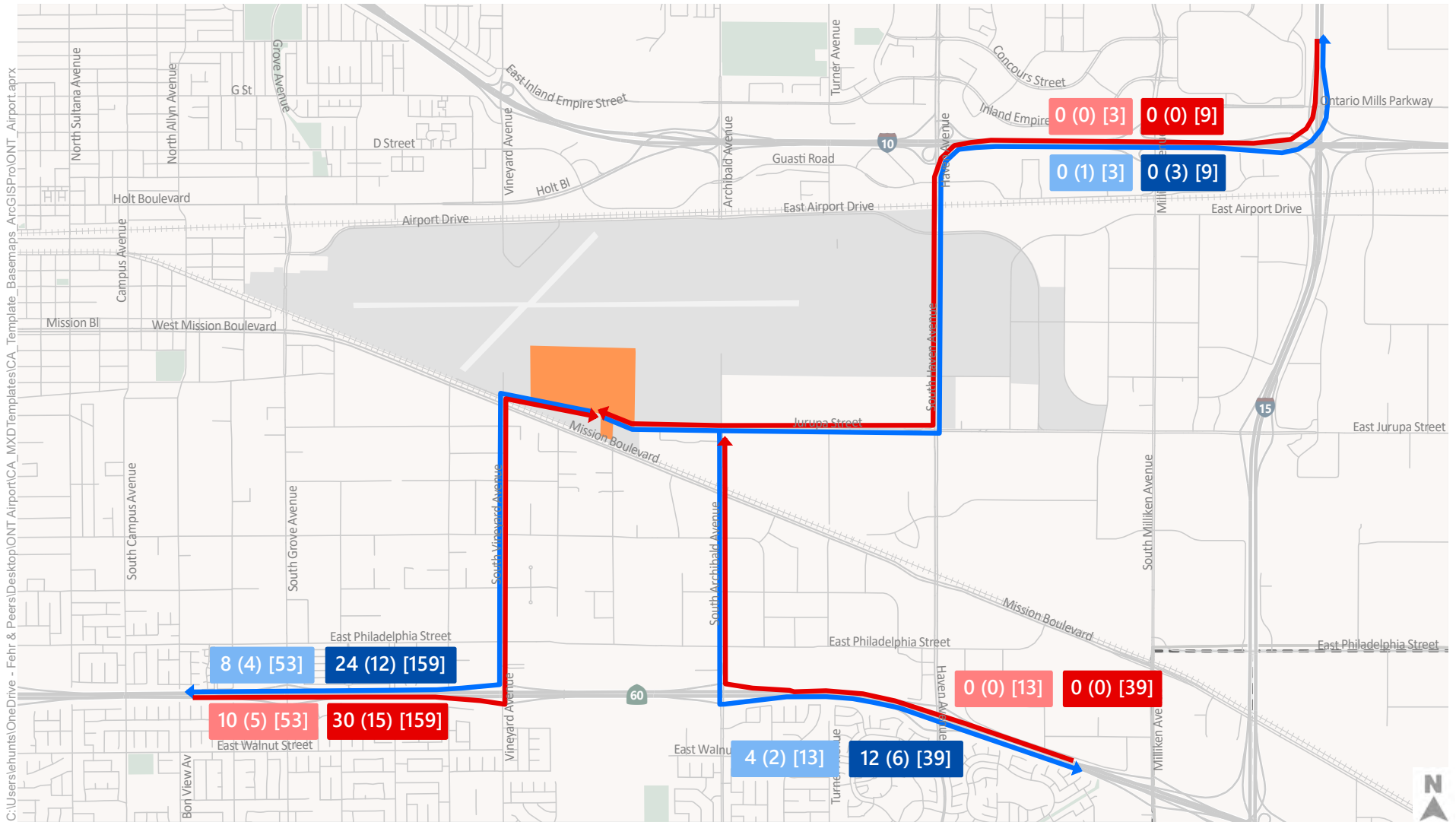


Figure 4

Phase I Truck Trip Assignment

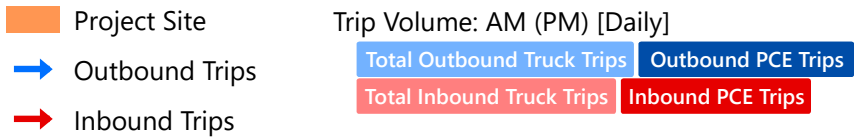
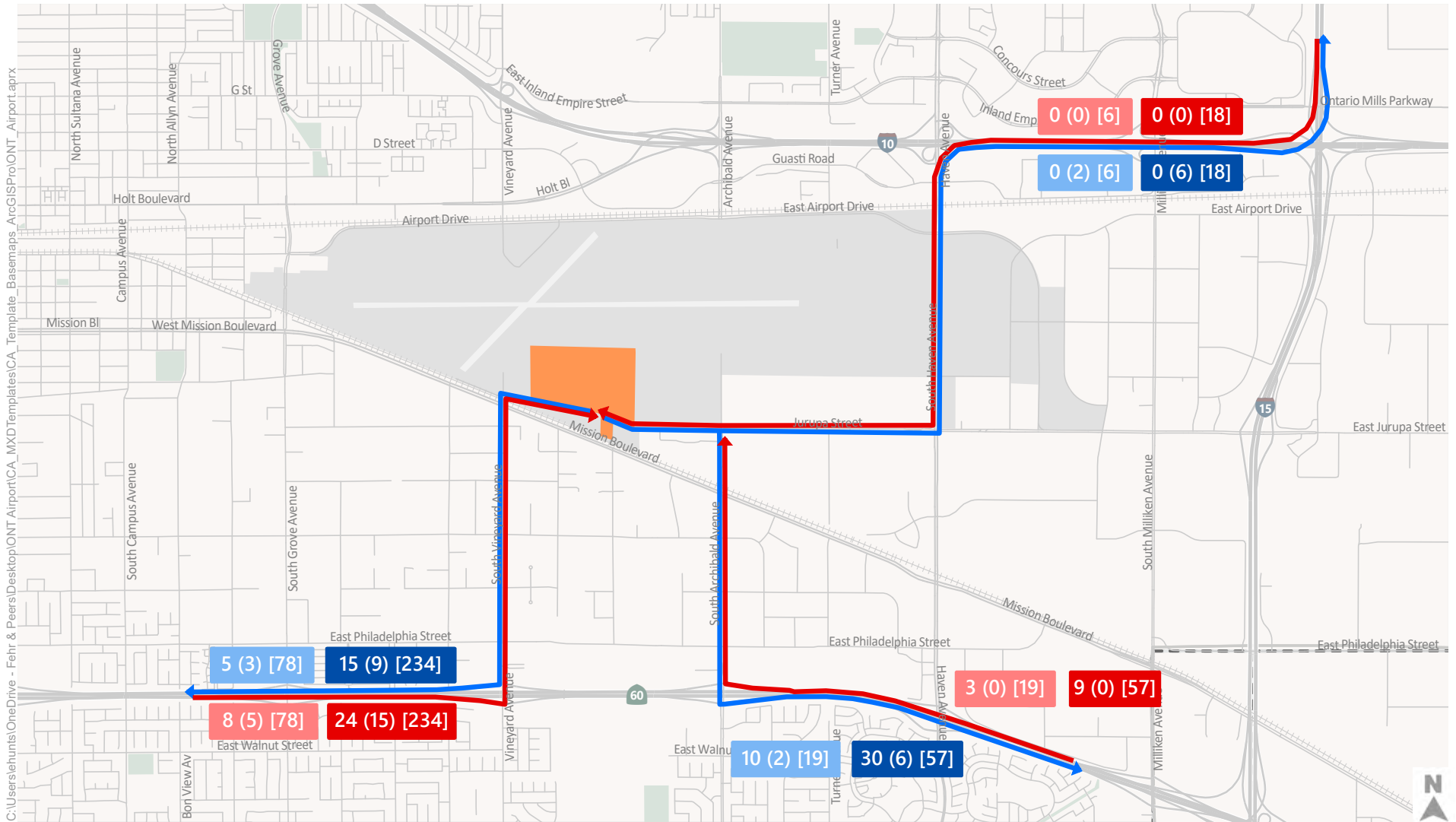


Figure 5

Phase II Truck Trip Assignment

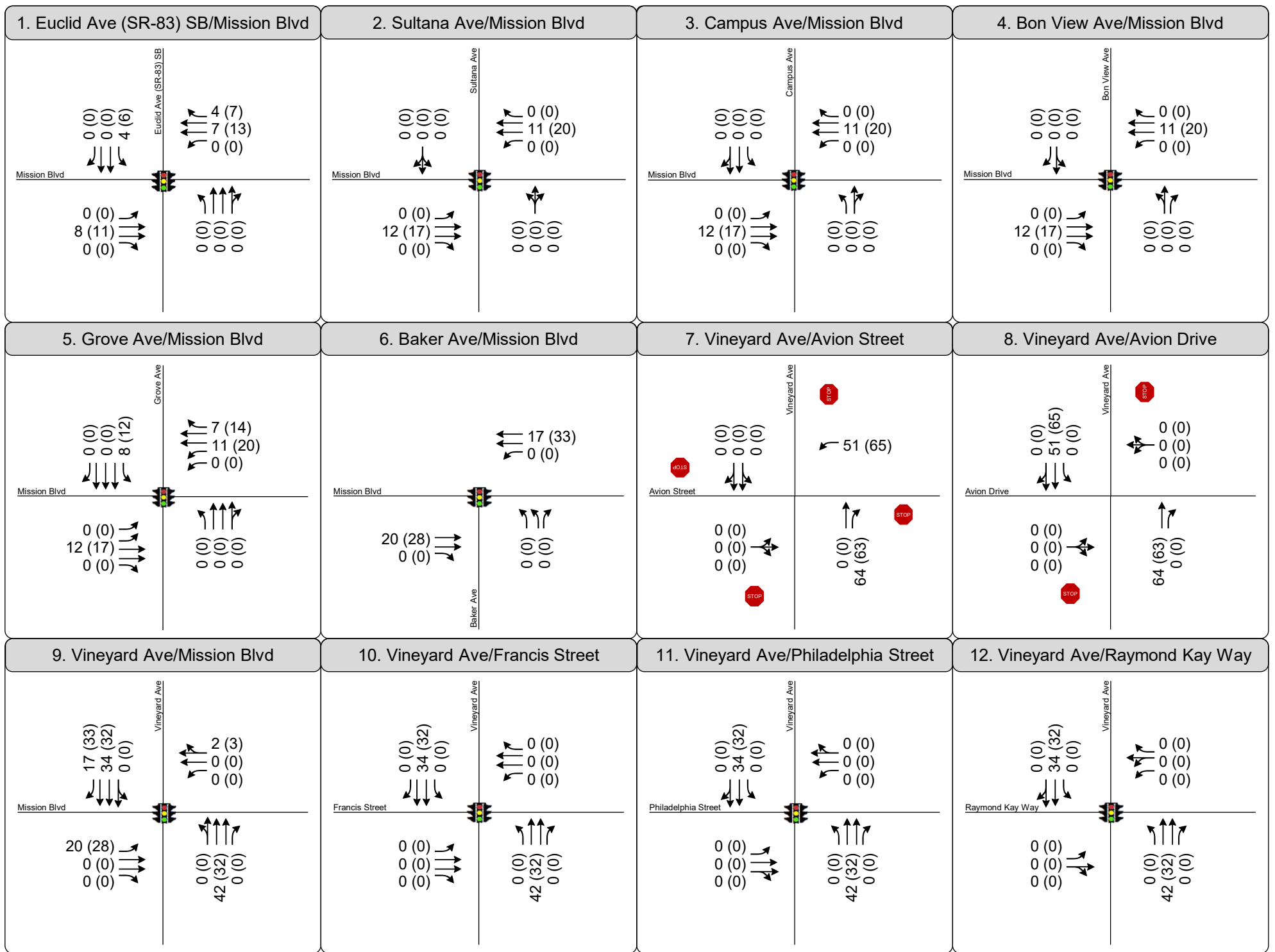
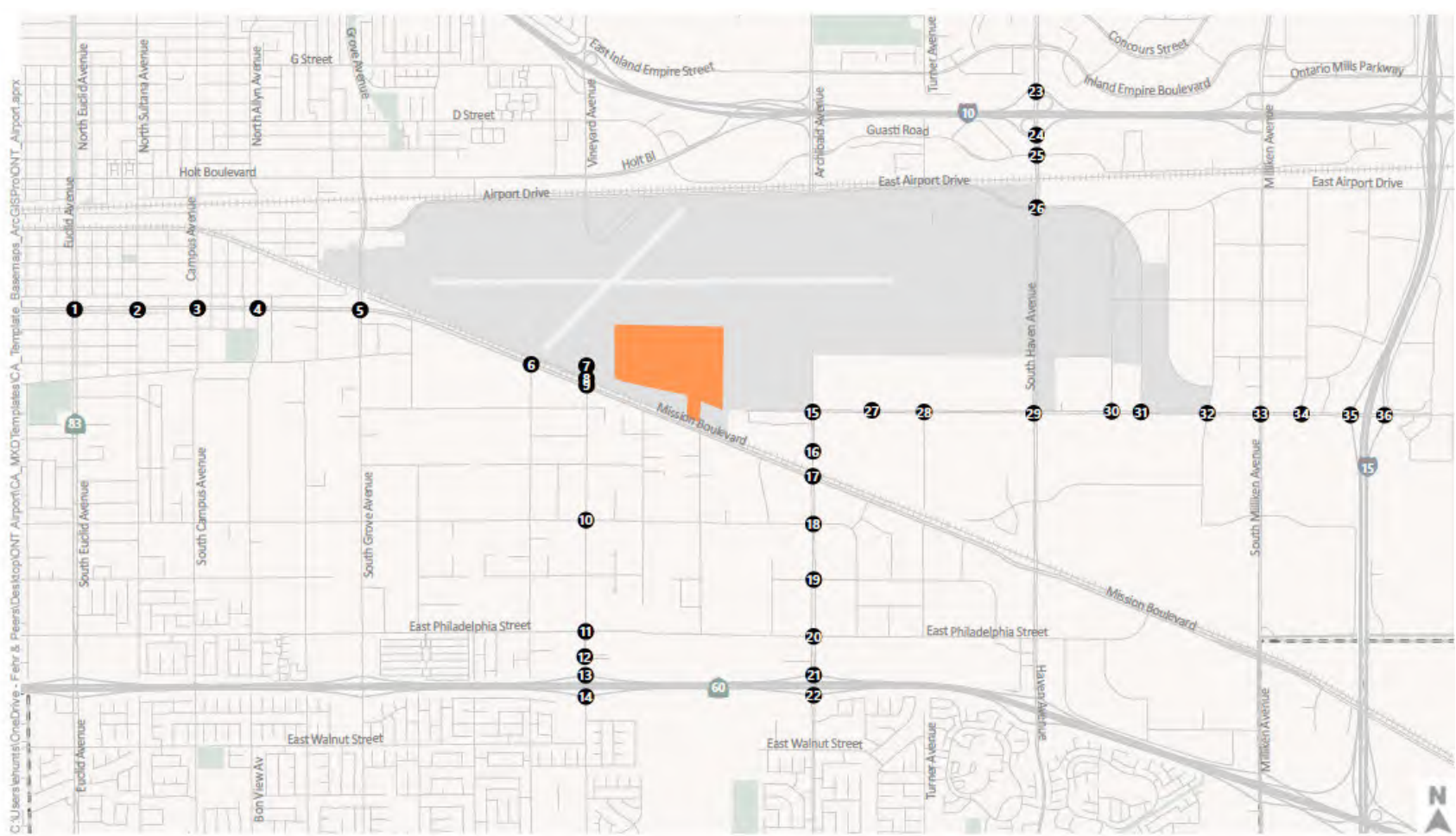


Figure 6
Phase I Project Only PCE Trip Assignment
Opening Year (2024) Conditions



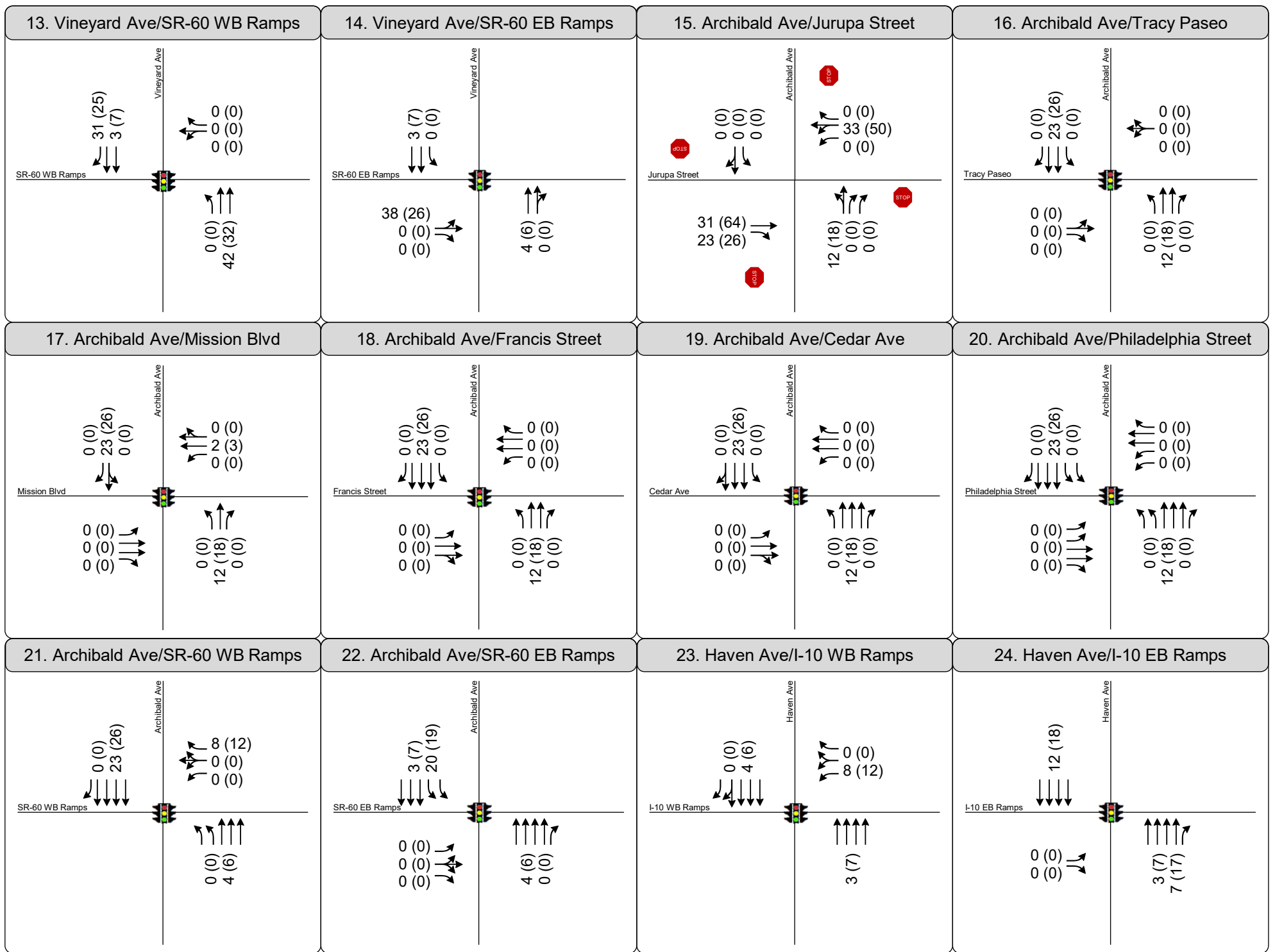
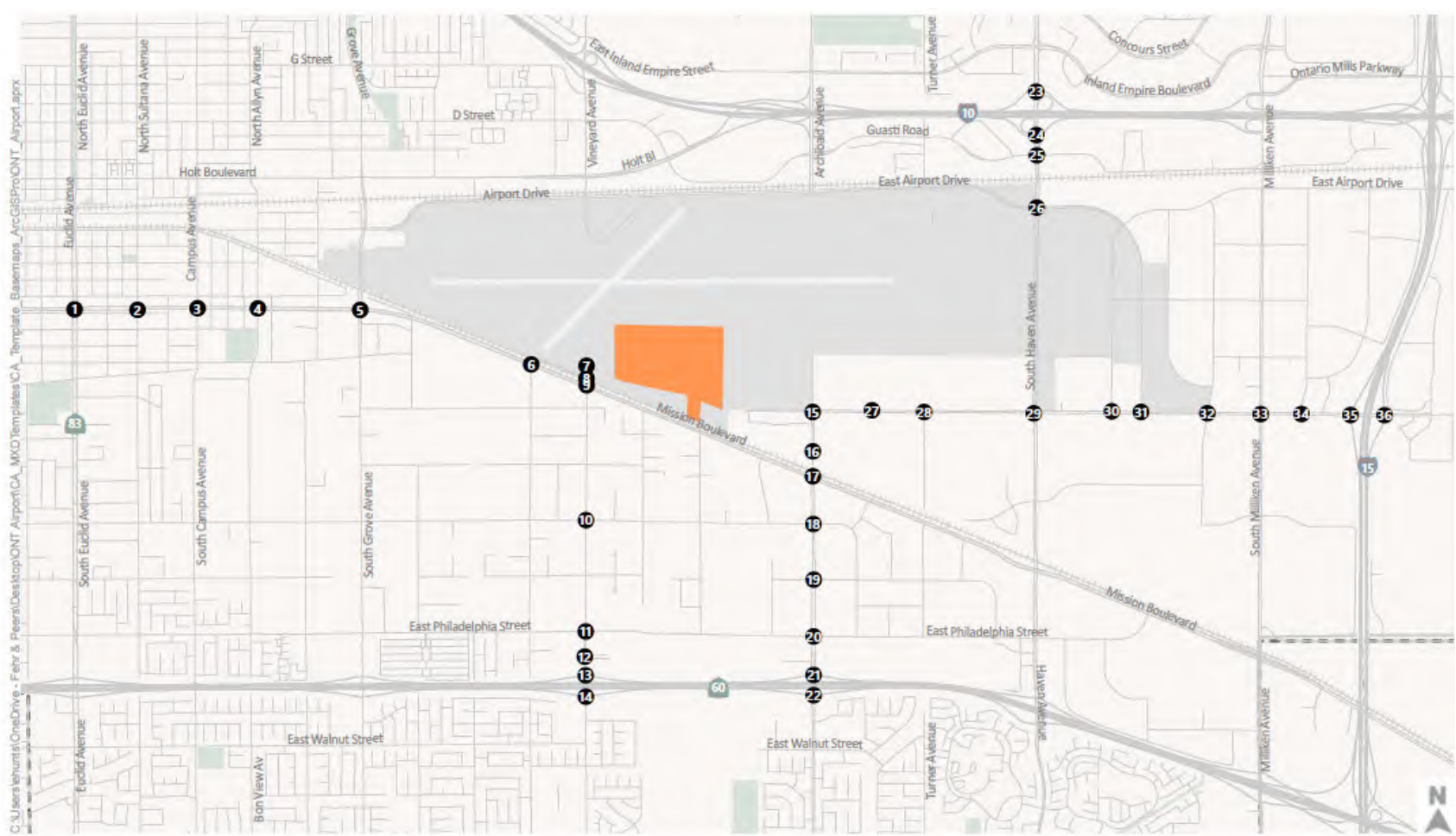


Figure 6
Phase I Project Only PCE Trip Assignment
Opening Year (2024) Conditions



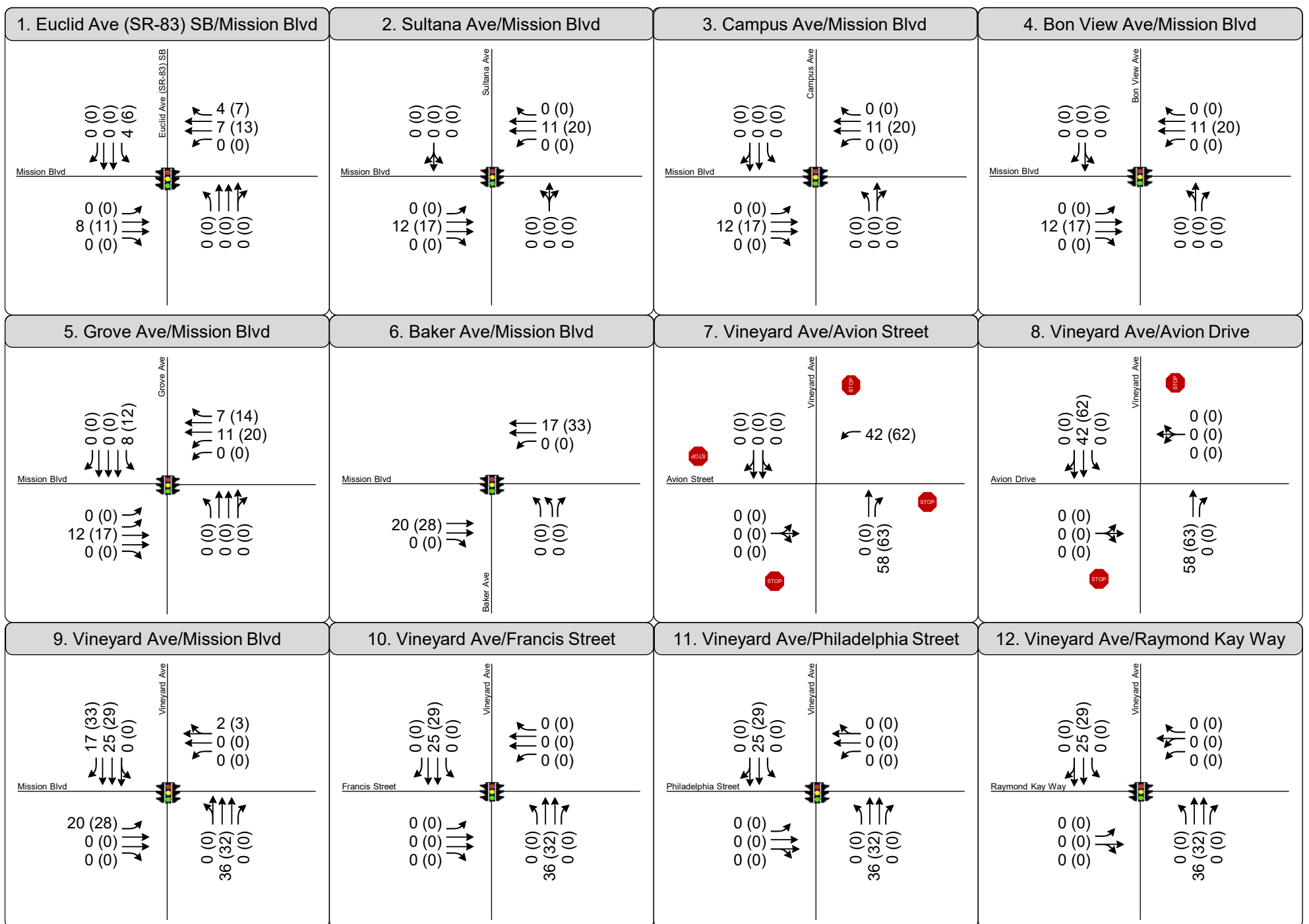
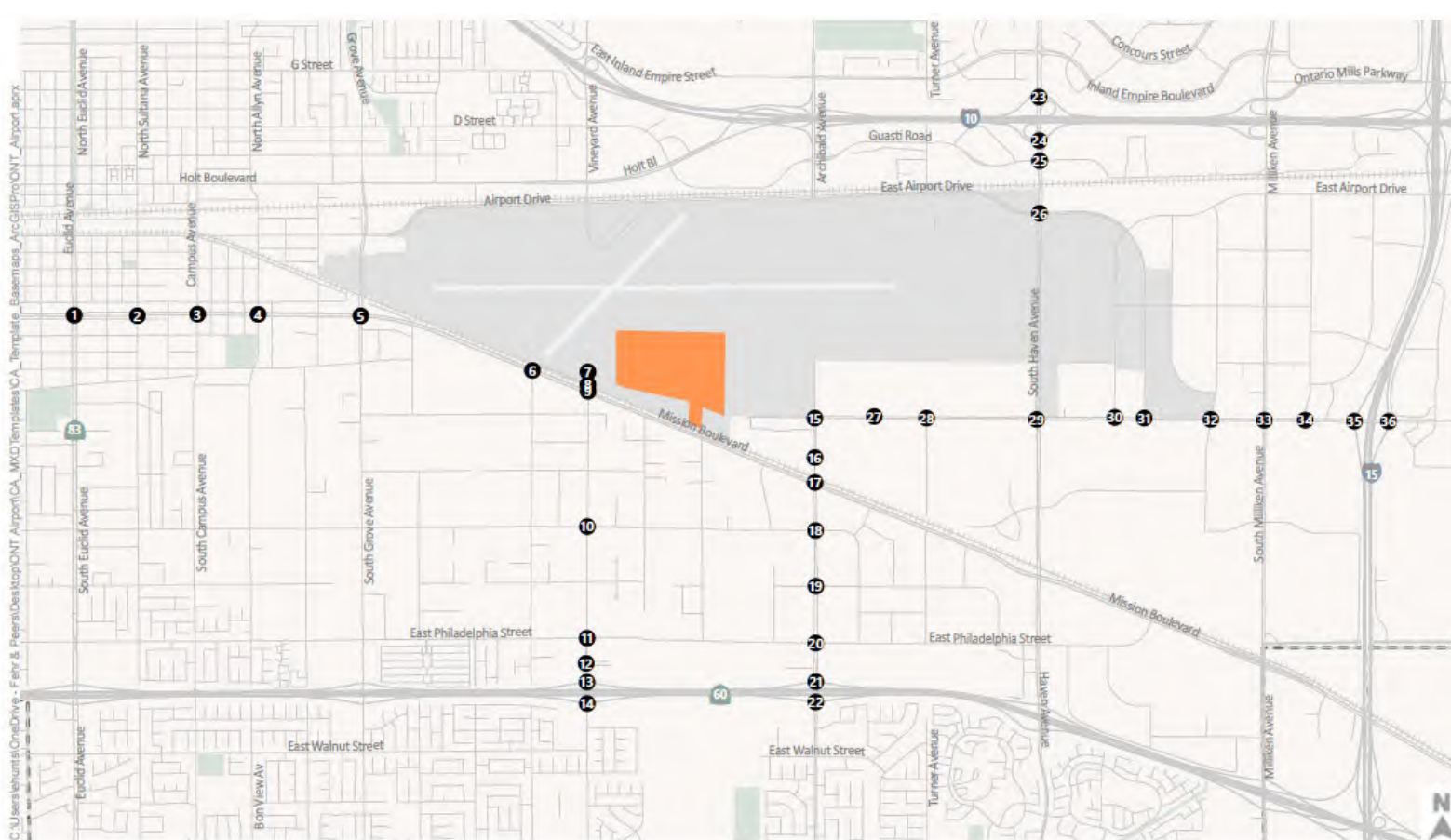


Figure 7
Phase II Project Only PCE Trip Assignment
Opening Year (2029) Conditions



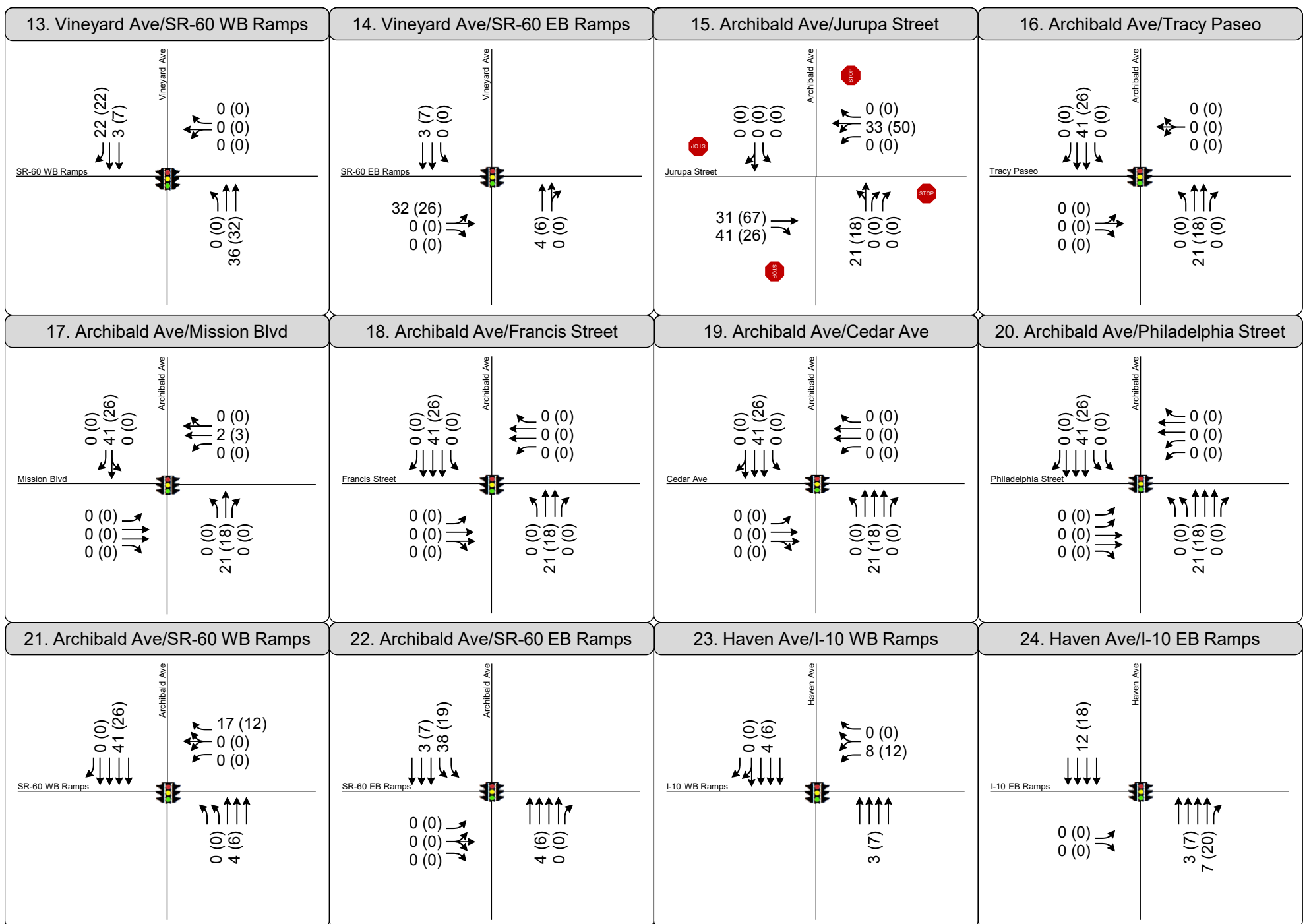
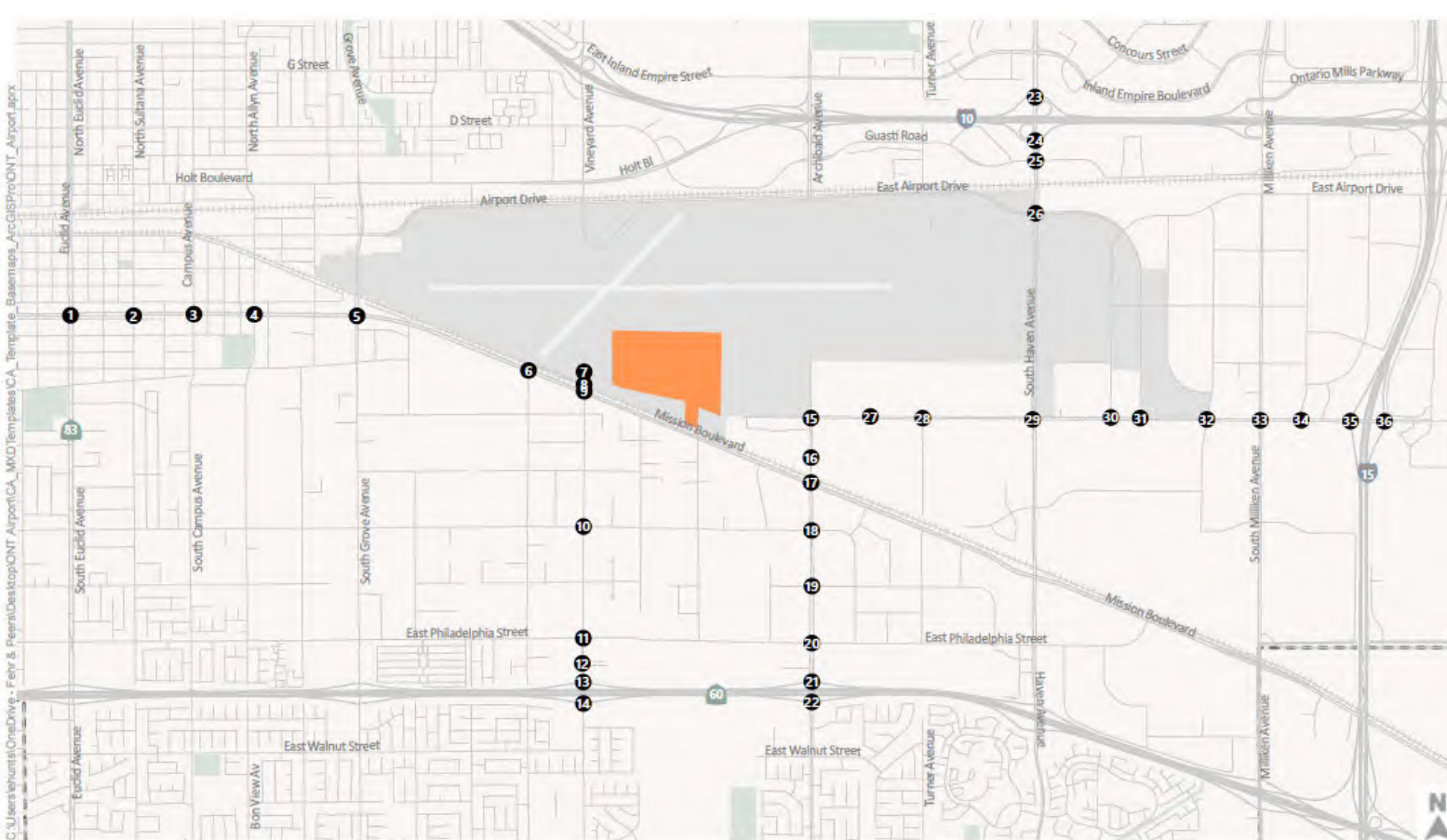


Figure 7
Phase II Project Only PCE Trip Assignment
Opening Year (2029) Conditions



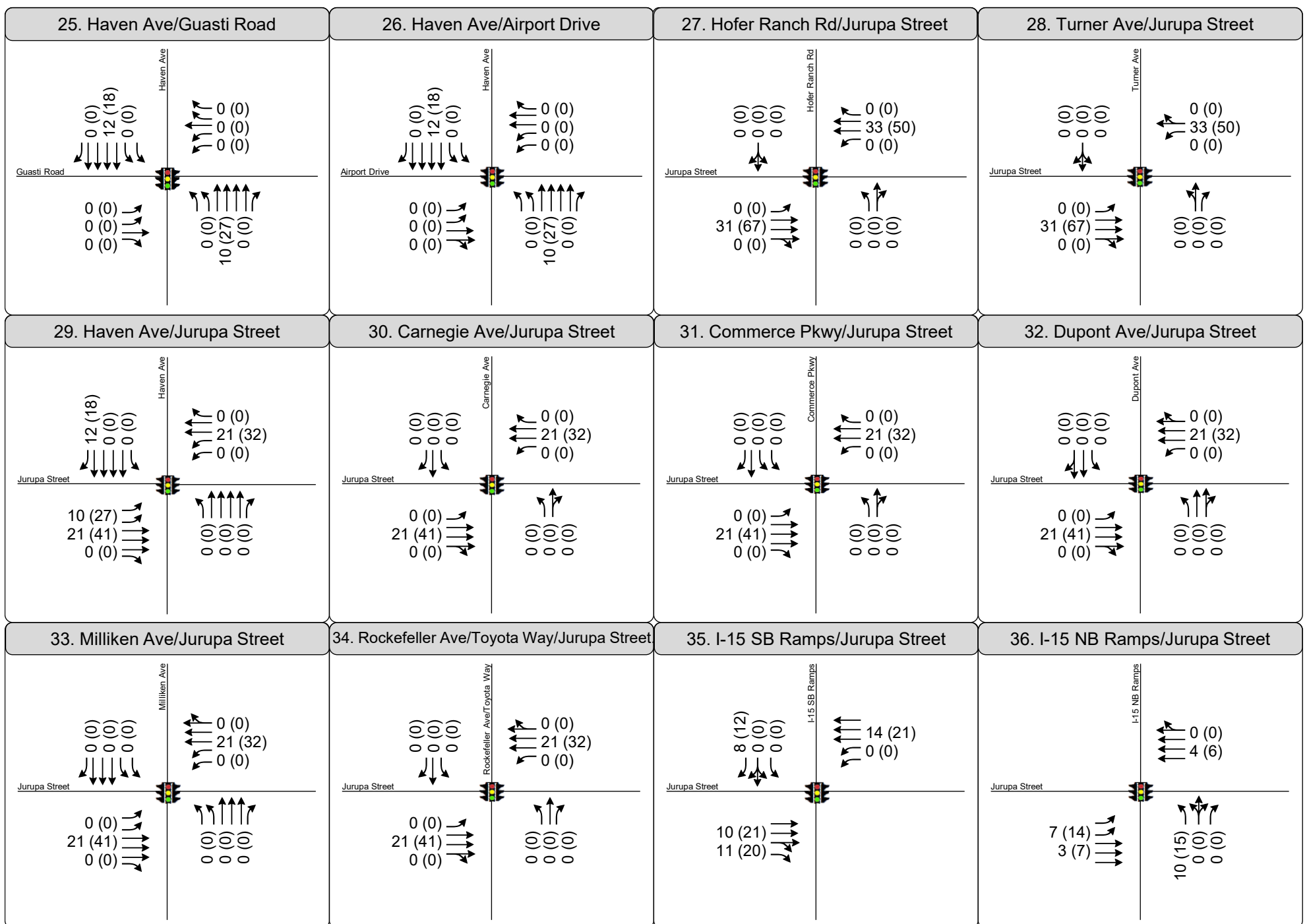
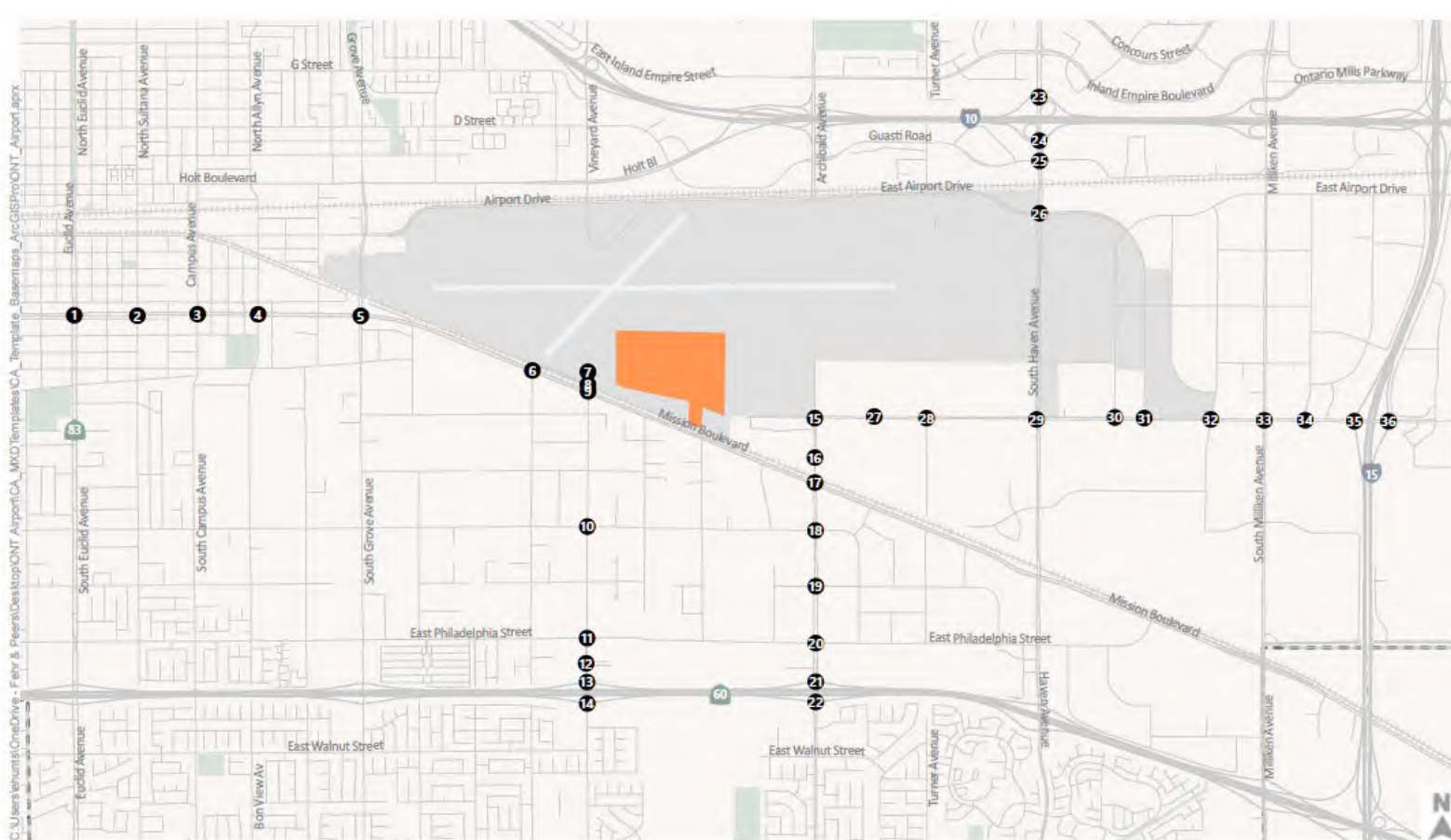


Figure 7

Phase II Project Only PCE Trip Assignment
Opening Year (2029) Conditions



Table 1 - Staffing by Shift

Shift	1st		2nd		3rd	
	Staff	Hours	Staff	Hours	Staff	Hours
Office	150		40		90	
Wave 1	10	05:00 - 14:00	8	13:00 - 22:00	10	19:00 - 4:00
Wave 2	10	06:00 - 15:00	20	14:00 - 23:00	18	19:30 - 4:30
Wave 3	30	06:30 - 15:30	12	15:00 - 24:00	45	20:00 - 05:00
Wave 4	90	07:00 - 16:00			17	21:00 - 06:00
Wave 5	10	07:30 - 16:30				
Warehouse	440	6:30 - 11:00	25		440	21:00 - 3:30
Wave 1	44	5:30 - 12:00	10	13:00 - 22:00	44	20:30 - 4:30
Wave 2	176	6:00 - 12:00	15	14:00 - 23:00	176	21:00 - 3:30
Wave 3	176	6:30 - 12:30			176	21:30 - 04:00
Wave 4	44	6:30 - 13:00			44	21:30 - 4:30
Ramp	50		30		50	
Wave 1	10	3:00 - 11:30	12	12:00-20:00	10	20:30 - 4:30
Wave 2	30	3:30 - 12:00	18	14:30 - 22:30	30	21:30 - 5:30
Wave 3	10	4:00 - 12:00			10	
Total	640		95		580	

Table 2 - Manual Trip Generation Estimates																												
Land Use	Size	Daily Rate	AM Adj Peak Hour						PM Adj Peak Hour						ONT Phase 2 (2029) Trip Generation													
			Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Daily Trips	AM Adj Peak Hour (7-8A)			PM Adj Peak Hour Trips (4-5P)			AM Hour of Generator (5:30 - 6A)			PM Hour of Generator (8:30-9P)			
Employee Trips	319.495 ksf															2,367	9	0	9	0	90	90	392	42	435	399	0	399
Truck Trips																216	3	16	19	1	5	6	0	12	12	11	0	11
Other trips (fuel trucks, separate deliveries)																10	0	0	0	0	0	0	0	0	0	0	0	0
Project Trips Total															2,593	12	16	28	1	95	96	392	54	447	410	0	410	

Table 3 - ITE Trip Generation Estimates																		
ITE Land Use Codes	ITE Land Use Code	Size	Trip Generation Rates [a]								Estimated Trip Generation							
			Daily Rate	AM Adj Peak Hour			PM Adj Peak Hour			AM Peak Hr of Generator		PM Peak Hr of Generator		Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips
High-Cube Fulfillment Center Warehouse -	155	319.495 ksf	6.44	0.87	81%	19%	1.20	39%	61%			2,058	225	53	278	149	234	383
High-Cube Parcel Hub Warehouse	156	319.495 ksf	4.63	0.70	50%	50%	0.64	68%	32%			1,479	112	112	224	139	65	204

Source: Trip Generation, 11th Edition (Institute of Transportation Engineers [ITE], 2021)

Table 4 - Custom Trip Generation Estimates Based on FedEx Counts																												
ITE Land Use Codes	ITE Land Use Code	Size	Trip Generation Rates [a]												Estimated Trip Generation													
			Daily Rate	AM Adj Peak Hour			PM Adj Peak Hour			AM Peak Hr of Generator			PM Peak Hr of Generator			Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips								
Project Employees & Deliveries (No Trucks)		319.495 ksf	7.92	0.46	53%	47%	0.77	46%	54%	0.62	53%	47%	0.77	46%	54%	2,531	77	69	146	114	134	247	105	93	198	114	134	247

Table 5 - Final Ontario Airport Cargo Facility Trip Generation Estimates Phase 1																											
ITE Land Use Codes	Size	Trip Generation Rates [a]										Estimated Trip Generation Phase 1 Only															
		Daily Rate	AM Adj Peak Hour			PM Adj Peak Hour			AM Peak Hr of Generator			PM Peak Hr of Generator			Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips			AM Peak Hr of Generator			PM Peak Hr of Generator		
			Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Project Employees & Deliveries	319.495 ksf	7.92	0.46	53%	47%	0.77	46%	54%	0.62	53%	47%	0.77	46%	54%	2,531	77	69	146	114	134	247	105	93	198	114	134	247
Truck Trips (empty)														48	7	1	8	4	0	4	6	0	6	0	5	5	
Truck Trips (non-empty)														102	3	14	17	1	7	8	0	12	12	11	0	11	
Fuel Truck Trips														48													
Project Trips Total															2,729	87	84	171	119	141	259	111	105	216	125	139	263

ITE Land Use Codes	Size	Trip Generation Rates [a]										Estimated Trip Generation															
		Daily Rate	AM Adj Peak Hour			PM Adj Peak Hour			AM Peak Hr of Generator			PM Peak Hr of Generator			Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips			AM Peak Hr of Generator			PM Peak Hr of Generator		
			Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Project Employees & Deliveries	319.495 ksf	7.92	0.46	53%	47%	0.77	46%	54%	0.62	53%	47%	0.77	46%	54%	2,531	77	69	146	114	134	247	105	93	198	114	134	247
Truck Trips (empty) (PCE = 3.0)														144	21	3	24	12	0	12	18	0	18	0	15	15	
Truck Trips (PCE = 3.0)														306	9	42	51	3	21	24	0	36	36	33	0	33	
Fuel Truck Trips (PCE = 3.0)														144													
Project Trips Total (PCE)															3,125	107	114	221	129	155	283	123	129	252	147	149	295

Table 6 - Final Ontario Airport Cargo Facility Trip Generation Estimates Phase 1 and 2 Combined																											
ITE Land Use Codes	Size	Trip Generation Rates [a]										Estimated Trip Generation Phase 1 and 2 Combined															
		Daily Rate	AM Adj Peak Hour			PM Adj Peak Hour			AM Peak Hr of Generator			PM Peak Hr of Generator			Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips			AM Peak Hr of Generator			PM Peak Hr of Generator		
			Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Facility	Size	Daily Trip Rate	AM Adj Peak Hour	PM Adj Peak Hour	AM Peak Hr of Generator	PM Peak Hr of Generator	Daily Trips	AM Adj Peak Hour	PM Adj Peak Hour	AM Peak Hour of Generator	PM Peak Hour of Generator	Daily Trips	AM Adj Peak Hour	PM Adj Peak Hour	AM Peak Hour of Generator	PM Peak Hour of Generator											
Project Employees & Deliveries	319.495 ksf	7.92	0.46	53%	47%	0.77	46%	54%	0.62	53%	47%	0.77	46%	54%	2,531	77	69	146	114	134	247	105	93	198	114	134	247
Truck Trips (empty)															69	7	2	9	4	0	4	5	0	5	0	5	5
Truck Trips (non-empty)															155	4	16	20	1	7	8	0	12	12	11	0	11
Project Trips Total															2,755	88	87	175	119	141	259	110	105	215	125	139	263

ITE Land Use Codes	Size	Trip Generation Rates [a]										Estimated Trip Generation															
		Daily Rate	AM Adj Peak Hour			PM Adj Peak Hour			AM Peak Hr of Generator			PM Peak Hr of Generator			Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips			AM Peak Hr of Generator			PM Peak Hr of Generator		
			Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out	Rate	% In	% Out		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Facility	Size	Daily Trip Rate	AM Adj Peak Hour	PM Adj Peak Hour	AM Peak Hr of Generator	PM Peak Hr of Generator	Daily Trips	AM Adj Peak Hour	PM Adj Peak Hour	AM Peak Hour of Generator	PM Peak Hour of Generator	Daily Trips	AM Adj Peak Hour	PM Adj Peak Hour	AM Peak Hour of Generator	PM Peak Hour of Generator											
Project Employees & Deliveries	319.495 ksf	7.92	0.46	53%	47%	0.77	46%	54%	0.62	53%	47%	0.77	46%	54%	2,531	77	69	146	114	134	247	105	93	198	114	134	247
Truck Trips (empty) (PCE = 3.0)															207	21	6	27	12	0	12	15	0	15	0	15	15
Truck Trips (PCE = 3.0)															465	12	48	60	3	21	24	0	36	36	33	0	33
Project Trips Total (PCE)															3,203	110	123	233	129	155	283	120	129	249	147	149	295

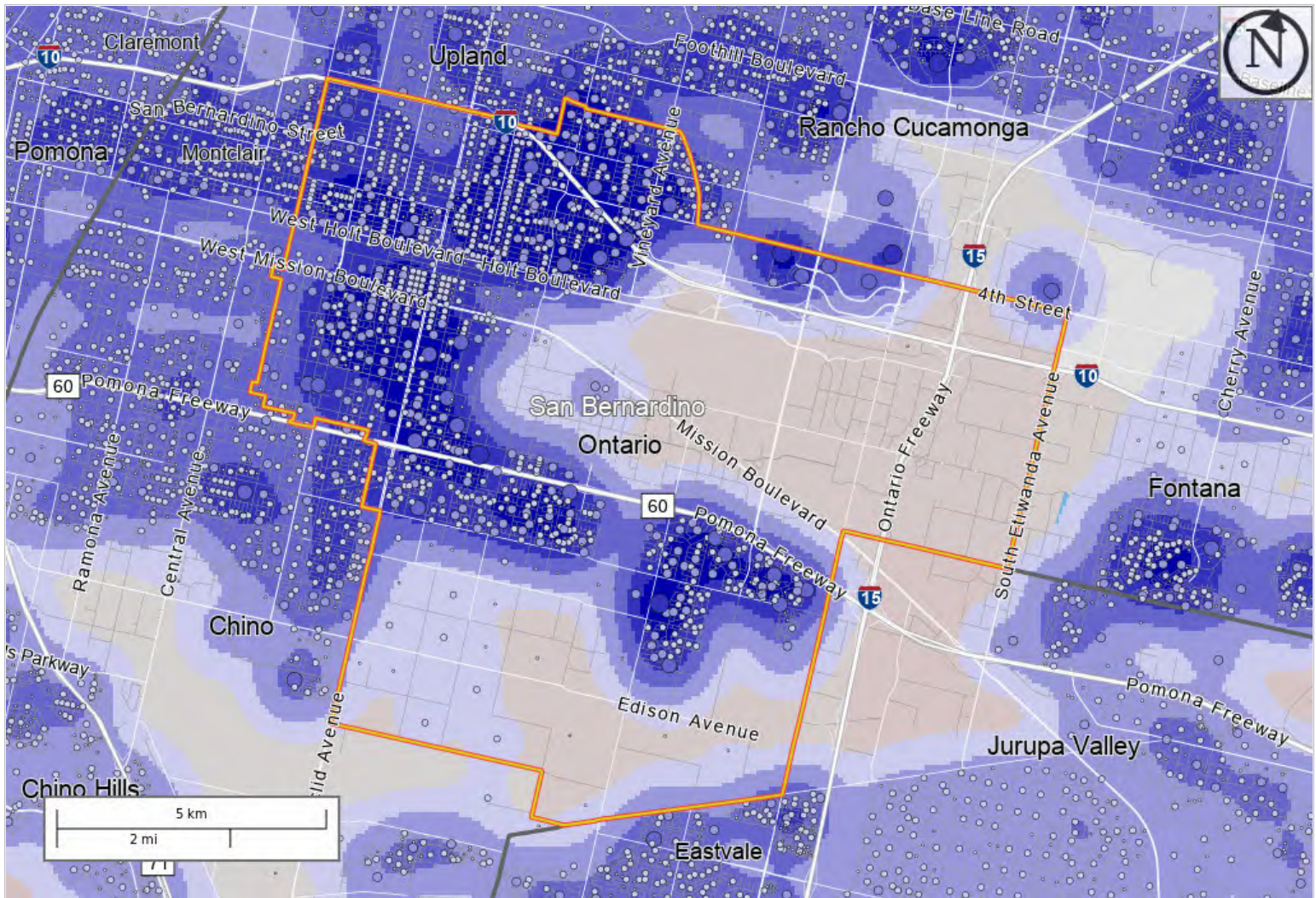
Distance/Direction Report - Work to Home

All Jobs for All Workers in 2018

Created by the U.S. Census Bureau's OnTheMap <https://onthemap.ces.census.gov> on 10/14/2021

Counts and Density of Home Locations for All Jobs in Work Selection Area in 2018

All Workers



Map Legend

Job Density [Jobs/Sq. Mile]

- 5 - 39
- 40 - 141
- 142 - 311
- 312 - 549
- 550 - 855

Job Count [Jobs/Census Block]

- 1 - 2
- 3 - 13
- 14 - 42
- 43 - 98
- 99 - 192

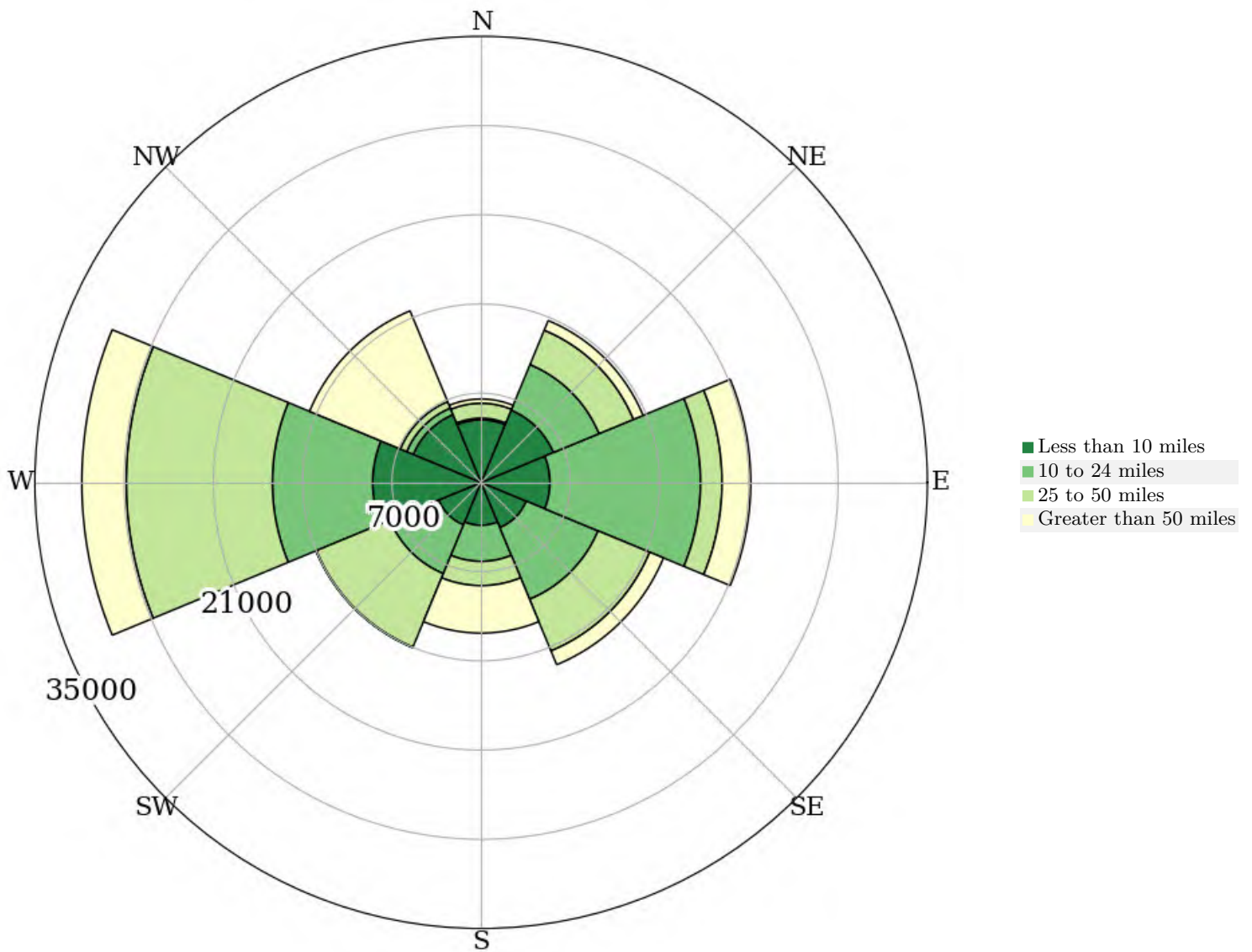
Selection Areas

- 🔴 Analysis Selection



All Jobs for All Workers in 2018

Distance and Direction from Work Census Block to Home Census Block, Employed in Selection Area



All Jobs for All Workers in 2018

Distance from Work Census Block to Home Census Block, Employed in Selection Area

Distance	2018	
	Count	Share
Total All Jobs	128,637	100.0
Less than 10 miles	41,528	32.3
10 to 24 miles	37,284	29.0
25 to 50 miles	30,324	23.6
Greater than 50 miles	19,501	15.2

Additional Information

Analysis Settings

Analysis Type	Distance/Direction
Selection area as	Work
Year(s)	2018
Job Type	All Jobs
Selection Area	Ontario city, CA from Places (Cities, CDPs, etc.)
Selected Census Blocks	1,478
Analysis Generation Date	10/14/2021 11:25 - OnTheMap 6.8
Code Revision	5dc8e60ec2609d78ebfa7d4b188db13aacbb1ba6
LODES Data Version	20201117_1559

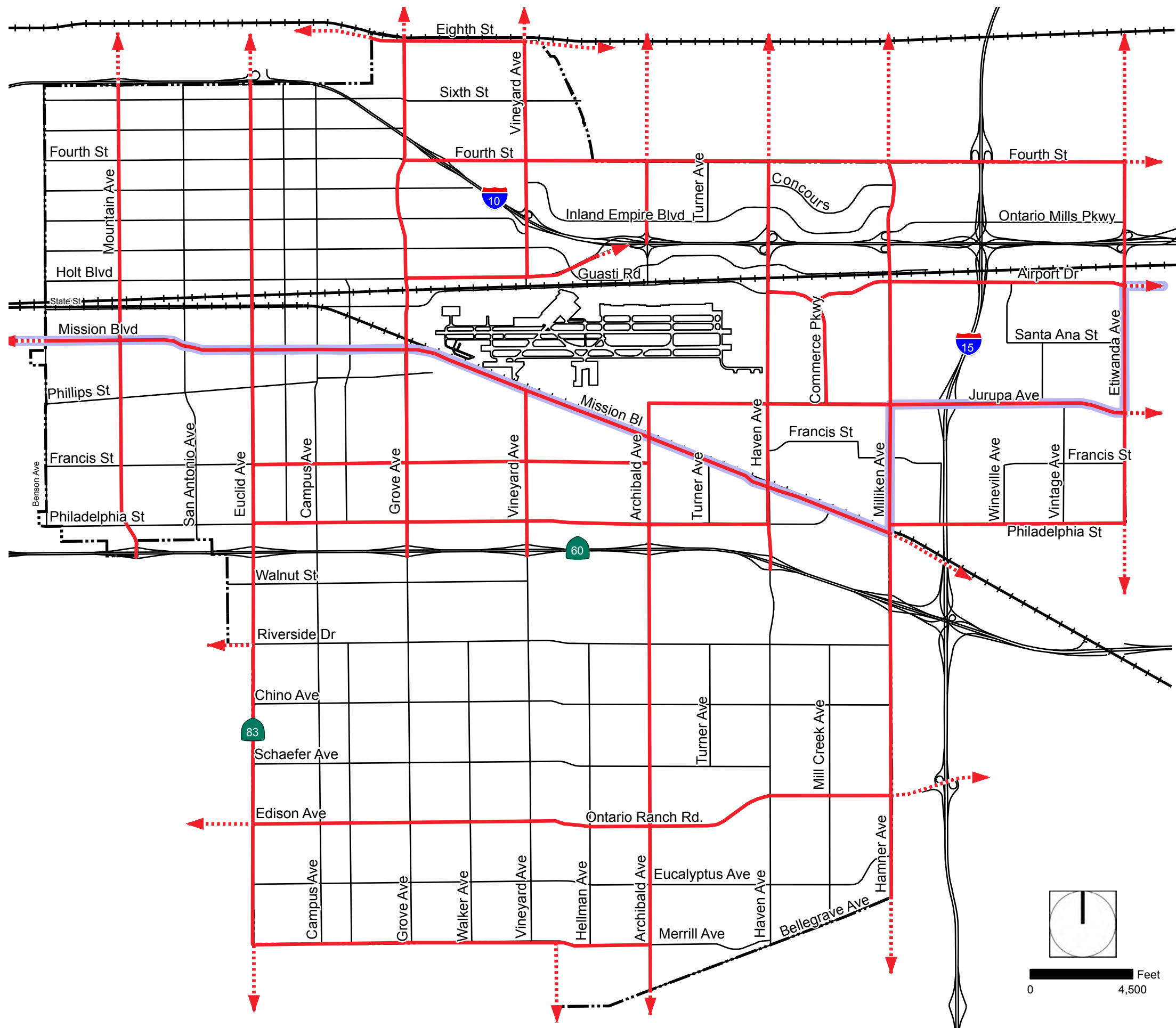
Data Sources

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2018).

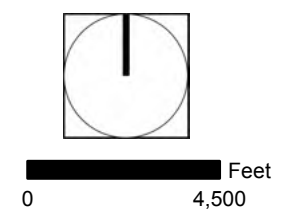
Notes

1. Race, Ethnicity, Educational Attainment, and Sex statistics are beta release results and are not available before 2009.
2. Educational Attainment is only produced for workers aged 30 and over.
3. Firm Age and Firm Size statistics are beta release results for All Private jobs and are not available before 2011 and in 2018.

Figure M-5
Truck Routes



- Truck Routes
- State of California DOT Extralegal Load Network
- Railroad
- - - - - Adjacent Agency Truck Route



Appendix B
Turning Movement Counts

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Euclid
EAST & WEST: Mission

PROJECT #: SC3147
LOCATION #: 1
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

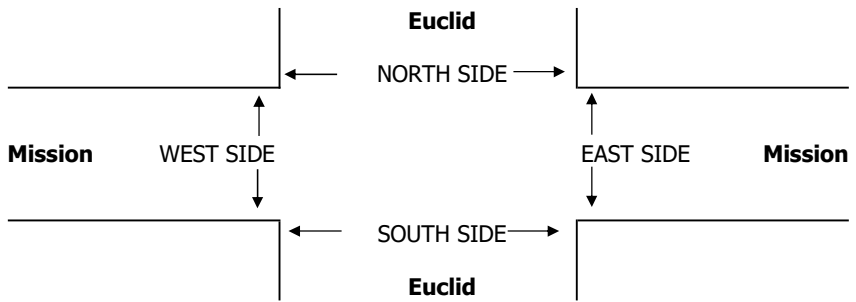
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Euclid			Euclid			Mission			Mission			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	1	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	17	111	12	32	123	33	42	105	16	25	142	38	696
	7:15 AM	25	147	10	37	137	35	44	114	19	22	104	34	728
	7:30 AM	39	170	8	42	199	55	70	164	12	36	152	51	998
	7:45 AM	26	185	27	52	208	37	66	186	26	31	144	50	1,038
	8:00 AM	40	174	14	47	178	33	55	113	17	19	118	36	844
	8:15 AM	30	154	9	45	122	26	53	136	20	21	104	43	763
	8:30 AM	21	160	20	40	149	19	44	91	20	22	103	39	728
	8:45 AM	20	187	21	33	123	21	41	84	25	25	96	31	707
	VOLUMES	218	1,288	121	328	1,239	259	415	993	155	201	963	322	6,502
	APPROACH %	13%	79%	7%	18%	68%	14%	27%	64%	10%	14%	65%	22%	
APP/DEPART	1,627	/	2,027	1,826	/	1,597	1,563	/	1,436	1,486	/	1,442	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	135	683	58	186	707	151	244	599	75	107	518	180	3,643	
APPROACH %	15%	78%	7%	18%	68%	14%	27%	65%	8%	13%	64%	22%		
PEAK HR FACTOR	0.920			0.879			0.826			0.842			0.877	
APP/DEPART	876	/	1,107	1,044	/	889	918	/	841	805	/	806	0	
PM	4:00 PM	20	207	20	30	211	30	48	149	36	28	135	53	967
	4:15 PM	29	189	21	29	236	40	58	169	29	30	152	53	1,035
	4:30 PM	24	214	18	34	186	32	43	189	37	36	160	52	1,025
	4:45 PM	22	219	13	49	240	24	44	181	47	37	187	68	1,131
	5:00 PM	28	181	13	44	183	36	50	177	38	34	175	58	1,017
	5:15 PM	20	223	13	30	219	28	51	187	31	37	159	51	1,049
	5:30 PM	21	194	12	36	227	34	44	193	36	34	126	58	1,015
	5:45 PM	31	186	12	49	231	41	54	152	41	39	127	53	1,016
	VOLUMES	195	1,613	122	301	1,733	265	392	1,397	295	275	1,221	446	8,255
	APPROACH %	10%	84%	6%	13%	75%	12%	19%	67%	14%	14%	63%	23%	
APP/DEPART	1,930	/	2,471	2,299	/	2,308	2,084	/	1,799	1,942	/	1,677	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	94	837	57	157	828	120	188	734	153	144	681	229	4,222	
APPROACH %	10%	85%	6%	14%	75%	11%	17%	68%	14%	14%	65%	22%		
PEAK HR FACTOR	0.965			0.883			0.988			0.902			0.933	
APP/DEPART	988	/	1,258	1,105	/	1,127	1,075	/	943	1,054	/	894	0	

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0	0	1	0	1
0	2	0	0	2
0	0	0	0	0
0	1	1	0	2
0	1	1	0	2
2	6	4	0	12

1	6	0	0	7
2	2	0	0	4
1	3	0	0	4
0	0	0	0	0
1	2	1	0	4
0	0	0	0	0
0	5	0	0	5
0	3	0	0	3
5	21	1	0	27



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Sultana
EAST & WEST: Mission

PROJECT #: SC3147
LOCATION #: 2
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

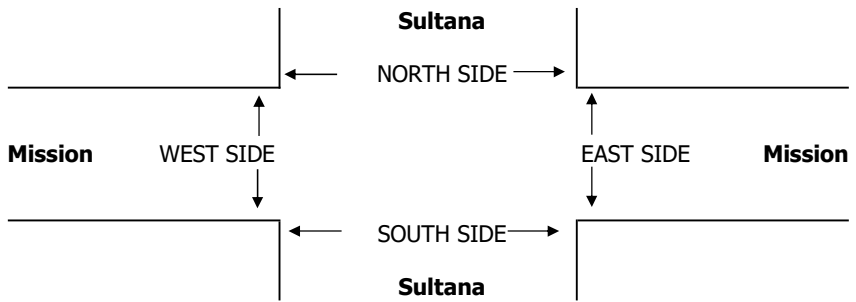
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Sultana			Sultana			Mission			Mission			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	17	13	17	9	23	4	7	144	8	7	179	11	439
	7:15 AM	11	14	5	8	23	10	3	166	4	13	154	9	420
	7:30 AM	5	24	19	6	15	4	13	229	10	12	235	8	580
	7:45 AM	9	39	15	18	43	10	20	227	11	15	197	10	614
	8:00 AM	13	40	9	11	37	9	8	187	11	10	163	9	507
	8:15 AM	7	21	7	12	20	15	9	191	5	6	135	8	436
	8:30 AM	7	21	15	6	17	8	7	157	7	3	139	8	395
	8:45 AM	8	5	8	16	20	9	9	123	3	9	134	10	354
	VOLUMES	77	177	95	86	198	69	76	1,424	59	75	1,336	73	3,745
	APPROACH %	22%	51%	27%	24%	56%	20%	5%	91%	4%	5%	90%	5%	
APP/DEPART	349	/	322	353	/	332	1,559	/	1,605	1,484	/	1,486	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	34	124	50	47	115	38	50	834	37	43	730	35	2,137	
APPROACH %	16%	60%	24%	24%	58%	19%	5%	91%	4%	5%	90%	4%		
PEAK HR FACTOR	0.825			0.704			0.892			0.792			0.870	
APP/DEPART	208	/	208	200	/	195	921	/	931	808	/	803	0	
PM	4:00 PM	5	51	9	20	36	13	10	198	4	21	217	17	601
	4:15 PM	10	42	7	17	40	8	3	227	5	12	211	13	595
	4:30 PM	4	28	13	14	41	18	8	224	8	16	226	16	616
	4:45 PM	5	33	8	15	41	14	16	204	11	17	249	19	632
	5:00 PM	6	32	6	5	48	15	9	205	7	14	204	16	567
	5:15 PM	4	33	8	17	42	17	10	224	7	13	212	16	603
	5:30 PM	10	28	5	12	30	7	9	211	6	15	219	8	560
	5:45 PM	8	27	8	11	29	13	17	210	13	14	190	16	556
	VOLUMES	52	274	64	111	307	105	82	1,703	61	122	1,728	121	4,730
	APPROACH %	13%	70%	16%	21%	59%	20%	4%	92%	3%	6%	88%	6%	
APP/DEPART	390	/	473	523	/	489	1,846	/	1,879	1,971	/	1,889	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	24	154	37	66	158	53	37	853	28	66	903	65	2,444	
APPROACH %	11%	72%	17%	24%	57%	19%	4%	93%	3%	6%	87%	6%		
PEAK HR FACTOR	0.827			0.949			0.956			0.907			0.967	
APP/DEPART	215	/	254	277	/	251	918	/	957	1,034	/	982	0	

0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
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0	0	4	0	4

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0	0	0	0	0
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0	0	0	0	0
0	0	2	0	2
0	0	4	1	5



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Campus
EAST & WEST: Mission

PROJECT #: SC3147
LOCATION #: 3
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

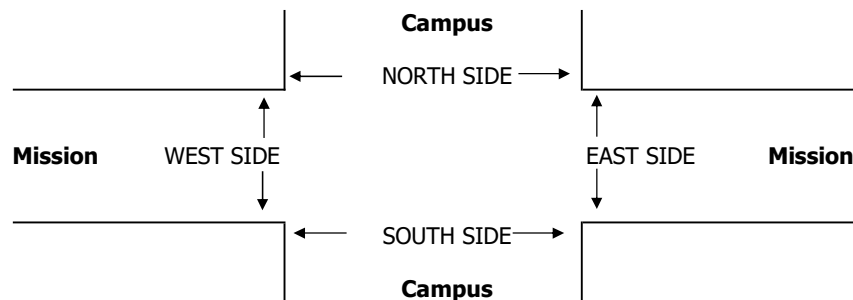
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Campus			Campus			Mission			Mission			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	1	2	0	1	2	1	1	2	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	10	30	9	13	36	13	5	154	11	12	175	9	477
	7:15 AM	22	38	7	23	29	6	5	174	13	6	168	13	504
	7:30 AM	24	50	15	13	48	21	7	225	14	12	216	14	659
	7:45 AM	31	60	7	24	58	13	5	234	20	10	172	11	645
	8:00 AM	13	50	13	23	61	5	6	178	26	6	150	11	542
	8:15 AM	17	40	8	18	41	9	4	193	16	12	124	9	491
	8:30 AM	18	42	14	11	29	12	6	154	11	7	136	5	445
	8:45 AM	12	42	13	11	24	17	4	120	17	3	124	8	395
	VOLUMES	147	352	86	136	326	96	42	1,432	128	68	1,265	80	4,158
	APPROACH %	25%	60%	15%	24%	58%	17%	3%	89%	8%	5%	90%	6%	
	APP/DEPART	585	/	472	558	/	522	1,602	/	1,654	1,413	/	1,510	0
	BEGIN PEAK HR	7:15 AM												
VOLUMES	90	198	42	83	196	45	23	811	73	34	706	49	2,350	
APPROACH %	27%	60%	13%	26%	60%	14%	3%	89%	8%	4%	89%	6%		
PEAK HR FACTOR	0.842			0.853			0.875			0.815			0.892	
APP/DEPART	330	/	268	324	/	303	907	/	936	789	/	843	0	
PM	4:00 PM	15	82	8	17	62	10	10	199	28	11	195	11	648
	4:15 PM	10	62	14	7	65	9	6	208	14	16	227	14	652
	4:30 PM	19	77	6	14	57	10	10	239	23	11	232	12	710
	4:45 PM	28	84	13	16	55	10	13	200	13	11	236	26	705
	5:00 PM	19	69	8	14	67	5	3	197	15	11	212	17	637
	5:15 PM	14	77	11	10	54	11	13	214	13	5	222	18	662
	5:30 PM	15	72	10	13	70	7	6	210	28	9	215	13	668
	5:45 PM	15	51	15	15	45	8	11	205	26	16	187	19	613
	VOLUMES	135	574	85	106	475	70	72	1,672	160	90	1,726	130	5,295
	APPROACH %	17%	72%	11%	16%	73%	11%	4%	88%	8%	5%	89%	7%	
	APP/DEPART	794	/	773	651	/	724	1,904	/	1,864	1,946	/	1,934	0
	BEGIN PEAK HR	4:00 PM												
VOLUMES	72	305	41	54	239	39	39	846	78	49	890	63	2,715	
APPROACH %	17%	73%	10%	16%	72%	12%	4%	88%	8%	5%	89%	6%		
PEAK HR FACTOR	0.836			0.933			0.885			0.918			0.956	
APP/DEPART	418	/	405	332	/	365	963	/	942	1,002	/	1,003	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	2	0	2

0	0	2	0	2
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	3	1	4



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION:
NORTH & SOUTH: Ontario
EAST & WEST: Bon View
Mission

PROJECT #: SC3147
LOCATION #: 4
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Bon View			Bon View			Mission			Mission			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	2	1	1	2	1	

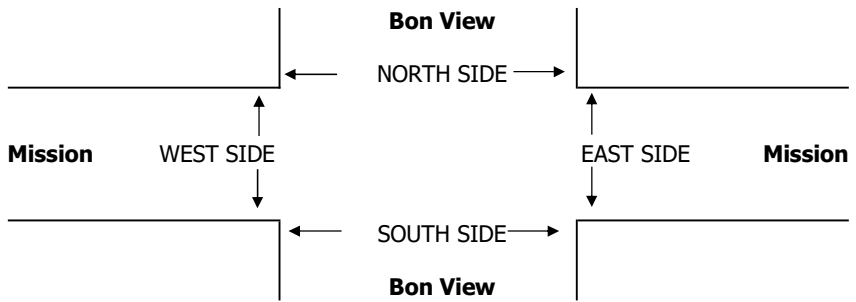
U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	8	17	1	12	17	1	6	165	16	4	186	17	450
	7:15 AM	9	15	1	6	13	3	6	170	22	3	192	15	455
	7:30 AM	10	25	5	17	37	12	5	213	14	10	204	9	561
	7:45 AM	7	35	7	17	33	9	9	247	17	11	183	15	590
	8:00 AM	15	33	3	16	31	6	10	191	15	7	146	12	485
	8:15 AM	4	32	5	10	31	7	4	179	15	7	135	12	441
	8:30 AM	12	30	8	9	24	10	8	174	13	8	129	12	437
	8:45 AM	4	24	8	10	19	5	8	137	11	7	131	12	376
	VOLUMES	69	211	38	97	205	53	56	1,476	123	57	1,306	104	3,795
	APPROACH %	22%	66%	12%	27%	58%	15%	3%	89%	7%	4%	89%	7%	
APP/DEPART	318	/	371	355	/	384	1,655	/	1,612	1,467	/	1,428	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	41	108	16	56	114	30	30	821	68	31	725	51	2,091	
APPROACH %	25%	65%	10%	28%	57%	15%	3%	89%	7%	4%	90%	6%		
PEAK HR FACTOR	0.809			0.758			0.842			0.905			0.886	
APP/DEPART	165	/	189	200	/	212	919	/	894	807	/	796	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1

PM	4:00 PM	12	102	10	15	43	10	8	187	9	7	216	27	646
	4:15 PM	22	56	10	11	44	18	7	216	10	4	215	28	641
	4:30 PM	20	83	8	20	47	25	14	216	6	9	206	26	680
	4:45 PM	14	75	7	12	32	14	13	226	5	7	261	11	677
	5:00 PM	10	67	7	19	28	17	12	228	7	3	201	19	618
	5:15 PM	14	62	5	12	34	17	14	214	10	4	210	21	617
	5:30 PM	17	55	7	17	32	20	8	186	7	9	205	20	583
	5:45 PM	6	34	10	16	31	19	8	214	16	8	206	23	591
	VOLUMES	115	534	64	122	291	140	84	1,687	70	51	1,720	175	5,053
	APPROACH %	16%	75%	9%	22%	53%	25%	5%	92%	4%	3%	88%	9%	
APP/DEPART	713	/	793	553	/	411	1,841	/	1,874	1,946	/	1,975	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	68	316	35	58	166	67	42	845	30	27	898	92	2,644	
APPROACH %	16%	75%	8%	20%	57%	23%	5%	92%	3%	3%	88%	9%		
PEAK HR FACTOR	0.845			0.791			0.940			0.911			0.972	
APP/DEPART	419	/	450	291	/	223	917	/	938	1,017	/	1,033	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Grove
EAST & WEST: Mission

PROJECT #: SC3147
LOCATION #: 5
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

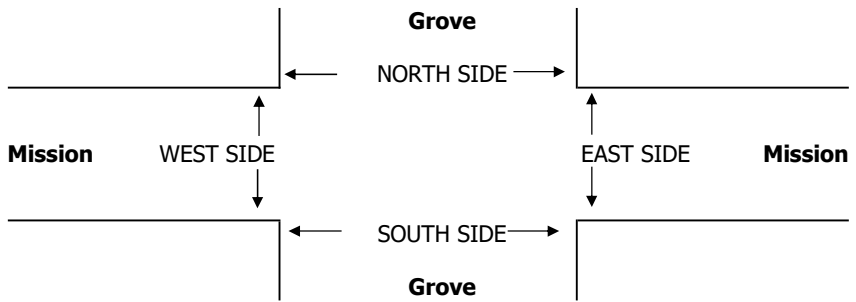
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Grove			Grove			Mission			Mission			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	3	0	1	3	1	2	2	1	2	2	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	28	99	9	61	167	62	51	102	25	7	150	82	843
	7:15 AM	16	131	6	89	177	55	50	109	33	10	165	84	925
	7:30 AM	24	157	5	85	244	64	57	109	30	11	171	100	1,057
	7:45 AM	31	150	5	123	225	47	85	176	45	12	134	75	1,108
	8:00 AM	30	143	9	117	197	44	49	116	36	9	111	100	961
	8:15 AM	31	139	6	87	183	51	35	124	42	18	100	71	887
	8:30 AM	24	133	8	69	174	37	64	115	38	9	101	93	865
	8:45 AM	32	120	8	74	136	28	53	72	25	12	92	65	717
	VOLUMES	216	1,072	56	705	1,503	388	444	923	274	88	1,024	670	7,363
	APPROACH %	16%	80%	4%	27%	58%	15%	27%	56%	17%	5%	57%	38%	
APP/DEPART	1,344	/	2,190	2,596	/	1,872	1,641	/	1,693	1,782	/	1,608	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	101	581	25	414	843	210	241	510	144	42	581	359	4,051	
APPROACH %	14%	82%	4%	28%	57%	14%	27%	57%	16%	4%	59%	37%		
PEAK HR FACTOR	0.950			0.928			0.731			0.871			0.914	
APP/DEPART	707	/	1,182	1,467	/	1,033	895	/	951	982	/	885	0	
PM	4:00 PM	53	189	7	113	182	67	45	141	28	6	127	95	1,053
	4:15 PM	24	218	7	83	204	47	58	159	29	8	182	135	1,154
	4:30 PM	52	256	17	101	182	41	60	157	36	7	147	97	1,153
	4:45 PM	43	207	17	103	197	64	55	171	19	5	156	124	1,161
	5:00 PM	66	206	9	97	185	38	60	171	19	7	171	115	1,144
	5:15 PM	37	195	13	90	195	34	41	182	26	8	162	86	1,069
	5:30 PM	33	179	10	97	185	49	49	163	18	11	156	94	1,044
	5:45 PM	23	183	7	81	192	47	49	175	24	8	150	100	1,039
	VOLUMES	331	1,633	87	765	1,522	387	417	1,319	199	60	1,251	846	8,817
	APPROACH %	16%	80%	4%	29%	57%	14%	22%	68%	10%	3%	58%	39%	
APP/DEPART	2,051	/	2,897	2,674	/	1,776	1,935	/	2,184	2,157	/	1,960	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	185	887	50	384	768	190	233	658	103	27	656	471	4,612	
APPROACH %	16%	79%	4%	29%	57%	14%	23%	66%	10%	2%	57%	41%		
PEAK HR FACTOR	0.863			0.922			0.982			0.888			0.993	
APP/DEPART	1,122	/	1,591	1,342	/	894	994	/	1,099	1,154	/	1,028	0	

4	1	0	4	9
2	0	0	2	4
2	0	0	1	3
0	0	0	0	0
3	1	0	0	4
3	0	0	1	4
3	1	0	3	7
3	1	0	2	6
20	4	0	13	37

2	0	0	3	5
1	0	0	4	5
0	0	0	1	1
3	1	1	1	6
0	0	0	2	2
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2	1	0	1	4
2	0	0	2	4
10	2	1	15	28



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Baker
EAST & WEST: Mission

PROJECT #: SC3147
LOCATION #: 6
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

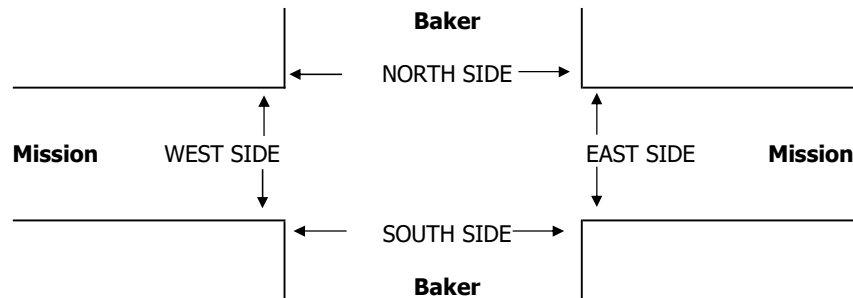
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Baker			Baker			Mission			Mission			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	X	1	X	X	X	X	2	1	1	2	X	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	14	0	8	0	0	0	0	142	24	16	215	0	419
	7:15 AM	10	0	4	0	0	0	0	149	21	11	261	0	456
	7:30 AM	6	0	1	0	0	0	0	175	29	8	273	0	492
	7:45 AM	7	0	1	0	0	0	0	268	34	29	234	0	573
	8:00 AM	10	0	6	0	0	0	0	206	26	15	215	0	478
	8:15 AM	14	0	4	0	0	0	0	178	22	14	181	0	413
	8:30 AM	11	0	7	0	0	0	0	149	21	11	183	0	382
	8:45 AM	9	0	7	0	0	0	0	143	23	9	156	0	347
	VOLUMES	81	0	38	0	0	0	0	1,410	200	113	1,718	0	3,560
	APPROACH %	68%	0%	32%	0%	0%	0%	0%	88%	12%	6%	94%	0%	
APP/DEPART	119	/	0	0	/	311	1,610	/	1,450	1,831	/	1,799	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	33	0	12	0	0	0	0	798	110	63	983	0	1,999	
APPROACH %	73%	0%	27%	0%	0%	0%	0%	88%	12%	6%	94%	0%		
PEAK HR FACTOR	0.703			0.000			0.752			0.931			0.872	
APP/DEPART	45	/	0	0	/	172	908	/	811	1,046	/	1,016	0	
PM	4:00 PM	34	0	12	0	0	0	0	239	17	4	220	0	526
	4:15 PM	17	0	13	0	0	0	0	241	13	5	266	0	555
	4:30 PM	51	0	25	0	0	0	0	281	19	2	236	0	614
	4:45 PM	18	0	13	0	0	0	0	312	16	6	253	0	618
	5:00 PM	35	0	14	0	0	0	0	273	11	4	235	0	572
	5:15 PM	21	0	10	0	0	0	0	273	16	7	237	0	564
	5:30 PM	20	0	16	0	0	0	0	286	10	5	227	0	564
	5:45 PM	7	0	7	0	0	0	0	268	9	7	234	0	532
	VOLUMES	203	0	110	0	0	0	0	2,173	111	40	1,908	0	4,545
	APPROACH %	65%	0%	35%	0%	0%	0%	0%	95%	5%	2%	98%	0%	
APP/DEPART	313	/	0	0	/	152	2,284	/	2,283	1,948	/	2,110	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	125	0	62	0	0	0	0	1,139	62	19	961	0	2,368	
APPROACH %	67%	0%	33%	0%	0%	0%	0%	95%	5%	2%	98%	0%		
PEAK HR FACTOR	0.615			0.000			0.915			0.946			0.958	
APP/DEPART	187	/	0	0	/	82	1,201	/	1,201	980	/	1,085	0	

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0	0	0	1	1
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0	0	0	0	0
1	0	0	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Vineyard
EAST & WEST: Avion

PROJECT #: SC3147
LOCATION #: 7
CONTROL: STOP ALL

NOTES:	AM PM MD OTHER OTHER	◀ W S ▶	▲ N ▼	E ▶
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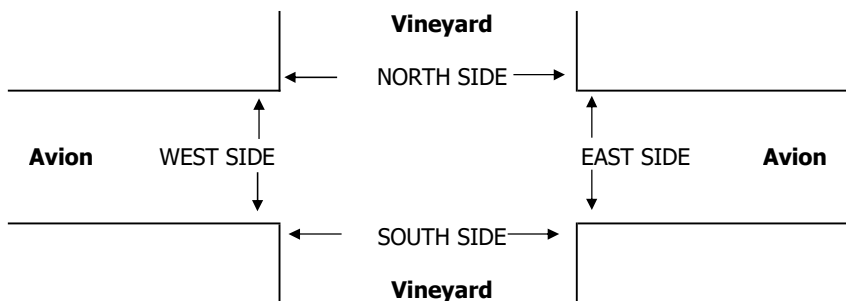
☑ Add U-Turns to Left Turns

LANES:	NORTHBOUND Vineyard			SOUTHBOUND Vineyard			EASTBOUND Avion			WESTBOUND Avion			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	1	0	2	0	0	1	0	1.5	0	0.5	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	0	2	18	0	1	0	0	0	0	11	1	1	34
	7:15 AM	0	0	9	0	3	0	0	0	0	17	1	0	30
	7:30 AM	0	0	7	5	3	0	0	2	0	15	0	1	33
	7:45 AM	0	0	10	0	2	0	0	0	0	14	1	0	27
	8:00 AM	2	0	14	0	0	0	0	0	0	22	2	0	40
	8:15 AM	2	3	9	0	2	1	0	3	0	12	1	1	34
	8:30 AM	4	1	6	1	1	0	0	0	1	8	0	0	22
	8:45 AM	3	5	10	1	1	0	0	0	0	10	0	0	30
	VOLUMES	11	11	83	7	13	1	0	5	1	109	6	3	250
	APPROACH %	10%	10%	79%	33%	62%	5%	0%	83%	17%	92%	5%	3%	
APP/DEPART	105	/	14	21	/	125	6	/	95	118	/	16	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	4	3	40	5	7	1	0	5	0	63	4	2	134	
APPROACH %	9%	6%	85%	38%	54%	8%	0%	100%	0%	91%	6%	3%		
PEAK HR FACTOR	0.734			0.406			0.417			0.719			0.838	
APP/DEPART	47	/	5	13	/	71	5	/	50	69	/	8	0	
PM	4:00 PM	3	0	26	0	1	0	0	1	1	19	0	0	51
	4:15 PM	1	0	15	0	0	0	0	2	7	0	0	25	
	4:30 PM	1	1	25	0	3	0	0	2	0	13	4	1	50
	4:45 PM	0	1	17	0	0	0	0	1	17	0	0	36	
	5:00 PM	0	0	25	0	2	0	0	1	0	27	0	0	55
	5:15 PM	0	0	14	1	1	0	0	0	0	14	0	2	32
	5:30 PM	1	0	12	1	0	0	0	1	2	13	0	1	31
	5:45 PM	2	2	18	0	2	0	0	1	3	7	1	1	37
	VOLUMES	8	4	152	2	9	0	0	6	9	117	5	5	317
	APPROACH %	5%	2%	93%	18%	82%	0%	0%	40%	60%	92%	4%	4%	
APP/DEPART	164	/	9	11	/	138	15	/	160	127	/	10	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	1	2	81	1	6	0	0	3	1	71	4	3	173	
APPROACH %	1%	2%	96%	14%	86%	0%	0%	75%	25%	91%	5%	4%		
PEAK HR FACTOR	0.778			0.583			0.500			0.722			0.786	
APP/DEPART	84	/	5	7	/	78	4	/	85	78	/	5	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
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2	0	0	0	2
3	0	0	0	3
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0	0	0	0	0
0	0	0	0	0
3	0	0	0	3



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Vineyard
EAST & WEST: Mission

PROJECT #: SC3147
LOCATION #: 9
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

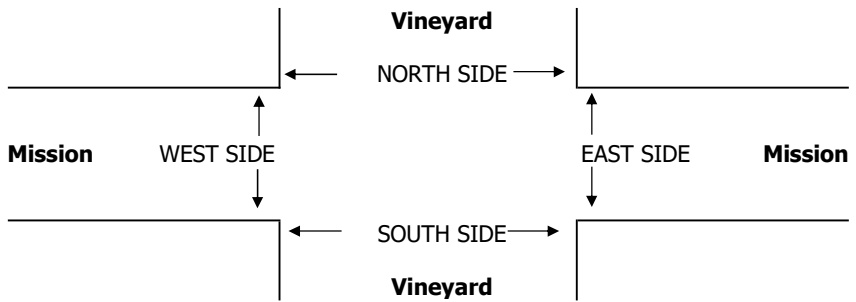
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Vineyard			Vineyard			Mission			Mission			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	1	1	2	1	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	27	9	10	1	9	2	10	119	24	15	208	1	435
	7:15 AM	29	6	7	1	1	14	3	128	26	15	244	1	475
	7:30 AM	32	2	6	2	9	10	4	146	28	16	217	0	472
	7:45 AM	22	2	4	0	6	10	4	230	39	10	231	2	560
	8:00 AM	34	10	3	3	11	7	6	145	51	15	197	3	485
	8:15 AM	22	8	8	1	6	9	3	141	44	13	164	2	421
	8:30 AM	29	5	10	0	4	5	3	107	34	8	159	4	368
	8:45 AM	33	11	6	0	4	5	6	107	38	14	126	1	351
	VOLUMES	228	53	54	8	50	62	39	1,123	284	106	1,546	14	3,567
	APPROACH %	68%	16%	16%	7%	42%	52%	3%	78%	20%	6%	93%	1%	
APP/DEPART	335	/	105	120	/	429	1,446	/	1,196	1,666	/	1,837	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	117	20	20	6	27	41	17	649	144	56	889	6	1,992	
APPROACH %	75%	13%	13%	8%	36%	55%	2%	80%	18%	6%	93%	1%		
PEAK HR FACTOR	0.835			0.881			0.742			0.914			0.889	
APP/DEPART	157	/	43	74	/	222	810	/	680	951	/	1,047	0	
PM	4:00 PM	79	13	18	2	10	12	17	209	34	9	137	1	541
	4:15 PM	43	7	21	0	4	6	6	211	50	16	216	1	581
	4:30 PM	61	11	26	1	6	5	16	251	38	7	193	3	618
	4:45 PM	37	9	16	0	5	14	9	272	27	14	186	0	589
	5:00 PM	73	11	16	3	13	14	13	249	32	8	156	0	588
	5:15 PM	35	7	9	0	4	10	7	232	35	9	202	0	550
	5:30 PM	37	5	10	0	9	6	9	260	22	15	194	0	567
	5:45 PM	35	10	13	1	6	5	13	247	23	7	199	0	559
	VOLUMES	400	73	129	7	57	72	90	1,931	261	85	1,483	5	4,593
	APPROACH %	66%	12%	21%	5%	42%	53%	4%	85%	11%	5%	94%	0%	
APP/DEPART	602	/	166	136	/	401	2,282	/	2,069	1,573	/	1,957	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	214	38	79	4	28	39	44	983	147	45	751	4	2,376	
APPROACH %	65%	11%	24%	6%	39%	55%	4%	84%	13%	6%	94%	1%		
PEAK HR FACTOR	0.828			0.592			0.953			0.858			0.961	
APP/DEPART	331	/	85	71	/	218	1,174	/	1,068	800	/	1,005	0	

0	0	0	3	3
0	0	0	1	1
0	0	0	2	2
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0	0	0	1	1
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0	0	1	0	1
0	0	0	3	3
0	0	1	11	12

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0	0	0	0	0
0	0	1	0	1
0	0	2	2	4



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Vineyard
EAST & WEST: Francis

PROJECT #: SC3147
LOCATION #: 10
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

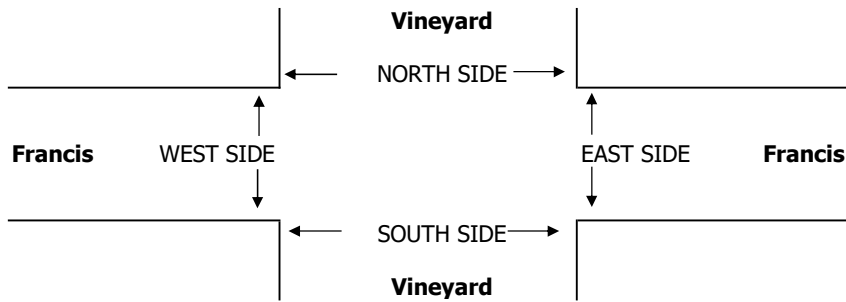
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Vineyard			Vineyard			Francis			Francis			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	1	2	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	18	57	15	6	36	2	2	7	4	7	18	2	174
	7:15 AM	14	44	16	4	36	3	4	15	5	5	26	3	175
	7:30 AM	12	50	23	3	39	0	1	21	5	4	15	3	176
	7:45 AM	25	49	24	3	52	3	3	33	13	4	34	5	248
	8:00 AM	32	58	21	3	62	2	3	26	10	10	30	3	260
	8:15 AM	18	57	26	4	57	2	2	23	18	5	22	2	236
	8:30 AM	19	57	21	4	38	4	4	11	11	2	28	0	199
	8:45 AM	21	59	13	0	44	6	4	19	18	6	13	1	204
	VOLUMES	159	431	159	27	364	22	23	155	84	43	186	19	1,672
	APPROACH %	21%	58%	21%	7%	88%	5%	9%	59%	32%	17%	75%	8%	
APP/DEPART	749	/	473	413	/	491	262	/	341	248	/	367	0	
BEGIN PEAK HR	7:45 AM													
VOLUMES	94	221	92	14	209	11	12	93	52	21	114	10	943	
APPROACH %	23%	54%	23%	6%	89%	5%	8%	59%	33%	14%	79%	7%		
PEAK HR FACTOR	0.917			0.873			0.801			0.843			0.907	
APP/DEPART	407	/	243	234	/	282	157	/	199	145	/	219	0	
PM	4:00 PM	13	77	7	4	69	3	5	61	14	24	54	16	347
	4:15 PM	9	48	8	7	82	0	6	53	20	16	41	10	300
	4:30 PM	7	53	7	5	68	5	5	81	26	31	54	17	359
	4:45 PM	6	43	7	3	60	2	4	40	13	20	30	2	230
	5:00 PM	8	75	13	2	66	2	5	63	20	40	46	8	348
	5:15 PM	8	48	14	7	59	5	6	49	12	16	18	2	244
	5:30 PM	6	43	5	4	52	4	4	32	16	22	31	5	224
	5:45 PM	5	41	4	4	40	1	4	28	8	9	27	2	173
	VOLUMES	62	428	65	36	496	22	39	407	129	178	301	62	2,225
	APPROACH %	11%	77%	12%	6%	90%	4%	7%	71%	22%	33%	56%	11%	
APP/DEPART	555	/	529	554	/	803	575	/	508	541	/	385	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	30	219	35	17	276	9	20	237	79	107	171	37	1,237	
APPROACH %	11%	77%	12%	6%	91%	3%	6%	71%	24%	34%	54%	12%		
PEAK HR FACTOR	0.740			0.848			0.750			0.772			0.861	
APP/DEPART	284	/	276	302	/	462	336	/	289	315	/	210	0	

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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Vineyard
EAST & WEST: Philadelphia

PROJECT #: SC3147
LOCATION #: 11
CONTROL: SIGNAL

<p>NOTES:</p> <p style="text-align: center; color: blue;">Queue SB PM</p>	AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼
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☑ Add U-Turns to Left Turns

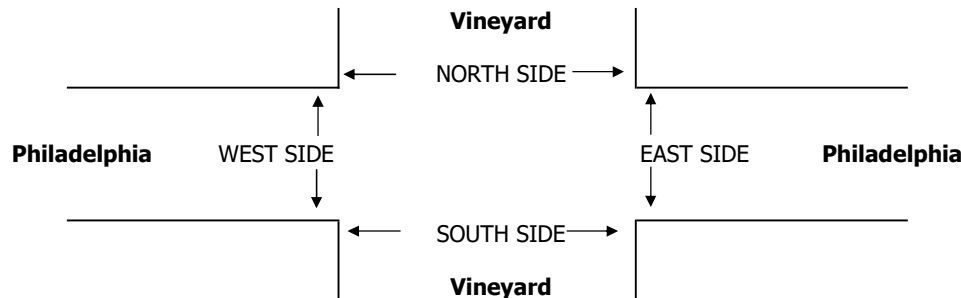
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Vineyard			Vineyard			Philadelphia			Philadelphia			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	

U-TURNS				
NB	SB	EB	WB	TTL

AM	7:00 AM	23	95	18	6	43	1	1	29	17	15	50	11	309
	7:15 AM	21	92	24	7	43	2	4	30	16	16	60	12	327
	7:30 AM	31	109	17	9	37	3	2	41	31	17	69	11	377
	7:45 AM	37	126	29	10	56	1	5	41	24	15	63	9	416
	8:00 AM	26	125	27	21	58	4	4	48	29	16	55	17	430
	8:15 AM	20	125	23	14	57	7	10	43	36	11	56	11	413
	8:30 AM	27	127	28	9	49	1	4	29	41	14	48	16	393
	8:45 AM	29	102	35	7	53	1	4	27	37	15	28	9	347
	VOLUMES	214	901	201	83	396	20	34	288	231	119	429	96	3,012
	APPROACH %	16%	68%	15%	17%	79%	4%	6%	52%	42%	18%	67%	15%	
APP/DEPART	1,316	/	1,031	499	/	746	553	/	572	644	/	663	0	
BEGIN PEAK HR	7:45 AM													
VOLUMES	110	503	107	54	220	13	23	161	130	56	222	53	1,652	
APPROACH %	15%	70%	15%	19%	77%	5%	7%	51%	41%	17%	67%	16%		
PEAK HR FACTOR	0.938			0.864			0.882			0.940			0.960	
APP/DEPART	720	/	579	287	/	406	314	/	322	331	/	345	0	
PM	4:00 PM	32	78	15	4	109	6	4	75	64	36	92	14	529
	4:15 PM	24	50	26	8	109	4	2	80	49	37	82	8	479
	4:30 PM	25	48	19	16	142	4	4	101	74	46	87	8	574
	4:45 PM	25	45	10	13	107	7	4	83	46	37	62	5	444
	5:00 PM	21	51	17	16	148	4	5	89	51	37	107	23	569
	5:15 PM	26	60	24	11	123	6	3	78	33	32	63	13	472
	5:30 PM	17	40	21	4	92	6	2	90	51	60	69	11	463
	5:45 PM	22	51	30	10	65	1	1	58	40	33	79	4	394
	VOLUMES	192	423	162	82	895	38	25	654	408	318	641	86	3,924
	APPROACH %	25%	54%	21%	8%	88%	4%	2%	60%	38%	30%	61%	8%	
APP/DEPART	777	/	534	1,015	/	1,626	1,087	/	899	1,045	/	865	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	95	194	72	53	506	19	15	353	220	157	338	44	2,066	
APPROACH %	26%	54%	20%	9%	88%	3%	3%	60%	37%	29%	63%	8%		
PEAK HR FACTOR	0.903			0.860			0.821			0.807			0.900	
APP/DEPART	361	/	253	578	/	884	588	/	478	539	/	451	0	

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6	0	0	1	7



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Vineyard
EAST & WEST: Raymond Kay

PROJECT #: SC3147
LOCATION #: 12
CONTROL: SIGNAL

NOTES:	AM PM MD OTHER OTHER	◀ W	▲ N ▼ S	E ▶
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☑ Add U-Turns to Left Turns

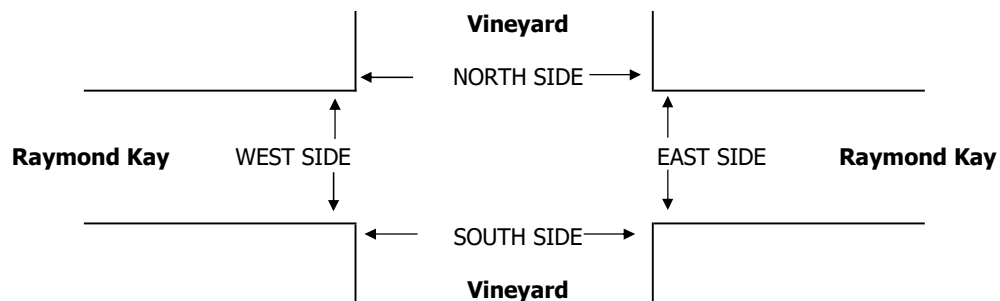
LANES:	NORTHBOUND Vineyard			SOUTHBOUND Vineyard			EASTBOUND Raymond Kay			WESTBOUND Raymond Kay			TOTAL
	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 1	ER 0	WL 1.5	WT 0.5	WR 1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	3	134	57	5	58	0	0	0	0	9	0	2	268
	7:15 AM	1	135	52	11	67	1	0	0	2	15	0	6	290
	7:30 AM	4	151	55	5	77	2	0	0	0	23	0	6	323
	7:45 AM	1	187	85	11	70	1	0	0	3	26	0	5	389
	8:00 AM	1	169	102	28	90	3	0	0	0	17	0	9	419
	8:15 AM	2	158	134	20	78	0	0	1	1	25	2	9	430
	8:30 AM	2	174	96	15	90	0	0	1	1	26	1	8	414
	8:45 AM	7	153	85	25	73	1	3	1	3	37	2	10	400
	VOLUMES	21	1,261	666	120	603	8	3	3	10	178	5	55	2,933
	APPROACH %	1%	65%	34%	16%	82%	1%	19%	19%	63%	75%	2%	23%	
	APP/DEPART	1,948	/	1,320	731	/	791	16	/	788	238	/	34	0
	BEGIN PEAK HR	8:00 AM												
VOLUMES	12	654	417	88	331	4	3	3	5	105	5	36	1,663	
APPROACH %	1%	60%	39%	21%	78%	1%	27%	27%	45%	72%	3%	25%		
PEAK HR FACTOR	0.921			0.874			0.393			0.745			0.967	
APP/DEPART	1,083	/	694	423	/	441	11	/	507	146	/	21	0	
PM	4:00 PM	5	93	42	10	186	0	2	0	6	82	2	29	457
	4:15 PM	3	73	23	15	180	2	2	1	7	65	1	24	396
	4:30 PM	4	67	23	11	227	1	3	0	14	99	2	21	472
	4:45 PM	3	62	22	9	200	1	1	1	4	80	0	17	400
	5:00 PM	5	68	25	6	214	3	3	1	9	86	1	18	439
	5:15 PM	5	96	21	6	192	1	1	0	6	56	0	12	396
	5:30 PM	3	64	17	12	176	2	2	1	6	47	1	13	344
	5:45 PM	8	90	10	3	148	2	1	0	6	38	0	12	318
	VOLUMES	36	613	183	72	1,523	12	15	4	58	553	7	146	3,222
	APPROACH %	4%	74%	22%	4%	95%	1%	19%	5%	75%	78%	1%	21%	
	APP/DEPART	832	/	781	1,607	/	2,135	77	/	253	706	/	53	0
	BEGIN PEAK HR	4:00 PM												
VOLUMES	15	295	110	45	793	4	8	2	31	326	5	91	1,725	
APPROACH %	4%	70%	26%	5%	94%	0%	20%	5%	76%	77%	1%	22%		
PEAK HR FACTOR	0.750			0.881			0.603			0.865			0.914	
APP/DEPART	420	/	397	842	/	1,150	41	/	155	422	/	23	0	

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2	7	0	1	10



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Vineyard
EAST & WEST: SR-60 WB Ramps

PROJECT #: SC3147
LOCATION #: 13
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

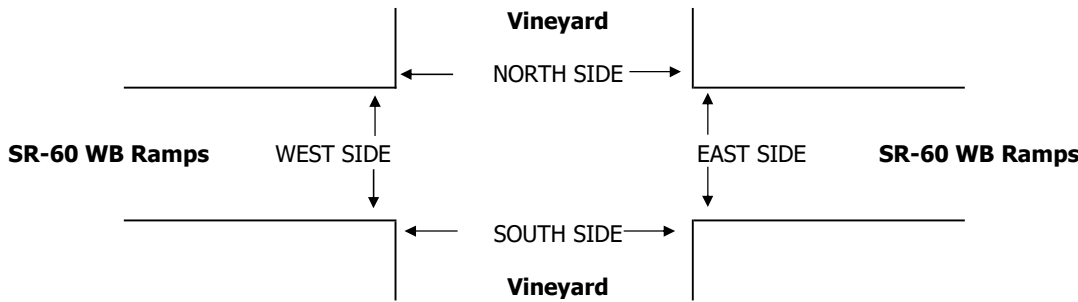
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Vineyard			Vineyard			SR-60 WB Ramps			SR-60 WB Ramps			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	X	X	2	0	X	X	X	0.5	0.5	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM															
	7:00 AM	68	130	0	0	64	21	0	0	0	29	0	64	376	
	7:15 AM	54	136	0	0	65	18	0	0	0	23	0	56	352	
	7:30 AM	54	155	0	0	79	23	0	0	0	35	1	55	402	
	7:45 AM	46	194	0	0	65	15	0	0	0	30	1	79	430	
	8:00 AM	59	202	0	0	85	29	0	0	0	38	0	70	483	
	8:15 AM	53	190	0	0	81	26	0	0	0	39	0	104	493	
	8:30 AM	28	185	0	0	87	30	0	0	0	48	0	87	465	
	8:45 AM	43	166	0	0	74	36	0	0	0	33	0	79	431	
	VOLUMES	405	1,358	0	0	600	198	0	0	0	275	2	594	3,432	
	APPROACH %	23%	77%	0%	0%	75%	25%	0%	0%	0%	32%	0%	68%		
	APP/DEPART	1,763	/	1,952	798	/	875	0	/	0	871	/	605	0	
	BEGIN PEAK HR	8:00 AM													
	VOLUMES	183	743	0	0	327	121	0	0	0	158	0	340	1,872	
	APPROACH %	20%	80%	0%	0%	73%	27%	0%	0%	0%	32%	0%	68%		
	PEAK HR FACTOR	0.887			0.957			0.000			0.871			0.949	
	APP/DEPART	926	/	1,083	448	/	485	0	/	0	498	/	304	0	
PM	4:00 PM	47	97	0	0	203	101	0	0	0	42	0	43	533	
	4:15 PM	39	70	0	0	174	94	0	0	0	59	0	29	465	
	4:30 PM	54	60	0	0	209	130	0	0	0	57	1	34	545	
	4:45 PM	50	61	0	0	168	105	0	0	0	55	0	26	465	
	5:00 PM	49	74	0	0	173	128	0	0	0	63	1	27	515	
	5:15 PM	43	97	0	0	179	99	0	0	0	55	0	25	498	
	5:30 PM	49	63	0	0	151	82	0	0	0	44	0	21	410	
	5:45 PM	46	84	0	0	114	74	0	0	0	40	0	24	382	
		VOLUMES	377	606	0	0	1,371	813	0	0	0	415	2	229	3,813
		APPROACH %	38%	62%	0%	0%	63%	37%	0%	0%	0%	64%	0%	35%	
		APP/DEPART	983	/	835	2,184	/	1,786	0	/	0	646	/	1,192	0
		BEGIN PEAK HR	4:30 PM												
		VOLUMES	196	292	0	0	729	462	0	0	0	230	2	112	2,023
	APPROACH %	40%	60%	0%	0%	61%	39%	0%	0%	0%	67%	1%	33%		
	PEAK HR FACTOR	0.871			0.878			0.000			0.935			0.928	
	APP/DEPART	488	/	404	1,191	/	959	0	/	0	344	/	660	0	

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INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Vineyard
EAST & WEST: SR-60 EB Ramps

PROJECT #: SC3147
LOCATION #: 14
CONTROL: SIGNAL

<p>NOTES:</p> <p style="text-align: center; color: blue;">Queue SB AM/PM</p>	AM PM MD OTHER OTHER	▲ N ◀ W E ▶ S ▼	
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☐ Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Vineyard			Vineyard			SR-60 EB Ramps			SR-60 EB Ramps			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	2	0	1	2	X	0.5	0.5	1	X	X	X	

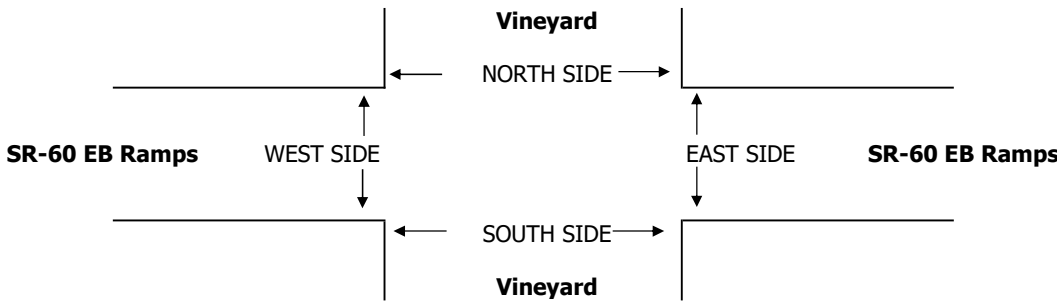
U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	0	110	67	32	61	0	88	2	30	0	0	0	390
	7:15 AM	0	117	69	21	67	0	73	1	25	0	0	0	373
	7:30 AM	0	125	59	38	76	0	84	0	31	0	0	0	413
	7:45 AM	0	141	77	35	60	0	99	0	39	0	0	0	451
	8:00 AM	0	142	72	30	90	0	119	0	32	0	0	0	485
	8:15 AM	0	120	70	23	97	0	123	0	35	0	0	0	468
	8:30 AM	0	97	52	41	94	0	120	1	42	0	0	0	447
	8:45 AM	0	124	52	29	78	0	85	0	29	0	0	0	397
	VOLUMES	0	976	518	249	623	0	791	4	263	0	0	0	3,424
	APPROACH %	0%	65%	35%	29%	71%	0%	75%	0%	25%	0%	0%	0%	
APP/DEPART	1,494	/	1,767	872	/	886	1,058	/	771	0	/	0	0	
BEGIN PEAK HR	7:45 AM													
VOLUMES	0	500	271	129	341	0	461	1	148	0	0	0	1,851	
APPROACH %	0%	65%	35%	27%	73%	0%	76%	0%	24%	0%	0%	0%		
PEAK HR FACTOR	0.884			0.870			0.936			0.000			0.954	
APP/DEPART	771	/	961	470	/	489	610	/	401	0	/	0	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

PM	4:00 PM	0	119	79	93	150	0	25	2	31	0	0	0	499
	4:15 PM	0	88	78	75	158	0	25	1	37	0	0	0	462
	4:30 PM	0	101	67	102	164	0	13	1	38	0	0	0	486
	4:45 PM	0	94	66	86	137	0	17	2	34	0	0	0	436
	5:00 PM	0	104	86	82	154	0	19	0	34	0	0	0	479
	5:15 PM	0	119	85	55	179	0	21	0	54	0	0	0	513
	5:30 PM	0	97	70	105	90	0	15	2	45	0	0	0	424
	5:45 PM	0	103	76	56	98	0	27	1	50	0	0	0	411
	VOLUMES	0	825	607	654	1,130	0	162	9	323	0	0	0	3,711
	APPROACH %	0%	58%	42%	37%	63%	0%	33%	2%	65%	0%	0%	0%	
APP/DEPART	1,433	/	987	1,784	/	1,454	494	/	1,270	0	/	0	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	0	418	304	325	634	0	70	3	160	0	0	0	1,914	
APPROACH %	0%	58%	42%	34%	66%	0%	30%	1%	69%	0%	0%	0%		
PEAK HR FACTOR	0.885			0.901			0.777			0.000			0.933	
APP/DEPART	722	/	488	959	/	794	233	/	632	0	/	0	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION:
NORTH & SOUTH: Ontario
EAST & WEST: Archibald
Tracy Paseo

PROJECT #: SC3147
LOCATION #: 16
CONTROL: SIGNAL

<p>NOTES:</p> <p style="text-align: center; color: blue;">Queue SB AM/PM</p>	AM PM MD OTHER OTHER	◀ W S ▶ E	▲ N ▼
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☑ Add U-Turns to Left Turns

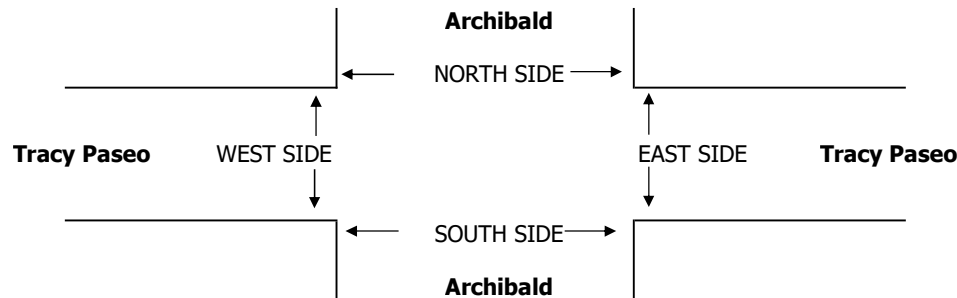
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Archibald			Archibald			Tracy Paseo			Tracy Paseo			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	0	0	2	0	0	1	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
AM													
7:00 AM	6	41	1	1	52	5	0	0	1	0	0	0	107
7:15 AM	7	84	5	1	90	2	0	0	1	0	0	0	190
7:30 AM	2	53	5	4	70	1	1	0	0	0	0	0	136
7:45 AM	1	49	9	5	74	4	0	0	3	1	0	3	149
8:00 AM	2	79	4	2	66	6	1	0	0	0	0	0	160
8:15 AM	7	56	0	0	77	1	0	0	1	1	0	2	145
8:30 AM	15	59	3	1	63	4	2	0	0	0	0	0	147
8:45 AM	7	38	0	0	44	1	1	0	4	2	0	0	97
VOLUMES	47	459	27	14	536	24	5	0	10	4	0	5	1,131
APPROACH %	9%	86%	5%	2%	93%	4%	33%	0%	67%	44%	0%	56%	
APP/DEPART	533	/	471	574	/	552	15	/	39	9	/	69	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	12	265	23	12	300	13	2	0	4	1	0	3	635
APPROACH %	4%	88%	8%	4%	92%	4%	33%	0%	67%	25%	0%	75%	
PEAK HR FACTOR	0.781			0.874			0.500			0.250			0.836
APP/DEPART	300	/	272	325	/	307	6	/	33	4	/	23	0
PM													
4:00 PM	2	80	0	2	123	2	2	0	5	4	0	1	221
4:15 PM	2	99	0	2	86	1	0	0	3	0	0	0	193
4:30 PM	7	65	2	2	68	3	3	0	5	3	0	1	159
4:45 PM	4	91	5	2	73	0	5	0	4	2	0	5	191
5:00 PM	3	84	5	2	74	0	4	0	6	11	0	5	194
5:15 PM	3	75	1	1	84	3	7	0	5	2	0	1	182
5:30 PM	3	69	1	0	87	3	6	0	11	0	0	0	180
5:45 PM	1	59	1	3	73	1	3	0	6	2	0	0	149
VOLUMES	25	622	15	14	668	13	30	0	45	24	0	13	1,469
APPROACH %	4%	94%	2%	2%	96%	2%	40%	0%	60%	65%	0%	35%	
APP/DEPART	662	/	673	695	/	738	75	/	21	37	/	37	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	15	335	7	8	350	6	10	0	17	9	0	7	764
APPROACH %	4%	94%	2%	2%	96%	2%	37%	0%	63%	56%	0%	44%	
PEAK HR FACTOR	0.884			0.717			0.750			0.571			0.864
APP/DEPART	357	/	357	364	/	377	27	/	10	16	/	20	0

0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
1	0	0	0	1
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	2	0	0	4

1	1	0	0	2
0	2	0	0	2
0	2	0	0	2
0	0	0	0	0
0	2	0	0	2
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
1	8	0	0	9



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Archibald
EAST & WEST: Mission

PROJECT #: SC3147
LOCATION #: 17
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

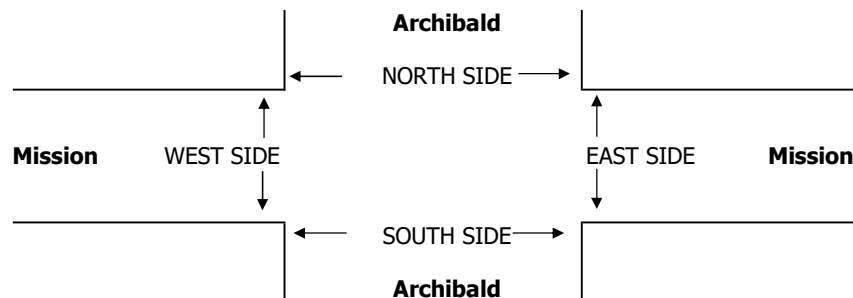
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Archibald			Archibald			Mission			Mission			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	1	0	1	1	1	2	1	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	39	42	8	3	40	19	17	78	26	14	184	3	473
	7:15 AM	42	39	11	0	48	37	24	78	18	23	194	11	525
	7:30 AM	46	49	13	4	37	21	22	74	27	21	189	6	509
	7:45 AM	40	51	15	4	54	30	16	90	52	29	172	10	563
	8:00 AM	39	45	9	4	39	24	21	108	27	24	171	8	519
	8:15 AM	50	41	11	5	53	22	9	82	33	12	126	8	452
	8:30 AM	27	30	7	1	38	17	29	81	24	17	143	10	424
	8:45 AM	23	33	5	3	30	14	16	66	28	14	115	0	347
	VOLUMES	306	330	79	24	339	184	154	657	235	154	1,294	56	3,812
	APPROACH %	43%	46%	11%	4%	62%	34%	15%	63%	22%	10%	86%	4%	
APP/DEPART	715	/	539	547	/	718	1,046	/	770	1,504	/	1,785	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	167	184	48	12	178	112	83	350	124	97	726	35	2,116	
APPROACH %	42%	46%	12%	4%	59%	37%	15%	63%	22%	11%	85%	4%		
PEAK HR FACTOR	0.924			0.858			0.881			0.941			0.940	
APP/DEPART	399	/	301	302	/	393	557	/	416	858	/	1,006	0	
PM	4:00 PM	45	49	15	2	74	34	40	135	42	26	121	11	594
	4:15 PM	29	48	26	2	56	36	27	223	48	17	132	3	647
	4:30 PM	38	52	21	2	59	27	27	192	40	6	145	9	618
	4:45 PM	41	70	17	2	59	23	26	140	42	17	116	4	557
	5:00 PM	38	75	34	7	54	18	22	171	48	11	94	2	574
	5:15 PM	35	48	23	4	64	19	23	207	51	15	173	1	663
	5:30 PM	30	45	19	1	91	30	25	175	66	16	129	3	630
	5:45 PM	28	35	13	6	48	20	20	185	59	14	157	4	589
	VOLUMES	284	422	168	26	505	207	210	1,428	396	122	1,067	37	4,872
	APPROACH %	32%	48%	19%	4%	68%	28%	10%	70%	19%	10%	87%	3%	
APP/DEPART	874	/	667	738	/	1,020	2,034	/	1,625	1,226	/	1,560	0	
BEGIN PEAK HR	5:00 PM													
VOLUMES	131	203	89	18	257	87	90	738	224	56	553	10	2,456	
APPROACH %	31%	48%	21%	5%	71%	24%	9%	70%	21%	9%	89%	2%		
PEAK HR FACTOR	0.719			0.742			0.936			0.819			0.926	
APP/DEPART	423	/	301	362	/	535	1,052	/	847	619	/	773	0	

0	0	0	1	1
0	0	0	0	0
0	0	0	1	1
0	0	1	3	4
0	0	0	2	2
0	0	0	1	1
0	0	0	2	2
0	0	0	0	0
0	0	1	10	11

0	0	0	0	0
0	0	0	1	1
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0	0	0	0	0
0	0	0	1	1
0	0	2	0	2
0	0	0	1	1
0	0	0	0	0
0	0	2	3	5



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Archibald
EAST & WEST: Philadelphia

PROJECT #: SC3147
LOCATION #: 20
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

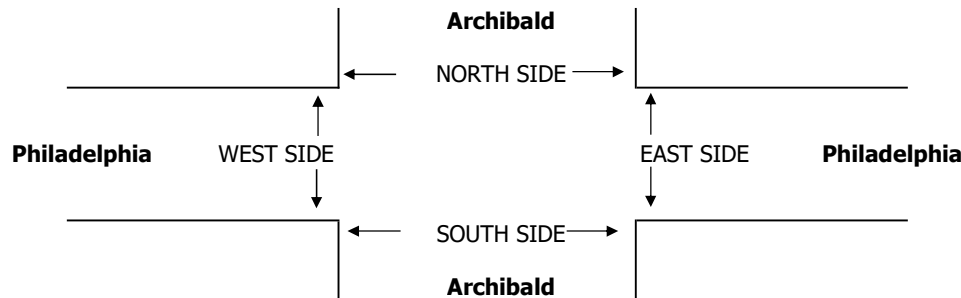
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Archibald			Archibald			Philadelphia			Philadelphia			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	3	1	2	3	1	2	2	1	2	2	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	45	130	25	6	53	5	10	15	7	13	63	15	387
	7:15 AM	60	125	36	6	39	11	4	22	14	17	96	9	439
	7:30 AM	53	136	48	7	55	5	8	28	24	37	77	8	486
	7:45 AM	75	158	41	13	67	9	10	46	22	30	108	17	596
	8:00 AM	98	172	42	8	57	6	8	37	37	17	73	10	565
	8:15 AM	72	141	47	8	59	12	7	42	31	20	87	12	538
	8:30 AM	56	111	29	8	51	7	3	16	18	12	64	9	384
	8:45 AM	51	119	32	6	48	2	5	23	22	20	38	3	369
	VOLUMES	510	1,092	300	62	429	57	55	229	175	166	606	83	3,764
	APPROACH %	27%	57%	16%	11%	78%	10%	12%	50%	38%	19%	71%	10%	
APP/DEPART	1,902	/	1,240	548	/	773	459	/	580	855	/	1,171	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	298	607	178	36	238	32	33	153	114	104	345	47	2,185	
APPROACH %	28%	56%	16%	12%	78%	10%	11%	51%	38%	21%	70%	9%		
PEAK HR FACTOR	0.868			0.860			0.915			0.800			0.917	
APP/DEPART	1,083	/	695	306	/	457	300	/	359	496	/	674	0	
PM	4:00 PM	41	104	26	11	141	12	12	94	80	50	74	11	656
	4:15 PM	35	57	20	11	174	5	11	79	81	43	63	4	583
	4:30 PM	42	75	24	5	177	12	13	110	90	67	66	13	694
	4:45 PM	65	95	21	10	152	11	18	68	80	41	78	8	647
	5:00 PM	43	66	16	9	215	14	12	95	94	53	64	12	693
	5:15 PM	33	61	18	10	175	11	8	110	111	47	55	5	644
	5:30 PM	40	58	12	7	209	10	5	75	73	51	75	8	623
	5:45 PM	58	65	19	6	138	10	2	55	52	24	61	4	494
	VOLUMES	357	581	156	69	1,381	85	81	686	661	376	536	65	5,034
	APPROACH %	33%	53%	14%	4%	90%	6%	6%	48%	46%	38%	55%	7%	
APP/DEPART	1,094	/	734	1,535	/	2,433	1,428	/	906	977	/	961	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	183	297	79	34	719	48	51	383	375	208	263	38	2,678	
APPROACH %	33%	53%	14%	4%	90%	6%	6%	47%	46%	41%	52%	7%		
PEAK HR FACTOR	0.772			0.841			0.883			0.872			0.965	
APP/DEPART	559	/	393	801	/	1,313	809	/	491	509	/	481	0	

0	0	0	0	0
1	2	0	0	3
0	3	1	0	4
0	4	0	0	4
1	0	0	0	1
1	2	0	1	4
0	1	1	0	2
1	0	0	0	1
4	12	2	1	19

0	0	0	0	0
0	0	0	0	0
1	2	0	1	4
4	1	0	0	5
4	3	0	1	8
4	1	0	0	5
3	0	0	0	3
1	0	0	0	1
17	7	0	2	26



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Archibald
EAST & WEST: SR-60 WB Ramps

PROJECT #: SC3147
LOCATION #: 21
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

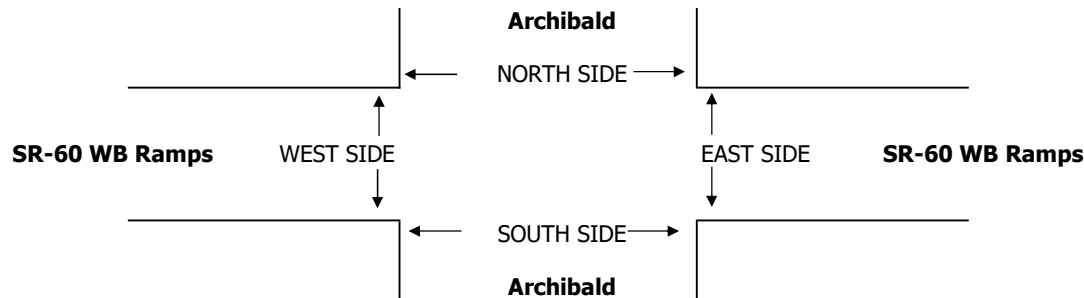
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Archibald			Archibald			SR-60 WB Ramps			SR-60 WB Ramps			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	3	X	X	4	1	X	X	X	1.3	0.3	1.3	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
AM	7:00 AM	151	149	0	0	49	35	0	0	0	54	2	59	499
	7:15 AM	173	159	0	0	54	20	0	0	0	51	2	58	517
	7:30 AM	162	203	0	0	71	33	0	0	0	61	3	61	594
	7:45 AM	139	219	0	0	103	24	0	0	0	75	3	85	648
	8:00 AM	151	227	0	0	89	22	0	0	0	53	4	100	646
	8:15 AM	143	232	0	0	89	28	0	0	0	75	1	81	649
	8:30 AM	144	147	0	0	69	23	0	0	0	53	6	62	504
	8:45 AM	132	169	0	0	52	24	0	0	0	54	1	50	482
	VOLUMES	1,195	1,505	0	0	576	209	0	0	0	476	22	556	4,539
	APPROACH %	44%	56%	0%	0%	73%	27%	0%	0%	0%	45%	2%	53%	
APP/DEPART	2,700	/	2,061	785	/	1,052	0	/	0	1,054	/	1,426	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	595	881	0	0	352	107	0	0	0	264	11	327	2,537	
APPROACH %	40%	60%	0%	0%	77%	23%	0%	0%	0%	44%	2%	54%		
PEAK HR FACTOR	0.976			0.904			0.000			0.923			0.977	
APP/DEPART	1,476	/	1,208	459	/	616	0	/	0	602	/	713	0	
PM	4:00 PM	117	121	0	0	237	71	0	0	0	72	2	66	686
	4:15 PM	108	94	0	0	250	51	0	0	0	70	2	43	618
	4:30 PM	83	102	0	0	250	88	0	0	0	77	2	36	638
	4:45 PM	101	123	0	0	234	81	0	0	0	69	1	52	661
	5:00 PM	114	97	0	0	252	86	0	0	0	89	4	41	683
	5:15 PM	118	95	0	0	313	77	0	0	0	69	7	32	711
	5:30 PM	112	77	0	0	240	87	0	0	0	77	4	38	635
	5:45 PM	89	102	0	0	207	51	0	0	0	66	3	40	558
	VOLUMES	842	811	0	0	1,983	592	0	0	0	589	25	348	5,190
	APPROACH %	51%	49%	0%	0%	77%	23%	0%	0%	0%	61%	3%	36%	
APP/DEPART	1,653	/	1,159	2,575	/	2,574	0	/	0	962	/	1,457	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	416	417	0	0	1,049	332	0	0	0	304	14	161	2,693	
APPROACH %	50%	50%	0%	0%	76%	24%	0%	0%	0%	63%	3%	34%		
PEAK HR FACTOR	0.930			0.885			0.000			0.894			0.947	
APP/DEPART	833	/	578	1,381	/	1,354	0	/	0	479	/	761	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

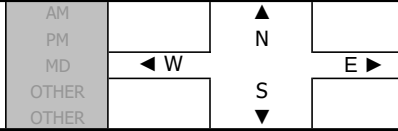
DATE:
Wed, Oct 27, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Ontario
Haven
I-10 WB Ramps

PROJECT #: SC3147
LOCATION #: 23
CONTROL: SIGNAL

NOTES:



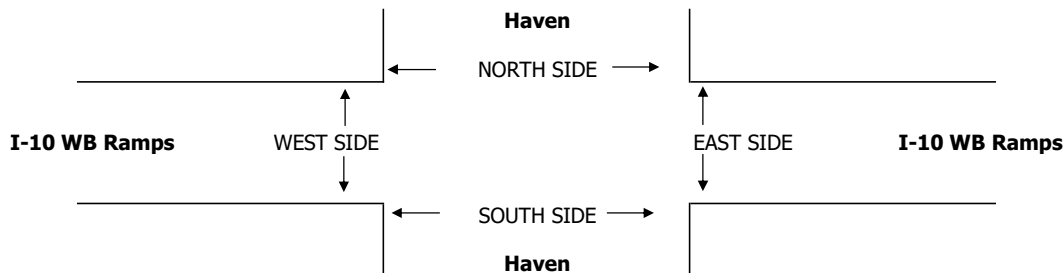
Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Haven			Haven			I-10 WB Ramps			I-10 WB Ramps			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	X	4	1	X	3.5	1.5	X	X	X	1.5	X	1.5	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
AM													
7:00 AM	0	258	48	0	282	82	0	0	0	106	0	104	880
7:15 AM	0	304	65	0	301	95	0	0	0	91	0	118	974
7:30 AM	0	390	78	0	225	107	0	0	0	116	0	125	1,041
7:45 AM	0	538	60	0	274	100	0	0	0	118	0	136	1,226
8:00 AM	0	485	76	0	302	89	0	0	0	110	0	131	1,193
8:15 AM	0	429	101	0	303	100	0	0	0	97	0	129	1,159
8:30 AM	0	428	87	0	356	102	0	0	0	71	0	148	1,192
8:45 AM	0	467	103	0	244	94	0	0	0	89	0	134	1,131
VOLUMES	0	3,299	618	0	2,287	769	0	0	0	798	0	1,025	8,796
APPROACH %	0%	84%	16%	0%	75%	25%	0%	0%	0%	44%	0%	56%	
APP/DEPART	3,917	/	4,324	3,056	/	3,085	0	/	618	1,823	/	769	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	0	1,880	324	0	1,235	391	0	0	0	396	0	544	4,770
APPROACH %	0%	85%	15%	0%	76%	24%	0%	0%	0%	42%	0%	58%	
PEAK HR FACTOR		0.921				0.888		0.000				0.925	0.973
APP/DEPART	2,204	/	2,424	1,626	/	1,631	0	/	324	940	/	391	0
PM													
4:00 PM	0	543	116	0	382	184	0	0	0	74	0	96	1,395
4:15 PM	0	427	112	0	338	171	0	0	0	75	0	109	1,232
4:30 PM	0	506	141	0	385	199	0	0	0	53	0	91	1,375
4:45 PM	0	507	147	0	351	197	0	0	0	62	0	82	1,346
5:00 PM	0	533	137	0	442	220	0	0	0	64	0	83	1,479
5:15 PM	0	501	136	0	412	217	0	0	0	44	0	100	1,410
5:30 PM	0	530	115	0	363	182	0	0	0	55	0	113	1,358
5:45 PM	0	530	100	0	287	152	0	0	0	41	0	111	1,221
VOLUMES	0	4,077	1,004	0	2,960	1,522	0	0	0	468	0	785	10,818
APPROACH %	0%	80%	20%	0%	66%	34%	0%	0%	0%	37%	0%	63%	
APP/DEPART	5,082	/	4,863	4,483	/	3,429	0	/	1,004	1,253	/	1,522	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	0	2,047	561	0	1,590	833	0	0	0	223	0	356	5,611
APPROACH %	0%	78%	22%	0%	66%	34%	0%	0%	0%	39%	0%	61%	
PEAK HR FACTOR		0.974				0.915		0.000				0.985	0.948
APP/DEPART	2,609	/	2,403	2,423	/	1,814	0	/	561	579	/	833	0

NB	SB	EB	WB	TTL
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	0	2



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

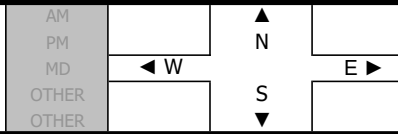
LOCATION:
NORTH & SOUTH:
EAST & WEST:

Ontario
Haven
Guasti

PROJECT #: SC3147
LOCATION #: 25
CONTROL: SIGNAL

NOTES:

Queue NB AM/PM; Queue SB PM



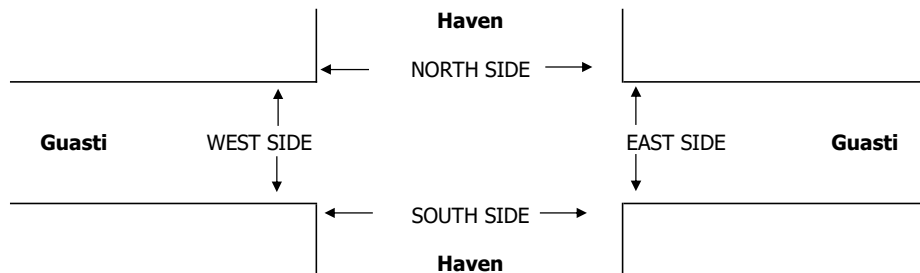
Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	4	1	2	4	1	2	1	1	2	1	2	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

	Haven			Haven			Guasti			Guasti			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
AM													
7:00 AM	13	243	19	41	303	38	4	5	3	11	3	20	703
7:15 AM	32	261	20	36	304	50	13	3	6	12	7	28	772
7:30 AM	24	303	22	29	289	51	7	6	5	13	3	41	793
7:45 AM	39	390	29	34	340	65	15	6	5	15	11	38	987
8:00 AM	51	374	26	40	332	78	9	8	5	15	11	45	994
8:15 AM	60	367	34	39	332	71	9	4	5	16	4	42	983
8:30 AM	42	358	37	52	311	66	9	4	5	21	14	39	958
8:45 AM	31	386	32	48	216	63	21	6	6	17	8	57	891
VOLUMES	292	2,682	219	319	2,427	482	87	42	40	120	61	310	7,081
APPROACH %	9%	84%	7%	10%	75%	15%	51%	25%	24%	24%	12%	63%	
APP/DEPART	3,193	/	3,114	3,228	/	2,591	169	/	545	491	/	831	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	192	1,489	126	165	1,315	280	42	22	20	67	40	164	3,922
APPROACH %	11%	82%	7%	9%	75%	16%	50%	26%	24%	25%	15%	61%	
PEAK HR FACTOR		0.980			0.978			0.808			0.916		0.986
APP/DEPART	1,807	/	1,706	1,760	/	1,403	84	/	302	271	/	511	0
PM													
4:00 PM	23	560	21	31	332	33	79	17	39	13	9	49	1,206
4:15 PM	13	494	17	41	310	30	82	12	38	18	9	37	1,101
4:30 PM	17	570	23	33	325	23	71	13	32	3	8	48	1,166
4:45 PM	14	606	24	36	302	27	84	25	40	19	9	53	1,239
5:00 PM	13	562	24	51	352	18	98	20	60	15	12	69	1,294
5:15 PM	17	593	28	40	334	22	98	28	45	9	15	63	1,292
5:30 PM	10	555	30	46	303	39	83	9	43	17	9	68	1,212
5:45 PM	13	543	19	29	271	18	73	12	19	10	5	37	1,049
VOLUMES	120	4,483	186	307	2,529	210	668	136	316	104	76	424	9,559
APPROACH %	3%	94%	4%	10%	83%	7%	60%	12%	28%	17%	13%	70%	
APP/DEPART	4,789	/	5,640	3,046	/	2,961	1,120	/	564	604	/	394	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	54	2,316	106	173	1,291	106	363	82	188	60	45	253	5,037
APPROACH %	2%	94%	4%	11%	82%	7%	57%	13%	30%	17%	13%	71%	
PEAK HR FACTOR		0.961			0.932			0.889			0.932		0.973
APP/DEPART	2,476	/	2,966	1,570	/	1,545	633	/	327	358	/	199	0

NB	SB	EB	WB	TTL
2	6	0	0	8
1	6	0	0	7
0	2	0	0	2
0	2	0	0	2
1	2	0	0	3
0	5	0	0	5
0	2	0	0	2
0	10	0	0	10
4	35	0	0	39
0	6	0	0	6
3	10	0	0	13
1	6	0	0	7
1	5	0	0	6
1	6	0	0	7
2	9	0	0	11
2	14	0	0	16
2	9	0	0	11
12	65	0	0	77



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

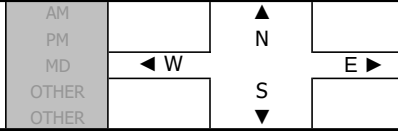
LOCATION:
NORTH & SOUTH:
EAST & WEST:

Ontario
Haven
Airport

PROJECT #: SC3147
LOCATION #: 26
CONTROL: SIGNAL

NOTES:

Queue NB PM



Add U-Turns to Left Turns

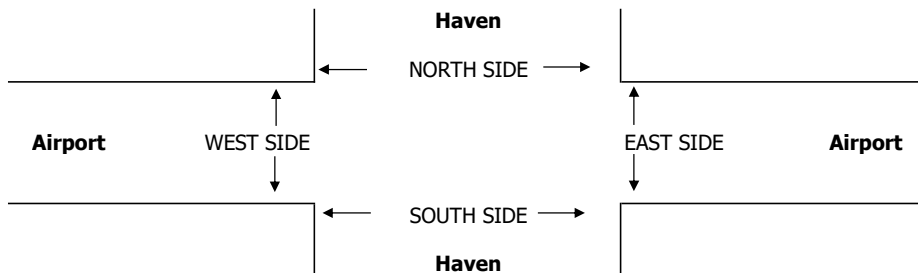
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	4	1	2	4	1	2	2	0	2	2	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

	Haven			Haven			Airport			Airport			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
AM													
7:00 AM	35	215	26	82	227	7	4	41	26	34	26	56	779
7:15 AM	15	268	19	57	258	5	3	54	23	25	44	42	813
7:30 AM	28	278	27	75	232	0	6	29	47	28	50	66	866
7:45 AM	49	372	27	88	264	5	2	32	36	40	57	83	1,055
8:00 AM	26	373	20	96	255	2	6	35	31	37	48	74	1,003
8:15 AM	32	417	22	124	221	8	3	43	43	20	37	41	1,011
8:30 AM	37	373	29	93	238	6	5	29	31	38	40	59	978
8:45 AM	30	391	33	67	167	5	7	32	30	41	44	52	899
VOLUMES	252	2,687	203	682	1,862	38	36	295	267	263	346	473	7,427
APPROACH %	8%	85%	6%	26%	72%	1%	6%	49%	45%	24%	32%	43%	
APP/DEPART	3,153	/	3,199	2,585	/	2,403	600	/	1,187	1,089	/	638	0
BEGIN PEAK HR		7:45 AM											
VOLUMES	144	1,535	98	401	978	21	16	139	141	135	182	257	4,057
APPROACH %	8%	86%	5%	29%	70%	1%	5%	47%	48%	23%	32%	45%	
PEAK HR FACTOR		0.941			0.978			0.831			0.796		0.960
APP/DEPART	1,784	/	1,809	1,401	/	1,261	296	/	640	576	/	347	0
PM													
4:00 PM	122	446	7	0	348	35	65	105	95	9	128	93	1,453
4:15 PM	83	360	8	2	311	55	74	117	78	10	106	91	1,295
4:30 PM	96	415	5	1	332	28	93	118	120	19	122	104	1,453
4:45 PM	104	504	8	0	323	38	76	98	121	5	87	65	1,429
5:00 PM	88	429	9	3	381	42	77	97	124	19	86	94	1,449
5:15 PM	83	436	9	2	359	27	90	93	137	13	105	114	1,468
5:30 PM	78	448	6	2	336	25	72	112	140	9	97	75	1,400
5:45 PM	84	444	9	27	251	22	68	121	134	7	61	62	1,290
VOLUMES	738	3,482	61	37	2,641	272	615	861	949	91	792	698	11,255
APPROACH %	17%	81%	1%	1%	89%	9%	25%	35%	39%	6%	50%	44%	
APP/DEPART	4,282	/	4,797	2,952	/	3,682	2,436	/	963	1,585	/	1,813	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	371	1,784	31	6	1,395	135	336	406	502	56	400	377	5,808
APPROACH %	17%	82%	1%	0%	91%	9%	27%	32%	40%	7%	48%	45%	
PEAK HR FACTOR		0.886			0.901			0.938			0.852		0.986
APP/DEPART	2,187	/	2,497	1,536	/	1,954	1,250	/	445	835	/	912	0

0	1	1	1	3
1	1	0	1	3
1	0	0	1	2
0	1	0	1	2
2	0	0	0	2
3	0	0	1	4
2	0	0	0	2
2	0	1	2	5
11	3	2	7	23

0	0	1	0	1
0	0	2	2	4
0	0	2	0	2
1	0	0	0	1
0	0	1	1	2
0	0	3	1	4
0	0	1	0	1
0	2	1	0	3
1	2	11	4	18



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION: Ontario
NORTH & SOUTH: Hofer Ranch
EAST & WEST: Jurupa

PROJECT #: SC3147
LOCATION #: 27
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

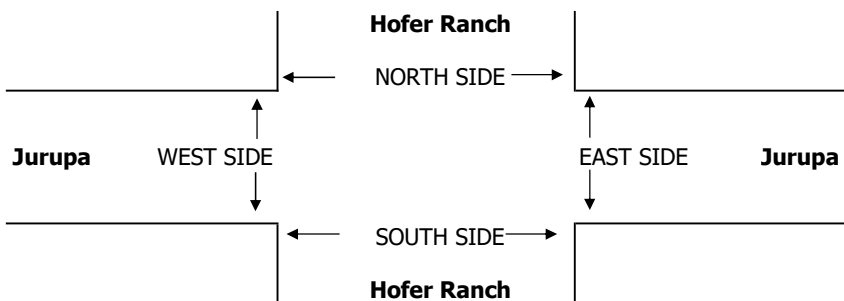
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Hofer Ranch			Hofer Ranch			Jurupa			Jurupa			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	0	1	0	1	3	0	1	2	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	1	0	2	0	0	1	2	51	0	2	132	1	192
	7:15 AM	0	0	7	3	1	1	4	67	3	9	154	5	254
	7:30 AM	0	0	5	3	0	0	3	63	3	11	114	0	202
	7:45 AM	2	0	4	1	0	1	4	66	0	5	115	6	204
	8:00 AM	0	0	6	1	0	1	3	67	2	11	104	3	198
	8:15 AM	0	0	2	2	0	1	3	60	1	3	95	1	168
	8:30 AM	0	0	8	1	0	1	0	54	4	11	77	3	159
	8:45 AM	1	0	11	1	0	0	2	52	0	10	73	2	152
	VOLUMES	4	0	45	12	1	6	21	480	13	62	864	21	1,529
	APPROACH %	8%	0%	92%	63%	5%	32%	4%	93%	3%	7%	91%	2%	
APP/DEPART	49	/	41	19	/	75	514	/	538	947	/	875	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	2	0	22	8	1	3	14	263	8	36	487	14	858	
APPROACH %	8%	0%	92%	67%	8%	25%	5%	92%	3%	7%	91%	3%		
PEAK HR FACTOR	0.857			0.600			0.963			0.799			0.844	
APP/DEPART	24	/	28	12	/	45	285	/	293	537	/	492	0	
PM	4:00 PM	1	0	9	4	0	0	0	107	1	3	163	5	293
	4:15 PM	0	0	6	3	0	3	1	75	1	6	84	7	186
	4:30 PM	2	0	12	17	0	0	1	110	1	3	72	4	222
	4:45 PM	4	0	7	9	0	2	2	111	2	5	103	4	249
	5:00 PM	1	0	13	10	0	2	1	115	1	6	74	2	225
	5:15 PM	4	0	7	5	0	1	1	97	1	6	101	2	225
	5:30 PM	5	0	10	8	0	3	3	101	3	5	88	5	231
	5:45 PM	1	0	10	3	0	1	2	63	0	10	83	0	173
	VOLUMES	18	0	74	59	0	12	11	779	10	44	768	29	1,804
	APPROACH %	20%	0%	80%	83%	0%	17%	1%	97%	1%	5%	91%	3%	
APP/DEPART	92	/	40	71	/	48	800	/	918	841	/	798	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	7	0	34	33	0	5	4	403	5	17	422	20	950	
APPROACH %	17%	0%	83%	87%	0%	13%	1%	98%	1%	4%	92%	4%		
PEAK HR FACTOR	0.732			0.559			0.896			0.671			0.811	
APP/DEPART	41	/	24	38	/	18	412	/	474	459	/	434	0	

0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	1	1	2

0	0	0	1	1
0	0	0	1	1
0	0	0	0	0
0	0	0	2	2
0	0	0	2	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	6	6



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION:
NORTH & SOUTH: Ontario
EAST & WEST: Turner
Jurupa

PROJECT #: SC3147
LOCATION #: 28
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

☑ Add U-Turns to Left Turns

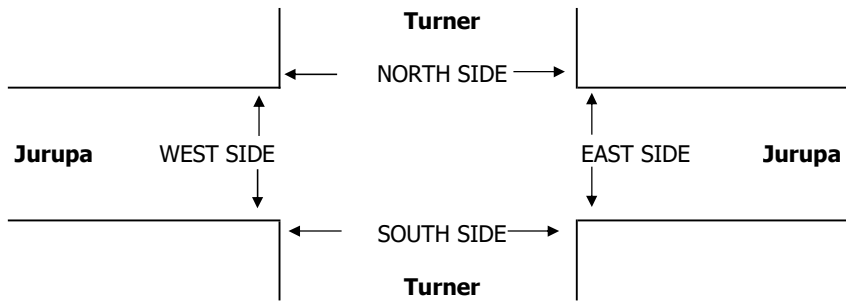
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Turner			Turner			Jurupa			Jurupa			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0.5	0.5	1	0	1	0	1	3	0	1	1	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	6	0	6	0	0	0	0	51	3	6	145	1	218
	7:15 AM	10	0	9	0	0	0	0	68	11	7	149	0	254
	7:30 AM	6	0	2	0	0	0	0	66	12	5	121	0	212
	7:45 AM	16	0	3	0	0	0	0	54	7	16	126	0	222
	8:00 AM	6	0	2	0	0	0	1	63	9	19	110	0	210
	8:15 AM	4	0	6	0	0	2	0	55	9	20	95	1	192
	8:30 AM	11	0	2	0	0	0	1	57	9	11	71	1	163
	8:45 AM	13	0	8	0	0	0	0	52	10	9	79	0	171
	VOLUMES	72	0	38	0	0	2	2	466	70	93	896	3	1,642
	APPROACH %	65%	0%	35%	0%	0%	100%	0%	87%	13%	9%	90%	0%	
APP/DEPART	110	/	3	2	/	157	538	/	510	992	/	972	0	
BEGIN PEAK HR	7:00 AM													
VOLUMES	38	0	20	0	0	0	0	239	33	34	541	1	906	
APPROACH %	66%	0%	34%	0%	0%	0%	0%	88%	12%	6%	94%	0%		
PEAK HR FACTOR	0.763			0.000			0.861			0.923			0.892	
APP/DEPART	58	/	1	0	/	66	272	/	260	576	/	579	0	
PM	4:00 PM	15	0	9	3	0	0	0	94	6	20	165	1	313
	4:15 PM	7	0	13	0	0	1	0	104	14	12	99	0	250
	4:30 PM	15	0	15	1	0	0	0	134	9	8	57	0	239
	4:45 PM	14	0	8	0	0	0	0	101	13	17	88	0	241
	5:00 PM	17	0	22	1	0	0	0	129	11	6	71	0	257
	5:15 PM	13	0	13	1	0	0	0	95	14	10	93	0	239
	5:30 PM	12	0	14	0	0	0	0	102	12	11	86	0	237
	5:45 PM	6	0	13	0	0	0	0	77	9	11	92	0	208
	VOLUMES	99	0	107	6	0	1	0	836	88	95	751	1	1,984
	APPROACH %	48%	0%	52%	86%	0%	14%	0%	90%	10%	11%	89%	0%	
APP/DEPART	206	/	1	7	/	178	924	/	954	847	/	851	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	51	0	45	4	0	1	0	433	42	57	409	1	1,043	
APPROACH %	53%	0%	47%	80%	0%	20%	0%	91%	9%	12%	88%	0%		
PEAK HR FACTOR	0.800			0.417			0.830			0.628			0.833	
APP/DEPART	96	/	1	5	/	94	475	/	487	467	/	461	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	1	1	2
0	0	0	1	1
0	0	1	1	2
0	0	0	2	2
0	0	2	6	8

0	0	0	2	2
0	0	0	3	3
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	5	5



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

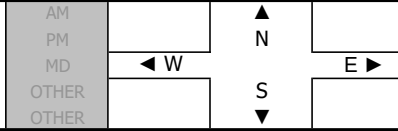
LOCATION:
NORTH & SOUTH:
EAST & WEST:

Ontario
Haven
Jurupa

PROJECT #: SC3147
LOCATION #: 29
CONTROL: SIGNAL

NOTES:

Construction SL, WL till 4:30 PM



Add U-Turns to Left Turns

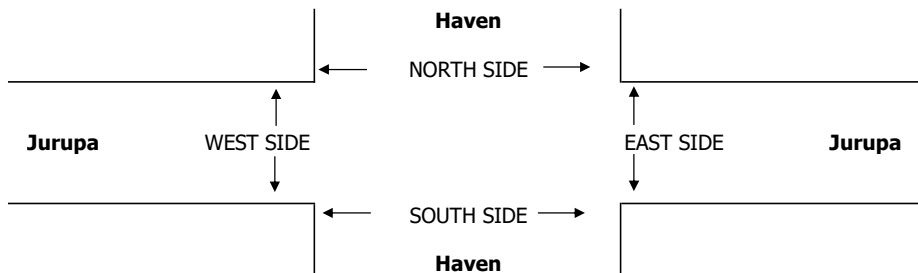
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Haven			Haven			Jurupa			Jurupa			
	NL 1	NT 4	NR 1	SL 1	ST 4	SR 2	EL 2	ET 3	ER 0	WL 2	WT 2	WR 1	

U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL

AM	7:00 AM	21	235	36	0	234	84	2	76	21	54	76	26	865
	7:15 AM	34	318	32	1	270	87	6	86	16	63	93	31	1,037
	7:30 AM	16	381	40	1	287	104	7	75	20	55	65	37	1,088
	7:45 AM	14	435	52	0	307	92	1	93	22	50	67	35	1,168
	8:00 AM	24	424	48	2	314	118	5	82	11	40	72	22	1,162
	8:15 AM	15	432	39	0	261	130	7	67	9	48	74	34	1,116
	8:30 AM	12	453	47	1	207	109	6	71	8	37	53	18	1,022
	8:45 AM	25	401	45	0	183	61	6	101	6	41	58	38	965
	VOLUMES	161	3,079	339	5	2,063	785	40	651	113	388	558	241	8,423
	APPROACH %	4%	86%	9%	0%	72%	28%	5%	81%	14%	33%	47%	20%	
APP/DEPART	3,579	/	3,361	2,853	/	2,611	804	/	996	1,187	/	1,455	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	69	1,672	179	3	1,169	444	20	317	62	193	278	128	4,534	
APPROACH %	4%	87%	9%	0%	72%	27%	5%	79%	16%	32%	46%	21%		
PEAK HR FACTOR	0.958													
APP/DEPART	1,920	/	1,821	1,616	/	1,447	399	/	500	599	/	766	0	
PM	4:00 PM	26	370	44	0	288	145	3	170	23	48	80	82	1,279
	4:15 PM	8	343	55	5	364	98	26	142	16	42	56	53	1,208
	4:30 PM	21	379	47	51	358	67	80	70	12	49	26	38	1,198
	4:45 PM	6	447	44	41	343	93	88	75	5	61	51	23	1,277
	5:00 PM	8	487	51	56	399	52	70	50	13	48	26	25	1,285
	5:15 PM	12	342	59	39	338	83	94	68	6	60	51	36	1,188
	5:30 PM	14	430	32	54	416	62	65	54	9	66	42	23	1,267
	5:45 PM	20	311	45	51	375	61	63	51	11	41	61	16	1,106
	VOLUMES	115	3,109	377	297	2,881	661	489	680	95	415	393	296	9,808
	APPROACH %	3%	86%	10%	8%	75%	17%	39%	54%	8%	38%	36%	27%	
APP/DEPART	3,601	/	3,934	3,839	/	3,433	1,264	/	1,314	1,104	/	1,127	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	40	1,706	186	190	1,496	290	317	247	33	235	170	107	5,017	
APPROACH %	2%	88%	10%	10%	76%	15%	53%	41%	6%	46%	33%	21%		
PEAK HR FACTOR	0.885													
APP/DEPART	1,932	/	2,156	1,976	/	1,776	597	/	597	512	/	488	0	

5	0	0	0	5
5	0	0	0	5
4	0	0	0	4
3	0	0	1	4
10	1	0	0	11
8	0	0	1	9
3	0	0	0	3
11	0	0	0	11
49	1	0	2	52

12	0	0	0	12
3	1	0	1	5
9	5	1	0	15
2	7	0	0	9
2	8	0	0	10
2	8	0	0	10
6	3	0	0	9
7	9	0	0	16
43	41	1	1	86



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

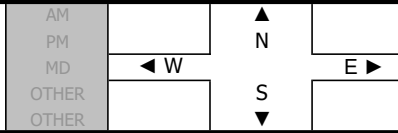
DATE:
Wed, Oct 27, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Ontario
Carnegie
Jurupa

PROJECT #: SC3147
LOCATION #: 30
CONTROL: SIGNAL

NOTES:



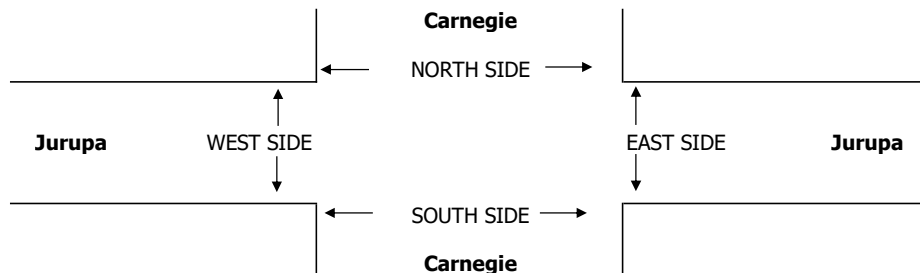
Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Carnegie			Carnegie			Jurupa			Jurupa			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	1	1	1	1	3	0	1	2	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

AM	7:00 AM	0	0	0	2	0	1	7	90	0	0	132	3	235
	7:15 AM	0	0	0	0	0	1	10	88	0	0	154	6	259
	7:30 AM	0	0	1	2	0	3	6	82	1	1	134	5	235
	7:45 AM	0	0	0	5	0	6	11	111	1	1	131	10	276
	8:00 AM	0	0	0	0	1	2	8	106	1	2	112	1	233
	8:15 AM	0	0	2	0	0	2	7	94	2	0	127	5	239
	8:30 AM	1	0	0	3	0	3	5	101	1	0	85	5	204
	8:45 AM	0	0	2	1	0	4	12	98	1	0	115	5	238
	VOLUMES	1	0	5	13	1	22	66	770	7	4	990	40	1,919
	APPROACH %	17%	0%	83%	36%	3%	61%	8%	91%	1%	0%	96%	4%	
APP/DEPART	6	/	102	36	/	11	843	/	789	1,034	/	1,017	0	
BEGIN PEAK HR	7:00 AM													
VOLUMES	0	0	1	9	0	11	34	371	2	2	551	24	1,005	
APPROACH %	0%	0%	100%	45%	0%	55%	8%	91%	0%	0%	95%	4%		
PEAK HR FACTOR	0.250			0.455			0.827			0.902			0.910	
APP/DEPART	1	/	57	20	/	3	407	/	382	577	/	563	0	
PM	4:00 PM	1	0	0	4	0	6	14	155	3	0	120	2	305
	4:15 PM	0	0	0	3	0	5	12	147	4	2	105	3	281
	4:30 PM	1	1	1	2	0	4	4	164	1	1	117	1	297
	4:45 PM	1	0	0	4	0	9	2	161	0	0	113	3	293
	5:00 PM	0	0	1	3	0	4	3	184	2	0	100	0	297
	5:15 PM	3	0	1	2	0	6	3	142	4	0	115	4	280
	5:30 PM	0	0	1	2	0	5	7	152	0	0	113	0	280
	5:45 PM	0	0	0	0	0	2	1	132	0	0	108	0	243
	VOLUMES	6	1	4	20	0	41	46	1,237	14	3	891	13	2,276
	APPROACH %	55%	9%	36%	33%	0%	67%	4%	95%	1%	0%	98%	1%	
APP/DEPART	11	/	56	61	/	16	1,297	/	1,262	907	/	942	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	3	1	1	13	0	24	32	627	8	3	455	9	1,176	
APPROACH %	60%	20%	20%	35%	0%	65%	5%	94%	1%	1%	97%	2%		
PEAK HR FACTOR	0.417			0.712			0.969			0.957			0.964	
APP/DEPART	5	/	39	37	/	10	667	/	642	467	/	485	0	

0	0	3	0	3
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	4	1	5



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Ontario
Commerce
Jurupa

PROJECT #: SC3147
LOCATION #: 31
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM	◀ W	N	E ▶
	MD		S	
	OTHER		▼	
	OTHER			

☑ Add U-Turns to Left Turns

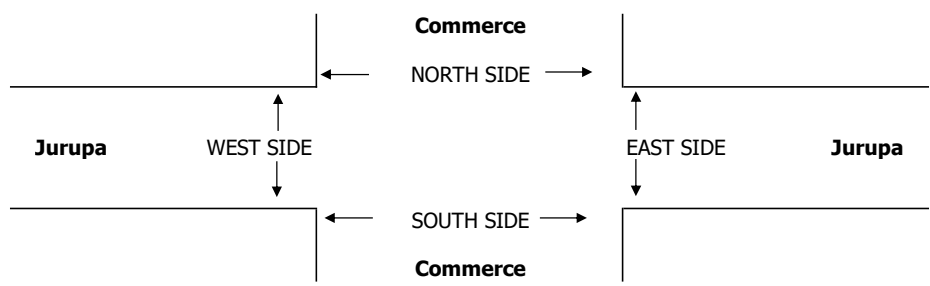
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Commerce			Commerce			Jurupa			Jurupa			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	2	1	1	1	3	0	1	2	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

AM	7:00 AM	1	1	1	14	0	2	10	80	1	12	133	38	293
	7:15 AM	1	0	4	26	1	6	6	80	1	10	153	37	325
	7:30 AM	0	1	2	15	1	4	7	78	0	4	136	34	282
	7:45 AM	1	1	3	24	2	2	16	100	0	3	139	43	334
	8:00 AM	0	3	2	11	1	2	16	87	3	7	115	26	273
	8:15 AM	1	2	2	17	1	3	15	78	2	5	127	30	283
	8:30 AM	0	0	4	11	2	1	14	89	1	1	90	25	238
	8:45 AM	1	0	2	11	0	3	11	87	2	4	118	37	276
	VOLUMES	5	8	20	129	8	23	95	679	10	46	1,011	270	2,304
	APPROACH %	15%	24%	61%	81%	5%	14%	12%	87%	1%	3%	76%	20%	
APP/DEPART	33	/	373	160	/	62	784	/	829	1,327	/	1,040	0	
BEGIN PEAK HR	7:00 AM													
VOLUMES	3	3	10	79	4	14	39	338	2	29	561	152	1,234	
APPROACH %	19%	19%	63%	81%	4%	14%	10%	89%	1%	4%	76%	20%		
PEAK HR FACTOR	0.800			0.735			0.817			0.928			0.924	
APP/DEPART	16	/	195	97	/	33	379	/	428	742	/	578	0	
PM	4:00 PM	1	4	9	56	3	7	12	141	6	6	115	53	413
	4:15 PM	1	8	8	70	6	6	15	129	5	9	104	63	424
	4:30 PM	7	12	27	51	6	7	14	147	5	0	105	50	431
	4:45 PM	2	5	15	49	4	7	13	149	3	2	107	37	393
	5:00 PM	2	3	8	49	3	11	17	169	2	2	86	58	410
	5:15 PM	1	2	6	59	0	8	17	125	1	0	112	73	404
	5:30 PM	1	3	7	50	2	14	18	136	1	1	99	66	398
	5:45 PM	0	1	6	67	2	11	13	117	0	1	97	44	359
	VOLUMES	15	38	86	451	26	71	119	1,113	23	21	825	444	3,232
	APPROACH %	11%	27%	62%	82%	5%	13%	9%	89%	2%	2%	64%	34%	
APP/DEPART	139	/	601	548	/	70	1,255	/	1,650	1,290	/	911	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	11	29	59	226	19	27	54	566	19	17	431	203	1,661	
APPROACH %	11%	29%	60%	83%	7%	10%	8%	89%	3%	3%	66%	31%		
PEAK HR FACTOR	0.538			0.829			0.962			0.925			0.963	
APP/DEPART	99	/	286	272	/	55	639	/	851	651	/	469	0	

0	1	0	1	2
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	1	1	2	4

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

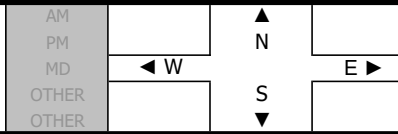
DATE:
Wed, Oct 27, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Ontario
Dupont
Jurupa

PROJECT #: SC3147
LOCATION #: 32
CONTROL: SIGNAL

NOTES:



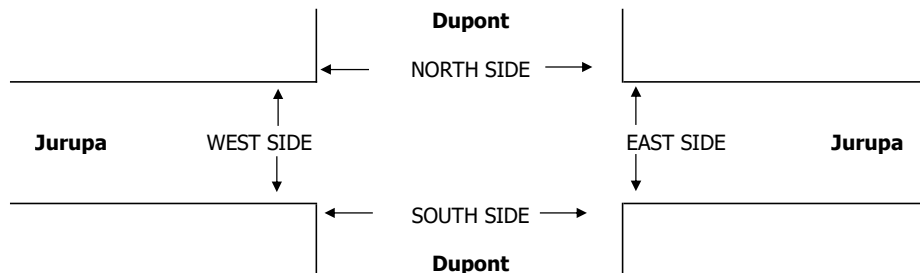
Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Dupont			Dupont			Jurupa			Jurupa			
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	

U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL 0

AM	7:00 AM	2	2	9	1	0	1	7	85	3	12	180	7	309
	7:15 AM	2	0	7	2	1	2	7	98	2	16	197	9	343
	7:30 AM	6	2	7	0	1	1	12	88	4	15	168	7	311
	7:45 AM	10	2	6	1	1	2	15	97	9	16	174	4	337
	8:00 AM	6	5	7	2	1	3	10	85	4	8	139	9	279
	8:15 AM	4	4	7	3	3	3	13	80	4	15	155	13	304
	8:30 AM	3	2	9	2	0	2	9	86	9	12	114	9	257
	8:45 AM	7	2	8	2	1	2	9	82	7	10	150	9	289
	VOLUMES	40	19	60	13	8	16	82	701	42	104	1,277	67	2,429
	APPROACH %	34%	16%	50%	35%	22%	43%	10%	85%	5%	7%	88%	5%	
APP/DEPART	119	/	168	37	/	143	825	/	785	1,448	/	1,333	0	
BEGIN PEAK HR	7:00 AM													
VOLUMES	20	6	29	4	3	6	41	368	18	59	719	27	1,300	
APPROACH %	36%	11%	53%	31%	23%	46%	10%	86%	4%	7%	89%	3%		
PEAK HR FACTOR	0.764			0.650			0.882			0.907			0.948	
APP/DEPART	55	/	74	13	/	76	427	/	405	805	/	745	0	
PM	4:00 PM	11	5	22	14	5	7	8	190	7	8	156	3	436
	4:15 PM	8	8	21	5	2	7	10	194	5	7	162	5	434
	4:30 PM	10	5	38	16	3	8	6	213	4	8	137	3	451
	4:45 PM	3	4	14	7	6	8	7	200	4	11	135	5	404
	5:00 PM	9	8	24	17	7	5	5	214	6	14	133	9	451
	5:15 PM	7	6	15	8	5	8	7	180	1	13	169	10	429
	5:30 PM	3	3	11	10	6	12	3	186	2	9	151	3	399
	5:45 PM	9	4	15	3	3	5	2	186	1	21	130	4	383
	VOLUMES	60	43	160	80	37	60	48	1,563	30	91	1,173	42	3,387
	APPROACH %	23%	16%	61%	45%	21%	34%	3%	95%	2%	7%	90%	3%	
APP/DEPART	263	/	131	177	/	134	1,641	/	1,827	1,306	/	1,295	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	30	25	97	45	18	28	28	821	19	40	567	22	1,740	
APPROACH %	20%	16%	64%	49%	20%	31%	3%	95%	2%	6%	90%	3%		
PEAK HR FACTOR	0.717			0.784			0.964			0.904			0.965	
APP/DEPART	152	/	74	91	/	64	868	/	976	629	/	626	0	

0	0	0	1	1
0	0	0	1	1
0	0	0	2	2
0	0	1	4	5
0	0	0	6	6
0	0	1	3	4
0	0	0	5	5
0	0	0	2	2
0	0	2	24	26



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

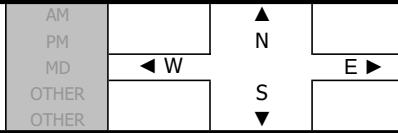
DATE:
Wed, Oct 27, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Ontario
Milliken
Jurupa

PROJECT #: SC3147
LOCATION #: 33
CONTROL: SIGNAL

NOTES:



Add U-Turns to Left Turns

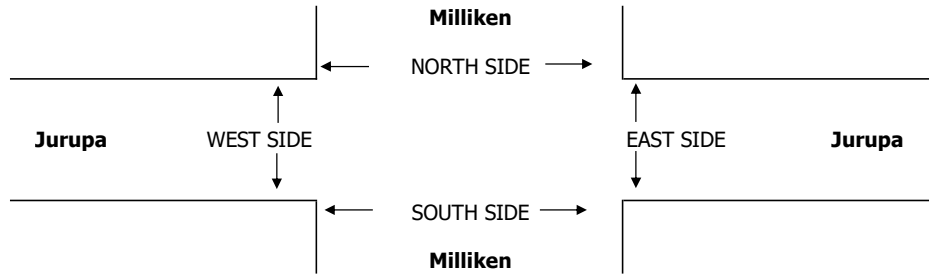
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Milliken			Milliken			Jurupa			Jurupa			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	3	1	2	3	1	2	3	1	2	3	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL	
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		
AM	7:00 AM	25	71	39	19	53	9	11	85	6	78	165	15	576
	7:15 AM	28	108	54	11	59	9	19	70	17	71	189	14	649
	7:30 AM	28	131	50	13	64	4	21	58	8	76	158	26	637
	7:45 AM	35	170	70	19	75	13	21	76	8	88	147	20	742
	8:00 AM	26	179	70	12	75	12	13	84	8	91	118	25	713
	8:15 AM	31	168	69	14	56	7	18	58	8	77	142	17	665
	8:30 AM	25	150	63	12	64	8	13	71	10	76	100	18	610
	8:45 AM	24	159	39	21	55	10	21	71	15	72	134	13	634
	VOLUMES	222	1,136	454	121	501	72	137	573	80	629	1,153	148	5,287
	APPROACH %	12%	61%	24%	17%	72%	10%	17%	72%	10%	33%	60%	8%	
APP/DEPART	1,865	/	1,422	695	/	1,263	796	/	1,149	1,931	/	1,453	0	
BEGIN PEAK HR	7:30 AM													
VOLUMES	120	648	259	58	270	36	73	276	32	332	565	88	2,794	
APPROACH %	11%	61%	24%	16%	74%	10%	19%	72%	8%	34%	57%	9%		
PEAK HR FACTOR	0.918			0.845			0.912			0.947			0.926	
APP/DEPART	1,061	/	810	365	/	668	383	/	593	985	/	723	0	
PM	4:00 PM	29	135	75	51	180	15	24	181	24	85	127	24	950
	4:15 PM	36	121	73	44	177	8	29	166	24	79	97	22	876
	4:30 PM	32	171	87	43	209	13	26	187	30	76	82	22	978
	4:45 PM	19	169	87	43	178	14	22	166	25	55	108	24	910
	5:00 PM	58	149	74	58	167	4	23	188	21	80	95	22	939
	5:15 PM	56	160	71	32	124	1	15	160	24	84	112	16	855
	5:30 PM	46	148	66	45	182	8	25	142	45	80	87	12	886
	5:45 PM	31	139	54	31	136	4	11	183	32	57	124	16	818
	VOLUMES	307	1,192	587	347	1,353	67	175	1,373	225	596	832	158	7,232
	APPROACH %	15%	57%	28%	20%	76%	4%	10%	77%	13%	38%	52%	10%	
APP/DEPART	2,096	/	1,530	1,772	/	2,184	1,777	/	2,308	1,587	/	1,210	0	
BEGIN PEAK HR	4:00 PM													
VOLUMES	116	596	322	181	744	50	101	700	103	295	414	92	3,730	
APPROACH %	11%	57%	31%	19%	76%	5%	11%	77%	11%	37%	52%	11%		
PEAK HR FACTOR	0.894			0.922			0.926			0.850			0.949	
APP/DEPART	1,044	/	791	977	/	1,152	907	/	1,204	802	/	583	0	

1	0	0	0	1
5	0	0	0	5
7	0	1	0	8
11	1	0	0	12
14	0	0	0	14
2	0	1	0	3
3	0	1	0	4
10	0	3	1	14
53	1	6	1	61

2	2	0	0	4
5	0	1	0	6
2	0	2	1	5
1	0	0	0	1
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
0	1	1	0	2
10	5	4	1	20



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

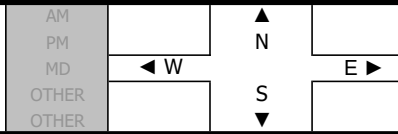
DATE:
Thu, Nov 4, 21

LOCATION:
NORTH & SOUTH:
EAST & WEST:

Ontario
Rockefeller
Jurupa

PROJECT #: SC3147
LOCATION #: 34
CONTROL: SIGNAL

NOTES:



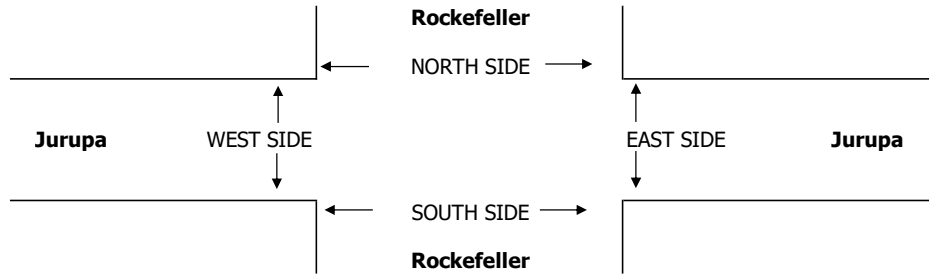
Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Rockefeller - Toyota			Rockefeller - Toyota			Jurupa			Jurupa			
	NL 1	NT 0.5	NR 1.5	SL 1	ST 1	SR 1	EL 1	ET 3	ER 0	WL 1	WT 3	WR 0	

U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL 0

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
AM													
7:00 AM	0	0	1	23	0	11	22	114	0	4	209	19	403
7:15 AM	0	1	1	27	0	14	16	96	1	7	232	33	428
7:30 AM	0	2	4	28	0	15	28	105	0	3	233	21	439
7:45 AM	0	1	0	22	0	13	21	111	0	4	262	37	471
8:00 AM	0	4	5	23	0	14	30	121	0	3	209	24	433
8:15 AM	0	3	4	21	1	10	24	121	3	2	229	33	451
8:30 AM	0	2	1	35	1	12	24	135	0	5	193	22	430
8:45 AM	0	0	3	31	1	13	21	139	0	10	213	26	457
VOLUMES	0	13	19	210	3	102	186	942	4	38	1,780	215	3,512
APPROACH %	0%	41%	59%	67%	1%	32%	16%	83%	0%	2%	88%	11%	
APP/DEPART	32	/	413	315	/	25	1,132	/	1,190	2,033	/	1,884	0
BEGIN PEAK HR	7:30 AM												
VOLUMES	0	10	13	94	1	52	103	458	3	12	933	115	1,794
APPROACH %	0%	43%	57%	64%	1%	35%	18%	81%	1%	1%	88%	11%	
PEAK HR FACTOR	0.639			0.855			0.934			0.875			0.952
APP/DEPART	23	/	227	147	/	7	564	/	574	1,060	/	986	0
PM													
4:00 PM	1	5	29	92	1	27	17	301	0	13	174	9	669
4:15 PM	0	1	18	64	1	25	25	268	0	8	177	8	595
4:30 PM	0	3	15	98	1	33	26	290	0	15	160	7	648
4:45 PM	0	2	16	61	4	21	26	270	0	12	161	10	583
5:00 PM	1	5	21	105	4	31	12	288	0	16	145	7	635
5:15 PM	1	18	86	56	1	14	17	279	0	12	122	10	616
5:30 PM	0	4	17	51	0	13	23	259	0	12	162	5	546
5:45 PM	0	0	6	58	0	11	16	254	0	8	115	6	474
VOLUMES	3	38	208	585	12	175	162	2,209	0	96	1,216	62	4,766
APPROACH %	1%	15%	84%	76%	2%	23%	7%	93%	0%	7%	89%	5%	
APP/DEPART	249	/	259	772	/	27	2,371	/	3,082	1,374	/	1,398	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	1	11	78	315	7	106	94	1,129	0	48	672	34	2,495
APPROACH %	1%	12%	87%	74%	2%	25%	8%	92%	0%	6%	89%	5%	
PEAK HR FACTOR	0.643			0.811			0.961			0.962			0.932
APP/DEPART	90	/	137	428	/	14	1,223	/	1,563	754	/	781	0

NB	SB	EB	WB	TTL
0	1	0	2	3
0	0	0	2	2
0	0	0	3	3
0	0	0	2	2
0	0	1	3	4
0	0	0	1	1
0	0	0	2	2
0	0	1	5	6
0	1	2	20	23
0	0	1	12	13
0	0	1	7	8
0	0	0	13	13
0	0	0	9	9
0	0	1	14	15
0	0	0	10	10
0	1	0	9	10
0	0	1	7	8
0	1	4	81	86



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Wed, Oct 27, 21

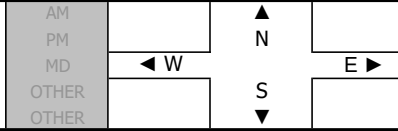
LOCATION:
NORTH & SOUTH:
EAST & WEST:

Ontario
I-15 NB Ramps
Jurupa

PROJECT #: SC3147
LOCATION #: 36
CONTROL: SIGNAL

NOTES:

Queue NB PM



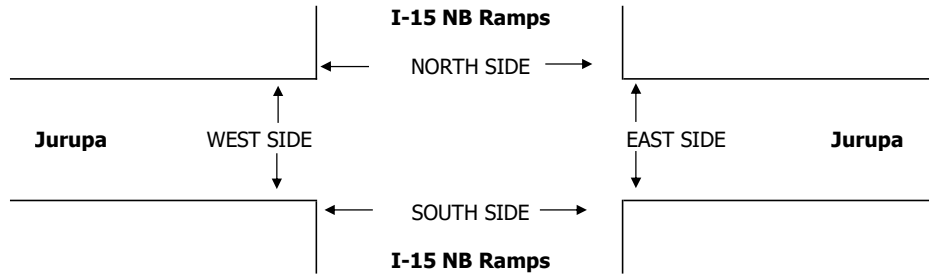
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	I-15 NB Ramps			I-15 NB Ramps			Jurupa			Jurupa			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1.3	0.3	1.3	X	X	X	2	3	X	X	3	1	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

	I-15 NB Ramps			I-15 NB Ramps			Jurupa			Jurupa			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
AM													
7:00 AM	62	2	108	0	0	0	70	159	0	0	120	46	567
7:15 AM	59	0	101	0	0	0	65	158	0	0	114	93	590
7:30 AM	55	2	105	0	0	0	62	133	0	0	108	72	537
7:45 AM	47	0	84	0	0	0	72	213	0	0	113	92	621
8:00 AM	38	0	81	0	0	0	79	186	0	0	111	82	577
8:15 AM	55	0	90	0	0	0	75	159	0	0	103	59	541
8:30 AM	41	1	90	0	0	0	57	157	0	0	101	77	524
8:45 AM	34	0	91	0	0	0	62	139	0	0	115	62	503
VOLUMES	391	5	750	0	0	0	542	1,304	0	0	885	583	4,460
APPROACH %	34%	0%	65%	0%	0%	0%	29%	71%	0%	0%	60%	40%	
APP/DEPART	1,146	/	1,130	0	/	0	1,846	/	2,054	1,468	/	1,276	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	199	2	371	0	0	0	278	690	0	0	446	339	2,325
APPROACH %	35%	0%	65%	0%	0%	0%	29%	71%	0%	0%	57%	43%	
PEAK HR FACTOR	0.883			0.000			0.849			0.948			0.936
APP/DEPART	572	/	619	0	/	0	968	/	1,061	785	/	645	0
PM													
4:00 PM	19	0	46	0	0	0	127	197	0	0	216	139	744
4:15 PM	17	1	54	0	0	0	105	179	0	0	190	118	664
4:30 PM	13	0	50	0	0	0	97	240	0	0	208	113	721
4:45 PM	16	0	56	0	0	0	98	209	0	0	215	100	694
5:00 PM	19	1	53	0	0	0	107	218	0	0	208	99	705
5:15 PM	20	1	57	0	0	0	115	248	0	0	204	98	743
5:30 PM	16	0	41	0	0	0	116	166	0	0	179	124	642
5:45 PM	16	0	33	0	0	0	99	155	0	0	153	77	533
VOLUMES	136	3	390	0	0	0	864	1,612	0	0	1,573	868	5,446
APPROACH %	26%	1%	74%	0%	0%	0%	35%	65%	0%	0%	64%	36%	
APP/DEPART	529	/	1,733	0	/	0	2,476	/	2,002	2,441	/	1,711	0
BEGIN PEAK HR	4:30 PM												
VOLUMES	68	2	216	0	0	0	417	915	0	0	835	410	2,863
APPROACH %	24%	1%	76%	0%	0%	0%	31%	69%	0%	0%	67%	33%	
PEAK HR FACTOR	0.917			0.000			0.917			0.970			0.963
APP/DEPART	286	/	827	0	/	0	1,332	/	1,131	1,245	/	905	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	2	0	2



Appendix C
Roadway Classification Counts

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021

CITY# Ontario

JOB #: SC3147

CLASS1 Mission west of Grove_v2

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	14	0	0	0	0	0	0	0	0	0	0	0	14	12:00	1	89	31	0	11	4	0	0	3	0	1	0	0	140
0:15	0	16	3	0	0	0	0	0	0	4	0	0	0	23	12:15	0	116	36	0	15	2	0	4	7	0	0	0	180	
0:30	0	18	0	0	0	0	0	0	0	1	0	0	1	20	12:30	1	106	37	0	6	1	0	0	7	0	0	0	158	
0:45	0	8	2	0	0	0	0	0	0	0	0	0	0	10	12:45	0	95	24	0	7	0	0	2	11	0	0	0	139	
1:00	0	6	1	0	0	0	0	0	1	0	0	0	0	8	13:00	4	135	38	0	6	3	0	1	6	1	0	0	194	
1:15	0	16	3	0	2	3	0	0	1	0	0	0	0	25	13:15	1	122	27	1	11	3	0	0	10	0	0	0	175	
1:30	1	15	1	0	2	0	0	0	1	0	0	1	0	21	13:30	0	137	41	0	13	3	0	1	6	0	0	0	201	
1:45	0	20	5	0	0	0	0	0	1	0	0	0	0	26	13:45	1	116	31	1	14	1	0	2	9	0	0	0	175	
2:00	0	26	6	0	1	0	0	0	0	0	0	0	0	33	14:00	0	142	40	1	12	5	0	3	12	0	0	0	215	
2:15	0	25	4	0	0	0	0	0	0	0	0	0	0	29	14:15	0	130	59	1	7	2	0	4	4	0	0	0	207	
2:30	0	36	3	0	0	0	0	0	1	0	0	0	0	40	14:30	0	156	41	1	11	4	0	5	8	0	0	0	226	
2:45	0	35	8	0	0	0	0	0	0	0	0	0	0	43	14:45	0	149	52	3	16	1	0	0	4	0	0	0	225	
3:00	0	33	6	0	0	0	0	0	1	0	0	0	0	40	15:00	1	188	65	1	14	2	0	1	10	0	0	0	282	
3:15	0	36	7	0	1	2	0	0	0	0	1	0	0	47	15:15	3	170	48	0	7	4	0	0	3	0	0	0	235	
3:30	0	77	16	0	1	4	0	0	1	0	0	0	0	99	15:30	2	219	44	1	12	2	0	0	5	0	0	0	285	
3:45	0	56	10	0	1	3	0	0	1	0	0	0	0	71	15:45	1	214	45	0	12	2	0	1	6	0	0	0	281	
4:00	0	41	7	0	1	0	0	0	2	0	0	0	0	51	16:00	0	151	41	0	10	4	0	4	4	0	0	0	214	
4:15	0	55	20	0	0	1	0	0	4	0	0	0	0	80	16:15	0	192	45	0	6	1	0	2	6	0	0	0	252	
4:30	0	152	27	0	2	1	0	0	1	0	0	0	0	183	16:30	0	188	43	0	14	1	0	2	5	0	0	0	253	
4:45	0	143	20	0	3	0	0	0	0	0	0	0	0	166	16:45	1	189	47	0	6	0	0	0	5	0	0	0	248	
5:00	0	113	19	0	0	1	0	0	1	0	0	0	0	134	17:00	0	198	36	0	10	2	0	1	1	0	0	0	248	
5:15	0	104	32	0	7	2	0	0	4	0	2	0	0	151	17:15	3	185	35	0	13	0	0	1	6	0	0	0	243	
5:30	0	180	39	0	2	2	0	0	3	0	0	0	0	226	17:30	1	180	39	1	4	1	0	2	1	0	0	0	229	
5:45	0	179	29	0	1	2	0	0	0	0	0	0	0	211	17:45	1	193	41	0	7	0	0	0	6	0	0	0	248	
6:00	2	106	38	0	3	2	0	0	6	0	1	0	0	158	18:00	0	186	44	0	11	0	0	1	8	0	0	0	250	
6:15	0	97	26	3	8	3	0	0	4	0	1	0	0	142	18:15	0	116	20	0	5	0	0	1	3	0	0	0	145	
6:30	2	138	38	2	5	1	0	0	0	0	0	0	0	186	18:30	1	174	23	0	5	1	0	0	6	0	0	0	210	
6:45	0	144	29	4	6	2	0	0	7	0	0	0	0	192	18:45	4	109	15	0	2	0	0	0	5	0	0	0	135	
7:00	0	130	28	1	10	2	0	1	6	0	2	0	0	180	19:00	0	103	13	0	2	1	0	0	3	0	0	0	122	
7:15	0	142	35	1	6	3	0	0	4	1	0	0	0	192	19:15	1	98	13	0	3	4	0	0	3	0	0	0	122	
7:30	1	148	32	0	3	1	0	1	3	0	0	0	0	189	19:30	0	91	15	0	4	1	0	0	1	0	0	0	112	
7:45	0	254	38	2	4	2	0	1	6	0	0	0	0	307	19:45	1	84	11	0	6	0	0	1	1	0	0	0	104	
8:00	0	162	23	0	7	1	0	0	7	0	1	0	0	201	20:00	0	73	6	0	5	0	0	0	3	0	0	0	87	
8:15	1	146	33	0	10	3	0	0	6	0	1	0	0	200	20:15	0	76	14	0	2	1	0	0	3	0	0	0	96	
8:30	1	159	39	0	14	2	0	0	6	0	0	0	0	221	20:30	1	66	6	0	1	0	0	0	2	0	0	0	76	
8:45	0	94	36	2	9	4	0	0	6	0	0	0	0	151	20:45	1	70	5	0	1	0	0	2	1	0	0	1	81	
9:00	0	76	20	1	9	0	0	1	6	0	0	0	0	113	21:00	0	68	5	0	0	2	0	2	2	0	0	0	79	
9:15	0	98	21	0	9	2	0	0	11	0	2	0	0	143	21:15	0	97	12	0	1	0	0	0	4	0	0	0	114	
9:30	0	105	16	0	8	1	0	0	4	0	0	0	0	134	21:30	0	75	6	0	0	1	0	4	5	0	0	0	91	
9:45	1	107	30	2	9	4	0	1	4	0	1	0	0	159	21:45	1	75	9	0	2	0	0	0	3	0	0	0	90	
10:00	0	95	33	0	13	5	0	0	7	0	0	0	0	153	22:00	0	59	5	0	1	2	0	0	1	0	0	0	68	
10:15	0	82	30	0	14	1	0	0	6	0	1	0	0	134	22:15	1	50	5	0	0	0	0	1	1	0	0	0	58	
10:30	0	82	40	2	12	1	0	0	10	0	0	0	0	147	22:30	0	34	2	0	0	0	0	0	4	0	0	0	40	
10:45	0	61	30	0	12	3	0	1	6	0	1	0	0	114	22:45	0	38	2	0	0	1	0	1	2	0	0	0	44	
11:00	0	95	38	1	19	1	0	0	5	0	1	0	0	160	23:00	0	28	2	0	0	0	0	0	1	0	0	0	31	
11:15	2	128	43	1	10	1	0	0	4	0	0	0	0	189	23:15	0	18	1	0	1	1	0	1	0	0	0	0	22	
11:30	0	83	23	0	8	0	0	1	9	0	1	0	0	125	23:30	0	29	2	0	2	2	0	1	0	0	0	1	37	
11:45	1	124	40	2	8	1	0	0	8	0	1	0	0	185	23:45	0	23	3	0	0	1	0	0	1	0	0	0	28	
TOTAL	12	4,260	1,027	24	240	67	0	7	169	1	17	2	0	5,826	TOTAL	32	5,600	1,225	11	298	66	0	51	208	1	1	2	0	7,495

AM PEAK HOUR 7:45 AM
AM PEAK VOLUME 929

PM PEAK HOUR 3:00 PM
PM PEAK VOLUME 1,083

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	44	9,860	2,252	35	538	133	0	58	377	2	18	4	0	13,321
% OF TOTAL	0.3%	74.0%	16.9%	0.3%	4.0%	1.0%	0.0%	0.4%	2.8%	0.0%	0.1%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	69	19,065	4,150	79	1,036	291	2	92	807	2	42	4	0	25,639
% OF TOTAL	0.3%	74.4%	16.2%	0.3%	4.0%	1.1%	0.0%	0.4%	3.1%	0.0%	0.2%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY# Ontario
CLASS1 Mission west of Grove_v2

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	32	3	0	3	0	0	0	2	0	0	0	0	40	12:00	0	92	22	1	13	3	0	1	10	0	1	0	0	143
0:15	0	35	5	0	2	0	0	1	0	0	0	0	0	43	12:15	0	97	30	2	4	3	0	2	9	0	0	0	147	
0:30	0	36	4	0	0	0	0	0	1	0	0	0	0	41	12:30	0	103	24	0	11	2	0	1	15	0	1	0	157	
0:45	0	34	4	0	1	0	0	1	0	0	0	0	0	40	12:45	0	106	25	1	6	3	0	1	3	0	1	0	146	
1:00	1	21	3	0	1	0	0	0	0	0	0	0	0	26	13:00	0	116	32	0	12	1	0	0	7	0	1	0	169	
1:15	1	20	2	0	0	1	0	0	1	0	0	0	0	25	13:15	0	89	26	0	10	4	0	1	12	0	0	0	142	
1:30	1	27	2	0	1	0	0	0	2	0	0	0	0	33	13:30	0	146	35	1	16	5	0	2	3	0	0	0	208	
1:45	0	27	3	0	0	0	0	0	0	0	0	0	0	30	13:45	2	137	34	1	15	3	1	1	1	0	0	0	195	
2:00	0	31	5	0	1	0	0	0	0	0	0	0	0	37	14:00	0	142	38	0	13	6	0	2	6	0	0	0	207	
2:15	0	32	4	0	1	0	0	0	1	0	0	0	0	38	14:15	0	135	29	0	11	4	0	1	3	0	0	0	183	
2:30	0	30	3	0	0	0	0	0	1	0	0	0	0	34	14:30	1	184	31	0	6	3	0	0	8	0	0	0	233	
2:45	0	48	9	0	1	0	0	0	2	0	0	0	0	60	14:45	1	196	46	0	13	5	0	0	4	0	0	0	265	
3:00	0	28	2	0	0	0	0	0	4	0	0	0	0	34	15:00	1	168	38	2	6	4	0	2	8	0	0	0	229	
3:15	0	31	3	0	0	0	0	0	1	0	0	0	0	35	15:15	0	157	35	1	5	4	0	1	5	0	0	0	208	
3:30	0	24	2	0	2	0	0	1	3	0	0	0	0	32	15:30	0	185	30	3	6	4	0	0	0	0	0	0	228	
3:45	1	52	7	0	0	0	0	0	0	0	0	0	0	60	15:45	0	213	34	2	9	5	0	2	3	0	0	0	268	
4:00	0	36	9	0	2	2	0	0	4	0	0	0	0	53	16:00	1	187	37	3	4	5	1	1	4	0	0	0	243	
4:15	0	47	9	0	0	0	0	0	2	0	0	0	0	58	16:15	0	198	41	0	4	1	0	1	3	0	1	0	249	
4:30	0	52	15	0	0	0	0	0	3	0	0	0	0	70	16:30	0	198	28	0	5	3	0	0	4	0	0	0	238	
4:45	0	47	11	0	0	1	0	0	2	0	0	0	0	61	16:45	0	209	41	2	6	2	0	0	6	0	1	0	267	
5:00	0	49	16	0	2	0	0	0	6	0	3	0	0	76	17:00	0	230	32	0	4	3	0	0	5	0	0	0	274	
5:15	1	48	18	0	1	2	0	0	7	0	0	0	0	77	17:15	1	186	36	0	3	0	0	1	3	0	0	0	230	
5:30	0	92	20	0	4	0	0	0	6	0	0	0	0	122	17:30	1	191	35	0	5	1	0	0	10	0	0	0	243	
5:45	0	99	31	0	2	0	0	0	3	0	1	0	0	136	17:45	0	159	44	0	5	0	0	0	8	0	0	0	216	
6:00	0	93	12	0	6	1	0	0	1	0	1	0	0	114	18:00	2	172	30	0	2	3	0	0	8	0	0	0	217	
6:15	0	86	23	0	7	3	0	0	6	0	0	0	0	125	18:15	0	131	29	0	5	3	0	1	3	0	0	0	172	
6:30	0	125	25	1	7	1	0	0	3	0	1	0	0	163	18:30	0	133	19	0	3	3	0	0	2	0	0	0	160	
6:45	1	139	21	2	9	2	0	0	7	0	1	0	0	182	18:45	0	110	14	0	6	4	0	0	7	0	0	0	141	
7:00	0	178	40	0	11	0	0	0	9	0	2	0	0	240	19:00	0	71	16	0	3	1	0	0	2	0	0	0	93	
7:15	0	189	28	1	13	0	0	0	4	0	0	0	0	235	19:15	1	74	14	0	1	4	0	1	6	0	0	0	101	
7:30	2	194	31	2	15	3	0	0	7	0	0	0	0	254	19:30	1	69	9	0	0	0	0	2	0	0	0	0	81	
7:45	0	164	33	1	10	3	0	0	4	0	0	0	0	215	19:45	0	63	13	1	3	0	0	0	3	0	0	0	83	
8:00	0	126	28	2	8	3	0	0	10	0	2	0	0	179	20:00	0	65	13	0	0	0	0	1	7	0	0	0	86	
8:15	0	111	38	3	11	4	0	1	10	0	0	0	0	178	20:15	0	69	7	0	2	1	0	0	3	0	0	0	82	
8:30	0	114	22	3	8	2	0	0	9	0	0	0	0	158	20:30	1	71	10	0	2	0	0	0	2	0	0	0	86	
8:45	0	104	26	2	9	5	0	0	3	0	0	0	0	149	20:45	0	61	4	0	2	0	0	0	1	0	0	0	68	
9:00	0	65	29	1	10	1	0	0	8	0	1	0	0	115	21:00	0	47	7	0	0	1	0	0	5	0	0	0	60	
9:15	0	94	27	3	15	1	0	0	5	0	1	0	0	146	21:15	1	67	8	0	0	1	0	0	2	0	0	0	79	
9:30	0	89	34	0	10	2	0	2	13	0	0	0	0	150	21:30	0	53	6	0	1	3	0	0	1	0	0	0	64	
9:45	0	99	30	0	15	3	0	2	11	0	0	0	0	160	21:45	0	58	6	0	0	0	0	1	2	0	0	0	67	
10:00	1	91	28	1	10	5	0	1	10	0	1	0	0	148	22:00	0	50	6	0	1	0	0	1	1	0	0	0	59	
10:15	0	73	24	1	10	1	0	0	4	0	0	0	0	113	22:15	0	69	5	0	0	0	0	0	1	0	0	0	75	
10:30	0	100	32	0	12	1	0	0	6	0	1	0	0	152	22:30	0	74	9	0	0	0	0	0	1	0	0	0	84	
10:45	0	89	24	0	17	3	0	0	8	0	0	0	0	141	22:45	0	53	4	0	1	0	0	0	2	0	0	0	60	
11:00	0	97	31	1	8	2	0	0	6	0	1	0	0	146	23:00	1	37	4	0	0	0	0	0	2	0	0	0	44	
11:15	0	76	16	0	10	1	0	0	12	0	0	0	0	115	23:15	0	31	3	0	1	0	0	0	1	0	0	0	36	
11:30	0	82	32	0	6	5	0	0	8	0	1	0	0	134	23:30	0	52	4	0	1	1	0	0	1	0	0	0	59	
11:45	1	106	24	0	10	1	0	0	8	0	1	0	0	151	23:45	0	39	7	0	1	0	0	0	2	0	0	0	49	
TOTAL	10	3,662	848	24	271	59	0	9	223	0	18	0	0	5,124	TOTAL	15	5,543	1,050	20	227	99	2	25	207	0	6	0	0	7,194

AM PEAK HOUR 7:00 AM
AM PEAK VOLUME 944

PM PEAK HOUR 4:15 PM
PM PEAK VOLUME 1,028

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	25	9,205	1,898	44	498	158	2	34	430	0	24	0	0	12,318
% OF TOTAL	0.2%	74.7%	15.4%	0.4%	4.0%	1.3%	0.0%	0.3%	3.5%	0.0%	0.2%	0.0%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS2 Mission east of Archibald_v2

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	21	3	0	0	0	0	0	1	0	0	0	0	25	12:00	1	57	19	0	6	2	0	2	8	0	0	0	0	95
0:15	0	16	1	0	0	1	0	1	4	0	0	0	0	23	12:15	0	64	8	0	2	3	0	0	9	0	0	0	0	86
0:30	0	13	1	0	1	0	0	1	2	0	0	0	0	18	12:30	1	67	13	0	3	4	0	0	14	0	0	0	0	102
0:45	0	10	0	0	0	1	0	0	0	0	0	1	0	12	12:45	1	68	8	0	6	4	0	0	9	0	0	0	0	96
1:00	0	6	0	0	0	0	0	0	2	0	0	0	0	8	13:00	1	92	13	0	9	4	0	0	8	0	0	0	0	127
1:15	0	6	0	0	1	0	0	0	0	0	0	0	0	7	13:15	3	90	22	0	6	2	0	0	7	0	0	0	0	130
1:30	0	11	0	0	1	0	0	0	2	0	0	0	0	14	13:30	1	111	20	0	11	2	0	0	10	0	0	0	0	155
1:45	1	15	0	0	0	0	0	0	0	0	0	0	0	16	13:45	0	88	11	1	4	4	0	1	10	0	0	0	0	119
2:00	0	12	1	0	0	0	0	0	1	0	0	0	0	14	14:00	0	88	18	0	9	1	0	3	9	0	0	0	0	128
2:15	0	21	2	0	0	0	0	0	0	0	0	0	0	23	14:15	0	117	20	0	3	2	0	3	4	0	0	0	0	149
2:30	0	17	0	0	0	0	0	0	1	0	0	0	0	18	14:30	0	196	27	0	14	3	0	4	5	0	0	0	0	249
2:45	0	31	2	0	0	0	0	0	1	0	0	0	0	34	14:45	0	131	26	3	6	3	0	3	7	0	0	0	0	179
3:00	0	19	2	0	0	0	0	0	0	0	0	0	0	21	15:00	0	158	32	0	6	4	0	1	9	0	0	0	0	210
3:15	0	22	3	0	2	0	0	0	1	0	0	0	0	28	15:15	0	134	34	0	9	1	0	0	8	1	0	0	0	187
3:30	0	58	1	0	0	0	0	0	2	0	0	0	0	61	15:30	2	178	21	0	9	1	0	2	5	0	0	0	0	218
3:45	0	41	5	0	0	1	0	0	0	0	0	0	0	47	15:45	0	133	20	0	4	1	0	1	4	0	0	0	0	163
4:00	0	22	0	0	0	0	0	0	2	0	0	0	0	24	16:00	1	117	23	0	2	2	0	3	3	0	0	0	0	151
4:15	0	33	7	0	0	1	0	0	3	0	0	0	0	44	16:15	0	198	36	0	4	2	0	3	10	0	0	0	0	253
4:30	0	82	7	0	0	0	0	0	3	0	0	0	0	92	16:30	0	171	23	0	8	3	0	4	6	0	0	0	0	215
4:45	0	109	15	0	0	1	0	0	0	0	0	0	0	125	16:45	0	123	24	0	5	0	0	3	7	0	0	0	0	162
5:00	0	43	7	0	0	0	0	1	1	0	0	0	0	52	17:00	0	158	30	0	4	2	0	1	6	0	0	0	0	201
5:15	0	43	3	0	1	2	0	0	1	0	0	0	0	50	17:15	2	182	32	0	6	4	0	6	3	0	0	0	0	235
5:30	0	94	11	0	4	0	0	0	3	0	0	0	0	112	17:30	0	161	22	0	6	0	0	3	6	0	0	0	0	198
5:45	0	85	7	0	0	1	0	0	0	0	0	0	0	93	17:45	0	181	20	1	2	1	0	1	4	0	0	0	0	210
6:00	0	52	4	0	3	1	0	0	6	0	0	0	0	66	18:00	0	135	21	0	3	2	0	0	7	0	1	0	0	169
6:15	0	70	6	0	0	4	0	0	5	0	0	0	0	85	18:15	0	138	15	0	4	0	0	2	8	0	0	0	0	167
6:30	0	83	15	1	0	4	1	0	0	0	0	0	0	104	18:30	0	102	9	0	1	1	0	0	6	0	0	0	0	119
6:45	1	76	13	0	1	1	0	0	5	0	0	0	0	97	18:45	2	83	9	0	1	0	0	0	5	0	0	0	0	100
7:00	0	60	10	0	3	3	0	0	12	0	0	0	0	88	19:00	0	64	5	0	2	1	0	0	5	0	0	0	0	77
7:15	0	72	12	0	3	2	0	0	1	0	0	0	0	90	19:15	0	69	7	0	2	0	0	0	1	0	0	0	0	79
7:30	0	68	12	0	1	1	0	0	3	1	0	0	0	86	19:30	0	37	8	0	2	0	0	0	2	0	0	0	0	49
7:45	0	89	12	2	0	0	0	0	5	0	0	0	0	108	19:45	0	58	6	0	1	4	0	2	1	0	0	0	0	72
8:00	0	106	13	1	2	2	0	0	1	0	0	0	0	125	20:00	0	53	4	0	1	1	0	1	5	0	0	0	0	65
8:15	0	67	14	0	7	5	0	0	8	0	0	0	0	101	20:15	0	42	4	0	0	0	0	2	4	0	0	0	0	52
8:30	0	62	11	0	6	2	0	0	12	0	0	0	0	93	20:30	0	36	3	0	4	1	0	0	4	0	0	0	0	48
8:45	0	58	6	0	5	3	0	0	7	0	0	0	0	79	20:45	0	38	2	0	0	0	0	0	4	0	0	0	0	44
9:00	0	45	6	0	7	2	0	1	5	0	0	0	0	66	21:00	0	31	3	0	1	2	0	2	4	0	0	0	0	43
9:15	0	44	6	0	5	1	0	0	5	0	0	0	0	61	21:15	0	55	1	0	0	0	1	3	0	0	0	0	0	60
9:30	0	48	7	0	3	0	0	0	6	0	0	0	0	64	21:30	0	46	4	0	0	0	0	7	0	0	0	0	0	57
9:45	0	54	7	0	11	3	0	0	12	0	1	0	0	88	21:45	0	44	4	0	0	0	2	3	0	0	0	0	0	53
10:00	0	45	10	0	6	3	0	0	13	0	0	0	0	77	22:00	0	39	4	0	1	1	0	0	1	0	0	0	0	46
10:15	0	47	15	0	5	2	0	0	9	0	0	0	0	78	22:15	0	31	4	0	1	1	0	1	1	0	0	0	0	39
10:30	0	45	9	0	5	0	0	0	9	0	0	0	0	68	22:30	0	32	1	0	0	1	0	1	1	0	0	0	0	36
10:45	0	49	10	0	6	5	0	0	7	0	0	0	0	77	22:45	0	19	1	0	0	0	1	3	0	0	0	0	0	24
11:00	0	75	6	0	7	0	0	1	3	0	0	0	0	92	23:00	1	17	2	0	1	0	0	0	1	0	0	0	0	22
11:15	1	68	11	0	3	0	1	0	5	0	0	0	0	89	23:15	0	16	1	0	0	1	0	1	0	0	0	0	0	19
11:30	0	56	18	0	5	1	0	0	6	0	0	0	0	86	23:30	0	18	2	0	1	0	0	0	2	0	0	0	0	23
11:45	0	70	9	0	5	3	0	0	9	0	0	0	0	96	23:45	0	19	1	0	0	0	1	0	0	0	0	0	0	21
TOTAL	3	2,339	320	4	109	56	2	5	184	1	1	1	0	3,025	TOTAL	16	4,285	643	5	170	71	0	61	249	1	1	0	0	5,502

AM PEAK HOUR 7:45 AM
AM PEAK VOLUME 427

PM PEAK HOUR 5:00 PM
PM PEAK VOLUME 844

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	19	6,624	963	9	279	127	2	66	433	2	2	1	0	8,527
% OF TOTAL	0.2%	77.7%	11.3%	0.1%	3.3%	1.5%	0.0%	0.8%	5.1%	0.0%	0.0%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	35	13,267	1,905	19	592	266	3	153	897	3	6	1	0	17,147
% OF TOTAL	0.4%	155.6%	22.3%	0.2%	6.9%	3.1%	0.0%	1.8%	10.5%	0.0%	0.1%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS2 Mission east of Archibald_v2

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	21	0	0	0	1	0	0	2	0	0	0	0	24	12:00	0	53	6	0	5	2	0	1	7	0	0	0	74	
0:15	0	14	2	0	1	0	0	1	0	0	0	0	0	18	12:15	0	53	4	0	5	1	0	0	10	0	0	0	73	
0:30	0	16	2	0	0	0	0	1	0	0	0	0	0	19	12:30	0	73	9	0	8	4	0	6	10	0	0	0	110	
0:45	0	26	1	0	1	0	0	0	1	0	0	0	0	29	12:45	0	74	7	0	11	4	0	0	5	0	0	0	101	
1:00	0	19	3	0	0	0	0	0	0	0	0	0	0	22	13:00	0	65	12	0	8	4	0	0	7	0	0	0	96	
1:15	0	11	0	0	0	0	0	0	0	0	0	0	0	11	13:15	1	55	10	0	3	5	1	0	7	0	0	0	82	
1:30	0	14	0	0	0	0	0	1	3	0	0	0	0	18	13:30	0	99	16	0	9	1	0	2	6	0	0	0	133	
1:45	0	12	1	0	0	0	0	0	1	0	0	0	0	14	13:45	0	109	13	0	2	1	0	1	7	0	0	0	133	
2:00	0	16	3	0	0	0	0	0	3	0	0	0	0	22	14:00	0	89	16	0	6	4	0	9	7	0	0	0	131	
2:15	0	14	1	0	0	0	0	0	0	0	0	0	0	15	14:15	0	82	11	0	2	0	0	1	9	0	0	0	105	
2:30	0	19	1	0	0	0	0	0	1	0	0	0	0	21	14:30	1	102	17	0	5	4	0	2	12	0	0	0	143	
2:45	0	20	3	0	0	1	0	0	3	0	0	0	0	27	14:45	1	144	20	0	7	4	0	0	4	0	0	0	180	
3:00	0	21	2	0	0	0	0	1	4	0	0	0	0	28	15:00	0	109	20	0	3	4	0	6	2	0	0	0	144	
3:15	0	22	2	0	0	1	0	0	3	0	0	0	0	28	15:15	0	99	25	0	7	3	0	4	4	0	0	0	142	
3:30	0	15	2	0	0	0	0	0	2	0	0	0	0	19	15:30	0	108	14	0	8	3	0	5	4	0	0	0	142	
3:45	0	36	2	0	1	0	0	0	3	0	0	0	0	42	15:45	0	136	16	0	5	1	0	1	3	0	0	0	162	
4:00	0	30	2	0	0	1	0	0	4	0	0	0	0	37	16:00	1	121	18	0	4	2	0	2	6	0	0	0	154	
4:15	0	47	5	0	0	1	0	0	3	0	0	0	0	56	16:15	0	121	21	0	4	0	0	3	4	0	0	0	153	
4:30	1	44	12	0	0	0	0	0	2	0	0	0	0	59	16:30	0	131	10	0	4	4	0	3	8	0	0	0	160	
4:45	0	56	5	0	0	1	0	0	2	0	0	0	0	64	16:45	0	107	15	0	4	2	0	2	3	0	1	0	134	
5:00	0	54	11	0	1	0	0	0	3	0	0	0	0	69	17:00	0	83	9	1	2	2	0	3	6	0	1	0	107	
5:15	0	74	11	0	0	0	0	0	4	0	0	0	0	89	17:15	0	162	14	0	6	1	0	1	11	0	0	0	195	
5:30	0	120	22	0	0	4	0	0	4	0	0	0	0	150	17:30	0	121	16	0	3	1	0	0	4	1	0	0	146	
5:45	0	159	24	0	4	2	0	0	5	0	0	0	0	194	17:45	0	146	16	0	3	0	0	0	11	0	1	0	177	
6:00	0	84	14	0	6	1	0	0	3	0	0	0	0	108	18:00	0	117	20	0	3	0	0	0	7	0	0	0	147	
6:15	0	86	20	0	2	2	0	0	6	0	0	0	0	116	18:15	0	88	13	0	2	2	0	2	5	0	0	0	112	
6:30	0	136	37	0	2	1	0	0	2	0	0	0	0	178	18:30	0	63	6	0	1	4	0	2	4	0	0	0	80	
6:45	1	165	22	0	4	2	0	0	6	0	0	0	0	200	18:45	0	57	8	0	3	0	0	2	3	0	0	0	73	
7:00	0	172	20	0	5	3	0	0	7	0	0	0	0	207	19:00	1	37	6	0	0	0	0	3	3	0	1	0	51	
7:15	3	191	21	0	1	6	0	0	7	0	0	0	0	229	19:15	0	42	4	0	0	3	0	3	5	0	0	0	57	
7:30	1	187	11	0	8	3	0	0	6	0	0	0	0	216	19:30	0	41	1	0	1	0	0	0	1	0	0	0	44	
7:45	0	169	28	0	6	1	0	0	5	0	0	0	0	209	19:45	0	32	5	0	3	0	0	2	4	0	0	0	46	
8:00	0	159	25	0	5	1	0	0	13	0	0	0	0	203	20:00	0	56	7	0	0	1	0	0	9	0	0	0	73	
8:15	0	101	22	2	6	4	0	0	11	0	0	0	0	146	20:15	0	47	7	0	1	0	0	1	5	0	0	0	61	
8:30	0	125	15	1	12	6	0	0	9	0	0	0	0	168	20:30	1	41	1	0	1	0	0	2	2	0	0	0	48	
8:45	0	101	7	3	7	1	0	2	5	0	0	0	0	126	20:45	0	24	1	1	0	0	0	1	2	0	0	0	29	
9:00	0	63	14	0	12	2	0	1	8	0	0	0	0	100	21:00	0	32	2	0	0	0	0	1	1	0	0	0	36	
9:15	0	54	18	0	11	2	0	0	13	0	0	0	0	98	21:15	0	34	1	0	2	1	0	1	2	0	0	0	41	
9:30	0	66	15	0	9	0	0	0	10	0	0	0	0	100	21:30	0	35	5	0	0	0	2	1	0	0	0	0	43	
9:45	1	64	13	1	5	4	0	1	7	0	0	0	0	96	21:45	0	32	8	0	0	0	0	1	0	0	0	0	41	
10:00	0	53	6	0	9	4	0	0	7	0	0	0	0	79	22:00	0	30	3	0	0	0	0	0	1	0	0	0	34	
10:15	0	41	9	0	5	3	0	0	12	0	0	0	0	70	22:15	0	34	4	0	0	1	0	0	0	0	0	0	39	
10:30	0	59	14	0	7	1	0	0	7	0	0	0	0	88	22:30	0	44	3	0	0	0	0	1	2	0	0	0	50	
10:45	1	51	11	0	11	3	0	0	6	0	0	0	0	83	22:45	1	22	1	1	1	0	0	0	3	0	0	0	29	
11:00	0	60	9	0	7	1	0	1	10	0	0	0	0	88	23:00	0	21	3	0	0	0	0	0	1	0	0	0	25	
11:15	0	41	5	0	9	3	0	0	8	0	0	0	0	66	23:15	0	23	1	0	0	0	0	0	2	0	0	0	26	
11:30	1	51	14	0	6	1	0	1	14	0	0	0	0	88	23:30	0	16	1	0	0	1	0	1	0	0	0	0	19	
11:45	0	56	7	0	7	2	0	1	7	0	0	0	0	80	23:45	0	18	2	0	1	0	0	0	1	0	0	0	22	
TOTAL	9	3,215	494	7	170	69	0	11	242	0	0	0	0	4,217	TOTAL	7	3,428	448	3	143	70	1	76	222	1	4	0	0	4,403

AM PEAK HOUR 7:00 AM
AM PEAK VOLUME 861

PM PEAK HOUR 5:15 PM
PM PEAK VOLUME 665

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	16	6,643	942	10	313	139	1	87	464	1	4	0	0	8,620
% OF TOTAL	0.2%	77.1%	10.9%	0.1%	3.6%	1.6%	0.0%	1.0%	5.4%	0.0%	0.0%	0.0%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
 JOB #: SC3147

CITY: Ontario
 LOCATION: CLASS3 Jurupa east of Tower_v2

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	4	1	0	1	5	0	0	0	0	0	0	0	11	12:00	0	14	0	0	1	2	0	0	2	0	0	0	0	19
0:15	0	3	0	0	0	3	0	0	1	0	0	0	0	7	12:15	0	9	2	0	3	1	0	0	2	0	0	0	0	17
0:30	0	5	0	0	1	3	0	0	2	0	0	0	0	11	12:30	0	8	0	0	6	9	0	0	1	0	0	0	0	24
0:45	0	3	0	0	1	3	0	0	1	0	0	0	0	8	12:45	0	9	3	0	3	4	0	0	2	0	0	0	0	21
1:00	0	3	0	0	0	4	0	0	0	0	0	0	0	7	13:00	0	18	2	0	1	4	0	0	2	0	0	0	0	27
1:15	0	4	0	0	1	6	0	0	1	0	0	0	0	12	13:15	0	9	1	0	6	1	0	0	0	0	0	0	0	17
1:30	0	8	2	0	0	9	0	0	0	0	0	0	0	19	13:30	1	18	1	0	3	9	0	0	0	0	0	0	0	32
1:45	0	9	0	0	0	9	0	0	0	0	0	0	0	18	13:45	0	11	0	0	2	7	0	0	4	0	2	0	0	26
2:00	0	4	1	0	0	6	0	0	0	0	0	0	0	11	14:00	0	12	1	0	2	6	0	0	1	0	0	0	0	22
2:15	0	7	1	0	1	5	0	0	0	0	0	0	0	14	14:15	0	14	5	0	4	7	0	0	0	0	0	0	0	30
2:30	0	8	0	0	0	4	0	0	0	0	0	0	0	12	14:30	1	29	7	0	1	2	0	1	1	0	0	0	0	42
2:45	0	5	1	0	0	3	0	0	0	0	0	0	0	9	14:45	0	19	5	0	2	8	0	0	0	0	0	0	0	34
3:00	0	7	0	0	0	5	0	0	0	0	0	0	0	12	15:00	0	27	7	0	1	2	0	0	1	0	0	0	0	38
3:15	0	5	0	0	0	4	0	0	0	0	0	0	0	9	15:15	0	17	6	0	0	3	0	0	1	0	0	0	0	27
3:30	0	3	0	0	0	2	0	0	0	0	0	0	0	5	15:30	0	29	5	0	2	2	0	1	1	0	0	0	0	40
3:45	0	2	0	0	0	1	0	0	0	0	0	0	0	3	15:45	1	21	4	0	3	0	0	1	2	0	0	0	0	32
4:00	0	5	1	0	0	4	0	0	0	0	0	0	0	10	16:00	0	29	4	0	3	3	0	0	0	0	0	0	0	39
4:15	0	4	0	0	0	5	0	0	0	0	0	0	0	9	16:15	0	18	3	0	3	4	0	0	0	0	0	0	0	28
4:30	0	9	1	0	0	3	0	0	0	0	0	0	0	13	16:30	0	34	4	0	2	4	0	1	0	0	0	0	0	45
4:45	0	10	1	0	0	1	0	0	0	0	0	0	0	12	16:45	0	16	1	0	3	4	0	0	1	0	0	0	0	25
5:00	0	8	0	0	0	4	0	0	0	0	0	0	0	12	17:00	0	27	5	0	2	3	0	0	0	0	0	0	0	37
5:15	0	1	1	0	0	4	0	0	0	0	0	0	0	6	17:15	0	15	6	0	3	3	0	0	0	0	0	0	0	27
5:30	0	12	0	0	0	2	0	0	0	0	0	0	0	14	17:30	0	18	2	0	5	0	0	0	0	0	0	0	0	25
5:45	0	16	1	0	0	0	0	0	0	0	0	0	0	17	17:45	0	16	0	0	3	0	0	0	0	0	0	0	0	19
6:00	0	9	1	0	1	1	0	0	0	0	0	0	0	12	18:00	0	10	0	0	2	0	0	0	0	0	0	0	0	12
6:15	0	14	2	0	0	2	0	0	2	0	0	0	0	20	18:15	0	12	2	0	1	2	0	0	1	0	0	0	0	18
6:30	0	13	1	0	1	0	0	0	1	0	0	0	0	16	18:30	0	12	0	0	3	6	0	0	0	0	0	0	0	21
6:45	0	17	1	0	1	1	1	0	0	0	0	0	0	21	18:45	0	5	0	0	1	1	0	0	0	1	0	0	0	8
7:00	0	14	0	0	0	2	0	0	0	0	0	0	0	16	19:00	0	16	2	0	0	2	0	0	0	0	0	0	0	20
7:15	0	10	2	0	5	3	0	0	0	0	0	0	0	20	19:15	0	11	0	0	0	1	0	0	0	0	0	0	0	12
7:30	1	16	4	0	6	7	0	0	0	0	0	0	0	34	19:30	0	18	3	0	0	3	0	0	0	0	0	0	0	24
7:45	0	7	3	0	2	5	0	0	1	0	0	0	0	18	19:45	0	9	0	0	2	1	0	0	1	0	0	0	0	13
8:00	0	11	2	0	2	1	0	0	0	0	0	0	0	16	20:00	0	13	1	0	0	5	0	0	0	0	0	0	0	19
8:15	0	5	3	0	2	2	0	0	0	0	0	0	0	12	20:15	0	7	1	0	2	5	0	0	0	0	0	0	0	15
8:30	1	8	0	0	1	7	0	0	1	0	0	0	0	18	20:30	0	5	1	0	0	9	0	0	0	0	0	0	0	15
8:45	1	5	0	0	1	3	0	0	1	0	0	0	0	11	20:45	0	6	0	0	1	11	0	0	1	0	0	0	0	19
9:00	0	13	0	0	2	1	0	0	1	0	0	0	0	17	21:00	0	7	1	0	3	4	0	0	1	0	0	0	0	16
9:15	0	10	4	0	2	2	0	0	1	0	0	0	0	19	21:15	0	5	0	0	0	5	0	0	0	0	0	0	0	10
9:30	0	11	2	0	5	3	0	0	0	0	0	0	0	21	21:30	0	6	0	0	2	16	0	0	0	0	0	0	0	24
9:45	0	11	2	0	0	3	0	0	0	0	0	0	0	16	21:45	0	6	0	0	1	21	0	0	0	0	0	0	0	28
10:00	1	8	2	0	2	2	0	0	4	0	0	0	0	19	22:00	0	11	0	0	0	3	0	0	0	0	0	0	0	14
10:15	0	7	2	0	3	2	0	0	2	0	0	0	0	16	22:15	0	10	0	0	1	3	0	0	0	0	0	0	0	14
10:30	0	8	2	0	7	5	0	0	2	0	0	0	0	24	22:30	0	7	0	0	0	3	0	0	0	0	0	0	0	10
10:45	0	9	1	0	5	7	0	0	2	0	0	0	0	24	22:45	0	5	0	0	0	3	0	0	0	0	0	0	0	8
11:00	0	10	1	0	5	3	0	1	3	0	0	0	0	23	23:00	0	9	0	0	0	1	0	0	0	0	0	0	0	10
11:15	0	7	1	0	4	1	0	0	1	0	0	0	0	14	23:15	0	6	0	0	0	2	0	0	0	0	0	0	0	8
11:30	1	12	5	0	8	3	0	0	3	0	0	0	0	32	23:30	0	10	1	0	0	2	0	0	0	0	0	0	0	13
11:45	0	15	1	0	0	5	0	0	2	0	0	0	0	23	23:45	0	8	0	0	0	3	0	0	0	0	0	0	0	11
TOTAL	5	395	53	0	70	166	1	1	32	0	0	0	0	723	TOTAL	3	651	86	0	83	200	0	4	25	1	2	0	0	1,055

AM PEAK HOUR: 10:45 AM
 AM PEAK VOLUME: 93

PM PEAK HOUR: 3:45 PM
 PM PEAK VOLUME: 144

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	8	1,046	139	0	153	366	1	5	57	1	2	0	0	1,778
% OF TOTAL	0.4%	58.8%	7.8%	0.0%	8.6%	20.6%	0.1%	0.3%	3.2%	0.1%	0.1%	0.0%	0.0%	100.0%
Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	14	2,099	313	2	366	673	1	8	96	1	3	0	0	3,576
% OF TOTAL	0.8%	118.1%	17.6%	0.1%	20.6%	37.9%	0.1%	0.4%	5.4%	0.1%	0.2%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS3 Jurupa east of Tower_v2

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	5	1	0	1	3	0	0	0	0	0	0	0	10	12:00	0	14	2	0	0	6	0	0	1	0	0	0	23	
0:15	0	6	0	0	1	1	0	0	3	0	0	0	0	11	12:15	0	10	1	0	0	7	0	0	0	0	0	0	18	
0:30	0	3	0	0	3	1	0	0	2	0	0	0	0	9	12:30	0	22	6	0	3	1	0	0	0	0	0	0	32	
0:45	0	8	0	0	6	3	0	0	2	0	0	0	0	19	12:45	0	23	1	1	5	4	0	0	0	0	0	0	34	
1:00	0	2	2	0	5	2	0	0	1	0	0	0	0	12	13:00	0	22	2	0	4	6	0	0	0	0	0	0	34	
1:15	0	4	3	0	1	5	0	0	0	0	0	0	0	13	13:15	0	10	4	0	2	4	0	0	0	0	0	0	20	
1:30	0	5	1	0	1	0	0	0	2	0	0	0	0	9	13:30	0	10	3	0	1	1	0	0	1	0	0	0	16	
1:45	0	4	2	0	1	3	0	0	0	0	0	0	0	10	13:45	0	13	1	0	2	8	0	0	0	0	0	0	24	
2:00	0	4	0	0	2	1	0	0	0	0	0	0	0	7	14:00	0	10	5	0	2	4	0	0	0	0	0	0	21	
2:15	0	2	0	0	1	0	0	0	2	0	0	0	0	5	14:15	0	21	4	0	0	5	0	0	0	0	0	0	30	
2:30	0	1	0	0	2	2	0	0	0	0	0	0	0	5	14:30	1	12	6	0	3	2	0	0	0	0	0	0	24	
2:45	0	9	0	0	0	1	0	0	0	0	0	0	0	10	14:45	0	10	2	0	1	1	0	1	0	0	0	0	15	
3:00	1	1	0	0	2	4	0	0	1	0	0	0	0	9	15:00	0	9	1	0	0	3	0	0	1	0	0	0	14	
3:15	0	4	2	0	1	1	0	0	0	0	0	0	0	8	15:15	0	10	2	0	1	1	0	0	0	0	0	0	14	
3:30	0	4	0	0	0	2	0	0	0	0	0	0	0	6	15:30	0	8	4	0	1	2	0	1	1	0	0	0	17	
3:45	0	10	1	0	0	5	0	0	0	0	0	0	0	16	15:45	0	10	5	0	2	8	0	0	0	0	0	0	25	
4:00	0	0	0	0	0	2	0	0	0	0	0	0	0	2	16:00	0	20	8	0	5	5	0	0	0	0	0	0	38	
4:15	0	6	1	0	0	1	0	0	0	0	0	0	0	8	16:15	0	9	2	0	0	0	0	0	0	0	0	0	11	
4:30	0	6	0	0	1	4	0	0	0	0	0	0	0	11	16:30	0	9	1	0	4	1	0	0	0	0	0	0	15	
4:45	0	5	1	0	0	1	0	0	0	0	0	0	0	7	16:45	0	10	1	0	0	5	0	0	0	0	0	0	16	
5:00	0	7	0	0	1	4	0	0	0	0	0	0	0	12	17:00	0	15	1	0	7	3	0	0	0	0	0	0	26	
5:15	1	14	1	0	1	2	0	0	0	0	0	0	0	19	17:15	0	10	1	0	3	2	0	0	0	0	0	0	16	
5:30	0	14	1	0	1	1	0	0	0	0	0	0	0	17	17:30	0	14	1	0	3	3	0	0	0	0	0	0	21	
5:45	0	30	4	0	0	3	0	0	0	0	0	0	0	37	17:45	1	8	1	0	2	0	0	0	0	0	0	0	12	
6:00	1	19	4	0	1	4	0	0	2	0	0	0	0	31	18:00	0	7	0	0	2	1	0	0	0	0	1	0	11	
6:15	0	18	1	0	1	9	0	0	1	0	0	0	0	30	18:15	0	8	0	0	2	1	0	0	0	0	0	0	11	
6:30	0	16	8	0	2	4	0	0	0	0	0	0	0	30	18:30	0	17	0	0	2	5	0	0	3	0	0	0	27	
6:45	0	25	7	0	5	5	0	0	0	0	0	0	0	42	18:45	0	6	0	0	1	4	0	0	0	0	0	0	11	
7:00	0	22	4	0	4	1	0	0	0	0	0	0	0	31	19:00	0	17	0	0	10	6	0	0	1	0	0	0	34	
7:15	0	16	3	0	8	2	0	0	1	0	0	0	0	30	19:15	0	5	0	0	2	6	0	0	0	0	0	0	13	
7:30	0	16	6	0	2	1	0	0	0	0	0	0	0	25	19:30	0	12	0	0	2	2	0	0	0	0	0	0	16	
7:45	0	12	6	0	2	2	0	0	0	0	0	0	0	22	19:45	0	21	1	0	5	1	0	0	2	0	0	0	30	
8:00	0	25	2	0	1	1	0	0	0	0	0	0	0	29	20:00	0	12	2	0	1	3	0	0	0	0	0	0	18	
8:15	0	16	1	0	2	1	0	0	1	0	0	0	0	21	20:15	0	14	0	0	7	3	0	0	0	0	0	0	24	
8:30	0	15	5	0	6	2	0	0	0	0	0	0	0	28	20:30	0	19	1	0	3	5	0	0	1	0	0	0	29	
8:45	0	19	4	0	5	3	0	0	1	0	0	0	0	32	20:45	0	23	2	0	1	1	0	0	1	0	0	0	28	
9:00	0	15	2	0	8	1	0	0	0	0	0	0	0	26	21:00	0	8	1	0	3	6	0	0	0	0	0	0	18	
9:15	0	9	1	0	4	2	0	1	0	0	0	0	0	17	21:15	0	3	1	0	0	5	0	0	0	0	0	0	9	
9:30	0	15	3	0	4	0	0	0	0	0	0	0	0	22	21:30	0	5	0	0	3	4	0	0	0	0	0	0	12	
9:45	0	18	2	0	2	6	0	0	0	0	0	0	0	28	21:45	0	7	0	0	2	4	0	0	0	0	0	0	13	
10:00	0	4	4	0	1	5	0	0	1	0	0	0	0	15	22:00	0	2	0	0	2	3	0	0	0	0	0	0	7	
10:15	0	14	6	0	3	3	0	0	2	0	0	0	0	28	22:15	0	4	1	0	0	4	0	0	1	0	0	0	10	
10:30	0	18	5	0	5	8	0	0	1	0	0	0	0	37	22:30	0	7	0	0	2	4	0	0	0	0	0	0	13	
10:45	1	16	1	0	1	5	0	0	1	0	0	0	0	25	22:45	0	3	0	0	1	6	0	0	0	0	0	0	10	
11:00	0	8	0	0	3	4	0	0	1	0	0	0	0	16	23:00	0	1	1	0	0	7	0	0	0	0	0	0	9	
11:15	0	12	0	0	1	4	0	0	0	0	0	0	0	17	23:15	0	3	1	0	1	7	0	0	0	0	0	0	12	
11:30	0	22	2	1	1	4	0	0	0	0	0	0	0	30	23:30	0	3	0	0	4	3	0	0	0	0	0	0	10	
11:45	0	10	1	0	1	2	0	0	0	0	0	0	0	14	23:45	0	3	0	0	2	3	0	0	1	0	0	0	9	
TOTAL	4	534	98	1	104	131	0	1	25	0	0	0	0	898	TOTAL	2	519	76	1	109	176	0	2	14	0	1	0	0	900

AM PEAK HOUR 6:30 AM
AM PEAK VOLUME 133

PM PEAK HOUR 12:30 PM
PM PEAK VOLUME 120

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	6	1,053	174	2	213	307	0	3	39	0	1	0	0	1,798
% OF TOTAL	0.3%	58.6%	9.7%	0.1%	11.8%	17.1%	0.0%	0.2%	2.2%	0.0%	0.1%	0.0%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
 JOB #: SC3147

CITY: Ontario
 LOCATION: CLASS4 Jurupa east of Milliken_v2

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	19	3	0	0	2	0	3	9	0	0	0	0	36	12:00	0	73	21	0	6	6	0	6	33	0	0	0	0	145
0:15	0	11	3	0	0	5	0	4	6	0	0	0	0	29	12:15	0	89	21	0	5	6	1	7	13	0	0	0	0	142
0:30	1	14	2	0	1	4	0	2	11	0	0	0	0	35	12:30	1	115	32	0	11	4	0	4	24	0	0	0	0	191
0:45	0	24	4	0	1	3	0	1	8	0	1	0	0	42	12:45	0	111	36	1	18	9	0	3	22	0	0	0	0	200
1:00	0	23	5	0	0	1	0	3	5	0	0	1	0	38	13:00	0	103	29	0	8	12	0	2	23	1	0	0	0	178
1:15	0	23	5	0	1	2	0	2	8	0	1	0	0	42	13:15	1	118	32	0	7	7	0	0	21	0	0	0	0	186
1:30	0	19	2	0	2	1	0	2	5	0	0	1	0	32	13:30	1	119	38	0	9	7	0	1	21	0	0	0	0	196
1:45	0	43	6	0	0	1	0	3	10	0	0	1	0	64	13:45	0	147	21	1	9	8	0	7	15	0	0	0	0	208
2:00	0	44	3	0	1	2	0	4	13	0	0	0	0	67	14:00	0	111	22	0	11	8	0	2	21	0	0	0	0	175
2:15	1	53	6	0	0	5	0	0	9	0	1	2	0	77	14:15	0	101	34	0	9	5	0	5	19	0	0	0	0	173
2:30	0	36	10	0	3	3	0	2	5	0	0	0	0	59	14:30	0	131	33	0	6	7	0	2	16	0	0	0	0	195
2:45	0	39	8	0	1	1	0	0	7	0	0	1	0	57	14:45	0	140	35	0	11	10	0	2	16	0	0	0	0	214
3:00	0	42	10	0	3	3	0	1	7	0	2	0	0	68	15:00	0	124	24	1	5	3	0	3	16	0	0	0	0	176
3:15	0	59	13	0	1	2	0	1	5	0	0	0	0	81	15:15	0	146	30	0	13	8	0	2	18	0	0	0	0	217
3:30	0	82	17	0	1	4	0	1	5	0	0	0	0	110	15:30	1	179	40	0	6	5	0	3	12	0	0	0	0	246
3:45	0	88	12	0	0	5	0	1	8	0	0	0	0	114	15:45	0	175	32	1	11	5	0	6	12	0	1	0	0	243
4:00	0	52	13	0	3	1	0	0	6	0	1	0	0	76	16:00	0	164	33	0	11	9	0	3	16	0	0	0	0	236
4:15	1	82	8	0	1	4	0	0	15	0	0	0	0	111	16:15	1	139	27	0	6	2	0	2	21	0	0	0	0	198
4:30	0	126	26	0	1	1	0	0	8	0	0	0	0	162	16:30	1	115	27	0	9	6	0	3	19	0	0	0	0	180
4:45	0	154	27	0	2	1	0	2	3	0	0	0	0	189	16:45	0	144	18	1	5	4	0	1	13	0	1	0	0	187
5:00	1	125	21	0	2	2	0	1	1	0	0	0	0	153	17:00	0	134	31	0	5	2	0	3	22	0	0	0	0	197
5:15	1	135	26	0	4	4	0	2	5	0	0	0	0	177	17:15	1	148	17	0	18	2	0	4	22	0	0	0	0	212
5:30	0	190	42	1	2	2	0	2	11	0	1	0	0	251	17:30	0	124	24	0	12	4	0	3	11	0	1	0	0	179
5:45	2	226	43	0	0	6	0	2	12	0	0	0	0	291	17:45	1	119	22	1	13	10	0	8	23	0	0	1	0	198
6:00	1	145	41	0	1	1	0	2	8	0	2	1	0	202	18:00	0	89	27	0	17	3	0	6	16	0	0	0	0	158
6:15	1	164	26	0	2	3	0	1	18	0	0	0	0	215	18:15	0	85	15	0	6	8	0	2	18	0	0	0	0	134
6:30	1	173	49	1	4	5	0	1	13	0	0	0	0	247	18:30	0	67	7	1	6	1	0	3	13	0	0	1	0	99
6:45	0	201	58	0	2	4	0	0	15	0	0	0	0	280	18:45	1	54	12	1	2	3	0	3	13	0	0	0	0	89
7:00	1	189	45	0	3	2	0	2	15	0	1	0	0	258	19:00	0	40	10	0	4	5	0	2	15	0	0	0	0	76
7:15	0	194	50	0	5	7	0	0	18	0	0	0	0	274	19:15	0	42	2	0	4	4	0	3	11	0	0	0	0	66
7:30	1	200	36	1	6	4	0	1	11	0	0	0	0	260	19:30	0	37	8	0	3	4	0	0	9	0	0	0	0	61
7:45	1	188	29	0	7	11	0	1	17	0	1	0	0	255	19:45	1	57	6	1	3	3	0	4	16	0	0	0	0	91
8:00	1	170	34	0	7	5	0	0	17	0	0	0	0	234	20:00	0	48	10	0	6	1	0	1	14	0	0	0	0	80
8:15	0	164	33	0	5	9	0	1	23	0	1	0	0	236	20:15	0	52	3	0	1	2	0	2	11	0	2	0	0	73
8:30	0	140	24	1	6	6	0	4	13	0	0	0	0	194	20:30	0	63	5	0	2	3	0	0	8	0	1	0	0	82
8:45	0	152	31	2	11	5	0	0	18	0	1	0	0	220	20:45	1	58	6	1	1	2	0	4	5	0	1	0	0	79
9:00	0	138	38	0	7	8	0	5	14	0	1	0	0	211	21:00	1	43	5	0	2	4	0	4	10	0	1	0	0	70
9:15	0	129	48	0	7	8	0	5	23	0	0	0	0	220	21:15	1	32	5	0	1	3	0	1	7	0	3	0	0	53
9:30	1	102	27	2	7	2	0	3	18	0	0	0	0	162	21:30	0	47	3	0	3	3	0	4	5	0	2	0	0	67
9:45	2	85	26	0	8	9	0	2	24	0	0	2	0	158	21:45	0	43	6	1	2	4	0	3	5	0	0	0	0	64
10:00	1	108	32	0	11	7	0	1	28	0	0	0	0	188	22:00	0	29	4	0	2	8	0	3	14	0	0	0	0	60
10:15	1	107	31	0	11	5	0	4	34	0	1	0	0	194	22:15	0	23	2	0	1	3	0	3	22	0	3	0	0	57
10:30	2	125	35	1	13	9	0	3	24	0	0	0	0	212	22:30	0	31	2	0	1	3	0	4	5	0	1	0	0	47
10:45	0	84	20	0	7	5	0	5	15	0	0	0	0	136	22:45	0	29	4	0	3	6	0	7	7	0	0	0	0	56
11:00	1	75	27	0	2	0	0	2	16	0	0	0	0	123	23:00	1	17	0	0	0	4	0	1	8	0	1	0	0	32
11:15	0	86	23	0	10	4	0	3	17	0	0	0	0	143	23:15	0	22	5	0	2	5	0	1	10	0	3	0	0	48
11:30	0	94	31	1	9	4	0	1	24	0	0	0	0	164	23:30	0	20	4	0	1	7	0	1	9	0	0	0	0	42
11:45	1	108	27	1	9	3	0	0	19	0	0	0	0	168	23:45	0	25	0	0	0	0	0	3	11	0	0	0	0	39
TOTAL	23	5,030	1,136	11	190	191	0	86	624	0	15	9	0	7,315	TOTAL	14	4,122	830	11	297	238	1	147	711	1	21	2	0	6,395

AM PEAK HOUR 6:45 AM
AM PEAK VOLUME 1,072

PM PEAK HOUR 3:15 PM
PM PEAK VOLUME 942

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	37	9,152	1,966	22	487	429	1	233	###	1	36	11	0	13,710
% OF TOTAL	0.3%	66.8%	14.3%	0.2%	3.6%	3.1%	0.0%	1.7%	9.7%	0.0%	0.3%	0.1%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	70	18,851	4,031	42	1,039	771	1	607	###	2	83	22	0	28,220
% OF TOTAL	0.5%	137.5%	29.4%	0.3%	7.6%	5.6%	0.0%	4.4%	19.7%	0.0%	0.6%	0.2%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS4 Jurupa east of Milliken_v2

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	52	7	0	1	3	0	7	12	0	1	0	0	83	12:00	0	137	36	0	11	5	0	5	16	0	0	0	210	
0:15	0	53	9	0	0	2	0	2	8	0	1	0	0	75	12:15	1	84	26	0	11	4	0	3	25	0	0	0	154	
0:30	0	73	9	0	0	4	0	10	10	0	1	0	0	107	12:30	1	148	39	0	5	5	0	4	22	0	0	0	224	
0:45	0	56	10	0	0	2	0	2	8	0	1	2	0	81	12:45	0	101	32	0	9	10	0	0	30	0	0	0	182	
1:00	0	55	6	0	1	1	0	4	4	0	1	0	0	72	13:00	0	92	25	1	6	3	0	2	22	0	0	1	152	
1:15	0	52	7	0	0	1	0	3	9	0	0	0	0	72	13:15	0	113	42	0	13	11	0	5	24	0	0	0	208	
1:30	0	69	6	0	0	0	0	3	8	0	0	0	0	86	13:30	0	186	48	0	9	9	0	5	20	0	0	1	278	
1:45	0	61	7	0	0	1	0	5	7	0	0	0	0	81	13:45	2	213	51	0	7	3	0	10	17	0	0	1	304	
2:00	1	50	4	0	0	0	0	3	12	0	3	0	0	73	14:00	1	183	38	1	10	5	0	8	16	0	2	0	264	
2:15	0	42	4	0	4	4	0	7	14	0	1	0	0	76	14:15	1	185	44	0	7	2	0	6	23	0	0	0	268	
2:30	0	61	2	0	0	1	0	2	9	0	0	0	0	75	14:30	1	246	67	1	12	9	0	10	16	0	0	0	362	
2:45	0	50	7	0	2	4	0	2	8	0	1	0	0	74	14:45	2	202	47	0	14	3	0	6	17	0	0	0	291	
3:00	0	55	10	0	1	1	0	4	13	0	3	0	0	87	15:00	2	191	48	1	11	6	0	5	23	0	0	0	287	
3:15	0	54	10	0	0	1	0	0	9	0	2	0	0	76	15:15	1	166	54	0	9	3	0	3	22	0	0	0	258	
3:30	0	29	3	0	2	0	0	4	5	0	1	0	0	44	15:30	1	229	49	0	4	4	0	2	15	0	1	0	305	
3:45	0	44	3	0	1	2	0	2	6	0	1	0	0	59	15:45	2	199	62	0	9	8	0	5	17	0	0	0	302	
4:00	0	35	5	0	1	3	0	3	5	0	0	1	0	53	16:00	0	220	53	1	8	3	0	3	19	0	0	0	307	
4:15	0	34	4	0	5	7	0	3	7	0	1	0	0	61	16:15	0	201	40	0	12	7	0	4	19	0	0	0	283	
4:30	0	27	2	0	1	1	0	3	10	0	0	2	0	46	16:30	0	244	43	1	4	4	0	4	18	0	0	0	318	
4:45	0	32	4	1	0	5	0	2	6	0	1	0	0	51	16:45	1	201	49	0	6	4	0	11	23	0	0	1	296	
5:00	2	34	3	0	5	3	0	2	7	0	0	0	0	56	17:00	0	245	43	0	9	3	0	4	16	0	0	0	320	
5:15	0	28	2	0	1	5	0	4	6	0	0	0	0	46	17:15	0	190	38	1	4	5	0	4	21	0	0	0	263	
5:30	0	36	5	0	3	1	0	3	7	0	0	0	0	55	17:30	0	189	33	0	12	3	0	3	13	0	0	0	253	
5:45	0	55	14	0	4	4	0	3	6	0	0	0	0	86	17:45	0	205	38	0	9	3	0	3	10	0	0	0	268	
6:00	0	66	9	1	5	4	0	2	12	0	0	0	0	99	18:00	0	180	30	1	3	0	0	3	14	0	0	1	232	
6:15	0	43	12	0	13	3	0	1	8	0	1	0	0	81	18:15	0	168	28	0	2	4	0	15	14	0	0	0	231	
6:30	0	118	15	0	13	5	0	1	9	0	0	0	0	161	18:30	0	139	28	0	9	4	0	4	8	0	0	0	192	
6:45	0	100	18	2	10	5	0	0	11	0	0	0	0	146	18:45	0	102	14	0	2	0	0	6	21	0	0	0	145	
7:00	0	97	11	0	11	4	0	1	19	0	0	0	0	143	19:00	0	115	12	1	5	2	0	6	16	0	0	0	157	
7:15	1	87	19	0	5	7	0	1	14	0	1	0	0	135	19:15	0	93	14	0	1	2	0	2	6	0	1	0	119	
7:30	0	91	13	0	4	7	0	0	6	0	0	0	0	121	19:30	0	98	16	1	3	5	0	4	12	0	0	0	139	
7:45	1	104	20	1	5	6	0	1	27	0	0	0	0	165	19:45	0	72	11	0	3	2	0	3	12	0	0	0	103	
8:00	0	113	24	0	10	3	0	1	15	0	0	0	0	166	20:00	0	75	17	1	1	3	0	2	10	0	0	0	109	
8:15	0	94	21	0	5	5	0	1	14	0	1	0	0	141	20:15	2	70	12	0	3	2	0	4	10	0	1	0	104	
8:30	0	82	25	0	6	9	0	4	20	0	0	0	0	146	20:30	2	79	10	0	1	2	0	4	13	0	0	0	111	
8:45	2	61	23	1	12	7	0	6	19	0	1	0	0	132	20:45	0	80	9	0	0	4	0	2	9	0	0	0	104	
9:00	0	76	17	0	35	1	0	3	19	0	0	0	0	151	21:00	2	94	9	0	1	1	0	6	5	0	0	0	118	
9:15	0	74	28	0	28	4	0	4	23	0	0	0	0	161	21:15	0	115	16	0	1	0	0	4	13	0	2	0	151	
9:30	1	65	25	0	17	4	0	0	23	0	0	0	0	135	21:30	1	77	12	0	1	4	0	4	18	0	0	0	117	
9:45	0	66	30	1	5	4	0	1	23	0	0	0	0	130	21:45	0	77	13	0	0	3	0	5	13	0	3	0	114	
10:00	0	89	36	0	10	6	0	5	26	0	1	0	0	173	22:00	0	74	15	0	2	6	0	6	10	0	3	0	116	
10:15	0	73	24	0	8	3	0	4	28	0	0	0	0	140	22:15	0	52	6	0	1	0	0	4	11	0	1	0	75	
10:30	0	85	32	0	9	5	0	3	18	1	0	0	0	153	22:30	0	78	8	0	0	2	0	4	8	0	4	0	104	
10:45	0	81	29	1	15	5	0	1	24	0	0	0	0	156	22:45	0	70	7	0	1	0	0	3	7	0	1	0	89	
11:00	0	93	32	0	17	3	0	7	23	0	1	0	0	176	23:00	0	72	8	0	0	1	0	5	6	0	1	0	93	
11:15	0	95	34	0	6	3	0	5	22	0	0	0	0	165	23:15	0	56	7	0	0	2	0	5	3	0	0	0	73	
11:30	0	93	29	0	9	4	0	7	30	0	0	1	0	173	23:30	0	61	5	0	1	0	0	1	3	0	1	0	72	
11:45	1	101	37	1	10	5	0	4	24	0	0	0	0	183	23:45	1	48	7	0	0	3	0	11	7	0	1	0	78	
TOTAL	9	3,184	706	9	300	168	0	146	653	1	25	6	0	5,207	TOTAL	24	6,515	1,359	11	252	174	0	228	713	0	22	5	0	9,303

AM PEAK HOUR 11:00 AM
AM PEAK VOLUME 697

PM PEAK HOUR 4:15 PM
PM PEAK VOLUME 1,217

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	33	9,699	2,065	20	552	342	0	374	###	1	47	11	0	14,510
% OF TOTAL	0.2%	66.8%	14.2%	0.1%	3.8%	2.4%	0.0%	2.6%	9.4%	0.0%	0.3%	0.1%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS5 Archibald south of Cedar_v2

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	16	0	0	1	1	0	1	3	0	0	0	0	22	12:00	0	64	9	0	7	3	0	2	9	0	0	0	94	
0:15	0	10	1	0	1	0	0	2	4	0	0	0	0	18	12:15	0	68	12	0	7	3	0	1	17	0	0	0	108	
0:30	0	29	1	0	1	0	0	0	5	0	1	0	0	37	12:30	1	53	13	0	1	2	0	4	10	0	0	0	84	
0:45	0	16	1	0	1	2	0	3	2	0	0	0	0	25	12:45	0	61	10	0	4	3	0	0	6	0	0	0	84	
1:00	0	12	1	0	1	0	0	0	2	0	0	0	0	16	13:00	0	80	18	1	6	2	0	1	15	0	0	0	123	
1:15	0	10	3	0	1	0	0	2	1	0	0	0	0	17	13:15	0	89	19	0	5	4	0	0	5	0	0	0	122	
1:30	0	15	5	0	0	0	0	1	5	0	0	0	0	26	13:30	0	66	13	0	7	3	0	0	9	0	0	0	98	
1:45	0	20	1	0	1	0	0	0	3	0	0	0	0	25	13:45	0	70	20	0	9	4	0	0	2	1	0	0	106	
2:00	0	30	5	0	1	0	0	1	3	0	0	0	0	40	14:00	0	102	19	0	9	3	0	1	8	0	0	0	142	
2:15	0	26	5	0	0	2	0	0	7	0	0	0	0	40	14:15	1	64	15	0	7	6	0	2	6	0	0	0	101	
2:30	0	39	9	0	1	2	0	2	2	0	0	0	0	55	14:30	0	66	11	0	10	3	0	4	8	0	1	0	103	
2:45	0	33	9	0	1	0	0	0	5	0	0	0	0	48	14:45	1	65	14	0	6	2	0	0	3	0	0	0	91	
3:00	0	8	1	0	2	1	0	1	1	0	0	0	0	14	15:00	0	73	22	0	1	0	0	2	7	0	0	0	105	
3:15	0	7	2	0	0	3	0	0	2	0	0	0	0	14	15:15	0	67	12	0	6	3	0	0	6	0	0	0	94	
3:30	0	20	4	0	0	1	0	0	1	0	0	0	0	26	15:30	0	88	8	0	6	2	0	4	7	0	0	0	115	
3:45	0	19	5	0	4	1	0	0	1	0	0	0	0	30	15:45	0	108	16	0	6	2	0	1	0	0	0	0	133	
4:00	0	34	8	0	3	0	0	2	0	0	0	0	0	47	16:00	0	85	17	0	10	3	0	0	11	0	0	0	126	
4:15	0	23	7	0	1	5	0	1	1	0	0	0	0	38	16:15	0	49	8	0	3	2	0	0	6	0	2	0	70	
4:30	0	52	9	0	3	1	0	2	2	0	0	0	0	69	16:30	0	82	9	1	5	1	0	1	8	0	0	0	107	
4:45	0	57	14	0	2	0	0	0	1	0	0	0	0	74	16:45	0	87	11	0	6	2	0	1	11	0	0	0	118	
5:00	0	30	7	0	2	1	0	2	1	0	0	0	0	43	17:00	0	105	11	0	7	1	0	1	5	0	0	0	130	
5:15	0	46	7	0	1	1	0	2	1	0	0	0	0	58	17:15	0	60	17	0	5	0	0	5	2	0	1	0	90	
5:30	0	58	14	0	1	3	0	0	7	0	0	0	0	83	17:30	0	60	10	0	4	4	0	1	4	0	0	0	83	
5:45	0	93	17	0	0	0	0	2	3	0	0	0	0	115	17:45	1	45	9	0	10	1	0	3	2	0	0	0	71	
6:00	0	48	10	0	1	1	0	0	2	0	0	0	0	62	18:00	0	49	7	0	9	2	0	3	6	0	0	0	76	
6:15	0	40	9	0	1	1	0	0	4	0	0	0	0	55	18:15	0	50	5	0	6	4	0	2	4	0	0	0	71	
6:30	0	51	14	0	1	1	0	1	8	0	0	0	0	76	18:30	0	50	7	0	3	0	0	0	5	0	0	0	65	
6:45	1	103	16	0	2	1	0	0	5	0	0	0	0	128	18:45	0	53	6	0	3	2	0	1	9	0	0	0	74	
7:00	0	129	14	0	4	0	0	0	6	0	0	0	0	153	19:00	0	35	6	0	2	1	0	1	5	0	0	0	50	
7:15	1	122	18	0	3	0	0	0	4	0	0	0	0	148	19:15	0	28	8	0	6	2	0	0	4	0	0	0	48	
7:30	1	123	14	0	2	1	0	0	5	0	0	0	0	146	19:30	0	55	5	0	2	1	0	1	6	0	0	0	70	
7:45	0	132	21	0	3	0	0	1	12	0	1	0	0	170	19:45	0	47	6	0	1	1	0	1	4	0	0	0	60	
8:00	0	136	22	0	3	3	0	2	6	0	0	0	0	172	20:00	0	33	4	0	2	0	0	0	3	0	0	0	42	
8:15	0	128	18	0	6	3	0	2	10	0	0	0	0	167	20:15	0	45	2	0	2	2	0	0	4	0	0	0	55	
8:30	0	85	20	0	7	3	0	0	4	0	0	0	0	119	20:30	0	40	5	0	1	0	0	3	3	0	0	0	52	
8:45	0	101	18	0	4	2	0	1	7	0	0	0	0	133	20:45	0	44	1	0	0	3	0	1	8	0	0	0	57	
9:00	1	79	17	0	8	0	0	0	13	0	0	0	0	118	21:00	0	23	3	0	0	2	0	1	2	0	0	0	31	
9:15	0	66	13	0	7	4	0	2	6	0	0	0	0	98	21:15	0	31	1	0	0	0	1	7	0	0	0	40		
9:30	1	75	15	0	7	1	0	1	8	0	0	0	0	108	21:30	0	20	5	0	0	2	0	2	4	0	0	0	33	
9:45	0	54	13	0	9	2	0	1	2	0	0	0	0	81	21:45	0	25	1	0	0	0	0	2	7	0	0	0	35	
10:00	0	54	9	0	11	4	0	1	8	0	0	0	0	87	22:00	0	26	1	0	2	0	0	1	5	0	0	0	35	
10:15	0	43	9	0	7	2	0	0	4	0	0	0	0	65	22:15	0	20	3	0	0	0	0	2	5	0	0	0	30	
10:30	0	44	12	0	4	2	0	2	5	0	0	0	0	69	22:30	0	15	0	0	0	0	0	1	1	0	0	0	17	
10:45	0	55	14	0	7	1	0	1	6	0	0	0	0	84	22:45	0	12	1	0	0	0	0	0	3	0	0	0	16	
11:00	0	66	11	0	5	5	0	3	13	0	0	0	0	103	23:00	0	49	2	0	1	0	0	2	3	0	1	0	58	
11:15	0	69	16	0	6	0	0	2	12	0	0	0	0	105	23:15	0	14	0	0	1	1	0	3	5	0	0	0	24	
11:30	0	59	9	0	5	2	0	1	12	0	0	0	0	88	23:30	0	11	0	0	2	0	0	1	4	0	0	0	18	
11:45	0	83	11	0	6	3	0	3	10	0	0	0	0	116	23:45	0	11	2	0	2	1	0	3	1	0	1	0	21	
TOTAL	5	2,648	479	0	148	66	0	48	235	0	2	0	0	3,631	TOTAL	4	2,543	404	2	192	83	0	66	275	1	6	0	0	3,576

AM PEAK HOUR 7:30 AM
AM PEAK VOLUME 655

PM PEAK HOUR 3:15 PM
PM PEAK VOLUME 468

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	9	5,191	883	2	340	149	0	114	510	1	8	0	0	7,207
% OF TOTAL	0.1%	72.0%	12.3%	0.0%	4.7%	2.1%	0.0%	1.6%	7.1%	0.0%	0.1%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	22	10,436	1,666	2	625	240	2	179	###	3	8	3	0	14,234
% OF TOTAL	0.3%	144.8%	23.1%	0.0%	8.7%	3.3%	0.0%	2.5%	14.5%	0.0%	0.1%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS5 Archibald south of Cedar_v2

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	18	1	0	1	0	0	2	1	0	0	0	0	23	12:00	1	78	8	0	7	1	2	0	4	0	0	0	101	
0:15	0	12	0	0	1	0	0	0	0	0	0	0	0	13	12:15	0	65	16	0	5	4	0	1	12	0	0	0	103	
0:30	0	15	1	0	2	0	0	0	3	0	0	0	0	21	12:30	0	94	11	0	4	0	0	2	8	0	0	0	119	
0:45	0	12	2	0	1	2	0	1	2	0	0	0	0	20	12:45	0	83	8	0	4	0	0	0	12	0	0	1	108	
1:00	0	12	1	0	1	0	0	1	1	0	0	0	0	16	13:00	0	104	10	0	1	1	0	0	15	0	0	0	131	
1:15	0	13	0	0	0	0	0	1	1	0	0	0	0	15	13:15	0	67	12	0	9	3	0	1	14	0	0	0	106	
1:30	0	23	3	0	0	0	0	2	1	0	0	0	0	29	13:30	0	81	5	0	4	0	0	1	14	0	0	0	105	
1:45	0	16	0	0	0	1	0	0	2	0	0	0	0	19	13:45	0	83	7	0	4	1	0	2	9	0	0	0	106	
2:00	0	21	3	0	0	1	0	2	1	0	0	0	0	28	14:00	0	75	10	0	6	1	0	0	10	0	0	0	102	
2:15	0	23	2	0	1	0	0	0	2	0	0	0	0	28	14:15	0	71	17	0	4	1	0	0	8	0	0	0	101	
2:30	0	21	1	0	1	1	0	0	3	0	0	0	0	27	14:30	0	131	21	0	5	1	0	0	5	0	0	0	163	
2:45	0	19	1	0	0	1	0	1	1	0	0	0	0	23	14:45	0	78	17	0	5	2	0	0	11	1	0	0	114	
3:00	0	25	1	0	0	1	0	0	2	0	0	0	0	29	15:00	0	116	25	0	2	0	0	1	11	0	0	0	155	
3:15	0	13	1	0	0	0	0	0	1	0	0	0	0	15	15:15	0	101	19	0	3	0	0	0	11	0	0	0	134	
3:30	0	12	1	0	0	1	0	1	0	0	0	0	0	15	15:30	0	156	11	0	2	0	0	0	9	0	0	0	178	
3:45	0	3	1	0	0	0	0	1	1	0	0	0	0	6	15:45	0	130	20	0	7	0	0	0	6	0	0	0	163	
4:00	0	25	4	0	1	1	0	0	2	0	0	0	0	33	16:00	0	151	19	0	4	2	0	1	8	0	0	1	186	
4:15	0	17	5	0	2	1	0	0	5	0	0	0	0	30	16:15	0	142	17	0	3	5	0	0	5	0	0	0	172	
4:30	0	17	8	0	4	1	0	0	8	0	0	0	0	38	16:30	0	161	16	0	3	3	0	2	7	0	0	0	192	
4:45	1	10	1	0	1	2	0	1	3	0	0	0	0	19	16:45	0	149	14	0	7	2	0	0	7	0	0	0	179	
5:00	0	12	2	0	3	1	0	0	3	0	0	0	0	21	17:00	0	193	30	0	6	0	0	5	3	0	0	0	237	
5:15	0	10	3	0	3	0	0	1	7	0	0	0	0	24	17:15	0	167	16	0	6	2	0	2	8	0	0	1	202	
5:30	0	19	4	0	5	1	0	1	7	0	0	0	0	37	17:30	0	194	26	0	2	1	0	1	6	0	0	0	230	
5:45	0	30	6	0	4	0	0	0	1	0	0	0	0	41	17:45	0	125	15	0	1	2	0	0	4	0	0	0	147	
6:00	0	23	7	0	6	0	0	0	3	0	0	0	0	39	18:00	0	116	14	0	1	0	0	2	2	0	0	0	135	
6:15	0	24	2	0	5	2	0	0	1	0	0	0	0	34	18:15	2	112	12	0	1	0	0	1	4	0	0	0	132	
6:30	0	34	9	0	7	1	0	0	6	0	0	0	0	57	18:30	0	78	6	0	1	0	0	0	7	0	0	0	92	
6:45	0	38	9	0	8	1	0	0	3	0	0	0	0	59	18:45	0	58	14	0	2	2	0	0	3	0	0	0	79	
7:00	0	36	8	0	8	0	0	1	8	0	0	0	0	61	19:00	0	55	5	0	2	1	0	0	5	0	0	0	68	
7:15	1	36	10	0	3	2	0	0	5	1	0	0	0	58	19:15	0	42	7	0	2	1	0	1	5	0	0	0	58	
7:30	0	44	9	0	4	1	0	1	3	0	0	0	0	62	19:30	0	48	8	0	1	2	0	1	5	0	0	0	65	
7:45	0	63	8	0	10	2	0	2	5	0	0	0	0	90	19:45	0	40	5	0	2	0	0	0	6	0	0	0	53	
8:00	0	43	10	0	5	1	0	0	4	0	0	0	0	63	20:00	1	51	2	0	0	0	0	0	6	0	0	0	60	
8:15	2	48	18	0	4	2	0	1	11	0	0	0	0	86	20:15	0	47	6	0	0	0	0	0	3	0	0	0	56	
8:30	0	39	4	0	3	1	0	0	8	0	0	0	0	55	20:30	0	38	5	0	0	1	0	1	4	0	0	0	49	
8:45	0	35	5	0	3	3	0	1	9	0	0	0	0	56	20:45	1	31	7	0	0	0	0	0	5	0	0	0	44	
9:00	0	45	9	0	4	1	0	1	7	0	0	0	0	67	21:00	0	50	5	0	0	1	0	2	2	0	0	0	60	
9:15	0	30	6	0	7	0	0	0	11	0	0	0	0	54	21:15	1	46	3	0	1	1	0	0	3	0	0	0	55	
9:30	0	34	9	0	6	3	0	1	10	0	0	0	0	63	21:30	0	35	1	0	0	2	0	0	1	0	0	0	39	
9:45	0	26	10	0	10	1	0	0	8	0	0	0	0	55	21:45	1	34	1	0	0	1	0	1	2	0	0	0	40	
10:00	0	41	11	0	6	1	0	0	7	0	0	0	0	66	22:00	0	33	6	0	0	1	0	0	2	0	0	0	42	
10:15	1	40	13	0	5	1	0	2	13	0	0	0	0	75	22:15	0	19	1	0	0	1	0	0	5	0	0	0	26	
10:30	0	41	11	0	5	2	0	0	6	0	0	0	0	65	22:30	0	36	2	0	0	0	0	1	4	0	0	0	43	
10:45	0	44	7	0	7	1	0	1	13	0	0	0	0	73	22:45	0	20	3	0	1	0	0	3	1	0	0	0	28	
11:00	0	53	16	0	2	2	0	0	8	0	0	0	0	81	23:00	0	28	4	0	0	0	0	0	4	0	0	0	36	
11:15	0	45	17	0	3	1	0	2	15	0	0	0	0	83	23:15	0	15	1	0	0	0	0	0	1	0	0	0	17	
11:30	1	67	13	0	9	0	0	1	18	0	0	0	0	109	23:30	0	13	1	0	1	0	0	3	2	0	0	0	20	
11:45	0	65	17	0	5	1	0	1	6	0	0	0	0	95	23:45	0	13	4	0	0	0	0	0	3	0	0	0	20	
TOTAL	6	1,392	290	0	166	45	0	30	246	1	0	0	0	2,176	TOTAL	7	3,853	493	0	119	46	2	35	292	1	0	3	0	4,851

AM PEAK HOUR 11:00 AM
AM PEAK VOLUME 368

PM PEAK HOUR 4:45 PM
PM PEAK VOLUME 848

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	13	5,245	783	0	285	91	2	65	538	2	0	3	0	7,027
% OF TOTAL	0.2%	74.6%	11.1%	0.0%	4.1%	1.3%	0.0%	0.9%	7.7%	0.0%	0.0%	0.0%	0.0%	100.0%

Class 1 2 3 4 5 6 7 8 9 10 11 12 13

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS6 Avion east of Vineyard_v2

AM TIME	EASTBOUND													TOTAL	PM Time	EASTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1	12:00	0	3	3	0	0	0	0	0	0	0	0	6		
0:15	0	2	0	0	0	0	0	0	2	0	0	0	0	4	12:15	0	5	2	0	2	0	0	1	0	0	10			
0:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12:30	0	7	5	0	1	0	0	2	0	0	15			
0:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12:45	0	9	3	0	1	0	0	3	1	0	17			
1:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5	13:00	0	6	2	0	1	0	0	1	0	0	10			
1:15	0	1	0	0	1	0	0	0	0	0	0	0	0	2	13:15	0	6	4	0	0	0	3	0	0	0	13			
1:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1	13:30	1	7	0	0	1	1	0	1	0	0	11			
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13:45	0	12	4	0	1	0	0	2	0	0	19			
2:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6	14:00	0	9	2	0	1	0	0	1	0	0	13			
2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14:15	0	8	3	0	3	0	0	0	0	0	14			
2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14:30	0	19	5	0	2	0	0	3	1	0	30			
2:45	0	1	0	0	1	0	0	0	0	0	0	0	0	2	14:45	0	9	0	0	0	0	0	0	0	0	9			
3:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1	15:00	0	13	5	0	1	0	0	1	2	0	22			
3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:15	0	13	2	0	3	0	0	2	1	0	21			
3:30	0	2	1	0	0	0	0	0	0	0	0	0	0	3	15:30	0	17	2	0	1	0	0	3	0	0	23			
3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15:45	0	14	3	0	1	0	0	1	0	0	19			
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16:00	0	19	3	0	1	0	0	4	0	0	27			
4:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:15	0	10	2	0	3	0	0	0	0	0	15			
4:30	0	5	0	0	0	1	0	0	0	0	0	0	0	6	16:30	0	21	3	0	1	0	0	2	0	0	27			
4:45	0	12	2	0	0	0	0	0	3	0	0	0	0	17	16:45	0	13	2	0	2	0	0	1	0	0	18			
5:00	0	11	2	0	1	0	0	0	4	0	0	0	0	18	17:00	0	18	4	0	2	0	0	1	0	0	25			
5:15	0	2	0	0	1	0	0	0	1	0	0	0	0	4	17:15	0	8	1	0	5	0	0	1	0	0	15			
5:30	0	17	3	0	1	0	0	0	2	0	0	0	0	23	17:30	0	7	2	0	4	1	0	0	0	0	14			
5:45	0	28	4	0	1	0	0	0	0	0	0	0	0	33	17:45	0	10	1	0	4	0	0	3	1	0	19			
6:00	0	9	1	0	1	0	0	0	1	0	0	0	0	12	18:00	0	8	1	0	1	0	0	4	0	0	14			
6:15	0	6	0	0	2	0	0	0	0	0	0	0	0	8	18:15	0	5	1	0	1	0	0	0	0	0	7			
6:30	0	7	1	0	0	0	0	0	0	0	0	0	0	8	18:30	0	1	1	0	0	0	0	0	0	0	2			
6:45	0	12	3	0	0	0	0	0	0	0	0	0	0	15	18:45	0	5	1	0	0	0	0	3	0	0	9			
7:00	0	11	7	0	0	0	0	0	0	0	0	0	0	18	19:00	0	5	1	0	0	0	0	1	0	1	8			
7:15	0	7	2	0	0	0	0	0	0	0	0	0	0	9	19:15	0	4	2	0	1	0	0	0	1	0	8			
7:30	1	10	3	0	0	0	0	0	0	0	0	0	0	14	19:30	0	4	1	0	2	0	0	1	2	0	10			
7:45	0	8	2	0	0	0	0	0	0	0	0	0	0	10	19:45	0	6	0	0	0	0	1	0	0	0	7			
8:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14	20:00	0	7	0	0	0	0	0	2	0	0	9			
8:15	0	8	2	0	1	0	0	0	1	0	0	0	0	12	20:15	0	3	0	0	0	0	0	1	0	0	4			
8:30	1	4	1	0	0	1	0	0	0	0	0	0	0	7	20:30	0	5	0	0	0	0	0	0	0	0	5			
8:45	0	8	2	0	0	0	0	0	1	0	0	0	0	11	20:45	0	7	1	0	0	0	2	0	1	0	11			
9:00	0	13	0	0	0	1	0	0	0	0	0	0	0	14	21:00	0	2	1	0	0	0	0	1	0	0	4			
9:15	0	5	3	0	0	0	0	0	0	0	0	0	0	8	21:15	0	1	0	0	0	0	0	0	0	0	1			
9:30	0	7	6	1	0	0	0	0	0	0	0	0	0	14	21:30	0	3	1	0	0	0	0	0	0	0	4			
9:45	0	10	7	0	0	1	0	0	0	0	0	0	0	18	21:45	0	4	0	0	0	0	0	0	0	0	4			
10:00	0	4	2	0	1	0	0	0	1	0	0	0	0	8	22:00	0	4	0	0	0	0	0	0	0	0	4			
10:15	0	7	1	0	0	0	0	0	1	0	0	0	0	9	22:15	0	2	0	0	0	0	0	1	0	0	3			
10:30	0	3	3	0	1	0	0	0	1	0	0	0	0	8	22:30	0	3	0	0	0	0	0	0	0	0	3			
10:45	0	7	1	0	3	0	0	0	1	0	0	0	0	12	22:45	0	2	0	0	0	0	0	1	0	0	3			
11:00	0	7	3	0	1	1	0	0	1	0	0	0	0	13	23:00	0	1	0	0	0	0	0	0	0	0	1			
11:15	0	4	2	0	2	0	0	0	0	0	0	0	0	8	23:15	0	2	0	0	0	0	0	0	0	0	2			
11:30	0	4	1	0	0	0	0	1	2	0	0	0	0	8	23:30	0	2	0	0	0	1	0	1	0	0	4			
11:45	1	6	6	0	0	0	0	0	3	0	0	0	0	16	23:45	0	0	0	0	0	0	0	0	0	0	0			
TOTAL	3	271	76	1	19	6	0	1	25	0	0	0	0	402	TOTAL	1	349	74	0	46	3	0	42	22	0	2	0	0	539

AM PEAK HOUR 5:00 AM
AM PEAK VOLUME 78

PM PEAK HOUR 3:15 PM
PM PEAK VOLUME 90

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	4	620	150	1	65	9	0	43	47	0	2	0	0	941
% OF TOTAL	0.4%	65.9%	15.9%	0.1%	6.9%	1.0%	0.0%	4.6%	5.0%	0.0%	0.2%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	7	1,215	384	3	159	29	0	45	82	0	2	0	0	1,926
% OF TOTAL	0.7%	129.1%	40.8%	0.3%	16.9%	3.1%	0.0%	4.8%	8.7%	0.0%	0.2%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS6 Avion east of Vineyard_v2

AM TIME	WESTBOUND													TOTAL	PM Time	WESTBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1	12:00	0	4	2	0	2	0	0	0	0	0	0	8		
0:15	0	1	0	0	0	1	0	0	0	0	0	0	0	2	12:15	0	8	4	0	0	0	0	1	0	0	0	13		
0:30	0	3	1	0	0	1	0	0	1	0	0	0	0	6	12:30	0	6	4	0	2	0	0	0	0	0	0	12		
0:45	0	1	0	0	2	0	0	0	0	0	0	0	0	3	12:45	0	8	4	0	1	0	0	0	1	0	0	14		
1:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	13:00	0	6	1	0	6	3	0	0	0	0	0	16		
1:15	0	3	1	0	0	1	0	0	0	0	0	0	0	5	13:15	0	7	2	0	1	0	0	0	0	0	0	10		
1:30	0	3	2	0	0	0	0	0	0	0	0	0	0	5	13:30	0	17	11	0	2	0	0	0	0	0	0	30		
1:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	13:45	0	5	7	0	2	2	0	0	1	0	0	17		
2:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4	14:00	0	12	5	0	5	1	0	1	0	0	0	24		
2:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:15	0	12	5	0	0	0	0	1	0	0	0	18		
2:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	14:30	1	22	8	0	3	1	0	0	1	0	0	36		
2:45	0	3	0	0	0	0	0	0	0	0	0	0	0	3	14:45	0	10	3	0	3	0	0	0	0	0	0	16		
3:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4	15:00	0	10	7	0	1	0	0	0	0	0	0	18		
3:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4	15:15	0	12	2	0	3	0	0	0	0	0	0	17		
3:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6	15:30	0	7	2	0	4	0	0	0	1	0	0	14		
3:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	15:45	0	10	5	0	3	0	0	0	0	0	0	18		
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16:00	0	6	9	0	2	2	0	0	0	0	0	19		
4:15	0	3	1	0	0	0	0	0	0	0	0	0	0	4	16:15	0	3	1	0	3	0	0	0	0	0	0	7		
4:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2	16:30	0	14	4	0	0	0	0	0	0	0	0	18		
4:45	0	2	1	0	1	0	0	0	0	0	0	0	0	4	16:45	0	12	2	0	2	0	0	1	0	0	0	17		
5:00	0	3	0	0	0	0	0	0	2	0	0	0	0	5	17:00	0	19	5	0	4	0	0	0	0	0	0	28		
5:15	0	1	2	0	0	0	0	0	2	0	0	0	0	5	17:15	0	10	4	0	0	0	0	0	0	0	0	14		
5:30	0	4	2	0	1	0	0	0	3	0	0	0	0	10	17:30	0	12	1	0	1	0	0	0	0	0	0	14		
5:45	0	11	2	0	0	0	0	0	1	0	0	0	0	14	17:45	1	9	0	0	0	0	0	0	0	0	0	10		
6:00	0	10	2	0	0	0	0	0	2	0	0	0	0	14	18:00	0	6	4	0	1	0	0	0	0	0	0	11		
6:15	0	3	3	0	1	0	0	0	0	0	0	0	0	7	18:15	0	9	1	0	2	0	0	0	1	0	0	13		
6:30	0	10	0	0	0	0	0	0	0	0	0	0	0	10	18:30	0	10	2	0	0	0	0	2	0	0	0	14		
6:45	0	9	6	0	0	1	0	0	0	0	0	0	0	16	18:45	0	6	2	0	0	0	0	0	0	0	0	8		
7:00	0	10	3	0	0	0	0	0	0	0	0	0	0	13	19:00	0	7	1	0	0	1	0	0	0	0	0	9		
7:15	0	13	4	0	0	0	0	0	1	0	0	0	0	18	19:15	0	3	1	0	0	0	0	0	0	0	0	4		
7:30	0	9	5	0	2	0	0	0	0	0	0	0	0	16	19:30	0	7	5	0	1	0	0	0	1	0	0	14		
7:45	0	9	6	0	0	0	0	0	0	0	0	0	0	15	19:45	0	6	0	0	1	0	0	0	1	0	0	8		
8:00	0	22	2	0	0	0	0	0	0	0	0	0	0	24	20:00	0	1	1	0	1	0	0	0	2	0	0	5		
8:15	0	12	2	0	0	0	0	0	0	0	0	0	0	14	20:15	0	3	2	0	1	0	0	0	1	0	0	7		
8:30	0	6	1	0	1	0	0	0	0	0	0	0	0	8	20:30	0	3	3	0	0	0	0	0	3	0	0	9		
8:45	0	5	2	0	3	0	0	0	0	0	0	0	0	10	20:45	0	1	2	0	0	0	0	0	0	0	0	3		
9:00	0	7	5	0	7	0	0	0	1	0	0	0	0	20	21:00	0	4	1	0	0	0	0	0	0	0	0	5		
9:15	0	3	2	0	5	0	0	0	0	0	0	0	0	10	21:15	0	1	2	0	0	0	0	0	0	0	0	3		
9:30	0	6	4	0	1	0	0	0	0	0	0	0	0	11	21:30	1	5	2	0	0	0	0	0	0	0	0	8		
9:45	0	11	4	0	1	0	0	0	0	0	0	0	0	16	21:45	0	5	1	0	0	0	0	0	0	0	0	6		
10:00	0	3	4	0	1	1	0	0	0	0	0	0	0	9	22:00	0	1	2	0	0	0	0	0	0	0	0	3		
10:15	0	6	5	0	4	0	0	0	2	0	0	0	0	17	22:15	0	0	0	0	0	0	0	0	0	0	0	0		
10:30	0	4	2	0	1	1	0	0	0	0	0	0	0	8	22:30	0	5	2	0	0	0	0	0	0	0	0	7		
10:45	0	10	2	1	3	0	0	0	0	0	0	0	0	16	22:45	0	0	1	0	0	0	0	0	0	0	0	1		
11:00	0	9	4	0	2	0	0	0	0	0	0	0	0	15	23:00	0	2	0	0	0	1	0	0	0	0	0	3		
11:15	0	9	6	0	1	1	0	0	2	0	0	0	0	19	23:15	0	3	0	0	0	0	0	0	0	0	0	3		
11:30	0	7	4	0	0	0	0	0	0	0	0	0	0	11	23:30	0	4	2	0	0	0	0	0	0	0	0	6		
11:45	0	5	3	1	0	2	0	0	1	0	0	0	0	12	23:45	0	1	2	0	0	0	0	0	0	0	0	3		
TOTAL	0	261	97	2	37	9	0	0	18	0	0	0	0	424	TOTAL	3	334	137	0	57	11	0	2	17	0	0	0	561	

AM PEAK HOUR 7:15 AM
AM PEAK VOLUME 73

PM PEAK HOUR 1:45 PM
PM PEAK VOLUME 95

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	3	595	234	2	94	20	0	2	35	0	0	0	0	985
% OF TOTAL	0.3%	60.4%	23.8%	0.2%	9.5%	2.0%	0.0%	0.2%	3.6%	0.0%	0.0%	0.0%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
 JOB #: SC3147

CITY: Ontario
 LOCATION: CLASS7 Vineyard north of Philadelphia_v2

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6	12:00	0	57	22	0	11	0	0	1	4	0	0	0	95	
0:15	0	10	0	0	0	0	0	0	1	0	0	0	0	11	12:15	0	80	26	0	6	1	0	1	8	0	0	0	122	
0:30	0	14	3	0	1	0	0	0	2	0	0	0	0	20	12:30	0	82	23	0	8	0	0	0	6	0	0	0	119	
0:45	0	3	0	0	0	0	0	0	1	0	0	0	0	4	12:45	0	83	17	1	12	3	0	3	5	0	0	0	124	
1:00	0	6	3	0	0	0	0	0	3	0	0	0	0	12	13:00	0	56	22	0	8	3	0	1	2	0	0	0	92	
1:15	0	6	2	0	0	0	0	0	1	0	0	0	0	9	13:15	0	58	19	0	6	4	0	2	4	0	1	0	94	
1:30	0	5	0	0	0	0	0	1	2	0	0	0	0	8	13:30	0	64	26	0	9	2	0	1	2	0	0	0	104	
1:45	0	4	2	0	0	1	0	0	0	0	0	0	0	7	13:45	1	64	22	1	8	4	0	0	5	0	0	0	105	
2:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3	14:00	0	67	19	0	3	3	0	1	5	0	0	0	98	
2:15	0	12	1	0	0	0	0	0	1	0	0	0	0	14	14:15	0	56	23	0	12	0	0	0	3	0	0	0	94	
2:30	0	6	3	0	0	0	0	0	0	0	0	0	0	9	14:30	0	64	13	0	7	2	0	1	5	0	0	0	92	
2:45	0	8	3	0	0	1	0	0	2	0	0	0	0	14	14:45	0	60	15	1	6	0	0	2	0	0	0	0	84	
3:00	0	5	0	0	1	0	0	0	1	0	0	0	0	7	15:00	0	64	22	0	4	1	0	0	2	0	0	0	93	
3:15	0	5	2	0	0	0	0	0	2	0	0	0	0	9	15:15	0	50	14	0	14	1	0	0	3	0	1	0	83	
3:30	0	17	4	0	0	0	0	0	1	0	0	0	0	22	15:30	0	66	15	0	3	0	0	0	2	0	0	0	86	
3:45	0	19	6	0	0	0	0	0	1	0	0	0	0	26	15:45	0	76	18	1	7	2	0	0	3	1	0	0	108	
4:00	0	9	6	0	1	2	0	0	1	0	0	0	0	19	16:00	0	74	13	0	4	0	0	0	3	0	0	0	94	
4:15	0	23	5	0	0	0	0	0	1	0	0	0	0	29	16:15	0	41	8	0	3	1	0	2	5	0	0	0	60	
4:30	0	37	6	0	3	2	0	0	0	0	1	0	0	49	16:30	0	45	11	0	5	0	0	2	2	0	0	0	65	
4:45	0	63	20	1	0	0	0	0	0	0	0	0	0	84	16:45	0	36	7	1	7	0	0	1	1	0	0	0	53	
5:00	0	46	14	0	6	0	0	0	1	0	0	0	0	67	17:00	0	61	13	0	0	1	0	0	3	0	0	0	78	
5:15	0	38	17	0	4	0	0	0	1	0	0	0	0	60	17:15	0	56	7	0	6	0	0	0	6	0	0	0	75	
5:30	0	61	13	0	3	1	0	0	1	0	0	0	0	79	17:30	0	34	9	0	5	3	0	0	1	0	0	0	52	
5:45	1	122	26	1	0	3	0	0	2	0	0	0	0	155	17:45	0	44	6	1	3	1	0	1	1	0	0	0	57	
6:00	0	65	21	0	8	0	0	0	4	0	0	0	0	98	18:00	0	42	4	0	5	1	0	0	2	0	0	0	54	
6:15	0	39	29	0	4	1	0	0	2	0	0	0	0	75	18:15	0	36	6	0	1	0	0	1	2	0	0	0	46	
6:30	0	57	24	0	10	0	0	0	3	0	0	0	0	94	18:30	1	39	11	0	1	0	0	1	1	0	0	0	54	
6:45	0	84	19	1	5	0	0	0	2	0	0	0	0	111	18:45	0	20	8	0	0	1	0	0	0	0	0	0	29	
7:00	0	85	13	0	4	1	0	0	2	0	0	0	0	105	19:00	0	30	8	1	2	1	0	0	2	0	0	0	44	
7:15	1	78	23	0	2	0	0	0	4	0	0	0	0	108	19:15	0	22	5	0	0	2	0	1	1	0	0	0	31	
7:30	0	82	31	0	5	1	0	1	2	0	0	0	0	122	19:30	0	24	6	0	2	0	0	0	1	0	0	0	33	
7:45	0	102	28	1	5	1	0	1	3	0	0	0	0	141	19:45	0	33	3	1	2	0	0	0	1	0	0	0	40	
8:00	0	112	23	0	3	0	0	0	4	0	0	0	0	142	20:00	0	26	3	0	1	0	0	0	1	0	0	0	31	
8:15	0	105	28	0	5	0	0	0	7	0	0	0	0	145	20:15	0	27	0	0	2	0	0	0	1	0	0	0	30	
8:30	0	106	25	0	5	2	0	0	9	0	0	0	0	147	20:30	0	27	5	0	0	2	0	0	1	0	0	0	35	
8:45	0	85	22	1	9	1	0	0	2	1	0	0	0	121	20:45	0	19	5	1	0	0	0	0	1	0	1	0	27	
9:00	0	90	16	0	2	3	0	0	7	0	0	0	0	118	21:00	0	24	1	0	0	1	0	0	1	0	0	0	27	
9:15	0	62	25	0	5	1	0	0	2	0	0	0	0	95	21:15	0	17	3	0	1	0	0	0	1	0	0	0	22	
9:30	0	68	26	0	9	0	0	0	7	0	0	0	0	110	21:30	0	30	4	0	0	0	0	0	1	0	0	0	35	
9:45	1	63	14	1	8	2	0	0	6	0	0	0	0	95	21:45	0	28	3	0	0	1	0	0	1	0	0	0	33	
10:00	0	74	18	0	9	0	0	0	9	0	1	0	0	111	22:00	0	24	2	0	0	0	0	0	1	0	0	0	27	
10:15	0	62	19	0	11	2	0	1	3	0	0	0	0	98	22:15	0	7	0	0	0	0	0	0	0	0	0	0	7	
10:30	1	56	16	0	7	2	0	1	7	0	0	0	0	90	22:30	0	19	3	0	0	0	0	1	0	0	0	0	23	
10:45	0	70	17	0	14	1	0	0	8	0	0	0	0	110	22:45	0	11	2	0	0	0	0	0	2	0	0	0	15	
11:00	0	73	27	1	6	2	0	1	4	0	0	0	0	114	23:00	0	13	0	0	0	0	0	0	1	0	0	0	14	
11:15	0	68	29	0	10	2	0	0	7	0	0	0	0	116	23:15	0	8	2	0	0	1	0	0	2	0	0	0	13	
11:30	0	71	21	0	10	0	0	2	2	0	1	0	0	107	23:30	0	11	0	0	1	1	0	0	2	0	0	0	15	
11:45	0	63	31	1	5	5	0	0	4	0	0	0	0	109	23:45	0	6	2	0	0	0	0	0	1	0	0	0	9	
TOTAL	4	2,346	683	8	180	37	0	8	135	1	3	0	0	3,405	TOTAL	2	1,981	476	9	175	43	0	23	108	1	3	0	0	2,821

AM PEAK HOUR 7:45 AM
AM PEAK VOLUME 575

PM PEAK HOUR 12:00 PM
PM PEAK VOLUME 460

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	6	4,327	1,159	17	355	80	0	31	243	2	6	0	0	6,226
% OF TOTAL	0.1%	69.5%	18.6%	0.3%	5.7%	1.3%	0.0%	0.5%	3.9%	0.0%	0.1%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	10	8,045	2,088	38	661	149	0	50	438	5	15	0	0	11,499
% OF TOTAL	0.2%	129.2%	33.5%	0.6%	10.6%	2.4%	0.0%	0.8%	7.0%	0.1%	0.2%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS7 Vineyard north of Philadelphia_v2

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	12	2	0	0	0	0	0	0	0	0	0	0	14	12:00	0	68	12	0	5	3	0	0	3	0	0	0	91	
0:15	0	12	0	0	1	1	0	0	0	0	0	0	0	14	12:15	0	46	12	0	9	4	0	0	2	0	0	0	73	
0:30	0	7	3	0	0	1	0	0	1	0	0	0	0	12	12:30	0	64	14	0	8	1	0	2	3	0	0	0	92	
0:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5	12:45	0	53	19	0	7	0	0	1	5	0	0	0	85	
1:00	0	5	0	0	0	0	0	0	3	0	0	0	0	8	13:00	0	64	21	1	5	0	0	0	6	0	0	0	97	
1:15	0	8	1	0	0	0	0	0	0	0	0	0	0	9	13:15	0	61	17	0	7	1	0	0	2	0	0	0	88	
1:30	0	6	1	0	0	0	0	0	1	0	0	0	0	8	13:30	0	83	29	0	3	2	0	1	3	0	0	0	121	
1:45	0	4	1	0	0	0	0	0	0	0	0	0	0	5	13:45	0	67	13	1	3	3	0	0	6	0	0	0	93	
2:00	0	5	2	0	0	0	0	0	0	0	1	0	0	8	14:00	1	69	23	0	6	0	0	0	3	0	0	0	102	
2:15	0	4	3	0	1	0	0	0	0	0	0	0	0	8	14:15	0	52	17	0	6	0	0	0	4	0	0	0	79	
2:30	0	4	0	0	2	0	0	0	1	0	0	0	0	7	14:30	0	106	28	0	3	0	0	0	0	0	0	0	137	
2:45	0	10	0	0	0	0	0	0	1	0	1	0	0	12	14:45	0	77	18	1	5	0	0	1	5	0	1	0	108	
3:00	0	8	3	0	1	1	0	0	1	0	0	0	0	14	15:00	1	72	28	1	10	2	0	0	3	0	0	0	117	
3:15	0	8	1	0	0	0	0	0	0	0	0	0	0	9	15:15	0	78	30	0	5	0	0	2	0	0	0	0	115	
3:30	0	4	2	0	0	2	0	0	1	0	0	0	0	9	15:30	0	99	29	1	6	0	0	0	2	0	0	0	137	
3:45	0	4	0	0	0	2	0	1	5	0	2	0	0	14	15:45	0	77	11	1	2	1	0	0	5	0	0	0	97	
4:00	0	3	0	0	0	0	0	0	1	0	0	0	0	4	16:00	1	83	27	0	7	0	0	0	2	0	0	0	120	
4:15	0	5	4	0	0	0	0	0	3	0	1	0	0	13	16:15	0	97	19	0	1	1	0	0	2	0	0	0	120	
4:30	0	8	4	0	2	0	0	0	1	0	0	0	0	15	16:30	0	126	25	0	5	1	0	0	3	0	0	0	160	
4:45	0	10	2	0	6	0	0	0	1	0	0	0	0	19	16:45	0	100	18	1	2	0	0	2	3	0	0	0	126	
5:00	0	9	3	0	10	2	0	0	1	0	0	0	0	25	17:00	0	151	12	0	2	0	0	1	3	0	0	0	169	
5:15	0	9	4	0	4	0	0	1	1	0	0	0	0	19	17:15	0	109	23	0	3	0	0	0	3	0	0	0	138	
5:30	0	9	3	0	3	0	0	0	3	1	1	0	0	20	17:30	0	92	11	0	1	0	0	0	0	0	0	0	104	
5:45	0	12	1	1	4	4	0	0	2	0	0	0	0	24	17:45	0	63	10	0	2	2	0	0	1	0	0	0	78	
6:00	0	15	5	0	0	2	0	0	1	0	0	0	0	23	18:00	0	61	15	1	2	1	0	0	0	0	0	0	80	
6:15	0	16	9	0	5	1	0	0	1	0	0	0	0	32	18:15	0	76	10	0	2	0	0	1	0	0	0	0	89	
6:30	0	19	5	0	5	0	0	0	1	0	0	0	0	30	18:30	0	64	11	0	1	0	0	0	1	0	0	0	77	
6:45	0	28	12	1	7	3	0	0	0	0	0	0	0	51	18:45	0	43	7	1	1	0	0	0	3	0	0	0	55	
7:00	0	27	8	0	7	2	0	0	6	0	0	0	0	50	19:00	0	31	10	0	5	0	0	1	2	0	0	0	49	
7:15	0	31	11	1	5	1	0	0	4	0	0	0	0	53	19:15	0	31	4	0	1	1	0	0	1	0	0	0	38	
7:30	0	26	11	0	3	2	0	0	5	0	0	0	0	47	19:30	0	42	10	0	1	0	0	0	0	0	0	0	53	
7:45	0	50	9	0	5	1	0	0	2	0	0	0	0	67	19:45	0	32	7	1	1	0	0	0	2	0	0	0	43	
8:00	0	59	17	1	5	1	0	0	3	0	0	0	0	86	20:00	0	27	2	0	0	0	0	0	0	0	0	0	29	
8:15	0	57	14	0	5	1	0	0	0	0	0	0	0	77	20:15	0	26	6	0	1	0	0	0	1	0	0	0	34	
8:30	0	43	9	0	1	3	0	0	1	0	0	0	0	57	20:30	0	20	4	0	0	0	0	0	0	0	0	0	24	
8:45	0	35	16	1	4	1	0	0	5	0	0	0	0	62	20:45	1	23	3	1	0	0	0	0	0	0	0	0	28	
9:00	0	47	14	0	4	0	0	0	2	0	0	0	0	67	21:00	0	16	4	0	0	0	0	0	0	0	0	0	20	
9:15	0	36	11	0	11	0	0	1	0	0	0	0	0	59	21:15	0	20	3	0	0	0	1	1	0	0	0	0	25	
9:30	0	51	13	0	12	2	0	0	5	0	0	0	0	83	21:30	0	15	5	0	0	0	0	0	0	0	0	0	20	
9:45	0	46	11	2	7	1	0	0	3	1	0	0	0	71	21:45	0	17	3	0	1	0	0	0	2	0	0	0	23	
10:00	0	35	9	0	4	4	0	0	3	0	1	0	0	56	22:00	0	21	4	0	0	0	0	0	4	0	0	0	29	
10:15	0	32	14	0	9	0	0	1	3	0	0	0	0	59	22:15	0	14	5	0	0	0	0	1	0	0	0	0	20	
10:30	0	46	17	0	6	1	0	0	8	0	0	0	0	78	22:30	0	25	1	0	0	0	0	2	0	0	0	0	28	
10:45	0	49	16	1	9	0	0	0	2	0	0	0	0	77	22:45	0	9	2	0	0	0	0	2	0	0	0	0	13	
11:00	0	54	18	0	7	0	0	1	3	0	0	0	0	83	23:00	0	4	3	0	0	0	0	1	0	0	0	0	8	
11:15	0	36	18	0	8	0	0	1	4	0	1	0	0	68	23:15	0	12	7	0	0	1	0	0	0	0	0	0	20	
11:30	0	48	13	0	9	3	0	0	4	0	0	0	0	77	23:30	0	19	3	0	0	1	0	0	0	0	0	0	23	
11:45	0	53	12	2	4	2	0	0	9	1	0	0	0	83	23:45	0	4	1	0	1	0	0	0	1	0	0	0	7	
TOTAL	0	1,109	333	10	176	44	0	6	102	3	8	0	0	1,791	TOTAL	4	2,609	596	11	130	25	0	13	93	0	1	0	0	3,482

AM PEAK HOUR 11:00 AM
AM PEAK VOLUME 311

PM PEAK HOUR 4:30 PM
PM PEAK VOLUME 593

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	4	3,718	929	21	306	69	0	19	195	3	9	0	0	5,273
% OF TOTAL	0.1%	70.5%	17.6%	0.4%	5.8%	1.3%	0.0%	0.4%	3.7%	0.1%	0.2%	0.0%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021

CITY# Ontario

JOB #: SC3147

CLASS8 Grove north of Mission

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL	
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13		
0:00	0	62	7	0	0	0	0	1	1	0	0	0	0	71	12:00	0	150	45	0	10	3	0	1	1	0	1	0	0	211	
0:15	0	48	6	0	1	0	0	0	0	0	0	0	0	55	12:15	0	145	50	1	14	1	0	0	5	0	0	0	0	216	
0:30	0	39	9	0	0	0	0	0	2	0	0	0	0	50	12:30	0	158	52	1	18	4	0	2	6	0	0	0	0	241	
0:45	0	33	3	0	1	0	0	0	2	0	0	0	0	39	12:45	0	143	49	0	13	4	1	0	10	0	1	0	0	221	
1:00	0	31	5	0	0	0	0	2	1	0	0	0	0	39	13:00	2	159	32	2	12	6	0	1	3	0	0	0	0	217	
1:15	1	30	0	0	1	0	0	0	1	0	0	0	0	33	13:15	0	177	45	0	13	2	0	0	4	0	0	0	0	0	241
1:30	0	32	2	0	2	0	0	0	1	0	0	1	0	38	13:30	0	221	47	1	18	2	0	0	3	0	0	0	0	0	292
1:45	0	28	6	0	0	0	0	0	1	0	0	0	0	35	13:45	0	192	44	0	7	6	0	0	2	0	0	0	0	0	251
2:00	0	27	8	0	1	0	0	1	3	0	0	0	0	40	14:00	0	200	49	2	9	9	0	3	12	0	0	0	0	0	284
2:15	0	27	3	0	0	0	0	0	0	0	0	0	0	30	14:15	0	192	54	1	10	3	0	0	4	0	0	0	0	0	264
2:30	0	31	2	0	0	0	0	0	1	0	0	0	0	34	14:30	0	313	66	1	12	1	0	2	5	0	0	0	0	0	400
2:45	0	30	3	0	0	0	0	1	1	0	0	0	0	35	14:45	1	263	61	2	13	2	0	0	4	0	0	0	0	0	346
3:00	1	37	4	0	1	0	0	0	0	0	0	0	0	43	15:00	2	219	73	1	12	1	0	2	2	0	3	0	0	0	315
3:15	0	31	3	0	1	0	0	1	1	0	0	0	0	37	15:15	1	250	58	1	12	7	0	0	4	0	1	0	0	0	334
3:30	0	33	8	0	0	2	0	1	0	0	0	0	0	44	15:30	1	324	71	0	12	5	0	2	3	0	0	0	0	0	418
3:45	0	27	7	0	2	1	0	0	1	0	0	0	0	38	15:45	2	241	68	0	6	3	0	0	4	0	0	0	0	0	324
4:00	0	41	10	0	3	0	0	1	1	0	0	0	0	56	16:00	0	268	46	0	5	1	0	0	3	0	0	0	0	0	323
4:15	0	37	12	0	3	0	0	0	1	0	0	0	0	53	16:15	0	326	68	0	16	1	0	1	4	0	0	0	0	0	416
4:30	0	74	22	0	2	0	0	0	0	0	0	0	0	98	16:30	0	332	66	0	8	0	0	0	3	0	0	0	0	0	409
4:45	0	64	8	0	1	1	0	0	0	0	0	0	0	74	16:45	2	291	70	0	12	2	0	1	3	0	0	0	0	0	381
5:00	0	59	13	0	0	0	0	0	4	0	0	0	0	76	17:00	0	310	54	1	6	2	0	1	3	0	0	0	0	0	377
5:15	1	64	24	0	6	1	0	3	4	0	2	0	0	105	17:15	1	262	45	1	9	2	0	0	3	0	0	0	0	0	323
5:30	0	85	25	0	6	4	0	2	6	0	0	0	0	128	17:30	1	272	49	0	4	2	0	0	0	0	0	0	0	0	328
5:45	0	111	22	0	5	2	0	3	3	0	0	0	0	146	17:45	0	290	41	0	4	0	0	2	3	0	0	0	0	0	340
6:00	0	94	21	0	7	1	0	0	6	0	1	0	0	130	18:00	0	257	36	0	9	1	0	1	5	0	0	0	0	0	309
6:15	1	83	23	4	10	5	0	0	2	0	2	0	0	130	18:15	0	243	28	0	6	2	0	0	4	0	0	0	0	0	283
6:30	0	138	35	1	12	5	0	1	1	0	0	0	0	193	18:30	2	222	33	0	8	3	0	1	4	0	0	0	0	0	273
6:45	0	157	35	3	7	2	0	0	4	0	0	0	0	208	18:45	0	194	44	0	11	2	0	1	4	0	0	0	0	0	256
7:00	0	186	38	0	7	1	0	1	5	0	2	0	0	240	19:00	0	156	23	0	3	0	0	2	1	0	0	0	0	0	185
7:15	1	195	46	1	21	1	0	0	3	0	0	0	0	268	19:15	2	171	28	0	5	1	0	0	1	0	0	0	0	0	208
7:30	0	214	71	4	13	4	0	0	3	0	0	0	0	309	19:30	0	178	27	0	2	0	0	2	3	0	0	0	0	0	212
7:45	0	235	54	1	15	2	0	0	4	0	0	0	0	311	19:45	0	136	19	0	9	0	0	0	2	0	0	0	0	0	166
8:00	0	214	55	0	7	3	0	0	7	1	1	0	0	288	20:00	0	146	23	0	3	1	0	1	0	0	0	0	0	0	174
8:15	0	187	42	1	9	2	0	0	6	0	1	0	0	248	20:15	0	133	22	0	5	0	0	3	3	0	0	0	0	0	166
8:30	0	211	52	3	16	3	0	0	6	0	0	0	0	291	20:30	1	156	19	0	2	0	0	1	3	0	0	0	0	0	182
8:45	0	161	46	1	14	4	0	0	9	0	0	0	0	235	20:45	0	136	15	0	0	1	0	3	1	0	0	1	0	0	157
9:00	0	149	36	2	11	2	0	0	7	0	0	0	0	207	21:00	2	108	9	0	1	2	0	2	0	0	0	0	0	0	124
9:15	0	136	42	0	12	4	1	0	10	0	2	0	0	207	21:15	0	135	10	0	1	0	0	0	1	0	0	0	0	0	147
9:30	0	155	28	0	15	3	0	0	7	0	0	0	0	208	21:30	1	124	24	0	1	1	0	2	4	0	0	0	0	0	157
9:45	1	167	34	1	13	6	0	1	6	0	0	0	0	229	21:45	0	98	14	0	2	2	0	1	0	0	0	0	0	0	117
10:00	0	159	38	1	17	3	0	0	2	0	0	0	0	220	22:00	1	107	14	0	1	0	0	0	0	0	0	0	0	0	123
10:15	0	145	35	1	19	4	0	0	5	0	1	0	0	210	22:15	1	90	10	0	1	0	0	0	0	0	0	0	0	0	102
10:30	0	138	40	2	10	5	0	0	8	0	1	0	0	204	22:30	1	95	11	0	1	0	0	0	0	0	0	0	0	0	108
10:45	0	156	27	0	18	7	0	2	4	0	1	0	0	215	22:45	0	63	5	0	1	1	0	0	1	0	0	0	0	0	71
11:00	0	158	41	0	18	4	0	1	4	0	1	0	0	227	23:00	0	48	2	0	1	4	0	0	0	0	0	0	0	0	55
11:15	0	171	53	2	10	1	0	0	8	0	0	0	0	245	23:15	0	59	5	0	1	4	0	1	0	0	0	0	0	0	70
11:30	0	157	38	1	17	3	0	2	9	0	0	0	0	227	23:30	0	62	8	0	0	1	0	2	0	0	0	1	0	0	74
11:45	0	172	50	3	14	3	0	0	11	0	1	0	0	254	23:45	0	50	4	0	0	1	0	0	2	0	0	0	0	0	57
TOTAL	6	5,019	1,192	32	348	89	1	24	172	1	16	1	0	6,901	TOTAL	24	8,865	1,736	15	329	96	1	41	133	0	6	2	0	11,248	

AM PEAK HOUR 7:15 AM
AM PEAK VOLUME 1,176

PM PEAK HOUR 4:15 PM
PM PEAK VOLUME 1,583

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	30	13,884	2,928	47	677	185	2	65	305	1	22	3	0	18,149
% OF TOTAL	0.2%	76.5%	16.1%	0.3%	3.7%	1.0%	0.0%	0.4%	1.7%	0.0%	0.1%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	55	28,165	5,633	104	1,312	349	5	125	697	4	45	3	0	36,497
% OF TOTAL	0.2%	77.2%	15.4%	0.3%	3.6%	1.0%	0.0%	0.3%	1.9%	0.0%	0.1%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY# Ontario
CLASS8 Grove north of Mission

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	36	4	0	3	0	0	0	1	0	0	0	0	44	12:00	0	141	40	2	15	0	0	1	11	0	1	0	0	211
0:15	0	35	1	0	1	0	0	0	1	0	0	0	0	38	12:15	0	132	29	2	6	2	1	0	9	0	0	0	181	
0:30	0	33	2	0	0	0	0	2	2	0	0	0	0	39	12:30	0	193	31	0	13	1	0	0	4	0	1	0	243	
0:45	0	24	0	0	0	0	0	0	1	0	0	0	0	25	12:45	0	171	42	2	16	2	0	1	10	0	1	0	245	
1:00	0	33	1	0	0	0	0	0	1	0	0	0	0	35	13:00	1	207	30	1	11	1	0	0	11	0	1	0	263	
1:15	0	22	1	0	0	0	0	0	1	0	0	0	0	24	13:15	1	164	51	0	11	3	0	1	12	0	0	0	243	
1:30	0	14	4	0	2	0	0	0	1	0	0	0	0	21	13:30	0	182	38	3	20	5	0	3	10	0	0	0	261	
1:45	0	22	1	0	1	1	0	0	1	0	0	0	0	26	13:45	1	230	54	0	14	6	0	1	6	0	0	0	312	
2:00	0	17	5	0	0	1	0	0	1	0	0	0	0	24	14:00	0	139	33	2	13	6	0	0	5	0	0	0	198	
2:15	0	18	0	0	0	0	0	1	1	0	0	0	0	20	14:15	0	208	41	2	13	5	0	1	7	0	0	0	277	
2:30	0	23	4	0	0	0	0	0	1	0	0	0	0	28	14:30	0	169	40	0	9	5	0	1	5	0	0	0	229	
2:45	0	29	10	0	1	0	0	1	1	0	0	0	0	42	14:45	1	245	56	0	15	2	0	2	3	0	0	0	324	
3:00	0	26	5	0	0	0	0	1	3	0	0	0	0	35	15:00	0	214	52	2	24	2	0	0	7	0	0	0	301	
3:15	0	35	7	0	1	0	0	0	0	0	0	0	0	43	15:15	0	247	63	3	9	7	0	1	4	0	0	0	334	
3:30	0	59	8	0	2	0	0	0	1	0	0	0	0	70	15:30	0	267	37	2	14	3	0	2	4	0	0	0	329	
3:45	0	92	15	0	0	0	0	1	0	0	0	0	0	108	15:45	1	217	50	2	9	5	0	2	3	0	0	0	289	
4:00	0	48	17	0	3	0	0	0	1	0	0	0	0	69	16:00	1	291	47	3	9	1	1	4	7	0	0	0	364	
4:15	0	73	17	0	3	1	0	0	3	0	0	0	0	97	16:15	1	245	61	0	16	7	0	0	7	0	0	0	337	
4:30	0	130	29	0	0	1	0	1	4	0	0	0	0	165	16:30	0	254	49	0	12	3	0	1	4	0	0	0	323	
4:45	1	175	34	0	1	0	0	1	1	0	0	0	0	213	16:45	0	284	61	2	6	3	0	1	5	0	1	0	363	
5:00	0	120	35	0	3	0	0	1	6	0	3	0	0	168	17:00	0	261	47	0	3	4	0	0	5	0	0	0	320	
5:15	0	127	37	0	5	1	0	1	2	0	1	0	0	174	17:15	1	254	36	1	11	3	0	1	3	0	0	0	310	
5:30	0	245	50	1	2	0	0	1	4	0	0	0	0	303	17:30	0	280	38	1	7	2	0	0	10	0	0	0	338	
5:45	0	312	64	0	9	0	0	0	0	0	1	0	0	386	17:45	0	274	32	0	5	2	0	3	4	0	0	0	320	
6:00	0	139	26	0	4	1	0	0	2	0	1	0	0	173	18:00	1	232	37	1	10	2	0	4	4	0	0	0	291	
6:15	0	153	48	0	9	2	0	0	3	0	0	0	0	215	18:15	1	221	41	0	10	1	0	1	4	0	0	0	279	
6:30	0	205	51	0	11	1	0	0	3	0	0	0	0	271	18:30	2	198	21	0	4	2	0	0	3	0	0	0	230	
6:45	1	296	64	2	6	1	0	0	8	0	0	0	0	378	18:45	0	167	22	0	7	2	0	5	4	0	0	0	207	
7:00	0	219	54	3	13	2	0	0	3	0	2	0	0	296	19:00	0	131	25	0	9	1	0	0	2	0	0	0	168	
7:15	3	258	40	1	14	2	0	1	5	0	0	0	0	324	19:15	0	135	19	0	2	3	0	1	3	0	0	0	163	
7:30	0	302	57	4	18	1	0	0	7	0	0	0	0	389	19:30	1	121	12	0	1	0	0	2	3	0	0	0	140	
7:45	2	330	45	2	11	3	0	0	3	0	0	0	0	396	19:45	0	134	15	0	4	0	0	1	1	0	0	0	155	
8:00	1	289	33	3	16	3	0	0	5	1	2	0	0	353	20:00	0	111	13	0	0	0	0	1	6	0	0	0	131	
8:15	0	258	44	1	12	3	0	0	3	0	0	0	0	321	20:15	0	137	22	0	0	0	0	1	3	0	0	0	163	
8:30	0	207	54	0	8	2	0	0	7	0	0	0	0	278	20:30	0	129	16	0	3	2	0	0	2	0	0	0	152	
8:45	0	186	32	1	9	7	1	0	3	0	0	0	0	239	20:45	1	99	6	0	1	0	0	2	3	0	0	0	112	
9:00	0	141	29	0	11	1	0	0	6	0	2	0	0	190	21:00	0	119	7	0	0	1	0	0	4	0	0	0	131	
9:15	0	159	31	3	8	2	0	0	7	0	1	0	0	211	21:15	0	93	11	0	2	0	0	0	5	0	0	0	111	
9:30	0	165	30	1	12	4	0	0	11	0	0	0	0	223	21:30	0	108	9	0	1	1	0	0	1	0	0	0	120	
9:45	0	159	30	0	12	6	0	0	6	0	0	0	0	213	21:45	0	78	6	0	0	0	0	0	3	0	0	0	87	
10:00	0	135	35	0	7	1	0	0	6	0	2	0	0	186	22:00	0	74	4	0	0	0	0	1	1	0	0	0	80	
10:15	0	151	45	1	10	1	0	0	10	1	0	0	0	219	22:15	0	85	7	0	0	3	0	0	0	0	0	0	95	
10:30	0	154	41	0	16	0	0	0	4	0	1	0	0	216	22:30	0	61	4	0	0	0	0	0	1	0	0	0	66	
10:45	1	162	51	0	16	5	0	0	10	0	0	0	0	245	22:45	0	53	4	0	2	0	0	0	1	0	0	0	60	
11:00	1	148	37	1	8	2	0	0	4	0	1	0	0	202	23:00	0	53	3	1	0	0	0	1	2	0	0	0	60	
11:15	0	107	29	0	4	2	0	0	10	0	0	0	0	152	23:15	0	43	4	0	2	0	0	1	2	0	0	0	52	
11:30	1	140	36	0	11	5	0	0	4	0	1	0	0	198	23:30	0	51	6	0	0	0	0	1	3	0	0	0	61	
11:45	0	123	37	1	12	4	0	0	5	1	0	0	0	183	23:45	0	45	3	0	1	0	0	0	2	0	0	0	51	
TOTAL	11	6,334	1,330	25	295	66	1	12	173	3	18	0	0	8,268	TOTAL	14	7,947	1,375	32	340	98	2	48	219	0	5	0	0	10,080

AM PEAK HOUR 7:15 AM
AM PEAK VOLUME 1,462

PM PEAK HOUR 4:00 PM
PM PEAK VOLUME 1,387

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	25	###	2,705	57	635	164	3	60	392	3	23	0	0	18,348
% OF TOTAL	0.1%	77.8%	14.7%	0.3%	3.5%	0.9%	0.0%	0.3%	2.1%	0.0%	0.1%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13
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24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thursday, November 04, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS9 Grove Ave south of I St

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL		
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13			
0:00	0	21	1	0	1	0	0	0	0	0	0	0	0	23	12:00	0	101	33	0	7	0	0	0	0	0	0	0	0	0	0	141
0:15	0	25	5	0	0	0	0	0	0	0	0	0	0	30	12:15	0	112	27	2	8	1	0	0	0	0	0	0	0	0	0	150
0:30	0	17	0	0	1	1	0	0	0	0	0	0	0	19	12:30	1	124	24	0	6	0	0	0	2	0	0	0	0	0	0	157
0:45	0	18	3	0	0	0	0	0	0	0	0	0	0	21	12:45	2	124	27	0	1	0	0	0	0	0	0	0	0	0	0	154
1:00	0	27	4	0	0	1	0	0	0	0	0	0	0	32	13:00	0	106	29	1	6	2	0	0	1	0	0	0	0	0	0	145
1:15	1	18	0	0	0	0	0	0	0	0	0	0	0	19	13:15	0	113	26	1	6	1	0	0	2	0	0	0	0	0	0	149
1:30	0	19	1	0	0	0	0	0	0	0	0	0	0	20	13:30	0	112	30	0	4	0	0	0	0	0	0	0	0	0	0	146
1:45	1	14	1	0	0	0	0	0	0	0	0	1	0	17	13:45	0	171	38	2	4	0	0	0	0	0	0	0	0	0	0	215
2:00	0	19	3	0	0	1	0	0	0	0	0	0	0	23	14:00	1	133	24	1	10	0	0	0	0	0	0	0	0	0	0	169
2:15	0	12	0	0	1	0	0	0	0	0	0	0	0	13	14:15	0	121	25	1	8	3	0	0	0	0	0	0	0	0	0	158
2:30	0	15	1	0	0	1	0	0	0	0	0	0	0	17	14:30	1	183	33	0	3	2	0	0	0	0	1	0	0	0	0	223
2:45	1	16	4	0	1	0	0	0	0	0	0	0	0	22	14:45	0	163	29	1	5	1	0	0	2	0	0	0	0	0	0	201
3:00	0	16	2	0	0	0	0	0	0	0	0	0	0	18	15:00	0	144	19	2	4	1	0	0	0	0	0	0	0	0	0	170
3:15	0	13	2	0	0	0	0	0	0	0	0	0	0	15	15:15	0	162	24	2	3	1	0	0	0	0	1	0	0	0	0	193
3:30	0	10	1	0	0	0	0	0	0	0	0	0	0	11	15:30	0	188	20	1	6	0	0	0	0	0	0	0	0	0	0	215
3:45	0	14	1	0	0	0	0	0	0	0	0	0	0	15	15:45	0	154	28	0	4	0	0	0	1	0	0	0	0	0	0	187
4:00	0	18	2	0	0	0	0	0	0	0	0	0	0	20	16:00	1	166	43	0	3	0	0	0	0	0	0	0	0	0	0	213
4:15	0	18	2	0	0	0	0	0	0	0	0	1	0	21	16:15	0	157	37	0	1	0	0	0	0	0	0	0	0	0	0	195
4:30	0	19	8	0	1	0	0	0	0	0	0	0	0	28	16:30	0	203	39	1	2	0	0	0	0	0	0	0	0	0	0	245
4:45	1	39	5	0	0	0	0	0	0	0	0	1	0	46	16:45	1	200	33	0	0	0	0	0	1	0	0	0	0	0	0	235
5:00	1	32	8	0	0	0	0	0	0	0	1	0	0	42	17:00	3	202	26	0	3	1	0	0	0	0	0	0	0	0	0	235
5:15	0	40	7	0	1	0	0	0	1	0	1	0	0	50	17:15	0	198	17	0	2	0	0	0	1	0	0	0	0	0	0	218
5:30	0	46	9	0	1	0	0	0	0	0	2	0	0	58	17:30	0	188	26	0	4	0	0	0	0	0	0	0	0	0	0	218
5:45	0	58	18	0	4	0	0	0	0	0	0	0	0	80	17:45	0	183	20	0	3	0	0	0	0	0	0	0	0	0	0	206
6:00	0	48	9	0	2	0	0	1	0	0	1	0	0	61	18:00	0	175	31	0	2	0	0	0	0	0	0	0	0	0	0	208
6:15	2	46	13	2	2	0	0	0	0	0	1	0	0	66	18:15	0	170	21	0	3	0	0	0	0	0	0	0	0	0	0	194
6:30	0	83	12	2	3	1	0	0	1	0	2	0	0	104	18:30	0	153	18	0	4	0	0	0	1	0	0	0	0	0	0	176
6:45	1	102	23	2	1	1	0	0	1	0	0	0	0	131	18:45	0	135	12	0	2	0	0	0	0	0	0	0	0	0	0	149
7:00	0	96	20	3	7	0	0	0	0	0	1	0	0	127	19:00	1	91	7	0	3	0	0	0	1	0	0	0	0	0	0	103
7:15	1	126	22	0	5	1	0	0	0	0	1	0	0	156	19:15	0	110	11	0	3	0	0	0	0	0	0	0	0	0	0	124
7:30	1	149	27	4	2	0	0	0	1	0	0	0	0	184	19:30	0	81	11	0	2	0	0	0	0	0	0	0	0	0	0	94
7:45	0	136	24	1	1	0	0	0	0	0	1	0	0	163	19:45	0	79	17	0	3	0	0	0	0	0	0	0	0	0	0	99
8:00	0	136	21	0	2	0	0	0	0	0	0	0	0	159	20:00	0	64	16	0	2	0	0	0	0	0	0	0	0	0	0	82
8:15	0	150	17	0	0	0	0	0	1	0	1	0	0	169	20:15	0	79	12	0	0	0	0	0	0	0	0	0	0	0	0	91
8:30	0	118	23	2	5	2	0	0	1	0	0	0	0	151	20:30	0	74	7	0	0	0	0	0	0	0	0	0	0	0	0	81
8:45	0	115	33	2	5	1	0	0	2	0	1	0	0	159	20:45	0	62	11	0	1	0	0	0	0	0	0	0	0	0	0	74
9:00	1	103	15	0	2	1	0	0	0	0	1	0	0	123	21:00	1	58	15	0	1	0	1	0	0	0	0	0	0	0	0	76
9:15	0	123	30	0	4	1	0	0	2	0	1	0	0	161	21:15	0	88	8	0	1	0	0	0	0	0	0	0	0	0	0	97
9:30	0	113	22	0	7	0	0	0	1	0	0	0	0	143	21:30	0	71	9	0	2	0	0	0	0	0	0	0	0	0	0	82
9:45	0	131	25	1	7	0	0	0	0	0	0	0	0	164	21:45	1	69	6	0	1	0	0	0	2	0	0	0	0	0	0	79
10:00	0	104	22	0	5	0	0	0	2	0	1	0	0	134	22:00	0	56	11	0	0	0	0	1	0	0	0	0	0	0	0	68
10:15	0	79	28	0	1	2	0	0	3	0	1	0	0	114	22:15	0	60	7	0	1	1	0	0	0	0	0	0	0	0	0	69
10:30	1	95	28	0	5	0	0	0	0	0	0	0	0	129	22:30	0	46	2	0	1	0	0	0	0	0	0	0	0	0	0	49
10:45	0	119	19	2	0	1	0	0	0	0	0	0	0	141	22:45	0	57	5	0	1	2	0	0	0	0	0	0	0	0	0	65
11:00	0	95	33	0	9	1	0	0	4	0	1	0	0	143	23:00	0	34	3	0	0	4	0	0	0	0	0	0	0	0	0	41
11:15	1	124	26	2	6	0	0	0	1	0	0	0	0	160	23:15	0	30	1	0	0	1	1	0	0	0	0	0	0	0	0	33
11:30	0	126	23	0	8	0	0	0	0	0	1	0	0	158	23:30	0	27	7	0	0	0	0	0	0	0	0	0	0	0	0	34
11:45	0	135	33	0	4	1	0	0	0	0	0	0	0	173	23:45	0	35	4	0	0	0	0	0	0	0	0	0	0	0	0	39
TOTAL	13	3,196	636	23	104	17	0	1	21	0	22	0	0	4,033	TOTAL	13	5,612	929	15	136	21	2	0	15	0	2	0	0	0	6,745	

AM PEAK HOUR 7:30 AM
AM PEAK VOLUME 675

PM PEAK HOUR 4:30 PM
PM PEAK VOLUME 933

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	26	8,808	1,565	38	240	38	2	1	36	0	24	0	0	10,778
% OF TOTAL	0.2%	81.7%	14.5%	0.4%	2.2%	0.4%	0.0%	0.0%	0.3%	0.0%	0.2%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	54	18,047	3,086	80	462	63	3	6	83	0	48	1	0	21,933
% OF TOTAL	0.5%	167.4%	28.6%	0.7%	4.3%	0.6%	0.0%	0.1%	0.8%	0.0%	0.4%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thursday, November 04, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS9 Grove Ave south of I St

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	19	2	0	0	0	0	0	1	0	0	0	0	22	12:00	0	119	28	0	5	0	0	0	0	0	0	0	152	
0:15	0	24	2	0	1	0	0	0	0	0	0	0	0	27	12:15	1	105	22	1	4	1	0	0	0	0	0	0	134	
0:30	1	21	1	0	0	1	0	0	0	0	0	0	0	24	12:30	1	103	21	0	6	1	0	0	0	1	0	0	133	
0:45	0	9	3	0	0	0	0	0	0	0	0	0	0	12	12:45	1	127	22	2	4	0	0	0	0	0	0	0	156	
1:00	0	7	3	0	1	0	0	0	0	0	0	0	0	11	13:00	2	116	22	0	1	0	0	0	1	0	0	0	142	
1:15	0	16	4	0	1	0	0	0	0	0	0	0	0	21	13:15	0	110	27	1	2	0	0	1	3	0	0	0	144	
1:30	0	22	1	0	0	2	0	0	0	0	0	0	0	25	13:30	0	110	17	1	5	0	0	0	1	0	0	0	134	
1:45	0	13	2	0	0	1	0	0	1	0	0	0	0	17	13:45	0	114	20	0	6	1	0	0	1	0	0	0	142	
2:00	0	14	5	0	0	0	0	0	0	0	0	0	0	19	14:00	1	130	23	2	0	0	0	1	0	0	0	0	157	
2:15	0	16	1	0	0	0	0	0	0	0	0	0	0	17	14:15	0	115	22	3	3	0	0	0	0	0	0	0	143	
2:30	1	24	7	0	0	0	0	0	0	0	0	0	0	32	14:30	1	143	21	3	5	1	0	0	0	0	0	0	174	
2:45	0	16	7	0	1	1	0	0	0	0	0	0	0	25	14:45	1	132	28	0	9	0	0	0	0	0	0	0	170	
3:00	0	14	4	0	0	1	0	0	0	0	0	0	0	19	15:00	0	134	18	1	3	0	0	0	1	0	0	0	157	
3:15	0	22	3	0	0	0	0	0	0	0	0	0	0	25	15:15	0	162	21	1	2	0	0	0	0	0	0	0	186	
3:30	0	54	11	0	1	0	0	0	0	0	0	0	0	66	15:30	0	188	18	1	3	0	0	0	3	0	0	0	213	
3:45	0	51	8	0	0	0	0	0	0	0	0	0	0	59	15:45	0	151	21	2	8	0	0	0	0	0	0	0	182	
4:00	0	40	5	0	0	0	0	0	0	0	0	0	0	45	16:00	1	195	35	0	3	1	0	0	0	0	0	0	235	
4:15	0	41	6	0	0	0	0	0	1	0	0	0	0	48	16:15	2	184	27	0	1	0	0	0	1	0	0	0	215	
4:30	0	104	24	0	1	0	0	0	2	0	2	0	0	133	16:30	0	160	25	1	1	0	0	0	1	0	0	0	188	
4:45	0	86	10	0	0	0	0	0	0	1	0	0	0	97	16:45	0	188	26	0	3	0	0	0	0	0	0	0	217	
5:00	0	65	12	0	2	0	0	0	0	0	0	0	0	79	17:00	1	160	21	0	6	0	0	0	0	0	0	0	188	
5:15	0	74	12	0	1	0	0	0	0	2	0	0	0	89	17:15	2	197	30	0	4	0	0	0	0	0	0	0	233	
5:30	1	122	24	0	0	1	0	0	0	0	0	0	0	148	17:30	1	156	22	0	4	0	0	0	0	0	0	0	183	
5:45	0	106	27	0	5	0	0	0	1	0	2	0	0	141	17:45	0	160	24	0	4	0	0	0	0	0	0	0	188	
6:00	0	67	20	0	0	0	0	0	2	0	0	0	0	89	18:00	2	130	9	0	1	0	0	0	1	0	0	0	143	
6:15	0	100	35	0	2	0	0	1	0	0	2	0	0	140	18:15	0	141	11	0	1	0	0	0	1	0	0	0	154	
6:30	0	124	32	0	1	1	0	0	1	0	0	0	0	159	18:30	1	116	17	0	1	0	0	0	1	0	0	0	136	
6:45	1	120	32	3	1	0	0	0	0	1	0	0	0	158	18:45	0	129	18	0	3	0	0	0	0	0	0	0	150	
7:00	0	96	22	2	2	0	0	1	1	0	1	0	0	125	19:00	0	125	9	0	0	0	0	0	0	0	0	0	134	
7:15	0	150	28	1	0	1	0	0	0	2	0	0	0	182	19:15	1	98	8	0	1	0	0	0	0	0	0	0	108	
7:30	0	184	32	1	3	0	0	0	0	0	0	0	0	220	19:30	0	90	8	0	0	0	0	1	0	0	0	0	99	
7:45	0	206	31	3	1	1	0	0	1	0	1	0	0	244	19:45	0	92	8	0	3	0	0	0	0	0	0	0	103	
8:00	1	145	21	2	6	2	0	0	0	0	0	0	0	177	20:00	0	89	13	0	1	0	0	0	1	0	0	0	104	
8:15	1	170	20	4	3	0	0	0	1	0	0	0	0	199	20:15	0	91	11	0	1	0	0	0	0	0	0	0	103	
8:30	1	142	21	2	2	0	0	1	0	0	1	0	0	170	20:30	0	97	12	0	1	1	0	0	0	0	0	0	111	
8:45	1	126	21	1	3	2	0	0	0	1	0	0	0	155	20:45	0	87	7	1	1	0	0	0	0	0	0	0	96	
9:00	0	112	22	0	6	0	0	0	0	1	0	0	0	141	21:00	0	94	13	1	1	0	0	0	0	0	0	0	109	
9:15	0	101	23	0	10	0	0	0	0	0	0	0	0	134	21:15	0	112	9	0	1	0	0	0	0	0	0	0	122	
9:30	0	102	25	0	3	0	0	0	2	0	1	0	0	133	21:30	1	117	8	0	0	0	0	1	0	0	0	0	127	
9:45	0	102	16	0	9	1	0	0	0	0	0	0	0	128	21:45	0	74	5	0	1	0	0	0	0	0	0	0	80	
10:00	0	83	24	1	9	0	0	0	1	0	1	0	0	119	22:00	0	55	6	0	0	0	0	0	0	0	0	0	61	
10:15	0	91	32	0	8	0	0	0	3	0	0	0	0	134	22:15	0	58	6	0	1	1	0	0	0	0	0	0	66	
10:30	0	92	21	0	6	1	0	0	2	0	0	0	0	122	22:30	0	63	6	0	1	0	0	0	0	0	0	0	70	
10:45	0	95	25	0	3	0	0	1	2	0	1	0	0	127	22:45	0	27	1	0	1	0	0	0	0	0	0	0	29	
11:00	0	87	23	0	4	0	0	0	0	0	2	0	0	116	23:00	0	28	1	0	0	0	0	0	0	0	0	0	29	
11:15	0	89	19	0	5	2	0	0	0	0	1	0	0	116	23:15	0	32	4	0	0	0	0	2	0	0	0	0	38	
11:30	0	110	17	1	5	0	0	0	0	0	0	0	0	133	23:30	0	31	3	0	0	0	0	1	0	0	0	0	35	
11:45	0	107	20	0	3	0	0	0	3	0	0	1	0	134	23:45	0	23	1	0	1	0	1	0	0	0	0	0	26	
TOTAL	8	3,781	766	21	109	18	0	4	25	0	23	1	0	4,756	TOTAL	20	5,458	755	21	113	7	1	1	22	0	1	0	0	6,399

AM PEAK HOUR 7:30 AM
AM PEAK VOLUME 840

PM PEAK HOUR 4:00 PM
PM PEAK VOLUME 855

CLASS 1 Class 1 — Motorcycles	CLASS 8 3 to 4 Axles, Single Trailer
CLASS 2 Passenger Cars	CLASS 9 5 Axles, Single Trailer
CLASS 3 2 Axles, 4-Tire Single Units	CLASS 10 6 or More Axles, Single Trailer
CLASS 4 Buses	CLASS 11 5 or Less Axles, Multi-Trailers
CLASS 5 2 Axles, 6-Tire Single Units	CLASS 12 6 Axles, Multi-Trailers
CLASS 6 3 Axles, Single Unit	CLASS 13 7 or More Axles, Multi-Trailers
CLASS 7 4 or More Axles, Single Unit	

TOTAL: AM+PM	28	9,239	1,521	42	222	25	1	5	47	0	24	1	0	11,155
% OF TOTAL	0.3%	82.8%	13.6%	0.4%	2.0%	0.2%	0.0%	0.0%	0.4%	0.0%	0.2%	0.0%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS10 Haven south of Airport

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	44	1	0	0	1	0	0	4	0	1	0	0	51	12:00	1	230	36	1	13	1	0	1	13	0	0	0	0	296
0:15	0	37	4	0	0	1	0	0	6	0	1	0	0	49	12:15	2	249	42	0	9	3	0	0	18	0	0	0	0	323
0:30	0	52	3	0	0	0	0	0	4	0	0	0	0	59	12:30	0	245	34	0	11	2	0	0	15	0	0	0	0	307
0:45	0	52	6	0	0	0	0	0	8	0	0	0	0	66	12:45	1	231	47	1	3	5	0	0	13	1	0	0	0	302
1:00	0	38	6	0	0	1	0	1	3	0	0	0	0	49	13:00	1	243	45	1	11	4	0	0	10	0	0	0	0	315
1:15	0	38	4	0	0	0	0	0	2	0	0	0	0	44	13:15	0	230	39	0	15	4	0	1	15	0	0	0	0	304
1:30	0	45	8	0	1	0	0	0	8	0	0	0	0	62	13:30	1	233	51	0	16	6	0	0	22	0	0	0	0	329
1:45	0	53	7	0	0	1	0	0	8	0	0	0	0	69	13:45	2	258	54	0	18	8	0	0	20	0	0	0	0	360
2:00	0	46	3	0	1	1	0	1	9	0	3	0	0	64	14:00	0	274	58	0	13	3	0	1	20	0	0	0	0	369
2:15	0	58	3	0	0	1	0	0	7	0	0	0	0	69	14:15	0	201	48	0	20	6	0	1	9	0	0	0	0	285
2:30	0	63	3	0	1	3	0	0	10	0	0	0	0	80	14:30	1	350	85	0	20	2	0	2	13	0	0	0	0	473
2:45	0	42	5	0	0	1	0	1	7	0	0	0	0	56	14:45	0	328	52	0	9	5	0	1	11	0	0	0	0	406
3:00	0	37	6	0	0	1	0	0	4	0	0	0	0	48	15:00	0	292	60	2	10	3	0	0	12	0	0	0	0	379
3:15	1	59	2	0	0	2	0	0	2	0	0	0	0	66	15:15	1	381	65	0	15	3	0	2	14	0	0	0	0	481
3:30	0	59	12	0	3	2	0	2	4	0	1	0	0	83	15:30	0	420	65	0	18	4	0	2	12	0	0	0	0	521
3:45	0	47	8	0	2	1	0	0	7	0	0	0	0	65	15:45	0	404	67	1	11	2	0	0	13	0	0	0	0	498
4:00	0	53	10	0	0	5	0	2	9	0	0	0	0	79	16:00	0	473	84	1	6	0	0	2	9	0	0	0	0	575
4:15	0	76	10	0	5	2	0	1	5	0	0	0	0	99	16:15	0	349	79	0	5	3	0	1	14	0	0	0	0	451
4:30	0	92	18	0	1	0	0	0	11	0	1	0	0	123	16:30	1	429	59	0	9	3	0	3	11	0	1	0	0	516
4:45	0	118	11	0	2	2	0	3	10	0	0	0	0	146	16:45	0	532	65	0	6	1	0	1	12	0	0	0	0	617
5:00	0	82	15	1	5	1	0	2	10	0	0	0	0	116	17:00	0	442	64	2	3	4	0	1	10	0	0	0	0	526
5:15	0	83	17	0	3	3	0	1	12	0	0	0	0	119	17:15	2	431	66	0	11	2	0	1	15	0	0	0	0	528
5:30	1	136	28	0	3	3	0	0	8	0	0	0	0	179	17:30	0	444	64	0	4	2	1	2	15	0	0	0	0	532
5:45	0	144	34	1	6	3	0	0	6	0	0	0	0	194	17:45	2	446	59	1	7	4	0	3	14	0	1	0	0	537
6:00	0	147	26	0	8	1	0	1	3	0	0	0	0	186	18:00	1	350	53	1	6	3	0	1	10	0	1	0	0	426
6:15	0	162	28	0	3	2	0	2	8	0	0	0	0	205	18:15	0	332	37	0	6	5	0	0	17	0	0	0	0	397
6:30	0	176	29	1	3	2	0	1	6	0	0	0	0	218	18:30	1	323	37	0	5	6	0	2	12	0	0	0	0	386
6:45	0	214	30	0	8	2	0	1	10	0	1	0	0	266	18:45	0	207	33	1	5	2	0	1	12	0	0	0	0	261
7:00	0	215	39	0	5	4	0	0	12	0	1	0	0	276	19:00	0	234	23	0	1	8	1	1	10	0	0	0	0	278
7:15	1	249	34	0	3	3	0	0	12	0	1	0	0	303	19:15	0	176	17	0	3	3	0	2	8	0	0	0	0	209
7:30	4	262	43	1	8	5	0	2	9	0	0	0	0	334	19:30	0	168	21	0	1	4	0	1	12	0	0	0	0	207
7:45	1	378	44	2	11	4	0	1	7	0	0	0	0	448	19:45	0	145	13	0	2	1	0	0	11	0	0	0	0	172
8:00	0	366	35	0	8	3	0	2	7	0	0	0	0	421	20:00	0	173	21	1	1	4	0	2	13	0	0	0	0	215
8:15	0	402	49	1	6	2	0	2	12	0	0	0	0	474	20:15	0	177	18	0	4	6	0	3	16	0	1	0	0	225
8:30	0	336	63	0	25	4	0	0	13	0	0	0	0	441	20:30	0	157	21	0	2	2	0	2	8	0	0	0	0	192
8:45	2	333	77	0	31	4	0	0	9	0	0	0	0	456	20:45	0	143	9	0	2	1	0	1	6	0	0	0	0	162
9:00	0	247	38	1	46	3	0	0	10	0	0	0	0	345	21:00	1	139	22	1	3	4	0	0	11	0	0	0	0	181
9:15	1	295	36	1	35	3	0	0	16	0	0	0	0	387	21:15	1	135	23	0	1	5	0	0	6	0	0	0	0	171
9:30	1	213	36	1	14	1	0	0	11	0	0	0	0	277	21:30	0	130	14	1	0	0	0	1	4	0	0	0	0	150
9:45	1	244	25	0	15	5	0	0	7	0	0	0	0	297	21:45	0	88	11	0	0	2	0	2	7	0	0	0	0	110
10:00	0	211	36	1	8	4	0	0	13	0	0	0	0	273	22:00	0	92	9	1	1	2	0	0	8	0	0	0	0	113
10:15	0	199	36	0	13	4	0	0	10	0	0	0	0	262	22:15	0	99	13	0	0	1	0	1	11	0	0	0	0	125
10:30	0	220	41	0	8	5	0	1	16	0	0	0	0	291	22:30	0	80	11	0	0	0	0	1	4	0	0	0	0	96
10:45	0	204	30	0	9	3	0	1	19	0	0	0	0	266	22:45	0	74	8	0	0	1	0	0	6	0	0	0	0	89
11:00	0	243	50	1	8	2	0	2	12	0	0	0	0	318	23:00	0	62	9	0	1	1	0	2	2	0	0	0	0	77
11:15	0	231	40	0	9	3	0	0	10	0	0	0	0	293	23:15	0	49	7	0	1	1	0	1	5	0	0	0	0	64
11:30	0	282	55	0	19	3	0	0	10	0	0	0	0	369	23:30	0	60	8	0	0	1	0	0	3	0	1	0	0	73
11:45	1	213	52	0	12	1	0	1	13	0	0	0	0	293	23:45	0	52	3	0	0	0	0	0	1	0	1	0	0	57
TOTAL	14	7,596	1,196	12	348	108	0	31	419	0	10	0	0	9,734	TOTAL	19	11,760	1,829	16	308	143	2	49	533	1	6	0	0	14,666

AM PEAK HOUR 8:00 AM
AM PEAK VOLUME 1,792

PM PEAK HOUR 4:45 PM
PM PEAK VOLUME 2,203

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	33	19,356	3,025	28	656	251	2	80	952	1	16	0	0	24,400
% OF TOTAL	0.1%	79.3%	12.4%	0.1%	2.7%	1.0%	0.0%	0.3%	3.9%	0.0%	0.1%	0.0%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	74	37,216	5,797	58	1,555	521	6	207	###	1	32	0	0	47,532
% OF TOTAL	0.3%	152.5%	23.8%	0.2%	6.4%	2.1%	0.0%	0.8%	8.5%	0.0%	0.1%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS10 Haven south of Airport

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	47	7	0	0	5	1	1	10	0	0	0	0	71	12:00	4	256	47	0	12	5	0	1	26	0	0	0	0	351
0:15	0	47	5	0	0	2	0	2	8	0	0	0	0	64	12:15	1	235	43	0	13	3	0	3	17	0	0	0	0	315
0:30	0	29	4	0	0	3	0	0	8	0	0	0	0	44	12:30	2	243	52	0	16	4	0	3	25	0	1	0	0	346
0:45	0	19	1	0	1	1	0	2	5	0	0	0	0	29	12:45	0	220	34	1	13	4	0	0	15	0	0	0	0	287
1:00	1	30	6	0	2	0	0	0	6	0	0	0	0	45	13:00	1	228	31	0	16	4	0	0	22	0	0	0	0	302
1:15	0	36	2	0	0	3	0	0	6	0	0	0	0	47	13:15	1	246	25	0	11	3	0	2	19	0	0	0	0	307
1:30	0	53	3	0	0	3	0	1	6	0	0	0	0	66	13:30	0	264	37	0	14	1	1	0	18	0	0	0	0	335
1:45	0	52	11	0	0	1	0	0	4	0	0	0	0	68	13:45	1	286	52	1	9	4	0	2	16	0	0	0	0	371
2:00	0	78	11	0	0	2	0	1	6	0	0	0	0	98	14:00	1	236	44	0	21	6	0	2	21	0	1	0	0	332
2:15	0	83	7	0	0	3	0	1	4	0	0	0	0	98	14:15	1	278	53	0	27	2	0	1	13	0	0	0	0	375
2:30	0	53	5	0	0	3	0	0	6	0	1	0	0	68	14:30	1	314	62	0	20	5	0	2	15	0	0	0	0	419
2:45	0	52	3	0	1	3	0	0	7	0	0	0	0	66	14:45	1	361	64	1	12	7	0	2	22	0	0	0	0	470
3:00	1	43	6	0	1	0	0	0	7	0	0	0	0	58	15:00	1	334	57	0	22	0	0	3	20	0	0	0	0	437
3:15	0	52	7	0	1	5	0	0	6	0	0	0	0	71	15:15	0	383	60	0	18	3	0	2	14	0	0	0	0	480
3:30	0	64	16	0	5	1	0	0	9	0	0	0	0	95	15:30	1	363	55	0	12	4	0	1	19	0	0	0	0	455
3:45	0	84	15	0	2	1	0	0	8	0	0	0	0	110	15:45	2	414	56	2	12	8	0	3	13	0	0	0	0	510
4:00	1	52	12	0	8	2	0	1	2	0	0	0	0	78	16:00	1	367	53	1	11	4	0	0	15	0	0	0	0	452
4:15	0	59	7	0	6	4	0	2	7	0	0	0	0	85	16:15	2	286	68	0	18	4	1	1	19	0	0	0	0	399
4:30	0	115	15	0	3	0	0	1	12	0	0	0	0	146	16:30	0	380	55	0	17	4	0	3	12	0	0	0	0	471
4:45	0	149	24	1	3	1	0	0	8	0	0	0	0	186	16:45	1	349	49	1	20	2	0	6	22	0	0	0	0	450
5:00	0	131	22	0	2	2	0	0	7	0	0	0	0	164	17:00	1	429	54	0	18	0	0	4	18	0	0	0	0	524
5:15	1	119	23	0	3	3	0	0	10	0	0	0	0	159	17:15	1	419	55	0	17	2	0	6	9	0	0	0	0	509
5:30	0	136	27	0	13	3	0	2	7	0	0	0	0	188	17:30	0	397	55	0	12	5	0	1	15	0	0	0	0	485
5:45	0	128	25	1	10	3	0	0	11	0	1	0	0	179	17:45	0	308	43	1	26	1	0	1	12	0	0	0	0	392
6:00	0	153	29	0	10	1	0	2	12	0	0	0	0	207	18:00	0	263	42	0	26	5	0	2	19	0	0	0	0	357
6:15	0	183	29	0	20	2	0	0	10	0	0	0	0	244	18:15	0	280	38	1	16	4	0	2	13	0	0	0	0	354
6:30	0	225	41	0	25	3	0	1	12	0	0	0	0	307	18:30	0	223	25	0	7	1	0	3	17	0	0	0	0	276
6:45	0	229	39	1	15	3	0	1	9	0	0	0	0	297	18:45	0	180	25	1	9	3	0	0	13	0	0	0	0	231
7:00	0	211	49	0	11	4	0	2	10	0	0	0	0	287	19:00	0	162	24	1	12	0	0	4	11	0	0	0	0	214
7:15	0	239	40	0	12	3	0	1	12	0	0	0	0	307	19:15	0	167	9	1	6	2	0	2	9	0	0	0	0	196
7:30	1	225	43	0	16	5	0	1	17	0	0	0	0	308	19:30	1	161	18	0	7	2	0	3	11	0	0	0	0	203
7:45	0	266	45	1	10	8	0	1	9	0	0	0	0	340	19:45	0	179	18	1	8	2	0	1	17	0	0	0	0	226
8:00	2	231	62	0	13	4	0	1	11	0	1	0	0	325	20:00	0	202	21	0	10	5	0	1	15	0	0	0	0	254
8:15	0	236	21	0	5	6	0	2	17	0	0	0	0	287	20:15	0	204	28	0	11	0	0	1	8	0	1	0	0	253
8:30	0	242	35	1	18	3	0	0	10	0	0	0	0	309	20:30	0	176	32	0	5	2	0	1	10	0	0	0	0	226
8:45	0	173	35	1	18	3	0	0	10	0	0	0	0	240	20:45	0	187	19	2	3	4	0	0	6	0	0	0	0	221
9:00	0	176	30	0	10	3	0	2	8	0	1	0	0	230	21:00	0	174	21	0	7	0	0	1	7	0	1	0	0	211
9:15	0	173	42	0	11	4	0	0	15	0	1	0	0	246	21:15	2	176	12	0	3	3	0	1	9	0	0	0	0	206
9:30	1	196	33	1	8	3	0	1	14	0	0	0	0	257	21:30	0	177	15	0	2	1	0	2	6	0	0	0	0	203
9:45	0	169	38	1	9	1	0	4	13	0	0	0	0	235	21:45	0	148	6	1	3	0	0	0	9	0	1	0	0	168
10:00	0	188	30	0	12	4	0	0	19	0	0	0	0	253	22:00	0	106	9	0	1	1	0	0	3	0	0	0	0	120
10:15	1	261	32	1	14	4	0	2	19	0	0	0	0	334	22:15	0	84	10	0	0	0	0	1	6	0	0	0	0	101
10:30	1	247	49	0	10	7	0	3	19	0	1	0	0	337	22:30	0	112	10	0	1	0	0	2	6	0	0	0	0	131
10:45	2	227	39	1	9	4	0	1	8	0	1	0	0	292	22:45	0	69	10	1	2	2	0	0	4	0	0	0	0	88
11:00	0	156	23	0	8	2	0	0	18	0	0	0	0	207	23:00	0	47	5	0	4	2	0	1	4	0	0	0	0	63
11:15	1	165	30	0	14	4	0	3	17	0	1	0	0	235	23:15	0	48	6	0	1	1	0	3	1	0	0	0	0	60
11:30	0	174	34	1	13	4	0	3	13	0	1	0	0	243	23:30	0	45	9	0	1	0	0	0	4	0	2	0	0	61
11:45	1	178	35	2	14	4	1	2	13	0	0	0	0	250	23:45	0	60	9	0	1	2	0	0	3	0	0	0	0	75
TOTAL	14	6,634	1,147	13	366	143	2	47	485	0	9	0	0	8,860	TOTAL	27	###	1,625	17	533	127	2	80	628	0	7	0	0	14,272

AM PEAK HOUR 7:15 AM
AM PEAK VOLUME 1,280

PM PEAK HOUR 4:45 PM
PM PEAK VOLUME 1,968

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	41	###	2,772	30	899	270	4	127	###	0	16	0	0	23,132
% OF TOTAL	0.2%	77.2%	12.0%	0.1%	3.9%	1.2%	0.0%	0.5%	4.8%	0.0%	0.1%	0.0%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS11 UPS Driveway south of Jurupa

AM TIME	NORTHBOUND													TOTAL	PM Time	NORTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	11	5	0	0	3	0	0	10	0	0	1	0	30	12:00	0	12	1	0	5	3	0	6	4	0	0	0	31	
0:15	0	47	4	0	0	2	0	0	10	0	0	0	0	63	12:15	0	31	7	0	1	1	0	2	4	0	0	0	46	
0:30	0	53	6	0	0	1	0	2	13	0	0	0	0	75	12:30	0	50	4	0	2	1	0	3	8	0	0	0	68	
0:45	0	43	6	0	0	1	0	0	7	0	0	1	0	58	12:45	0	26	10	0	2	0	0	2	5	0	0	0	45	
1:00	3	33	5	0	0	3	0	3	9	0	1	0	0	57	13:00	0	36	5	0	0	3	0	3	6	0	1	0	54	
1:15	0	39	2	0	0	0	0	1	12	0	0	0	0	54	13:15	0	37	5	0	3	1	0	3	6	0	0	0	55	
1:30	0	38	1	0	0	4	0	2	10	0	0	0	1	56	13:30	1	37	12	0	4	1	0	3	3	0	0	0	61	
1:45	1	34	7	0	0	1	0	1	16	0	0	1	0	61	13:45	1	26	3	0	4	7	0	2	10	0	0	0	53	
2:00	0	28	1	0	0	0	0	2	14	0	1	0	0	46	14:00	0	28	8	0	2	2	0	1	8	0	0	0	49	
2:15	0	28	1	0	0	1	0	2	16	0	0	0	0	48	14:15	1	16	4	0	3	0	0	5	6	0	0	0	35	
2:30	0	26	0	0	0	3	0	1	11	0	0	0	0	41	14:30	0	18	3	0	3	1	1	3	7	0	0	0	36	
2:45	0	27	2	0	0	0	0	1	5	0	0	1	0	36	14:45	0	19	1	0	1	0	0	1	7	0	0	1	30	
3:00	0	30	2	0	0	0	0	0	8	0	1	1	0	42	15:00	0	31	1	0	1	1	0	1	8	0	0	0	43	
3:15	1	44	6	0	0	1	0	0	7	0	0	1	0	60	15:15	0	54	4	0	3	0	0	3	5	0	0	0	69	
3:30	0	12	3	0	0	0	0	1	2	0	0	0	0	18	15:30	0	60	3	0	3	1	0	4	7	0	0	0	78	
3:45	0	8	2	0	0	0	0	0	5	0	1	0	0	16	15:45	1	41	3	0	6	1	0	5	5	0	0	0	62	
4:00	0	11	1	0	0	1	0	0	4	0	0	1	0	18	16:00	1	53	4	0	1	1	0	2	6	0	0	0	68	
4:15	0	10	0	0	0	0	0	0	6	0	0	0	0	16	16:15	0	29	6	0	0	4	0	5	2	0	0	0	46	
4:30	0	2	0	0	0	1	0	1	6	0	0	0	0	10	16:30	1	31	4	0	1	1	0	3	7	0	0	1	49	
4:45	1	4	2	0	0	0	0	0	10	0	0	0	0	17	16:45	0	14	6	0	1	1	0	2	3	0	0	0	27	
5:00	1	4	1	0	1	1	0	1	5	0	0	0	0	14	17:00	1	20	5	0	6	0	1	5	7	0	0	0	45	
5:15	0	10	2	0	3	0	0	0	7	0	0	0	0	22	17:15	0	20	1	0	0	0	1	7	0	0	0	0	29	
5:30	0	15	0	0	5	0	0	1	5	0	0	0	0	26	17:30	0	26	3	0	4	1	0	1	6	0	0	0	41	
5:45	0	10	5	0	11	1	0	1	5	0	0	0	0	33	17:45	1	13	2	0	0	2	0	4	9	0	0	1	32	
6:00	0	11	1	0	6	0	0	0	12	0	0	0	0	30	18:00	0	10	4	0	12	1	0	2	7	0	0	0	36	
6:15	0	26	3	0	12	1	0	0	2	0	0	0	0	44	18:15	0	19	5	0	13	1	0	4	7	0	0	0	49	
6:30	0	26	7	0	2	2	0	0	1	0	0	0	0	38	18:30	1	30	6	0	3	3	0	2	8	0	0	0	53	
6:45	0	24	2	0	24	1	0	0	4	0	0	0	0	55	18:45	0	29	8	0	3	1	0	1	11	0	0	0	53	
7:00	0	25	1	0	5	0	0	0	2	0	0	0	0	33	19:00	0	24	4	0	1	4	0	0	8	0	0	0	41	
7:15	0	19	2	0	1	2	0	0	2	0	0	0	0	26	19:15	0	23	8	0	2	0	0	0	12	0	0	0	45	
7:30	0	18	2	0	0	0	0	0	3	0	0	0	0	23	19:30	0	42	7	0	2	2	0	2	9	0	0	0	64	
7:45	0	12	4	0	1	1	0	0	6	0	0	0	0	24	19:45	0	34	1	0	1	4	0	0	8	0	0	0	48	
8:00	0	20	2	0	0	1	0	0	9	0	0	0	0	32	20:00	0	47	8	0	1	1	0	1	6	0	0	0	64	
8:15	0	29	4	0	0	1	0	1	7	0	0	0	0	42	20:15	0	47	8	0	2	2	0	4	9	0	0	1	73	
8:30	0	25	1	0	1	1	0	0	8	0	0	0	0	36	20:30	0	74	8	0	0	3	0	2	12	0	0	0	99	
8:45	0	22	3	0	2	1	0	1	3	0	0	0	0	32	20:45	1	54	6	0	1	1	0	0	7	0	0	0	70	
9:00	0	33	10	0	11	0	0	0	10	0	0	0	0	64	21:00	1	38	4	0	0	3	0	2	13	0	0	0	61	
9:15	0	31	3	0	12	2	0	0	6	0	0	0	0	54	21:15	0	33	5	0	0	2	0	1	19	0	0	0	60	
9:30	1	33	7	0	1	2	0	1	0	0	0	0	0	45	21:30	0	25	2	0	0	3	0	2	10	0	0	0	42	
9:45	0	16	6	0	3	4	0	2	7	0	0	0	0	38	21:45	0	21	2	0	0	1	0	3	8	0	0	0	35	
10:00	0	19	9	0	6	2	0	4	8	0	0	0	0	48	22:00	0	21	1	0	1	1	0	2	14	0	0	0	40	
10:15	0	19	2	0	4	0	0	3	5	0	0	0	0	33	22:15	0	9	4	0	0	0	0	3	19	0	0	0	35	
10:30	0	23	6	0	2	2	0	2	3	0	0	0	0	38	22:30	0	18	3	0	0	1	0	0	18	0	0	0	40	
10:45	0	29	3	0	1	2	0	0	7	0	0	0	0	42	22:45	0	6	1	0	0	1	0	3	9	0	0	0	20	
11:00	0	26	7	0	0	0	0	3	4	0	0	0	0	40	23:00	0	11	1	0	0	1	0	2	6	0	0	0	21	
11:15	0	22	7	0	1	4	0	4	1	0	0	0	0	39	23:15	0	7	0	0	0	2	0	1	6	0	0	0	16	
11:30	0	21	5	0	1	2	0	3	3	0	1	0	0	36	23:30	0	14	2	0	1	2	0	1	7	0	0	0	27	
11:45	0	19	5	0	1	1	0	0	4	0	0	0	0	30	23:45	0	14	1	0	0	0	0	1	8	0	2	1	27	
TOTAL	8	1,115	166	0	117	56	0	44	320	0	5	7	1	1,839	TOTAL	11	1,378	204	0	99	73	2	109	387	0	3	5	0	2,271

AM PEAK HOUR 12:15 AM
AM PEAK VOLUME 253

PM PEAK HOUR 8:00 PM
PM PEAK VOLUME 306

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	19	2,493	370	0	216	129	2	153	707	0	8	12	1	4,110
% OF TOTAL	0.5%	60.7%	9.0%	0.0%	5.3%	3.1%	0.0%	3.7%	17.2%	0.0%	0.2%	0.3%	0.0%	100.0%

Class	1	2	3	4	5	6	7	8	9	10	11	12	13	
TOTAL: ALL	41	4,946	831	0	586	314	5	300	###	0	13	16	1	8,253
% OF TOTAL	1.0%	120.3%	20.2%	0.0%	14.3%	7.6%	0.1%	7.3%	29.2%	0.0%	0.3%	0.4%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH FHWA CLASSIFICATION)

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Wednesday, October 27, 2021
JOB #: SC3147

CITY: Ontario
LOCATION: CLASS11 UPS Driveway south of Jurupa

AM TIME	SOUTHBOUND													TOTAL	PM Time	SOUTHBOUND													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13			1	2	3	4	5	6	7	8	9	10	11	12	13	
0:00	0	3	1	0	0	1	0	0	9	0	0	0	0	14	12:00	1	13	2	0	2	1	0	3	6	0	0	0	28	
0:15	0	6	8	0	1	3	0	1	10	0	0	0	0	29	12:15	0	17	6	0	2	4	0	4	4	0	0	0	37	
0:30	0	11	5	0	0	3	0	0	14	0	0	0	0	33	12:30	1	22	4	0	1	3	0	3	4	0	0	0	38	
0:45	0	13	3	0	0	3	0	2	9	0	0	0	0	30	12:45	0	13	6	0	2	3	0	2	2	0	0	0	28	
1:00	0	8	6	0	0	0	0	0	9	0	0	0	0	23	13:00	0	12	2	0	1	4	0	0	7	0	0	0	26	
1:15	0	11	7	0	0	3	0	0	7	0	0	0	0	28	13:15	0	13	5	0	3	3	0	1	5	0	0	0	30	
1:30	0	22	8	0	1	1	0	0	8	0	0	0	0	40	13:30	1	22	4	0	2	4	1	1	4	0	0	0	39	
1:45	0	38	10	0	1	5	0	0	6	0	0	0	0	60	13:45	0	36	4	0	3	2	0	1	5	0	0	0	51	
2:00	0	70	10	0	0	4	0	1	12	0	0	0	0	97	14:00	0	24	3	0	1	2	0	2	8	0	0	0	40	
2:15	0	64	12	0	0	2	0	0	5	0	0	0	0	83	14:15	0	25	5	0	4	6	0	3	3	0	0	0	46	
2:30	1	53	8	0	0	5	0	0	4	0	0	0	0	71	14:30	0	34	7	0	2	0	0	4	1	0	0	0	48	
2:45	0	34	7	0	0	1	0	0	4	0	0	0	0	46	14:45	0	40	4	0	2	1	0	1	4	0	0	0	52	
3:00	0	12	3	0	2	1	0	0	10	0	0	0	0	28	15:00	0	40	9	0	2	0	0	1	7	0	0	0	59	
3:15	0	26	10	0	0	1	0	0	5	0	0	0	0	42	15:15	0	81	3	0	3	1	0	1	3	0	0	0	92	
3:30	0	8	5	0	1	2	0	0	3	0	0	0	0	19	15:30	1	90	7	0	1	1	0	2	4	0	0	0	106	
3:45	0	6	7	0	3	2	0	1	7	0	0	0	0	26	15:45	0	94	4	0	1	1	0	3	3	0	0	0	106	
4:00	0	7	3	0	8	1	0	0	2	0	0	0	0	21	16:00	1	30	5	0	3	0	0	3	7	0	0	0	49	
4:15	0	1	0	0	6	4	0	2	6	0	0	0	0	19	16:15	0	19	2	0	6	0	1	2	1	0	0	0	31	
4:30	0	4	6	0	3	1	0	0	5	0	0	0	0	19	16:30	0	13	6	0	9	1	0	5	5	0	0	0	39	
4:45	0	7	4	0	3	0	0	0	3	0	0	0	0	17	16:45	1	28	4	0	7	1	0	7	5	0	0	1	54	
5:00	0	7	2	0	6	2	0	0	3	0	0	0	0	20	17:00	0	14	3	0	12	1	0	1	4	0	0	0	35	
5:15	0	4	4	0	2	1	0	0	7	0	0	0	0	18	17:15	0	15	7	0	16	0	0	4	5	0	0	0	47	
5:30	0	10	3	0	2	1	0	1	5	0	0	0	0	22	17:30	0	13	1	0	15	2	0	3	3	0	0	0	37	
5:45	0	18	7	0	2	0	0	0	1	0	0	0	0	28	17:45	0	9	0	0	34	0	0	2	2	0	0	0	47	
6:00	0	10	5	0	1	0	0	0	7	0	0	0	0	23	18:00	0	10	1	0	50	0	0	3	7	0	0	0	71	
6:15	0	14	8	0	1	0	0	0	3	0	0	0	0	26	18:15	0	17	2	0	36	2	0	2	6	0	0	0	65	
6:30	0	22	4	0	1	1	0	0	4	0	0	0	0	32	18:30	0	14	1	0	12	0	0	6	6	0	0	0	39	
6:45	1	21	2	0	1	0	0	1	5	0	0	0	0	31	18:45	0	20	4	0	4	2	0	3	8	0	0	0	41	
7:00	1	12	5	0	1	0	0	1	6	0	0	0	0	26	19:00	1	16	3	0	6	0	0	4	3	0	0	0	33	
7:15	0	22	9	0	3	3	0	1	6	0	0	0	0	44	19:15	0	20	4	0	5	0	0	4	3	0	0	0	36	
7:30	0	28	9	0	2	3	0	0	6	0	0	0	0	48	19:30	1	34	9	0	4	2	0	0	7	0	0	0	57	
7:45	0	34	8	0	3	1	0	0	2	0	0	0	0	48	19:45	3	33	8	0	3	1	0	4	7	0	0	0	59	
8:00	0	59	10	0	2	2	0	1	6	0	0	0	0	80	20:00	0	74	5	0	10	3	0	1	8	0	0	0	101	
8:15	0	79	19	0	4	1	0	0	5	0	0	0	0	108	20:15	0	50	4	0	5	2	0	0	7	0	0	0	68	
8:30	0	52	7	0	3	3	0	0	9	0	0	0	0	74	20:30	0	28	4	0	3	1	0	1	1	0	0	0	38	
8:45	0	47	4	0	3	1	0	0	1	0	1	0	0	57	20:45	1	33	2	0	4	2	0	0	5	0	0	0	47	
9:00	0	17	5	0	0	1	0	2	7	0	1	0	0	33	21:00	0	17	4	0	2	4	0	2	3	0	0	0	32	
9:15	0	20	5	0	6	5	0	2	4	0	1	0	0	43	21:15	0	26	3	0	1	1	0	2	1	0	0	0	34	
9:30	2	38	3	0	2	3	0	2	4	0	0	0	0	54	21:30	0	11	1	0	3	4	0	1	6	0	0	0	26	
9:45	1	49	3	0	1	2	1	2	8	0	1	1	0	69	21:45	0	10	1	0	0	10	0	0	2	0	0	0	23	
10:00	1	38	6	0	2	1	0	2	1	0	0	0	0	51	22:00	0	10	0	0	0	2	0	1	11	0	0	0	24	
10:15	0	57	9	0	1	4	0	4	5	0	0	1	0	81	22:15	0	6	3	0	0	2	0	1	5	0	0	0	17	
10:30	2	94	9	0	0	3	0	5	1	0	0	0	0	114	22:30	0	6	5	0	0	1	0	3	2	0	0	0	17	
10:45	1	69	6	0	0	8	0	1	4	0	0	0	0	89	22:45	0	1	1	0	0	4	0	1	1	0	0	0	8	
11:00	0	23	2	0	1	1	0	0	2	0	0	0	0	29	23:00	0	0	0	0	1	3	0	3	7	0	0	0	14	
11:15	0	13	6	0	5	0	0	1	8	0	1	0	0	34	23:15	0	1	0	0	0	2	0	2	6	0	0	0	11	
11:30	0	11	3	0	0	1	0	4	4	0	0	1	0	24	23:30	0	5	1	0	1	0	0	3	10	0	0	0	20	
11:45	0	11	4	0	2	2	0	1	4	0	0	0	0	24	23:45	0	11	2	0	0	3	0	3	3	0	0	0	22	
TOTAL	10	1,283	290	0	86	93	1	38	266	0	5	3	0	2,075	TOTAL	12	1,170	171	0	284	92	2	109	227	0	0	1	0	2,068

AM PEAK HOUR 10:00 AM
AM PEAK VOLUME 335

PM PEAK HOUR 3:00 PM
PM PEAK VOLUME 363

CLASS 1	Class 1 — Motorcycles	CLASS 8	3 to 4 Axles, Single Trailer
CLASS 2	Passenger Cars	CLASS 9	5 Axles, Single Trailer
CLASS 3	2 Axles, 4-Tire Single Units	CLASS 10	6 or More Axles, Single Trailer
CLASS 4	Buses	CLASS 11	5 or Less Axles, Multi-Trailers
CLASS 5	2 Axles, 6-Tire Single Units	CLASS 12	6 Axles, Multi-Trailers
CLASS 6	3 Axles, Single Unit	CLASS 13	7 or More Axles, Multi-Trailers
CLASS 7	4 or More Axles, Single Unit		

TOTAL: AM+PM	22	2,453	461	0	370	185	3	147	493	0	5	4	0	4,143
% OF TOTAL	0.5%	59.2%	11.1%	0.0%	8.9%	4.5%	0.1%	3.5%	11.9%	0.0%	0.1%	0.1%	0.0%	100.0%

Class **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13**

Appendix D
At Grade Crossing Train Counts

Train Delay at Vineyard

Ontario

10/27/2021

Wednesday

No	Start	Finish	Delay
1	12:09:54 AM	12:10:22 AM	0:00:28
2	1:56:18 AM	1:58:31 AM	0:02:13
3	3:15:07 AM	3:18:14 AM	0:03:07
4	3:45:23 AM	3:49:01 AM	0:03:38
5	4:59:22 AM	4:59:47 AM	0:00:25
6	5:56:03 AM	5:56:28 AM	0:00:25
7	6:42:44 AM	6:44:45 AM	0:02:01
8	7:09:49 AM	7:13:58 AM	0:04:09
9	7:17:14 AM	7:17:38 AM	0:00:24
10	8:33:08 AM	8:33:32 AM	0:00:24
11	9:03:28 AM	9:06:41 AM	0:03:13
12	9:43:55 AM	9:44:30 AM	0:00:35
13	10:32:23 AM	10:35:19 AM	0:02:56
14	10:56:28 AM	10:57:11 AM	0:00:43
15	12:51:57 PM	12:55:25 PM	0:03:28
16	2:39:53 PM	2:42:30 PM	0:02:37
17	5:48:32 PM	5:48:54 PM	0:00:22
18	6:19:15 PM	6:19:36 PM	0:00:21
19	7:15:40 PM	7:16:02 PM	0:00:22
20	10:06:12 PM	10:09:04 PM	0:02:52
21	10:24:46 PM	10:27:28 PM	0:02:42
22	11:50:07 PM	11:54:18 PM	0:04:11

Prepared by AimTD LLC

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714.253.7888

Train Delay at Archibald

Ontario

10/27/2021

Wednesday

No	Start	Finish	Delay
1	12:07:19 AM	12:07:54 AM	0:00:35
2	1:54:44 AM	1:57:02 AM	0:02:18
3	3:12:05 AM	3:15:45 AM	0:03:40
4	3:46:46 AM	3:50:33 AM	0:03:47
5	4:58:15 AM	4:58:49 AM	0:00:34
6	5:55:00 AM	5:55:26 AM	0:00:26
7	6:43:33 AM	6:45:44 AM	0:02:11
8	7:06:24 AM	7:10:10 AM	0:03:46
9	7:16:03 AM	7:16:30 AM	0:00:27
10	8:32:14 AM	8:32:40 AM	0:00:26
11	9:05:04 AM	9:07:51 AM	0:02:47
12	9:44:35 AM	9:45:58 AM	0:01:23
13	10:35:52 AM	10:38:31 AM	0:02:39
14	10:57:13 AM	10:58:28 AM	0:01:15
15	12:53:18 PM	12:56:38 PM	0:03:20
16	2:41:14 PM	2:43:42 PM	0:02:28
17	5:49:17 PM	5:49:45 PM	0:00:28
18	6:19:49 PM	6:20:33 PM	0:00:44
19	7:16:26 PM	7:16:54 PM	0:00:28
20	10:07:32 PM	10:10:22 PM	0:02:50
21	10:20:33 PM	10:24:00 PM	0:03:27
22	11:51:32 PM	11:55:27 PM	0:03:55

Prepared by AimTD LLC

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Appendix E

Cumulative Projects

























Ontario Projects within a 2-Mile Radius

Map Number	Project Description	Location/APN	Residential Units	Commercial Building SF	Industrial Building SF	Entitled	Under Construction	In Process
1	File No. PDEV20-008 - Industrial Development	NEC of Airport Drive/Haven Avenue APN:0211-222-66			200,291	X		
2	Top Golf - Recreation	2714 East 4th Street		50,000 (Site 600,000 SF)			X	
3	Palmer Apartments / Commercial Retail APNs: 0110-311-52, 53, 54 and 55.	SEC of Vineyard and Inland Empire Blvd. APN:	950	5,000			X	
4	File No. PDEV19-024: IKEA-Retail Development	APNS: 0110-321-74, 75, 76 and 0110-321-29 and 77		329,850				X
5	File PDEV19-067: Hyatt Dual Hotel 265 Rooms	SEC of Archibald/Inland Empire, APNs:0210-191-29 thru 32		157,370		X		
6	File No. PDEV19-054- Townhomes	SWC of Via Alba/Via Villagio - APN 0210-204-40	72				X	
7	File No. PDEV19-061 - Townhomes	NEC of Ontario Center Parkway/ Via Alba, APN:0210-204-26	110				X	
8	File No. 21-013 - Retail Shopping Center	SEC of Haven Ave. and 4th Street. APNS:0210-531-06 thru 14.		91,163		X		
9	File No. PDEV21-021 - Extended Stay Hotel 138 rooms	5060 East 4th Street, APN 0238-012-30		57,060				X
10	File No. PDEV17-016 - Cambria Hotel 124 Rooms	535 N Turner Avenue, APN: 0210-192-24		83,500		X		
11	PDEV21-018 - Industrial Development	SEC of Jurupa/Milliken - APN:0238-121-75			168,172			X
12	PDEV19-057	NEC of Haven Ave. and 60FWY			281,000	X		
13	PDEV21-007	SWC of Milliken and 60 FWY			393,334	X		
14	PDEV19-059	NWC of Riverside Dr. and Milliken Ave.			295,991	X		
15	PDEV18-031	SWC Riverside Dr. and Hamner Ave.			968,092	X		
16	Adept	4th Street south to Concours' between Via Asti and Via Oiemonte	691	70,538				X
17	California Logistic Center	Airport Drive south to Jurupa Street between Haven Avenue and Double Day Avenue			4,285,380			X
18	PDEV20-020	NEC of Euclid Ave. And C Street	144	4,500		X		
19	PDEV21-003	1486 East Holt Blvd.			26,000	X		
20	PDEV21-038	1001 East Holt	42	12,119				X
21	PDEV21-007	1516 South Bon View			31,500			X
22	PDEV21-035	Sec of Sultana Ave. and Belmont			60,455			X
23	PDEV20-003	2862 South Campus Avenue	92				X	
24	PDEV19-040	1612 South Cucamonga Ave.			211,358		X	
25	PDEV19-048	1650 East Holt Blvd.			83,416		X	
Totals			2,101	811,100	7,004,989			

Appendix F
Level of Service (LOS) and Queue Worksheets

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	653	82	117	565	196	147	744	63	203	771	165
Future Volume (veh/h)	266	653	82	117	565	196	147	744	63	203	771	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	302	742	25	133	642	114	167	845	63	231	876	48
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	879	390	213	863	383	343	1341	100	396	989	439
Arrive On Green	0.12	0.24	0.24	0.12	0.24	0.24	0.13	0.27	0.27	0.13	0.27	0.27
Sat Flow, veh/h	1810	3610	1600	1810	3610	1600	1810	4924	366	1810	3610	1601
Grp Volume(v), veh/h	302	742	25	133	642	114	167	593	315	231	876	48
Grp Sat Flow(s),veh/h/ln	1810	1805	1600	1810	1805	1600	1810	1729	1832	1810	1805	1601
Q Serve(g_s), s	11.0	17.6	1.1	6.3	14.8	5.3	5.5	13.5	13.6	7.8	20.9	2.0
Cycle Q Clear(g_c), s	11.0	17.6	1.1	6.3	14.8	5.3	5.5	13.5	13.6	7.8	20.9	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	221	879	390	213	863	383	343	942	499	396	989	439
V/C Ratio(X)	1.37	0.84	0.06	0.62	0.74	0.30	0.49	0.63	0.63	0.58	0.89	0.11
Avail Cap(c_a), veh/h	221	963	427	221	963	427	347	942	499	397	989	439
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	32.4	26.2	37.8	31.7	28.0	20.7	28.8	28.8	19.9	31.3	24.5
Incr Delay (d2), s/veh	190.7	6.9	0.1	4.9	2.6	0.5	1.5	3.2	6.0	2.6	11.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.3	7.9	0.4	2.9	6.3	1.9	2.3	5.7	6.5	3.3	10.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	230.2	39.3	26.3	42.7	34.3	28.5	22.2	31.9	34.8	22.5	42.8	25.0
LnGrp LOS	F	D	C	D	C	C	C	C	C	C	D	C
Approach Vol, veh/h		1069			889			1075			1155	
Approach Delay, s/veh		92.9			34.8			31.3			38.0	
Approach LOS		F			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	30.3	15.3	27.7	16.5	30.5	15.7	27.3				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.0	* 11	24.0	* 12	22.0	* 11	24.0				
Max Q Clear Time (g_c+I1), s	9.8	15.6	8.3	19.6	7.5	22.9	13.0	16.8				
Green Ext Time (p_c), s	0.2	4.6	0.1	2.2	0.3	0.0	0.0	3.2				
Intersection Summary												
HCM 6th Ctrl Delay				49.6								
HCM 6th LOS				D								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	909	40	47	796	38	37	135	55	51	125	41
Future Volume (veh/h)	55	909	40	47	796	38	37	135	55	51	125	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	1045	23	54	915	21	43	155	54	59	144	40
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	105	1770	790	95	1751	777	125	267	84	153	260	64
Arrive On Green	0.06	0.49	0.49	0.05	0.48	0.48	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	3610	1610	1810	3610	1602	189	1195	378	296	1166	288
Grp Volume(v), veh/h	63	1045	23	54	915	21	252	0	0	243	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1602	1762	0	0	1750	0	0
Q Serve(g_s), s	1.7	10.6	0.4	1.5	9.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	10.6	0.4	1.5	9.0	0.4	6.3	0.0	0.0	6.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.17		0.21	0.24		0.16
Lane Grp Cap(c), veh/h	105	1770	790	95	1751	777	475	0	0	478	0	0
V/C Ratio(X)	0.60	0.59	0.03	0.57	0.52	0.03	0.53	0.00	0.00	0.51	0.00	0.00
Avail Cap(c_a), veh/h	1236	2466	1100	1236	2466	1094	1244	0	0	1221	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.6	9.4	6.8	23.7	9.1	6.9	17.9	0.0	0.0	17.8	0.0	0.0
Incr Delay (d2), s/veh	11.4	0.7	0.0	11.0	0.5	0.0	2.0	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.9	0.1	0.8	2.4	0.1	2.6	0.0	0.0	2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	10.0	6.8	34.7	9.6	6.9	19.9	0.0	0.0	19.6	0.0	0.0
LnGrp LOS	C	B	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		1131			990			252			243	
Approach Delay, s/veh		11.4			10.9			19.9			19.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	29.1		15.4	7.0	28.8		15.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	35.0	35.0		35.0	35.0	35.0		35.0				
Max Q Clear Time (g_c+1), s	13.5	12.6		8.0	3.7	11.0		8.3				
Green Ext Time (p_c), s	0.3	12.5		2.8	0.3	11.3		2.9				
Intersection Summary												
HCM 6th Ctrl Delay											12.8	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	884	80	37	770	53	98	216	46	90	214	49
Future Volume (veh/h)	25	884	80	37	770	53	98	216	46	90	214	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	993	44	42	865	30	110	243	44	101	240	34
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	71	1643	729	91	1684	749	310	417	76	226	847	119
Arrive On Green	0.04	0.45	0.45	0.10	0.93	0.93	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1601	1810	3610	1605	1119	1564	283	1107	3178	444
Grp Volume(v), veh/h	28	993	44	42	865	30	110	0	287	101	135	139
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1605	1119	0	1847	1107	1805	1817
Q Serve(g_s), s	1.4	18.6	1.4	2.0	2.8	0.1	7.8	0.0	12.1	7.8	5.3	5.5
Cycle Q Clear(g_c), s	1.4	18.6	1.4	2.0	2.8	0.1	13.3	0.0	12.1	20.0	5.3	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.24
Lane Grp Cap(c), veh/h	71	1643	729	91	1684	749	310	0	493	226	481	485
V/C Ratio(X)	0.40	0.60	0.06	0.46	0.51	0.04	0.35	0.00	0.58	0.45	0.28	0.29
Avail Cap(c_a), veh/h	181	1643	729	181	1684	749	310	0	493	226	481	485
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	18.4	13.7	39.3	1.7	1.6	31.5	0.0	28.7	37.3	26.2	26.2
Incr Delay (d2), s/veh	7.5	1.7	0.2	6.8	1.0	0.1	3.1	0.0	5.0	6.3	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.3	0.5	1.0	0.8	0.1	2.3	0.0	5.8	2.4	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	20.1	13.9	46.1	2.7	1.7	34.6	0.0	33.6	43.6	27.6	27.7
LnGrp LOS	D	C	B	D	A	A	C	A	C	D	C	C
Approach Vol, veh/h		1065			937			397			375	
Approach Delay, s/veh		20.6			4.6			33.9			32.0	
Approach LOS		C			A			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	10.5	49.0		30.5	11.6	47.9				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	9.0	38.0		* 24	9.0	* 39				
Max Q Clear Time (g_c+I1), s		15.3	3.4	4.8		22.0	4.0	20.6				
Green Ext Time (p_c), s		2.0	0.0	12.5		0.6	0.0	10.6				

Intersection Summary

HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	895	74	34	790	56	45	118	17	61	124	33
Future Volume (veh/h)	33	895	74	34	790	56	45	118	17	61	124	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	37	1006	45	38	888	35	51	133	4	69	139	8
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	1738	771	74	1740	772	51	107	368	53	84	368
Arrive On Green	0.05	0.64	0.64	0.04	0.48	0.48	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	0	421	1441	0	330	1441
Grp Volume(v), veh/h	37	1006	45	38	888	35	184	0	4	208	0	8
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	421	0	1441	330	0	1441
Q Serve(g_s), s	1.8	14.3	0.9	1.9	15.2	1.0	0.0	0.0	0.2	0.0	0.0	0.4
Cycle Q Clear(g_c), s	1.8	14.3	0.9	1.9	15.2	1.0	23.0	0.0	0.2	23.0	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	0.28		1.00	0.33		1.00
Lane Grp Cap(c), veh/h	73	1738	771	74	1740	772	159	0	368	138	0	368
V/C Ratio(X)	0.51	0.58	0.06	0.51	0.51	0.05	1.16	0.00	0.01	1.51	0.00	0.02
Avail Cap(c_a), veh/h	181	1738	771	181	1740	772	159	0	368	138	0	368
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.63	0.63	0.63	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.7	11.0	8.6	42.3	16.0	12.3	31.1	0.0	25.0	32.1	0.0	25.1
Incr Delay (d2), s/veh	1.7	1.2	0.1	1.3	0.7	0.1	121.1	0.0	0.0	264.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.3	0.3	0.8	5.7	0.4	7.9	0.0	0.1	13.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	12.2	8.7	43.6	16.7	12.4	152.3	0.0	25.0	296.6	0.0	25.1
LnGrp LOS	D	B	A	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1088			961			188			216	
Approach Delay, s/veh		13.1			17.6			149.6			286.5	
Approach LOS		B			B			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	50.3		29.0	10.6	50.4		29.0				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	38.0	38.0		23.0	9.0	38.0		23.0				
Max Q Clear Time (g_c+1/3), s	16.3	16.3		25.0	3.8	17.2		25.0				
Green Ext Time (p_c), s	0.0	8.2		0.0	0.0	6.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	49.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔↔	↔↔↔		↗	↑↑↑	↗
Traffic Volume (veh/h)	263	556	157	46	633	391	110	633	27	451	919	229
Future Volume (veh/h)	263	556	157	46	633	391	110	633	27	451	919	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	289	611	62	51	696	88	121	696	29	496	1010	214
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	347	965	428	190	804	356	145	964	40	523	2063	797
Arrive On Green	0.10	0.27	0.27	0.05	0.22	0.22	0.08	0.19	0.19	0.29	0.40	0.40
Sat Flow, veh/h	3510	3610	1601	3510	3610	1599	1810	5106	212	1810	5187	1604
Grp Volume(v), veh/h	289	611	62	51	696	88	121	471	254	496	1010	214
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1599	1810	1729	1860	1810	1729	1604
Q Serve(g_s), s	11.7	21.6	4.3	2.0	26.8	6.5	9.5	18.5	18.6	38.8	21.0	11.2
Cycle Q Clear(g_c), s	11.7	21.6	4.3	2.0	26.8	6.5	9.5	18.5	18.6	38.8	21.0	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	347	965	428	190	804	356	145	653	351	523	2063	797
V/C Ratio(X)	0.83	0.63	0.14	0.27	0.87	0.25	0.84	0.72	0.72	0.95	0.49	0.27
Avail Cap(c_a), veh/h	729	1124	499	486	875	387	250	838	451	689	2513	936
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	63.9	46.7	40.3	65.6	54.1	46.2	65.5	55.0	55.1	50.3	32.5	21.1
Incr Delay (d2), s/veh	3.9	1.0	0.2	0.6	8.8	0.4	9.1	2.7	5.2	18.6	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	9.5	1.7	0.9	12.9	2.6	4.7	8.1	9.1	19.8	8.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.8	47.7	40.5	66.1	62.9	46.6	74.6	57.8	60.2	68.9	32.8	21.4
LnGrp LOS	E	D	D	E	E	D	E	E	E	E	C	C
Approach Vol, veh/h		962			835			846			1720	
Approach Delay, s/veh		53.3			61.4			60.9			41.8	
Approach LOS		D			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	48.8	34.3	15.3	46.1	18.6	64.5	21.8	39.7				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+Rc), s	40.8	20.6	4.0	23.6	11.5	23.0	13.7	28.8				
Green Ext Time (p_c), s	1.0	4.9	0.1	4.5	0.1	13.9	0.6	2.7				

Intersection Summary

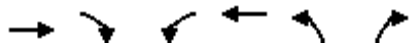
HCM 6th Ctrl Delay	51.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↗↖	↗
Traffic Volume (veh/h)	870	120	69	1071	36	13
Future Volume (veh/h)	870	120	69	1071	36	13
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1000	86	79	1231	41	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2364	1050	104	2872	152	70
Arrive On Green	0.65	0.65	0.06	0.80	0.04	0.04
Sat Flow, veh/h	3705	1604	1810	3705	3510	1610
Grp Volume(v), veh/h	1000	86	79	1231	41	1
Grp Sat Flow(s),veh/h/ln	1805	1604	1810	1805	1755	1610
Q Serve(g_s), s	11.9	1.8	3.9	9.5	1.0	0.1
Cycle Q Clear(g_c), s	11.9	1.8	3.9	9.5	1.0	0.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2364	1050	104	2872	152	70
V/C Ratio(X)	0.42	0.08	0.76	0.43	0.27	0.01
Avail Cap(c_a), veh/h	2364	1050	251	2872	702	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.79	0.79	1.00	1.00
Uniform Delay (d), s/veh	7.4	5.7	41.8	2.9	41.7	41.2
Incr Delay (d2), s/veh	0.3	0.1	6.6	0.4	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.4	1.8	1.2	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.8	5.8	48.4	3.2	42.4	41.3
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1086			1310	42	
Approach Delay, s/veh	7.6			5.9	42.3	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.7	66.4		10.9		79.1
Change Period (Y+Rc), s	7.5	* 7.5		7.0		7.5
Max Green Setting (Gmax), s	12.5	* 38		18.0		57.5
Max Q Clear Time (g_c+I), s	15.9	13.9		3.0		11.5
Green Ext Time (p_c), s	0.0	5.4		0.0		10.0

Intersection Summary

HCM 6th Ctrl Delay	7.3
HCM 6th LOS	A

Notes

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

Intersection												
Intersection Delay, s/veh	7.8											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↑	↗		↕	
Traffic Vol, veh/h	0	6	0	77	5	0	5	4	49	6	9	0
Future Vol, veh/h	0	6	0	77	5	0	5	4	49	6	9	0
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	7	0	92	6	0	6	5	58	7	11	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	7.9	8.2	7.2	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	56%	0%	0%	100%	88%	67%	0%
Vol Thru, %	44%	0%	100%	0%	12%	33%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	9	49	6	41	41	9	6
LT Vol	5	0	0	41	36	6	0
Through Vol	4	0	6	0	5	3	6
RT Vol	0	49	0	0	0	0	0
Lane Flow Rate	11	58	7	49	49	11	7
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.015	0.066	0.009	0.07	0.069	0.015	0.01
Departure Headway (Hd)	5.077	4.097	4.722	5.152	5.091	5.168	4.834
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	709	880	747	692	700	697	745
Service Time	2.777	1.797	2.818	2.906	2.845	2.869	2.535
HCM Lane V/C Ratio	0.016	0.066	0.009	0.071	0.07	0.016	0.009
HCM Control Delay	7.9	7.1	7.9	8.3	8.2	7.9	7.6
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0.2	0	0.2	0.2	0	0

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	52	0	0	90	0
Future Vol, veh/h	0	0	0	0	0	0	0	52	0	0	90	0
Conflicting Peds, #/hr	0	0	5	0	0	5	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	64	0	0	111	0























Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	153	185	66	130	185	42	116	0	0	69	0	0
Stage 1	116	116	-	69	69	-	-	-	-	-	-	-
Stage 2	37	69	-	61	116	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	805	713	991	835	713	1026	1485	-	-	1545	-	-
Stage 1	882	803	-	939	841	-	-	-	-	-	-	-
Stage 2	980	841	-	949	803	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	797	706	982	827	706	1016	1478	-	-	1538	-	-
Mov Cap-2 Maneuver	797	706	-	827	706	-	-	-	-	-	-	-
Stage 1	878	799	-	934	837	-	-	-	-	-	-	-
Stage 2	975	837	-	944	799	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1478	-	-	-	1538	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	-	-
HCM Lane LOS	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary
9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	720	160	62	987	7	143	24	24	7	33	50
Future Volume (veh/h)	19	720	160	62	987	7	143	24	24	7	33	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	809	99	70	1109	0	161	27	1	8	37	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	1362	607	150	1536	0	346	589	263	180	706	
Arrive On Green	0.03	0.38	0.38	0.08	0.43	0.00	0.16	0.16	0.16	0.16	0.16	0.00
Sat Flow, veh/h	1810	3610	1610	1810	3705	0	1393	3610	1610	535	4323	1610
Grp Volume(v), veh/h	21	809	99	70	1109	0	161	27	1	18	27	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	0	1393	1805	1610	1711	1573	1610
Q Serve(g_s), s	0.6	10.0	2.3	2.1	14.2	0.0	6.2	0.4	0.0	0.0	0.4	0.0
Cycle Q Clear(g_c), s	0.6	10.0	2.3	2.1	14.2	0.0	6.6	0.4	0.0	0.5	0.4	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.44		1.00
Lane Grp Cap(c), veh/h	63	1362	607	150	1536	0	346	589	263	372	514	
V/C Ratio(X)	0.33	0.59	0.16	0.47	0.72	0.00	0.46	0.05	0.00	0.05	0.05	
Avail Cap(c_a), veh/h	649	1942	866	649	1942	0	618	1294	577	693	1128	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.3	13.9	11.5	24.4	13.3	0.0	22.5	19.7	19.5	19.7	19.7	0.0
Incr Delay (d2), s/veh	1.1	0.6	0.2	0.8	1.2	0.0	1.7	0.1	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.0	0.6	0.8	4.2	0.0	2.1	0.1	0.0	0.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	14.5	11.7	25.2	14.5	0.0	24.1	19.7	19.5	19.8	19.8	0.0
LnGrp LOS	C	B	B	C	B	A	C	B	B	B	B	
Approach Vol, veh/h		929			1179			189			45	A
Approach Delay, s/veh		14.5			15.2			23.5			19.8	
Approach LOS		B			B			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.6	28.0		16.1	8.9	30.7		16.1				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	20.0	30.0		20.0	20.0	30.0		20.0				
Max Q Clear Time (g_c+I1), s	4.1	12.0		2.5	2.6	16.2		8.6				
Green Ext Time (p_c), s	0.1	6.8		0.2	0.0	7.5		0.8				

Intersection Summary

HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	102	57	23	125	11	103	243	101	15	230	12
Future Volume (veh/h)	13	102	57	23	125	11	103	243	101	15	230	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	112	9	25	137	2	113	267	60	16	253	6
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	231	378	166	247	421	186	681	1788	795	611	1616	718
Arrive On Green	0.02	0.10	0.10	0.03	0.12	0.12	0.07	0.50	0.50	0.02	0.45	0.45
Sat Flow, veh/h	1810	3610	1587	1810	3610	1589	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	14	112	9	25	137	2	113	267	60	16	253	6
Grp Sat Flow(s),veh/h/ln	1810	1805	1587	1810	1805	1589	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	0.5	2.2	0.4	0.9	2.7	0.1	2.5	3.2	1.5	0.4	3.3	0.2
Cycle Q Clear(g_c), s	0.5	2.2	0.4	0.9	2.7	0.1	2.5	3.2	1.5	0.4	3.3	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	231	378	166	247	421	186	681	1788	795	611	1616	718
V/C Ratio(X)	0.06	0.30	0.05	0.10	0.33	0.01	0.17	0.15	0.08	0.03	0.16	0.01
Avail Cap(c_a), veh/h	542	1616	710	536	1616	712	901	1788	795	917	1616	718
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	30.2	32.3	31.5	29.6	31.7	30.5	9.8	10.8	10.3	11.1	12.8	12.0
Incr Delay (d2), s/veh	0.1	0.6	0.2	0.2	0.6	0.0	0.1	0.2	0.2	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.9	0.2	0.4	1.1	0.0	0.8	1.1	0.5	0.1	1.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	33.0	31.7	29.7	32.3	30.6	9.9	10.9	10.5	11.1	13.0	12.0
LnGrp LOS	C	C	C	C	C	C	A	B	B	B	B	B
Approach Vol, veh/h		135			164			440			275	
Approach Delay, s/veh		32.6			31.9			10.6			12.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	45.7	9.0	14.7	12.5	42.0	8.1	15.6				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	15.0	35.0	15.0	35.0	15.0	35.0	15.0	35.0				
Max Q Clear Time (g_c+1), s	12.4	5.2	2.9	4.2	4.5	5.3	2.5	4.7				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.9	0.2	2.1	0.0	1.1				
Intersection Summary												
HCM 6th Ctrl Delay											17.6	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	
Traffic Volume (veh/h)	25	177	143	62	244	58	121	553	118	59	242	14
Future Volume (veh/h)	25	177	143	62	244	58	121	553	118	59	242	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	184	26	65	254	34	126	576	45	61	252	11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	192	358	50	236	437	58	157	1571	701	84	1392	61
Arrive On Green	0.02	0.11	0.11	0.04	0.14	0.14	0.17	0.87	0.87	0.05	0.40	0.40
Sat Flow, veh/h	1810	3177	442	1810	3200	423	1810	3610	1610	1810	3524	153
Grp Volume(v), veh/h	26	103	107	65	142	146	126	576	45	61	129	134
Grp Sat Flow(s),veh/h/ln	1810	1805	1813	1810	1805	1818	1810	1805	1610	1810	1805	1872
Q Serve(g_s), s	1.0	4.3	4.4	2.5	5.9	6.0	5.4	2.4	0.3	2.7	3.7	3.7
Cycle Q Clear(g_c), s	1.0	4.3	4.4	2.5	5.9	6.0	5.4	2.4	0.3	2.7	3.7	3.7
Prop In Lane	1.00		0.24	1.00		0.23	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	192	203	204	236	247	248	157	1571	701	84	713	739
V/C Ratio(X)	0.14	0.51	0.52	0.28	0.58	0.59	0.80	0.37	0.06	0.73	0.18	0.18
Avail Cap(c_a), veh/h	237	395	397	237	395	398	204	1571	701	113	713	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	0.99	0.99	0.99
Uniform Delay (d), s/veh	30.7	33.4	33.5	29.7	32.4	32.4	32.4	3.1	2.9	37.6	15.8	15.8
Incr Delay (d2), s/veh	0.1	1.5	1.5	0.2	1.6	1.6	11.7	0.6	0.2	8.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	1.9	1.0	2.5	2.6	2.5	0.8	0.1	1.3	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	34.9	35.0	29.9	33.9	34.1	44.1	3.7	3.1	45.7	16.3	16.3
LnGrp LOS	C	C	C	C	C	C	D	A	A	D	B	B
Approach Vol, veh/h		236			353			747			324	
Approach Delay, s/veh		34.5			33.2			10.5			21.8	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	41.8	11.0	16.5	13.9	38.6	9.0	18.4				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	25.0	3.5	17.5	9.0	21.0	3.5	17.5				
Max Q Clear Time (g_c+1/4), s	11.7	4.4	4.5	6.4	7.4	5.7	3.0	8.0				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.5	0.0	0.9	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	3	6	116	6	40	13	719	459	97	364	4
Future Volume (veh/h)	3	3	6	116	6	40	13	719	459	97	364	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	3	1	124	0	5	13	741	224	100	375	4
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	23	17	6	325	0	142	34	1932	858	113	2118	23
Arrive On Green	0.01	0.01	0.01	0.09	0.00	0.09	0.01	0.18	0.18	0.13	1.00	1.00
Sat Flow, veh/h	1810	1364	455	3619	0	1583	1810	3610	1603	1810	3659	39
Grp Volume(v), veh/h	3	0	4	124	0	5	13	741	224	100	185	194
Grp Sat Flow(s),veh/h/ln	1810	0	1818	1810	0	1583	1810	1805	1603	1810	1805	1893
Q Serve(g_s), s	0.1	0.0	0.2	2.6	0.0	0.2	0.6	14.5	9.7	4.3	0.0	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.2	2.6	0.0	0.2	0.6	14.5	9.7	4.3	0.0	0.0
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	23	0	23	325	0	142	34	1932	858	113	1045	1096
V/C Ratio(X)	0.13	0.00	0.17	0.38	0.00	0.04	0.38	0.38	0.26	0.88	0.18	0.18
Avail Cap(c_a), veh/h	181	0	182	769	0	336	136	1932	858	113	1045	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.85	0.85	0.85	0.99	0.99	0.99
Uniform Delay (d), s/veh	39.1	0.0	39.1	34.3	0.0	33.3	39.3	21.3	19.3	34.7	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	1.3	0.5	0.0	0.1	7.1	0.5	0.6	48.9	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	1.2	0.0	0.1	0.3	6.9	3.7	3.2	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	0.0	40.4	34.9	0.0	33.3	46.3	21.8	19.9	83.6	0.4	0.3
LnGrp LOS	D	A	D	C	A	C	D	C	B	F	A	A
Approach Vol, veh/h		7			129			978			479	
Approach Delay, s/veh		40.2			34.8			21.7			17.7	
Approach LOS		D			C			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	49.8		6.0	8.5	53.3		12.2				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	5.0	26.0		8.0	6.0	25.0		17.0				
Max Q Clear Time (g_c+I), s	10.3	16.5		2.2	2.6	2.0		4.6				
Green Ext Time (p_c), s	0.0	4.3		0.0	0.0	1.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↶	↶	↶	↶			↷	↷
Traffic Volume (veh/h)	0	0	0	174	0	374	201	817	0	0	360	133
Future Volume (veh/h)	0	0	0	174	0	374	201	817	0	0	360	133
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				183	0	274	212	860	0	0	379	53
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				378	0	337	362	2332	0	0	1384	613
Arrive On Green				0.21	0.00	0.21	0.40	1.00	0.00	0.00	0.13	0.13
Sat Flow, veh/h				1810	0	1610	1810	3705	0	0	3705	1600
Grp Volume(v), veh/h				183	0	274	212	860	0	0	379	53
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1805	0	0	1805	1600
Q Serve(g_s), s				7.1	0.0	13.0	7.3	0.0	0.0	0.0	7.6	2.3
Cycle Q Clear(g_c), s				7.1	0.0	13.0	7.3	0.0	0.0	0.0	7.6	2.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				378	0	337	362	2332	0	0	1384	613
V/C Ratio(X)				0.48	0.00	0.81	0.59	0.37	0.00	0.00	0.27	0.09
Avail Cap(c_a), veh/h				461	0	411	362	2332	0	0	1384	613
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.63	0.63	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				27.8	0.0	30.2	21.4	0.0	0.0	0.0	24.9	22.6
Incr Delay (d2), s/veh				2.0	0.0	13.0	4.3	0.3	0.0	0.0	0.5	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.2	0.0	6.1	2.9	0.1	0.0	0.0	3.3	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.9	0.0	43.2	25.7	0.3	0.0	0.0	25.3	22.8
LnGrp LOS				C	A	D	C	A	A	A	C	C
Approach Vol, veh/h					457			1072			432	
Approach Delay, s/veh					37.8			5.3			25.0	
Approach LOS					D			A			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		57.5			21.0	36.5		22.5				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			9.3	9.6		15.0				
Green Ext Time (p_c), s		5.1			0.2	1.8		1.8				
Intersection Summary												
HCM 6th Ctrl Delay											17.2	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕		↗	↕	
Traffic Volume (veh/h)	507	0	163	0	0	0	0	550	298	142	375	0
Future Volume (veh/h)	507	0	163	0	0	0	0	550	298	142	375	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	534	0	55				0	579	225	149	395	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	575	0	511				0	933	362	194	1940	0
Arrive On Green	0.32	0.00	0.32				0.00	0.37	0.37	0.04	0.18	0.00
Sat Flow, veh/h	1810	0	1610				0	2631	984	1810	3705	0
Grp Volume(v), veh/h	534	0	55				0	412	392	149	395	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1715	1810	1805	0
Q Serve(g_s), s	22.9	0.0	1.9				0.0	14.9	15.0	6.5	7.5	0.0
Cycle Q Clear(g_c), s	22.9	0.0	1.9				0.0	14.9	15.0	6.5	7.5	0.0
Prop In Lane	1.00		1.00				0.00		0.57	1.00		0.00
Lane Grp Cap(c), veh/h	575	0	511				0	664	631	194	1940	0
V/C Ratio(X)	0.93	0.00	0.11				0.00	0.62	0.62	0.77	0.20	0.00
Avail Cap(c_a), veh/h	575	0	511				0	664	631	271	1940	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.96	0.96	0.00
Uniform Delay (d), s/veh	26.4	0.0	19.3				0.0	20.7	20.7	37.6	18.3	0.0
Incr Delay (d2), s/veh	23.7	0.0	0.4				0.0	4.3	4.6	4.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.8				0.0	6.4	6.1	3.1	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	0.0	19.7				0.0	25.0	25.3	42.4	18.5	0.0
LnGrp LOS	D	A	B				A	C	C	D	B	A
Approach Vol, veh/h		589						804			544	
Approach Delay, s/veh		47.3						25.2			25.0	
Approach LOS		D						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	13.6	35.2	31.2	48.8								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	12.0	26.0	25.4	43.0								
Max Q Clear Time (g_c+I), s	10.5	17.0	24.9	9.5								
Green Ext Time (p_c), s	0.1	2.6	0.3	2.0								
Intersection Summary												
HCM 6th Ctrl Delay			31.9									
HCM 6th LOS			C									

Intersection	
Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↗	↖		↗	↖	↖	↗	
Traffic Vol, veh/h	4	94	12	338	106	162	20	106	146	83	22	5
Future Vol, veh/h	4	94	12	338	106	162	20	106	146	83	22	5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	111	14	398	125	191	24	125	172	98	26	6
Number of Lanes	0	1	1	1	1	1	0	1	2	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	3	2
HCM Control Delay	12.9	15.3	12.1	13
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	16%	0%	0%	4%	0%	100%	53%	0%	100%	0%
Vol Thru, %	84%	0%	0%	96%	0%	0%	47%	0%	0%	81%
Vol Right, %	0%	100%	100%	0%	100%	0%	0%	100%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	126	73	73	98	12	220	224	162	83	27
LT Vol	20	0	0	4	0	220	118	0	83	0
Through Vol	106	0	0	94	0	0	106	0	0	22
RT Vol	0	73	73	0	12	0	0	162	0	5
Lane Flow Rate	148	86	86	115	14	258	264	191	98	32
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.311	0.161	0.161	0.251	0.028	0.511	0.505	0.313	0.228	0.069
Departure Headway (Hd)	7.543	6.753	6.753	7.827	7.096	7.122	6.883	5.91	8.416	7.776
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	477	531	531	459	504	509	528	612	427	460
Service Time	5.288	4.498	4.498	5.576	4.845	4.822	4.583	3.61	6.167	5.527
HCM Lane V/C Ratio	0.31	0.162	0.162	0.251	0.028	0.507	0.5	0.312	0.23	0.07
HCM Control Delay	13.7	10.8	10.8	13.2	10.1	17	16.4	11.3	13.6	11.1
HCM Lane LOS	B	B	B	B	B	C	C	B	B	B
HCM 95th-tile Q	1.3	0.6	0.6	1	0.1	2.9	2.8	1.3	0.9	0.2

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	2	0	5	1	0	4	15	323	28	15	366	16
Future Volume (veh/h)	2	0	5	1	0	4	15	323	28	15	366	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.93		0.98	0.96		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	0	1	1	0	5	18	389	27	18	441	15
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.84	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	110	0	57	40	4	47	68	2712	1205	68	2712	1205
Arrive On Green	0.04	0.00	0.04	0.04	0.00	0.04	0.04	0.75	0.75	0.04	0.75	0.75
Sat Flow, veh/h	1375	0	1581	142	119	1304	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	2	0	1	6	0	0	18	389	27	18	441	15
Grp Sat Flow(s),veh/h/ln	1375	0	1581	1564	0	0	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	0.0	0.0	0.1	0.0	0.0	0.0	1.2	3.6	0.5	1.2	4.2	0.3
Cycle Q Clear(g_c), s	0.1	0.0	0.1	0.4	0.0	0.0	1.2	3.6	0.5	1.2	4.2	0.3
Prop In Lane	1.00		1.00	0.17		0.83	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	0	57	92	0	0	68	2712	1205	68	2712	1205
V/C Ratio(X)	0.02	0.00	0.02	0.07	0.00	0.00	0.26	0.14	0.02	0.26	0.16	0.01
Avail Cap(c_a), veh/h	430	0	435	457	0	0	196	2712	1205	196	2712	1205
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	0.00	1.00	1.00	0.00	0.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	0.0	55.8	55.9	0.0	0.0	56.1	4.2	3.8	56.1	4.2	3.8
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.4	0.0	0.0	2.2	0.1	0.0	2.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.2	0.0	0.0	0.6	1.1	0.1	0.6	1.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.9	0.0	55.9	56.3	0.0	0.0	58.3	4.3	3.8	58.6	4.4	3.8
LnGrp LOS	E	A	E	E	A	A	E	A	A	E	A	A
Approach Vol, veh/h		3			6			434			474	
Approach Delay, s/veh		55.9			56.3			6.5			6.4	
Approach LOS		E			E			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	97.1		11.4	11.5	97.1		11.4				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1/2), s	13.2	5.6		2.1	3.2	6.2		2.4				
Green Ext Time (p_c), s	0.0	5.3		0.0	0.0	6.0		0.0				

Intersection Summary























HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	389	138	108	806	39	195	215	56	15	217	137
Future Volume (veh/h)	92	389	138	108	806	39	195	215	56	15	217	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	414	47	115	857	41	207	229	10	16	231	146
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	142	964	428	145	942	45	277	290	244	18	254	160
Arrive On Green	0.08	0.27	0.27	0.08	0.27	0.27	0.15	0.15	0.15	0.24	0.24	0.24
Sat Flow, veh/h	1810	3610	1601	1810	3506	168	1810	1900	1594	72	1042	659
Grp Volume(v), veh/h	98	414	47	115	441	457	207	229	10	393	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1869	1810	1900	1594	1773	0	0
Q Serve(g_s), s	5.8	10.4	2.4	6.8	25.8	25.8	11.9	12.7	0.6	23.5	0.0	0.0
Cycle Q Clear(g_c), s	5.8	10.4	2.4	6.8	25.8	25.8	11.9	12.7	0.6	23.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	0.04		0.37
Lane Grp Cap(c), veh/h	142	964	428	145	485	502	277	290	244	431	0	0
V/C Ratio(X)	0.69	0.43	0.11	0.79	0.91	0.91	0.75	0.79	0.04	0.91	0.00	0.00
Avail Cap(c_a), veh/h	415	993	440	332	497	514	498	523	439	488	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	49.0	33.1	30.2	49.3	38.6	38.6	44.2	44.5	39.4	40.1	0.0	0.0
Incr Delay (d2), s/veh	4.4	0.6	0.2	3.7	21.5	20.9	4.8	5.7	0.1	20.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.3	0.9	3.1	13.5	13.9	5.6	6.3	0.2	12.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	33.7	30.4	53.0	60.1	59.5	49.0	50.2	39.5	60.3	0.0	0.0
LnGrp LOS	D	C	C	D	E	E	D	D	D	E	A	A
Approach Vol, veh/h		559			1013			446			393	
Approach Delay, s/veh		36.9			59.0			49.4			60.3	
Approach LOS		D			E			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.2	36.6		33.0	16.0	36.8		23.2				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	8.8	12.4		25.5	7.8	27.8		14.7				
Green Ext Time (p_c), s	0.1	4.2		1.0	0.1	1.5		2.0				

Intersection Summary

HCM 6th Ctrl Delay	52.3
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	15	90	4	7	1	204	443	22	9	322	119
Future Volume (veh/h)	36	15	90	4	7	1	204	443	22	9	322	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	17	14	4	8	0	227	492	14	10	358	58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	116	292	211	17	333	148	265	1911	850	31	2075	642
Arrive On Green	0.06	0.15	0.15	0.01	0.09	0.00	0.15	0.53	0.53	0.02	0.40	0.40
Sat Flow, veh/h	1810	1991	1437	1810	3610	1610	1810	3610	1606	1810	5187	1604
Grp Volume(v), veh/h	40	15	16	4	8	0	227	492	14	10	358	58
Grp Sat Flow(s),veh/h/ln	1810	1805	1624	1810	1805	1610	1810	1805	1606	1810	1729	1604
Q Serve(g_s), s	1.9	0.6	0.7	0.2	0.2	0.0	10.7	6.5	0.4	0.5	3.9	2.0
Cycle Q Clear(g_c), s	1.9	0.6	0.7	0.2	0.2	0.0	10.7	6.5	0.4	0.5	3.9	2.0
Prop In Lane	1.00		0.89	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	116	265	238	17	333	148	265	1911	850	31	2075	642
V/C Ratio(X)	0.35	0.06	0.07	0.23	0.02	0.00	0.86	0.26	0.02	0.32	0.17	0.09
Avail Cap(c_a), veh/h	414	516	464	414	1031	460	414	1911	850	414	2075	642
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	32.1	32.2	43.0	36.1	0.0	36.4	11.2	9.8	42.5	16.9	16.3
Incr Delay (d2), s/veh	0.7	0.1	0.1	2.5	0.0	0.0	6.2	0.3	0.0	2.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.3	0.3	0.1	0.1	0.0	4.9	2.3	0.1	0.2	1.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	32.2	32.3	45.5	36.2	0.0	42.6	11.5	9.8	44.7	17.1	16.6
LnGrp LOS	D	C	C	D	D	A	D	B	A	D	B	B
Approach Vol, veh/h		71			12			733			426	
Approach Delay, s/veh		36.5			39.3			21.1			17.7	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	52.8	7.3	19.3	19.3	41.5	12.1	14.6				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.5	8.5	2.2	2.7	12.7	5.9	3.9	2.2				
Green Ext Time (p_c), s	0.0	3.7	0.0	0.1	0.2	2.9	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	1	12	9	1	26	56	654	57	39	324	25
Future Volume (veh/h)	8	1	12	9	1	26	56	654	57	39	324	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	1	1	10	1	2	62	727	39	43	360	26
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	37	137	116	40	276	121	115	2817	872	95	2630	187
Arrive On Green	0.02	0.07	0.07	0.02	0.08	0.08	0.06	0.54	0.54	0.05	0.53	0.53
Sat Flow, veh/h	1810	1844	1555	1810	3610	1587	1810	5187	1606	1810	4941	352
Grp Volume(v), veh/h	9	1	1	10	1	2	62	727	39	43	251	135
Grp Sat Flow(s),veh/h/ln	1810	1805	1594	1810	1805	1587	1810	1729	1606	1810	1729	1835
Q Serve(g_s), s	0.4	0.0	0.1	0.5	0.0	0.1	2.8	6.3	1.0	1.9	3.1	3.2
Cycle Q Clear(g_c), s	0.4	0.0	0.1	0.5	0.0	0.1	2.8	6.3	1.0	1.9	3.1	3.2
Prop In Lane	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	37	135	119	40	276	121	115	2817	872	95	1840	977
V/C Ratio(X)	0.25	0.01	0.01	0.25	0.00	0.02	0.54	0.26	0.04	0.45	0.14	0.14
Avail Cap(c_a), veh/h	535	769	679	535	1537	676	535	2817	872	535	1840	977
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	36.2	36.2	40.6	36.1	36.1	38.4	10.3	9.0	38.9	10.0	10.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	1.2	0.0	0.0	1.5	0.2	0.1	1.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.2	0.0	0.0	1.2	2.1	0.3	0.9	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	36.2	36.3	41.8	36.1	36.1	39.9	10.5	9.1	40.1	10.1	10.3
LnGrp LOS	D	D	D	D	D	D	D	B	A	D	B	B
Approach Vol, veh/h		11			13			828			429	
Approach Delay, s/veh		41.0			40.5			12.6			13.2	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	52.4	8.4	12.8	11.9	51.5	8.2	13.0				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	25.0	45.0	25.0	36.0	25.0	45.0	25.0	36.0				
Max Q Clear Time (g_c+1), s	13.5	8.3	2.5	2.1	4.8	5.2	2.4	2.1				
Green Ext Time (p_c), s	0.0	6.4	0.0	0.0	0.1	2.8	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	39	179	133	122	404	55	349	710	208	42	278	37
Future Volume (veh/h)	39	179	133	122	404	55	349	710	208	42	278	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	195	30	133	439	15	379	772	93	46	302	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	248	546	241	360	661	292	467	2066	639	182	1646	508
Arrive On Green	0.07	0.15	0.15	0.10	0.18	0.18	0.13	0.40	0.40	0.05	0.32	0.32
Sat Flow, veh/h	3510	3610	1594	3510	3610	1597	3510	5187	1604	3510	5187	1603
Grp Volume(v), veh/h	42	195	30	133	439	15	379	772	93	46	302	14
Grp Sat Flow(s),veh/h/ln	1755	1805	1594	1755	1805	1597	1755	1729	1604	1755	1729	1603
Q Serve(g_s), s	1.1	4.6	1.5	3.3	10.7	0.7	9.9	9.9	3.5	1.2	4.0	0.6
Cycle Q Clear(g_c), s	1.1	4.6	1.5	3.3	10.7	0.7	9.9	9.9	3.5	1.2	4.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	546	241	360	661	292	467	2066	639	182	1646	508
V/C Ratio(X)	0.17	0.36	0.12	0.37	0.66	0.05	0.81	0.37	0.15	0.25	0.18	0.03
Avail Cap(c_a), veh/h	743	1145	506	743	1145	507	743	2066	639	743	1646	508
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	41.3	36.0	34.7	39.6	35.9	31.9	39.8	20.1	18.2	43.1	23.4	22.2
Incr Delay (d2), s/veh	0.2	0.5	0.3	0.5	1.4	0.1	2.9	0.5	0.5	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.9	0.6	1.4	4.5	0.3	4.3	3.8	1.3	0.5	1.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	36.5	35.0	40.0	37.3	31.9	42.7	20.6	18.6	43.6	23.6	22.3
LnGrp LOS	D	D	C	D	D	C	D	C	B	D	C	C
Approach Vol, veh/h		267			587			1244			362	
Approach Delay, s/veh		37.1			37.8			27.2			26.1	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	44.2	17.2	21.8	19.1	36.5	14.2	24.8				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1), s	13.2	11.9	5.3	6.6	11.9	6.0	3.1	12.7				
Green Ext Time (p_c), s	0.1	5.8	0.2	1.3	0.6	2.2	0.0	2.8				

Intersection Summary

HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↶	↶	↶			↶	↶
Traffic Volume (veh/h)	0	0	0	309	0	383	696	1031	0	0	412	125
Future Volume (veh/h)	0	0	0	309	0	383	696	1031	0	0	412	125
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				414	0	211	710	1052	0	0	420	20
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				941	0	419	1170	3170	0	0	1452	354
Arrive On Green				0.26	0.00	0.26	0.22	0.41	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1592
Grp Volume(v), veh/h				414	0	211	710	1052	0	0	420	20
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1592
Q Serve(g_s), s				8.6	0.0	10.0	16.4	12.5	0.0	0.0	4.8	0.9
Cycle Q Clear(g_c), s				8.6	0.0	10.0	16.4	12.5	0.0	0.0	4.8	0.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				941	0	419	1170	3170	0	0	1452	354
V/C Ratio(X)				0.44	0.00	0.50	0.61	0.33	0.00	0.00	0.29	0.06
Avail Cap(c_a), veh/h				941	0	419	1170	3170	0	0	1452	354
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.00	0.00	0.97	0.97
Uniform Delay (d), s/veh				27.8	0.0	28.4	29.7	14.0	0.0	0.0	29.1	27.6
Incr Delay (d2), s/veh				1.5	0.0	4.3	1.7	0.2	0.0	0.0	0.5	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.8	0.0	9.7	7.3	4.8	0.0	0.0	1.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.3	0.0	32.6	31.3	14.2	0.0	0.0	29.6	27.9
LnGrp LOS				C	A	C	C	B	A	A	C	C
Approach Vol, veh/h						625		1762			440	
Approach Delay, s/veh						30.4		21.1			29.5	
Approach LOS						C		C			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		60.8		29.2	35.0	25.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		55.0		23.4	30.0	20.0						
Max Q Clear Time (g_c+I1), s		14.5		12.0	18.4	6.8						
Green Ext Time (p_c), s		8.3		1.8	1.2	2.1						

Intersection Summary

HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	0	411	0	0	0	0	1395	512	106	613	0
Future Volume (veh/h)	330	0	411	0	0	0	0	1395	512	106	613	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	421	0	179				0	1423	166	108	626	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1222	0	544				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.05	0.18	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	421	0	179				0	1423	166	108	626	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	7.8	0.0	7.5				0.0	17.0	7.1	2.7	9.3	0.0
Cycle Q Clear(g_c), s	7.8	0.0	7.5				0.0	17.0	7.1	2.7	9.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1222	0	544				0	2106	515	546	2766	0
V/C Ratio(X)	0.34	0.00	0.33				0.00	0.68	0.32	0.20	0.23	0.00
Avail Cap(c_a), veh/h	1222	0	544				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.93	0.93	0.00
Uniform Delay (d), s/veh	22.3	0.0	22.2				0.0	26.4	23.1	37.3	21.1	0.0
Incr Delay (d2), s/veh	0.8	0.0	1.6				0.0	1.8	1.7	0.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	3.0				0.0	6.3	2.7	1.2	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	0.0	23.8				0.0	28.2	24.7	38.1	21.3	0.0
LnGrp LOS	C	A	C				A	C	C	D	C	A
Approach Vol, veh/h		600						1589			734	
Approach Delay, s/veh		23.3						27.8			23.8	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+14), s	14.5	19.0					11.3	9.8				
Green Ext Time (p_c), s	0.1	6.4					4.3	2.1				

Intersection Summary

HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	436	0	598	0	2068	0	0	1359	430	0	0
Future Volume (veh/h)	436	0	598	0	2068	0	0	1359	430	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	449	449	601	0	2132	0	0	1401	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	925	925	1641	0	2484	0	0	2888			
Arrive On Green	0.51	0.51	0.51	0.00	0.38	0.00	0.00	0.38	0.00		
Sat Flow, veh/h	1810	1810	3211	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	449	449	601	0	2132	0	0	1401	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1605	0	1634	0	0	1900	1610		
Q Serve(g_s), s	16.1	16.1	11.3	0.0	30.0	0.0	0.0	14.0	0.0		
Cycle Q Clear(g_c), s	16.1	16.1	11.3	0.0	30.0	0.0	0.0	14.0	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	925	925	1641	0	2484	0	0	2888			
V/C Ratio(X)	0.49	0.49	0.37	0.00	0.86	0.00	0.00	0.49			
Avail Cap(c_a), veh/h	925	925	1641	0	2484	0	0	2888			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	15.9	15.9	14.7	0.0	28.5	0.0	0.0	23.6	0.0		
Incr Delay (d2), s/veh	1.8	1.8	0.6	0.0	4.1	0.0	0.0	0.6	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.9	6.9	4.1	0.0	11.5	0.0	0.0	6.1	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	17.7	17.7	15.3	0.0	32.7	0.0	0.0	24.1	0.0		
LnGrp LOS	B	B	B	A	C	A	A	C			
Approach Vol, veh/h	1050	1050			2132			1401	A		
Approach Delay, s/veh	16.4	16.4			32.7			24.1			
Approach LOS	B	B			C			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	43.8		56.2		43.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	38.0		51.1		38.0						
Max Q Clear Time (g_c+I1), s	32.0		18.1		16.0						
Green Ext Time (p_c), s	4.5		2.2		6.9						

Intersection Summary

HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	856	0	534	0	1570	298	0	1406	0	0	0
Future Volume (veh/h)	856	0	534	0	1570	298	0	1406	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	882	882	537	0	1619	0	0	1449	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	961	961	1710	0	2353		0	2353	0		
Arrive On Green	0.53	0.53	0.53	0.00	0.36	0.00	0.00	0.36	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	882	882	537	0	1619	0	0	1449	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	44.6	44.6	9.4	0.0	21.1	0.0	0.0	18.2	0.0		
Cycle Q Clear(g_c), s	44.6	44.6	9.4	0.0	21.1	0.0	0.0	18.2	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	961	961	1710	0	2353		0	2353	0		
V/C Ratio(X)	0.92	0.92	0.31	0.00	0.69		0.00	0.62	0.00		
Avail Cap(c_a), veh/h	961	961	1710	0	2353		0	2353	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.89	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	21.5	21.5	13.2	0.0	27.2	0.0	0.0	26.3	0.0		
Incr Delay (d2), s/veh	14.9	14.9	0.5	0.0	1.5	0.0	0.0	1.2	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	21.4	21.4	3.4	0.0	8.2	0.0	0.0	6.9	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	36.4	36.4	13.7	0.0	28.7	0.0	0.0	27.5	0.0		
LnGrp LOS	D	D	B	A	C		A	C	A		
Approach Vol, veh/h	1419	1419			1619	A		1449			
Approach Delay, s/veh	27.8	27.8			28.7			27.5			
Approach LOS	C	C			C			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	41.8		58.2		41.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	36.0		53.1		36.0						
Max Q Clear Time (g_c+I1), s	23.1		46.6		20.2						
Green Ext Time (p_c), s	7.0		3.3		6.3						

Intersection Summary

HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖↗	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	46	24	22	74	44	180	211	1638	139	182	1447	308
Future Volume (veh/h)	46	24	22	74	44	180	211	1638	139	182	1447	308
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	46	24	2	75	44	14	213	1655	75	184	1462	238
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	164	136	295	187	275	272	3500	860	243	3446	846
Arrive On Green	0.07	0.09	0.09	0.08	0.10	0.10	0.08	0.54	0.54	0.07	0.53	0.53
Sat Flow, veh/h	3510	1900	1582	3510	1900	2791	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	46	24	2	75	44	14	213	1655	75	184	1462	238
Grp Sat Flow(s),veh/h/ln	1755	1900	1582	1755	1900	1395	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	1.5	1.4	0.1	2.4	2.6	0.5	7.2	18.9	2.7	6.2	16.3	9.9
Cycle Q Clear(g_c), s	1.5	1.4	0.1	2.4	2.6	0.5	7.2	18.9	2.7	6.2	16.3	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	164	136	295	187	275	272	3500	860	243	3446	846
V/C Ratio(X)	0.18	0.15	0.01	0.25	0.24	0.05	0.78	0.47	0.09	0.76	0.42	0.28
Avail Cap(c_a), veh/h	453	372	310	453	372	547	556	3500	860	556	3446	846
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	0.65	0.65	0.65	0.80	0.80	0.80
Uniform Delay (d), s/veh	52.4	50.8	50.2	51.4	49.9	49.0	54.3	17.3	13.6	54.9	17.3	15.7
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.2	0.2	0.0	1.2	0.3	0.1	1.5	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.7	0.1	1.0	1.2	0.2	3.1	6.7	0.9	2.7	5.8	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	50.9	50.2	51.6	50.2	49.0	55.6	17.6	13.7	56.3	17.6	16.4
LnGrp LOS	D	D	D	D	D	D	E	B	B	E	B	B
Approach Vol, veh/h		72			133			1943			1884	
Approach Delay, s/veh		51.9			50.9			21.6			21.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.3	71.3	16.6	16.8	16.3	70.3	15.1	18.3				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	19.0	35.0	15.5	23.5	19.0	35.0	15.5	23.5				
Max Q Clear Time (g_c+1), s	19.2	20.9	4.4	3.4	9.2	18.3	3.5	4.6				
Green Ext Time (p_c), s	0.1	8.1	0.0	0.0	0.2	8.2	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↓		↔↔	↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	18	153	155	149	200	283	158	1689	108	441	1076	23
Future Volume (veh/h)	18	153	155	149	200	283	158	1689	108	441	1076	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	159	65	155	208	115	165	1759	29	459	1121	8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	346	135	225	653	289	236	2341	574	541	2908	714
Arrive On Green	0.02	0.14	0.14	0.06	0.18	0.18	0.07	0.36	0.36	0.15	0.44	0.44
Sat Flow, veh/h	3510	2526	989	3510	3610	1597	3510	6536	1603	3510	6536	1605
Grp Volume(v), veh/h	19	112	112	155	208	115	165	1759	29	459	1121	8
Grp Sat Flow(s),veh/h/ln	1755	1805	1709	1755	1805	1597	1755	1634	1603	1755	1634	1605
Q Serve(g_s), s	0.5	5.8	6.2	4.4	5.1	6.5	4.7	24.2	1.2	13.1	11.8	0.3
Cycle Q Clear(g_c), s	0.5	5.8	6.2	4.4	5.1	6.5	4.7	24.2	1.2	13.1	11.8	0.3
Prop In Lane	1.00		0.58	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	72	247	234	225	653	289	236	2341	574	541	2908	714
V/C Ratio(X)	0.27	0.45	0.48	0.69	0.32	0.40	0.70	0.75	0.05	0.85	0.39	0.01
Avail Cap(c_a), veh/h	1027	704	666	1027	1408	623	1027	2549	625	1027	2908	714
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	49.5	40.7	40.9	47.0	36.5	37.1	46.8	28.9	21.5	42.2	19.1	15.9
Incr Delay (d2), s/veh	0.7	1.3	1.5	1.4	0.3	0.9	1.4	1.2	0.0	1.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.6	2.6	1.9	2.2	2.5	2.0	8.8	0.4	5.5	4.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.2	42.0	42.4	48.4	36.8	38.0	48.2	30.2	21.6	43.7	19.2	15.9
LnGrp LOS	D	D	D	D	D	D	D	C	C	D	B	B
Approach Vol, veh/h		243			478			1953			1588	
Approach Delay, s/veh		42.8			40.8			31.6			26.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.3	44.2	13.6	21.5	14.4	53.1	9.1	26.0				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+1/10), s	11.5	26.2	6.4	8.2	6.7	13.8	2.5	8.5				
Green Ext Time (p_c), s	0.7	10.0	0.2	1.2	0.2	9.7	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔↔			↔	↔↔		↔	↔	↔		↔↔	
Traffic Volume (veh/h)	17	321	10	44	594	17	2	0	27	10	1	4
Future Volume (veh/h)	17	321	10	44	594	17	2	0	27	10	1	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	382	8	52	707	6	2	0	15	12	1	3
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	50	1520	32	99	1147	507	613	0	571	472	46	99
Arrive On Green	0.03	0.29	0.29	0.05	0.32	0.32	0.36	0.00	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	5228	109	1810	3610	1597	1429	0	1603	1074	129	278
Grp Volume(v), veh/h	20	252	138	52	707	6	2	0	15	16	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1879	1810	1805	1597	1429	0	1603	1480	0	0
Q Serve(g_s), s	0.8	3.9	3.9	2.0	11.7	0.2	0.0	0.0	0.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	3.9	3.9	2.0	11.7	0.2	0.1	0.0	0.4	0.4	0.0	0.0
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	0.75		0.19
Lane Grp Cap(c), veh/h	50	1006	547	99	1147	507	613	0	571	616	0	0
V/C Ratio(X)	0.40	0.25	0.25	0.53	0.62	0.01	0.00	0.00	0.03	0.03	0.00	0.00
Avail Cap(c_a), veh/h	386	3199	1739	386	3340	1478	613	0	571	616	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.6	19.1	19.1	32.3	20.3	16.4	14.6	0.0	14.7	14.7	0.0	0.0
Incr Delay (d2), s/veh	5.1	0.2	0.3	4.3	0.8	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.4	1.6	0.9	4.4	0.1	0.0	0.0	0.2	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	19.2	19.4	36.7	21.1	16.4	14.6	0.0	14.8	14.8	0.0	0.0
LnGrp LOS	D	B	B	D	C	B	B	A	B	B	A	A
Approach Vol, veh/h		410			765			17			16	
Approach Delay, s/veh		20.2			22.1			14.8			14.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.0	10.8	27.4		32.0	8.9	29.3				
Change Period (Y+Rc), s		7.0	7.0	7.0		7.0	7.0	7.0				
Max Green Setting (Gmax), s		25.0	15.0	65.0		25.0	15.0	65.0				
Max Q Clear Time (g_c+1), s		2.4	4.0	5.9		2.4	2.8	13.7				
Green Ext Time (p_c), s		0.0	0.1	3.5		0.0	0.0	7.6				

Intersection Summary

HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↕	
Traffic Volume (veh/h)	0	292	40	41	660	1	46	0	24	0	0	0
Future Volume (veh/h)	0	292	40	41	660	1	46	0	24	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	328	28	46	742	1	52	0	11	0	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3179	267	82	1471	2	177	0	108	0	131	0
Arrive On Green	0.00	0.65	0.65	0.05	0.78	0.78	0.07	0.00	0.07	0.00	0.00	0.00
Sat Flow, veh/h	1810	4873	409	1810	1897	3	1409	0	1575	0	1900	0
Grp Volume(v), veh/h	0	231	125	46	0	743	52	0	11	0	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1824	1810	0	1900	1409	0	1575	0	1900	0
Q Serve(g_s), s	0.0	2.2	2.3	2.2	0.0	13.0	3.2	0.0	0.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.2	2.3	2.2	0.0	13.0	3.2	0.0	0.6	0.0	0.0	0.0
Prop In Lane	1.00		0.22	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	2	2256	1190	82	0	1473	177	0	108	0	131	0
V/C Ratio(X)	0.00	0.10	0.10	0.56	0.00	0.50	0.29	0.00	0.10	0.00	0.00	0.00
Avail Cap(c_a), veh/h	322	2256	1190	322	0	1473	659	0	648	0	781	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.96	0.96	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	5.8	5.8	42.1	0.0	3.7	40.5	0.0	39.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	5.8	0.0	1.2	0.9	0.0	0.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.7	0.7	1.1	0.0	3.0	1.2	0.0	0.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	5.9	6.0	47.8	0.0	5.0	41.4	0.0	39.7	0.0	0.0	0.0
LnGrp LOS	A	A	A	D	A	A	D	A	D	A	A	A
Approach Vol, veh/h	356			789			63			0		
Approach Delay, s/veh	6.0			7.5			41.1			0.0		
Approach LOS	A			A			D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	13.2	11.1	65.7		13.2	0.0	76.8					
Change Period (Y+Rc), s	7.0	7.0	7.0		7.0	7.0	7.0					
Max Green Setting (Gmax), s	37.0	16.0	16.0		37.0	16.0	16.0					
Max Q Clear Time (g_c+11), s	5.2	4.2	4.3		0.0	0.0	15.0					
Green Ext Time (p_c), s	0.3	0.0	1.5		0.0	0.0	0.5					

Intersection Summary

HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↗	↔↔	↑↑	↗	↗	↑↑↑	↗	↗	↑↑↑	↗
Traffic Volume (veh/h)	24	387	76	235	339	156	76	1839	197	3	1286	488
Future Volume (veh/h)	24	387	76	235	339	156	76	1839	197	3	1286	488
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	399	20	242	349	51	78	1896	75	3	1326	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	202	737	226	445	763	340	159	2464	605	13	1935	
Arrive On Green	0.06	0.14	0.14	0.13	0.21	0.21	0.09	0.38	0.38	0.01	0.30	0.00
Sat Flow, veh/h	3510	5187	1593	3510	3610	1610	1810	6536	1604	1810	6536	1610
Grp Volume(v), veh/h	25	399	20	242	349	51	78	1896	75	3	1326	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1593	1755	1805	1610	1810	1634	1604	1810	1634	1610
Q Serve(g_s), s	0.6	6.2	0.9	5.6	7.3	2.2	3.6	22.0	2.6	0.1	15.5	0.0
Cycle Q Clear(g_c), s	0.6	6.2	0.9	5.6	7.3	2.2	3.6	22.0	2.6	0.1	15.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	737	226	445	763	340	159	2464	605	13	1935	
V/C Ratio(X)	0.12	0.54	0.09	0.54	0.46	0.15	0.49	0.77	0.12	0.23	0.69	
Avail Cap(c_a), veh/h	548	1950	599	711	1399	624	199	2464	605	199	2306	
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	0.00
Uniform Delay (d), s/veh	38.7	34.5	32.2	35.4	29.8	27.8	37.6	23.6	17.6	42.7	26.9	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.2	0.4	0.4	0.2	0.9	1.6	0.1	3.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.5	0.4	2.3	3.0	0.8	1.5	7.6	0.9	0.1	5.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	35.1	32.4	35.8	30.2	28.0	38.4	25.2	17.7	45.9	27.6	0.0
LnGrp LOS	D	D	C	D	C	C	D	C	B	D	C	
Approach Vol, veh/h		444			642			2049			1329	A
Approach Delay, s/veh		35.2			32.1			25.5			27.7	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.1	18.5	19.8	15.1	33.1	12.5	25.8					
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5					
Max Green Setting (Gmax), s	30.5	17.5	32.5	9.5	30.5	13.5	33.5					
Max Q Clear Time (g_c+1/2), s	24.0	7.6	8.2	5.6	17.5	2.6	9.3					
Green Ext Time (p_c), s	0.0	5.5	0.3	2.5	0.0	7.5	0.0	2.2				

Intersection Summary

HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑		↖ ↗	↑ ↑	↖	↖	↖	↖	↖	↑	↖
Traffic Volume (veh/h)	41	453	2	2	672	29	0	0	1	11	0	13
Future Volume (veh/h)	41	453	2	2	672	29	0	0	1	11	0	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	498	1	2	738	10	0	0	1	12	0	9
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	379	2073	4	508	1400	620	212	0	415	582	492	415
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.00	0.00	0.26	0.26	0.00	0.26
Sat Flow, veh/h	723	5345	11	910	3610	1600	1428	0	1601	1430	1900	1601
Grp Volume(v), veh/h	45	322	177	2	738	10	0	0	1	12	0	9
Grp Sat Flow(s),veh/h/ln	723	1729	1898	910	1805	1600	1428	0	1601	1430	1900	1601
Q Serve(g_s), s	1.7	2.1	2.1	0.1	5.3	0.1	0.0	0.0	0.0	0.2	0.0	0.1
Cycle Q Clear(g_c), s	7.1	2.1	2.1	2.2	5.3	0.1	0.0	0.0	0.0	0.2	0.0	0.1
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	379	1341	736	508	1400	620	212	0	415	582	492	415
V/C Ratio(X)	0.12	0.24	0.24	0.00	0.53	0.02	0.00	0.00	0.00	0.02	0.00	0.02
Avail Cap(c_a), veh/h	843	3563	1955	1093	3719	1648	893	0	1178	1264	1398	1178
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.7	7.0	7.0	7.8	8.0	6.4	0.0	0.0	9.3	9.4	0.0	9.4
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.4	0.5	0.0	1.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.9	7.1	7.2	7.8	8.3	6.4	0.0	0.0	9.3	9.4	0.0	9.4
LnGrp LOS	B	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		544			750			1				21
Approach Delay, s/veh		7.4			8.3			9.3				9.4
Approach LOS		A			A			A				A
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.8		20.2		13.8		20.2				
Change Period (Y+Rc), s		5.0		7.0		5.0		7.0				
Max Green Setting (Gmax), s		25.0		35.0		25.0		35.0				
Max Q Clear Time (g_c+1), s		2.0		9.1		2.2		7.3				
Green Ext Time (p_c), s		0.0		3.2		0.0		5.0				

Intersection Summary

HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑	↗	↖	↗		↖↗	↑	↗
Traffic Volume (veh/h)	48	412	2	35	684	185	4	4	12	96	5	17
Future Volume (veh/h)	48	412	2	35	684	185	4	4	12	96	5	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	448	1	38	743	0	4	4	3	104	5	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	2589	800	86	1770		15	60	45	289	254	213
Arrive On Green	0.06	0.50	0.50	0.02	0.16	0.00	0.01	0.06	0.06	0.08	0.13	0.13
Sat Flow, veh/h	1810	5187	1602	1810	3610	1610	1810	1000	750	3510	1900	1592
Grp Volume(v), veh/h	52	448	1	38	743	0	4	0	7	104	5	6
Grp Sat Flow(s),veh/h/ln	1810	1729	1602	1810	1805	1610	1810	0	1750	1755	1900	1592
Q Serve(g_s), s	2.5	4.3	0.0	1.9	16.7	0.0	0.2	0.0	0.3	2.5	0.2	0.3
Cycle Q Clear(g_c), s	2.5	4.3	0.0	1.9	16.7	0.0	0.2	0.0	0.3	2.5	0.2	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	102	2589	800	86	1770		15	0	104	289	254	213
V/C Ratio(X)	0.51	0.17	0.00	0.44	0.42		0.26	0.00	0.07	0.36	0.02	0.03
Avail Cap(c_a), veh/h	161	2589	800	161	1770		161	0	389	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.97	0.97	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	12.4	11.3	43.1	26.2	0.0	44.3	0.0	39.9	39.1	33.9	33.9
Incr Delay (d2), s/veh	4.5	0.1	0.0	4.1	0.7	0.0	3.3	0.0	0.2	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.5	0.0	0.9	8.1	0.0	0.1	0.0	0.1	1.1	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	12.5	11.3	47.2	26.9	0.0	47.6	0.0	40.1	39.3	33.9	34.0
LnGrp LOS	D	B	B	D	C		D	A	D	D	C	C
Approach Vol, veh/h		501			781	A		11			115	
Approach Delay, s/veh		15.9			27.9			42.9			38.8	
Approach LOS		B			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	12.4	11.3	51.9	7.8	19.0	12.1	51.1				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	20.0	20.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+1), s	14.5	2.3	3.9	6.3	2.2	2.3	4.5	18.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.0				

Intersection Summary

HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑			↖ ↑↑	↖ ↑↑		↖ ↑↑		
Traffic Volume (veh/h)	50	449	22	72	877	33	24	7	35	5	4	7
Future Volume (veh/h)	50	449	22	72	877	33	24	7	35	5	4	7
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	0.98		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	473	18	76	923	31	25	7	17	5	4	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	3317	126	99	3404	114	185	138	121	172	183	84
Arrive On Green	0.01	0.21	0.21	0.05	0.66	0.66	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1810	5128	194	1810	5154	173	1405	1805	1579	1384	2391	1091
Grp Volume(v), veh/h	53	318	173	76	619	335	25	7	17	5	3	3
Grp Sat Flow(s),veh/h/ln	1810	1729	1865	1810	1729	1868	1405	1805	1579	1384	1805	1678
Q Serve(g_s), s	2.6	6.7	6.8	3.7	6.7	6.7	1.5	0.3	0.9	0.3	0.1	0.2
Cycle Q Clear(g_c), s	2.6	6.7	6.8	3.7	6.7	6.7	1.7	0.3	0.9	1.2	0.1	0.2
Prop In Lane	1.00		0.10	1.00		0.09	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	74	2236	1206	99	2284	1234	185	138	121	172	138	128
V/C Ratio(X)	0.72	0.14	0.14	0.77	0.27	0.27	0.14	0.05	0.14	0.03	0.02	0.02
Avail Cap(c_a), veh/h	241	2236	1206	281	2284	1234	530	582	509	512	582	541
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	15.1	15.2	42.0	6.3	6.3	39.2	38.5	38.8	39.4	38.4	38.4
Incr Delay (d2), s/veh	4.8	0.1	0.2	3.7	0.2	0.4	0.3	0.2	0.5	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.4	2.6	1.7	1.9	2.2	0.5	0.1	0.4	0.1	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	15.3	15.4	45.7	6.6	6.8	39.5	38.7	39.3	39.4	38.5	38.5
LnGrp LOS	D	B	B	D	A	A	D	D	D	D	D	D
Approach Vol, veh/h	544			1030			49			11		
Approach Delay, s/veh	18.6			9.5			39.3			38.9		
Approach LOS	B			A			D			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	12.9	11.9	65.2		12.9	10.7	66.4					
Change Period (Y+Rc), s	6.0	7.0	7.0		6.0	7.0	7.0					
Max Green Setting (Gmax), s	29.0	14.0	27.0		29.0	12.0	29.0					
Max Q Clear Time (g_c+I1), s	3.7	5.7	8.8		3.2	4.6	8.7					
Green Ext Time (p_c), s	0.1	0.0	3.6		0.0	0.0	7.9					
Intersection Summary												
HCM 6th Ctrl Delay			13.6									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑		↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	89	337	39	405	689	107	146	791	316	71	329	44
Future Volume (veh/h)	89	337	39	405	689	107	146	791	316	71	329	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	96	362	7	435	741	102	157	851	128	76	354	17
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	360	1058	326	524	1156	158	347	1340	414	309	1284	396
Arrive On Green	0.10	0.20	0.20	0.15	0.25	0.25	0.10	0.26	0.26	0.09	0.25	0.25
Sat Flow, veh/h	3510	5187	1598	3510	4611	629	3510	5187	1601	3510	5187	1600
Grp Volume(v), veh/h	96	362	7	435	554	289	157	851	128	76	354	17
Grp Sat Flow(s),veh/h/ln	1755	1729	1598	1755	1729	1782	1755	1729	1601	1755	1729	1600
Q Serve(g_s), s	2.5	6.0	0.3	12.0	14.3	14.5	4.2	14.5	6.4	2.0	5.5	0.8
Cycle Q Clear(g_c), s	2.5	6.0	0.3	12.0	14.3	14.5	4.2	14.5	6.4	2.0	5.5	0.8
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	360	1058	326	524	867	447	347	1340	414	309	1284	396
V/C Ratio(X)	0.27	0.34	0.02	0.83	0.64	0.65	0.45	0.63	0.31	0.25	0.28	0.04
Avail Cap(c_a), veh/h	879	2078	640	879	1385	714	879	2078	641	879	2078	641
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	41.4	34.0	31.8	41.3	33.4	33.5	42.4	32.8	29.8	42.5	30.3	28.6
Incr Delay (d2), s/veh	0.3	0.2	0.0	2.6	1.0	1.9	0.7	0.6	0.5	0.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.4	0.1	5.2	5.8	6.2	1.8	5.8	2.4	0.8	2.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	34.2	31.8	43.9	34.3	35.4	43.1	33.5	30.4	42.8	30.5	28.6
LnGrp LOS	D	C	C	D	C	D	D	C	C	D	C	C
Approach Vol, veh/h		465			1278			1136			447	
Approach Delay, s/veh		35.7			37.8			34.4			32.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.4	32.2	17.7	32.5	16.3	33.3	22.4	27.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1), s	10.2	7.5	4.5	16.5	4.0	16.5	14.0	8.0				
Green Ext Time (p_c), s	0.3	2.7	0.2	6.3	0.1	7.1	0.9	2.8				

Intersection Summary

HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	126	559	4	15	1138	140	0	12	16	115	1	63
Future Volume (veh/h)	126	559	4	15	1138	140	0	12	16	115	1	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	133	588	3	16	1198	136	0	13	5	121	1	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	2448	12	62	1798	204	2	164	137	178	478	403
Arrive On Green	0.11	0.46	0.46	0.03	0.38	0.38	0.00	0.09	0.09	0.10	0.25	0.25
Sat Flow, veh/h	1810	5326	27	1810	4723	536	1810	1900	1588	1810	1900	1601
Grp Volume(v), veh/h	133	382	209	16	877	457	0	13	5	121	1	27
Grp Sat Flow(s),veh/h/ln	1810	1729	1895	1810	1729	1801	1810	1900	1588	1810	1900	1601
Q Serve(g_s), s	5.3	5.0	5.0	0.6	15.7	15.7	0.0	0.5	0.2	4.8	0.0	1.0
Cycle Q Clear(g_c), s	5.3	5.0	5.0	0.6	15.7	15.7	0.0	0.5	0.2	4.8	0.0	1.0
Prop In Lane	1.00		0.01	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	204	1589	871	62	1317	686	2	164	137	178	478	403
V/C Ratio(X)	0.65	0.24	0.24	0.26	0.67	0.67	0.00	0.08	0.04	0.68	0.00	0.07
Avail Cap(c_a), veh/h	485	1854	1016	485	1854	965	485	509	426	606	637	536
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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	12.2	12.2	35.1	19.2	19.2	0.0	31.4	31.3	32.5	20.9	21.3
Incr Delay (d2), s/veh	1.3	0.1	0.2	0.8	0.7	1.4	0.0	0.2	0.1	3.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.7	1.8	0.3	5.6	5.9	0.0	0.2	0.1	2.2	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	12.3	12.4	35.9	19.9	20.5	0.0	31.5	31.3	35.8	20.9	21.3
LnGrp LOS	C	B	B	D	B	C	A	C	C	D	C	C
Approach Vol, veh/h	724		1350		18		149					
Approach Delay, s/veh	16.2		20.3		31.5		33.1					
Approach LOS	B		C		C		C					
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	11.4	9.5	41.3	0.0	23.8	15.4	35.4				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	20.0	20.0	40.0	20.0	25.0	20.0	40.0				
Max Q Clear Time (g_c+1), s	10.8	2.5	2.6	7.0	0.0	3.0	7.3	17.7				
Green Ext Time (p_c), s	0.2	0.0	0.0	4.4	0.0	0.0	0.1	10.5				

Intersection Summary

HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	576	145	239	586	0	0	0	0	566	0	960
Future Volume (veh/h)	0	576	145	239	586	0	0	0	0	566	0	960
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	640	45	266	651	0				419	0	1193
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1393	391	585	2421	0				704	0	1252
Arrive On Green	0.00	0.24	0.24	0.33	0.93	0.00				0.39	0.00	0.39
Sat Flow, veh/h	0	5700	1600	3510	5358	0				1810	0	3220
Grp Volume(v), veh/h	0	640	45	266	651	0				419	0	1193
Grp Sat Flow(s),veh/h/ln	0	1900	1600	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	8.6	2.0	5.4	1.0	0.0				16.6	0.0	32.4
Cycle Q Clear(g_c), s	0.0	8.6	2.0	5.4	1.0	0.0				16.6	0.0	32.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1393	391	585	2421	0				704	0	1252
V/C Ratio(X)	0.00	0.46	0.12	0.45	0.27	0.00				0.60	0.00	0.95
Avail Cap(c_a), veh/h	0	1393	391	585	2421	0				704	0	1252
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	0.95	0.95	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	28.9	26.4	26.8	1.6	0.0				21.9	0.0	26.7
Incr Delay (d2), s/veh	0.0	1.1	0.6	2.4	0.3	0.0				3.7	0.0	16.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	0.8	2.1	0.3	0.0				7.5	0.0	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.0	27.0	29.2	1.9	0.0				25.6	0.0	43.0
LnGrp LOS		A	C	C	C	A	A			C	A	D
Approach Vol, veh/h		685			917					1612		
Approach Delay, s/veh		29.8			9.8					38.5		
Approach LOS		C			A					D		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	20.0	28.5	41.5		48.5							
Change Period (Y+Rc), s	5.0	6.5	6.5		6.5							
Max Green Setting (Gmax), s	15.0	22.0	35.0		42.0							
Max Q Clear Time (g_c+1), s	17.4	10.6	34.4		3.0							
Green Ext Time (p_c), s	0.3	2.7	0.5		3.6							

Intersection Summary

HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	339	842	0	0	544	414	243	0	453	0	0	0
Future Volume (veh/h)	339	842	0	0	544	414	243	0	453	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	361	896	0	0	579	86	173	0	514			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	390	2824	0	0	1960	608	563	0	1002			
Arrive On Green	0.22	1.00	0.00	0.00	0.38	0.38	0.31	0.00	0.31			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	0	3220			
Grp Volume(v), veh/h	361	896	0	0	579	86	173	0	514			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	9.1	0.0	0.0	0.0	7.0	3.2	6.6	0.0	11.8			
Cycle Q Clear(g_c), s	9.1	0.0	0.0	0.0	7.0	3.2	6.6	0.0	11.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	390	2824	0	0	1960	608	563	0	1002			
V/C Ratio(X)	0.93	0.32	0.00	0.00	0.30	0.14	0.31	0.00	0.51			
Avail Cap(c_a), veh/h	390	2824	0	0	1960	608	563	0	1002			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.67	0.67	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.6	0.0	0.0	0.0	19.6	18.4	23.6	0.0	25.4			
Incr Delay (d2), s/veh	22.8	0.2	0.0	0.0	0.4	0.5	1.4	0.0	1.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.5	0.1	0.0	0.0	2.7	1.2	3.0	0.0	4.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	0.2	0.0	0.0	20.0	18.9	25.0	0.0	27.3			
LnGrp LOS	E	A	A	A	B	B	C	A	C			
Approach Vol, veh/h		1257			665			687				
Approach Delay, s/veh		16.6			19.9			26.7				
Approach LOS		B			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.5			15.0	40.5		34.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		49.0			10.0	34.0		28.0				
Max Q Clear Time (g_c+1), s		2.0			11.1	9.0		13.8				
Green Ext Time (p_c), s		5.3			0.0	3.2		2.4				
Intersection Summary												
HCM 6th Ctrl Delay					20.1							
HCM 6th LOS					C							
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	778	162	153	722	243	100	887	60	166	878	127
Future Volume (veh/h)	199	778	162	153	722	243	100	887	60	166	878	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	214	837	65	165	776	152	108	954	57	178	944	37
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	935	415	218	928	414	306	1279	76	364	950	421
Arrive On Green	0.12	0.26	0.26	0.12	0.26	0.26	0.12	0.26	0.26	0.13	0.26	0.26
Sat Flow, veh/h	1810	3610	1601	1810	3610	1610	1810	5004	298	1810	3610	1601
Grp Volume(v), veh/h	214	837	65	165	776	152	108	659	352	178	944	37
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1610	1810	1729	1844	1810	1805	1601
Q Serve(g_s), s	10.6	20.1	2.8	7.9	18.3	7.0	3.5	15.8	15.8	6.0	23.5	1.6
Cycle Q Clear(g_c), s	10.6	20.1	2.8	7.9	18.3	7.0	3.5	15.8	15.8	6.0	23.5	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	221	935	415	218	928	414	306	884	472	364	950	421
V/C Ratio(X)	0.97	0.90	0.16	0.76	0.84	0.37	0.35	0.75	0.75	0.49	0.99	0.09
Avail Cap(c_a), veh/h	221	963	427	221	963	429	323	884	472	367	950	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	32.2	25.8	38.3	31.6	27.4	21.3	30.8	30.8	20.8	33.1	25.0
Incr Delay (d2), s/veh	51.3	10.9	0.2	12.0	5.3	0.6	1.0	5.7	10.3	1.5	27.8	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	7.6	9.5	1.0	4.0	8.0	2.5	1.5	6.9	8.0	2.5	13.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.7	43.1	26.0	50.3	37.0	28.0	22.3	36.5	41.2	22.2	60.9	25.4
LnGrp LOS	F	D	C	D	D	C	C	D	D	C	E	C
Approach Vol, veh/h		1116			1093			1119			1159	
Approach Delay, s/veh		51.2			37.8			36.6			53.8	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.6	28.8	15.5	29.1	15.9	29.5	15.7	28.9				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.0	* 11	24.0	* 12	22.0	* 11	24.0				
Max Q Clear Time (g_c+I1), s	8.0	17.8	9.9	22.1	5.5	25.5	12.6	20.3				
Green Ext Time (p_c), s	0.2	3.3	0.1	1.2	0.2	0.0	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			45.0									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	904	30	70	957	69	25	163	39	70	167	56
Future Volume (veh/h)	39	904	30	70	957	69	25	163	39	70	167	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	932	13	72	987	37	26	168	35	72	172	52
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	76	1622	720	112	1695	752	104	367	71	163	287	78
Arrive On Green	0.04	0.45	0.45	0.06	0.47	0.47	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1601	1810	3610	1602	104	1423	275	298	1114	301
Grp Volume(v), veh/h	40	932	13	72	987	37	229	0	0	296	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1602	1802	0	0	1713	0	0
Q Serve(g_s), s	1.1	10.0	0.2	2.0	10.4	0.7	0.0	0.0	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	1.1	10.0	0.2	2.0	10.4	0.7	5.5	0.0	0.0	7.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.11		0.15	0.24		0.18
Lane Grp Cap(c), veh/h	76	1622	720	112	1695	752	541	0	0	527	0	0
V/C Ratio(X)	0.52	0.57	0.02	0.64	0.58	0.05	0.42	0.00	0.00	0.56	0.00	0.00
Avail Cap(c_a), veh/h	1218	2430	1078	1218	2430	1078	1260	0	0	1199	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.4	10.6	7.9	23.8	10.1	7.5	16.4	0.0	0.0	17.1	0.0	0.0
Incr Delay (d2), s/veh	11.4	0.7	0.0	12.2	0.7	0.1	1.1	0.0	0.0	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.9	0.1	1.1	2.9	0.2	2.2	0.0	0.0	3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	11.3	8.0	36.1	10.8	7.6	17.5	0.0	0.0	19.1	0.0	0.0
LnGrp LOS	D	B	A	D	B	A	B	A	A	B	A	A
Approach Vol, veh/h		985			1096			229			296	
Approach Delay, s/veh		12.3			12.3			17.5			19.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	27.4		17.4	6.2	28.4		17.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	35.0	35.0		35.0	35.0	35.0		35.0				
Max Q Clear Time (g_c+14), s	14.0	12.0		9.7	3.1	12.4		7.5				
Green Ext Time (p_c), s	0.4	11.2		3.4	0.2	12.0		2.6				
Intersection Summary												
HCM 6th Ctrl Delay											13.5	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	897	83	52	943	67	76	323	43	57	253	41
Future Volume (veh/h)	41	897	83	52	943	67	76	323	43	57	253	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	934	40	54	982	35	79	336	41	59	264	28
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	93	1768	786	104	1791	795	303	443	54	162	878	92
Arrive On Green	0.05	0.49	0.49	0.02	0.16	0.16	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1605	1810	3610	1602	1101	1660	203	1020	3294	346
Grp Volume(v), veh/h	43	934	40	54	982	35	79	0	377	59	144	148
Grp Sat Flow(s),veh/h/ln	1810	1805	1605	1810	1805	1602	1101	0	1862	1020	1805	1835
Q Serve(g_s), s	2.1	16.0	1.2	2.7	22.5	1.7	5.6	0.0	16.8	5.1	5.7	5.8
Cycle Q Clear(g_c), s	2.1	16.0	1.2	2.7	22.5	1.7	11.4	0.0	16.8	21.8	5.7	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.19
Lane Grp Cap(c), veh/h	93	1768	786	104	1791	795	303	0	497	162	481	489
V/C Ratio(X)	0.46	0.53	0.05	0.52	0.55	0.04	0.26	0.00	0.76	0.36	0.30	0.30
Avail Cap(c_a), veh/h	141	1768	786	141	1791	795	303	0	497	162	481	489
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	15.8	12.0	42.9	28.4	19.7	30.9	0.0	30.3	40.4	26.3	26.3
Incr Delay (d2), s/veh	7.5	1.1	0.1	7.1	1.0	0.1	2.1	0.0	10.4	6.2	1.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	6.1	0.4	1.4	10.9	0.6	1.6	0.0	8.5	1.5	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	16.9	12.1	50.0	29.4	19.7	33.0	0.0	40.8	46.6	27.9	27.9
LnGrp LOS	D	B	B	D	C	B	C	A	D	D	C	C
Approach Vol, veh/h		1017			1071			456			351	
Approach Delay, s/veh		18.1			30.1			39.4			31.0	
Approach LOS		B			C			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	12.2	51.2		30.5	11.6	51.8				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	7.0	40.0		* 24	7.0	* 41				
Max Q Clear Time (g_c+I1), s		18.8	4.7	18.0		23.8	4.1	24.5				
Green Ext Time (p_c), s		1.4	0.0	11.1		0.1	0.0	9.7				

Intersection Summary

HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	896	32	29	952	98	72	335	37	61	176	71
Future Volume (veh/h)	45	896	32	29	952	98	72	335	37	61	176	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	46	924	17	30	981	48	74	345	10	63	181	19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	1758	780	64	1721	763	47	81	368	50	101	368
Arrive On Green	0.02	0.16	0.16	0.04	0.48	0.48	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	0	317	1441	0	395	1441
Grp Volume(v), veh/h	46	924	17	30	981	48	419	0	10	244	0	19
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	317	0	1441	395	0	1441
Q Serve(g_s), s	2.3	21.1	0.8	1.5	17.6	1.5	0.0	0.0	0.5	0.0	0.0	0.9
Cycle Q Clear(g_c), s	2.3	21.1	0.8	1.5	17.6	1.5	23.0	0.0	0.5	23.0	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	0.18		1.00	0.26		1.00
Lane Grp Cap(c), veh/h	82	1758	780	64	1721	763	128	0	368	151	0	368
V/C Ratio(X)	0.56	0.53	0.02	0.47	0.57	0.06	3.27	0.00	0.03	1.61	0.00	0.05
Avail Cap(c_a), veh/h	141	1758	780	141	1721	763	128	0	368	151	0	368
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.58	0.58	0.58	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.4	28.2	19.7	42.6	16.9	12.7	31.7	0.0	25.1	31.2	0.0	25.3
Incr Delay (d2), s/veh	1.8	0.9	0.0	1.2	0.8	0.1	1041.7	0.0	0.0	304.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	10.2	0.3	0.6	6.6	0.5	39.8	0.0	0.2	15.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	29.2	19.8	43.8	17.7	12.8	1073.4	0.0	25.1	335.7	0.0	25.3
LnGrp LOS	D	C	B	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		987			1059			429			263	
Approach Delay, s/veh		29.8			18.2			1048.9			313.3	
Approach LOS		C			B			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.2	50.8		29.0	11.1	49.9		29.0				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	40.0	40.0		23.0	7.0	40.0		23.0				
Max Q Clear Time (g_c+1/3), s	23.1	23.1		25.0	4.3	19.6		25.0				
Green Ext Time (p_c), s	0.0	6.5		0.0	0.0	7.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay	212.2
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔↔	↑↑↑		↔	↑↑↑	↗
Traffic Volume (veh/h)	247	697	109	29	695	499	196	940	53	407	814	201
Future Volume (veh/h)	247	697	109	29	695	499	196	940	53	407	814	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	249	704	30	29	702	107	198	949	52	411	822	171
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	309	984	436	153	824	365	222	1165	64	440	1823	705
Arrive On Green	0.09	0.27	0.27	0.04	0.23	0.23	0.12	0.23	0.23	0.24	0.35	0.35
Sat Flow, veh/h	3510	3610	1601	3510	3610	1600	1810	5031	275	1810	5187	1603
Grp Volume(v), veh/h	249	704	30	29	702	107	198	652	349	411	822	171
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1600	1810	1729	1848	1810	1729	1603
Q Serve(g_s), s	9.6	24.4	1.9	1.1	25.8	7.7	14.9	24.7	24.8	30.8	16.9	9.3
Cycle Q Clear(g_c), s	9.6	24.4	1.9	1.1	25.8	7.7	14.9	24.7	24.8	30.8	16.9	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	309	984	436	153	824	365	222	800	428	440	1823	705
V/C Ratio(X)	0.81	0.72	0.07	0.19	0.85	0.29	0.89	0.81	0.82	0.93	0.45	0.24
Avail Cap(c_a), veh/h	760	1173	520	507	912	404	261	874	467	719	2621	952
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	62.0	45.5	37.4	63.9	51.2	44.2	59.8	50.4	50.4	51.4	34.6	24.4
Incr Delay (d2), s/veh	3.8	1.9	0.1	0.4	7.4	0.5	25.6	6.0	10.8	11.8	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	10.7	0.8	0.5	12.2	3.0	8.3	11.1	12.5	15.0	7.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.8	47.4	37.4	64.3	58.6	44.7	85.4	56.4	61.2	63.1	34.9	24.6
LnGrp LOS	E	D	D	E	E	D	F	E	E	E	C	C
Approach Vol, veh/h		983			838			1199			1404	
Approach Delay, s/veh		51.7			57.1			62.6			41.9	
Approach LOS		D			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.7	39.1	13.6	45.2	24.0	55.7	19.7	39.1				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+Rc), s	60.8	26.8	3.1	26.4	16.9	18.9	11.6	27.8				
Green Ext Time (p_c), s	0.8	4.6	0.0	4.8	0.1	10.6	0.5	3.1				

Intersection Summary

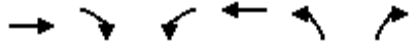
HCM 6th Ctrl Delay	52.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵↵	↑
Traffic Volume (veh/h)	1207	66	20	1019	133	66
Future Volume (veh/h)	1207	66	20	1019	133	66
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1257	48	21	1061	139	8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2483	1104	50	2890	222	102
Arrive On Green	0.69	0.69	0.03	0.80	0.06	0.06
Sat Flow, veh/h	3705	1604	1810	3705	3510	1610
Grp Volume(v), veh/h	1257	48	21	1061	139	8
Grp Sat Flow(s),veh/h/ln	1805	1604	1810	1805	1755	1610
Q Serve(g_s), s	14.7	0.8	1.0	7.3	3.4	0.4
Cycle Q Clear(g_c), s	14.7	0.8	1.0	7.3	3.4	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2483	1104	50	2890	222	102
V/C Ratio(X)	0.51	0.04	0.42	0.37	0.63	0.08
Avail Cap(c_a), veh/h	2483	1104	257	2890	718	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.80	0.80	1.00	1.00
Uniform Delay (d), s/veh	6.6	4.4	42.1	2.5	40.2	38.8
Incr Delay (d2), s/veh	0.5	0.0	3.4	0.3	2.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.2	0.5	0.8	1.5	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.0	4.5	45.5	2.8	43.1	39.1
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1305			1082	147	
Approach Delay, s/veh	6.9			3.6	42.9	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.9	68.0			77.9	10.1
Change Period (Y+Rc), s	7.5	* 7.5			7.5	4.5
Max Green Setting (Gmax), s	12.5	* 38			57.5	18.0
Max Q Clear Time (g_c+1), s	13.0	16.7			9.3	5.4
Green Ext Time (p_c), s	0.0	6.9			8.0	0.3

Intersection Summary

HCM 6th Ctrl Delay		7.6	
HCM 6th LOS		A	

Notes

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

Intersection

Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↑	↗		↕	
Traffic Vol, veh/h	0	4	0	84	5	0	1	2	96	1	7	0
Future Vol, veh/h	0	4	0	84	5	0	1	2	96	1	7	0
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	5	0	106	6	0	1	3	122	1	9	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	8	8.5	7.5	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	33%	0%	0%	100%	89%	30%	0%
Vol Thru, %	67%	0%	100%	0%	11%	70%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	96	4	45	44	3	5
LT Vol	1	0	0	45	39	1	0
Through Vol	2	0	4	0	5	2	5
RT Vol	0	96	0	0	0	0	0
Lane Flow Rate	4	122	5	56	56	4	6
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.005	0.139	0.007	0.082	0.081	0.006	0.008
Departure Headway (Hd)	5	4.131	4.935	5.232	5.176	5.065	4.915
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	720	874	728	680	687	710	732
Service Time	2.7	1.831	2.943	3.005	2.949	2.768	2.617
HCM Lane V/C Ratio	0.006	0.14	0.007	0.082	0.082	0.006	0.008
HCM Control Delay	7.7	7.5	8	8.5	8.4	7.8	7.7
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0.5	0	0.3	0.3	0	0

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	99	0	0	91	0
Future Vol, veh/h	0	0	0	0	0	0	0	99	0	0	91	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	132	0	0	121	0

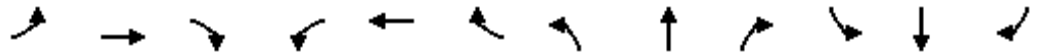
Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	187	253	61	193	253	66	121	0	0	132	0	0
Stage 1	121	121	-	132	132	-	-	-	-	-	-	-
Stage 2	66	132	-	61	121	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	762	654	998	755	654	991	1479	-	-	1466	-	-
Stage 1	876	800	-	864	791	-	-	-	-	-	-	-
Stage 2	943	791	-	949	800	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	762	654	998	755	654	991	1479	-	-	1466	-	-
Mov Cap-2 Maneuver	762	654	-	755	654	-	-	-	-	-	-	-
Stage 1	876	800	-	864	791	-	-	-	-	-	-	-
Stage 2	943	791	-	949	800	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1479	-	-	-	1466	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	-	-
HCM Lane LOS	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary
9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷		↶	↷	↷		↷	↷
Traffic Volume (veh/h)	48	1081	162	50	826	4	253	45	93	5	33	46
Future Volume (veh/h)	48	1081	162	50	826	4	253	45	93	5	33	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	50	1126	76	52	860	3	264	47	20	5	34	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	1422	634	117	1663	6	419	826	369	166	1022	
Arrive On Green	0.05	0.39	0.39	0.06	0.45	0.45	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1810	3610	1610	1810	3690	13	1396	3610	1610	415	4465	1610
Grp Volume(v), veh/h	50	1126	76	52	421	442	264	47	20	15	24	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1898	1396	1805	1610	1733	1573	1610
Q Serve(g_s), s	1.8	18.5	2.0	1.9	11.2	11.2	12.2	0.7	0.7	0.0	0.4	0.0
Cycle Q Clear(g_c), s	1.8	18.5	2.0	1.9	11.2	11.2	12.6	0.7	0.7	0.4	0.4	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.33		1.00
Lane Grp Cap(c), veh/h	82	1422	634	117	814	855	419	826	369	468	720	
V/C Ratio(X)	0.61	0.79	0.12	0.44	0.52	0.52	0.63	0.06	0.05	0.03	0.03	
Avail Cap(c_a), veh/h	606	1611	719	538	814	855	514	1074	479	583	936	
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	0.00
Uniform Delay (d), s/veh	31.5	17.9	13.0	30.3	13.2	13.2	25.0	20.2	20.2	20.1	20.1	0.0
Incr Delay (d2), s/veh	7.2	2.7	0.1	1.0	0.8	0.7	2.4	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.5	0.6	0.8	3.6	3.8	4.1	0.3	0.2	0.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.7	20.7	13.1	31.3	14.0	14.0	27.4	20.3	20.3	20.2	20.2	0.0
LnGrp LOS	D	C	B	C	B	B	C	C	C	C	C	
Approach Vol, veh/h		1252			915			331			39	A
Approach Delay, s/veh		20.9			15.0			25.9			20.2	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.3	33.5		22.4	7.5	37.3		22.4				
Change Period (Y+Rc), s	7.0	7.0		7.0	4.5	7.0		7.0				
Max Green Setting (Gmax), s	20.0	30.0		20.0	22.5	30.0		20.0				
Max Q Clear Time (g_c+I1), s	3.9	20.5		2.4	3.8	13.2		14.6				
Green Ext Time (p_c), s	0.0	6.0		0.1	0.1	6.0		0.8				

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	258	86	117	186	40	33	239	38	19	301	10
Future Volume (veh/h)	22	258	86	117	186	40	33	239	38	19	301	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	300	21	136	216	13	38	278	17	22	350	6
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	318	547	242	316	734	325	518	1520	676	545	1473	654
Arrive On Green	0.03	0.15	0.15	0.08	0.20	0.20	0.04	0.42	0.42	0.03	0.41	0.41
Sat Flow, veh/h	1810	3610	1594	1810	3610	1598	1810	3610	1604	1810	3610	1604
Grp Volume(v), veh/h	26	300	21	136	216	13	38	278	17	22	350	6
Grp Sat Flow(s),veh/h/ln	1810	1805	1594	1810	1805	1598	1810	1805	1604	1810	1805	1604
Q Serve(g_s), s	1.0	6.6	1.0	5.3	4.3	0.6	1.0	4.1	0.5	0.6	5.5	0.2
Cycle Q Clear(g_c), s	1.0	6.6	1.0	5.3	4.3	0.6	1.0	4.1	0.5	0.6	5.5	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	318	547	242	316	734	325	518	1520	676	545	1473	654
V/C Ratio(X)	0.08	0.55	0.09	0.43	0.29	0.04	0.07	0.18	0.03	0.04	0.24	0.01
Avail Cap(c_a), veh/h	576	1473	650	480	1473	652	759	1520	676	810	1473	654
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	29.0	33.7	31.3	27.4	29.0	27.4	13.5	15.6	14.5	13.8	16.6	15.1
Incr Delay (d2), s/veh	0.1	1.2	0.2	0.9	0.3	0.1	0.1	0.3	0.1	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.8	0.4	2.2	1.8	0.2	0.4	1.6	0.2	0.2	2.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	34.9	31.5	28.3	29.3	27.5	13.5	15.8	14.6	13.9	17.0	15.1
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		347			365			333			378	
Approach Delay, s/veh		34.3			28.9			15.5			16.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	43.1	13.7	19.5	10.6	42.0	9.3	23.9				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	15.0	35.0	15.0	35.0	15.0	35.0	15.0	35.0				
Max Q Clear Time (g_c+I), s	12.6	6.1	7.3	8.6	3.0	7.5	3.0	6.3				
Green Ext Time (p_c), s	0.0	2.4	0.2	2.6	0.0	3.0	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay											23.9	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	385	240	171	368	48	104	211	78	58	552	21
Future Volume (veh/h)	16	385	240	171	368	48	104	211	78	58	552	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	428	156	190	409	42	116	234	23	64	613	21
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	261	502	181	264	873	89	145	1138	507	86	1005	34
Arrive On Green	0.01	0.19	0.19	0.08	0.26	0.26	0.16	0.63	0.63	0.05	0.28	0.28
Sat Flow, veh/h	1810	2593	935	1810	3304	338	1810	3610	1610	1810	3560	122
Grp Volume(v), veh/h	18	297	287	190	222	229	116	234	23	64	311	323
Grp Sat Flow(s),veh/h/ln	1810	1805	1723	1810	1805	1837	1810	1805	1610	1810	1805	1877
Q Serve(g_s), s	0.6	12.7	12.9	6.5	8.3	8.4	4.9	2.2	0.4	2.8	11.9	12.0
Cycle Q Clear(g_c), s	0.6	12.7	12.9	6.5	8.3	8.4	4.9	2.2	0.4	2.8	11.9	12.0
Prop In Lane	1.00		0.54	1.00		0.18	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	261	350	334	264	477	485	145	1138	507	86	509	530
V/C Ratio(X)	0.07	0.85	0.86	0.72	0.47	0.47	0.80	0.21	0.05	0.75	0.61	0.61
Avail Cap(c_a), veh/h	298	372	355	264	477	485	204	1138	507	113	509	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.97	0.97	0.97
Uniform Delay (d), s/veh	25.6	31.1	31.2	25.2	24.7	24.7	32.9	10.5	10.2	37.6	24.9	24.9
Incr Delay (d2), s/veh	0.0	15.5	17.7	7.9	0.5	0.5	9.1	0.4	0.2	11.0	5.2	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	6.5	6.5	3.2	3.3	3.4	2.3	0.8	0.2	1.4	5.4	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	46.6	48.9	33.1	25.2	25.3	42.0	10.9	10.4	48.6	30.1	29.9
LnGrp LOS	C	D	D	C	C	C	D	B	B	D	C	C
Approach Vol, veh/h		602			641			373			698	
Approach Delay, s/veh		47.1			27.6			20.6			31.7	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	32.2	14.0	23.0	13.4	29.6	8.4	28.6				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	23.0	6.5	16.5	9.0	19.0	2.5	20.5				
Max Q Clear Time (g_c+1/4), s	14.8	4.2	8.5	14.9	6.9	14.0	2.6	10.4				
Green Ext Time (p_c), s	0.0	1.0	0.0	0.5	0.0	1.3	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↖	↖	↖	↖	↖
Traffic Volume (veh/h)	9	2	34	355	5	99	16	322	120	49	864	4
Future Volume (veh/h)	9	2	34	355	5	99	16	322	120	49	864	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	2	3	394	0	21	18	354	54	54	949	3
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	45	17	26	532	0	234	22	1771	786	68	1904	6
Arrive On Green	0.02	0.02	0.02	0.15	0.00	0.15	0.00	0.16	0.16	0.08	1.00	1.00
Sat Flow, veh/h	1810	686	1029	3619	0	1594	1810	3610	1602	1810	3691	12
Grp Volume(v), veh/h	10	0	5	394	0	21	18	354	54	54	464	488
Grp Sat Flow(s),veh/h/ln	1810	0	1715	1810	0	1594	1810	1805	1602	1810	1805	1898
Q Serve(g_s), s	0.4	0.0	0.2	8.3	0.0	0.9	0.8	6.8	2.3	2.3	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.2	8.3	0.0	0.9	0.8	6.8	2.3	2.3	0.0	0.0
Prop In Lane	1.00		0.60	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	45	0	43	532	0	234	22	1771	786	68	931	979
V/C Ratio(X)	0.22	0.00	0.12	0.74	0.00	0.09	0.80	0.20	0.07	0.80	0.50	0.50
Avail Cap(c_a), veh/h	158	0	150	950	0	418	68	1771	786	68	931	979
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.99	0.99	0.99	0.71	0.71	0.71
Uniform Delay (d), s/veh	38.3	0.0	38.2	32.6	0.0	29.5	39.7	19.9	18.0	36.7	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.5	1.5	0.0	0.1	53.3	0.3	0.2	33.6	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	3.7	0.0	0.4	0.7	2.8	0.8	1.6	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	0.0	38.6	34.2	0.0	29.6	93.0	20.2	18.2	70.3	1.4	1.3
LnGrp LOS	D	A	D	C	A	C	F	C	B	E	A	A
Approach Vol, veh/h		15			415			426			1006	
Approach Delay, s/veh		39.0			33.9			23.0			5.0	
Approach LOS		D			C			C			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	46.2		7.0	8.0	48.3		16.8				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		7.0	3.0	25.0		21.0				
Max Q Clear Time (g_c+1/3), s	11.3	8.8		2.4	2.8	2.0		10.3				
Green Ext Time (p_c), s	0.0	2.4		0.0	0.0	4.5		0.9				

Intersection Summary

HCM 6th Ctrl Delay	15.9
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕↕			↕↕	↕
Traffic Volume (veh/h)	0	0	0	251	0	122	214	318	0	0	795	504
Future Volume (veh/h)	0	0	0	251	0	122	214	318	0	0	795	504
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				270	0	33	230	342	0	0	855	264
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				338	0	301	362	2412	0	0	1464	649
Arrive On Green				0.19	0.00	0.19	0.40	1.00	0.00	0.00	0.13	0.13
Sat Flow, veh/h				1810	0	1610	1810	3705	0	0	3705	1600
Grp Volume(v), veh/h				270	0	33	230	342	0	0	855	264
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1805	0	0	1805	1600
Q Serve(g_s), s				11.4	0.0	1.4	8.2	0.0	0.0	0.0	17.8	12.1
Cycle Q Clear(g_c), s				11.4	0.0	1.4	8.2	0.0	0.0	0.0	17.8	12.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				338	0	301	362	2412	0	0	1464	649
V/C Ratio(X)				0.80	0.00	0.11	0.64	0.14	0.00	0.00	0.58	0.41
Avail Cap(c_a), veh/h				461	0	411	362	2412	0	0	1464	649
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.65	0.65	0.00	0.00	0.85	0.85
Uniform Delay (d), s/veh				31.1	0.0	27.0	21.7	0.0	0.0	0.0	28.3	25.8
Incr Delay (d2), s/veh				10.5	0.0	0.3	5.5	0.1	0.0	0.0	1.5	1.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.8	0.0	0.5	3.3	0.0	0.0	0.0	8.7	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				41.5	0.0	27.3	27.1	0.1	0.0	0.0	29.8	27.4
LnGrp LOS				D	A	C	C	A	A	A	C	C
Approach Vol, veh/h				303			572			1119		
Approach Delay, s/veh				40.0			10.9			29.2		
Approach LOS				D			B			C		
Timer - Assigned Phs		2		5	6		8					
Phs Duration (G+Y+Rc), s		59.2		21.0	38.2		20.8					
Change Period (Y+Rc), s		5.8		5.0	5.8		5.8					
Max Green Setting (Gmax), s		48.0		16.0	27.0		20.4					
Max Q Clear Time (g_c+I1), s		2.0		10.2	19.8		13.4					
Green Ext Time (p_c), s		1.7		0.2	3.1		1.6					
Intersection Summary												
HCM 6th Ctrl Delay				25.6								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↗		↗	↕↕	
Traffic Volume (veh/h)	76	0	174	0	0	0	0	456	331	354	691	0
Future Volume (veh/h)	76	0	174	0	0	0	0	456	331	354	691	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	82	0	41				0	490	193	381	743	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	385	0	342				0	864	338	431	2319	0
Arrive On Green	0.21	0.00	0.21				0.00	0.34	0.34	0.08	0.21	0.00
Sat Flow, veh/h	1810	0	1610				0	2624	990	1810	3705	0
Grp Volume(v), veh/h	82	0	41				0	349	334	381	743	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1713	1810	1805	0
Q Serve(g_s), s	3.0	0.0	1.6				0.0	12.6	12.8	16.7	13.9	0.0
Cycle Q Clear(g_c), s	3.0	0.0	1.6				0.0	12.6	12.8	16.7	13.9	0.0
Prop In Lane	1.00		1.00				0.00		0.58	1.00		0.00
Lane Grp Cap(c), veh/h	385	0	342				0	617	585	431	2319	0
V/C Ratio(X)	0.21	0.00	0.12				0.00	0.57	0.57	0.88	0.32	0.00
Avail Cap(c_a), veh/h	385	0	342				0	617	585	611	2319	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.65	0.65	0.00
Uniform Delay (d), s/veh	26.0	0.0	25.5				0.0	21.5	21.5	35.8	16.8	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.7				0.0	3.7	4.0	5.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	0.0	0.7				0.0	5.4	5.2	8.6	6.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	0.0	26.2				0.0	25.2	25.5	41.5	17.0	0.0
LnGrp LOS	C	A	C				A	C	C	D	B	A
Approach Vol, veh/h		123						683			1124	
Approach Delay, s/veh		26.9						25.4			25.3	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	24.1	33.1	22.8	57.2								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	27.0	19.0	17.0	51.4								
Max Q Clear Time (g_c+110), s	11.7	14.8	5.0	15.9								
Green Ext Time (p_c), s	0.4	1.3	0.7	4.1								

Intersection Summary

HCM 6th Ctrl Delay	25.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	14.7											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↘	↖	↗		↖	↗	↘	↖	↗
Traffic Vol, veh/h	17	125	19	336	72	112	17	77	333	18	9	9
Future Vol, veh/h	17	125	19	336	72	112	17	77	333	18	9	9
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	21	152	23	410	88	137	21	94	406	22	11	11
Number of Lanes	0	1	1	1	1	1	0	1	2	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	3
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	3	2	3
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	3	2	3	2
HCM Control Delay	15	16.1	13.1	11.9
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	18%	0%	0%	12%	0%	100%	65%	0%	100%	0%
Vol Thru, %	82%	0%	0%	88%	0%	0%	35%	0%	0%	50%
Vol Right, %	0%	100%	100%	0%	100%	0%	0%	100%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	167	167	142	19	202	206	112	18	18
LT Vol	17	0	0	17	0	202	134	0	18	0
Through Vol	77	0	0	125	0	0	72	0	0	9
RT Vol	0	167	167	0	19	0	0	112	0	9
Lane Flow Rate	115	203	203	173	23	246	252	137	22	22
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.236	0.373	0.373	0.382	0.046	0.509	0.509	0.237	0.055	0.05
Departure Headway (Hd)	7.42	6.62	6.62	7.951	7.18	7.457	7.281	6.244	9.061	8.192
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	485	544	544	452	499	484	496	575	395	437
Service Time	5.155	4.355	4.355	5.696	4.925	5.192	5.015	3.978	6.815	5.946
HCM Lane V/C Ratio	0.237	0.373	0.373	0.383	0.046	0.508	0.508	0.238	0.056	0.05
HCM Control Delay	12.4	13.3	13.3	15.6	10.3	17.7	17.4	10.9	12.3	11.4
HCM Lane LOS	B	B	B	C	B	C	C	B	B	B
HCM 95th-tile Q	0.9	1.7	1.7	1.8	0.1	2.8	2.8	0.9	0.2	0.2

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	12	0	20	11	0	8	18	395	8	9	413	7
Future Volume (veh/h)	12	0	20	11	0	8	18	395	8	9	413	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.98	0.98		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	0	2	13	0	9	21	459	7	10	480	7
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	150	0	98	92	11	39	76	2668	1186	43	2602	1157
Arrive On Green	0.06	0.00	0.06	0.06	0.00	0.06	0.04	0.74	0.74	0.02	0.72	0.72
Sat Flow, veh/h	1449	0	1581	711	185	620	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	14	0	2	22	0	0	21	459	7	10	480	7
Grp Sat Flow(s),veh/h/ln	1449	0	1581	1515	0	0	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	0.0	0.0	0.1	0.1	0.0	0.0	1.3	4.6	0.1	0.7	5.1	0.1
Cycle Q Clear(g_c), s	0.9	0.0	0.1	1.5	0.0	0.0	1.3	4.6	0.1	0.7	5.1	0.1
Prop In Lane	1.00		1.00	0.59		0.41	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	150	0	98	142	0	0	76	2668	1186	43	2602	1157
V/C Ratio(X)	0.09	0.00	0.02	0.15	0.00	0.00	0.28	0.17	0.01	0.23	0.18	0.01
Avail Cap(c_a), veh/h	443	0	435	454	0	0	196	2668	1186	196	2602	1157
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	0.00	1.00	1.00	0.00	0.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	0.0	52.8	53.4	0.0	0.0	55.7	4.7	4.1	57.5	5.4	4.7
Incr Delay (d2), s/veh	0.3	0.0	0.1	0.6	0.0	0.0	2.0	0.1	0.0	3.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.7	0.0	0.0	0.6	1.4	0.0	0.3	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	0.0	52.9	54.0	0.0	0.0	57.7	4.8	4.1	60.8	5.5	4.7
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	A	A
Approach Vol, veh/h		16			22			487			497	
Approach Delay, s/veh		53.4			54.0			7.1			6.6	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	95.7		14.5	12.0	93.5		14.5				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1/2), s	12.5	6.6		2.9	3.3	7.1		3.5				
Green Ext Time (p_c), s	0.0	6.2		0.0	0.0	6.5		0.1				

Intersection Summary























HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	812	246	62	608	11	148	229	101	21	303	103
Future Volume (veh/h)	99	812	246	62	608	11	148	229	101	21	303	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	873	169	67	654	12	159	246	20	23	326	111
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	943	418	126	923	17	288	302	254	24	339	115
Arrive On Green	0.08	0.26	0.26	0.07	0.25	0.25	0.16	0.16	0.16	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1601	1810	3626	67	1810	1900	1595	91	1285	438
Grp Volume(v), veh/h	106	873	169	67	325	341	159	246	20	460	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1888	1810	1900	1595	1814	0	0
Q Serve(g_s), s	6.5	26.8	9.9	4.1	18.6	18.7	9.2	14.2	1.2	28.5	0.0	0.0
Cycle Q Clear(g_c), s	6.5	26.8	9.9	4.1	18.6	18.7	9.2	14.2	1.2	28.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.05		0.24
Lane Grp Cap(c), veh/h	138	943	418	126	459	481	288	302	254	478	0	0
V/C Ratio(X)	0.77	0.93	0.40	0.53	0.71	0.71	0.55	0.81	0.08	0.96	0.00	0.00
Avail Cap(c_a), veh/h	398	952	422	318	476	498	477	501	421	478	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	51.5	40.9	34.7	51.1	38.6	38.6	44.1	46.2	40.7	41.3	0.0	0.0
Incr Delay (d2), s/veh	6.5	14.9	1.3	1.3	6.0	5.8	2.0	6.3	0.2	31.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	13.1	3.8	1.8	8.5	8.9	4.2	7.1	0.5	16.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	55.9	36.0	52.4	44.6	44.3	46.1	52.5	40.9	72.8	0.0	0.0
LnGrp LOS	E	E	D	D	D	D	D	D	D	E	A	A
Approach Vol, veh/h		1148			733			425			460	
Approach Delay, s/veh		53.1			45.2			49.5			72.8	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.4	37.2		36.5	16.2	36.5		24.6				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	6.1	28.8		30.5	8.5	20.7		16.2				
Green Ext Time (p_c), s	0.0	0.9		0.0	0.1	4.0		1.9				
Intersection Summary												
HCM 6th Ctrl Delay				53.7								
HCM 6th LOS				D								
Notes												
User approved ignoring U-Turning movement.												

HCM 6th Signalized Intersection Summary
18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	153	261	14	40	19	101	380	14	26	477	67
Future Volume (veh/h)	170	153	261	14	40	19	101	380	14	26	477	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	198	178	75	16	47	3	117	442	8	30	555	29
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	235	542	219	60	433	191	148	1533	681	74	1989	615
Arrive On Green	0.13	0.22	0.22	0.03	0.12	0.12	0.08	0.42	0.42	0.04	0.38	0.38
Sat Flow, veh/h	1810	2502	1012	1810	3610	1590	1810	3610	1604	1810	5187	1604
Grp Volume(v), veh/h	198	126	127	16	47	3	117	442	8	30	555	29
Grp Sat Flow(s),veh/h/ln	1810	1805	1709	1810	1805	1590	1810	1805	1604	1810	1729	1604
Q Serve(g_s), s	9.8	5.4	5.7	0.8	1.1	0.2	5.8	7.3	0.3	1.5	6.7	1.0
Cycle Q Clear(g_c), s	9.8	5.4	5.7	0.8	1.1	0.2	5.8	7.3	0.3	1.5	6.7	1.0
Prop In Lane	1.00		0.59	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	391	370	60	433	191	148	1533	681	74	1989	615
V/C Ratio(X)	0.84	0.32	0.34	0.27	0.11	0.02	0.79	0.29	0.01	0.41	0.28	0.05
Avail Cap(c_a), veh/h	397	494	468	397	989	436	397	1533	681	397	1989	615
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	38.8	30.1	30.2	43.1	35.8	35.4	41.1	17.2	15.2	42.7	19.4	17.7
Incr Delay (d2), s/veh	3.2	0.4	0.4	0.9	0.1	0.0	3.5	0.5	0.0	1.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.2	2.3	0.4	0.5	0.1	2.6	2.9	0.1	0.7	2.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	30.5	30.6	43.9	35.9	35.4	44.6	17.7	15.2	44.0	19.8	17.8
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		451			66			567			614	
Approach Delay, s/veh		35.6			37.8			23.2			20.9	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	45.3	9.5	26.3	14.0	41.5	18.3	17.4				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	13.5	9.3	2.8	7.7	7.8	8.7	11.8	3.1				
Green Ext Time (p_c), s	0.0	3.3	0.0	0.9	0.1	4.4	0.2	0.1				

Intersection Summary

HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖	↖↗↘	↖	↖	↖↗↘	
Traffic Volume (veh/h)	45	6	60	41	6	11	58	416	27	24	771	10
Future Volume (veh/h)	45	6	60	41	6	11	58	416	27	24	771	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	7	9	47	7	3	67	478	16	28	886	10
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	220	194	122	428	189	111	2581	799	70	2511	28
Arrive On Green	0.07	0.12	0.12	0.07	0.12	0.12	0.06	0.50	0.50	0.04	0.47	0.47
Sat Flow, veh/h	1810	1805	1590	1810	3610	1590	1810	5187	1605	1810	5287	60
Grp Volume(v), veh/h	52	7	9	47	7	3	67	478	16	28	579	317
Grp Sat Flow(s),veh/h/ln	1810	1805	1590	1810	1805	1590	1810	1729	1605	1810	1729	1889
Q Serve(g_s), s	2.6	0.3	0.5	2.4	0.2	0.2	3.4	4.8	0.5	1.4	10.0	10.0
Cycle Q Clear(g_c), s	2.6	0.3	0.5	2.4	0.2	0.2	3.4	4.8	0.5	1.4	10.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	128	220	194	122	428	189	111	2581	799	70	1642	897
V/C Ratio(X)	0.41	0.03	0.05	0.39	0.02	0.02	0.60	0.19	0.02	0.40	0.35	0.35
Avail Cap(c_a), veh/h	477	686	604	477	1372	604	477	2581	799	477	1642	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	36.7	36.7	42.3	36.9	36.9	43.4	13.2	12.1	44.5	15.7	15.7
Incr Delay (d2), s/veh	0.8	0.0	0.1	0.7	0.0	0.0	2.0	0.2	0.0	1.4	0.6	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	1.2	0.1	0.2	1.1	0.1	0.1	1.5	1.7	0.2	0.6	3.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	36.7	36.8	43.0	36.9	36.9	45.3	13.3	12.1	45.9	16.3	16.8
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		68			57			561			924	
Approach Delay, s/veh		41.4			42.0			17.1			17.4	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	53.6	12.9	18.1	12.3	51.5	13.2	17.7				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	25.0	45.0	25.0	36.0	25.0	45.0	25.0	36.0				
Max Q Clear Time (g_c+1), s	13.4	6.8	4.4	2.5	5.4	12.0	4.6	2.2				
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.1	7.3	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	58	433	424	235	297	43	207	336	89	38	812	54
Future Volume (veh/h)	58	433	424	235	297	43	207	336	89	38	812	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	60	451	163	245	309	12	216	350	38	40	846	20
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	295	692	306	373	772	342	299	1846	571	169	1655	511
Arrive On Green	0.08	0.19	0.19	0.11	0.21	0.21	0.09	0.36	0.36	0.05	0.32	0.32
Sat Flow, veh/h	3510	3610	1598	3510	3610	1599	3510	5187	1603	3510	5187	1603
Grp Volume(v), veh/h	60	451	163	245	309	12	216	350	38	40	846	20
Grp Sat Flow(s),veh/h/ln	1755	1805	1598	1755	1805	1599	1755	1729	1603	1755	1729	1603
Q Serve(g_s), s	1.5	10.8	8.6	6.3	6.9	0.6	5.6	4.4	1.5	1.0	12.5	0.8
Cycle Q Clear(g_c), s	1.5	10.8	8.6	6.3	6.9	0.6	5.6	4.4	1.5	1.0	12.5	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	692	306	373	772	342	299	1846	571	169	1655	511
V/C Ratio(X)	0.20	0.65	0.53	0.66	0.40	0.04	0.72	0.19	0.07	0.24	0.51	0.04
Avail Cap(c_a), veh/h	747	1152	510	747	1152	510	747	1846	571	747	1655	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	35.1	34.2	40.4	31.8	29.3	41.9	20.9	20.0	43.1	26.0	22.1
Incr Delay (d2), s/veh	0.2	1.3	1.7	1.5	0.4	0.0	2.5	0.2	0.2	0.5	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.6	3.3	2.6	2.9	0.2	2.4	1.7	0.5	0.4	5.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	36.3	35.9	41.8	32.2	29.3	44.4	21.1	20.2	43.6	27.2	22.2
LnGrp LOS	D	D	D	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		674			566			604			906	
Approach Delay, s/veh		36.6			36.3			29.4			27.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	40.0	17.5	25.5	14.5	36.5	15.4	27.6				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1/3), s	13.0	6.4	8.3	12.8	7.6	14.5	3.5	8.9				
Green Ext Time (p_c), s	0.0	2.6	0.4	3.5	0.4	5.6	0.1	2.0				

Intersection Summary

HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘	↔	↗	↘	↗	↗		↑↑↑	↗
Traffic Volume (veh/h)	0	0	0	344	0	182	470	471	0	0	1185	375
Future Volume (veh/h)	0	0	0	344	0	182	470	471	0	0	1185	375
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				381	0	42	495	496	0	0	1247	142
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				901	0	401	1014	3227	0	0	1816	443
Arrive On Green				0.25	0.00	0.25	0.10	0.21	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1596
Grp Volume(v), veh/h				381	0	42	495	496	0	0	1247	142
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1596
Q Serve(g_s), s				8.0	0.0	1.8	12.0	7.1	0.0	0.0	15.3	6.3
Cycle Q Clear(g_c), s				8.0	0.0	1.8	12.0	7.1	0.0	0.0	15.3	6.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				901	0	401	1014	3227	0	0	1816	443
V/C Ratio(X)				0.42	0.00	0.10	0.49	0.15	0.00	0.00	0.69	0.32
Avail Cap(c_a), veh/h				901	0	401	1014	3227	0	0	1816	443
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.92	0.92	0.00	0.00	0.78	0.78
Uniform Delay (d), s/veh				28.4	0.0	26.1	34.4	16.3	0.0	0.0	29.0	25.8
Incr Delay (d2), s/veh				1.5	0.0	0.5	1.5	0.1	0.0	0.0	1.7	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.0	1.9	5.7	2.6	0.0	0.0	5.8	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.8	0.0	26.6	35.9	16.4	0.0	0.0	30.7	27.3
LnGrp LOS				C	A	C	D	B	A	A	C	C
Approach Vol, veh/h						423		991			1389	
Approach Delay, s/veh						29.5		26.2			30.3	
Approach LOS						C		C			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		61.8		28.2	31.0	30.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		56.0		22.4	26.0	25.0						
Max Q Clear Time (g_c+I1), s		9.1		10.0	14.0	17.3						
Green Ext Time (p_c), s		3.4		1.2	0.8	4.7						

Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	0	406	0	0	0	0	876	451	445	1087	0
Future Volume (veh/h)	67	0	406	0	0	0	0	876	451	445	1087	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	47	0	385				0	912	151	464	1132	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	611	0	1088				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.21	0.71	0.00
Sat Flow, veh/h	1810	0	3220				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	47	0	385				0	912	151	464	1132	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	1.6	0.0	8.1				0.0	9.9	6.4	11.4	8.0	0.0
Cycle Q Clear(g_c), s	1.6	0.0	8.1				0.0	9.9	6.4	11.4	8.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	611	0	1088				0	2106	515	546	2766	0
V/C Ratio(X)	0.08	0.00	0.35				0.00	0.43	0.29	0.85	0.41	0.00
Avail Cap(c_a), veh/h	611	0	1088				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.71	0.71	0.00
Uniform Delay (d), s/veh	20.3	0.0	22.4				0.0	24.0	22.8	34.7	7.3	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.9				0.0	0.7	1.4	11.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	3.1				0.0	3.6	2.4	5.2	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	23.3				0.0	24.7	24.3	46.0	7.6	0.0
LnGrp LOS	C	A	C				A	C	C	D	A	A
Approach Vol, veh/h		432						1063			1596	
Approach Delay, s/veh		23.0						24.6			18.8	
Approach LOS		C						C			B	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+I), s	11.0	11.9					10.0	10.1				
Green Ext Time (p_c), s	0.1	5.9					9.0	1.6				

Intersection Summary

HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	241	0	384	0	2211	0	0	1717	900	0	0
Future Volume (veh/h)	241	0	384	0	2211	0	0	1717	900	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	254	254	384	0	2327	0	0	2154	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	563	563	1002	0	3791	0	0	4408			
Arrive On Green	0.31	0.31	0.31	0.00	0.58	0.00	0.00	0.58	0.00		
Sat Flow, veh/h	1810	1810	3220	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	254	254	384	0	2327	0	0	2154	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	0	0	1900	1610		
Q Serve(g_s), s	11.3	11.3	9.3	0.0	23.2	0.0	0.0	16.6	0.0		
Cycle Q Clear(g_c), s	11.3	11.3	9.3	0.0	23.2	0.0	0.0	16.6	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	563	563	1002	0	3791	0	0	4408			
V/C Ratio(X)	0.45	0.45	0.38	0.00	0.61	0.00	0.00	0.49			
Avail Cap(c_a), veh/h	563	563	1002	0	3791	0	0	4408			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	27.6	27.6	26.9	0.0	13.7	0.0	0.0	12.3	0.0		
Incr Delay (d2), s/veh	2.6	2.6	1.1	0.0	0.8	0.0	0.0	0.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.2	5.2	3.7	0.0	7.5	0.0	0.0	6.4	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	30.2	30.2	28.1	0.0	14.4	0.0	0.0	12.7	0.0		
LnGrp LOS	C	C	C	A	B	A	A	B			
Approach Vol, veh/h	638	638			2327			2154	A		
Approach Delay, s/veh	28.9	28.9			14.4			12.7			
Approach LOS	C	C			B			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	63.8		36.2		63.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	58.0		31.1		58.0						
Max Q Clear Time (g_c+I1), s	25.2		13.3		18.6						
Green Ext Time (p_c), s	16.1		1.2		16.0						

Intersection Summary

HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	457	0	187	0	2362	811	0	1504	0	0	0
Future Volume (veh/h)	457	0	187	0	2362	811	0	1504	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	476	476	174	0	2460	0	0	1567	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	581	581	1034	0	3726		0	3726	0		
Arrive On Green	0.32	0.32	0.32	0.00	0.57	0.00	0.00	0.57	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	476	476	174	0	2460	0	0	1567	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	24.2	24.2	3.9	0.0	26.0	0.0	0.0	13.6	0.0		
Cycle Q Clear(g_c), s	24.2	24.2	3.9	0.0	26.0	0.0	0.0	13.6	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	581	581	1034	0	3726		0	3726	0		
V/C Ratio(X)	0.82	0.82	0.17	0.00	0.66		0.00	0.42	0.00		
Avail Cap(c_a), veh/h	581	581	1034	0	3726		0	3726	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.54	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	31.3	31.3	24.4	0.0	14.8	0.0	0.0	12.2	0.0		
Incr Delay (d2), s/veh	12.2	12.2	0.4	0.0	0.5	0.0	0.0	0.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	12.3	12.3	1.5	0.0	9.0	0.0	0.0	4.5	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	43.5	43.5	24.7	0.0	15.3	0.0	0.0	12.5	0.0		
LnGrp LOS	D	D	C	A	B		A	B	A		
Approach Vol, veh/h	650	650			2460	A		1567			
Approach Delay, s/veh	38.5	38.5			15.3			12.5			
Approach LOS	D	D			B			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	62.8		37.2		62.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	57.0		32.1		57.0						
Max Q Clear Time (g_c+I1), s	28.0		26.2		15.6						
Green Ext Time (p_c), s	18.7		1.3		9.4						

Intersection Summary

HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗	↔↔	↑	↗↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	392	89	203	65	49	273	58	2501	114	187	1394	114
Future Volume (veh/h)	392	89	203	65	49	273	58	2501	114	187	1394	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	404	92	35	67	51	27	60	2578	59	193	1437	63
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	449	214	179	255	109	162	181	3610	887	244	3728	916
Arrive On Green	0.13	0.11	0.11	0.07	0.06	0.06	0.05	0.55	0.55	0.07	0.57	0.57
Sat Flow, veh/h	3510	1900	1589	3510	1900	2834	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	404	92	35	67	51	27	60	2578	59	193	1437	63
Grp Sat Flow(s),veh/h/ln	1755	1900	1589	1755	1900	1417	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	15.9	6.3	2.8	2.5	3.6	1.3	2.3	40.8	2.4	7.6	17.0	2.5
Cycle Q Clear(g_c), s	15.9	6.3	2.8	2.5	3.6	1.3	2.3	40.8	2.4	7.6	17.0	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	449	214	179	255	109	162	181	3610	887	244	3728	916
V/C Ratio(X)	0.90	0.43	0.20	0.26	0.47	0.17	0.33	0.71	0.07	0.79	0.39	0.07
Avail Cap(c_a), veh/h	464	387	323	464	387	577	602	3610	887	602	3728	916
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	0.71	0.71	0.71	0.92	0.92	0.92
Uniform Delay (d), s/veh	60.1	58.0	56.4	61.4	63.9	62.8	64.1	23.2	14.6	64.1	16.6	13.4
Incr Delay (d2), s/veh	19.1	0.5	0.2	0.2	1.2	0.2	0.3	0.9	0.1	2.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	3.0	1.1	1.1	1.8	0.5	1.0	15.0	0.9	3.4	6.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.3	58.5	56.6	61.6	65.1	63.0	64.3	24.0	14.7	66.1	16.8	13.6
LnGrp LOS	E	E	E	E	E	E	E	C	B	E	B	B
Approach Vol, veh/h		531			145			2697			1693	
Approach Delay, s/veh		74.2			63.1			24.7			22.3	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	84.3	16.7	22.2	14.2	86.9	24.4	14.5				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	24.0	42.0	18.5	28.5	24.0	42.0	18.5	28.5				
Max Q Clear Time (g_c+1), s	19.6	42.8	4.5	8.3	4.3	19.0	17.9	5.6				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.2	0.0	8.9	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↓		↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	363	438	542	60	432	407	401	1927	33	6	1507	146
Future Volume (veh/h)	363	438	542	60	432	407	401	1927	33	6	1507	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	367	442	435	61	436	153	405	1946	15	6	1522	60
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	432	539	478	123	761	339	470	2769	680	26	1943	476
Arrive On Green	0.12	0.30	0.30	0.04	0.21	0.21	0.13	0.42	0.42	0.01	0.30	0.30
Sat Flow, veh/h	3510	1805	1602	3510	3610	1610	3510	6536	1604	3510	6536	1602
Grp Volume(v), veh/h	367	442	435	61	436	153	405	1946	15	6	1522	60
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1610	1755	1634	1604	1755	1634	1602
Q Serve(g_s), s	12.8	28.4	32.7	2.1	13.6	10.4	14.1	30.6	0.7	0.2	26.7	3.4
Cycle Q Clear(g_c), s	12.8	28.4	32.7	2.1	13.6	10.4	14.1	30.6	0.7	0.2	26.7	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	432	539	478	123	761	339	470	2769	680	26	1943	476
V/C Ratio(X)	0.85	0.82	0.91	0.49	0.57	0.45	0.86	0.70	0.02	0.23	0.78	0.13
Avail Cap(c_a), veh/h	842	577	512	842	1155	515	842	2769	680	842	2090	512
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	53.7	40.7	42.2	59.2	44.3	43.0	53.0	29.6	21.0	61.7	40.2	32.1
Incr Delay (d2), s/veh	1.8	8.7	19.5	1.1	0.7	0.9	1.9	0.9	0.0	1.6	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	13.5	15.0	0.9	5.9	4.1	6.1	11.2	0.2	0.1	10.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.6	49.4	61.7	60.4	45.0	44.0	54.9	30.4	21.0	63.3	42.2	32.2
LnGrp LOS	E	D	E	E	D	D	D	C	C	E	D	C
Approach Vol, veh/h		1244			650			2366			1588	
Approach Delay, s/veh		55.5			46.2			34.6			41.9	
Approach LOS		E			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	60.5	11.4	44.7	24.2	44.7	22.4	33.8				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+1), s	12.2	32.6	4.1	34.7	16.1	28.7	14.8	15.6				
Green Ext Time (p_c), s	0.0	6.3	0.1	2.4	0.6	8.0	0.6	3.0				

Intersection Summary

HCM 6th Ctrl Delay	42.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗		↖ ↗	↖ ↗	↖ ↗			↕	
Traffic Volume (veh/h)	5	476	6	20	498	24	8	0	40	39	0	6
Future Volume (veh/h)	5	476	6	20	498	24	8	0	40	39	0	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	588	6	25	615	9	10	0	23	48	0	7
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	17	1347	14	61	1006	449	676	0	623	577	7	70
Arrive On Green	0.01	0.25	0.25	0.03	0.28	0.28	0.39	0.00	0.39	0.39	0.00	0.39
Sat Flow, veh/h	1810	5294	54	1810	3610	1610	1431	0	1610	1222	19	181
Grp Volume(v), veh/h	6	384	210	25	615	9	10	0	23	55	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1890	1810	1805	1610	1431	0	1610	1422	0	0
Q Serve(g_s), s	0.2	6.0	6.0	0.9	9.6	0.3	0.0	0.0	0.6	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.2	6.0	6.0	0.9	9.6	0.3	0.2	0.0	0.6	1.8	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	1.00		1.00	0.87		0.13
Lane Grp Cap(c), veh/h	17	880	481	61	1006	449	676	0	623	654	0	0
V/C Ratio(X)	0.35	0.44	0.44	0.41	0.61	0.02	0.01	0.00	0.04	0.08	0.00	0.00
Avail Cap(c_a), veh/h	420	3479	1902	420	3632	1620	676	0	623	654	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	31.8	20.2	20.2	30.6	20.3	16.9	12.2	0.0	12.3	12.7	0.0	0.0
Incr Delay (d2), s/veh	11.7	0.5	0.9	4.4	0.9	0.0	0.0	0.0	0.1	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.2	2.4	0.4	3.6	0.1	0.1	0.0	0.2	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	20.7	21.1	35.0	21.1	16.9	12.3	0.0	12.4	13.0	0.0	0.0
LnGrp LOS	D	C	C	C	C	B	B	A	B	B	A	A
Approach Vol, veh/h	600				649		33		55			
Approach Delay, s/veh	21.1				21.6		12.4		13.0			
Approach LOS	C				C		B		B			
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	32.0		9.2		23.4		32.0		7.6		25.0	
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0		7.0		7.0	
Max Green Setting (Gmax), s	25.0		15.0		65.0		25.0		15.0		65.0	
Max Q Clear Time (g_c+1), s	2.6		2.9		8.0		3.8		2.2		11.6	
Green Ext Time (p_c), s	0.1		0.0		5.7		0.2		0.0		6.4	

Intersection Summary

HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	511	50	67	483	1	60	0	53	5	0	1
Future Volume (veh/h)	0	511	50	67	483	1	60	0	53	5	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	616	49	81	582	1	72	0	27	6	0	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3095	244	106	1456	3	203	0	121	120	6	9
Arrive On Green	0.00	0.63	0.63	0.06	0.77	0.77	0.08	0.00	0.08	0.08	0.00	0.08
Sat Flow, veh/h	1810	4900	387	1810	1896	3	1604	0	1579	595	77	112
Grp Volume(v), veh/h	0	433	232	81	0	583	72	0	27	7	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1829	1810	0	1899	1604	0	1579	783	0	0
Q Serve(g_s), s	0.0	4.7	4.8	4.0	0.0	9.2	0.0	0.0	1.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.7	4.8	4.0	0.0	9.2	3.5	0.0	1.4	3.5	0.0	0.0
Prop In Lane	1.00		0.21	1.00		0.00	1.00		1.00	0.86		0.14
Lane Grp Cap(c), veh/h	2	2184	1155	106	0	1459	203	0	121	134	0	0
V/C Ratio(X)	0.00	0.20	0.20	0.76	0.00	0.40	0.36	0.00	0.22	0.05	0.00	0.00
Avail Cap(c_a), veh/h	322	2184	1155	322	0	1459	677	0	649	606	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.88	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.0	7.0	41.8	0.0	3.5	40.0	0.0	39.0	38.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.3	10.8	0.0	0.8	1.1	0.0	0.9	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.5	1.6	2.0	0.0	2.2	1.6	0.0	0.6	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.2	7.3	52.6	0.0	4.3	41.0	0.0	40.0	38.7	0.0	0.0
LnGrp LOS	A	A	A	D	A	A	D	A	D	D	A	A
Approach Vol, veh/h	665		664		99		7					
Approach Delay, s/veh	7.2		10.2		40.8		38.7					
Approach LOS	A		B		D		D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	13.9	12.3	63.8		13.9	0.0	76.1					
Change Period (Y+Rc), s	7.0	7.0	7.0		7.0	7.0	7.0					
Max Green Setting (Gmax), s	37.0	16.0	16.0		37.0	16.0	16.0					
Max Q Clear Time (g_c+1), s	5.5	6.0	6.8		5.5	0.0	11.2					
Green Ext Time (p_c), s	0.5	0.1	2.6		0.0	0.0	1.5					

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔	↑↑↑	↔	↔	↑↑↑	↔
Traffic Volume (veh/h)	384	229	40	284	206	129	43	1842	201	205	1616	313
Future Volume (veh/h)	384	229	40	284	206	129	43	1842	201	205	1616	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	392	234	10	290	210	33	44	1880	58	209	1649	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	444	657	201	391	402	179	116	2126	521	241	2578	
Arrive On Green	0.13	0.13	0.13	0.11	0.11	0.11	0.06	0.33	0.33	0.13	0.39	0.00
Sat Flow, veh/h	3510	5187	1591	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	392	234	10	290	210	33	44	1880	58	209	1649	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1591	1755	1805	1610	1810	1634	1603	1810	1634	1610
Q Serve(g_s), s	10.8	4.1	0.5	7.9	5.4	1.8	2.3	26.9	2.5	11.2	20.2	0.0
Cycle Q Clear(g_c), s	10.8	4.1	0.5	7.9	5.4	1.8	2.3	26.9	2.5	11.2	20.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	444	657	201	391	402	179	116	2126	521	241	2578	
V/C Ratio(X)	0.88	0.36	0.05	0.74	0.52	0.18	0.38	0.88	0.11	0.87	0.64	
Avail Cap(c_a), veh/h	444	1654	507	444	1151	514	211	2151	527	247	2578	
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	0.00
Uniform Delay (d), s/veh	42.4	39.5	37.9	42.5	41.4	39.8	44.4	31.6	23.3	42.0	24.2	0.0
Incr Delay (d2), s/veh	17.8	0.3	0.1	4.6	1.1	0.5	0.8	4.8	0.1	24.7	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.7	0.2	3.5	2.4	0.7	1.0	10.3	0.9	6.3	7.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	39.8	38.0	47.1	42.5	40.3	45.1	36.4	23.4	66.7	24.8	0.0
LnGrp LOS	E	D	D	D	D	D	D	D	C	E	C	
Approach Vol, veh/h		636			533			1982			1858	A
Approach Delay, s/veh		52.4			44.9			36.2			29.5	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.6	39.6	18.5	20.0	13.8	46.5	20.0	18.5				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	13.5	32.5	12.5	31.5	11.5	34.5	12.5	31.5				
Max Q Clear Time (g_c+1/3), s	11.2	28.9	9.9	6.1	4.3	22.2	12.8	7.4				
Green Ext Time (p_c), s	0.0	3.2	0.2	1.4	0.0	8.6	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘
Traffic Volume (veh/h)	39	759	10	4	551	11	1	1	4	16	0	29
Future Volume (veh/h)	39	759	10	4	551	11	1	1	4	16	0	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	791	9	4	574	4	1	1	3	17	0	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	444	2065	23	406	1410	625	574	107	322	576	490	413
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.26	0.26	0.26	0.26	0.00	0.26
Sat Flow, veh/h	847	5287	60	689	3610	1600	1409	417	1250	1427	1900	1601
Grp Volume(v), veh/h	41	517	283	4	574	4	1	0	4	17	0	18
Grp Sat Flow(s),veh/h/ln	847	1729	1889	689	1805	1600	1409	0	1666	1427	1900	1601
Q Serve(g_s), s	1.3	3.7	3.7	0.1	3.9	0.1	0.0	0.0	0.1	0.3	0.0	0.3
Cycle Q Clear(g_c), s	5.2	3.7	3.7	3.8	3.9	0.1	0.0	0.0	0.1	0.4	0.0	0.3
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.75	1.00		1.00
Lane Grp Cap(c), veh/h	444	1350	738	406	1410	625	574	0	430	576	490	413
V/C Ratio(X)	0.09	0.38	0.38	0.01	0.41	0.01	0.00	0.00	0.01	0.03	0.00	0.04
Avail Cap(c_a), veh/h	982	3546	1937	844	3702	1641	1243	0	1221	1253	1392	1173
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.4	7.5	7.5	8.8	7.5	6.4	9.4	0.0	9.4	9.6	0.0	9.5
Incr Delay (d2), s/veh	0.1	0.2	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.8	0.0	0.8	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.5	7.6	7.8	8.8	7.7	6.4	9.4	0.0	9.4	9.6	0.0	9.5
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		841			582			5				35
Approach Delay, s/veh		7.8			7.7			9.4				9.6
Approach LOS		A			A			A				A
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.8		20.3		13.8		20.3				
Change Period (Y+Rc), s		5.0		7.0		5.0		7.0				
Max Green Setting (Gmax), s		25.0		35.0		25.0		35.0				
Max Q Clear Time (g_c+I1), s		2.1		7.2		2.4		5.9				
Green Ext Time (p_c), s		0.0		5.3		0.1		3.8				

Intersection Summary

HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑	↗	↖	↖		↖↗	↑	↗
Traffic Volume (veh/h)	65	685	23	21	522	246	13	35	71	273	23	33
Future Volume (veh/h)	65	685	23	21	522	246	13	35	71	273	23	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	714	7	22	544	0	14	36	22	284	24	12
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	115	2425	749	60	1577		47	109	67	312	308	259
Arrive On Green	0.06	0.47	0.47	0.04	0.58	0.00	0.03	0.10	0.10	0.09	0.16	0.16
Sat Flow, veh/h	1810	5187	1602	1810	3610	1610	1810	1097	670	3510	1900	1595
Grp Volume(v), veh/h	68	714	7	22	544	0	14	0	58	284	24	12
Grp Sat Flow(s),veh/h/ln	1810	1729	1602	1810	1805	1610	1810	0	1767	1755	1900	1595
Q Serve(g_s), s	3.3	7.6	0.2	1.1	7.1	0.0	0.7	0.0	2.7	7.2	1.0	0.6
Cycle Q Clear(g_c), s	3.3	7.6	0.2	1.1	7.1	0.0	0.7	0.0	2.7	7.2	1.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	115	2425	749	60	1577		47	0	176	312	308	259
V/C Ratio(X)	0.59	0.29	0.01	0.37	0.34		0.29	0.00	0.33	0.91	0.08	0.05
Avail Cap(c_a), veh/h	161	2425	749	161	1577		161	0	393	312	422	355
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.98	0.98	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	14.8	12.8	42.1	12.1	0.0	43.0	0.0	37.7	40.6	32.0	31.8
Incr Delay (d2), s/veh	5.2	0.3	0.0	4.5	0.6	0.0	1.3	0.0	0.8	28.6	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.8	0.1	0.5	2.5	0.0	0.3	0.0	1.2	4.3	0.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	15.1	12.8	46.6	12.7	0.0	44.3	0.0	38.5	69.2	32.1	31.9
LnGrp LOS	D	B	B	D	B		D	A	D	E	C	C
Approach Vol, veh/h		789			566	A		72			320	
Approach Delay, s/veh		17.7			14.0			39.6			65.0	
Approach LOS		B			B			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	16.0	10.0	49.1	9.4	21.6	12.7	46.3				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	19.0	20.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+1/2), s	19.2	4.7	3.1	9.6	2.7	3.0	5.3	9.1				
Green Ext Time (p_c), s	0.0	0.1	0.0	4.8	0.0	0.1	0.0	3.6				

Intersection Summary

HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔ ↑↑↑			↔ ↑↑↑			↔ ↑↑	↔ ↑↑			↔ ↑↑	
Traffic Volume (veh/h)	34	993	23	48	686	27	36	30	117	54	22	34
Future Volume (veh/h)	34	993	23	48	686	27	36	30	117	54	22	34
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	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	1034	22	50	715	24	38	31	53	56	23	15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	59	3218	68	72	3211	107	234	221	195	202	267	156
Arrive On Green	0.06	1.00	1.00	0.04	0.62	0.62	0.12	0.12	0.12	0.12	0.12	0.12
Sat Flow, veh/h	1810	5227	111	1810	5154	173	1376	1805	1590	1322	2178	1278
Grp Volume(v), veh/h	35	684	372	50	479	260	38	31	53	56	19	19
Grp Sat Flow(s),veh/h/ln	1810	1729	1880	1810	1729	1868	1376	1805	1590	1322	1805	1651
Q Serve(g_s), s	1.7	0.0	0.0	2.5	5.5	5.5	2.3	1.4	2.7	3.6	0.8	0.9
Cycle Q Clear(g_c), s	1.7	0.0	0.0	2.5	5.5	5.5	3.2	1.4	2.7	6.3	0.8	0.9
Prop In Lane	1.00		0.06	1.00		0.09	1.00		1.00	1.00		0.77
Lane Grp Cap(c), veh/h	59	2129	1157	72	2154	1164	234	221	195	202	221	202
V/C Ratio(X)	0.60	0.32	0.32	0.70	0.22	0.22	0.16	0.14	0.27	0.28	0.08	0.10
Avail Cap(c_a), veh/h	201	2129	1157	281	2154	1164	509	582	512	466	582	532
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	0.0	0.0	42.7	7.4	7.4	36.5	35.3	35.9	38.7	35.0	35.1
Incr Delay (d2), s/veh	3.2	0.4	0.7	4.1	0.2	0.4	0.3	0.3	0.7	0.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.2	1.1	1.7	1.9	0.8	0.6	1.1	1.2	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	0.4	0.7	46.8	7.6	7.8	36.8	35.6	36.6	39.5	35.2	35.3
LnGrp LOS	D	A	A	D	A	A	D	D	D	D	D	D
Approach Vol, veh/h	1091			789			122			94		
Approach Delay, s/veh	1.9			10.2			36.4			37.8		
Approach LOS	A			B			D			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	17.0	10.6	62.4		17.0	9.9	63.1					
Change Period (Y+Rc), s	6.0	7.0	7.0		6.0	7.0	7.0					
Max Green Setting (Gmax), s	29.0	14.0	27.0		29.0	10.0	31.0					
Max Q Clear Time (g_c+1), s	5.2	4.5	2.0		8.3	3.7	7.5					
Green Ext Time (p_c), s	0.5	0.0	9.7		0.3	0.0	6.3					
Intersection Summary												
HCM 6th Ctrl Delay			8.6									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑		↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	122	847	125	357	501	111	140	721	390	219	900	61
Future Volume (veh/h)	122	847	125	357	501	111	140	721	390	219	900	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	128	892	30	376	527	97	147	759	169	231	947	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	339	1310	404	453	1258	227	311	1352	417	314	1356	574
Arrive On Green	0.10	0.25	0.25	0.13	0.29	0.29	0.09	0.26	0.26	0.09	0.26	0.26
Sat Flow, veh/h	3510	5187	1601	3510	4414	796	3510	5187	1601	3510	5187	1601
Grp Volume(v), veh/h	128	892	30	376	411	213	147	759	169	231	947	26
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1752	1755	1729	1601	1755	1729	1601
Q Serve(g_s), s	3.8	17.4	1.6	11.7	10.8	11.1	4.5	14.2	9.8	7.2	18.4	1.2
Cycle Q Clear(g_c), s	3.8	17.4	1.6	11.7	10.8	11.1	4.5	14.2	9.8	7.2	18.4	1.2
Prop In Lane	1.00		1.00	1.00		0.45	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	339	1310	404	453	986	499	311	1352	417	314	1356	574
V/C Ratio(X)	0.38	0.68	0.07	0.83	0.42	0.43	0.47	0.56	0.41	0.74	0.70	0.05
Avail Cap(c_a), veh/h	785	1856	573	785	1237	627	785	1856	573	785	1856	728
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	47.3	37.7	31.8	47.5	32.4	32.5	48.5	35.8	34.2	49.6	37.3	23.4
Incr Delay (d2), s/veh	0.5	0.8	0.1	3.0	0.3	0.7	0.8	0.4	0.8	2.5	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	7.2	0.6	5.1	4.4	4.6	1.9	5.7	3.8	3.1	7.5	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	38.5	31.9	50.5	32.8	33.2	49.3	36.2	34.9	52.1	38.1	23.5
LnGrp LOS	D	D	C	D	C	C	D	D	C	D	D	C
Approach Vol, veh/h		1050			1000			1075			1204	
Approach Delay, s/veh		39.4			39.5			37.8			40.5	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	36.6	21.9	35.7	17.4	36.7	18.3	39.4				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1), s	19.2	16.2	13.7	19.4	6.5	20.4	5.8	13.1				
Green Ext Time (p_c), s	0.5	6.5	0.8	6.9	0.3	6.9	0.2	4.6				

Intersection Summary

HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	114	1366	0	58	813	41	1	13	94	381	8	128
Future Volume (veh/h)	114	1366	0	58	813	41	1	13	94	381	8	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	123	1469	0	62	874	41	1	14	30	410	9	64
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	1839	0	133	1735	81	4	176	146	439	632	533
Arrive On Green	0.09	0.35	0.00	0.07	0.34	0.34	0.00	0.09	0.09	0.24	0.33	0.33
Sat Flow, veh/h	1810	5358	0	1810	5076	238	1810	1900	1584	1810	1900	1603
Grp Volume(v), veh/h	123	1469	0	62	595	320	1	14	30	410	9	64
Grp Sat Flow(s),veh/h/ln	1810	1729	0	1810	1729	1856	1810	1900	1584	1810	1900	1603
Q Serve(g_s), s	6.7	25.8	0.0	3.3	13.8	13.9	0.1	0.7	1.8	22.5	0.3	2.8
Cycle Q Clear(g_c), s	6.7	25.8	0.0	3.3	13.8	13.9	0.1	0.7	1.8	22.5	0.3	2.8
Prop In Lane	1.00		0.00	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	1839	0	133	1182	634	4	176	146	439	632	533
V/C Ratio(X)	0.79	0.80	0.00	0.47	0.50	0.50	0.25	0.08	0.20	0.93	0.01	0.12
Avail Cap(c_a), veh/h	358	2051	0	358	1367	734	358	376	313	447	632	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	29.4	0.0	45.0	26.5	26.5	50.4	42.0	42.5	37.5	22.6	23.5
Incr Delay (d2), s/veh	3.3	2.2	0.0	0.9	0.4	0.8	11.9	0.1	0.5	26.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	10.3	0.0	1.5	5.4	5.9	0.0	0.3	0.7	13.1	0.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.7	31.6	0.0	45.9	26.9	27.2	62.3	42.1	43.0	64.1	22.6	23.5
LnGrp LOS	D	C	A	D	C	C	E	D	D	E	C	C
Approach Vol, veh/h	1592		977		45		483					
Approach Delay, s/veh	32.9		28.2		43.1		57.9					
Approach LOS	C		C		D		E					
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	29.5	14.4	14.4	42.9	5.2	38.7	15.7	41.6				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	20.0	20.0	40.0	20.0	25.0	20.0	40.0				
Max Q Clear Time (g_c+24.5), s	24.5	3.8	5.3	27.8	2.1	4.8	8.7	15.9				
Green Ext Time (p_c), s	0.1	0.1	0.0	8.1	0.0	0.1	0.1	6.9				

Intersection Summary

HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	1390	514	483	609	0	0	0	0	224	0	369
Future Volume (veh/h)	0	1390	514	483	609	0	0	0	0	224	0	369
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1463	250	508	641	0				307	0	153
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1963	552	741	3170	0				885	0	394
Arrive On Green	0.00	0.34	0.34	0.07	0.20	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	5700	1603	3510	5358	0				3619	0	1610
Grp Volume(v), veh/h	0	1463	250	508	641	0				307	0	153
Grp Sat Flow(s),veh/h/ln	0	1900	1603	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	20.4	10.9	12.7	9.3	0.0				6.3	0.0	7.1
Cycle Q Clear(g_c), s	0.0	20.4	10.9	12.7	9.3	0.0				6.3	0.0	7.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1963	552	741	3170	0				885	0	394
V/C Ratio(X)	0.00	0.75	0.45	0.69	0.20	0.00				0.35	0.00	0.39
Avail Cap(c_a), veh/h	0	1963	552	741	3170	0				885	0	394
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.49	0.49	0.88	0.88	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.0	22.9	38.9	17.7	0.0				28.1	0.0	28.4
Incr Delay (d2), s/veh	0.0	1.3	1.3	4.5	0.1	0.0				1.1	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	8.6	4.0	6.3	3.7	0.0				2.8	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.3	24.2	43.5	17.8	0.0				29.1	0.0	31.3
LnGrp LOS		A	C	C	D	B	A			C	A	C
Approach Vol, veh/h		1713		1149						460		
Approach Delay, s/veh		26.9		29.1						29.9		
Approach LOS		C		C						C		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	24.0	37.5	28.5		61.5							
Change Period (Y+Rc), s	5.0	6.5	6.5		6.5							
Max Green Setting (Gmax), s	19.0	31.0	22.0		55.0							
Max Q Clear Time (g_c+1/4), s	11.75	22.4	9.1		11.3							
Green Ext Time (p_c), s	0.5	6.0	1.4		3.6							

Intersection Summary

HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Existing (2021) - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	505	1107	0	0	1010	496	82	0	261	0	0	0
Future Volume (veh/h)	505	1107	0	0	1010	496	82	0	261	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	526	1153	0	0	1052	214	57	0	215			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	702	3458	0	0	2132	662	342	0	608			
Arrive On Green	0.20	0.67	0.00	0.00	0.41	0.41	0.19	0.00	0.19			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	0	3220			
Grp Volume(v), veh/h	526	1153	0	0	1052	214	57	0	215			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	12.7	8.6	0.0	0.0	13.5	8.1	2.4	0.0	5.2			
Cycle Q Clear(g_c), s	12.7	8.6	0.0	0.0	13.5	8.1	2.4	0.0	5.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	702	3458	0	0	2132	662	342	0	608			
V/C Ratio(X)	0.75	0.33	0.00	0.00	0.49	0.32	0.17	0.00	0.35			
Avail Cap(c_a), veh/h	702	3458	0	0	2132	662	342	0	608			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.36	0.36	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.9	6.4	0.0	0.0	19.6	18.0	30.6	0.0	31.7			
Incr Delay (d2), s/veh	2.7	0.1	0.0	0.0	0.8	1.3	1.1	0.0	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.3	2.4	0.0	0.0	5.1	3.0	1.1	0.0	2.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	6.5	0.0	0.0	20.4	19.3	31.6	0.0	33.3			
LnGrp LOS	D	A	A	A	C	B	C	A	C			
Approach Vol, veh/h		1679			1266			272				
Approach Delay, s/veh		15.9			20.2			33.0				
Approach LOS		B			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.5			23.0	43.5		23.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		60.0			18.0	37.0		17.0				
Max Q Clear Time (g_c+I1), s		10.6			14.7	15.5		7.2				
Green Ext Time (p_c), s		7.5			0.4	7.8		0.5				

Intersection Summary

























HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	787	91	132	609	217	161	801	74	259	836	188
Future Volume (veh/h)	291	787	91	132	609	217	161	801	74	259	836	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	331	894	28	150	692	139	183	910	76	294	950	53
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	959	426	216	949	421	319	837	70	321	901	399
Arrive On Green	0.12	0.27	0.27	0.12	0.26	0.26	0.13	0.25	0.25	0.13	0.25	0.25
Sat Flow, veh/h	1810	3610	1601	1810	3610	1601	1810	3371	282	1810	3610	1600
Grp Volume(v), veh/h	331	894	28	150	692	139	183	487	499	294	950	53
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1601	1810	1805	1847	1810	1805	1600
Q Serve(g_s), s	11.0	21.8	1.2	7.2	15.7	6.3	6.3	22.3	22.3	10.8	22.5	2.3
Cycle Q Clear(g_c), s	11.0	21.8	1.2	7.2	15.7	6.3	6.3	22.3	22.3	10.8	22.5	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	221	959	426	216	949	421	319	448	459	321	901	399
V/C Ratio(X)	1.50	0.93	0.07	0.69	0.73	0.33	0.57	1.09	1.09	0.92	1.05	0.13
Avail Cap(c_a), veh/h	221	963	427	221	963	427	321	448	459	321	901	399
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	32.2	24.7	38.1	30.2	26.8	22.0	33.8	33.8	23.3	33.8	26.2
Incr Delay (d2), s/veh	245.8	15.4	0.1	7.8	2.4	0.5	3.0	68.3	67.8	29.9	45.4	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	19.7	10.7	0.4	3.4	6.6	2.3	2.7	17.7	18.0	6.9	14.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	285.3	47.6	24.8	45.8	32.6	27.3	25.0	102.1	101.6	53.2	79.1	26.9
LnGrp LOS	F	D	C	D	C	C	C	F	F	D	F	C
Approach Vol, veh/h		1253			981			1169			1297	
Approach Delay, s/veh		109.9			33.9			89.8			71.1	
Approach LOS		F			C			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	28.1	15.4	29.7	16.6	28.3	15.7	29.5				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.0	* 11	24.0	* 12	22.0	* 11	24.0				
Max Q Clear Time (g_c+I1), s	12.8	24.3	9.2	23.8	8.3	24.5	13.0	17.7				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.2	0.2	0.0	0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay				78.3								
HCM 6th LOS				E								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1101	50	50	857	40	40	150	60	60	140	50
Future Volume (veh/h)	60	1101	50	50	857	40	40	150	60	60	140	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	1266	33	57	985	22	46	172	60	69	161	50
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	1841	821	93	1819	807	116	282	90	149	259	72
Arrive On Green	0.06	0.51	0.51	0.05	0.50	0.50	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	3610	1610	1810	3610	1602	190	1202	383	311	1104	308
Grp Volume(v), veh/h	69	1266	33	57	985	22	278	0	0	280	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1602	1776	0	0	1723	0	0
Q Serve(g_s), s	2.2	15.6	0.6	1.8	11.0	0.4	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	2.2	15.6	0.6	1.8	11.0	0.4	8.0	0.0	0.0	8.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.17		0.22	0.25		0.18
Lane Grp Cap(c), veh/h	104	1841	821	93	1819	807	488	0	0	481	0	0
V/C Ratio(X)	0.66	0.69	0.04	0.61	0.54	0.03	0.57	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	1075	2145	957	1075	2145	952	1087	0	0	1055	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.2	10.9	7.2	27.4	10.0	7.3	20.3	0.0	0.0	20.4	0.0	0.0
Incr Delay (d2), s/veh	14.4	1.2	0.0	13.1	0.5	0.0	2.2	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.6	0.2	1.0	3.2	0.1	3.4	0.0	0.0	3.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	12.1	7.3	40.5	10.5	7.4	22.5	0.0	0.0	22.7	0.0	0.0
LnGrp LOS	D	B	A	D	B	A	C	A	A	C	A	A
Approach Vol, veh/h		1368			1064			278			280	
Approach Delay, s/veh		13.5			12.0			22.5			22.7	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	34.0		17.8	7.4	33.7		17.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	35.0	35.0		35.0	35.0	35.0		35.0				
Max Q Clear Time (g_c+1), s	13.8	17.6		10.3	4.2	13.0		10.0				
Green Ext Time (p_c), s	0.3	12.4		3.2	0.4	11.6		3.2				

Intersection Summary

HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1058	103	40	836	60	112	240	50	115	271	60
Future Volume (veh/h)	30	1058	103	40	836	60	112	240	50	115	271	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	1189	55	45	939	31	126	270	48	129	304	47
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	1635	725	95	1664	740	275	418	74	203	836	128
Arrive On Green	0.04	0.45	0.45	0.11	0.92	0.92	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1601	1810	3610	1605	1043	1569	279	1076	3136	479
Grp Volume(v), veh/h	34	1189	55	45	939	31	126	0	318	129	174	177
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1605	1043	0	1848	1076	1805	1810
Q Serve(g_s), s	1.6	24.2	1.8	2.1	3.8	0.1	10.1	0.0	13.7	10.3	7.0	7.2
Cycle Q Clear(g_c), s	1.6	24.2	1.8	2.1	3.8	0.1	17.2	0.0	13.7	24.0	7.0	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.26
Lane Grp Cap(c), veh/h	81	1635	725	95	1664	740	275	0	493	203	481	483
V/C Ratio(X)	0.42	0.73	0.08	0.47	0.56	0.04	0.46	0.00	0.65	0.64	0.36	0.37
Avail Cap(c_a), veh/h	181	1635	725	181	1664	740	275	0	493	203	481	483
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	20.1	13.9	39.1	2.0	1.9	33.8	0.0	29.2	40.1	26.8	26.8
Incr Delay (d2), s/veh	7.3	2.9	0.2	6.7	1.2	0.1	5.4	0.0	6.4	14.2	2.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.6	0.6	1.1	1.0	0.1	2.8	0.0	6.6	3.6	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	22.9	14.1	45.8	3.3	2.0	39.2	0.0	35.6	54.3	28.9	29.0
LnGrp LOS	D	C	B	D	A	A	D	A	D	D	C	C
Approach Vol, veh/h		1278			1015			444			480	
Approach Delay, s/veh		23.3			5.1			36.6			35.8	
Approach LOS		C			A			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	11.0	48.5		30.5	11.7	47.8				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	9.0	38.0		* 24	9.0	* 39				
Max Q Clear Time (g_c+1), s		19.2	3.6	5.8		26.0	4.1	26.2				
Green Ext Time (p_c), s		1.2	0.0	13.6		0.0	0.1	9.4				

Intersection Summary

HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1081	93	40	854	60	52	133	20	70	144	40
Future Volume (veh/h)	40	1081	93	40	854	60	52	133	20	70	144	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	1215	53	45	960	34	58	149	5	79	162	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	1723	764	81	1723	764	51	106	368	53	73	368
Arrive On Green	0.05	0.48	0.48	0.05	0.48	0.48	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	0	415	1441	0	286	1441
Grp Volume(v), veh/h	45	1215	53	45	960	34	207	0	5	241	0	10
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	415	0	1441	286	0	1441
Q Serve(g_s), s	2.2	23.9	1.6	2.2	17.0	1.0	0.0	0.0	0.2	0.0	0.0	0.5
Cycle Q Clear(g_c), s	2.2	23.9	1.6	2.2	17.0	1.0	23.0	0.0	0.2	23.0	0.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	0.28		1.00	0.33		1.00
Lane Grp Cap(c), veh/h	81	1723	764	81	1723	764	157	0	368	126	0	368
V/C Ratio(X)	0.55	0.71	0.07	0.55	0.56	0.04	1.32	0.00	0.01	1.91	0.00	0.03
Avail Cap(c_a), veh/h	181	1723	764	181	1723	764	157	0	368	126	0	368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.48	0.48	0.48	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	18.5	12.7	42.1	16.8	12.6	31.2	0.0	25.0	32.7	0.0	25.1
Incr Delay (d2), s/veh	1.5	1.7	0.1	1.0	0.6	0.1	180.2	0.0	0.0	436.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	9.1	0.5	1.0	6.4	0.3	10.4	0.0	0.1	18.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	20.3	12.8	43.1	17.4	12.6	211.4	0.0	25.0	469.4	0.0	25.1
LnGrp LOS	D	C	B	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1313			1039			212			251	
Approach Delay, s/veh		20.8			18.3			207.0			451.7	
Approach LOS		C			B			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	49.9		29.0	11.1	49.9		29.0				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	38.0	38.0		23.0	9.0	38.0		23.0				
Max Q Clear Time (g_c+1/2), s	14.2	25.9		25.0	4.2	19.0		25.0				
Green Ext Time (p_c), s	0.0	7.1		0.0	0.0	7.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	72.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↑↑↗			↖	↑↑↑	↖
Traffic Volume (veh/h)	293	703	175	50	677	424	122	687	30	557	1035	245
Future Volume (veh/h)	293	703	175	50	677	424	122	687	30	557	1035	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	322	773	85	55	744	114	134	755	32	612	1137	235
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	372	957	425	174	753	334	155	942	40	593	2215	856
Arrive On Green	0.11	0.27	0.27	0.05	0.21	0.21	0.09	0.18	0.18	0.33	0.43	0.43
Sat Flow, veh/h	3510	3610	1601	3510	3610	1599	1810	5102	216	1810	5187	1605
Grp Volume(v), veh/h	322	773	85	55	744	114	134	511	276	612	1137	235
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1599	1810	1729	1859	1810	1729	1605
Q Serve(g_s), s	15.1	33.6	6.9	2.5	34.5	10.2	12.3	23.7	23.8	55.0	27.0	13.4
Cycle Q Clear(g_c), s	15.1	33.6	6.9	2.5	34.5	10.2	12.3	23.7	23.8	55.0	27.0	13.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	372	957	425	174	753	334	155	638	343	593	2215	856
V/C Ratio(X)	0.87	0.81	0.20	0.32	0.99	0.34	0.87	0.80	0.80	1.03	0.51	0.27
Avail Cap(c_a), veh/h	628	968	430	419	753	334	216	722	388	593	2215	856
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	73.8	57.6	47.8	77.0	66.2	56.6	75.7	65.4	65.5	56.4	35.3	21.4
Incr Delay (d2), s/veh	5.2	5.2	0.3	0.8	29.6	0.7	20.4	6.3	11.5	45.3	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	15.6	2.8	1.2	18.7	4.2	6.5	10.9	12.2	32.0	11.3	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.0	62.9	48.1	77.7	95.8	57.3	96.2	71.8	77.0	101.6	35.6	21.7
LnGrp LOS	E	E	D	E	F	E	F	E	E	F	D	C
Approach Vol, veh/h		1180			913			921			1984	
Approach Delay, s/veh		66.2			89.9			76.9			54.3	
Approach LOS		E			F			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	62.0	38.0	15.8	52.0	21.3	78.6	25.3	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+bl), s	57.0	25.8	4.5	35.6	14.3	29.0	17.1	36.5				
Green Ext Time (p_c), s	0.0	4.0	0.1	3.8	0.1	15.8	0.6	0.0				

Intersection Summary

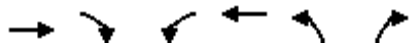
HCM 6th Ctrl Delay	67.8
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵↵	↵
Traffic Volume (veh/h)	1109	140	80	1148	43	20
Future Volume (veh/h)	1109	140	80	1148	43	20
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1275	106	92	1320	49	2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2317	1030	119	2855	169	77
Arrive On Green	0.64	0.64	0.07	0.79	0.05	0.05
Sat Flow, veh/h	3705	1604	1810	3705	3510	1610
Grp Volume(v), veh/h	1275	106	92	1320	49	2
Grp Sat Flow(s),veh/h/ln	1805	1604	1810	1805	1755	1610
Q Serve(g_s), s	17.6	2.3	4.5	10.9	1.2	0.1
Cycle Q Clear(g_c), s	17.6	2.3	4.5	10.9	1.2	0.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2317	1030	119	2855	169	77
V/C Ratio(X)	0.55	0.10	0.77	0.46	0.29	0.03
Avail Cap(c_a), veh/h	2317	1030	251	2855	702	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.72	0.72	1.00	1.00
Uniform Delay (d), s/veh	8.9	6.2	41.4	3.1	41.4	40.8
Incr Delay (d2), s/veh	0.3	0.1	5.7	0.4	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.6	2.1	1.4	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	6.3	47.1	3.5	42.1	40.9
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1381			1412	51	
Approach Delay, s/veh	9.0			6.3	42.0	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	33.4	65.3		11.3		78.7
Change Period (Y+Rc), s	7.5	* 7.5		7.0		7.5
Max Green Setting (Gmax), s	12.5	* 38		18.0		57.5
Max Q Clear Time (g_c+I), s	10.5	19.6		3.2		12.9
Green Ext Time (p_c), s	0.1	6.8		0.1		11.2

Intersection Summary

HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

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

Intersection

Intersection Delay, s/veh 7.9
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	10	0	80	10	0	10	10	60	10	10	0
Future Vol, veh/h	0	10	0	80	10	0	10	10	60	10	10	0
Peak Hour Factor	0.92	0.92	0.92	0.84	0.92	0.84	0.92	0.84	0.84	0.84	0.84	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	95	11	0	11	12	71	12	12	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	8	8.4	7.4	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	50%	0%	0%	100%	78%	75%	0%
Vol Thru, %	50%	0%	100%	0%	22%	25%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	60	10	45	45	13	7
LT Vol	10	0	0	45	35	10	0
Through Vol	10	0	10	0	10	3	7
RT Vol	0	60	0	0	0	0	0
Lane Flow Rate	23	71	11	53	53	16	8
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.032	0.082	0.015	0.077	0.075	0.023	0.011
Departure Headway (Hd)	5.089	4.136	4.901	5.203	5.092	5.265	4.889
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	707	871	733	682	696	683	736
Service Time	2.791	1.839	2.909	2.988	2.877	2.969	2.593
HCM Lane V/C Ratio	0.033	0.082	0.015	0.078	0.076	0.023	0.011
HCM Control Delay	8	7.2	8	8.4	8.3	8.1	7.6
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0	0.2	0.2	0.1	0

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	60	0	0	100	0
Future Vol, veh/h	0	0	0	0	0	0	0	60	0	0	100	0
Conflicting Peds, #/hr	0	0	5	0	0	5	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	74	0	0	123	0
























Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	170	207	72	146	207	47	128	0	0	79	0	0
Stage 1	128	128	-	79	79	-	-	-	-	-	-	-
Stage 2	42	79	-	67	128	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	783	693	982	814	693	1019	1470	-	-	1532	-	-
Stage 1	868	794	-	927	833	-	-	-	-	-	-	-
Stage 2	973	833	-	941	794	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	775	686	973	806	686	1009	1463	-	-	1525	-	-
Mov Cap-2 Maneuver	775	686	-	806	686	-	-	-	-	-	-	-
Stage 1	864	790	-	922	829	-	-	-	-	-	-	-
Stage 2	968	829	-	937	790	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1463	-	-	-	-	1525	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary
9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1019	200	80	1154	10	143	30	30	10	40	50
Future Volume (veh/h)	30	1019	200	80	1154	10	143	30	30	10	40	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	1145	153	90	1297	11	161	34	7	11	45	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	1494	667	159	1659	14	328	596	266	332	596	
Arrive On Green	0.05	0.41	0.41	0.09	0.45	0.45	0.17	0.17	0.17	0.17	0.17	0.00
Sat Flow, veh/h	1810	3610	1610	1810	3668	31	1383	3610	1610	1388	3610	1610
Grp Volume(v), veh/h	34	1145	153	90	638	670	161	34	7	11	45	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1894	1383	1805	1610	1388	1805	1610
Q Serve(g_s), s	1.1	17.2	3.9	3.0	18.9	18.9	7.0	0.5	0.2	0.4	0.7	0.0
Cycle Q Clear(g_c), s	1.1	17.2	3.9	3.0	18.9	18.9	7.7	0.5	0.2	0.9	0.7	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	1494	667	159	816	857	328	596	266	332	596	
V/C Ratio(X)	0.38	0.77	0.23	0.56	0.78	0.78	0.49	0.06	0.03	0.03	0.08	
Avail Cap(c_a), veh/h	574	1717	766	574	859	901	538	1145	511	543	1145	
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	0.00
Uniform Delay (d), s/veh	29.0	15.9	12.0	27.6	14.6	14.6	25.5	22.2	22.1	22.6	22.3	0.0
Incr Delay (d2), s/veh	1.0	2.1	0.2	1.2	4.9	4.6	1.9	0.1	0.1	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	5.7	1.1	1.2	6.6	6.9	2.4	0.2	0.1	0.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	17.9	12.2	28.8	19.5	19.3	27.5	22.3	22.1	22.7	22.4	0.0
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	
Approach Vol, veh/h		1332			1398			202			56	A
Approach Delay, s/veh		17.6			20.0			26.4			22.4	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	33.1		17.4	10.1	35.5		17.4				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	20.0	30.0		20.0	20.0	30.0		20.0				
Max Q Clear Time (g_c+I1), s	5.0	19.2		2.9	3.1	20.9		9.7				
Green Ext Time (p_c), s	0.1	6.9		0.2	0.0	6.1		0.8				

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	110	61	30	140	20	111	260	110	20	240	30
Future Volume (veh/h)	23	110	61	30	140	20	111	260	110	20	240	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	121	10	33	154	3	122	286	62	22	264	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	238	376	165	255	401	177	666	1752	779	606	1602	712
Arrive On Green	0.03	0.10	0.10	0.04	0.11	0.11	0.07	0.49	0.49	0.03	0.44	0.44
Sat Flow, veh/h	1810	3610	1587	1810	3610	1588	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	25	121	10	33	154	3	122	286	62	22	264	14
Grp Sat Flow(s),veh/h/ln	1810	1805	1587	1810	1805	1588	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	1.0	2.5	0.4	1.3	3.1	0.1	2.8	3.5	1.6	0.5	3.5	0.4
Cycle Q Clear(g_c), s	1.0	2.5	0.4	1.3	3.1	0.1	2.8	3.5	1.6	0.5	3.5	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	376	165	255	401	177	666	1752	779	606	1602	712
V/C Ratio(X)	0.11	0.32	0.06	0.13	0.38	0.02	0.18	0.16	0.08	0.04	0.16	0.02
Avail Cap(c_a), veh/h	524	1602	704	528	1602	705	882	1752	779	897	1602	712
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	29.9	32.8	31.9	29.5	32.5	31.2	10.1	11.3	10.9	11.1	13.2	12.3
Incr Delay (d2), s/veh	0.2	0.7	0.2	0.2	0.9	0.1	0.2	0.2	0.2	0.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.0	0.2	0.5	1.3	0.1	0.9	1.2	0.5	0.2	1.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	33.5	32.1	29.8	33.4	31.3	10.2	11.5	11.1	11.1	13.4	12.4
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		156			190			470			300	
Approach Delay, s/veh		32.8			32.7			11.1			13.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	45.3	9.6	14.7	12.6	42.0	9.0	15.3				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	15.0	35.0	15.0	35.0	15.0	35.0	15.0	35.0				
Max Q Clear Time (g_c+1), s	12.5	5.5	3.3	4.5	4.8	5.5	3.0	5.1				
Green Ext Time (p_c), s	0.0	2.7	0.0	1.0	0.2	2.3	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	190	150	70	260	70	130	581	130	70	261	20
Future Volume (veh/h)	30	190	150	70	260	70	130	581	130	70	261	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	198	29	73	271	43	135	605	48	73	272	15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	356	51	230	420	66	166	1549	691	94	1353	74
Arrive On Green	0.02	0.11	0.11	0.04	0.13	0.13	0.18	0.86	0.86	0.05	0.39	0.39
Sat Flow, veh/h	1810	3160	456	1810	3122	489	1810	3610	1610	1810	3479	191
Grp Volume(v), veh/h	31	112	115	73	155	159	135	605	48	73	140	147
Grp Sat Flow(s),veh/h/ln	1810	1805	1811	1810	1805	1806	1810	1805	1610	1810	1805	1865
Q Serve(g_s), s	1.2	4.7	4.8	2.8	6.5	6.7	5.7	2.9	0.4	3.2	4.1	4.2
Cycle Q Clear(g_c), s	1.2	4.7	4.8	2.8	6.5	6.7	5.7	2.9	0.4	3.2	4.1	4.2
Prop In Lane	1.00		0.25	1.00		0.27	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	185	203	204	230	243	243	166	1549	691	94	702	725
V/C Ratio(X)	0.17	0.55	0.56	0.32	0.64	0.65	0.81	0.39	0.07	0.78	0.20	0.20
Avail Cap(c_a), veh/h	224	395	396	230	395	395	204	1549	691	113	702	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.99	0.99	0.99
Uniform Delay (d), s/veh	30.6	33.6	33.6	29.8	32.8	32.8	32.0	3.4	3.3	37.5	16.2	16.2
Incr Delay (d2), s/veh	0.2	1.7	1.8	0.3	2.1	2.2	13.8	0.7	0.2	19.1	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.0	2.1	1.2	2.8	2.8	2.8	0.9	0.1	1.8	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	35.3	35.4	30.1	34.8	35.0	45.8	4.1	3.4	56.5	16.8	16.8
LnGrp LOS	C	D	D	C	C	D	D	A	A	E	B	B
Approach Vol, veh/h		258			387			788			360	
Approach Delay, s/veh		34.8			34.0			11.2			24.9	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	41.3	11.0	16.5	14.4	38.1	9.2	18.3				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	25.0	3.5	17.5	9.0	21.0	3.5	17.5				
Max Q Clear Time (g_c+1/2), s	1.2	4.9	4.8	6.8	7.7	6.2	3.2	8.7				
Green Ext Time (p_c), s	0.0	3.0	0.0	0.6	0.0	1.0	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	10	130	10	50	20	751	480	110	381	10
Future Volume (veh/h)	10	10	10	130	10	50	20	751	480	110	381	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	1	141	0	7	21	774	217	113	393	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	59	55	6	330	0	145	51	1854	823	113	1971	50
Arrive On Green	0.03	0.03	0.03	0.09	0.00	0.09	0.01	0.17	0.17	0.13	1.00	1.00
Sat Flow, veh/h	1810	1699	170	3619	0	1584	1810	3610	1602	1810	3597	91
Grp Volume(v), veh/h	10	0	11	141	0	7	21	774	217	113	197	206
Grp Sat Flow(s),veh/h/ln	1810	0	1869	1810	0	1584	1810	1805	1602	1810	1805	1883
Q Serve(g_s), s	0.4	0.0	0.5	2.9	0.0	0.3	0.9	15.3	9.4	5.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.5	2.9	0.0	0.3	0.9	15.3	9.4	5.0	0.0	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	59	0	61	330	0	145	51	1854	823	113	989	1032
V/C Ratio(X)	0.17	0.00	0.18	0.43	0.00	0.05	0.41	0.42	0.26	1.00	0.20	0.20
Avail Cap(c_a), veh/h	181	0	187	769	0	337	136	1854	823	113	989	1032
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.90	0.90	0.90	0.98	0.98	0.98
Uniform Delay (d), s/veh	37.6	0.0	37.7	34.4	0.0	33.2	39.0	22.5	20.1	35.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.6	0.0	0.1	5.8	0.6	0.7	83.5	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	0.2	0.0	0.2	1.3	0.0	0.1	0.5	7.4	3.7	4.6	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	38.2	35.0	0.0	33.3	44.8	23.2	20.8	118.5	0.4	0.4
LnGrp LOS	D	A	D	D	A	C	D	C	C	F	A	A
Approach Vol, veh/h		21			148			1012			516	
Approach Delay, s/veh		38.2			34.9			23.1			26.3	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	48.1		7.6	9.2	50.8		12.3				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	5.0	26.0		8.0	6.0	25.0		17.0				
Max Q Clear Time (g_c+1), s	17.3			2.5	2.9	2.0		4.9				
Green Ext Time (p_c), s	0.0	4.1		0.0	0.0	1.6		0.3				

Intersection Summary

HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						↕	↕	↕	↕		↕	↕
Traffic Volume (veh/h)	0	0	0	197	0	390	210	851	0	0	381	140
Future Volume (veh/h)	0	0	0	197	0	390	210	851	0	0	381	140
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		No
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				207	0	299	221	896	0	0	401	50
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				461	0	411	362	3112	0	0	1751	539
Arrive On Green				0.25	0.00	0.25	0.40	1.00	0.00	0.00	0.11	0.11
Sat Flow, veh/h				1810	0	1610	1810	5358	0	0	5358	1598
Grp Volume(v), veh/h				207	0	299	221	896	0	0	401	50
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1598
Q Serve(g_s), s				7.7	0.0	13.6	7.8	0.0	0.0	0.0	5.6	2.2
Cycle Q Clear(g_c), s				7.7	0.0	13.6	7.8	0.0	0.0	0.0	5.6	2.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				461	0	411	362	3112	0	0	1751	539
V/C Ratio(X)				0.45	0.00	0.73	0.61	0.29	0.00	0.00	0.23	0.09
Avail Cap(c_a), veh/h				461	0	411	362	3112	0	0	1751	539
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.81	0.81	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				25.1	0.0	27.3	21.5	0.0	0.0	0.0	26.1	24.5
Incr Delay (d2), s/veh				3.1	0.0	10.8	6.1	0.2	0.0	0.0	0.3	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.0	6.2	3.2	0.1	0.0	0.0	2.3	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.2	0.0	38.1	27.6	0.2	0.0	0.0	26.4	24.9
LnGrp LOS				C	A	D	C	A	A	A	C	C
Approach Vol, veh/h					506			1117			451	
Approach Delay, s/veh					34.0			5.6			26.2	
Approach LOS					C			A			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		53.8			21.0	32.8		26.2				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			9.8	7.6		15.6				
Green Ext Time (p_c), s		5.3			0.2	2.0		1.8				
Intersection Summary												
HCM 6th Ctrl Delay											17.0	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↕↕		↗	↕↕↕	
Traffic Volume (veh/h)	530	0	170	0	0	0	0	581	373	150	408	0
Future Volume (veh/h)	530	0	170	0	0	0	0	581	373	150	408	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No		No			
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	558	0	58				0	612	253	158	429	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	575	0	511				0	1313	530	203	2788	0
Arrive On Green	0.32	0.00	0.32				0.00	0.36	0.36	0.04	0.18	0.00
Sat Flow, veh/h	1810	0	1610				0	3791	1462	1810	5358	0
Grp Volume(v), veh/h	558	0	58				0	584	281	158	429	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1625	1810	1729	0
Q Serve(g_s), s	24.3	0.0	2.0				0.0	10.4	10.7	6.9	5.6	0.0
Cycle Q Clear(g_c), s	24.3	0.0	2.0				0.0	10.4	10.7	6.9	5.6	0.0
Prop In Lane	1.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	575	0	511				0	1254	589	203	2788	0
V/C Ratio(X)	0.97	0.00	0.11				0.00	0.47	0.48	0.78	0.15	0.00
Avail Cap(c_a), veh/h	575	0	511				0	1254	589	271	2788	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	26.9	0.0	19.3				0.0	19.5	19.6	37.5	17.5	0.0
Incr Delay (d2), s/veh	31.1	0.0	0.5				0.0	1.2	2.8	6.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.0	0.8				0.0	3.9	4.1	3.4	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	0.0	19.8				0.0	20.8	22.4	44.1	17.6	0.0
LnGrp LOS	E	A	B				A	C	C	D	B	A
Approach Vol, veh/h		616						865			587	
Approach Delay, s/veh		54.4						21.3			24.8	
Approach LOS		D						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	34.0	34.8	31.2	48.8								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	12.0	26.0	25.4	43.0								
Max Q Clear Time (g_c+I), s	10.9	12.7	26.3	7.6								
Green Ext Time (p_c), s	0.1	3.7	0.0	2.3								
Intersection Summary												
HCM 6th Ctrl Delay			32.2									
HCM 6th LOS			C									

Intersection												
Intersection Delay, s/veh	16.2											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↗	↖		↖	↗	↖	↗	
Traffic Vol, veh/h	10	100	20	368	120	170	30	120	160	90	30	10
Future Vol, veh/h	10	100	20	368	120	170	30	120	160	90	30	10
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	118	24	433	141	200	35	141	188	106	35	12
Number of Lanes	0	1	1	1	1	1	0	1	2	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	3
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	3	2	3
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	3	2	3	2
HCM Control Delay	14.2	18.3	13.7	14
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	20%	0%	0%	9%	0%	100%	51%	0%	100%	0%
Vol Thru, %	80%	0%	0%	91%	0%	0%	49%	0%	0%	75%
Vol Right, %	0%	100%	100%	0%	100%	0%	0%	100%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	80	80	110	20	243	245	170	90	40
LT Vol	30	0	0	10	0	243	125	0	90	0
Through Vol	120	0	0	100	0	0	120	0	0	30
RT Vol	0	80	80	0	20	0	0	170	0	10
Lane Flow Rate	176	94	94	129	24	286	288	200	106	47
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.393	0.188	0.188	0.302	0.05	0.597	0.582	0.35	0.263	0.108
Departure Headway (Hd)	8.011	7.198	7.198	8.397	7.638	7.518	7.27	6.303	8.942	8.254
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	498	498	427	468	480	496	570	401	433
Service Time	5.766	4.952	4.952	6.164	5.405	5.266	5.018	4.05	6.71	6.021
HCM Lane V/C Ratio	0.393	0.189	0.189	0.302	0.051	0.596	0.581	0.351	0.264	0.109
HCM Control Delay	15.9	11.6	11.6	14.8	10.8	20.9	19.7	12.4	14.9	12
HCM Lane LOS	C	B	B	B	B	C	C	B	B	B
HCM 95th-tile Q	1.8	0.7	0.7	1.3	0.2	3.8	3.7	1.6	1	0.4

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	10	0	10	10	0	10	20	340	30	20	398	20
Future Volume (veh/h)	10	0	10	10	0	10	20	340	30	20	398	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.97	0.95		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	0	1	12	0	0	24	410	26	24	480	18
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.84	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	0	77	119	0	0	83	2635	1171	83	2635	1171
Arrive On Green	0.05	0.00	0.05	0.05	0.00	0.00	0.05	0.73	0.73	0.05	0.73	0.73
Sat Flow, veh/h	1486	0	1562	1186	0	0	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	12	0	1	12	0	0	24	410	26	24	480	18
Grp Sat Flow(s),veh/h/ln	1486	0	1562	1186	0	0	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	0.0	0.0	0.1	1.0	0.0	0.0	1.5	4.2	0.5	1.5	5.0	0.4
Cycle Q Clear(g_c), s	0.8	0.0	0.1	1.8	0.0	0.0	1.5	4.2	0.5	1.5	5.0	0.4
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	0	77	119	0	0	83	2635	1171	83	2635	1171
V/C Ratio(X)	0.09	0.00	0.01	0.10	0.00	0.00	0.29	0.16	0.02	0.29	0.18	0.02
Avail Cap(c_a), veh/h	444	0	430	428	0	0	196	2635	1171	196	2635	1171
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	0.00	1.00	1.00	0.00	0.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	0.0	54.3	55.5	0.0	0.0	55.4	4.9	4.5	55.4	5.1	4.4
Incr Delay (d2), s/veh	0.3	0.0	0.1	0.4	0.0	0.0	2.1	0.1	0.0	2.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.4	0.0	0.0	0.7	1.3	0.2	0.7	1.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	0.0	54.3	55.9	0.0	0.0	57.4	5.1	4.5	57.6	5.2	4.5
LnGrp LOS	D	A	D	E	A	A	E	A	A	E	A	A
Approach Vol, veh/h		13			12			460			522	
Approach Delay, s/veh		54.9			55.9			7.8			7.6	
Approach LOS		D			E			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	94.6		12.9	12.5	94.6		12.9				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1), s	13.5	6.2		2.8	3.5	7.0		3.8				
Green Ext Time (p_c), s	0.0	5.6		0.0	0.0	6.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	599	150	120	856	50	210	230	60	20	230	158
Future Volume (veh/h)	100	599	150	120	856	50	210	230	60	20	230	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	637	59	128	911	53	223	245	12	21	245	168
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	905	401	156	905	53	289	304	255	22	259	177
Arrive On Green	0.08	0.25	0.25	0.09	0.26	0.26	0.16	0.16	0.16	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1601	1810	3466	202	1810	1900	1595	86	998	684
Grp Volume(v), veh/h	106	637	59	128	474	490	223	245	12	434	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1862	1810	1900	1595	1768	0	0
Q Serve(g_s), s	6.6	18.4	3.3	8.0	30.0	30.0	13.6	14.3	0.7	27.7	0.0	0.0
Cycle Q Clear(g_c), s	6.6	18.4	3.3	8.0	30.0	30.0	13.6	14.3	0.7	27.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	0.05		0.39
Lane Grp Cap(c), veh/h	137	905	401	156	472	487	289	304	255	458	0	0
V/C Ratio(X)	0.77	0.70	0.15	0.82	1.01	1.01	0.77	0.81	0.05	0.95	0.00	0.00
Avail Cap(c_a), veh/h	394	943	418	315	472	487	473	496	417	462	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	52.1	39.1	33.5	51.6	42.4	42.4	46.2	46.5	40.8	41.7	0.0	0.0
Incr Delay (d2), s/veh	6.8	3.0	0.4	4.0	43.0	42.3	5.2	6.0	0.1	28.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	8.1	1.3	3.6	18.1	18.6	6.4	7.1	0.3	15.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	42.2	33.8	55.6	85.4	84.8	51.4	52.5	40.9	70.6	0.0	0.0
LnGrp LOS	E	D	C	E	F	F	D	D	D	E	A	A
Approach Vol, veh/h		802			1092			480			434	
Approach Delay, s/veh		43.8			81.6			51.7			70.6	
Approach LOS		D			F			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.4	36.3		36.3	16.2	37.5		24.9				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	10.0	20.4		29.7	8.6	32.0		16.3				
Green Ext Time (p_c), s	0.1	4.4		0.1	0.1	0.0		2.1				

Intersection Summary

HCM 6th Ctrl Delay	64.0
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖	↖↗	↖	↖	↖↗↘	↖
Traffic Volume (veh/h)	40	20	100	10	10	10	220	470	30	10	340	130
Future Volume (veh/h)	40	20	100	10	10	10	220	470	30	10	340	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	22	19	11	11	1	244	522	20	11	378	60
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	120	284	215	43	373	164	281	1891	841	34	2008	621
Arrive On Green	0.07	0.15	0.15	0.02	0.10	0.10	0.16	0.52	0.52	0.02	0.39	0.39
Sat Flow, veh/h	1810	1951	1472	1810	3610	1587	1810	3610	1606	1810	5187	1604
Grp Volume(v), veh/h	44	20	21	11	11	1	244	522	20	11	378	60
Grp Sat Flow(s),veh/h/ln	1810	1805	1617	1810	1805	1587	1810	1805	1606	1810	1729	1604
Q Serve(g_s), s	2.1	0.9	1.0	0.5	0.2	0.1	11.9	7.3	0.5	0.5	4.4	2.2
Cycle Q Clear(g_c), s	2.1	0.9	1.0	0.5	0.2	0.1	11.9	7.3	0.5	0.5	4.4	2.2
Prop In Lane	1.00		0.91	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	263	236	43	373	164	281	1891	841	34	2008	621
V/C Ratio(X)	0.37	0.08	0.09	0.25	0.03	0.01	0.87	0.28	0.02	0.33	0.19	0.10
Avail Cap(c_a), veh/h	400	499	447	400	998	439	400	1891	841	400	2008	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	33.4	33.4	43.3	36.5	36.4	37.3	12.0	10.4	43.8	18.3	17.6
Incr Delay (d2), s/veh	0.7	0.1	0.1	1.1	0.0	0.0	10.1	0.4	0.1	2.0	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4	0.4	0.2	0.1	0.0	5.8	2.7	0.2	0.3	1.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	33.4	33.5	44.4	36.5	36.4	47.4	12.3	10.4	45.8	18.5	17.9
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		85			23			786			449	
Approach Delay, s/veh		37.4			40.3			23.2			19.1	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	53.9	8.7	19.7	20.5	41.5	12.5	15.8				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.5	9.3	2.5	3.0	13.9	6.4	4.1	2.2				
Green Ext Time (p_c), s	0.0	4.0	0.0	0.1	0.2	3.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	21	10	10	30	61	690	60	50	340	30
Future Volume (veh/h)	10	10	21	10	10	30	61	690	60	50	340	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	11	3	11	11	3	68	767	37	56	378	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	44	292	76	44	374	164	117	2683	830	107	2511	197
Arrive On Green	0.02	0.10	0.10	0.02	0.10	0.10	0.06	0.52	0.52	0.06	0.51	0.51
Sat Flow, veh/h	1810	2826	734	1810	3610	1587	1810	5187	1605	1810	4904	384
Grp Volume(v), veh/h	11	7	7	11	11	3	68	767	37	56	265	143
Grp Sat Flow(s),veh/h/ln	1810	1805	1755	1810	1805	1587	1810	1729	1605	1810	1729	1830
Q Serve(g_s), s	0.5	0.3	0.3	0.5	0.2	0.1	3.2	7.4	1.0	2.6	3.6	3.6
Cycle Q Clear(g_c), s	0.5	0.3	0.3	0.5	0.2	0.1	3.2	7.4	1.0	2.6	3.6	3.6
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	44	187	182	44	374	164	117	2683	830	107	1771	937
V/C Ratio(X)	0.25	0.04	0.04	0.25	0.03	0.02	0.58	0.29	0.04	0.52	0.15	0.15
Avail Cap(c_a), veh/h	515	739	719	515	1479	650	515	2683	830	515	1771	937
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	35.5	35.5	42.1	35.4	35.4	40.0	12.0	10.5	40.1	11.3	11.3
Incr Delay (d2), s/veh	1.1	0.1	0.1	1.1	0.0	0.0	1.7	0.3	0.1	1.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.1	0.2	0.1	0.1	1.4	2.5	0.4	1.2	1.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	35.5	35.5	43.2	35.4	35.4	41.7	12.3	10.6	41.6	11.5	11.7
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		25			25			872			464	
Approach Delay, s/veh		38.9			38.9			14.5			15.2	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.7	52.0	8.6	15.6	12.2	51.5	8.6	15.6				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	25.0	45.0	25.0	36.0	25.0	45.0	25.0	36.0				
Max Q Clear Time (g_c+I), s	14.6	9.4	2.5	2.3	5.2	5.6	2.5	2.2				
Green Ext Time (p_c), s	0.0	6.8	0.0	0.0	0.1	3.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	50	190	140	130	420	60	370	741	220	50	291	40
Future Volume (veh/h)	50	190	140	130	420	60	370	741	220	50	291	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	207	30	141	457	15	402	805	100	54	316	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	277	594	262	353	672	297	487	2033	629	194	1600	494
Arrive On Green	0.08	0.16	0.16	0.10	0.19	0.19	0.14	0.39	0.39	0.06	0.31	0.31
Sat Flow, veh/h	3510	3610	1595	3510	3610	1597	3510	5187	1604	3510	5187	1602
Grp Volume(v), veh/h	54	207	30	141	457	15	402	805	100	54	316	15
Grp Sat Flow(s),veh/h/ln	1755	1805	1595	1755	1805	1597	1755	1729	1604	1755	1729	1602
Q Serve(g_s), s	1.4	4.9	1.6	3.7	11.5	0.8	10.8	10.9	3.9	1.4	4.4	0.6
Cycle Q Clear(g_c), s	1.4	4.9	1.6	3.7	11.5	0.8	10.8	10.9	3.9	1.4	4.4	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	594	262	353	672	297	487	2033	629	194	1600	494
V/C Ratio(X)	0.19	0.35	0.11	0.40	0.68	0.05	0.83	0.40	0.16	0.28	0.20	0.03
Avail Cap(c_a), veh/h	722	1114	492	722	1114	493	722	2033	629	722	1600	494
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	41.9	36.0	34.6	41.0	36.9	32.5	40.7	21.3	19.2	44.1	24.8	23.5
Incr Delay (d2), s/veh	0.3	0.4	0.2	0.5	1.5	0.1	4.3	0.6	0.5	0.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.1	0.6	1.5	4.9	0.3	4.8	4.2	1.4	0.6	1.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	36.4	34.8	41.5	38.4	32.6	45.0	21.9	19.7	44.7	25.0	23.6
LnGrp LOS	D	D	C	D	D	C	D	C	B	D	C	C
Approach Vol, veh/h		291			613			1307			385	
Approach Delay, s/veh		37.3			38.9			28.8			27.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	44.6	17.3	23.5	20.0	36.5	15.2	25.6				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1/4), s	13.4	12.9	5.7	6.9	12.8	6.4	3.4	13.5				
Green Ext Time (p_c), s	0.1	5.9	0.2	1.4	0.7	2.3	0.1	2.9				

Intersection Summary

HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↶	↶	↶	↶		↷	↷
Traffic Volume (veh/h)	0	0	0	337	0	400	730	1081	0	0	431	140
Future Volume (veh/h)	0	0	0	337	0	400	730	1081	0	0	431	140
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				428	0	179	745	1103	0	0	440	33
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				941	0	419	1170	3170	0	0	1452	354
Arrive On Green				0.26	0.00	0.26	0.44	0.81	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1592
Grp Volume(v), veh/h				428	0	179	745	1103	0	0	440	33
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1592
Q Serve(g_s), s				8.9	0.0	8.3	14.8	5.0	0.0	0.0	5.1	1.5
Cycle Q Clear(g_c), s				8.9	0.0	8.3	14.8	5.0	0.0	0.0	5.1	1.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				941	0	419	1170	3170	0	0	1452	354
V/C Ratio(X)				0.45	0.00	0.43	0.64	0.35	0.00	0.00	0.30	0.09
Avail Cap(c_a), veh/h				941	0	419	1170	3170	0	0	1452	354
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.69	0.69	0.00	0.00	0.97	0.97
Uniform Delay (d), s/veh				27.9	0.0	27.7	20.8	3.7	0.0	0.0	29.2	27.8
Incr Delay (d2), s/veh				1.6	0.0	3.2	1.8	0.2	0.0	0.0	0.5	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.0	0.0	8.2	5.2	1.3	0.0	0.0	1.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.5	0.0	30.9	22.7	4.0	0.0	0.0	29.7	28.3
LnGrp LOS				C	A	C	C	A	A	A	C	C
Approach Vol, veh/h					607			1848			473	
Approach Delay, s/veh					29.9			11.5			29.6	
Approach LOS					C			B			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		60.8		29.2	35.0	25.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		55.0		23.4	30.0	20.0						
Max Q Clear Time (g_c+I1), s		7.0		10.9	16.8	7.1						
Green Ext Time (p_c), s		9.0		1.8	1.3	2.2						

Intersection Summary

HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	0	430	0	0	0	0	1461	593	120	648	0
Future Volume (veh/h)	350	0	430	0	0	0	0	1461	593	120	648	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	425	0	146				0	1491	196	122	661	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1222	0	544				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.05	0.18	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	425	0	146				0	1491	196	122	661	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	7.9	0.0	5.9				0.0	18.0	8.5	3.0	9.9	0.0
Cycle Q Clear(g_c), s	7.9	0.0	5.9				0.0	18.0	8.5	3.0	9.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1222	0	544				0	2106	515	546	2766	0
V/C Ratio(X)	0.35	0.00	0.27				0.00	0.71	0.38	0.22	0.24	0.00
Avail Cap(c_a), veh/h	1222	0	544				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	22.4	0.0	21.7				0.0	26.8	23.6	37.5	21.4	0.0
Incr Delay (d2), s/veh	0.8	0.0	1.2				0.0	2.0	2.1	0.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	0.0	2.4				0.0	6.7	3.3	1.3	4.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	0.0	22.9				0.0	28.8	25.7	38.3	21.6	0.0
LnGrp LOS	C	A	C				A	C	C	D	C	A
Approach Vol, veh/h		571						1687			783	
Approach Delay, s/veh		23.1						28.5			24.2	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+1/3), s	15.0	20.0					11.9	9.9				
Green Ext Time (p_c), s	0.1	6.2					4.6	2.0				

Intersection Summary

HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	504	0	663	0	2254	0	0	1539	545	0	0
Future Volume (veh/h)	504	0	663	0	2254	0	0	1539	545	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	520	520	654	0	2324	0	0	1587	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	925	925	1641	0	2484	0	0	2888			
Arrive On Green	0.51	0.51	0.51	0.00	0.38	0.00	0.00	0.38	0.00		
Sat Flow, veh/h	1810	1810	3211	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	520	520	654	0	2324	0	0	1587	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1605	0	1634	0	0	1900	1610		
Q Serve(g_s), s	19.7	19.7	12.5	0.0	34.2	0.0	0.0	16.4	0.0		
Cycle Q Clear(g_c), s	19.7	19.7	12.5	0.0	34.2	0.0	0.0	16.4	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	925	925	1641	0	2484	0	0	2888			
V/C Ratio(X)	0.56	0.56	0.40	0.00	0.94	0.00	0.00	0.55			
Avail Cap(c_a), veh/h	925	925	1641	0	2484	0	0	2888			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	16.8	16.8	15.0	0.0	29.8	0.0	0.0	24.3	0.0		
Incr Delay (d2), s/veh	2.5	2.5	0.7	0.0	8.2	0.0	0.0	0.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.4	8.4	4.6	0.0	13.7	0.0	0.0	7.1	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	19.2	19.2	15.7	0.0	38.0	0.0	0.0	25.1	0.0		
LnGrp LOS	B	B	B	A	D	A	A	C			
Approach Vol, veh/h	1174	1174			2324			1587	A		
Approach Delay, s/veh	17.3	17.3			38.0			25.1			
Approach LOS	B	B			D			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	43.8		56.2		43.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	38.0		51.1		38.0						
Max Q Clear Time (g_c+I1), s	36.2		21.7		18.4						
Green Ext Time (p_c), s	1.6		2.5		7.8						

Intersection Summary

HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	967	0	770	0	1709	330	0	1585	0	0	0
Future Volume (veh/h)	967	0	770	0	1709	330	0	1585	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	997	997	764	0	1762	0	0	1634	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	961	961	1710	0	2353		0	2353	0		
Arrive On Green	0.53	0.53	0.53	0.00	0.36	0.00	0.00	0.36	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	997	997	764	0	1762	0	0	1634	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	53.1	53.1	14.6	0.0	23.6	0.0	0.0	21.3	0.0		
Cycle Q Clear(g_c), s	53.1	53.1	14.6	0.0	23.6	0.0	0.0	21.3	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	961	961	1710	0	2353		0	2353	0		
V/C Ratio(X)	1.04	1.04	0.45	0.00	0.75		0.00	0.69	0.00		
Avail Cap(c_a), veh/h	961	961	1710	0	2353		0	2353	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.86	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	23.5	23.5	14.4	0.0	28.0	0.0	0.0	27.3	0.0		
Incr Delay (d2), s/veh	39.2	39.2	0.8	0.0	1.9	0.0	0.0	1.7	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	31.2	31.2	5.3	0.0	9.3	0.0	0.0	8.1	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	62.7	62.7	15.3	0.0	30.0	0.0	0.0	29.0	0.0		
LnGrp LOS	F	F	B	A	C		A	C	A		
Approach Vol, veh/h	1761	1761			1762	A		1634			
Approach Delay, s/veh	42.1	42.1			30.0			29.0			
Approach LOS	D	D			C			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	41.8		58.2		41.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	36.0		53.1		36.0						
Max Q Clear Time (g_c+I1), s	25.6		55.1		23.3						
Green Ext Time (p_c), s	6.5		0.0		6.4						

Intersection Summary

HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗	↔↔	↑	↗↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	50	30	30	80	50	190	220	1788	150	190	1835	330
Future Volume (veh/h)	50	30	30	80	50	190	220	1788	150	190	1835	330
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	30	3	81	51	14	222	1806	82	192	1854	261
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	263	164	137	300	184	271	281	3474	853	251	3417	839
Arrive On Green	0.07	0.09	0.09	0.09	0.10	0.10	0.08	0.53	0.53	0.07	0.52	0.52
Sat Flow, veh/h	3510	1900	1582	3510	1900	2790	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	51	30	3	81	51	14	222	1806	82	192	1854	261
Grp Sat Flow(s),veh/h/ln	1755	1900	1582	1755	1900	1395	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	1.6	1.8	0.2	2.6	3.0	0.5	7.5	21.5	3.0	6.4	22.7	11.1
Cycle Q Clear(g_c), s	1.6	1.8	0.2	2.6	3.0	0.5	7.5	21.5	3.0	6.4	22.7	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	164	137	300	184	271	281	3474	853	251	3417	839
V/C Ratio(X)	0.19	0.18	0.02	0.27	0.28	0.05	0.79	0.52	0.10	0.76	0.54	0.31
Avail Cap(c_a), veh/h	453	372	310	453	372	546	556	3474	853	556	3417	839
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	0.35	0.35	0.35	0.71	0.71	0.71
Uniform Delay (d), s/veh	52.1	50.9	50.2	51.4	50.3	49.2	54.2	18.2	13.9	54.7	19.1	16.3
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.2	0.3	0.0	0.7	0.2	0.1	1.3	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.8	0.1	1.1	1.4	0.2	3.2	7.6	1.0	2.8	8.1	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	51.1	50.2	51.5	50.6	49.2	54.9	18.4	14.0	56.0	19.5	17.0
LnGrp LOS	D	D	D	D	D	D	D	B	B	E	B	B
Approach Vol, veh/h		84			146			2110			2307	
Approach Delay, s/veh		51.7			51.0			22.1			22.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.6	70.8	16.8	16.9	16.6	69.7	15.5	18.1				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	19.0	35.0	15.5	23.5	19.0	35.0	15.5	23.5				
Max Q Clear Time (g_c+1), s	19.4	23.5	4.6	3.8	9.5	24.7	3.6	5.0				
Green Ext Time (p_c), s	0.2	7.6	0.0	0.0	0.2	7.4	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕		↖↗	↕	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	20	219	170	182	223	322	176	1816	120	728	1178	30
Future Volume (veh/h)	20	219	170	182	223	322	176	1816	120	728	1178	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	228	88	190	232	82	183	1892	40	758	1227	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	345	129	252	670	299	244	2107	517	813	3166	778
Arrive On Green	0.02	0.13	0.13	0.07	0.19	0.19	0.07	0.32	0.32	0.23	0.48	0.48
Sat Flow, veh/h	3510	2562	958	3510	3610	1610	3510	6536	1603	3510	6536	1605
Grp Volume(v), veh/h	21	158	158	190	232	82	183	1892	40	758	1227	14
Grp Sat Flow(s),veh/h/ln	1755	1805	1715	1755	1805	1610	1755	1634	1603	1755	1634	1605
Q Serve(g_s), s	0.7	10.2	10.7	6.5	6.9	5.4	6.3	33.9	2.1	26.0	14.6	0.6
Cycle Q Clear(g_c), s	0.7	10.2	10.7	6.5	6.9	5.4	6.3	33.9	2.1	26.0	14.6	0.6
Prop In Lane	1.00		0.56	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	243	231	252	670	299	244	2107	517	813	3166	778
V/C Ratio(X)	0.29	0.65	0.68	0.76	0.35	0.27	0.75	0.90	0.08	0.93	0.39	0.02
Avail Cap(c_a), veh/h	858	588	559	858	1177	525	858	2130	522	858	3166	778
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	59.2	50.3	50.6	55.9	43.5	42.9	56.0	39.7	28.9	46.2	20.1	16.5
Incr Delay (d2), s/veh	0.8	2.9	3.5	1.7	0.3	0.5	1.7	5.6	0.1	15.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.7	4.7	2.9	3.0	2.1	2.7	13.5	0.8	12.7	5.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	53.3	54.1	57.7	43.8	43.4	57.8	45.2	29.0	62.0	20.2	16.5
LnGrp LOS	E	D	D	E	D	D	E	D	C	E	C	B
Approach Vol, veh/h		337			504			2115			1999	
Approach Delay, s/veh		54.1			48.9			46.0			36.0	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	35.9	47.1	15.8	23.9	16.0	66.9	9.6	30.2				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+2p_c), s	20.0	35.9	8.5	12.7	8.3	16.6	2.7	8.9				
Green Ext Time (p_c), s	0.4	3.6	0.3	1.7	0.3	10.3	0.0	1.6				

Intersection Summary

HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗		↖ ↑ ↗	↖ ↗	↑			↕	
Traffic Volume (veh/h)	20	340	20	50	628	20	10	0	30	20	10	10
Future Volume (veh/h)	20	340	20	50	628	20	10	0	30	20	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	405	16	60	748	7	12	0	17	24	12	6
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	1551	61	105	1189	526	596	0	557	368	178	78
Arrive On Green	0.03	0.30	0.30	0.06	0.33	0.33	0.35	0.00	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1810	5119	201	1810	3610	1598	1411	0	1603	834	512	224
Grp Volume(v), veh/h	24	273	148	60	748	7	12	0	17	42	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1862	1810	1805	1598	1411	0	1603	1570	0	0
Q Serve(g_s), s	0.9	4.3	4.3	2.3	12.6	0.2	0.0	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.9	4.3	4.3	2.3	12.6	0.2	0.3	0.0	0.5	1.1	0.0	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	0.57		0.14
Lane Grp Cap(c), veh/h	57	1048	564	105	1189	526	596	0	557	624	0	0
V/C Ratio(X)	0.42	0.26	0.26	0.57	0.63	0.01	0.02	0.00	0.03	0.07	0.00	0.00
Avail Cap(c_a), veh/h	377	3122	1681	377	3259	1442	596	0	557	624	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.2	19.0	19.0	33.0	20.4	16.3	15.4	0.0	15.5	15.7	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.2	0.4	4.8	0.8	0.0	0.1	0.0	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.6	1.7	1.1	4.8	0.1	0.1	0.0	0.2	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	19.2	19.4	37.8	21.2	16.3	15.5	0.0	15.6	15.9	0.0	0.0
LnGrp LOS	D	B	B	D	C	B	B	A	B	B	A	A
Approach Vol, veh/h	445			815			29			42		
Approach Delay, s/veh	20.3			22.4			15.6			15.9		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	32.0		11.2		28.8		32.0		9.3		30.7	
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0		7.0		7.0	
Max Green Setting (Gmax), s	25.0		15.0		65.0		25.0		15.0		65.0	
Max Q Clear Time (g_c+1), s	2.5		4.3		6.3		3.1		2.9		14.6	
Green Ext Time (p_c), s	0.1		0.1		3.8		0.1		0.0		8.2	

Intersection Summary

HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖	↗			↖	↗		↕	
Traffic Volume (veh/h)	0	310	50	50	698	10	50	0	30	0	0	0
Future Volume (veh/h)	0	310	50	50	698	10	50	0	30	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	348	44	56	784	11	56	0	5	0	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3030	375	91	1451	20	176	0	107	0	129	0
Arrive On Green	0.00	0.65	0.65	0.05	0.78	0.78	0.07	0.00	0.07	0.00	0.00	0.00
Sat Flow, veh/h	1810	4674	578	1810	1869	26	1408	0	1575	0	1900	0
Grp Volume(v), veh/h	0	255	137	56	0	795	56	0	5	0	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1793	1810	0	1895	1408	0	1575	0	1900	0
Q Serve(g_s), s	0.0	2.5	2.6	2.7	0.0	14.5	3.5	0.0	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.5	2.6	2.7	0.0	14.5	3.5	0.0	0.3	0.0	0.0	0.0
Prop In Lane	1.00		0.32	1.00		0.01	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	2	2242	1163	91	0	1471	176	0	107	0	129	0
V/C Ratio(X)	0.00	0.11	0.12	0.62	0.00	0.54	0.32	0.00	0.05	0.00	0.00	0.00
Avail Cap(c_a), veh/h	322	2242	1163	322	0	1471	659	0	647	0	781	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	6.0	6.0	41.9	0.0	3.9	40.7	0.0	39.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	6.6	0.0	1.4	1.0	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.8	1.3	0.0	3.4	1.3	0.0	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.1	6.2	48.5	0.0	5.3	41.7	0.0	39.4	0.0	0.0	0.0
LnGrp LOS	A	A	A	D	A	A	D	A	D	A	A	A
Approach Vol, veh/h	392		851				61		0			
Approach Delay, s/veh	6.1		8.2				41.5		0.0			
Approach LOS	A		A				D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	13.1	11.5	65.3		13.1	0.0	76.9					
Change Period (Y+Rc), s	7.0	7.0	7.0		7.0	7.0	7.0					
Max Green Setting (Gmax), s	37.0	16.0	16.0		37.0	16.0	16.0					
Max Q Clear Time (g_c+I1), s	5.5	4.7	4.6		0.0	0.0	16.5					
Green Ext Time (p_c), s	0.3	0.1	1.6		0.0	0.0	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔	↑↑↑	↔	↔	↑↑↑	↔
Traffic Volume (veh/h)	30	410	80	274	368	173	80	2207	227	32	1398	510
Future Volume (veh/h)	30	410	80	274	368	173	80	2207	227	32	1398	510
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	423	17	282	379	49	82	2275	79	33	1441	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	232	739	227	432	720	321	159	2234	548	102	2030	
Arrive On Green	0.07	0.14	0.14	0.12	0.20	0.20	0.09	0.34	0.34	0.06	0.31	0.00
Sat Flow, veh/h	3510	5187	1593	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	31	423	17	282	379	49	82	2275	79	33	1441	0
Grp Sat Flow(s),veh/h/ln1755	1729	1593	1755	1805	1610	1810	1634	1603	1810	1634	1610	
Q Serve(g_s), s	0.7	6.8	0.8	6.8	8.4	2.2	3.9	30.5	3.0	1.6	17.4	0.0
Cycle Q Clear(g_c), s	0.7	6.8	0.8	6.8	8.4	2.2	3.9	30.5	3.0	1.6	17.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	232	739	227	432	720	321	159	2234	548	102	2030	
V/C Ratio(X)	0.13	0.57	0.07	0.65	0.53	0.15	0.52	1.02	0.14	0.32	0.71	
Avail Cap(c_a), veh/h	531	1889	580	689	1355	605	193	2234	548	193	2234	
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	0.00
Uniform Delay (d), s/veh	39.3	35.7	33.2	37.3	31.9	29.5	38.9	29.4	20.3	40.5	27.2	0.0
Incr Delay (d2), s/veh	0.1	0.7	0.1	0.6	0.6	0.2	1.0	23.8	0.1	0.7	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.8	0.3	2.8	3.5	0.8	1.6	14.1	1.1	0.7	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	36.4	33.3	37.9	32.5	29.7	39.9	53.1	20.5	41.1	28.2	0.0
LnGrp LOS	D	D	C	D	C	C	D	F	C	D	C	
Approach Vol, veh/h		471		710		2436		1474		A		
Approach Delay, s/veh		36.5		34.5		51.6		28.5				
Approach LOS		D		C		D		C				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.5	38.0	18.5	20.2	15.3	35.2	13.4	25.3				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	30.5	30.5	17.5	32.5	9.5	30.5	13.5	33.5				
Max Q Clear Time (g_c+1), s	13.6	32.5	8.8	8.8	5.9	19.4	2.7	10.4				
Green Ext Time (p_c), s	0.0	0.0	0.3	2.6	0.0	7.2	0.0	2.3				

Intersection Summary

HCM 6th Ctrl Delay	41.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗		↖ ↑ ↗	↖ ↗	↖ ↗		↖ ↗	↑	↖ ↗
Traffic Volume (veh/h)	50	796	20	10	678	36	10	10	10	52	0	91
Future Volume (veh/h)	50	796	20	10	678	36	10	10	10	52	0	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	829	18	10	706	15	10	10	4	54	0	29
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	411	2231	48	408	1542	684	537	313	125	533	462	389
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	742	5224	113	660	3610	1601	1394	1288	515	1413	1900	1600
Grp Volume(v), veh/h	52	548	299	10	706	15	10	0	14	54	0	29
Grp Sat Flow(s),veh/h/ln	742	1729	1879	660	1805	1601	1394	0	1803	1413	1900	1600
Q Serve(g_s), s	2.0	3.9	3.9	0.4	5.1	0.2	0.2	0.0	0.2	1.1	0.0	0.5
Cycle Q Clear(g_c), s	7.0	3.9	3.9	4.3	5.1	0.2	0.2	0.0	0.2	1.3	0.0	0.5
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	411	1477	802	408	1542	684	537	0	439	533	462	389
V/C Ratio(X)	0.13	0.37	0.37	0.02	0.46	0.02	0.02	0.00	0.03	0.10	0.00	0.07
Avail Cap(c_a), veh/h	808	3325	1807	761	3471	1539	1156	0	1239	1160	1305	1099
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.9	7.1	7.1	8.6	7.4	6.0	10.5	0.0	10.5	11.0	0.0	10.6
Incr Delay (d2), s/veh	0.1	0.2	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.8	0.9	0.0	1.0	0.0	0.1	0.0	0.1	0.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	7.3	7.4	8.6	7.6	6.0	10.5	0.0	10.5	11.1	0.0	10.7
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		899			731			24				83
Approach Delay, s/veh		7.5			7.6			10.5				11.0
Approach LOS		A			A			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.9		22.5		13.9		22.5				
Change Period (Y+Rc), s		5.0		7.0		5.0		7.0				
Max Green Setting (Gmax), s		25.0		35.0		25.0		35.0				
Max Q Clear Time (g_c+1), s		2.2		9.0		3.3		7.1				
Green Ext Time (p_c), s		0.0		5.8		0.2		4.9				

Intersection Summary

HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑	↗	↖	↖	↖	↖↗	↑	↗
Traffic Volume (veh/h)	70	758	30	30	599	289	20	40	80	350	30	104
Future Volume (veh/h)	70	758	30	30	599	289	20	40	80	350	30	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	790	12	31	624	0	21	42	14	365	31	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	118	2365	730	76	1562		66	139	46	312	294	247
Arrive On Green	0.07	0.46	0.46	0.03	0.29	0.00	0.04	0.10	0.10	0.09	0.15	0.15
Sat Flow, veh/h	1810	5187	1601	1810	3610	1610	1810	1358	453	3510	1900	1595
Grp Volume(v), veh/h	73	790	12	31	624	0	21	0	56	365	31	25
Grp Sat Flow(s),veh/h/ln	1810	1729	1601	1810	1805	1610	1810	0	1811	1755	1900	1595
Q Serve(g_s), s	3.5	8.8	0.4	1.5	12.5	0.0	1.0	0.0	2.6	8.0	1.3	1.2
Cycle Q Clear(g_c), s	3.5	8.8	0.4	1.5	12.5	0.0	1.0	0.0	2.6	8.0	1.3	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	118	2365	730	76	1562		66	0	185	312	294	247
V/C Ratio(X)	0.62	0.33	0.02	0.41	0.40		0.32	0.00	0.30	1.17	0.11	0.10
Avail Cap(c_a), veh/h	161	2365	730	161	1562		161	0	402	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.97	0.97	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	15.7	13.4	42.6	22.6	0.0	42.3	0.0	37.4	41.0	32.7	32.7
Incr Delay (d2), s/veh	5.7	0.3	0.0	4.1	0.7	0.0	1.0	0.0	0.7	105.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.2	0.1	0.7	5.5	0.0	0.5	0.0	1.1	8.0	0.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	16.1	13.5	46.7	23.3	0.0	43.3	0.0	38.1	146.2	32.8	32.8
LnGrp LOS	D	B	B	D	C		D	A	D	F	C	C
Approach Vol, veh/h		875			655	A		77			421	
Approach Delay, s/veh		18.6			24.4			39.5			131.1	
Approach LOS		B			C			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	16.2	10.8	48.0	10.3	20.9	12.9	45.9				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	30.0	20.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+fl), s	11.0	4.6	3.5	10.8	3.0	3.3	5.5	14.5				
Green Ext Time (p_c), s	0.0	0.1	0.0	5.2	0.0	0.1	0.0	3.4				

Intersection Summary

HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙ ↑↑↑			↙ ↑↑↑			↙ ↑↑	↑↑		↙ ↑↑	↑↑	
Traffic Volume (veh/h)	40	1138	30	60	799	30	40	40	130	60	30	40
Future Volume (veh/h)	40	1138	30	60	799	30	40	40	130	60	30	40
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	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	1185	30	62	832	29	42	42	19	62	31	7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	3225	82	80	3233	112	222	279	118	210	333	72
Arrive On Green	0.07	1.00	1.00	0.04	0.63	0.63	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1810	5202	132	1810	5146	179	1375	2464	1038	1347	2941	639
Grp Volume(v), veh/h	42	788	427	62	559	302	42	30	31	62	19	19
Grp Sat Flow(s),veh/h/ln	1810	1729	1876	1810	1729	1867	1375	1805	1697	1347	1805	1775
Q Serve(g_s), s	2.0	0.0	0.0	3.1	6.4	6.5	2.5	1.3	1.5	3.9	0.8	0.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	3.1	6.4	6.5	3.4	1.3	1.5	5.4	0.8	0.9
Prop In Lane	1.00		0.07	1.00		0.10	1.00		0.61	1.00		0.36
Lane Grp Cap(c), veh/h	65	2144	1163	80	2173	1173	222	205	192	210	205	201
V/C Ratio(X)	0.64	0.37	0.37	0.77	0.26	0.26	0.19	0.15	0.16	0.29	0.09	0.10
Avail Cap(c_a), veh/h	201	2144	1163	281	2173	1173	509	582	547	492	582	572
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	0.0	0.0	42.5	7.4	7.4	37.3	36.0	36.0	38.5	35.7	35.8
Incr Delay (d2), s/veh	3.0	0.4	0.7	5.1	0.3	0.5	0.4	0.3	0.4	0.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.2	1.4	2.0	2.2	0.8	0.6	0.6	1.3	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.2	0.4	0.7	47.6	7.7	7.9	37.7	36.3	36.4	39.2	35.9	36.0
LnGrp LOS	D	A	A	D	A	A	D	D	D	D	D	D
Approach Vol, veh/h	1257			923			103			100		
Approach Delay, s/veh	1.9			10.4			36.9			38.0		
Approach LOS	A			B			D			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	16.2	11.0	62.8		16.2	10.3	63.5					
Change Period (Y+Rc), s	6.0	7.0	7.0		6.0	7.0	7.0					
Max Green Setting (Gmax), s	29.0	14.0	27.0		29.0	10.0	31.0					
Max Q Clear Time (g_c+I1), s	5.4	5.1	2.0		7.4	4.0	8.5					
Green Ext Time (p_c), s	0.4	0.0	11.5		0.3	0.0	7.4					
Intersection Summary												
HCM 6th Ctrl Delay			8.3									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑		↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑	↖
Traffic Volume (veh/h)	130	988	130	380	599	134	160	906	410	230	967	70
Future Volume (veh/h)	130	988	130	380	599	134	160	906	410	230	967	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	1040	36	400	631	121	168	954	172	242	1018	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	1369	425	474	1339	253	300	1322	410	312	1339	566
Arrive On Green	0.09	0.26	0.26	0.14	0.31	0.31	0.09	0.25	0.25	0.09	0.26	0.26
Sat Flow, veh/h	3510	5187	1610	3510	4381	828	3510	5187	1610	3510	5187	1610
Grp Volume(v), veh/h	137	1040	36	400	496	256	168	954	172	242	1018	27
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1751	1755	1729	1610	1755	1729	1610
Q Serve(g_s), s	4.3	21.5	2.0	13.0	13.6	13.9	5.4	19.6	10.4	7.9	21.1	1.3
Cycle Q Clear(g_c), s	4.3	21.5	2.0	13.0	13.6	13.9	5.4	19.6	10.4	7.9	21.1	1.3
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	1369	425	474	1057	535	300	1322	410	312	1339	566
V/C Ratio(X)	0.42	0.76	0.08	0.84	0.47	0.48	0.56	0.72	0.42	0.78	0.76	0.05
Avail Cap(c_a), veh/h	753	1780	553	753	1187	601	753	1780	553	753	1780	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	49.9	39.5	32.3	49.2	32.8	32.9	51.2	39.7	36.2	52.0	39.9	24.9
Incr Delay (d2), s/veh	0.6	1.6	0.1	4.1	0.4	0.8	1.2	1.1	0.8	3.1	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	9.0	0.8	5.8	5.5	5.8	2.3	8.1	4.1	3.5	8.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	41.1	32.4	53.3	33.2	33.7	52.4	40.8	37.1	55.1	41.4	25.0
LnGrp LOS	D	D	C	D	C	C	D	D	D	E	D	C
Approach Vol, veh/h		1213			1152			1294			1287	
Approach Delay, s/veh		41.9			40.3			41.8			43.7	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.8	37.2	23.2	38.3	17.5	37.6	18.4	43.1				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1), s	19.9	21.6	15.0	23.5	7.4	23.1	6.3	15.9				
Green Ext Time (p_c), s	0.5	7.4	0.8	7.3	0.3	7.0	0.3	5.6				

Intersection Summary

HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	120	1522	6	74	895	50	48	20	125	400	10	140
Future Volume (veh/h)	120	1522	6	74	895	50	48	20	125	400	10	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	129	1637	6	80	962	50	52	22	17	430	11	43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	1933	7	141	1777	92	108	174	145	433	515	434
Arrive On Green	0.09	0.36	0.36	0.08	0.35	0.35	0.06	0.09	0.09	0.24	0.27	0.27
Sat Flow, veh/h	1810	5335	20	1810	5048	262	1810	1900	1584	1810	1900	1601
Grp Volume(v), veh/h	129	1061	582	80	659	353	52	22	17	430	11	43
Grp Sat Flow(s),veh/h/ln	1810	1729	1896	1810	1729	1852	1810	1900	1584	1810	1900	1601
Q Serve(g_s), s	7.3	29.5	29.5	4.5	15.9	16.0	2.9	1.1	1.0	24.8	0.4	2.1
Cycle Q Clear(g_c), s	7.3	29.5	29.5	4.5	15.9	16.0	2.9	1.1	1.0	24.8	0.4	2.1
Prop In Lane	1.00		0.01	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	1253	687	141	1217	652	108	174	145	433	515	434
V/C Ratio(X)	0.81	0.85	0.85	0.57	0.54	0.54	0.48	0.13	0.12	0.99	0.02	0.10
Avail Cap(c_a), veh/h	346	1323	725	346	1323	708	346	363	303	433	515	434
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	46.8	30.7	30.7	46.5	27.1	27.1	47.6	43.7	43.6	39.7	28.0	28.6
Incr Delay (d2), s/veh	3.7	5.2	9.1	1.3	0.5	0.8	1.2	0.2	0.3	41.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	12.3	14.3	2.0	6.3	6.8	1.4	0.5	0.4	16.0	0.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	35.9	39.7	47.9	27.6	28.0	48.8	43.9	43.9	81.2	28.0	28.6
LnGrp LOS	D	D	D	D	C	C	D	D	D	F	C	C
Approach Vol, veh/h	1772				1092		91		484			
Approach Delay, s/veh	38.2				29.2		46.7		75.4			
Approach LOS	D				C		D		E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.0	14.5	15.1	44.9	11.2	33.3	16.2	43.8				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	20.0	20.0	40.0	20.0	25.0	20.0	40.0				
Max Q Clear Time (g_c+20.8), s	20.8	3.1	6.5	31.5	4.9	4.1	9.3	18.0				
Green Ext Time (p_c), s	0.0	0.1	0.1	6.4	0.0	0.1	0.1	7.5				

Intersection Summary

HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	1516	591	510	666	0	0	0	0	240	0	414
Future Volume (veh/h)	0	1516	591	510	666	0	0	0	0	240	0	414
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1596	288	537	701	0				286	0	71
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1963	552	741	3170	0				885	0	394
Arrive On Green	0.00	0.34	0.34	0.07	0.20	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	5700	1603	3510	5358	0				3619	0	1610
Grp Volume(v), veh/h	0	1596	288	537	701	0				286	0	71
Grp Sat Flow(s),veh/h/ln	0	1900	1603	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	22.9	12.9	13.5	10.2	0.0				5.8	0.0	3.1
Cycle Q Clear(g_c), s	0.0	22.9	12.9	13.5	10.2	0.0				5.8	0.0	3.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1963	552	741	3170	0				885	0	394
V/C Ratio(X)	0.00	0.81	0.52	0.72	0.22	0.00				0.32	0.00	0.18
Avail Cap(c_a), veh/h	0	1963	552	741	3170	0				885	0	394
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.40	0.40	0.86	0.86	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.9	23.6	39.3	18.0	0.0				27.9	0.0	26.9
Incr Delay (d2), s/veh	0.0	1.6	1.4	5.3	0.1	0.0				1.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.8	4.7	6.8	4.1	0.0				2.6	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.4	25.0	44.6	18.2	0.0				28.9	0.0	27.9
LnGrp LOS		A	C	C	D	B	A			C	A	C
Approach Vol, veh/h		1884		1238						357		
Approach Delay, s/veh		27.9		29.6						28.7		
Approach LOS		C		C						C		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.0	37.5		28.5		61.5						
Change Period (Y+Rc), s	5.0	6.5		6.5		6.5						
Max Green Setting (Gmax), s	19.0	31.0		22.0		55.0						
Max Q Clear Time (g_c+1/5), s	11.5	24.9		7.8		12.2						
Green Ext Time (p_c), s	0.4	4.7		1.1		4.0						

Intersection Summary

HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑			↑↑↑	↖	↖	↕	↖			
Traffic Volume (veh/h)	582	1174	0	0	1065	520	110	0	280	0	0	0
Future Volume (veh/h)	582	1174	0	0	1065	520	110	0	280	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	606	1223	0	0	1109	245	159	0	86			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	702	3458	0	0	2132	662	684	0	304			
Arrive On Green	0.20	0.67	0.00	0.00	0.41	0.41	0.19	0.00	0.19			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	3619	0	1610			
Grp Volume(v), veh/h	606	1223	0	0	1109	245	159	0	86			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	15.0	9.3	0.0	0.0	14.4	9.5	3.4	0.0	4.1			
Cycle Q Clear(g_c), s	15.0	9.3	0.0	0.0	14.4	9.5	3.4	0.0	4.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	702	3458	0	0	2132	662	684	0	304			
V/C Ratio(X)	0.86	0.35	0.00	0.00	0.52	0.37	0.23	0.00	0.28			
Avail Cap(c_a), veh/h	702	3458	0	0	2132	662	684	0	304			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.16	0.16	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.8	6.5	0.0	0.0	19.8	18.4	31.0	0.0	31.3			
Incr Delay (d2), s/veh	2.5	0.0	0.0	0.0	0.9	1.6	0.8	0.0	2.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.3	2.6	0.0	0.0	5.4	3.5	1.5	0.0	1.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	6.6	0.0	0.0	20.8	20.0	31.8	0.0	33.6			
LnGrp LOS	D	A	A	A	C	B	C	A	C			
Approach Vol, veh/h		1829			1354			245				
Approach Delay, s/veh		16.8			20.6			32.4				
Approach LOS		B			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.5			23.0	43.5		23.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		60.0			18.0	37.0		17.0				
Max Q Clear Time (g_c+I1), s		11.3			17.0	16.4		6.1				
Green Ext Time (p_c), s		8.2			0.2	8.2		0.5				

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	837	172	164	852	295	111	978	72	189	968	152
Future Volume (veh/h)	218	837	172	164	852	295	111	978	72	189	968	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	234	900	76	176	916	208	119	1052	72	203	1041	45
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	968	429	218	963	429	309	840	58	320	907	402
Arrive On Green	0.12	0.27	0.27	0.12	0.27	0.27	0.13	0.25	0.25	0.13	0.25	0.25
Sat Flow, veh/h	1810	3610	1601	1810	3610	1610	1810	3427	234	1810	3610	1601
Grp Volume(v), veh/h	234	900	76	176	916	208	119	554	570	203	1041	45
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1610	1810	1805	1856	1810	1805	1601
Q Serve(g_s), s	11.0	21.9	3.3	8.5	22.4	9.8	4.0	22.1	22.1	7.1	22.6	1.9
Cycle Q Clear(g_c), s	11.0	21.9	3.3	8.5	22.4	9.8	4.0	22.1	22.1	7.1	22.6	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	221	968	429	218	963	429	309	443	455	320	907	402
V/C Ratio(X)	1.06	0.93	0.18	0.81	0.95	0.48	0.39	1.25	1.25	0.63	1.15	0.11
Avail Cap(c_a), veh/h	221	968	429	221	963	429	321	443	455	321	907	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	32.1	25.3	38.5	32.4	27.8	21.7	34.0	34.0	22.3	33.7	26.0
Incr Delay (d2), s/veh	76.7	15.0	0.3	14.7	14.4	0.8	1.1	130.6	130.5	4.7	79.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	10.7	1.2	4.4	10.8	3.6	1.7	25.2	25.9	3.2	19.3	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.2	47.1	25.6	53.2	46.9	28.6	22.8	164.6	164.4	27.0	113.1	26.5
LnGrp LOS	F	D	C	D	D	C	C	F	F	C	F	C
Approach Vol, veh/h		1210			1300			1243			1289	
Approach Delay, s/veh		59.1			44.8			151.0			96.5	
Approach LOS		E			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.6	27.9	15.6	29.9	16.1	28.4	15.7	29.8				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.0	* 11	24.0	* 12	22.0	* 11	24.0				
Max Q Clear Time (g_c+I1), s	9.1	24.1	10.5	23.9	6.0	24.6	13.0	24.4				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.1	0.2	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			87.6									
HCM 6th LOS			F									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
 2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	988	40	80	1131	80	30	170	50	80	180	60
Future Volume (veh/h)	50	988	40	80	1131	80	30	170	50	80	180	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1019	18	82	1166	49	31	175	45	82	186	56
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	1694	751	116	1749	776	100	359	86	163	289	79
Arrive On Green	0.05	0.47	0.47	0.06	0.48	0.48	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	122	1354	322	328	1089	296
Grp Volume(v), veh/h	52	1019	18	82	1166	49	251	0	0	324	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	1798	0	0	1713	0	0
Q Serve(g_s), s	1.7	12.4	0.4	2.6	14.6	1.0	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	1.7	12.4	0.4	2.6	14.6	1.0	6.9	0.0	0.0	9.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.12		0.18	0.25		0.17
Lane Grp Cap(c), veh/h	88	1694	751	116	1749	776	545	0	0	530	0	0
V/C Ratio(X)	0.59	0.60	0.02	0.71	0.67	0.06	0.46	0.00	0.00	0.61	0.00	0.00
Avail Cap(c_a), veh/h	1064	2123	942	1064	2123	942	1097	0	0	1047	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.7	11.7	8.5	27.3	11.7	8.2	18.6	0.0	0.0	19.5	0.0	0.0
Incr Delay (d2), s/veh	12.9	0.7	0.0	15.7	1.1	0.1	1.3	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	3.9	0.1	1.5	4.5	0.3	2.8	0.0	0.0	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	12.4	8.5	43.1	12.7	8.2	19.9	0.0	0.0	21.9	0.0	0.0
LnGrp LOS	D	B	A	D	B	A	B	A	A	C	A	A
Approach Vol, veh/h		1089			1297			251			324	
Approach Delay, s/veh		13.7			14.5			19.9			21.9	
Approach LOS		B			B			B			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.8	7.8	31.9		19.8	6.9	32.8				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		35.0	35.0	35.0		35.0	35.0	35.0				
Max Q Clear Time (g_c+I1), s		8.9	4.6	14.4		11.7	3.7	16.6				
Green Ext Time (p_c), s		2.8	0.5	11.5		3.7	0.3	12.2				
Intersection Summary												
HCM 6th Ctrl Delay											15.5	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	977	92	60	1111	70	91	377	50	66	283	50
Future Volume (veh/h)	50	977	92	60	1111	70	91	377	50	66	283	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1018	45	62	1157	37	95	393	48	69	295	36
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	2412	1073	111	2429	1079	284	443	54	118	864	104
Arrive On Green	0.06	0.67	0.67	0.02	0.22	0.22	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1607	1810	3610	1604	1062	1659	203	962	3240	392
Grp Volume(v), veh/h	52	1018	45	62	1157	37	95	0	441	69	163	168
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1604	1062	0	1862	962	1805	1827
Q Serve(g_s), s	2.5	11.7	0.9	3.1	25.1	1.6	7.1	0.0	20.5	3.5	6.6	6.7
Cycle Q Clear(g_c), s	2.5	11.7	0.9	3.1	25.1	1.6	13.8	0.0	20.5	24.0	6.6	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.21
Lane Grp Cap(c), veh/h	102	2412	1073	111	2429	1079	284	0	497	118	481	487
V/C Ratio(X)	0.51	0.42	0.04	0.56	0.48	0.03	0.33	0.00	0.89	0.59	0.34	0.34
Avail Cap(c_a), veh/h	141	2412	1073	141	2429	1079	284	0	497	118	481	487
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	6.9	5.1	42.9	21.2	12.1	32.2	0.0	31.7	44.0	26.6	26.6
Incr Delay (d2), s/veh	8.1	0.5	0.1	7.2	0.5	0.0	3.1	0.0	20.5	19.6	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.5	0.2	1.6	12.0	0.4	2.0	0.0	11.5	2.1	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	7.5	5.2	50.1	21.7	12.1	35.4	0.0	52.2	63.7	28.5	28.6
LnGrp LOS	D	A	A	D	C	B	D	A	D	E	C	C
Approach Vol, veh/h		1115			1256			536			400	
Approach Delay, s/veh		9.3			22.9			49.2			34.6	
Approach LOS		A			C			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	12.5	67.7		30.5	12.1	68.1				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	7.0	40.0		* 24	7.0	* 41				
Max Q Clear Time (g_c+1), s		22.5	5.1	13.7		26.0	4.5	27.1				
Green Ext Time (p_c), s		0.0	0.0	13.6		0.0	0.0	9.7				

Intersection Summary

HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	981	42	30	1100	110	91	362	40	70	195	80
Future Volume (veh/h)	50	981	42	30	1100	110	91	362	40	70	195	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1011	21	31	1134	54	94	373	10	72	201	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	1755	779	65	1710	759	48	53	368	51	84	368
Arrive On Green	0.02	0.16	0.16	0.04	0.47	0.47	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	0	208	1441	0	330	1441
Grp Volume(v), veh/h	52	1011	21	31	1134	54	467	0	10	273	0	21
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	208	0	1441	330	0	1441
Q Serve(g_s), s	2.6	23.3	1.0	1.5	21.7	1.7	0.0	0.0	0.5	0.0	0.0	1.0
Cycle Q Clear(g_c), s	2.6	23.3	1.0	1.5	21.7	1.7	23.0	0.0	0.5	23.0	0.0	1.0
Prop In Lane	1.00		1.00	1.00		1.00	0.20		1.00	0.26		1.00
Lane Grp Cap(c), veh/h	88	1755	779	65	1710	759	101	0	368	135	0	368
V/C Ratio(X)	0.59	0.58	0.03	0.48	0.66	0.07	4.61	0.00	0.03	2.02	0.00	0.06
Avail Cap(c_a), veh/h	141	1755	779	141	1710	759	101	0	368	135	0	368
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.30	0.30	0.30	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.4	29.2	19.8	42.6	18.2	12.9	33.6	0.0	25.1	31.9	0.0	25.3
Incr Delay (d2), s/veh	1.8	1.1	0.0	0.6	0.6	0.1	1649.0	0.0	0.0	485.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	11.3	0.3	0.7	8.1	0.5	48.5	0.0	0.2	21.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	30.2	19.9	43.2	18.8	13.0	1682.5	0.0	25.1	517.4	0.0	25.4
LnGrp LOS	D	C	B	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1084			1219			477			294	
Approach Delay, s/veh		30.8			19.2			1647.8			482.3	
Approach LOS		C			B			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.2	50.8		29.0	11.4	49.6		29.0				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	40.0	40.0		23.0	7.0	40.0		23.0				
Max Q Clear Time (g_c+1/3), s	25.3	25.3		25.0	4.6	23.7		25.0				
Green Ext Time (p_c), s	0.0	6.7		0.0	0.0	8.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay	320.3
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑↑	↖	↖ ↗	↑↑	↖	↖ ↑↑ ↗			↖ ↑↑↑	↖	↖
Traffic Volume (veh/h)	266	761	124	30	822	582	215	1063	60	455	910	223
Future Volume (veh/h)	266	761	124	30	822	582	215	1063	60	455	910	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	269	769	36	30	830	196	217	1074	59	460	919	191
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	323	997	442	148	818	362	234	1136	62	485	1891	733
Arrive On Green	0.09	0.28	0.28	0.04	0.23	0.23	0.13	0.23	0.23	0.27	0.36	0.36
Sat Flow, veh/h	3510	3610	1601	3510	3610	1600	1810	5030	276	1810	5187	1604
Grp Volume(v), veh/h	269	769	36	30	830	196	217	738	395	460	919	191
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1600	1810	1729	1848	1810	1729	1604
Q Serve(g_s), s	11.6	30.3	2.6	1.3	35.0	16.7	18.3	32.5	32.5	38.6	21.1	11.4
Cycle Q Clear(g_c), s	11.6	30.3	2.6	1.3	35.0	16.7	18.3	32.5	32.5	38.6	21.1	11.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	323	997	442	148	818	362	234	781	417	485	1891	733
V/C Ratio(X)	0.83	0.77	0.08	0.20	1.02	0.54	0.93	0.94	0.95	0.95	0.49	0.26
Avail Cap(c_a), veh/h	681	1051	466	454	818	362	234	783	419	644	2349	874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	69.0	51.4	41.4	71.5	59.8	52.7	66.6	58.9	58.9	55.5	37.9	25.9
Incr Delay (d2), s/veh	4.2	3.5	0.1	0.5	35.3	1.9	39.0	20.1	30.8	19.3	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	13.7	1.0	0.6	19.7	6.8	10.9	16.1	18.5	19.8	8.9	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.3	55.0	41.5	72.0	95.1	54.6	105.6	79.0	89.7	74.8	38.2	26.2
LnGrp LOS	E	D	D	E	F	D	F	E	F	E	D	C
Approach Vol, veh/h		1074			1056			1350			1570	
Approach Delay, s/veh		59.1			86.9			86.4			47.5	
Approach LOS		E			F			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	48.4	41.9	14.0	50.2	27.0	63.3	21.7	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+R), s	40.6	34.5	3.3	32.3	20.3	23.1	13.6	37.0				
Green Ext Time (p_c), s	0.9	0.4	0.0	4.4	0.0	12.2	0.6	0.0				

Intersection Summary

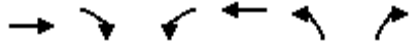
HCM 6th Ctrl Delay	68.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵↵	↵
Traffic Volume (veh/h)	1311	76	30	1205	149	70
Future Volume (veh/h)	1311	76	30	1205	149	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1366	56	31	1255	155	8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2451	1089	65	2882	240	110
Arrive On Green	0.68	0.68	0.04	0.80	0.07	0.07
Sat Flow, veh/h	3705	1604	1810	3705	3510	1610
Grp Volume(v), veh/h	1366	56	31	1255	155	8
Grp Sat Flow(s),veh/h/ln	1805	1604	1810	1805	1755	1610
Q Serve(g_s), s	17.6	1.0	1.5	9.7	3.9	0.4
Cycle Q Clear(g_c), s	17.6	1.0	1.5	9.7	3.9	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2451	1089	65	2882	240	110
V/C Ratio(X)	0.56	0.05	0.48	0.44	0.65	0.07
Avail Cap(c_a), veh/h	2451	1089	251	2882	800	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	0.63	0.63	1.00	1.00
Uniform Delay (d), s/veh	7.5	4.8	42.6	2.8	40.9	39.2
Incr Delay (d2), s/veh	0.5	0.0	2.5	0.3	2.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.2	0.7	1.1	1.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.9	4.9	45.1	3.1	43.7	39.5
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1422			1286	163	
Approach Delay, s/veh	7.8			4.1	43.5	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	10.7	68.6		79.3	10.7	
Change Period (Y+Rc), s	7.5	* 7.5		7.5	4.5	
Max Green Setting (Gmax), s	12.5	* 38		57.5	20.5	
Max Q Clear Time (g_c+1), s	13.5	19.6		11.7	5.9	
Green Ext Time (p_c), s	0.0	7.3		10.4	0.4	

Intersection Summary

HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

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

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	10	0	90	10	0	0	10	100	10	10	0
Future Vol, veh/h	0	10	0	90	10	0	0	10	100	10	10	0
Peak Hour Factor	0.92	0.92	0.92	0.79	0.92	0.79	0.92	0.79	0.79	0.79	0.79	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	114	11	0	0	13	127	13	13	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	8.1	8.6	7.6	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	80%	75%	0%
Vol Thru, %	100%	0%	100%	0%	20%	25%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	100	10	50	51	13	7
LT Vol	0	0	0	50	41	10	0
Through Vol	10	0	10	0	10	3	7
RT Vol	0	100	0	0	0	0	0
Lane Flow Rate	13	127	11	63	62	17	8
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.017	0.148	0.015	0.094	0.091	0.025	0.012
Departure Headway (Hd)	4.897	4.195	5.025	5.391	5.292	5.357	4.98
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	734	858	714	669	681	671	722
Service Time	2.604	1.902	3.043	3.091	2.992	3.067	2.69
HCM Lane V/C Ratio	0.018	0.148	0.015	0.094	0.091	0.025	0.011
HCM Control Delay	7.7	7.6	8.1	8.6	8.5	8.2	7.8
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.5	0	0.3	0.3	0.1	0

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	110	0	0	100	0
Future Vol, veh/h	0	0	0	0	0	0	0	110	0	0	100	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	147	0	0	133	0

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	207	280	67	214	280	74	133	0	0	147	0	0
Stage 1	133	133	-	147	147	-	-	-	-	-	-	-
Stage 2	74	147	-	67	133	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	738	632	989	729	632	979	1464	-	-	1447	-	-
Stage 1	862	790	-	847	779	-	-	-	-	-	-	-
Stage 2	933	779	-	941	790	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	738	632	989	729	632	979	1464	-	-	1447	-	-
Mov Cap-2 Maneuver	738	632	-	729	632	-	-	-	-	-	-	-
Stage 1	862	790	-	847	779	-	-	-	-	-	-	-
Stage 2	933	779	-	941	790	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1464	-	-	-	1447	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	-	-
HCM Lane LOS	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary 9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1255	196	60	1066	10	259	50	90	10	40	50
Future Volume (veh/h)	60	1255	196	60	1066	10	259	50	90	10	40	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	1307	125	62	1110	10	270	52	23	10	42	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	89	1466	654	125	1688	15	411	843	376	399	843	
Arrive On Green	0.05	0.41	0.41	0.07	0.46	0.46	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1810	3610	1610	1810	3666	33	1386	3610	1610	1346	3610	1610
Grp Volume(v), veh/h	62	1307	125	62	546	574	270	52	23	10	42	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1894	1386	1805	1610	1346	1805	1610
Q Serve(g_s), s	2.4	24.3	3.6	2.4	16.9	16.9	13.5	0.8	0.8	0.4	0.7	0.0
Cycle Q Clear(g_c), s	2.4	24.3	3.6	2.4	16.9	16.9	14.2	0.8	0.8	1.2	0.7	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	1466	654	125	831	872	411	843	376	399	843	
V/C Ratio(X)	0.69	0.89	0.19	0.50	0.66	0.66	0.66	0.06	0.06	0.03	0.05	
Avail Cap(c_a), veh/h	565	1503	670	502	831	872	472	1002	447	458	1002	
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	0.00
Uniform Delay (d), s/veh	33.7	19.9	13.8	32.3	15.0	15.0	26.9	21.5	21.5	22.0	21.4	0.0
Incr Delay (d2), s/veh	9.3	7.2	0.2	1.1	2.2	2.1	3.3	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	9.5	1.1	1.0	5.8	6.1	4.7	0.3	0.3	0.1	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	27.1	14.0	33.5	17.2	17.1	30.3	21.5	21.6	22.0	21.5	0.0
LnGrp LOS	D	C	B	C	B	B	C	C	C	C	C	
Approach Vol, veh/h		1494			1182			345			52	A
Approach Delay, s/veh		26.7			18.0			28.4			21.6	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	36.3		23.8	8.1	40.2		23.8				
Change Period (Y+Rc), s	7.0	7.0		7.0	4.5	7.0		7.0				
Max Green Setting (Gmax), s	20.0	30.0		20.0	22.5	30.0		20.0				
Max Q Clear Time (g_c+I1), s	4.4	26.3		3.2	4.4	18.9		16.2				
Green Ext Time (p_c), s	0.0	3.0		0.2	0.1	6.2		0.7				

Intersection Summary

HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	270	92	130	200	50	41	250	40	20	320	26
Future Volume (veh/h)	39	270	92	130	200	50	41	250	40	20	320	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	314	21	151	233	15	48	291	19	23	372	11
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	330	558	247	326	723	320	503	1505	669	532	1441	640
Arrive On Green	0.05	0.15	0.15	0.09	0.20	0.20	0.05	0.42	0.42	0.03	0.40	0.40
Sat Flow, veh/h	1810	3610	1595	1810	3610	1598	1810	3610	1604	1810	3610	1604
Grp Volume(v), veh/h	45	314	21	151	233	15	48	291	19	23	372	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1595	1810	1805	1598	1810	1805	1604	1810	1805	1604
Q Serve(g_s), s	1.8	7.1	1.0	6.0	4.8	0.7	1.3	4.5	0.6	0.6	6.1	0.4
Cycle Q Clear(g_c), s	1.8	7.1	1.0	6.0	4.8	0.7	1.3	4.5	0.6	0.6	6.1	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	558	247	326	723	320	503	1505	669	532	1441	640
V/C Ratio(X)	0.14	0.56	0.09	0.46	0.32	0.05	0.10	0.19	0.03	0.04	0.26	0.02
Avail Cap(c_a), veh/h	557	1441	636	470	1441	638	727	1505	669	788	1441	640
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	28.8	34.3	31.8	27.5	30.0	28.3	14.0	16.2	15.1	14.6	17.7	15.9
Incr Delay (d2), s/veh	0.2	1.3	0.2	1.0	0.4	0.1	0.1	0.3	0.1	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.0	0.4	2.5	2.0	0.2	0.5	1.7	0.2	0.2	2.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	35.6	32.0	28.6	30.3	28.4	14.1	16.5	15.2	14.6	18.1	16.0
LnGrp LOS	C	D	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h	380			399			358			406		
Approach Delay, s/veh	34.6			29.6			16.1			17.8		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	43.6	14.5	20.1	11.1	42.0	10.5	24.1				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	15.0	35.0	15.0	35.0	15.0	35.0	15.0	35.0				
Max Q Clear Time (g_c+1), s	12.6	6.5	8.0	9.1	3.3	8.1	3.8	6.8				
Green Ext Time (p_c), s	0.0	2.5	0.2	2.7	0.1	3.2	0.1	2.0				

Intersection Summary												
HCM 6th Ctrl Delay	24.6											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	410	250	180	390	50	110	221	90	70	582	30
Future Volume (veh/h)	20	410	250	180	390	50	110	221	90	70	582	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	456	170	200	433	46	122	246	26	78	647	29
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	261	519	192	260	887	94	152	1079	481	101	951	43
Arrive On Green	0.01	0.20	0.20	0.08	0.27	0.27	0.17	0.60	0.60	0.06	0.27	0.27
Sat Flow, veh/h	1810	2574	951	1810	3292	348	1810	3610	1610	1810	3518	158
Grp Volume(v), veh/h	22	319	307	200	236	243	122	246	26	78	332	344
Grp Sat Flow(s),veh/h/ln	1810	1805	1720	1810	1805	1835	1810	1805	1610	1810	1805	1871
Q Serve(g_s), s	0.8	13.7	13.9	6.5	8.8	8.9	5.2	2.5	0.5	3.4	13.1	13.2
Cycle Q Clear(g_c), s	0.8	13.7	13.9	6.5	8.8	8.9	5.2	2.5	0.5	3.4	13.1	13.2
Prop In Lane	1.00		0.55	1.00		0.19	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	261	364	347	260	487	495	152	1079	481	101	488	506
V/C Ratio(X)	0.08	0.88	0.89	0.77	0.49	0.49	0.80	0.23	0.05	0.78	0.68	0.68
Avail Cap(c_a), veh/h	293	372	355	260	487	495	204	1079	481	113	488	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.96	0.96	0.96
Uniform Delay (d), s/veh	25.0	31.0	31.0	25.6	24.6	24.6	32.6	11.8	11.4	37.3	26.1	26.1
Incr Delay (d2), s/veh	0.1	19.5	21.9	12.0	0.6	0.6	11.0	0.5	0.2	21.0	7.2	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.4	7.3	3.6	3.5	3.6	2.4	1.0	0.2	2.0	6.1	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	50.4	52.9	37.6	25.1	25.2	43.6	12.3	11.6	58.3	33.2	33.0
LnGrp LOS	C	D	D	D	C	C	D	B	B	E	C	C
Approach Vol, veh/h		648			679			394			754	
Approach Delay, s/veh		50.7			28.8			21.9			35.7	
Approach LOS		D			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	30.9	14.0	23.6	13.7	28.6	8.6	29.1				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	15.0	23.0	6.5	16.5	9.0	19.0	2.5	20.5				
Max Q Clear Time (g_c+1/4), s	15.4	4.5	8.5	15.9	7.2	15.2	2.8	10.9				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.2	0.0	1.2	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay		35.6										
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗	↖	↗	↖	↗
Traffic Volume (veh/h)	10	10	40	370	10	110	20	341	130	60	902	10
Future Volume (veh/h)	10	10	40	370	10	110	20	341	130	60	902	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	11	2	415	0	23	22	375	55	66	991	11
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	57	10	553	0	244	26	1709	758	68	1816	20
Arrive On Green	0.04	0.04	0.04	0.15	0.00	0.15	0.00	0.16	0.16	0.08	0.99	0.99
Sat Flow, veh/h	1810	1564	284	3619	0	1594	1810	3610	1602	1810	3657	41
Grp Volume(v), veh/h	11	0	13	415	0	23	22	375	55	66	489	513
Grp Sat Flow(s),veh/h/ln	1810	0	1849	1810	0	1594	1810	1805	1602	1810	1805	1892
Q Serve(g_s), s	0.5	0.0	0.5	8.8	0.0	1.0	1.0	7.3	2.3	2.9	0.3	0.3
Cycle Q Clear(g_c), s	0.5	0.0	0.5	8.8	0.0	1.0	1.0	7.3	2.3	2.9	0.3	0.3
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	65	0	67	553	0	244	26	1709	758	68	896	940
V/C Ratio(X)	0.17	0.00	0.19	0.75	0.00	0.09	0.84	0.22	0.07	0.97	0.55	0.55
Avail Cap(c_a), veh/h	158	0	162	950	0	419	68	1709	758	68	896	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.99	0.99	0.99	0.64	0.64	0.64
Uniform Delay (d), s/veh	37.4	0.0	37.4	32.4	0.0	29.1	39.7	20.8	18.8	37.0	0.1	0.1
Incr Delay (d2), s/veh	0.4	0.0	0.5	1.5	0.0	0.1	53.1	0.3	0.2	78.1	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	3.9	0.0	0.4	0.8	3.0	0.8	2.6	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	0.0	37.9	34.0	0.0	29.2	92.8	21.1	18.9	115.0	1.7	1.6
LnGrp LOS	D	A	D	C	A	C	F	C	B	F	A	A
Approach Vol, veh/h		24			438			452			1068	
Approach Delay, s/veh		37.9			33.7			24.4			8.6	
Approach LOS		D			C			C			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	44.9		7.9	8.2	46.7		17.2				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	30.0	25.0		7.0	3.0	25.0		21.0				
Max Q Clear Time (g_c+1/3), s	14.0	9.3		2.5	3.0	2.3		10.8				
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	4.8		0.9				

Intersection Summary

HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						↕ ↗	↗ ↗ ↗	↗ ↗ ↗ ↗			↗ ↗ ↗ ↗	↗
Traffic Volume (veh/h)	0	0	0	316	0	130	230	341	0	0	832	530
Future Volume (veh/h)	0	0	0	316	0	130	230	341	0	0	832	530
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				340	0	37	247	367	0	0	895	208
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				461	0	411	282	3112	0	0	1980	611
Arrive On Green				0.25	0.00	0.25	0.31	1.00	0.00	0.00	0.13	0.13
Sat Flow, veh/h				1810	0	1610	1810	5358	0	0	5358	1600
Grp Volume(v), veh/h				340	0	37	247	367	0	0	895	208
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1600
Q Serve(g_s), s				13.8	0.0	1.4	10.3	0.0	0.0	0.0	12.8	9.5
Cycle Q Clear(g_c), s				13.8	0.0	1.4	10.3	0.0	0.0	0.0	12.8	9.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				461	0	411	282	3112	0	0	1980	611
V/C Ratio(X)				0.74	0.00	0.09	0.88	0.12	0.00	0.00	0.45	0.34
Avail Cap(c_a), veh/h				461	0	411	362	3112	0	0	1980	611
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.81	0.81
Uniform Delay (d), s/veh				27.3	0.0	22.7	26.8	0.0	0.0	0.0	27.2	25.8
Incr Delay (d2), s/veh				10.1	0.0	0.4	12.6	0.1	0.0	0.0	0.6	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.0	0.0	0.6	4.4	0.0	0.0	0.0	5.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.4	0.0	23.2	39.4	0.1	0.0	0.0	27.8	27.0
LnGrp LOS				D	A	C	D	A	A	A	C	C
Approach Vol, veh/h					377			614			1103	
Approach Delay, s/veh					36.0			15.9			27.7	
Approach LOS					D			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		53.8			17.5	36.3		26.2				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			12.3	14.8		15.8				
Green Ext Time (p_c), s		1.9			0.1	4.3		1.4				
Intersection Summary												
HCM 6th Ctrl Delay				25.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↕↕		↖	↕↕↕	
Traffic Volume (veh/h)	80	0	190	0	0	0	0	481	358	370	767	0
Future Volume (veh/h)	80	0	190	0	0	0	0	481	358	370	767	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	86	0	47				0	517	232	398	825	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	385	0	342				0	1176	509	448	3333	0
Arrive On Green	0.21	0.00	0.21				0.00	0.33	0.33	0.08	0.21	0.00
Sat Flow, veh/h	1810	0	1610				0	3708	1531	1810	5358	0
Grp Volume(v), veh/h	86	0	47				0	505	244	398	825	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1611	1810	1729	0
Q Serve(g_s), s	3.1	0.0	1.9				0.0	9.1	9.5	17.4	10.6	0.0
Cycle Q Clear(g_c), s	3.1	0.0	1.9				0.0	9.1	9.5	17.4	10.6	0.0
Prop In Lane	1.00		1.00				0.00		0.95	1.00		0.00
Lane Grp Cap(c), veh/h	385	0	342				0	1149	535	448	3333	0
V/C Ratio(X)	0.22	0.00	0.14				0.00	0.44	0.46	0.89	0.25	0.00
Avail Cap(c_a), veh/h	385	0	342				0	1149	535	611	3333	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.88	0.88	0.00
Uniform Delay (d), s/veh	26.0	0.0	25.6				0.0	20.9	21.0	35.6	15.4	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.8				0.0	1.2	2.8	8.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.8				0.0	3.5	3.7	9.3	4.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	0.0	26.4				0.0	22.1	23.8	44.3	15.6	0.0
LnGrp LOS	C	A	C				A	C	C	D	B	A
Approach Vol, veh/h		133						749			1223	
Approach Delay, s/veh		27.0						22.7			24.9	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	24.8	32.4	22.8	57.2								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	27.0	19.0	17.0	51.4								
Max Q Clear Time (g_c+19.4), s	11.5	11.5	5.1	12.6								
Green Ext Time (p_c), s	0.4	2.3	0.7	4.8								

Intersection Summary

HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	16.9											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔	↔		↔	↔	↔	↔	↔
Traffic Vol, veh/h	20	140	20	381	80	120	20	80	350	20	10	10
Future Vol, veh/h	20	140	20	381	80	120	20	80	350	20	10	10
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	171	24	465	98	146	24	98	427	24	12	12
Number of Lanes	0	1	1	1	1	1	0	1	2	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	3
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	3	2	3
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	3	2	3	2
HCM Control Delay	17.1	19.2	14.3	12.5
HCM LOS	C	C	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	20%	0%	0%	12%	0%	100%	66%	0%	100%	0%
Vol Thru, %	80%	0%	0%	88%	0%	0%	34%	0%	0%	50%
Vol Right, %	0%	100%	100%	0%	100%	0%	0%	100%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	175	175	160	20	229	232	120	20	20
LT Vol	20	0	0	20	0	229	152	0	20	0
Through Vol	80	0	0	140	0	0	80	0	0	10
RT Vol	0	175	175	0	20	0	0	120	0	10
Lane Flow Rate	122	213	213	195	24	279	283	146	24	24
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.264	0.414	0.414	0.452	0.051	0.599	0.595	0.265	0.065	0.059
Departure Headway (Hd)	7.79	6.979	6.979	8.348	7.573	7.733	7.559	6.517	9.566	8.695
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	461	516	516	431	471	466	476	550	374	411
Service Time	5.539	4.727	4.727	6.116	5.34	5.485	5.311	4.269	7.344	6.472
HCM Lane V/C Ratio	0.265	0.413	0.413	0.452	0.051	0.599	0.595	0.265	0.064	0.058
HCM Control Delay	13.3	14.6	14.6	17.9	10.8	21.4	20.9	11.6	13	12
HCM Lane LOS	B	B	B	C	B	C	C	B	B	B
HCM 95th-tile Q	1	2	2	2.3	0.2	3.8	3.8	1.1	0.2	0.2

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕↕	↗	↗	↕↕	↗
Traffic Volume (veh/h)	20	0	30	20	0	10	20	420	10	10	461	10
Future Volume (veh/h)	20	0	30	20	0	10	20	420	10	10	461	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.97		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	0	5	23	0	0	23	488	9	12	536	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	0	108	138	0	0	81	2631	1169	50	2569	1142
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.00	0.04	0.73	0.73	0.03	0.71	0.71
Sat Flow, veh/h	1546	0	1562	1138	0	0	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	23	0	5	23	0	0	23	488	9	12	536	9
Grp Sat Flow(s),veh/h/ln	1546	0	1562	1138	0	0	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	0.0	0.0	0.4	1.9	0.0	0.0	1.5	5.1	0.2	0.8	6.0	0.2
Cycle Q Clear(g_c), s	1.5	0.0	0.4	3.4	0.0	0.0	1.5	5.1	0.2	0.8	6.0	0.2
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	0	108	138	0	0	81	2631	1169	50	2569	1142
V/C Ratio(X)	0.14	0.00	0.05	0.17	0.00	0.00	0.28	0.19	0.01	0.24	0.21	0.01
Avail Cap(c_a), veh/h	455	0	430	424	0	0	196	2631	1169	196	2569	1142
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	0.00	1.00	1.00	0.00	0.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	0.0	52.2	54.3	0.0	0.0	55.5	5.1	4.4	57.1	5.9	5.0
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.7	0.0	0.0	2.0	0.1	0.0	3.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.1	0.7	0.0	0.0	0.7	1.6	0.1	0.4	2.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	0.0	52.4	55.0	0.0	0.0	57.5	5.2	4.5	60.1	6.0	5.0
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	A	A
Approach Vol, veh/h	28		23				520				557	
Approach Delay, s/veh	53.0		55.0				7.5				7.2	
Approach LOS	D		D				A				A	
Timer - Assigned Phs	1	2	4		5		6		8			
Phs Duration (G+Y+Rc), s	10.3	94.4	15.3		12.4		92.4		15.3			
Change Period (Y+Rc), s	7.0	7.0	7.0		7.0		7.0		7.0			
Max Green Setting (Gmax), s	13.0	53.0	33.0		13.0		53.0		33.0			
Max Q Clear Time (g_c+I), s	12.8	7.1	3.5		3.5		8.0		5.4			
Green Ext Time (p_c), s	0.0	6.7	0.1		0.0		7.4		0.1			
Intersection Summary												
HCM 6th Ctrl Delay			9.5									
HCM 6th LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	895	260	70	745	20	160	240	110	30	320	141
Future Volume (veh/h)	110	895	260	70	745	20	160	240	110	30	320	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/l_n	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	962	185	75	801	22	172	258	21	32	344	152
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	940	417	129	898	25	299	314	264	28	305	135
Arrive On Green	0.08	0.26	0.26	0.07	0.25	0.25	0.17	0.17	0.17	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1601	1810	3588	99	1810	1900	1596	109	1171	518
Grp Volume(v), veh/h	118	962	185	75	403	420	172	258	21	528	0	0
Grp Sat Flow(s),veh/h/l_n	1810	1805	1601	1810	1805	1882	1810	1900	1596	1798	0	0
Q Serve(g_s), s	7.4	30.0	11.1	4.6	24.8	24.8	10.1	15.1	1.3	30.0	0.0	0.0
Cycle Q Clear(g_c), s	7.4	30.0	11.1	4.6	24.8	24.8	10.1	15.1	1.3	30.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	0.06		0.29
Lane Grp Cap(c), veh/h	146	940	417	129	452	471	299	314	264	468	0	0
V/C Ratio(X)	0.81	1.02	0.44	0.58	0.89	0.89	0.57	0.82	0.08	1.13	0.00	0.00
Avail Cap(c_a), veh/h	393	940	417	314	470	490	471	495	415	468	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	52.1	42.6	35.6	51.9	41.7	41.7	44.4	46.4	40.7	42.6	0.0	0.0
Incr Delay (d2), s/veh	7.5	35.5	1.6	1.6	19.7	19.1	2.1	7.1	0.2	81.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/l_n	3.5	17.1	4.3	2.1	12.8	13.3	4.6	7.6	0.5	23.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	78.1	37.2	53.4	61.4	60.8	46.5	53.5	40.8	124.2	0.0	0.0
LnGrp LOS	E	F	D	D	E	E	D	D	D	F	A	A
Approach Vol, veh/h		1265			898			451				528
Approach Delay, s/veh		70.4			60.5			50.2				124.2
Approach LOS		E			E			D				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.7	37.5		36.5	16.8	36.4		25.6				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	6.6	32.0		32.0	9.4	26.8		17.1				
Green Ext Time (p_c), s	0.1	0.0		0.0	0.2	2.0		1.9				

Intersection Summary

HCM 6th Ctrl Delay 73.7
 HCM 6th LOS E

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	160	280	20	50	20	110	400	20	30	500	70
Future Volume (veh/h)	180	160	280	20	50	20	110	400	20	30	500	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	209	186	91	23	58	3	128	465	10	35	581	31
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	245	501	235	78	427	188	160	1520	676	81	1957	605
Arrive On Green	0.14	0.21	0.21	0.04	0.12	0.12	0.09	0.42	0.42	0.04	0.38	0.38
Sat Flow, veh/h	1810	2380	1115	1810	3610	1590	1810	3610	1604	1810	5187	1604
Grp Volume(v), veh/h	209	139	138	23	58	3	128	465	10	35	581	31
Grp Sat Flow(s),veh/h/ln	1810	1805	1690	1810	1805	1590	1810	1805	1604	1810	1729	1604
Q Serve(g_s), s	10.5	6.1	6.5	1.1	1.3	0.2	6.4	7.9	0.3	1.7	7.3	1.1
Cycle Q Clear(g_c), s	10.5	6.1	6.5	1.1	1.3	0.2	6.4	7.9	0.3	1.7	7.3	1.1
Prop In Lane	1.00		0.66	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	380	356	78	427	188	160	1520	676	81	1957	605
V/C Ratio(X)	0.85	0.37	0.39	0.29	0.14	0.02	0.80	0.31	0.01	0.43	0.30	0.05
Avail Cap(c_a), veh/h	390	486	455	390	973	428	390	1520	676	390	1957	605
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	31.3	31.5	43.0	36.7	36.1	41.5	17.8	15.6	43.2	20.3	18.3
Incr Delay (d2), s/veh	5.7	0.4	0.5	0.8	0.1	0.0	3.4	0.5	0.0	1.3	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.6	2.6	0.5	0.6	0.1	2.9	3.1	0.1	0.8	2.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	31.8	32.0	43.8	36.8	36.2	44.9	18.4	15.7	44.5	20.6	18.5
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	B
Approach Vol, veh/h												
		486		84		603		647				
Approach Delay, s/veh												
		37.5		38.7		23.9		21.8				
Approach LOS												
		D		D		C		C				
Timer - Assigned Phs												
Phs Duration (G+Y+Rc), s	10.7	45.6	10.5	26.0	14.7	41.5	19.1	17.5				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1.7), s	13.7	9.9	3.1	8.5	8.4	9.3	12.5	3.3				
Green Ext Time (p_c), s	0.0	3.4	0.0	1.0	0.1	4.6	0.2	0.2				

Intersection Summary

HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	10	72	50	10	20	61	440	30	30	810	20
Future Volume (veh/h)	50	10	72	50	10	20	61	440	30	30	810	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	57	11	13	57	11	3	70	506	18	34	931	23
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	222	196	133	445	196	112	2533	784	79	2447	60
Arrive On Green	0.07	0.12	0.12	0.07	0.12	0.12	0.06	0.49	0.49	0.04	0.47	0.47
Sat Flow, veh/h	1810	1805	1591	1810	3610	1591	1810	5187	1605	1810	5206	128
Grp Volume(v), veh/h	57	11	13	57	11	3	70	506	18	34	618	336
Grp Sat Flow(s),veh/h/ln	1810	1805	1591	1810	1805	1591	1810	1729	1605	1810	1729	1876
Q Serve(g_s), s	2.9	0.5	0.7	2.9	0.3	0.2	3.6	5.3	0.6	1.8	11.0	11.1
Cycle Q Clear(g_c), s	2.9	0.5	0.7	2.9	0.3	0.2	3.6	5.3	0.6	1.8	11.0	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	133	222	196	133	445	196	112	2533	784	79	1625	882
V/C Ratio(X)	0.43	0.05	0.07	0.43	0.02	0.02	0.63	0.20	0.02	0.43	0.38	0.38
Avail Cap(c_a), veh/h	473	679	598	473	1358	598	473	2533	784	473	1625	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	37.0	37.1	42.4	36.9	36.9	43.8	13.9	12.7	44.6	16.4	16.4
Incr Delay (d2), s/veh	0.8	0.1	0.1	0.8	0.0	0.0	2.1	0.2	0.1	1.4	0.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.3	1.3	0.1	0.1	1.6	1.9	0.2	0.8	4.1	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	37.1	37.2	43.3	36.9	36.9	46.0	14.1	12.7	46.0	17.0	17.6
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h	81			71			594			988		
Approach Delay, s/veh	41.4			42.0			17.8			18.2		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	53.2	13.5	18.3	12.4	51.5	13.5	18.3				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (G_max), s	25.0	45.0	25.0	36.0	25.0	45.0	25.0	36.0				
Max Q Clear Time (g_c+1), s	13.8	7.3	4.9	2.7	5.6	13.1	4.9	2.3				
Green Ext Time (p_c), s	0.0	4.2	0.1	0.1	0.1	7.9	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	460	450	250	310	50	220	351	100	40	852	60
Future Volume (veh/h)	60	460	450	250	310	50	220	351	100	40	852	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	479	196	260	323	17	229	366	52	42	888	23
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	297	720	319	367	792	430	311	1834	735	173	1629	639
Arrive On Green	0.08	0.20	0.20	0.10	0.22	0.22	0.09	0.35	0.35	0.05	0.31	0.31
Sat Flow, veh/h	3510	3610	1598	3510	3610	1599	3510	5187	1603	3510	5187	1602
Grp Volume(v), veh/h	62	479	196	260	323	17	229	366	52	42	888	23
Grp Sat Flow(s),veh/h/ln	1755	1805	1598	1755	1805	1599	1755	1729	1603	1755	1729	1602
Q Serve(g_s), s	1.6	11.7	10.7	6.8	7.3	0.8	6.1	4.7	1.7	1.1	13.5	0.8
Cycle Q Clear(g_c), s	1.6	11.7	10.7	6.8	7.3	0.8	6.1	4.7	1.7	1.1	13.5	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	297	720	319	367	792	430	311	1834	735	173	1629	639
V/C Ratio(X)	0.21	0.67	0.62	0.71	0.41	0.04	0.74	0.20	0.07	0.24	0.54	0.04
Avail Cap(c_a), veh/h	735	1134	502	735	1134	582	735	1834	735	735	1629	639
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	35.3	34.9	41.3	32.0	25.8	42.4	21.5	14.5	43.7	27.1	17.5
Incr Delay (d2), s/veh	0.3	1.3	2.3	1.9	0.4	0.0	2.5	0.2	0.2	0.5	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.0	4.1	2.9	3.0	0.3	2.6	1.8	0.6	0.5	5.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	36.6	37.2	43.2	32.4	25.9	44.9	21.7	14.7	44.2	28.4	17.6
LnGrp LOS	D	D	D	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		737			600			647			953	
Approach Delay, s/veh		37.1			36.9			29.4			28.9	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	41.2	40.3	17.5	26.5	15.0	36.5	15.6	28.5				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1/3), s	6.7	6.7	8.8	13.7	8.1	15.5	3.6	9.3				
Green Ext Time (p_c), s	0.0	2.8	0.5	3.8	0.4	5.7	0.1	2.1				

Intersection Summary

HCM 6th Ctrl Delay 32.7
HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↶	↶↷	↶↷	↶↷		↶↷	↶↷
Traffic Volume (veh/h)	0	0	0	406	0	190	490	501	0	0	1242	400
Future Volume (veh/h)	0	0	0	406	0	190	490	501	0	0	1242	400
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				446	0	41	516	527	0	0	1307	164
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				901	0	401	1014	3227	0	0	1816	443
Arrive On Green				0.25	0.00	0.25	0.10	0.21	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1596
Grp Volume(v), veh/h				446	0	41	516	527	0	0	1307	164
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1596
Q Serve(g_s), s				9.5	0.0	1.8	12.6	7.5	0.0	0.0	16.2	7.4
Cycle Q Clear(g_c), s				9.5	0.0	1.8	12.6	7.5	0.0	0.0	16.2	7.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				901	0	401	1014	3227	0	0	1816	443
V/C Ratio(X)				0.50	0.00	0.10	0.51	0.16	0.00	0.00	0.72	0.37
Avail Cap(c_a), veh/h				901	0	401	1014	3227	0	0	1816	443
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.90	0.90	0.00	0.00	0.74	0.74
Uniform Delay (d), s/veh				29.0	0.0	26.1	34.6	16.5	0.0	0.0	29.3	26.2
Incr Delay (d2), s/veh				1.9	0.0	0.5	1.6	0.1	0.0	0.0	1.9	1.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.3	0.0	1.9	6.0	2.8	0.0	0.0	6.2	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.9	0.0	26.6	36.3	16.6	0.0	0.0	31.2	27.9
LnGrp LOS				C	A	C	D	B	A	A	C	C
Approach Vol, veh/h					487		1043			1471		
Approach Delay, s/veh					30.5		26.3			30.8		
Approach LOS					C		C			C		
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		61.8		28.2	31.0	30.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		56.0		22.4	26.0	25.0						
Max Q Clear Time (g_c+I1), s		9.5		11.5	14.6	18.2						
Green Ext Time (p_c), s		3.6		1.4	0.8	4.4						

Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	0	430	0	0	0	0	921	478	470	1187	0
Future Volume (veh/h)	70	0	430	0	0	0	0	921	478	470	1187	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	49	0	349				0	959	161	490	1236	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	611	0	1088				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.21	0.71	0.00
Sat Flow, veh/h	1810	0	3220				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	49	0	349				0	959	161	490	1236	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	1.7	0.0	7.2				0.0	10.5	6.8	12.2	9.1	0.0
Cycle Q Clear(g_c), s	1.7	0.0	7.2				0.0	10.5	6.8	12.2	9.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	611	0	1088				0	2106	515	546	2766	0
V/C Ratio(X)	0.08	0.00	0.32				0.00	0.46	0.31	0.90	0.45	0.00
Avail Cap(c_a), veh/h	611	0	1088				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.66	0.66	0.00
Uniform Delay (d), s/veh	20.3	0.0	22.1				0.0	24.2	23.0	35.0	7.4	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.8				0.0	0.7	1.6	14.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.8				0.0	3.9	2.6	5.7	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	22.9				0.0	24.9	24.6	49.5	7.8	0.0
LnGrp LOS	C	A	C				A	C	C	D	A	A
Approach Vol, veh/h	398						1120			1726		
Approach Delay, s/veh	22.6						24.9			19.6		
Approach LOS	C						C			B		
Timer - Assigned Phs	1	2	6				8					
Phs Duration (G+Y+Rc), s	19.0	34.8	53.8				36.2					
Change Period (Y+Rc), s	5.0	5.8	5.8				5.8					
Max Green Setting (Gmax), s	4.0	29.0	48.0				30.4					
Max Q Clear Time (g_c+1.2), s	14.2	12.5	11.1				9.2					
Green Ext Time (p_c), s	0.0	6.2	10.1				1.5					

Intersection Summary

HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	278	0	470	0	2536	0	0	1910	1058	0	0
Future Volume (veh/h)	278	0	470	0	2536	0	0	1910	1058	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No				No				No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	293	293	454	0	2669	0	0	1959	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	563	563	1002	0	3791	0	0	3306			
Arrive On Green	0.31	0.31	0.31	0.00	0.58	0.00	0.00	0.58	0.00		
Sat Flow, veh/h	1810	1810	3220	0	7068	0	0	5700	3220		
Grp Volume(v), veh/h	293	293	454	0	2669	0	0	1959	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	0	0	1900	1610		
Q Serve(g_s), s	13.3	13.3	11.3	0.0	29.0	0.0	0.0	22.0	0.0		
Cycle Q Clear(g_c), s	13.3	13.3	11.3	0.0	29.0	0.0	0.0	22.0	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	563	563	1002	0	3791	0	0	3306			
V/C Ratio(X)	0.52	0.52	0.45	0.00	0.70	0.00	0.00	0.59			
Avail Cap(c_a), veh/h	563	563	1002	0	3791	0	0	3306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	28.3	28.3	27.6	0.0	14.9	0.0	0.0	13.4	0.0		
Incr Delay (d2), s/veh	3.4	3.4	1.5	0.0	1.1	0.0	0.0	0.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.2	6.2	4.5	0.0	9.4	0.0	0.0	8.5	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	31.7	31.7	29.1	0.0	16.0	0.0	0.0	14.2	0.0		
LnGrp LOS	C	C	C	A	B	A	A	B			
Approach Vol, veh/h	747	747			2669			1959	A		
Approach Delay, s/veh	30.1	30.1			16.0			14.2			
Approach LOS	C	C			B			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	63.8		36.2		63.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	58.0		31.1		58.0						
Max Q Clear Time (g_c+I1), s	31.0		15.3		24.0						
Green Ext Time (p_c), s	17.7		1.4		13.0						

Intersection Summary

HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	621	0	277	0	2723	887	0	1649	0	0	0
Future Volume (veh/h)	621	0	277	0	2723	887	0	1649	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No			No			No			
Adj Sat Flow, veh/h/l	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	647	647	247	0	2836	0	0	1718	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	581	581	1034	0	3726		0	3726	0		
Arrive On Green	0.32	0.32	0.32	0.00	0.57	0.00	0.00	0.57	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	647	647	247	0	2836	0	0	1718	0		
Grp Sat Flow(s),veh/h/l	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	32.1	32.1	5.6	0.0	33.0	0.0	0.0	15.3	0.0		
Cycle Q Clear(g_c), s	32.1	32.1	5.6	0.0	33.0	0.0	0.0	15.3	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	581	581	1034	0	3726		0	3726	0		
V/C Ratio(X)	1.11	1.11	0.24	0.00	0.76		0.00	0.46	0.00		
Avail Cap(c_a), veh/h	581	581	1034	0	3726		0	3726	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(l)	1.00	1.00	1.00	0.00	0.33	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	33.9	33.9	25.0	0.0	16.3	0.0	0.0	12.5	0.0		
Incr Delay (d2), s/veh	72.6	72.6	0.5	0.0	0.5	0.0	0.0	0.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh	25.4	25.4	2.2	0.0	11.5	0.0	0.0	5.1	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	106.6	106.6	25.5	0.0	16.8	0.0	0.0	13.0	0.0		
LnGrp LOS	F	F	C	A	B		A	B	A		
Approach Vol, veh/h	894	894			2836	A		1718			
Approach Delay, s/veh	84.2	84.2			16.8			13.0			
Approach LOS	F	F			B			B			
Timer - Assigned Phs		2		4		6					
Phs Duration (G+Y+Rc), s		62.8		37.2		62.8					
Change Period (Y+Rc), s		5.8		5.1		5.8					
Max Green Setting (Gmax), s		57.0		32.1		57.0					
Max Q Clear Time (g_c+I1), s		35.0		34.1		17.3					
Green Ext Time (p_c), s		17.8		0.0		10.9					

Intersection Summary

HCM 6th Ctrl Delay		26.7									
HCM 6th LOS			C								

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	410	100	220	70	60	290	70	2910	120	200	1615	120
Future Volume (veh/h)	410	100	220	70	60	290	70	2910	120	200	1615	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	423	103	38	72	62	31	72	3000	61	206	1665	66
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	464	219	184	259	109	162	188	3559	874	257	3688	906
Arrive On Green	0.13	0.12	0.12	0.07	0.06	0.06	0.05	0.54	0.54	0.07	0.56	0.56
Sat Flow, veh/h	3510	1900	1589	3510	1900	2834	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	423	103	38	72	62	31	72	3000	61	206	1665	66
Grp Sat Flow(s),veh/h/ln	1755	1900	1589	1755	1900	1417	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	16.6	7.1	3.0	2.7	4.5	1.5	2.8	54.1	2.5	8.1	20.9	2.6
Cycle Q Clear(g_c), s	16.6	7.1	3.0	2.7	4.5	1.5	2.8	54.1	2.5	8.1	20.9	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	219	184	259	109	162	188	3559	874	257	3688	906
V/C Ratio(X)	0.91	0.47	0.21	0.28	0.57	0.19	0.38	0.84	0.07	0.80	0.45	0.07
Avail Cap(c_a), veh/h	464	387	324	464	387	577	602	3559	874	602	3688	906
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	0.31	0.31	0.31	0.89	0.89	0.89
Uniform Delay (d), s/veh	59.9	57.9	56.1	61.3	64.3	62.9	64.0	26.8	15.1	63.9	17.8	13.9
Incr Delay (d2), s/veh	21.7	0.6	0.2	0.2	1.7	0.2	0.1	0.8	0.0	1.9	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	3.4	1.2	1.2	2.2	0.5	1.2	19.8	0.9	3.6	7.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.7	58.5	56.3	61.5	66.1	63.1	64.1	27.7	15.1	65.8	18.2	14.0
LnGrp LOS	F	E	E	E	E	E	E	C	B	E	B	B
Approach Vol, veh/h		564			165			3133			1937	
Approach Delay, s/veh		75.7			63.5			28.3			23.1	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.3	83.2	16.8	22.7	14.5	86.0	25.0	14.5				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	24.0	42.0	18.5	28.5	24.0	42.0	18.5	28.5				
Max Q Clear Time (g_c+10), s	11.0	56.1	4.7	9.1	4.8	22.9	18.6	6.5				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.2	0.1	9.7	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	32.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕		↔	↕	↕	↔	↕	↕	↕	↕	↕
Traffic Volume (veh/h)	380	484	570	154	499	514	445	2225	40	119	1616	160
Future Volume (veh/h)	380	484	570	154	499	514	445	2225	40	119	1616	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	384	489	461	156	504	253	449	2247	16	120	1632	73
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	443	529	470	210	818	365	508	2500	613	172	1875	459
Arrive On Green	0.13	0.29	0.29	0.06	0.23	0.23	0.14	0.38	0.38	0.05	0.29	0.29
Sat Flow, veh/h	3510	1805	1602	3510	3610	1610	3510	6536	1604	3510	6536	1602
Grp Volume(v), veh/h	384	489	461	156	504	253	449	2247	16	120	1632	73
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1610	1755	1634	1604	1755	1634	1602
Q Serve(g_s), s	14.6	35.8	39.0	6.0	17.1	19.7	17.1	44.1	0.8	4.6	32.4	4.6
Cycle Q Clear(g_c), s	14.6	35.8	39.0	6.0	17.1	19.7	17.1	44.1	0.8	4.6	32.4	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	443	529	470	210	818	365	508	2500	613	172	1875	459
V/C Ratio(X)	0.87	0.92	0.98	0.74	0.62	0.69	0.88	0.90	0.03	0.70	0.87	0.16
Avail Cap(c_a), veh/h	772	529	470	772	1058	472	772	2500	613	772	1916	469
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	58.5	46.8	47.9	63.1	47.4	48.4	57.2	39.6	26.3	63.9	46.3	36.4
Incr Delay (d2), s/veh	2.0	22.2	36.7	1.9	0.8	3.0	5.6	4.9	0.0	1.9	4.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	18.8	19.8	2.7	7.6	8.0	7.7	17.5	0.3	2.1	13.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	68.9	84.6	65.1	48.2	51.4	62.8	44.6	26.3	65.8	50.9	36.6
LnGrp LOS	E	E	F	E	D	D	E	D	C	E	D	D
Approach Vol, veh/h		1334			913			2712			1825	
Approach Delay, s/veh		71.9			52.0			47.5			51.3	
Approach LOS		E			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.2	59.7	15.2	47.4	27.3	46.6	24.2	38.3				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (G_max), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+10), s	10.6	46.1	8.0	41.0	19.1	34.4	16.6	21.7				
Green Ext Time (p_c), s	0.2	0.0	0.2	0.0	0.6	4.6	0.6	3.6				
Intersection Summary												
HCM 6th Ctrl Delay				53.9								
HCM 6th LOS				D								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑	↖ ↑↑↑		↖ ↑↑	↖ ↑↑	↖ ↑	↖	↖	↖		↖	↖
Traffic Volume (veh/h)	10	500	10	30	551	30	10	0	50	50	0	10
Future Volume (veh/h)	10	500	10	30	551	30	10	0	50	50	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	617	11	37	680	11	12	0	29	62	0	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	1436	26	80	1084	483	656	0	597	610	0	0
Arrive On Green	0.02	0.27	0.27	0.04	0.30	0.30	0.37	0.00	0.37	0.37	0.00	0.00
Sat Flow, veh/h	1810	5248	93	1810	3610	1610	1440	0	1610	1359	0	0
Grp Volume(v), veh/h	12	406	222	37	680	11	12	0	29	62	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1883	1810	1805	1610	1440	0	1610	1359	0	0
Q Serve(g_s), s	0.4	6.5	6.5	1.3	11.0	0.3	0.0	0.0	0.8	2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	6.5	6.5	1.3	11.0	0.3	0.3	0.0	0.8	2.8	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	32	946	515	80	1084	483	656	0	597	610	0	0
V/C Ratio(X)	0.37	0.43	0.43	0.46	0.63	0.02	0.02	0.00	0.05	0.10	0.00	0.00
Avail Cap(c_a), veh/h	402	3332	1814	402	3478	1551	656	0	597	610	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.8	20.2	20.2	31.4	20.4	16.6	13.5	0.0	13.6	14.5	0.0	0.0
Incr Delay (d2), s/veh	6.9	0.4	0.8	4.0	0.9	0.0	0.1	0.0	0.2	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.4	2.6	0.6	4.1	0.1	0.1	0.0	0.3	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	20.6	21.0	35.5	21.2	16.7	13.5	0.0	13.8	14.8	0.0	0.0
LnGrp LOS	D	C	C	D	C	B	B	A	B	B	A	A
Approach Vol, veh/h	640			728			41			62		
Approach Delay, s/veh	21.1			21.9			13.7			14.8		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	32.0		10.0		25.5		32.0		8.2		27.3	
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0		7.0		7.0	
Max Green Setting (Gmax), s	25.0		15.0		65.0		25.0		15.0		65.0	
Max Q Clear Time (g_c+1), s	2.8		3.3		8.5		4.8		2.4		13.0	
Green Ext Time (p_c), s	0.1		0.0		6.1		0.2		0.0		7.3	

Intersection Summary

HCM 6th Ctrl Delay	21.0	
HCM 6th LOS	C	

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	540	60	70	541	10	70	0	60	10	0	10
Future Volume (veh/h)	0	540	60	70	541	10	70	0	60	10	0	10
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	0.99		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	651	65	84	652	12	84	0	11	12	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	2996	297	110	1419	26	215	0	128	131	0	0
Arrive On Green	0.00	0.62	0.62	0.06	0.76	0.76	0.08	0.00	0.08	0.08	0.00	0.00
Sat Flow, veh/h	1810	4796	475	1810	1860	34	1663	0	1580	622	0	0
Grp Volume(v), veh/h	0	468	248	84	0	664	84	0	11	12	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1812	1810	0	1894	1663	0	1580	622	0	0
Q Serve(g_s), s	0.0	5.3	5.4	4.1	0.0	11.5	0.0	0.0	0.6	0.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.3	5.4	4.1	0.0	11.5	4.1	0.0	0.6	4.8	0.0	0.0
Prop In Lane	1.00		0.26	1.00		0.02	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	2	2160	1132	110	0	1445	215	0	128	131	0	0
V/C Ratio(X)	0.00	0.22	0.22	0.77	0.00	0.46	0.39	0.00	0.09	0.09	0.00	0.00
Avail Cap(c_a), veh/h	322	2160	1132	322	0	1445	684	0	650	595	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.86	0.86	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.3	7.3	41.6	0.0	3.9	39.9	0.0	38.2	42.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	10.5	0.0	1.1	1.2	0.0	0.3	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.6	1.8	2.1	0.0	2.8	1.9	0.0	0.2	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.5	7.7	52.2	0.0	4.9	41.0	0.0	38.5	42.5	0.0	0.0
LnGrp LOS	A	A	A	D	A	A	D	A	D	D	A	A
Approach Vol, veh/h	716		748		95		12					
Approach Delay, s/veh	7.6		10.2		40.7		42.5					
Approach LOS	A		B		D		D					
Timer - Assigned Phs	2	3	4	6	7	8						
Phs Duration (G+Y+Rc), s	14.3	12.5	63.2	14.3	0.0	75.7						
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0						
Max Green Setting (Gmax), s	37.0	16.0	16.0	37.0	16.0	16.0						
Max Q Clear Time (g_c+1), s	6.1	6.1	7.4	6.8	0.0	13.5						
Green Ext Time (p_c), s	0.5	0.1	2.7	0.0	0.0	1.0						

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔	↑↑↑	↔	↔	↑↑↑	↔
Traffic Volume (veh/h)	390	310	50	389	241	159	50	2088	212	223	1817	330
Future Volume (veh/h)	390	310	50	389	241	159	50	2088	212	223	1817	330
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No				No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	398	316	8	397	246	26	51	2131	71	228	1854	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	435	638	196	435	444	198	123	2105	516	242	2536	
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.07	0.32	0.32	0.13	0.39	0.00
Sat Flow, veh/h	3510	5187	1591	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	398	316	8	397	246	26	51	2131	71	228	1854	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1591	1755	1805	1610	1810	1634	1603	1810	1634	1610
Q Serve(g_s), s	11.3	5.7	0.4	11.3	6.5	1.5	2.7	32.5	3.2	12.6	24.5	0.0
Cycle Q Clear(g_c), s	11.3	5.7	0.4	11.3	6.5	1.5	2.7	32.5	3.2	12.6	24.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	435	638	196	435	444	198	123	2105	516	242	2536	
V/C Ratio(X)	0.92	0.50	0.04	0.91	0.55	0.13	0.42	1.01	0.14	0.94	0.73	
Avail Cap(c_a), veh/h	435	1619	496	435	1127	503	206	2105	516	242	2536	
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	0.00
Uniform Delay (d), s/veh	43.7	41.3	39.0	43.7	41.6	39.4	45.1	34.2	24.3	43.3	26.4	0.0
Incr Delay (d2), s/veh	23.4	0.6	0.1	23.0	1.1	0.3	0.8	22.7	0.1	41.6	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	2.4	0.2	6.1	2.8	0.6	1.2	15.0	1.2	8.1	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.1	41.9	39.1	66.7	42.7	39.7	45.9	56.9	24.4	84.9	27.5	0.0
LnGrp LOS	E	D	D	E	D	D	D	F	C	F	C	
Approach Vol, veh/h	722		669				2253			2082		
Approach Delay, s/veh	55.8		56.8				55.7			33.8		
Approach LOS	E		E				E			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	40.0	20.0	19.9	14.3	46.7	20.0	19.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	13.5	32.5	12.5	31.5	11.5	34.5	12.5	31.5				
Max Q Clear Time (g_c+1/4), s	14.6	34.5	13.3	7.7	4.7	26.5	13.3	8.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.9	0.0	6.5	0.0	1.4				

Intersection Summary												
HCM 6th Ctrl Delay			47.9									
HCM 6th LOS			D									

Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary 30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗ ↑↑ ↘			↖	↑↑	↗	↖	↑		↖	↑	↗
Traffic Volume (veh/h)	50	796	20	10	678	36	10	10	10	52	0	91
Future Volume (veh/h)	50	796	20	10	678	36	10	10	10	52	0	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/lane	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	829	18	10	706	15	10	10	4	54	0	29
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	411	2231	48	408	1542	684	537	313	125	533	462	389
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	742	5224	113	660	3610	1601	1394	1288	515	1413	1900	1600
Grp Volume(v), veh/h	52	548	299	10	706	15	10	0	14	54	0	29
Grp Sat Flow(s), veh/h/lane	742	1729	1879	660	1805	1601	1394	0	1803	1413	1900	1600
Q Serve(g_s), s	2.0	3.9	3.9	0.4	5.1	0.2	0.2	0.0	0.2	1.1	0.0	0.5
Cycle Q Clear(g_c), s	7.0	3.9	3.9	4.3	5.1	0.2	0.2	0.0	0.2	1.3	0.0	0.5
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	411	1477	802	408	1542	684	537	0	439	533	462	389
V/C Ratio(X)	0.13	0.37	0.37	0.02	0.46	0.02	0.02	0.00	0.03	0.10	0.00	0.07
Avail Cap(c_a), veh/h	808	3325	1807	761	3471	1539	1156	0	1239	1160	1305	1099
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.9	7.1	7.1	8.6	7.4	6.0	10.5	0.0	10.5	11.0	0.0	10.6
Incr Delay (d2), s/veh	0.1	0.2	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.8	0.9	0.0	1.0	0.0	0.1	0.0	0.1	0.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	7.3	7.4	8.6	7.6	6.0	10.5	0.0	10.5	11.1	0.0	10.7
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h	899			731				24		83		
Approach Delay, s/veh	7.5			7.6				10.5		11.0		
Approach LOS	A			A				B		B		
Timer - Assigned Phs	2		4			6		8				
Phs Duration (G+Y+Rc), s	13.9			22.5			13.9		22.5			
Change Period (Y+Rc), s	5.0			7.0			5.0		7.0			
Max Green Setting (Gmax), s	25.0			35.0			25.0		35.0			
Max Q Clear Time (g_c+I1), s	2.2			9.0			3.3		7.1			
Green Ext Time (p_c), s	0.0			5.8			0.2		4.9			
Intersection Summary												
HCM 6th Ctrl Delay				7.7								
HCM 6th LOS				A								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary

31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	758	30	30	599	289	20	40	80	350	30	104
Future Volume (veh/h)	70	758	30	30	599	289	20	40	80	350	30	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	790	12	31	624	0	21	42	14	365	31	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	118	2365	730	76	1562		66	139	46	312	294	247
Arrive On Green	0.07	0.46	0.46	0.03	0.29	0.00	0.04	0.10	0.10	0.09	0.15	0.15
Sat Flow, veh/h	1810	5187	1601	1810	3610	1610	1810	1358	453	3510	1900	1595
Grp Volume(v), veh/h	73	790	12	31	624	0	21	0	56	365	31	25
Grp Sat Flow(s),veh/h/ln	1810	1729	1601	1810	1805	1610	1810	0	1811	1755	1900	1595
Q Serve(g_s), s	3.5	8.8	0.4	1.5	12.5	0.0	1.0	0.0	2.6	8.0	1.3	1.2
Cycle Q Clear(g_c), s	3.5	8.8	0.4	1.5	12.5	0.0	1.0	0.0	2.6	8.0	1.3	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	118	2365	730	76	1562		66	0	185	312	294	247
V/C Ratio(X)	0.62	0.33	0.02	0.41	0.40		0.32	0.00	0.30	1.17	0.11	0.10
Avail Cap(c_a), veh/h	161	2365	730	161	1562		161	0	402	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.97	0.97	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	15.7	13.4	42.6	22.6	0.0	42.3	0.0	37.4	41.0	32.7	32.7
Incr Delay (d2), s/veh	5.7	0.3	0.0	4.1	0.7	0.0	1.0	0.0	0.7	105.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.2	0.1	0.7	5.5	0.0	0.5	0.0	1.1	8.0	0.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	16.1	13.5	46.7	23.3	0.0	43.3	0.0	38.1	146.2	32.8	32.8
LnGrp LOS	D	B	B	D	C		D	A	D	F	C	C
Approach Vol, veh/h	875			655			A	77		421		
Approach Delay, s/veh	18.6			24.4				39.5		131.1		
Approach LOS	B			C				D		F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	16.2	10.8	48.0	10.3	20.9	12.9	45.9				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	30.0	20.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+fl), s	4.6	4.6	3.5	10.8	3.0	3.3	5.5	14.5				
Green Ext Time (p_c), s	0.0	0.1	0.0	5.2	0.0	0.1	0.0	3.4				

Intersection Summary

HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙ ↑↑↑			↙ ↑↑↑			↙ ↑↑	↑↑		↙ ↑↑	↑↑	
Traffic Volume (veh/h)	40	1138	30	60	799	30	40	40	130	60	30	40
Future Volume (veh/h)	40	1138	30	60	799	30	40	40	130	60	30	40
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	0.99	0.99		0.99	0.99	
Parking Bus, Adj	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00	
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	1185	30	62	832	29	42	42	19	62	31	7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	3225	82	80	3233	112	222	279	118	210	333	72
Arrive On Green	0.07	1.00	1.00	0.04	0.63	0.63	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1810	5202	132	1810	5146	179	1375	2464	1038	1347	2941	639
Grp Volume(v), veh/h	42	788	427	62	559	302	42	30	31	62	19	19
Grp Sat Flow(s),veh/h/ln	1810	1729	1876	1810	1729	1867	1375	1805	1697	1347	1805	1775
Q Serve(g_s), s	2.0	0.0	0.0	3.1	6.4	6.5	2.5	1.3	1.5	3.9	0.8	0.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	3.1	6.4	6.5	3.4	1.3	1.5	5.4	0.8	0.9
Prop In Lane	1.00		0.07	1.00		0.10	1.00		0.61	1.00		0.36
Lane Grp Cap(c), veh/h	65	2144	1163	80	2173	1173	222	205	192	210	205	201
V/C Ratio(X)	0.64	0.37	0.37	0.77	0.26	0.26	0.19	0.15	0.16	0.29	0.09	0.10
Avail Cap(c_a), veh/h	201	2144	1163	281	2173	1173	509	582	547	492	582	572
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	0.0	0.0	42.5	7.4	7.4	37.3	36.0	36.0	38.5	35.7	35.8
Incr Delay (d2), s/veh	3.0	0.4	0.7	5.1	0.3	0.5	0.4	0.3	0.4	0.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.2	1.4	2.0	2.2	0.8	0.6	0.6	1.3	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.2	0.4	0.7	47.6	7.7	7.9	37.7	36.3	36.4	39.2	35.9	36.0
LnGrp LOS	D	A	A	D	A	A	D	D	D	D	D	D
Approach Vol, veh/h	1257			923			103			100		
Approach Delay, s/veh	1.9			10.4			36.9			38.0		
Approach LOS	A			B			D			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	16.2	11.0	62.8		16.2	10.3	63.5					
Change Period (Y+Rc), s	6.0	7.0	7.0		6.0	7.0	7.0					
Max Green Setting (Gmax), s	29.0	14.0	27.0		29.0	10.0	31.0					
Max Q Clear Time (g_c+I1), s	5.4	5.1	2.0		7.4	4.0	8.5					
Green Ext Time (p_c), s	0.4	0.0	11.5		0.3	0.0	7.4					
Intersection Summary												
HCM 6th Ctrl Delay			8.3									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑	↗	↖ ↗	↑ ↑ ↑		↖ ↗	↑ ↑ ↑	↗	↖ ↗	↑ ↑ ↑	↗
Traffic Volume (veh/h)	130	988	130	380	599	134	160	906	410	230	967	70
Future Volume (veh/h)	130	988	130	380	599	134	160	906	410	230	967	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	1040	36	400	631	121	168	954	172	242	1018	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	1369	425	474	1339	253	300	1322	410	312	1339	566
Arrive On Green	0.09	0.26	0.26	0.14	0.31	0.31	0.09	0.25	0.25	0.09	0.26	0.26
Sat Flow, veh/h	3510	5187	1610	3510	4381	828	3510	5187	1610	3510	5187	1610
Grp Volume(v), veh/h	137	1040	36	400	496	256	168	954	172	242	1018	27
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1751	1755	1729	1610	1755	1729	1610
Q Serve(g_s), s	4.3	21.5	2.0	13.0	13.6	13.9	5.4	19.6	10.4	7.9	21.1	1.3
Cycle Q Clear(g_c), s	4.3	21.5	2.0	13.0	13.6	13.9	5.4	19.6	10.4	7.9	21.1	1.3
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	1369	425	474	1057	535	300	1322	410	312	1339	566
V/C Ratio(X)	0.42	0.76	0.08	0.84	0.47	0.48	0.56	0.72	0.42	0.78	0.76	0.05
Avail Cap(c_a), veh/h	753	1780	553	753	1187	601	753	1780	553	753	1780	703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	49.9	39.5	32.3	49.2	32.8	32.9	51.2	39.7	36.2	52.0	39.9	24.9
Incr Delay (d2), s/veh	0.6	1.6	0.1	4.1	0.4	0.8	1.2	1.1	0.8	3.1	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	9.0	0.8	5.8	5.5	5.8	2.3	8.1	4.1	3.5	8.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	41.1	32.4	53.3	33.2	33.7	52.4	40.8	37.1	55.1	41.4	25.0
LnGrp LOS	D	D	C	D	C	C	D	D	D	E	D	C
Approach Vol, veh/h		1213			1152			1294			1287	
Approach Delay, s/veh		41.9			40.3			41.8			43.7	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.8	37.2	23.2	38.3	17.5	37.6	18.4	43.1				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1), s	19.5	21.6	15.0	23.5	7.4	23.1	6.3	15.9				
Green Ext Time (p_c), s	0.5	7.4	0.8	7.3	0.3	7.0	0.3	5.6				

Intersection Summary

HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗ ↑↑↘	↑↑↘		↗ ↑↑↘	↑↑↘		↗	↑	↗	↗	↑	↘
Traffic Volume (veh/h)	120	1522	6	74	895	50	48	20	125	400	10	140
Future Volume (veh/h)	120	1522	6	74	895	50	48	20	125	400	10	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	129	1637	6	80	962	50	52	22	17	430	11	43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	1933	7	141	1777	92	108	174	145	433	515	434
Arrive On Green	0.09	0.36	0.36	0.08	0.35	0.35	0.06	0.09	0.09	0.24	0.27	0.27
Sat Flow, veh/h	1810	5335	20	1810	5048	262	1810	1900	1584	1810	1900	1601
Grp Volume(v), veh/h	129	1061	582	80	659	353	52	22	17	430	11	43
Grp Sat Flow(s),veh/h/ln	1810	1729	1896	1810	1729	1852	1810	1900	1584	1810	1900	1601
Q Serve(g_s), s	7.3	29.5	29.5	4.5	15.9	16.0	2.9	1.1	1.0	24.8	0.4	2.1
Cycle Q Clear(g_c), s	7.3	29.5	29.5	4.5	15.9	16.0	2.9	1.1	1.0	24.8	0.4	2.1
Prop In Lane	1.00		0.01	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	1253	687	141	1217	652	108	174	145	433	515	434
V/C Ratio(X)	0.81	0.85	0.85	0.57	0.54	0.54	0.48	0.13	0.12	0.99	0.02	0.10
Avail Cap(c_a), veh/h	346	1323	725	346	1323	708	346	363	303	433	515	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	30.7	30.7	46.5	27.1	27.1	47.6	43.7	43.6	39.7	28.0	28.6
Incr Delay (d2), s/veh	3.7	5.2	9.1	1.3	0.5	0.8	1.2	0.2	0.3	41.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	12.3	14.3	2.0	6.3	6.8	1.4	0.5	0.4	16.0	0.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	35.9	39.7	47.9	27.6	28.0	48.8	43.9	43.9	81.2	28.0	28.6
LnGrp LOS	D	D	D	D	C	C	D	D	D	F	C	C
Approach Vol, veh/h		1772			1092			91			484	
Approach Delay, s/veh		38.2			29.2			46.7			75.4	
Approach LOS		D			C			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.0	14.5	15.1	44.9	11.2	33.3	16.2	43.8				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	20.0	20.0	40.0	20.0	25.0	20.0	40.0				
Max Q Clear Time (g_c+20.8), s	20.8	3.1	6.5	31.5	4.9	4.1	9.3	18.0				
Green Ext Time (p_c), s	0.0	0.1	0.1	6.4	0.0	0.1	0.1	7.5				
Intersection Summary												
HCM 6th Ctrl Delay											40.8	
HCM 6th LOS											D	
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	1516	591	510	666	0	0	0	0	240	0	414
Future Volume (veh/h)	0	1516	591	510	666	0	0	0	0	240	0	414
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1596	288	537	701	0				286	0	71
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1963	552	741	3170	0				885	0	394
Arrive On Green	0.00	0.34	0.34	0.07	0.20	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	5700	1603	3510	5358	0				3619	0	1610
Grp Volume(v), veh/h	0	1596	288	537	701	0				286	0	71
Grp Sat Flow(s),veh/h/ln	0	1900	1603	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	22.9	12.9	13.5	10.2	0.0				5.8	0.0	3.1
Cycle Q Clear(g_c), s	0.0	22.9	12.9	13.5	10.2	0.0				5.8	0.0	3.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1963	552	741	3170	0				885	0	394
V/C Ratio(X)	0.00	0.81	0.52	0.72	0.22	0.00				0.32	0.00	0.18
Avail Cap(c_a), veh/h	0	1963	552	741	3170	0				885	0	394
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.40	0.40	0.86	0.86	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.9	23.6	39.3	18.0	0.0				27.9	0.0	26.9
Incr Delay (d2), s/veh	0.0	1.6	1.4	5.3	0.1	0.0				1.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.8	4.7	6.8	4.1	0.0				2.6	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.4	25.0	44.6	18.2	0.0				28.9	0.0	27.9
LnGrp LOS		A	C	C	D	B	A			C	A	C
Approach Vol, veh/h		1884		1238						357		
Approach Delay, s/veh		27.9		29.6						28.7		
Approach LOS		C		C						C		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.0	37.5		28.5		61.5						
Change Period (Y+Rc), s	5.0	6.5		6.5		6.5						
Max Green Setting (Gmax), s	19.0	31.0		22.0		55.0						
Max Q Clear Time (g_c+1/5), s	11.5	24.9		7.8		12.2						
Green Ext Time (p_c), s	0.4	4.7		1.1		4.0						

Intersection Summary

HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	582	1174	0	0	1065	520	110	0	280	0	0	0
Future Volume (veh/h)	582	1174	0	0	1065	520	110	0	280	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No				No				
Adj Sat Flow, veh/h/lane	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	606	1223	0	0	1109	245	159	0	86			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	702	3458	0	0	2132	662	684	0	304			
Arrive On Green	0.20	0.67	0.00	0.00	0.41	0.41	0.19	0.00	0.19			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	3619	0	1610			
Grp Volume(v), veh/h	606	1223	0	0	1109	245	159	0	86			
Grp Sat Flow(s), veh/h/lane	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	15.0	9.3	0.0	0.0	14.4	9.5	3.4	0.0	4.1			
Cycle Q Clear(g_c), s	15.0	9.3	0.0	0.0	14.4	9.5	3.4	0.0	4.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	702	3458	0	0	2132	662	684	0	304			
V/C Ratio(X)	0.86	0.35	0.00	0.00	0.52	0.37	0.23	0.00	0.28			
Avail Cap(c_a), veh/h	702	3458	0	0	2132	662	684	0	304			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.16	0.16	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.8	6.5	0.0	0.0	19.8	18.4	31.0	0.0	31.3			
Incr Delay (d2), s/veh	2.5	0.0	0.0	0.0	0.9	1.6	0.8	0.0	2.3			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/lane	6.3	2.6	0.0	0.0	5.4	3.5	1.5	0.0	1.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	6.6	0.0	0.0	20.8	20.0	31.8	0.0	33.6			
LnGrp LOS	D	A	A	A	C	B	C	A	C			
Approach Vol, veh/h	1829		1354				245					
Approach Delay, s/veh	16.8		20.6				32.4					
Approach LOS	B		C				C					
Timer - Assigned Phs	2		5			6		8				
Phs Duration (G+Y+Rc), s	66.5		23.0			43.5		23.5				
Change Period (Y+Rc), s	6.5		5.0			6.5		6.5				
Max Green Setting (Gmax), s	60.0		18.0			37.0		17.0				
Max Q Clear Time (g_c+I1), s	11.3		17.0			16.4		6.1				
Green Ext Time (p_c), s	8.2		0.2			8.2		0.5				

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕	↗	↖	↕	↗	↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	291	795	91	132	616	221	161	801	74	263	836	188
Future Volume (veh/h)	291	795	91	132	616	221	161	801	74	263	836	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	331	903	28	150	700	143	183	910	76	299	950	53
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	963	427	216	952	422	319	834	70	321	898	398
Arrive On Green	0.12	0.27	0.27	0.12	0.26	0.26	0.13	0.25	0.25	0.13	0.25	0.25
Sat Flow, veh/h	1810	3610	1601	1810	3610	1601	1810	3371	282	1810	3610	1600
Grp Volume(v), veh/h	331	903	28	150	700	143	183	487	499	299	950	53
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1601	1810	1805	1847	1810	1805	1600
Q Serve(g_s), s	11.0	22.0	1.2	7.2	15.9	6.5	6.3	22.3	22.3	11.0	22.4	2.3
Cycle Q Clear(g_c), s	11.0	22.0	1.2	7.2	15.9	6.5	6.3	22.3	22.3	11.0	22.4	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	221	963	427	216	952	422	319	446	457	321	898	398
V/C Ratio(X)	1.50	0.94	0.07	0.69	0.74	0.34	0.57	1.09	1.09	0.93	1.06	0.13
Avail Cap(c_a), veh/h	221	963	427	221	963	427	321	446	457	321	898	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	32.3	24.6	38.1	30.3	26.8	22.0	33.9	33.9	23.4	33.8	26.3
Incr Delay (d2), s/veh	245.8	16.3	0.1	7.7	2.5	0.5	3.0	69.6	69.2	33.0	46.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.7	10.9	0.4	3.4	6.7	2.4	2.7	17.8	18.2	7.3	15.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	285.3	48.6	24.7	45.7	32.7	27.3	25.1	103.5	103.1	56.5	80.5	27.0
LnGrp LOS	F	D	C	D	C	C	C	F	F	E	F	C
Approach Vol, veh/h		1262			993			1169			1302	
Approach Delay, s/veh		110.1			33.9			91.0			72.8	
Approach LOS		F			C			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	28.1	15.4	29.8	16.6	28.2	15.7	29.5				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.0	* 11	24.0	* 12	22.0	* 11	24.0				
Max Q Clear Time (g_c+I1), s	13.0	24.3	9.2	24.0	8.3	24.4	13.0	17.9				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.2	0.0	0.0	3.0				

Intersection Summary

HCM 6th Ctrl Delay	79.1
HCM 6th LOS	E

Notes

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

HCM 6th Signalized Intersection Summary 2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1113	50	50	868	40	40	150	60	60	140	50
Future Volume (veh/h)	60	1113	50	50	868	40	40	150	60	60	140	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	1279	33	57	998	22	46	172	60	69	161	50
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	1845	823	93	1824	809	116	282	90	149	259	72
Arrive On Green	0.06	0.51	0.51	0.05	0.51	0.51	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	3610	1610	1810	3610	1602	191	1202	383	311	1104	308
Grp Volume(v), veh/h	69	1279	33	57	998	22	278	0	0	280	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1602	1776	0	0	1722	0	0
Q Serve(g_s), s	2.2	15.9	0.6	1.8	11.2	0.4	0.0	0.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	2.2	15.9	0.6	1.8	11.2	0.4	8.0	0.0	0.0	8.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.17		0.22	0.25		0.18
Lane Grp Cap(c), veh/h	104	1845	823	93	1824	809	488	0	0	480	0	0
V/C Ratio(X)	0.67	0.69	0.04	0.61	0.55	0.03	0.57	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	1070	2135	952	1070	2135	947	1082	0	0	1050	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.3	11.0	7.2	27.5	10.0	7.3	20.4	0.0	0.0	20.5	0.0	0.0
Incr Delay (d2), s/veh	14.6	1.2	0.0	13.2	0.6	0.0	2.2	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.8	0.2	1.0	3.3	0.1	3.4	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	12.2	7.3	40.7	10.6	7.4	22.7	0.0	0.0	22.9	0.0	0.0
LnGrp LOS	D	B	A	D	B	A	C	A	A	C	A	A
Approach Vol, veh/h		1381			1077			278			280	
Approach Delay, s/veh		13.6			12.1			22.7			22.9	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	34.3		17.9	7.4	33.9		17.9				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	35.0	35.0		35.0	35.0	35.0		35.0				
Max Q Clear Time (g_c+1), s	13.8	17.9		10.3	4.2	13.2		10.0				
Green Ext Time (p_c), s	0.3	12.4		3.2	0.4	11.7		3.2				
Intersection Summary												
HCM 6th Ctrl Delay											14.7	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1070	103	40	847	60	112	240	50	115	271	60
Future Volume (veh/h)	30	1070	103	40	847	60	112	240	50	115	271	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	1202	55	45	952	31	126	270	48	129	304	47
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	1635	725	95	1664	740	275	418	74	203	836	128
Arrive On Green	0.04	0.45	0.45	0.11	0.92	0.92	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1601	1810	3610	1605	1043	1569	279	1076	3136	479
Grp Volume(v), veh/h	34	1202	55	45	952	31	126	0	318	129	174	177
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1605	1043	0	1848	1076	1805	1810
Q Serve(g_s), s	1.6	24.6	1.8	2.1	3.9	0.1	10.1	0.0	13.7	10.3	7.0	7.2
Cycle Q Clear(g_c), s	1.6	24.6	1.8	2.1	3.9	0.1	17.2	0.0	13.7	24.0	7.0	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.26
Lane Grp Cap(c), veh/h	81	1635	725	95	1664	740	275	0	493	203	481	483
V/C Ratio(X)	0.42	0.73	0.08	0.47	0.57	0.04	0.46	0.00	0.65	0.64	0.36	0.37
Avail Cap(c_a), veh/h	181	1635	725	181	1664	740	275	0	493	203	481	483
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	20.2	13.9	39.1	2.0	1.9	33.8	0.0	29.2	40.1	26.8	26.8
Incr Delay (d2), s/veh	7.3	3.0	0.2	6.7	1.2	0.1	5.4	0.0	6.4	14.2	2.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.8	0.6	1.1	1.0	0.1	2.8	0.0	6.6	3.6	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	23.2	14.1	45.8	3.3	2.0	39.2	0.0	35.6	54.3	28.9	29.0
LnGrp LOS	D	C	B	D	A	A	D	A	D	D	C	C
Approach Vol, veh/h		1291			1028			444			480	
Approach Delay, s/veh		23.5			5.1			36.6			35.8	
Approach LOS		C			A			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	11.0	48.5		30.5	11.7	47.8				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	9.0	38.0		* 24	9.0	* 39				
Max Q Clear Time (g_c+1), s		19.2	3.6	5.9		26.0	4.1	26.6				
Green Ext Time (p_c), s		1.2	0.0	13.8		0.0	0.1	9.2				

Intersection Summary

HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1093	93	40	865	60	52	133	20	70	144	40
Future Volume (veh/h)	40	1093	93	40	865	60	52	133	20	70	144	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	1228	53	45	972	34	58	149	5	79	162	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	1723	764	81	1723	764	51	106	368	53	73	368
Arrive On Green	0.05	0.48	0.48	0.05	0.48	0.48	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	0	415	1441	0	286	1441
Grp Volume(v), veh/h	45	1228	53	45	972	34	207	0	5	241	0	10
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	415	0	1441	286	0	1441
Q Serve(g_s), s	2.2	24.3	1.6	2.2	17.3	1.0	0.0	0.0	0.2	0.0	0.0	0.5
Cycle Q Clear(g_c), s	2.2	24.3	1.6	2.2	17.3	1.0	23.0	0.0	0.2	23.0	0.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	0.28		1.00	0.33		1.00
Lane Grp Cap(c), veh/h	81	1723	764	81	1723	764	157	0	368	126	0	368
V/C Ratio(X)	0.55	0.71	0.07	0.55	0.56	0.04	1.32	0.00	0.01	1.91	0.00	0.03
Avail Cap(c_a), veh/h	181	1723	764	181	1723	764	157	0	368	126	0	368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	0.46	0.46	0.46	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	18.6	12.7	42.1	16.8	12.6	31.2	0.0	25.0	32.7	0.0	25.1
Incr Delay (d2), s/veh	1.5	1.8	0.1	1.0	0.6	0.1	180.2	0.0	0.0	436.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	9.3	0.5	1.0	6.5	0.3	10.4	0.0	0.1	18.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	20.4	12.8	43.1	17.5	12.6	211.4	0.0	25.0	469.4	0.0	25.1
LnGrp LOS	D	C	B	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1326			1051			212			251	
Approach Delay, s/veh		20.9			18.4			207.0			451.7	
Approach LOS		C			B			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	49.9		29.0	11.1	49.9		29.0				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	38.0	38.0		23.0	9.0	38.0		23.0				
Max Q Clear Time (g_c+1/2), s	14.2	26.3		25.0	4.2	19.3		25.0				
Green Ext Time (p_c), s	0.0	7.0		0.0	0.0	7.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	71.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↑↑↑			↖↑↑↑		↖
Traffic Volume (veh/h)	293	715	175	50	688	431	122	687	30	565	1035	245
Future Volume (veh/h)	293	715	175	50	688	431	122	687	30	565	1035	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	322	786	85	55	756	121	134	755	32	621	1137	236
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	372	957	425	174	753	334	155	942	40	593	2215	856
Arrive On Green	0.11	0.27	0.27	0.05	0.21	0.21	0.09	0.18	0.18	0.33	0.43	0.43
Sat Flow, veh/h	3510	3610	1601	3510	3610	1599	1810	5102	216	1810	5187	1605
Grp Volume(v), veh/h	322	786	85	55	756	121	134	511	276	621	1137	236
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1599	1810	1729	1859	1810	1729	1605
Q Serve(g_s), s	15.1	34.3	6.9	2.5	35.0	10.9	12.3	23.7	23.8	55.0	27.0	13.5
Cycle Q Clear(g_c), s	15.1	34.3	6.9	2.5	35.0	10.9	12.3	23.7	23.8	55.0	27.0	13.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	372	957	425	174	753	334	155	638	343	593	2215	856
V/C Ratio(X)	0.87	0.82	0.20	0.32	1.00	0.36	0.87	0.80	0.80	1.05	0.51	0.28
Avail Cap(c_a), veh/h	628	968	430	419	753	334	216	722	388	593	2215	856
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	73.8	57.9	47.8	77.0	66.4	56.8	75.7	65.4	65.5	56.4	35.3	21.5
Incr Delay (d2), s/veh	5.2	5.8	0.3	0.8	33.7	0.8	20.4	6.3	11.5	49.7	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	16.0	2.8	1.2	19.4	4.4	6.5	10.9	12.2	32.7	11.3	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.0	63.7	48.1	77.7	100.1	57.6	96.2	71.8	77.0	106.1	35.6	21.7
LnGrp LOS	E	E	D	E	F	E	F	E	E	F	D	C
Approach Vol, veh/h		1193			932			921			1994	
Approach Delay, s/veh		66.7			93.2			76.9			55.9	
Approach LOS		E			F			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	62.0	38.0	15.8	52.0	21.3	78.6	25.3	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+Y), s	57.0	25.8	4.5	36.3	14.3	29.0	17.1	37.0				
Green Ext Time (p_c), s	0.0	4.0	0.1	3.7	0.1	15.8	0.6	0.0				

Intersection Summary

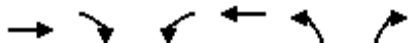
HCM 6th Ctrl Delay	69.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↗↖	↗
Traffic Volume (veh/h)	1129	140	80	1165	43	20
Future Volume (veh/h)	1129	140	80	1165	43	20
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1298	108	92	1339	49	2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2317	1030	119	2855	169	77
Arrive On Green	0.64	0.64	0.07	0.79	0.05	0.05
Sat Flow, veh/h	3705	1604	1810	3705	3510	1610
Grp Volume(v), veh/h	1298	108	92	1339	49	2
Grp Sat Flow(s),veh/h/ln	1805	1604	1810	1805	1755	1610
Q Serve(g_s), s	18.1	2.3	4.5	11.1	1.2	0.1
Cycle Q Clear(g_c), s	18.1	2.3	4.5	11.1	1.2	0.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2317	1030	119	2855	169	77
V/C Ratio(X)	0.56	0.10	0.77	0.47	0.29	0.03
Avail Cap(c_a), veh/h	2317	1030	251	2855	702	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.33	0.33	0.65	0.65	1.00	1.00
Uniform Delay (d), s/veh	9.0	6.2	41.4	3.1	41.4	40.8
Incr Delay (d2), s/veh	0.3	0.1	5.2	0.4	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.6	2.0	1.5	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	6.3	46.6	3.5	42.1	40.9
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1406			1431	51	
Approach Delay, s/veh	9.1			6.3	42.0	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	33.4	65.3		11.3		78.7
Change Period (Y+Rc), s	7.5	* 7.5		7.0		7.5
Max Green Setting (Gmax), s	12.5	* 38		18.0		57.5
Max Q Clear Time (g_c+I), s	10.5	20.1		3.2		13.1
Green Ext Time (p_c), s	0.1	6.9		0.1		11.4

Intersection Summary

HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

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

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	10	0	134	10	0	10	10	124	10	10	0
Future Vol, veh/h	0	10	0	134	10	0	10	10	124	10	10	0
Peak Hour Factor	0.92	0.92	0.92	0.84	0.92	0.84	0.92	0.84	0.84	0.84	0.84	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	160	11	0	11	12	148	12	12	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	8.3	8.9	8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	50%	0%	0%	100%	86%	75%	0%
Vol Thru, %	50%	0%	100%	0%	14%	25%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	124	10	71	73	13	7
LT Vol	10	0	0	71	63	10	0
Through Vol	10	0	10	0	10	3	7
RT Vol	0	124	0	0	0	0	0
Lane Flow Rate	23	148	11	85	86	16	8
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.033	0.177	0.016	0.128	0.128	0.024	0.011
Departure Headway (Hd)	5.275	4.321	5.159	5.451	5.382	5.52	5.143
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	681	833	695	659	668	650	698
Service Time	2.987	2.032	3.182	3.17	3.101	3.238	2.861
HCM Lane V/C Ratio	0.034	0.178	0.016	0.129	0.129	0.025	0.011
HCM Control Delay	8.2	8	8.3	9	8.9	8.4	7.9
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0	0.4	0.4	0.1	0

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	124	0	0	154	0
Future Vol, veh/h	0	0	0	0	0	0	0	124	0	0	154	0
Conflicting Peds, #/hr	0	0	5	0	0	5	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	153	0	0	190	0
























Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	277	353	105	258	353	87	195	0	0	158	0	0
Stage 1	195	195	-	158	158	-	-	-	-	-	-	-
Stage 2	82	158	-	100	195	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	659	575	936	679	575	961	1390	-	-	1434	-	-
Stage 1	794	743	-	834	771	-	-	-	-	-	-	-
Stage 2	923	771	-	901	743	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	652	569	927	672	569	952	1383	-	-	1427	-	-
Mov Cap-2 Maneuver	652	569	-	672	569	-	-	-	-	-	-	-
Stage 1	790	739	-	830	767	-	-	-	-	-	-	-
Stage 2	919	767	-	897	739	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1383	-	-	-	-	1427	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary
 9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1019	200	80	1154	12	143	72	30	10	77	67
Future Volume (veh/h)	50	1019	200	80	1154	12	143	72	30	10	77	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	56	1145	152	90	1297	13	161	81	7	11	87	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	1473	657	156	1560	16	327	660	294	329	660	
Arrive On Green	0.07	0.41	0.41	0.09	0.43	0.43	0.18	0.18	0.18	0.18	0.18	0.00
Sat Flow, veh/h	1810	3610	1610	1810	3662	37	1331	3610	1610	1330	3610	1610
Grp Volume(v), veh/h	56	1145	152	90	639	671	161	81	7	11	87	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1893	1331	1805	1610	1330	1805	1610
Q Serve(g_s), s	1.9	17.9	4.0	3.1	20.5	20.5	7.5	1.2	0.2	0.5	1.3	0.0
Cycle Q Clear(g_c), s	1.9	17.9	4.0	3.1	20.5	20.5	8.8	1.2	0.2	1.7	1.3	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	124	1473	657	156	769	807	327	660	294	329	660	
V/C Ratio(X)	0.45	0.78	0.23	0.58	0.83	0.83	0.49	0.12	0.02	0.03	0.13	
Avail Cap(c_a), veh/h	556	1664	742	556	832	873	493	1109	495	494	1109	
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	0.00
Uniform Delay (d), s/veh	29.1	16.7	12.6	28.6	16.6	16.6	26.0	22.2	21.8	22.9	22.3	0.0
Incr Delay (d2), s/veh	1.0	2.4	0.3	1.2	7.2	6.9	2.0	0.1	0.1	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.1	1.2	1.2	7.8	8.2	2.5	0.5	0.1	0.1	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	19.1	12.8	29.8	23.7	23.5	27.9	22.4	21.9	23.0	22.4	0.0
LnGrp LOS	C	B	B	C	C	C	C	C	C	C	C	
Approach Vol, veh/h		1353			1400			249			98	A
Approach Delay, s/veh		18.8			24.0			25.9			22.5	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	33.6		18.9	11.5	34.7		18.9				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	20.0	30.0		20.0	20.0	30.0		20.0				
Max Q Clear Time (g_c+I1), s	5.1	19.9		3.7	3.9	22.5		10.8				
Green Ext Time (p_c), s	0.1	6.6		0.5	0.0	5.2		1.1				

Intersection Summary												
HCM 6th Ctrl Delay											21.8	
HCM 6th LOS											C	

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	110	61	30	140	20	111	302	110	23	274	30
Future Volume (veh/h)	23	110	61	30	140	20	111	302	110	23	274	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	121	10	33	154	3	122	332	62	25	301	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	238	376	165	255	401	177	644	1741	774	581	1602	712
Arrive On Green	0.03	0.10	0.10	0.04	0.11	0.11	0.07	0.48	0.48	0.03	0.44	0.44
Sat Flow, veh/h	1810	3610	1587	1810	3610	1588	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	25	121	10	33	154	3	122	332	62	25	301	14
Grp Sat Flow(s),veh/h/ln	1810	1805	1587	1810	1805	1588	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	1.0	2.5	0.4	1.3	3.1	0.1	2.8	4.1	1.6	0.6	4.0	0.4
Cycle Q Clear(g_c), s	1.0	2.5	0.4	1.3	3.1	0.1	2.8	4.1	1.6	0.6	4.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	376	165	255	401	177	644	1741	774	581	1602	712
V/C Ratio(X)	0.11	0.32	0.06	0.13	0.38	0.02	0.19	0.19	0.08	0.04	0.19	0.02
Avail Cap(c_a), veh/h	524	1602	704	528	1602	705	860	1741	774	867	1602	712
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	29.9	32.8	31.9	29.5	32.5	31.2	10.1	11.6	11.0	11.0	13.3	12.3
Incr Delay (d2), s/veh	0.2	0.7	0.2	0.2	0.9	0.1	0.2	0.2	0.2	0.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.0	0.2	0.5	1.3	0.1	0.9	1.4	0.5	0.2	1.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	33.5	32.1	29.8	33.4	31.3	10.3	11.9	11.2	11.0	13.6	12.4
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		156			190			516			340	
Approach Delay, s/veh		32.8			32.7			11.4			13.3	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	45.1	9.6	14.7	12.6	42.0	9.0	15.3				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	15.0	35.0	15.0	35.0	15.0	35.0	15.0	35.0				
Max Q Clear Time (g_c+1), s	12.6	6.1	3.3	4.5	4.8	6.0	3.0	5.1				
Green Ext Time (p_c), s	0.0	3.1	0.0	1.0	0.2	2.6	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	190	150	70	260	70	130	623	130	70	295	20
Future Volume (veh/h)	30	190	150	70	260	70	130	623	130	70	295	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	198	29	73	271	43	135	649	48	73	307	16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	356	51	230	420	66	166	1549	691	94	1358	70
Arrive On Green	0.02	0.11	0.11	0.04	0.13	0.13	0.18	0.86	0.86	0.05	0.39	0.39
Sat Flow, veh/h	1810	3160	456	1810	3122	489	1810	3610	1610	1810	3490	181
Grp Volume(v), veh/h	31	112	115	73	155	159	135	649	48	73	158	165
Grp Sat Flow(s),veh/h/ln	1810	1805	1811	1810	1805	1806	1810	1805	1610	1810	1805	1867
Q Serve(g_s), s	1.2	4.7	4.8	2.8	6.5	6.7	5.7	3.2	0.4	3.2	4.7	4.7
Cycle Q Clear(g_c), s	1.2	4.7	4.8	2.8	6.5	6.7	5.7	3.2	0.4	3.2	4.7	4.7
Prop In Lane	1.00		0.25	1.00		0.27	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	185	203	204	230	243	243	166	1549	691	94	702	726
V/C Ratio(X)	0.17	0.55	0.56	0.32	0.64	0.65	0.81	0.42	0.07	0.78	0.23	0.23
Avail Cap(c_a), veh/h	224	395	396	230	395	395	204	1549	691	113	702	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	0.99	0.99	0.99
Uniform Delay (d), s/veh	30.6	33.6	33.6	29.8	32.8	32.8	32.0	3.5	3.3	37.5	16.4	16.4
Incr Delay (d2), s/veh	0.2	1.7	1.8	0.3	2.1	2.2	13.7	0.8	0.2	19.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.0	2.1	1.2	2.8	2.8	2.8	0.9	0.1	1.8	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	35.3	35.4	30.1	34.8	35.0	45.7	4.2	3.4	56.5	17.1	17.1
LnGrp LOS	C	D	D	C	C	D	D	A	A	E	B	B
Approach Vol, veh/h		258			387			832			396	
Approach Delay, s/veh		34.8			34.0			10.9			24.4	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	41.3	11.0	16.5	14.4	38.1	9.2	18.3				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	25.0	3.5	17.5	9.0	21.0	3.5	17.5				
Max Q Clear Time (g_c+1/2), s	1.2	5.2	4.8	6.8	7.7	6.7	3.2	8.7				
Green Ext Time (p_c), s	0.0	3.3	0.0	0.6	0.0	1.1	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	10	130	10	50	20	793	480	110	415	10
Future Volume (veh/h)	10	10	10	130	10	50	20	793	480	110	415	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	1	141	0	7	21	818	217	113	428	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	59	55	6	330	0	145	51	1854	823	113	1976	46
Arrive On Green	0.03	0.03	0.03	0.09	0.00	0.09	0.01	0.17	0.17	0.13	1.00	1.00
Sat Flow, veh/h	1810	1699	170	3619	0	1584	1810	3610	1602	1810	3605	84
Grp Volume(v), veh/h	10	0	11	141	0	7	21	818	217	113	214	224
Grp Sat Flow(s),veh/h/ln	1810	0	1869	1810	0	1584	1810	1805	1602	1810	1805	1884
Q Serve(g_s), s	0.4	0.0	0.5	2.9	0.0	0.3	0.9	16.3	9.4	5.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.5	2.9	0.0	0.3	0.9	16.3	9.4	5.0	0.0	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	59	0	61	330	0	145	51	1854	823	113	989	1033
V/C Ratio(X)	0.17	0.00	0.18	0.43	0.00	0.05	0.41	0.44	0.26	1.00	0.22	0.22
Avail Cap(c_a), veh/h	181	0	187	769	0	337	136	1854	823	113	989	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.89	0.89	0.89	0.97	0.97	0.97
Uniform Delay (d), s/veh	37.6	0.0	37.7	34.4	0.0	33.2	39.0	22.9	20.1	35.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.6	0.0	0.1	5.7	0.7	0.7	83.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	1.3	0.0	0.1	0.5	7.8	3.7	4.5	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	38.2	35.0	0.0	33.3	44.7	23.6	20.8	118.1	0.5	0.5
LnGrp LOS	D	A	D	D	A	C	D	C	C	F	A	A
Approach Vol, veh/h		21			148			1056			551	
Approach Delay, s/veh		38.2			34.9			23.4			24.6	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	2.0	48.1		7.6	9.2	50.8		12.3				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	5.0	26.0		8.0	6.0	25.0		17.0				
Max Q Clear Time (g_c+1), s	17.0	18.3		2.5	2.9	2.0		4.9				
Green Ext Time (p_c), s	0.0	4.0		0.0	0.0	1.8		0.3				

Intersection Summary

HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↕	↕	↕↕↕			↕↕↕	↕
Traffic Volume (veh/h)	0	0	0	197	0	390	210	893	0	0	384	171
Future Volume (veh/h)	0	0	0	197	0	390	210	893	0	0	384	171
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				207	0	311	221	940	0	0	404	61
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				461	0	411	362	3112	0	0	1751	539
Arrive On Green				0.25	0.00	0.25	0.40	1.00	0.00	0.00	0.11	0.11
Sat Flow, veh/h				1810	0	1610	1810	5358	0	0	5358	1598
Grp Volume(v), veh/h				207	0	311	221	940	0	0	404	61
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1598
Q Serve(g_s), s				7.7	0.0	14.3	7.8	0.0	0.0	0.0	5.7	2.7
Cycle Q Clear(g_c), s				7.7	0.0	14.3	7.8	0.0	0.0	0.0	5.7	2.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				461	0	411	362	3112	0	0	1751	539
V/C Ratio(X)				0.45	0.00	0.76	0.61	0.30	0.00	0.00	0.23	0.11
Avail Cap(c_a), veh/h				461	0	411	362	3112	0	0	1751	539
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.81	0.81	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				25.1	0.0	27.5	21.5	0.0	0.0	0.0	26.1	24.8
Incr Delay (d2), s/veh				3.1	0.0	12.3	6.1	0.2	0.0	0.0	0.3	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
%ile BackOfQ(50%),veh/ln				3.6	0.0	6.7	3.2	0.1	0.0	0.0	2.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.2	0.0	39.8	27.6	0.2	0.0	0.0	26.4	25.2
LnGrp LOS				C	A	D	C	A	A	A	C	C
Approach Vol, veh/h					518			1161			465	
Approach Delay, s/veh					35.2			5.4			26.2	
Approach LOS					D			A			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		53.8			21.0	32.8		26.2				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			9.8	7.7		16.3				
Green Ext Time (p_c), s		5.7			0.2	2.0		1.6				
Intersection Summary												
HCM 6th Ctrl Delay											17.1	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↕↕		↗	↕↕↕	
Traffic Volume (veh/h)	568	0	170	0	0	0	0	585	373	150	411	0
Future Volume (veh/h)	568	0	170	0	0	0	0	585	373	150	411	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	598	0	58				0	616	253	158	433	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	575	0	511				0	1316	528	203	2788	0
Arrive On Green	0.32	0.00	0.32				0.00	0.36	0.36	0.04	0.18	0.00
Sat Flow, veh/h	1810	0	1610				0	3799	1456	1810	5358	0
Grp Volume(v), veh/h	598	0	58				0	587	282	158	433	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1626	1810	1729	0
Q Serve(g_s), s	25.4	0.0	2.0				0.0	10.4	10.7	6.9	5.6	0.0
Cycle Q Clear(g_c), s	25.4	0.0	2.0				0.0	10.4	10.7	6.9	5.6	0.0
Prop In Lane	1.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	575	0	511				0	1254	590	203	2788	0
V/C Ratio(X)	1.04	0.00	0.11				0.00	0.47	0.48	0.78	0.16	0.00
Avail Cap(c_a), veh/h	575	0	511				0	1254	590	271	2788	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	27.3	0.0	19.3				0.0	19.6	19.7	37.5	17.5	0.0
Incr Delay (d2), s/veh	48.6	0.0	0.5				0.0	1.3	2.8	6.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.1	0.0	0.8				0.0	4.0	4.1	3.4	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.9	0.0	19.8				0.0	20.8	22.4	44.1	17.7	0.0
LnGrp LOS	F	A	B				A	C	C	D	B	A
Approach Vol, veh/h		656						869			591	
Approach Delay, s/veh		70.9						21.3			24.7	
Approach LOS		E						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	34.0	34.8	31.2	48.8								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	12.0	26.0	25.4	43.0								
Max Q Clear Time (g_c+I), s	10.9	12.7	27.4	7.6								
Green Ext Time (p_c), s	0.1	3.7	0.0	2.3								
Intersection Summary												
HCM 6th Ctrl Delay			37.7									
HCM 6th LOS			D									

Intersection												
Intersection Delay, s/veh	18.7											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔	↔		↔	↔	↔	↔	↔
Traffic Vol, veh/h	10	131	43	368	153	170	42	120	160	90	30	10
Future Vol, veh/h	10	131	43	368	153	170	42	120	160	90	30	10
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	154	51	433	180	200	49	141	188	106	35	12
Number of Lanes	0	1	1	1	1	1	0	1	2	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	3
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	3	2	3
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	3	2	3	2
HCM Control Delay	16.1	21.7	15.3	15
HCM LOS	C	C	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	26%	0%	0%	7%	0%	100%	42%	0%	100%	0%
Vol Thru, %	74%	0%	0%	93%	0%	0%	58%	0%	0%	75%
Vol Right, %	0%	100%	100%	0%	100%	0%	0%	100%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	162	80	80	141	43	258	263	170	90	40
LT Vol	42	0	0	10	0	258	110	0	90	0
Through Vol	120	0	0	131	0	0	153	0	0	30
RT Vol	0	80	80	0	43	0	0	170	0	10
Lane Flow Rate	191	94	94	166	51	303	310	200	106	47
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.449	0.2	0.2	0.405	0.113	0.665	0.654	0.371	0.282	0.115
Departure Headway (Hd)	8.483	7.637	7.637	8.796	8.045	7.895	7.6	6.675	9.575	8.892
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	423	467	467	411	448	455	474	536	377	406
Service Time	6.28	5.433	5.433	6.496	5.745	5.683	5.387	4.463	7.284	6.592
HCM Lane V/C Ratio	0.452	0.201	0.201	0.404	0.114	0.666	0.654	0.373	0.281	0.116
HCM Control Delay	18.1	12.4	12.4	17.4	11.8	25.1	23.8	13.4	16	12.7
HCM Lane LOS	C	B	B	C	B	D	C	B	C	B
HCM 95th-tile Q	2.3	0.7	0.7	1.9	0.4	4.8	4.6	1.7	1.1	0.4

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	10	0	10	10	0	10	20	352	30	20	421	20
Future Volume (veh/h)	10	0	10	10	0	10	20	352	30	20	421	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.97	0.95		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	0	1	12	0	0	24	424	26	24	507	18
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.84	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	0	77	119	0	0	83	2635	1171	83	2635	1171
Arrive On Green	0.05	0.00	0.05	0.05	0.00	0.00	0.05	0.73	0.73	0.05	0.73	0.73
Sat Flow, veh/h	1486	0	1562	1186	0	0	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	12	0	1	12	0	0	24	424	26	24	507	18
Grp Sat Flow(s),veh/h/ln	1486	0	1562	1186	0	0	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	0.0	0.0	0.1	1.0	0.0	0.0	1.5	4.3	0.5	1.5	5.3	0.4
Cycle Q Clear(g_c), s	0.8	0.0	0.1	1.8	0.0	0.0	1.5	4.3	0.5	1.5	5.3	0.4
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	0	77	119	0	0	83	2635	1171	83	2635	1171
V/C Ratio(X)	0.09	0.00	0.01	0.10	0.00	0.00	0.29	0.16	0.02	0.29	0.19	0.02
Avail Cap(c_a), veh/h	444	0	430	428	0	0	196	2635	1171	196	2635	1171
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	0.00	1.00	1.00	0.00	0.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	0.0	54.3	55.5	0.0	0.0	55.4	5.0	4.5	55.4	5.1	4.4
Incr Delay (d2), s/veh	0.3	0.0	0.1	0.4	0.0	0.0	2.1	0.1	0.0	2.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.4	0.0	0.0	0.7	1.4	0.2	0.7	1.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	0.0	54.3	55.9	0.0	0.0	57.4	5.1	4.5	57.6	5.3	4.5
LnGrp LOS	D	A	D	E	A	A	E	A	A	E	A	A
Approach Vol, veh/h		13			12			474			549	
Approach Delay, s/veh		54.9			55.9			7.7			7.5	
Approach LOS		D			E			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	94.6		12.9	12.5	94.6		12.9				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1), s	13.5	6.3		2.8	3.5	7.3		3.8				
Green Ext Time (p_c), s	0.0	5.8		0.0	0.0	7.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	599	150	120	858	50	210	242	60	20	253	158
Future Volume (veh/h)	100	599	150	120	858	50	210	242	60	20	253	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	637	59	128	913	53	223	257	13	21	269	168
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	894	396	156	897	52	300	315	265	21	270	168
Arrive On Green	0.08	0.25	0.25	0.09	0.26	0.26	0.17	0.17	0.17	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1600	1810	3466	201	1810	1900	1596	81	1042	651
Grp Volume(v), veh/h	106	637	59	128	475	491	223	257	13	458	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1600	1810	1805	1862	1810	1900	1596	1774	0	0
Q Serve(g_s), s	6.7	18.7	3.3	8.1	30.0	30.0	13.6	15.1	0.8	29.9	0.0	0.0
Cycle Q Clear(g_c), s	6.7	18.7	3.3	8.1	30.0	30.0	13.6	15.1	0.8	29.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	0.05		0.37
Lane Grp Cap(c), veh/h	136	894	396	156	467	482	300	315	265	459	0	0
V/C Ratio(X)	0.78	0.71	0.15	0.82	1.02	1.02	0.74	0.82	0.05	1.00	0.00	0.00
Avail Cap(c_a), veh/h	390	934	414	312	467	482	468	492	413	459	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	52.7	39.8	34.1	52.1	43.0	43.0	46.0	46.6	40.7	42.9	0.0	0.0
Incr Delay (d2), s/veh	7.0	3.2	0.4	4.0	46.2	45.6	4.4	6.9	0.1	41.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	8.2	1.3	3.7	18.5	19.0	6.3	7.6	0.3	17.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	43.0	34.4	56.1	89.2	88.5	50.4	53.5	40.8	84.2	0.0	0.0
LnGrp LOS	E	D	C	E	F	F	D	D	D	F	A	A
Approach Vol, veh/h		802			1094			493			458	
Approach Delay, s/veh		44.6			85.0			51.8			84.2	
Approach LOS		D			F			D			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.5	36.2		36.5	16.2	37.5		25.7				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	10.1	20.7		31.9	8.7	32.0		17.1				
Green Ext Time (p_c), s	0.1	4.3		0.0	0.1	0.0		2.1				

Intersection Summary

HCM 6th Ctrl Delay	67.8
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	20	100	10	10	10	220	482	30	10	363	130
Future Volume (veh/h)	40	20	100	10	10	10	220	482	30	10	363	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	22	19	11	11	1	244	536	20	11	403	60
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	120	284	215	43	373	164	281	1891	841	34	2008	621
Arrive On Green	0.07	0.15	0.15	0.02	0.10	0.10	0.16	0.52	0.52	0.02	0.39	0.39
Sat Flow, veh/h	1810	1951	1472	1810	3610	1587	1810	3610	1606	1810	5187	1604
Grp Volume(v), veh/h	44	20	21	11	11	1	244	536	20	11	403	60
Grp Sat Flow(s),veh/h/ln	1810	1805	1617	1810	1805	1587	1810	1805	1606	1810	1729	1604
Q Serve(g_s), s	2.1	0.9	1.0	0.5	0.2	0.1	11.9	7.5	0.5	0.5	4.7	2.2
Cycle Q Clear(g_c), s	2.1	0.9	1.0	0.5	0.2	0.1	11.9	7.5	0.5	0.5	4.7	2.2
Prop In Lane	1.00		0.91	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	263	236	43	373	164	281	1891	841	34	2008	621
V/C Ratio(X)	0.37	0.08	0.09	0.25	0.03	0.01	0.87	0.28	0.02	0.33	0.20	0.10
Avail Cap(c_a), veh/h	400	499	447	400	998	439	400	1891	841	400	2008	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	33.4	33.4	43.3	36.5	36.4	37.3	12.0	10.4	43.8	18.4	17.6
Incr Delay (d2), s/veh	0.7	0.1	0.1	1.1	0.0	0.0	10.1	0.4	0.1	2.0	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4	0.4	0.2	0.1	0.0	5.8	2.7	0.2	0.3	1.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	33.4	33.5	44.4	36.5	36.4	47.4	12.4	10.4	45.8	18.6	17.9
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		85			23			800			474	
Approach Delay, s/veh		37.4			40.3			23.0			19.2	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	53.9	8.7	19.7	20.5	41.5	12.5	15.8				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.5	9.5	2.5	3.0	13.9	6.7	4.1	2.2				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.1	0.2	3.3	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗	↗	↖	↗	↗
Traffic Volume (veh/h)	10	10	21	10	10	30	61	702	60	50	363	30
Future Volume (veh/h)	10	10	21	10	10	30	61	702	60	50	363	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	11	3	11	11	3	68	780	37	56	403	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	44	292	76	44	374	164	117	2683	830	107	2524	186
Arrive On Green	0.02	0.10	0.10	0.02	0.10	0.10	0.06	0.52	0.52	0.06	0.51	0.51
Sat Flow, veh/h	1810	2826	734	1810	3610	1587	1810	5187	1605	1810	4929	362
Grp Volume(v), veh/h	11	7	7	11	11	3	68	780	37	56	281	152
Grp Sat Flow(s),veh/h/ln	1810	1805	1755	1810	1805	1587	1810	1729	1605	1810	1729	1833
Q Serve(g_s), s	0.5	0.3	0.3	0.5	0.2	0.1	3.2	7.5	1.0	2.6	3.8	3.9
Cycle Q Clear(g_c), s	0.5	0.3	0.3	0.5	0.2	0.1	3.2	7.5	1.0	2.6	3.8	3.9
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	44	187	182	44	374	164	117	2683	830	107	1771	939
V/C Ratio(X)	0.25	0.04	0.04	0.25	0.03	0.02	0.58	0.29	0.04	0.52	0.16	0.16
Avail Cap(c_a), veh/h	515	739	719	515	1479	650	515	2683	830	515	1771	939
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	35.5	35.5	42.1	35.4	35.4	40.0	12.1	10.5	40.1	11.4	11.4
Incr Delay (d2), s/veh	1.1	0.1	0.1	1.1	0.0	0.0	1.7	0.3	0.1	1.5	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.1	0.2	0.1	0.1	1.4	2.6	0.4	1.2	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	35.5	35.5	43.2	35.4	35.4	41.7	12.3	10.6	41.6	11.6	11.8
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		25			25			885			489	
Approach Delay, s/veh		38.9			38.9			14.5			15.1	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.7	52.0	8.6	15.6	12.2	51.5	8.6	15.6				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	25.0	45.0	25.0	36.0	25.0	45.0	25.0	36.0				
Max Q Clear Time (g_c+1), s	14.6	9.5	2.5	2.3	5.2	5.9	2.5	2.2				
Green Ext Time (p_c), s	0.0	6.9	0.0	0.0	0.1	3.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	50	190	140	130	420	60	370	753	220	50	314	40
Future Volume (veh/h)	50	190	140	130	420	60	370	753	220	50	314	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	207	30	141	457	15	402	818	100	54	341	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	277	594	262	353	672	297	487	2033	629	194	1600	494
Arrive On Green	0.08	0.16	0.16	0.10	0.19	0.19	0.14	0.39	0.39	0.06	0.31	0.31
Sat Flow, veh/h	3510	3610	1595	3510	3610	1597	3510	5187	1604	3510	5187	1602
Grp Volume(v), veh/h	54	207	30	141	457	15	402	818	100	54	341	15
Grp Sat Flow(s),veh/h/ln	1755	1805	1595	1755	1805	1597	1755	1729	1604	1755	1729	1602
Q Serve(g_s), s	1.4	4.9	1.6	3.7	11.5	0.8	10.8	11.1	3.9	1.4	4.7	0.6
Cycle Q Clear(g_c), s	1.4	4.9	1.6	3.7	11.5	0.8	10.8	11.1	3.9	1.4	4.7	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	594	262	353	672	297	487	2033	629	194	1600	494
V/C Ratio(X)	0.19	0.35	0.11	0.40	0.68	0.05	0.83	0.40	0.16	0.28	0.21	0.03
Avail Cap(c_a), veh/h	722	1114	492	722	1114	493	722	2033	629	722	1600	494
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	41.9	36.0	34.6	41.0	36.9	32.5	40.7	21.3	19.2	44.1	24.9	23.5
Incr Delay (d2), s/veh	0.3	0.4	0.2	0.5	1.5	0.1	4.3	0.6	0.5	0.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.1	0.6	1.5	4.9	0.3	4.8	4.3	1.4	0.6	1.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	36.4	34.8	41.5	38.4	32.6	45.0	21.9	19.7	44.7	25.2	23.6
LnGrp LOS	D	D	C	D	D	C	D	C	B	D	C	C
Approach Vol, veh/h		291			613			1320			410	
Approach Delay, s/veh		37.3			38.9			28.8			27.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	44.6	17.3	23.5	20.0	36.5	15.2	25.6				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1/4), s	13.4	13.1	5.7	6.9	12.8	6.7	3.4	13.5				
Green Ext Time (p_c), s	0.1	6.0	0.2	1.4	0.7	2.5	0.1	2.9				

Intersection Summary

HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↶	↶	↶	↶		↶	↶
Traffic Volume (veh/h)	0	0	0	337	0	408	730	1085	0	0	454	140
Future Volume (veh/h)	0	0	0	337	0	408	730	1085	0	0	454	140
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				430	0	184	745	1107	0	0	463	33
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				941	0	419	1170	3170	0	0	1452	354
Arrive On Green				0.26	0.00	0.26	0.44	0.81	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1592
Grp Volume(v), veh/h				430	0	184	745	1107	0	0	463	33
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1592
Q Serve(g_s), s				9.0	0.0	8.6	14.8	5.0	0.0	0.0	5.3	1.5
Cycle Q Clear(g_c), s				9.0	0.0	8.6	14.8	5.0	0.0	0.0	5.3	1.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				941	0	419	1170	3170	0	0	1452	354
V/C Ratio(X)				0.46	0.00	0.44	0.64	0.35	0.00	0.00	0.32	0.09
Avail Cap(c_a), veh/h				941	0	419	1170	3170	0	0	1452	354
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.68	0.68	0.00	0.00	0.97	0.97
Uniform Delay (d), s/veh				28.0	0.0	27.8	20.8	3.7	0.0	0.0	29.3	27.8
Incr Delay (d2), s/veh				1.6	0.0	3.3	1.8	0.2	0.0	0.0	0.6	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.0	0.0	8.4	5.2	1.3	0.0	0.0	2.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.6	0.0	31.1	22.6	4.0	0.0	0.0	29.9	28.3
LnGrp LOS				C	A	C	C	A	A	A	C	C
Approach Vol, veh/h						614		1852			496	
Approach Delay, s/veh						30.0		11.5			29.8	
Approach LOS						C		B			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		60.8		29.2	35.0	25.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		55.0		23.4	30.0	20.0						
Max Q Clear Time (g_c+I1), s		7.0		11.0	16.8	7.3						
Green Ext Time (p_c), s		9.0		1.9	1.3	2.3						

Intersection Summary

HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	0	430	0	0	0	0	1465	593	140	651	0
Future Volume (veh/h)	350	0	430	0	0	0	0	1465	593	140	651	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	426	0	147				0	1495	196	143	664	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1222	0	544				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.05	0.18	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	426	0	147				0	1495	196	143	664	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	8.0	0.0	6.0				0.0	18.1	8.5	3.5	9.9	0.0
Cycle Q Clear(g_c), s	8.0	0.0	6.0				0.0	18.1	8.5	3.5	9.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1222	0	544				0	2106	515	546	2766	0
V/C Ratio(X)	0.35	0.00	0.27				0.00	0.71	0.38	0.26	0.24	0.00
Avail Cap(c_a), veh/h	1222	0	544				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.91	0.91	0.00
Uniform Delay (d), s/veh	22.4	0.0	21.7				0.0	26.8	23.6	37.7	21.4	0.0
Incr Delay (d2), s/veh	0.8	0.0	1.2				0.0	2.1	2.1	1.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	2.4				0.0	6.8	3.3	1.6	4.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	22.9				0.0	28.9	25.7	38.8	21.6	0.0
LnGrp LOS	C	A	C				A	C	C	D	C	A
Approach Vol, veh/h		573						1691			807	
Approach Delay, s/veh		23.1						28.5			24.6	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+I), s	15.5	20.1					11.9	10.0				
Green Ext Time (p_c), s	0.1	6.2					4.6	2.0				

Intersection Summary

HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	512	0	663	0	2257	0	0	1543	545	0	0
Future Volume (veh/h)	512	0	663	0	2257	0	0	1543	545	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	528	528	654	0	2327	0	0	1591	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	925	925	1641	0	2484	0	0	2888			
Arrive On Green	0.51	0.51	0.51	0.00	0.38	0.00	0.00	0.38	0.00		
Sat Flow, veh/h	1810	1810	3211	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	528	528	654	0	2327	0	0	1591	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1605	0	1634	0	0	1900	1610		
Q Serve(g_s), s	20.1	20.1	12.5	0.0	34.3	0.0	0.0	16.4	0.0		
Cycle Q Clear(g_c), s	20.1	20.1	12.5	0.0	34.3	0.0	0.0	16.4	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	925	925	1641	0	2484	0	0	2888			
V/C Ratio(X)	0.57	0.57	0.40	0.00	0.94	0.00	0.00	0.55			
Avail Cap(c_a), veh/h	925	925	1641	0	2484	0	0	2888			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	16.9	16.9	15.0	0.0	29.8	0.0	0.0	24.3	0.0		
Incr Delay (d2), s/veh	2.6	2.6	0.7	0.0	8.3	0.0	0.0	0.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.6	8.6	4.6	0.0	13.8	0.0	0.0	7.1	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	19.4	19.4	15.7	0.0	38.2	0.0	0.0	25.1	0.0		
LnGrp LOS	B	B	B	A	D	A	A	C			
Approach Vol, veh/h	1182	1182			2327			1591	A		
Approach Delay, s/veh	17.4	17.4			38.2			25.1			
Approach LOS	B	B			D			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	43.8		56.2		43.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	38.0		51.1		38.0						
Max Q Clear Time (g_c+I1), s	36.3		22.1		18.4						
Green Ext Time (p_c), s	1.5		2.5		7.8						

Intersection Summary

HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	967	0	770	0	1712	337	0	1597	0	0	0
Future Volume (veh/h)	967	0	770	0	1712	337	0	1597	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	997	997	764	0	1765	0	0	1646	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	961	961	1710	0	2353		0	2353	0		
Arrive On Green	0.53	0.53	0.53	0.00	0.36	0.00	0.00	0.36	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	997	997	764	0	1765	0	0	1646	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	53.1	53.1	14.6	0.0	23.7	0.0	0.0	21.5	0.0		
Cycle Q Clear(g_c), s	53.1	53.1	14.6	0.0	23.7	0.0	0.0	21.5	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	961	961	1710	0	2353		0	2353	0		
V/C Ratio(X)	1.04	1.04	0.45	0.00	0.75		0.00	0.70	0.00		
Avail Cap(c_a), veh/h	961	961	1710	0	2353		0	2353	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.86	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	23.5	23.5	14.4	0.0	28.1	0.0	0.0	27.4	0.0		
Incr Delay (d2), s/veh	39.2	39.2	0.8	0.0	1.9	0.0	0.0	1.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	31.2	31.2	5.3	0.0	9.3	0.0	0.0	8.2	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	62.7	62.7	15.3	0.0	30.0	0.0	0.0	29.1	0.0		
LnGrp LOS	F	F	B	A	C		A	C	A		
Approach Vol, veh/h	1761	1761			1765	A		1646			
Approach Delay, s/veh	42.1	42.1			30.0			29.1			
Approach LOS	D	D			C			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	41.8		58.2		41.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	36.0		53.1		36.0						
Max Q Clear Time (g_c+I1), s	25.7		55.1		23.5						
Green Ext Time (p_c), s	6.5		0.0		6.4						

Intersection Summary

HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖↗	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	50	30	30	80	50	190	220	1798	150	190	1847	330
Future Volume (veh/h)	50	30	30	80	50	190	220	1798	150	190	1847	330
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	30	3	81	51	14	222	1816	82	192	1866	261
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	263	164	137	300	184	271	281	3474	853	251	3417	839
Arrive On Green	0.07	0.09	0.09	0.09	0.10	0.10	0.08	0.53	0.53	0.07	0.52	0.52
Sat Flow, veh/h	3510	1900	1582	3510	1900	2790	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	51	30	3	81	51	14	222	1816	82	192	1866	261
Grp Sat Flow(s),veh/h/ln	1755	1900	1582	1755	1900	1395	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	1.6	1.8	0.2	2.6	3.0	0.5	7.5	21.6	3.0	6.4	22.9	11.1
Cycle Q Clear(g_c), s	1.6	1.8	0.2	2.6	3.0	0.5	7.5	21.6	3.0	6.4	22.9	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	164	137	300	184	271	281	3474	853	251	3417	839
V/C Ratio(X)	0.19	0.18	0.02	0.27	0.28	0.05	0.79	0.52	0.10	0.76	0.55	0.31
Avail Cap(c_a), veh/h	453	372	310	453	372	546	556	3474	853	556	3417	839
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	0.34	0.34	0.34	0.70	0.70	0.70
Uniform Delay (d), s/veh	52.1	50.9	50.2	51.4	50.3	49.2	54.2	18.2	13.9	54.7	19.1	16.3
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.2	0.3	0.0	0.6	0.2	0.1	1.3	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.8	0.1	1.1	1.4	0.2	3.2	7.6	1.0	2.8	8.2	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	51.1	50.2	51.5	50.6	49.2	54.8	18.4	14.0	56.0	19.6	17.0
LnGrp LOS	D	D	D	D	D	D	D	B	B	E	B	B
Approach Vol, veh/h		84			146			2120			2319	
Approach Delay, s/veh		51.7			51.0			22.1			22.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.6	70.8	16.8	16.9	16.6	69.7	15.5	18.1				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	19.0	35.0	15.5	23.5	19.0	35.0	15.5	23.5				
Max Q Clear Time (g_c+1), s	19.4	23.6	4.6	3.8	9.5	24.9	3.6	5.0				
Green Ext Time (p_c), s	0.2	7.6	0.0	0.0	0.2	7.3	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕		↖↗	↕	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	20	219	170	182	223	322	176	1826	120	728	1190	30
Future Volume (veh/h)	20	219	170	182	223	322	176	1826	120	728	1190	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	228	88	190	232	82	183	1902	40	758	1240	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	73	345	129	251	670	299	244	2108	517	813	3167	778
Arrive On Green	0.02	0.13	0.13	0.07	0.19	0.19	0.07	0.32	0.32	0.23	0.48	0.48
Sat Flow, veh/h	3510	2562	958	3510	3610	1610	3510	6536	1603	3510	6536	1605
Grp Volume(v), veh/h	21	158	158	190	232	82	183	1902	40	758	1240	14
Grp Sat Flow(s),veh/h/ln	1755	1805	1715	1755	1805	1610	1755	1634	1603	1755	1634	1605
Q Serve(g_s), s	0.7	10.2	10.7	6.5	6.9	5.4	6.3	34.1	2.1	26.0	14.8	0.6
Cycle Q Clear(g_c), s	0.7	10.2	10.7	6.5	6.9	5.4	6.3	34.1	2.1	26.0	14.8	0.6
Prop In Lane	1.00		0.56	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	73	243	231	251	670	299	244	2108	517	813	3167	778
V/C Ratio(X)	0.29	0.65	0.68	0.76	0.35	0.27	0.75	0.90	0.08	0.93	0.39	0.02
Avail Cap(c_a), veh/h	858	588	559	858	1176	525	858	2129	522	858	3167	778
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	59.2	50.4	50.6	55.9	43.5	42.9	56.1	39.7	28.9	46.2	20.1	16.5
Incr Delay (d2), s/veh	0.8	2.9	3.5	1.7	0.3	0.5	1.7	5.9	0.1	15.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	4.7	4.7	2.9	3.0	2.1	2.7	13.7	0.8	12.7	5.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	53.3	54.1	57.7	43.8	43.4	57.8	45.6	29.0	62.1	20.2	16.5
LnGrp LOS	E	D	D	E	D	D	E	D	C	E	C	B
Approach Vol, veh/h		337		504		2125		2012				
Approach Delay, s/veh		54.1		49.0		46.3		36.0				
Approach LOS		D		D		D		D				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	35.9	47.1	15.8	24.0	16.0	67.0	9.6	30.2				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+20), s	20.0	36.1	8.5	12.7	8.3	16.8	2.7	8.9				
Green Ext Time (p_c), s	0.4	3.4	0.3	1.7	0.3	10.4	0.0	1.6				

Intersection Summary

HCM 6th Ctrl Delay	42.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗		↖ ↑ ↗	↖ ↗	↑			↖ ↗	
Traffic Volume (veh/h)	20	371	20	50	661	20	10	0	30	20	10	10
Future Volume (veh/h)	20	371	20	50	661	20	10	0	30	20	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	442	17	60	787	7	12	0	17	24	12	6
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	1614	62	104	1231	545	585	0	547	361	175	76
Arrive On Green	0.03	0.31	0.31	0.06	0.34	0.34	0.34	0.00	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1810	5125	196	1810	3610	1598	1411	0	1603	834	512	224
Grp Volume(v), veh/h	24	297	162	60	787	7	12	0	17	42	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1863	1810	1805	1598	1411	0	1603	1570	0	0
Q Serve(g_s), s	1.0	4.7	4.8	2.4	13.5	0.2	0.0	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	4.7	4.8	2.4	13.5	0.2	0.3	0.0	0.5	1.1	0.0	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	0.57		0.14
Lane Grp Cap(c), veh/h	57	1089	587	104	1231	545	585	0	547	613	0	0
V/C Ratio(X)	0.42	0.27	0.28	0.57	0.64	0.01	0.02	0.00	0.03	0.07	0.00	0.00
Avail Cap(c_a), veh/h	370	3065	1651	370	3200	1417	585	0	547	613	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.8	18.8	18.8	33.7	20.4	16.0	16.0	0.0	16.1	16.3	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.2	0.4	4.9	0.8	0.0	0.1	0.0	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.7	1.9	1.1	5.1	0.1	0.1	0.0	0.2	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	19.0	19.2	38.6	21.2	16.0	16.1	0.0	16.2	16.5	0.0	0.0
LnGrp LOS	D	B	B	D	C	B	B	A	B	B	A	A
Approach Vol, veh/h		483			854			29			42	
Approach Delay, s/veh		20.1			22.3			16.2			16.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.0	11.2	30.1		32.0	9.3	32.0				
Change Period (Y+Rc), s		7.0	7.0	7.0		7.0	7.0	7.0				
Max Green Setting (Gmax), s		25.0	15.0	65.0		25.0	15.0	65.0				
Max Q Clear Time (g_c+1), s		2.5	4.4	6.8		3.1	3.0	15.5				
Green Ext Time (p_c), s		0.1	0.1	4.2		0.1	0.0	8.8				
Intersection Summary												
HCM 6th Ctrl Delay		21.3										
HCM 6th LOS		C										
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	341	50	50	731	10	50	0	30	0	0	0
Future Volume (veh/h)	0	341	50	50	731	10	50	0	30	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	383	46	56	821	11	56	0	5	0	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3048	359	91	1452	19	176	0	107	0	129	0
Arrive On Green	0.00	0.65	0.65	0.05	0.78	0.78	0.07	0.00	0.07	0.00	0.00	0.00
Sat Flow, veh/h	1810	4702	554	1810	1870	25	1408	0	1575	0	1900	0
Grp Volume(v), veh/h	0	280	149	56	0	832	56	0	5	0	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1798	1810	0	1895	1408	0	1575	0	1900	0
Q Serve(g_s), s	0.0	2.8	2.9	2.7	0.0	15.8	3.5	0.0	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.8	2.9	2.7	0.0	15.8	3.5	0.0	0.3	0.0	0.0	0.0
Prop In Lane	1.00		0.31	1.00		0.01	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	2	2242	1166	91	0	1471	176	0	107	0	129	0
V/C Ratio(X)	0.00	0.12	0.13	0.62	0.00	0.57	0.32	0.00	0.05	0.00	0.00	0.00
Avail Cap(c_a), veh/h	322	2242	1166	322	0	1471	659	0	647	0	781	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.93	0.93	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	6.1	6.1	41.9	0.0	4.0	40.7	0.0	39.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	6.6	0.0	1.6	1.0	0.0	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.9	1.3	0.0	3.7	1.3	0.0	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.2	6.3	48.5	0.0	5.6	41.7	0.0	39.4	0.0	0.0	0.0
LnGrp LOS	A	A	A	D	A	A	D	A	D	A	A	A
Approach Vol, veh/h	429		888		61		0					
Approach Delay, s/veh	6.2		8.3		41.5		0.0					
Approach LOS	A		A		D							
Timer - Assigned Phs	2	3	4	6	7	8						
Phs Duration (G+Y+Rc), s	13.1	11.5	65.3	13.1	0.0	76.9						
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0						
Max Green Setting (Gmax), s	37.0	16.0	16.0	37.0	16.0	16.0						
Max Q Clear Time (g_c+11), s	5.5	4.7	4.9	0.0	0.0	17.8						
Green Ext Time (p_c), s	0.3	0.1	1.8	0.0	0.0	0.0						

Intersection Summary

HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖	↑↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	40	431	80	274	389	173	80	2207	227	32	1398	522
Future Volume (veh/h)	40	431	80	274	389	173	80	2207	227	32	1398	522
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	444	17	282	401	49	82	2275	79	33	1441	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	275	762	234	430	689	307	158	2222	545	102	2019	
Arrive On Green	0.08	0.15	0.15	0.12	0.19	0.19	0.09	0.34	0.34	0.06	0.31	0.00
Sat Flow, veh/h	3510	5187	1594	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	41	444	17	282	401	49	82	2275	79	33	1441	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1594	1755	1805	1610	1810	1634	1603	1810	1634	1610
Q Serve(g_s), s	1.0	7.2	0.8	6.9	9.1	2.3	3.9	30.5	3.1	1.6	17.5	0.0
Cycle Q Clear(g_c), s	1.0	7.2	0.8	6.9	9.1	2.3	3.9	30.5	3.1	1.6	17.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	762	234	430	689	307	158	2222	545	102	2019	
V/C Ratio(X)	0.15	0.58	0.07	0.66	0.58	0.16	0.52	1.02	0.14	0.32	0.71	
Avail Cap(c_a), veh/h	528	1879	577	685	1348	601	192	2222	545	192	2222	
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	0.00
Uniform Delay (d), s/veh	38.5	35.7	33.0	37.6	33.0	30.3	39.1	29.6	20.6	40.7	27.5	0.0
Incr Delay (d2), s/veh	0.1	0.7	0.1	0.6	0.8	0.2	1.0	25.4	0.1	0.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.9	0.3	2.8	3.8	0.9	1.7	14.4	1.1	0.7	6.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	36.4	33.1	38.2	33.8	30.5	40.1	55.0	20.7	41.4	28.5	0.0
LnGrp LOS	D	D	C	D	C	C	D	F	C	D	C	
Approach Vol, veh/h		502			732			2436			1474	A
Approach Delay, s/veh		36.5			35.3			53.4			28.8	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.5	38.0	18.5	20.7	15.3	35.2	14.5	24.6				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	30.5	30.5	17.5	32.5	9.5	30.5	13.5	33.5				
Max Q Clear Time (g_c+1), s	13.6	32.5	8.9	9.2	5.9	19.5	3.0	11.1				
Green Ext Time (p_c), s	0.0	0.0	0.3	2.8	0.0	7.1	0.0	2.5				

Intersection Summary

HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	50	540	10	10	743	79	0	0	10	28	0	33
Future Volume (veh/h)	50	540	10	10	743	79	0	0	10	28	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	593	9	11	816	36	0	0	3	31	0	12
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	367	2232	34	489	1531	679	199	0	391	546	464	391
Arrive On Green	0.42	0.42	0.42	0.42	0.42	0.42	0.00	0.00	0.24	0.24	0.00	0.24
Sat Flow, veh/h	657	5263	80	828	3610	1601	1424	0	1600	1427	1900	1600
Grp Volume(v), veh/h	55	389	213	11	816	36	0	0	3	31	0	12
Grp Sat Flow(s),veh/h/ln	657	1729	1885	828	1805	1601	1424	0	1600	1427	1900	1600
Q Serve(g_s), s	2.5	2.6	2.7	0.3	6.1	0.5	0.0	0.0	0.1	0.6	0.0	0.2
Cycle Q Clear(g_c), s	8.6	2.6	2.7	3.0	6.1	0.5	0.0	0.0	0.1	0.7	0.0	0.2
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	367	1467	800	489	1531	679	199	0	391	546	464	391
V/C Ratio(X)	0.15	0.27	0.27	0.02	0.53	0.05	0.00	0.00	0.01	0.06	0.00	0.03
Avail Cap(c_a), veh/h	723	3343	1822	939	3490	1547	834	0	1105	1182	1312	1105
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.9	6.8	6.8	7.7	7.8	6.1	0.0	0.0	10.4	10.6	0.0	10.4
Incr Delay (d2), s/veh	0.2	0.1	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.5	0.6	0.0	1.2	0.1	0.0	0.0	0.0	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.1	6.9	6.9	7.7	8.0	6.2	0.0	0.0	10.4	10.6	0.0	10.4
LnGrp LOS	B	A	A	A	A	A	A	A	B	B	A	B
Approach Vol, veh/h		657			863			3				43
Approach Delay, s/veh		7.2			8.0			10.4				10.6
Approach LOS		A			A			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.8		22.4		13.8		22.4				
Change Period (Y+Rc), s		5.0		7.0		5.0		7.0				
Max Green Setting (Gmax), s		25.0		35.0		25.0		35.0				
Max Q Clear Time (g_c+1), s		2.1		10.6		2.7		8.1				
Green Ext Time (p_c), s		0.0		4.0		0.1		5.8				

Intersection Summary

HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑	↗	↖	↖		↖↗	↑	↗
Traffic Volume (veh/h)	50	498	10	40	785	272	10	10	20	126	10	37
Future Volume (veh/h)	50	498	10	40	785	272	10	10	20	126	10	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	541	6	43	853	0	11	11	2	137	11	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	2460	760	93	1689		39	121	22	302	270	226
Arrive On Green	0.06	0.47	0.47	0.02	0.15	0.00	0.02	0.08	0.08	0.09	0.14	0.14
Sat Flow, veh/h	1810	5187	1602	1810	3610	1610	1810	1560	284	3510	1900	1593
Grp Volume(v), veh/h	54	541	6	43	853	0	11	0	13	137	11	7
Grp Sat Flow(s),veh/h/ln	1810	1729	1602	1810	1805	1610	1810	0	1843	1755	1900	1593
Q Serve(g_s), s	2.6	5.5	0.2	2.1	19.5	0.0	0.5	0.0	0.6	3.3	0.4	0.3
Cycle Q Clear(g_c), s	2.6	5.5	0.2	2.1	19.5	0.0	0.5	0.0	0.6	3.3	0.4	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	104	2460	760	93	1689		39	0	143	302	270	226
V/C Ratio(X)	0.52	0.22	0.01	0.46	0.51		0.28	0.00	0.09	0.45	0.04	0.03
Avail Cap(c_a), veh/h	161	2460	760	161	1689		161	0	410	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.95	0.95	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	13.9	12.5	43.0	28.5	0.0	43.4	0.0	38.6	39.1	33.3	33.3
Incr Delay (d2), s/veh	4.6	0.2	0.0	4.1	1.0	0.0	1.5	0.0	0.2	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.0	0.1	1.0	9.5	0.0	0.2	0.0	0.3	1.5	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	14.1	12.5	47.1	29.5	0.0	44.8	0.0	38.8	39.5	33.4	33.3
LnGrp LOS	D	B	B	D	C		D	A	D	D	C	C
Approach Vol, veh/h		601			896	A		24			155	
Approach Delay, s/veh		16.9			30.4			41.6			38.8	
Approach LOS		B			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	14.0	11.6	49.7	8.9	19.8	12.2	49.1				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	20.0	20.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+1), s	15.3	2.6	4.1	7.5	2.5	2.4	4.6	21.5				
Green Ext Time (p_c), s	0.1	0.0	0.0	3.7	0.0	0.0	0.0	2.4				

Intersection Summary

HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗			↖ ↑	↑ ↗		↖ ↑	↑ ↗	
Traffic Volume (veh/h)	60	554	30	80	1058	40	30	10	40	10	10	10
Future Volume (veh/h)	60	554	30	80	1058	40	30	10	40	10	10	10
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	0.98		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	583	29	84	1114	40	32	11	5	11	11	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	3231	160	109	3356	120	186	196	82	184	243	43
Arrive On Green	0.01	0.21	0.21	0.06	0.65	0.65	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1810	5062	250	1810	5140	184	1397	2463	1032	1394	3058	538
Grp Volume(v), veh/h	63	397	215	84	749	405	32	8	8	11	6	7
Grp Sat Flow(s),veh/h/ln	1810	1729	1854	1810	1729	1866	1397	1805	1691	1394	1805	1791
Q Serve(g_s), s	3.1	8.5	8.6	4.1	8.6	8.6	1.9	0.4	0.4	0.7	0.3	0.3
Cycle Q Clear(g_c), s	3.1	8.5	8.6	4.1	8.6	8.6	2.3	0.4	0.4	1.1	0.3	0.3
Prop In Lane	1.00		0.14	1.00		0.10	1.00		0.61	1.00		0.30
Lane Grp Cap(c), veh/h	82	2207	1184	109	2258	1219	186	143	134	184	143	142
V/C Ratio(X)	0.77	0.18	0.18	0.77	0.33	0.33	0.17	0.05	0.06	0.06	0.04	0.05
Avail Cap(c_a), veh/h	241	2207	1184	281	2258	1219	525	582	545	523	582	577
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.69	0.69	0.69	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	16.2	16.2	41.7	6.9	6.9	39.3	38.3	38.3	38.8	38.3	38.3
Incr Delay (d2), s/veh	5.4	0.2	0.3	3.0	0.3	0.5	0.4	0.2	0.2	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.2	3.5	1.8	2.5	2.8	0.7	0.2	0.2	0.2	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	16.4	16.6	44.7	7.2	7.4	39.8	38.5	38.5	39.0	38.4	38.4
LnGrp LOS	D	B	B	D	A	A	D	D	D	D	D	D
Approach Vol, veh/h	675		1238		48		24					
Approach Delay, s/veh	19.5		9.8		39.3		38.7					
Approach LOS	B		A		D		D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	13.1		12.4		64.4		13.1		11.1		65.8	
Change Period (Y+Rc), s	6.0		7.0		7.0		6.0		7.0		7.0	
Max Green Setting (Gmax), s	29.0		14.0		27.0		29.0		12.0		29.0	
Max Q Clear Time (g_c+1), s	4.3		6.1		10.6		3.1		5.1		10.6	
Green Ext Time (p_c), s	0.1		0.0		4.4		0.0		0.0		9.2	
Intersection Summary												
HCM 6th Ctrl Delay			14.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↗	↔↔	↑↑↑		↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	100	444	50	430	856	122	162	853	330	80	537	50
Future Volume (veh/h)	100	444	50	430	856	122	162	853	330	80	537	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	108	477	12	462	920	120	174	917	88	86	577	13
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	342	1152	355	543	1297	168	322	1354	418	300	1321	408
Arrive On Green	0.10	0.22	0.22	0.15	0.28	0.28	0.09	0.26	0.26	0.09	0.25	0.25
Sat Flow, veh/h	3510	5187	1599	3510	4642	603	3510	5187	1601	3510	5187	1601
Grp Volume(v), veh/h	108	477	12	462	684	356	174	917	88	86	577	13
Grp Sat Flow(s),veh/h/ln	1755	1729	1599	1755	1729	1788	1755	1729	1601	1755	1729	1601
Q Serve(g_s), s	3.1	8.5	0.6	13.9	19.3	19.4	5.1	17.2	4.7	2.5	10.1	0.7
Cycle Q Clear(g_c), s	3.1	8.5	0.6	13.9	19.3	19.4	5.1	17.2	4.7	2.5	10.1	0.7
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	342	1152	355	543	966	499	322	1354	418	300	1321	408
V/C Ratio(X)	0.32	0.41	0.03	0.85	0.71	0.71	0.54	0.68	0.21	0.29	0.44	0.03
Avail Cap(c_a), veh/h	810	1914	590	810	1276	660	810	1914	591	810	1914	591
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	45.5	36.1	33.0	44.6	35.1	35.1	47.0	35.9	31.3	46.5	33.9	30.4
Incr Delay (d2), s/veh	0.4	0.3	0.0	4.9	1.4	2.8	1.0	0.7	0.3	0.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3	3.5	0.2	6.2	7.9	8.4	2.2	6.9	1.8	1.1	4.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	36.4	33.1	49.5	36.5	37.9	48.1	36.7	31.6	46.9	34.2	30.4
LnGrp LOS	D	D	C	D	D	D	D	D	C	D	C	C
Approach Vol, veh/h		597			1502			1179			676	
Approach Delay, s/veh		38.1			40.8			38.0			35.7	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.4	35.1	18.1	37.8	16.7	35.8	24.3	31.6				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1), s	12.1	5.1	21.4	4.5	19.2	15.9	10.5					
Green Ext Time (p_c), s	0.3	4.4	0.2	7.3	0.2	7.2	0.9	3.8				

Intersection Summary

HCM 6th Ctrl Delay	38.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	140	635	49	49	1322	150	6	20	24	120	10	70
Future Volume (veh/h)	140	635	49	49	1322	150	6	20	24	120	10	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	668	48	52	1392	150	6	21	3	126	11	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	2167	155	139	1936	209	23	172	143	170	326	274
Arrive On Green	0.11	0.44	0.44	0.08	0.41	0.41	0.01	0.09	0.09	0.09	0.17	0.17
Sat Flow, veh/h	1810	4939	353	1810	4752	512	1810	1900	1586	1810	1900	1596
Grp Volume(v), veh/h	147	466	250	52	1013	529	6	21	3	126	11	15
Grp Sat Flow(s),veh/h/ln	1810	1729	1834	1810	1729	1806	1810	1900	1586	1810	1900	1596
Q Serve(g_s), s	6.3	7.0	7.1	2.2	19.6	19.6	0.3	0.8	0.1	5.4	0.4	0.6
Cycle Q Clear(g_c), s	6.3	7.0	7.1	2.2	19.6	19.6	0.3	0.8	0.1	5.4	0.4	0.6
Prop In Lane	1.00		0.19	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	1517	805	139	1409	736	23	172	143	170	326	274
V/C Ratio(X)	0.75	0.31	0.31	0.37	0.72	0.72	0.27	0.12	0.02	0.74	0.03	0.05
Avail Cap(c_a), veh/h	452	1729	917	452	1729	903	452	475	396	565	594	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	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	34.6	14.6	14.6	35.1	19.9	19.9	39.1	33.5	33.2	35.3	27.6	27.7
Incr Delay (d2), s/veh	2.2	0.1	0.3	0.6	1.3	2.4	2.3	0.2	0.0	4.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.4	2.6	0.9	7.1	7.7	0.1	0.4	0.1	2.6	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	14.7	14.9	35.7	21.1	22.2	41.4	33.7	33.2	40.0	27.6	27.8
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h	863				1594		30				152	
Approach Delay, s/veh	18.5				22.0		35.2				37.9	
Approach LOS	B				C		D				D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.5	12.2	13.2	42.1	6.0	18.7	15.7	39.6				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	20.0	20.0	40.0	20.0	25.0	20.0	40.0				
Max Q Clear Time (g_c+1), s	17.4	2.8	4.2	9.1	2.3	2.6	8.3	21.6				
Green Ext Time (p_c), s	0.2	0.0	0.0	5.5	0.0	0.0	0.1	11.0				

Intersection Summary

HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	626	183	250	702	0	0	0	0	590	0	1071
Future Volume (veh/h)	0	626	183	250	702	0	0	0	0	590	0	1071
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	696	63	278	780	0				437	0	1280
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1393	391	585	2421	0				704	0	1252
Arrive On Green	0.00	0.24	0.24	0.33	0.93	0.00				0.39	0.00	0.39
Sat Flow, veh/h	0	5700	1600	3510	5358	0				1810	0	3220
Grp Volume(v), veh/h	0	696	63	278	780	0				437	0	1280
Grp Sat Flow(s),veh/h/ln	0	1900	1600	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	9.5	2.8	5.6	1.3	0.0				17.5	0.0	35.0
Cycle Q Clear(g_c), s	0.0	9.5	2.8	5.6	1.3	0.0				17.5	0.0	35.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1393	391	585	2421	0				704	0	1252
V/C Ratio(X)	0.00	0.50	0.16	0.48	0.32	0.00				0.62	0.00	1.02
Avail Cap(c_a), veh/h	0	1393	391	585	2421	0				704	0	1252
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.96	0.96	0.92	0.92	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.3	26.7	26.9	1.6	0.0				22.2	0.0	27.5
Incr Delay (d2), s/veh	0.0	1.2	0.8	2.5	0.3	0.0				4.1	0.0	31.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	1.1	2.3	0.4	0.0				7.9	0.0	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.5	27.6	29.4	2.0	0.0				26.2	0.0	58.7
LnGrp LOS		A	C	C	C	A	A			C	A	F
Approach Vol, veh/h		759		1058						1717		
Approach Delay, s/veh		30.3		9.2						50.4		
Approach LOS		C		A						D		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	20.0	28.5	41.5		48.5							
Change Period (Y+Rc), s	5.0	6.5	6.5		6.5							
Max Green Setting (Gmax), s	15.0	22.0	35.0		42.0							
Max Q Clear Time (g_c+1), s	17.6	11.5	37.0		3.3							
Green Ext Time (p_c), s	0.3	2.8	0.0		4.5							

Intersection Summary

HCM 6th Ctrl Delay	33.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	380	886	0	0	591	440	331	0	480	0	0	0
Future Volume (veh/h)	380	886	0	0	591	440	331	0	480	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	404	943	0	0	629	178	467	0	241			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	390	2824	0	0	1960	608	1126	0	501			
Arrive On Green	0.22	1.00	0.00	0.00	0.38	0.38	0.31	0.00	0.31			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	3619	0	1610			
Grp Volume(v), veh/h	404	943	0	0	629	178	467	0	241			
Grp Sat Flow(s),veh/h/ln1755	1729	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	10.0	0.0	0.0	0.0	7.7	7.0	9.2	0.0	10.9			
Cycle Q Clear(g_c), s	10.0	0.0	0.0	0.0	7.7	7.0	9.2	0.0	10.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	390	2824	0	0	1960	608	1126	0	501			
V/C Ratio(X)	1.04	0.33	0.00	0.00	0.32	0.29	0.41	0.00	0.48			
Avail Cap(c_a), veh/h	390	2824	0	0	1960	608	1126	0	501			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.61	0.61	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.0	0.0	0.0	0.0	19.8	19.6	24.5	0.0	25.1			
Incr Delay (d2), s/veh	45.2	0.2	0.0	0.0	0.4	1.2	1.1	0.0	3.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln6.0	0.1	0.0	0.0	0.0	2.9	2.6	4.0	0.0	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.2	0.2	0.0	0.0	20.3	20.8	25.6	0.0	28.4			
LnGrp LOS	F	A	A	A	C	C	C	A	C			
Approach Vol, veh/h		1347			807			708				
Approach Delay, s/veh		24.2			20.4			26.6				
Approach LOS		C			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.5			15.0	40.5		34.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		49.0			10.0	34.0		28.0				
Max Q Clear Time (g_c+11), s		2.0			12.0	9.7		12.9				
Green Ext Time (p_c), s		5.7			0.0	3.7		2.3				

Intersection Summary

























HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	848	172	164	855	302	111	968	72	195	958	152
Future Volume (veh/h)	218	848	172	164	855	302	111	968	72	195	958	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	234	912	76	176	919	216	119	1041	72	210	1030	45
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	968	429	218	963	429	309	839	58	320	907	402
Arrive On Green	0.12	0.27	0.27	0.12	0.27	0.27	0.13	0.25	0.25	0.13	0.25	0.25
Sat Flow, veh/h	1810	3610	1601	1810	3610	1610	1810	3424	237	1810	3610	1601
Grp Volume(v), veh/h	234	912	76	176	919	216	119	549	564	210	1030	45
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1610	1810	1805	1856	1810	1805	1601
Q Serve(g_s), s	11.0	22.3	3.3	8.5	22.5	10.2	4.0	22.1	22.1	7.4	22.6	1.9
Cycle Q Clear(g_c), s	11.0	22.3	3.3	8.5	22.5	10.2	4.0	22.1	22.1	7.4	22.6	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	221	968	429	218	963	429	309	442	455	320	907	402
V/C Ratio(X)	1.06	0.94	0.18	0.81	0.95	0.50	0.39	1.24	1.24	0.66	1.14	0.11
Avail Cap(c_a), veh/h	221	968	429	221	963	429	321	442	455	321	907	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.69	0.69	0.69	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	32.2	25.3	38.5	32.5	27.9	21.7	34.0	34.0	22.4	33.7	26.0
Incr Delay (d2), s/veh	76.7	16.9	0.3	14.5	14.8	0.9	1.1	126.0	125.8	5.4	74.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	11.1	1.2	4.4	10.9	3.7	1.7	24.6	25.2	3.4	18.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	116.2	49.1	25.6	53.0	47.2	28.9	22.8	160.0	159.8	27.8	108.3	26.5
LnGrp LOS	F	D	C	D	D	C	C	F	F	C	F	C
Approach Vol, veh/h		1222			1311			1232			1285	
Approach Delay, s/veh		60.5			45.0			146.6			92.3	
Approach LOS		E			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.6	27.9	15.6	29.9	16.1	28.4	15.7	29.8				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.0	* 11	24.0	* 12	22.0	* 11	24.0				
Max Q Clear Time (g_c+I1), s	9.4	24.1	10.5	24.3	6.0	24.6	13.0	24.5				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			85.6									
HCM 6th LOS			F									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary

2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	995	40	80	1141	80	30	170	50	80	180	60
Future Volume (veh/h)	50	995	40	80	1141	80	30	170	50	80	180	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1026	18	82	1176	49	31	175	45	82	186	56
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	1698	753	115	1754	778	100	359	85	163	288	78
Arrive On Green	0.05	0.47	0.47	0.06	0.49	0.49	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	122	1354	322	329	1089	296
Grp Volume(v), veh/h	52	1026	18	82	1176	49	251	0	0	324	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	1798	0	0	1713	0	0
Q Serve(g_s), s	1.7	12.6	0.4	2.7	14.8	1.0	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	1.7	12.6	0.4	2.7	14.8	1.0	6.9	0.0	0.0	9.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.12		0.18	0.25		0.17
Lane Grp Cap(c), veh/h	88	1698	753	115	1754	778	544	0	0	529	0	0
V/C Ratio(X)	0.59	0.60	0.02	0.71	0.67	0.06	0.46	0.00	0.00	0.61	0.00	0.00
Avail Cap(c_a), veh/h	1060	2115	938	1060	2115	938	1092	0	0	1043	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.9	11.7	8.5	27.4	11.7	8.1	18.7	0.0	0.0	19.6	0.0	0.0
Incr Delay (d2), s/veh	13.0	0.7	0.0	15.7	1.1	0.1	1.3	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.9	0.1	1.5	4.6	0.3	2.8	0.0	0.0	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	12.5	8.5	43.2	12.8	8.2	20.0	0.0	0.0	22.1	0.0	0.0
LnGrp LOS	D	B	A	D	B	A	B	A	A	C	A	A
Approach Vol, veh/h		1096			1307			251			324	
Approach Delay, s/veh		13.7			14.5			20.0			22.1	
Approach LOS		B			B			B			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.8	7.8	32.1		19.8	6.9	33.0				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		35.0	35.0	35.0		35.0	35.0	35.0				
Max Q Clear Time (g_c+I1), s		8.9	4.7	14.6		11.7	3.7	16.8				
Green Ext Time (p_c), s		2.8	0.5	11.5		3.7	0.3	12.2				
Intersection Summary												
HCM 6th Ctrl Delay											15.5	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	984	92	60	1121	70	91	377	50	66	283	50
Future Volume (veh/h)	50	984	92	60	1121	70	91	377	50	66	283	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1025	45	62	1168	37	0	393	48	69	295	36
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	2412	1073	111	2429	1079	80	443	54	118	864	104
Arrive On Green	0.06	0.67	0.67	0.02	0.22	0.22	0.00	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1607	1810	3610	1604	1066	1659	203	962	3240	392
Grp Volume(v), veh/h	52	1025	45	62	1168	37	0	441	69	163	168	
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1604	1066	0	1862	962	1805	1827
Q Serve(g_s), s	2.5	11.8	0.9	3.1	25.4	1.6	0.0	0.0	20.5	3.5	6.6	6.7
Cycle Q Clear(g_c), s	2.5	11.8	0.9	3.1	25.4	1.6	0.0	0.0	20.5	24.0	6.6	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.21
Lane Grp Cap(c), veh/h	102	2412	1073	111	2429	1079	80	0	497	118	481	487
V/C Ratio(X)	0.51	0.43	0.04	0.56	0.48	0.03	0.00	0.00	0.89	0.59	0.34	0.34
Avail Cap(c_a), veh/h	141	2412	1073	141	2429	1079	80	0	497	118	481	487
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.77	0.77	0.77	0.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	6.9	5.1	42.9	21.3	12.1	0.0	0.0	31.7	44.0	26.6	26.6
Incr Delay (d2), s/veh	8.1	0.6	0.1	7.1	0.5	0.0	0.0	0.0	20.5	19.6	1.9	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.6	0.2	1.6	12.1	0.4	0.0	0.0	11.5	2.1	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	7.5	5.2	50.0	21.9	12.1	0.0	0.0	52.2	63.7	28.5	28.6
LnGrp LOS	D	A	A	D	C	B	A	A	D	E	C	C
Approach Vol, veh/h		1122			1267			441			400	
Approach Delay, s/veh		9.3			22.9			52.2			34.6	
Approach LOS		A			C			D			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	12.5	67.7		30.5	12.1	68.1				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	7.0	40.0		* 24	7.0	* 41				
Max Q Clear Time (g_c+1), s		22.5	5.1	13.8		26.0	4.5	27.4				
Green Ext Time (p_c), s		0.0	0.0	13.6		0.0	0.0	9.7				

Intersection Summary

HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	988	42	30	1120	110	91	362	40	70	195	80
Future Volume (veh/h)	50	988	42	30	1120	110	91	362	40	70	195	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1019	21	31	1155	54	94	373	10	72	201	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	1755	779	65	1710	759	48	53	368	51	84	368
Arrive On Green	0.02	0.16	0.16	0.04	0.47	0.47	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	0	208	1441	0	330	1441
Grp Volume(v), veh/h	52	1019	21	31	1155	54	467	0	10	273	0	21
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	208	0	1441	330	0	1441
Q Serve(g_s), s	2.6	23.5	1.0	1.5	22.3	1.7	0.0	0.0	0.5	0.0	0.0	1.0
Cycle Q Clear(g_c), s	2.6	23.5	1.0	1.5	22.3	1.7	23.0	0.0	0.5	23.0	0.0	1.0
Prop In Lane	1.00		1.00	1.00		1.00	0.20		1.00	0.26		1.00
Lane Grp Cap(c), veh/h	88	1755	779	65	1710	759	101	0	368	135	0	368
V/C Ratio(X)	0.59	0.58	0.03	0.48	0.68	0.07	4.61	0.00	0.03	2.02	0.00	0.06
Avail Cap(c_a), veh/h	141	1755	779	141	1710	759	101	0	368	135	0	368
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.28	0.28	0.28	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.4	29.3	19.8	42.6	18.3	12.9	33.6	0.0	25.1	31.9	0.0	25.3
Incr Delay (d2), s/veh	1.8	1.1	0.0	0.6	0.6	0.1	1649.0	0.0	0.0	485.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	11.4	0.3	0.7	8.3	0.5	48.5	0.0	0.2	21.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	30.4	19.9	43.1	18.9	12.9	1682.5	0.0	25.1	517.4	0.0	25.4
LnGrp LOS	D	C	B	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1092			1240			477			294	
Approach Delay, s/veh		30.9			19.3			1647.8			482.3	
Approach LOS		C			B			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.2	50.8		29.0	11.4	49.6		29.0				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	40.0	40.0		23.0	7.0	40.0		23.0				
Max Q Clear Time (g_c+1/3), s	25.5	25.5		25.0	4.6	24.3		25.0				
Green Ext Time (p_c), s	0.0	6.7		0.0	0.0	8.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay	317.6
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↑↑↑			↖	↑↑↑	↖
Traffic Volume (veh/h)	266	768	124	30	832	596	215	1053	60	457	900	223
Future Volume (veh/h)	266	768	124	30	832	596	215	1053	60	457	900	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	269	776	36	30	840	210	217	1064	59	462	909	191
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	323	996	442	148	817	362	234	1132	63	487	1894	734
Arrive On Green	0.09	0.28	0.28	0.04	0.23	0.23	0.13	0.23	0.23	0.27	0.37	0.37
Sat Flow, veh/h	3510	3610	1601	3510	3610	1599	1810	5027	278	1810	5187	1604
Grp Volume(v), veh/h	269	776	36	30	840	210	217	732	391	462	909	191
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1599	1810	1729	1848	1810	1729	1604
Q Serve(g_s), s	11.7	30.7	2.6	1.3	35.0	18.1	18.4	32.2	32.2	38.8	20.9	11.4
Cycle Q Clear(g_c), s	11.7	30.7	2.6	1.3	35.0	18.1	18.4	32.2	32.2	38.8	20.9	11.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	323	996	442	148	817	362	234	779	416	487	1894	734
V/C Ratio(X)	0.83	0.78	0.08	0.20	1.03	0.58	0.93	0.94	0.94	0.95	0.48	0.26
Avail Cap(c_a), veh/h	681	1050	466	454	817	362	234	782	418	643	2347	874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	69.1	51.7	41.5	71.6	59.9	53.3	66.6	58.9	58.9	55.5	37.8	25.9
Incr Delay (d2), s/veh	4.2	3.8	0.1	0.5	39.0	2.6	39.3	19.1	29.6	19.5	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	13.9	1.0	0.6	20.1	7.4	10.9	15.9	18.2	19.9	8.8	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.3	55.4	41.6	72.1	98.9	55.9	105.9	78.0	88.6	74.9	38.1	26.2
LnGrp LOS	E	E	D	E	F	E	F	E	F	E	D	C
Approach Vol, veh/h		1081			1080			1340			1562	
Approach Delay, s/veh		59.4			89.8			85.6			47.5	
Approach LOS		E			F			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	48.6	41.8	14.0	50.2	27.0	63.5	21.7	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+R), s	40.8	34.2	3.3	32.7	20.4	22.9	13.7	37.0				
Green Ext Time (p_c), s	0.9	0.6	0.0	4.4	0.0	12.0	0.6	0.0				

Intersection Summary

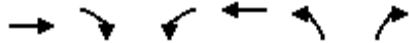
HCM 6th Ctrl Delay	69.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖↗	↗
Traffic Volume (veh/h)	1329	76	30	1228	149	70
Future Volume (veh/h)	1329	76	30	1228	149	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1384	56	31	1279	155	8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2451	1089	65	2882	240	110
Arrive On Green	0.68	0.68	0.04	0.80	0.07	0.07
Sat Flow, veh/h	3705	1604	1810	3705	3510	1610
Grp Volume(v), veh/h	1384	56	31	1279	155	8
Grp Sat Flow(s),veh/h/ln	1805	1604	1810	1805	1755	1610
Q Serve(g_s), s	18.0	1.0	1.5	10.0	3.9	0.4
Cycle Q Clear(g_c), s	18.0	1.0	1.5	10.0	3.9	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2451	1089	65	2882	240	110
V/C Ratio(X)	0.56	0.05	0.48	0.44	0.65	0.07
Avail Cap(c_a), veh/h	2451	1089	251	2882	800	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.49	0.49	0.62	0.62	1.00	1.00
Uniform Delay (d), s/veh	7.5	4.8	42.6	2.8	40.9	39.2
Incr Delay (d2), s/veh	0.5	0.0	2.5	0.3	2.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.2	0.7	1.2	1.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.0	4.9	45.0	3.1	43.7	39.5
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1440			1310	163	
Approach Delay, s/veh	7.9			4.1	43.5	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.7	68.6			79.3	10.7
Change Period (Y+Rc), s	7.5	* 7.5			7.5	4.5
Max Green Setting (Gmax), s	12.5	* 38			57.5	20.5
Max Q Clear Time (g_c+1), s	13.5	20.0			12.0	5.9
Green Ext Time (p_c), s	0.0	7.3			10.7	0.4

Intersection Summary

HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

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

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	10	0	155	10	0	0	10	169	10	10	0
Future Vol, veh/h	0	10	0	155	10	0	0	10	169	10	10	0
Peak Hour Factor	0.92	0.92	0.92	0.79	0.92	0.79	0.92	0.79	0.79	0.79	0.79	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	196	11	0	0	13	214	13	13	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	8.5	9.4	8.7	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	88%	75%	0%
Vol Thru, %	100%	0%	100%	0%	12%	25%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	169	10	82	83	13	7
LT Vol	0	0	0	82	73	10	0
Through Vol	10	0	10	0	10	3	7
RT Vol	0	169	0	0	0	0	0
Lane Flow Rate	13	214	11	104	103	17	8
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.018	0.263	0.016	0.161	0.158	0.027	0.012
Departure Headway (Hd)	5.134	4.431	5.349	5.581	5.521	5.683	5.305
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	699	813	668	643	649	631	675
Service Time	2.852	2.148	3.389	3.314	3.253	3.411	3.033
HCM Lane V/C Ratio	0.019	0.263	0.016	0.162	0.159	0.027	0.012
HCM Control Delay	7.9	8.7	8.5	9.4	9.3	8.6	8.1
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	1.1	0	0.6	0.6	0.1	0

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	179	0	0	165	10
Future Vol, veh/h	0	0	0	0	0	0	0	179	0	0	165	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	239	0	0	220	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	347	466	117	349	472	120	233	0	0	239	0	0
Stage 1	227	227	-	239	239	-	-	-	-	-	-	-
Stage 2	120	239	-	110	233	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	588	497	919	586	493	915	1346	-	-	1340	-	-
Stage 1	761	720	-	749	711	-	-	-	-	-	-	-
Stage 2	877	711	-	889	716	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	588	497	919	586	493	915	1346	-	-	1340	-	-
Mov Cap-2 Maneuver	588	497	-	586	493	-	-	-	-	-	-	-
Stage 1	761	720	-	749	711	-	-	-	-	-	-	-
Stage 2	877	711	-	889	716	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1346	-	-	-	1340	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	-	-
HCM Lane LOS	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary
 9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	88	1245	186	60	1056	13	249	88	90	10	72	83
Future Volume (veh/h)	88	1245	186	60	1056	13	249	88	90	10	72	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	1297	115	62	1100	14	259	92	24	10	75	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	122	1455	649	125	1602	20	399	862	384	383	862	
Arrive On Green	0.07	0.40	0.40	0.07	0.44	0.44	0.24	0.24	0.24	0.24	0.24	0.00
Sat Flow, veh/h	1810	3610	1610	1810	3650	46	1346	3610	1610	1296	3610	1610
Grp Volume(v), veh/h	92	1297	115	62	544	570	259	92	24	10	75	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1892	1346	1805	1610	1296	1805	1610
Q Serve(g_s), s	3.6	24.3	3.3	2.4	17.6	17.6	13.4	1.4	0.8	0.4	1.2	0.0
Cycle Q Clear(g_c), s	3.6	24.3	3.3	2.4	17.6	17.6	14.6	1.4	0.8	1.9	1.2	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	1455	649	125	792	830	399	862	384	383	862	
V/C Ratio(X)	0.76	0.89	0.18	0.50	0.69	0.69	0.65	0.11	0.06	0.03	0.09	
Avail Cap(c_a), veh/h	561	1493	666	499	792	830	448	995	444	431	995	
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	0.00
Uniform Delay (d), s/veh	33.3	20.2	13.9	32.6	16.3	16.3	27.2	21.6	21.3	22.3	21.5	0.0
Incr Delay (d2), s/veh	9.1	7.2	0.2	1.1	2.8	2.6	3.4	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	9.6	1.0	1.0	6.3	6.6	4.5	0.6	0.3	0.1	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	27.4	14.1	33.7	19.1	19.0	30.6	21.7	21.4	22.4	21.5	0.0
LnGrp LOS	D	C	B	C	B	B	C	C	C	C	C	
Approach Vol, veh/h		1504			1176			375			85	A
Approach Delay, s/veh		27.3			19.8			27.8			21.6	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	36.2		24.3	9.4	38.9		24.3				
Change Period (Y+Rc), s	7.0	7.0		7.0	4.5	7.0		7.0				
Max Green Setting (Gmax), s	20.0	30.0		20.0	22.5	30.0		20.0				
Max Q Clear Time (g_c+I1), s	4.4	26.3		3.9	5.6	19.6		16.6				
Green Ext Time (p_c), s	0.0	3.0		0.4	0.2	5.9		0.7				

Intersection Summary

HCM 6th Ctrl Delay	24.4
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	270	92	130	200	50	41	282	46	20	342	26
Future Volume (veh/h)	39	270	92	130	200	50	41	282	46	20	342	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	314	21	151	233	15	48	328	23	23	398	11
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	330	558	247	326	723	320	490	1505	669	510	1441	640
Arrive On Green	0.05	0.15	0.15	0.09	0.20	0.20	0.05	0.42	0.42	0.03	0.40	0.40
Sat Flow, veh/h	1810	3610	1595	1810	3610	1598	1810	3610	1604	1810	3610	1604
Grp Volume(v), veh/h	45	314	21	151	233	15	48	328	23	23	398	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1595	1810	1805	1598	1810	1805	1604	1810	1805	1604
Q Serve(g_s), s	1.8	7.1	1.0	6.0	4.8	0.7	1.3	5.1	0.7	0.6	6.5	0.4
Cycle Q Clear(g_c), s	1.8	7.1	1.0	6.0	4.8	0.7	1.3	5.1	0.7	0.6	6.5	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	558	247	326	723	320	490	1505	669	510	1441	640
V/C Ratio(X)	0.14	0.56	0.09	0.46	0.32	0.05	0.10	0.22	0.03	0.05	0.28	0.02
Avail Cap(c_a), veh/h	557	1441	636	470	1441	638	714	1505	669	766	1441	640
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	28.8	34.3	31.8	27.5	30.0	28.3	14.1	16.4	15.1	14.6	17.8	15.9
Incr Delay (d2), s/veh	0.2	1.3	0.2	1.0	0.4	0.1	0.1	0.3	0.1	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.0	0.4	2.5	2.0	0.2	0.5	1.9	0.3	0.2	2.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	35.6	32.0	28.6	30.3	28.4	14.2	16.7	15.2	14.6	18.3	16.0
LnGrp LOS	C	D	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		380			399			399			432	
Approach Delay, s/veh		34.6			29.6			16.3			18.0	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	43.6	14.5	20.1	11.1	42.0	10.5	24.1				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	15.0	35.0	15.0	35.0	15.0	35.0	15.0	35.0				
Max Q Clear Time (g_c+1), s	12.6	7.1	8.0	9.1	3.3	8.5	3.8	6.8				
Green Ext Time (p_c), s	0.0	2.8	0.2	2.7	0.1	3.5	0.1	2.0				
Intersection Summary												
HCM 6th Ctrl Delay											24.4	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	400	250	180	380	50	110	253	90	60	604	30
Future Volume (veh/h)	20	400	250	180	380	50	110	253	90	60	604	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	444	170	200	422	46	122	281	26	67	671	29
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	263	510	193	261	878	95	152	1113	496	88	960	41
Arrive On Green	0.01	0.20	0.20	0.08	0.27	0.27	0.17	0.62	0.62	0.05	0.27	0.27
Sat Flow, veh/h	1810	2553	969	1810	3283	356	1810	3610	1610	1810	3524	152
Grp Volume(v), veh/h	22	313	301	200	231	237	122	281	26	67	343	357
Grp Sat Flow(s),veh/h/ln	1810	1805	1717	1810	1805	1834	1810	1805	1610	1810	1805	1872
Q Serve(g_s), s	0.8	13.4	13.6	6.5	8.6	8.7	5.2	2.8	0.5	2.9	13.7	13.7
Cycle Q Clear(g_c), s	0.8	13.4	13.6	6.5	8.6	8.7	5.2	2.8	0.5	2.9	13.7	13.7
Prop In Lane	1.00		0.56	1.00		0.19	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	263	360	343	261	483	490	152	1113	496	88	492	510
V/C Ratio(X)	0.08	0.87	0.88	0.77	0.48	0.48	0.80	0.25	0.05	0.77	0.70	0.70
Avail Cap(c_a), veh/h	295	372	354	261	483	490	204	1113	496	113	492	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	0.96	0.96	0.96
Uniform Delay (d), s/veh	25.1	31.0	31.1	25.7	24.6	24.6	32.6	11.2	10.7	37.6	26.1	26.2
Incr Delay (d2), s/veh	0.1	18.3	20.7	11.6	0.5	0.5	10.9	0.5	0.2	14.2	7.7	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.1	7.1	3.6	3.4	3.5	2.4	1.0	0.2	1.6	6.4	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	49.3	51.8	37.3	25.2	25.2	43.5	11.7	10.9	51.8	33.8	33.6
LnGrp LOS	C	D	D	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h		636			668			429			767	
Approach Delay, s/veh		49.6			28.8			20.7			35.3	
Approach LOS		D			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	31.7	14.0	23.5	13.7	28.8	8.6	28.9				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	23.0	6.5	16.5	9.0	19.0	2.5	20.5				
Max Q Clear Time (g_c+14.5), s	14.5	4.8	8.5	15.6	7.2	15.7	2.8	10.7				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.3	0.0	1.1	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	40	370	10	110	20	373	130	60	934	10
Future Volume (veh/h)	10	10	40	370	10	110	20	373	130	60	934	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	11	2	415	0	23	22	410	55	66	1026	11
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	57	10	553	0	244	26	1709	758	68	1816	19
Arrive On Green	0.04	0.04	0.04	0.15	0.00	0.15	0.00	0.16	0.16	0.08	0.99	0.99
Sat Flow, veh/h	1810	1564	284	3619	0	1594	1810	3610	1602	1810	3658	39
Grp Volume(v), veh/h	11	0	13	415	0	23	22	410	55	66	506	531
Grp Sat Flow(s),veh/h/ln	1810	0	1849	1810	0	1594	1810	1805	1602	1810	1805	1893
Q Serve(g_s), s	0.5	0.0	0.5	8.8	0.0	1.0	1.0	8.0	2.3	2.9	0.4	0.4
Cycle Q Clear(g_c), s	0.5	0.0	0.5	8.8	0.0	1.0	1.0	8.0	2.3	2.9	0.4	0.4
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	65	0	67	553	0	244	26	1709	758	68	896	940
V/C Ratio(X)	0.17	0.00	0.19	0.75	0.00	0.09	0.84	0.24	0.07	0.97	0.56	0.56
Avail Cap(c_a), veh/h	158	0	162	950	0	419	68	1709	758	68	896	940
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.99	0.99	0.99	0.62	0.62	0.62
Uniform Delay (d), s/veh	37.4	0.0	37.4	32.4	0.0	29.1	39.7	21.1	18.8	37.0	0.1	0.1
Incr Delay (d2), s/veh	0.4	0.0	0.5	1.5	0.0	0.1	53.1	0.3	0.2	76.8	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	3.9	0.0	0.4	0.8	3.4	0.8	2.6	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	0.0	37.9	34.0	0.0	29.2	92.8	21.5	18.9	113.7	1.7	1.7
LnGrp LOS	D	A	D	C	A	C	F	C	B	F	A	A
Approach Vol, veh/h		24			438			487			1103	
Approach Delay, s/veh		37.9			33.7			24.4			8.4	
Approach LOS		D			C			C			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	44.9		7.9	8.2	46.7		17.2				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		7.0	3.0	25.0		21.0				
Max Q Clear Time (g_c+1/4), s	10.0	10.0		2.5	3.0	2.4		10.8				
Green Ext Time (p_c), s	0.0	2.7		0.0	0.0	5.0		0.9				

Intersection Summary

HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↶	↷	↶	↷	↷		↷	↷
Traffic Volume (veh/h)	0	0	0	306	0	130	230	363	0	0	829	545
Future Volume (veh/h)	0	0	0	306	0	130	230	363	0	0	829	545
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				329	0	37	247	390	0	0	891	205
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				461	0	411	282	3112	0	0	1980	611
Arrive On Green				0.25	0.00	0.25	0.31	1.00	0.00	0.00	0.13	0.13
Sat Flow, veh/h				1810	0	1610	1810	5358	0	0	5358	1600
Grp Volume(v), veh/h				329	0	37	247	390	0	0	891	205
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1600
Q Serve(g_s), s				13.2	0.0	1.4	10.3	0.0	0.0	0.0	12.7	9.4
Cycle Q Clear(g_c), s				13.2	0.0	1.4	10.3	0.0	0.0	0.0	12.7	9.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				461	0	411	282	3112	0	0	1980	611
V/C Ratio(X)				0.71	0.00	0.09	0.88	0.13	0.00	0.00	0.45	0.34
Avail Cap(c_a), veh/h				461	0	411	362	3112	0	0	1980	611
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.79	0.79
Uniform Delay (d), s/veh				27.1	0.0	22.7	26.8	0.0	0.0	0.0	27.2	25.7
Incr Delay (d2), s/veh				9.1	0.0	0.4	12.6	0.1	0.0	0.0	0.6	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.7	0.0	0.6	4.4	0.0	0.0	0.0	5.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.2	0.0	23.2	39.4	0.1	0.0	0.0	27.8	26.9
LnGrp LOS				D	A	C	D	A	A	A	C	C
Approach Vol, veh/h				366			637			1096		
Approach Delay, s/veh				34.9			15.3			27.6		
Approach LOS				C			B			C		
Timer - Assigned Phs		2		5	6		8					
Phs Duration (G+Y+Rc), s		53.8		17.5	36.3		26.2					
Change Period (Y+Rc), s		5.8		5.0	5.8		5.8					
Max Green Setting (Gmax), s		48.0		16.0	27.0		20.4					
Max Q Clear Time (g_c+I1), s		2.0		12.3	14.7		15.2					
Green Ext Time (p_c), s		2.1		0.1	4.2		1.5					
Intersection Summary												
HCM 6th Ctrl Delay				25.1								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↕↕		↗	↕↕↕	
Traffic Volume (veh/h)	106	0	180	0	0	0	0	477	358	370	774	0
Future Volume (veh/h)	106	0	180	0	0	0	0	477	358	370	774	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	114	0	40				0	513	233	398	832	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	385	0	342				0	1171	513	448	3333	0
Arrive On Green	0.21	0.00	0.21				0.00	0.33	0.33	0.08	0.21	0.00
Sat Flow, veh/h	1810	0	1610				0	3695	1543	1810	5358	0
Grp Volume(v), veh/h	114	0	40				0	503	243	398	832	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1608	1810	1729	0
Q Serve(g_s), s	4.2	0.0	1.6				0.0	9.1	9.5	17.4	10.7	0.0
Cycle Q Clear(g_c), s	4.2	0.0	1.6				0.0	9.1	9.5	17.4	10.7	0.0
Prop In Lane	1.00		1.00				0.00		0.96	1.00		0.00
Lane Grp Cap(c), veh/h	385	0	342				0	1149	535	448	3333	0
V/C Ratio(X)	0.30	0.00	0.12				0.00	0.44	0.45	0.89	0.25	0.00
Avail Cap(c_a), veh/h	385	0	342				0	1149	535	611	3333	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.88	0.88	0.00
Uniform Delay (d), s/veh	26.5	0.0	25.4				0.0	20.9	21.0	35.6	15.5	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.7				0.0	1.2	2.8	8.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.7				0.0	3.5	3.6	9.3	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	0.0	26.1				0.0	22.1	23.8	44.3	15.6	0.0
LnGrp LOS	C	A	C				A	C	C	D	B	A
Approach Vol, veh/h		154						746			1230	
Approach Delay, s/veh		27.8						22.6			24.9	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	24.8	32.4	22.8	57.2								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	27.0	19.0	17.0	51.4								
Max Q Clear Time (g_c+119), s	11.5	11.5	6.2	12.7								
Green Ext Time (p_c), s	0.4	2.3	0.9	4.8								

Intersection Summary

HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	21.8											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔	↔		↔	↔↔	↔	↔	
Traffic Vol, veh/h	20	194	46	381	130	120	38	80	350	20	10	10
Future Vol, veh/h	20	194	46	381	130	120	38	80	350	20	10	10
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	237	56	465	159	146	46	98	427	24	12	12
Number of Lanes	0	1	1	1	1	1	0	1	2	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	3
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	3	2	3
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	3	2	3	2
HCM Control Delay	23.9	25.5	16.3	13.6
HCM LOS	C	D	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	32%	0%	0%	9%	0%	100%	50%	0%	100%	0%
Vol Thru, %	68%	0%	0%	91%	0%	0%	50%	0%	0%	50%
Vol Right, %	0%	100%	100%	0%	100%	0%	0%	100%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	175	175	214	46	251	260	120	20	20
LT Vol	38	0	0	20	0	251	130	0	20	0
Through Vol	80	0	0	194	0	0	130	0	0	10
RT Vol	0	175	175	0	46	0	0	120	0	10
Lane Flow Rate	144	213	213	261	56	307	317	146	24	24
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.343	0.45	0.45	0.645	0.127	0.706	0.706	0.287	0.072	0.066
Departure Headway (Hd)	8.578	7.599	7.599	8.894	8.133	8.386	8.131	7.164	10.556	9.678
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	422	472	472	407	443	432	446	505	341	371
Service Time	6.278	5.399	5.399	6.603	5.842	6.086	5.831	4.864	8.278	7.4
HCM Lane V/C Ratio	0.341	0.451	0.451	0.641	0.126	0.711	0.711	0.289	0.07	0.065
HCM Control Delay	15.7	16.5	16.5	26.4	12	28.8	28.1	12.7	14.1	13.1
HCM Lane LOS	C	C	C	D	B	D	D	B	B	B
HCM 95th-tile Q	1.5	2.3	2.3	4.4	0.4	5.4	5.4	1.2	0.2	0.2

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	20	0	30	20	0	10	20	428	10	10	487	10
Future Volume (veh/h)	20	0	30	20	0	10	20	428	10	10	487	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.97		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	0	5	23	0	0	23	498	9	12	566	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	0	108	138	0	0	81	2631	1169	50	2569	1142
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.00	0.04	0.73	0.73	0.03	0.71	0.71
Sat Flow, veh/h	1546	0	1562	1138	0	0	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	23	0	5	23	0	0	23	498	9	12	566	9
Grp Sat Flow(s),veh/h/ln	1546	0	1562	1138	0	0	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	0.0	0.0	0.4	1.9	0.0	0.0	1.5	5.2	0.2	0.8	6.4	0.2
Cycle Q Clear(g_c), s	1.5	0.0	0.4	3.4	0.0	0.0	1.5	5.2	0.2	0.8	6.4	0.2
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	0	108	138	0	0	81	2631	1169	50	2569	1142
V/C Ratio(X)	0.14	0.00	0.05	0.17	0.00	0.00	0.28	0.19	0.01	0.24	0.22	0.01
Avail Cap(c_a), veh/h	455	0	430	424	0	0	196	2631	1169	196	2569	1142
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	0.00	1.00	1.00	0.00	0.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	0.0	52.2	54.3	0.0	0.0	55.5	5.1	4.4	57.1	5.9	5.0
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.7	0.0	0.0	2.0	0.1	0.0	3.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.1	0.7	0.0	0.0	0.7	1.6	0.1	0.4	2.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	0.0	52.4	55.0	0.0	0.0	57.4	5.3	4.5	60.1	6.1	5.0
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	A	A
Approach Vol, veh/h		28			23			530			587	
Approach Delay, s/veh		53.0			55.0			7.5			7.2	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	94.4		15.3	12.4	92.4		15.3				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1), s	12.8	7.2		3.5	3.5	8.4		5.4				
Green Ext Time (p_c), s	0.0	6.8		0.1	0.0	7.9		0.1				

Intersection Summary

HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	885	260	70	738	20	160	258	110	30	346	141
Future Volume (veh/h)	110	885	260	70	738	20	160	258	110	30	346	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	952	185	75	794	22	172	277	22	32	372	152
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	931	413	127	887	25	316	332	279	27	310	127
Arrive On Green	0.08	0.26	0.26	0.07	0.25	0.25	0.17	0.17	0.17	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1601	1810	3587	99	1810	1900	1596	104	1206	493
Grp Volume(v), veh/h	118	952	185	75	399	417	172	277	22	556	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1881	1810	1900	1596	1803	0	0
Q Serve(g_s), s	7.5	30.1	11.3	4.7	25.0	25.0	10.1	16.4	1.3	30.0	0.0	0.0
Cycle Q Clear(g_c), s	7.5	30.1	11.3	4.7	25.0	25.0	10.1	16.4	1.3	30.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	0.06		0.27
Lane Grp Cap(c), veh/h	146	931	413	127	446	465	316	332	279	463	0	0
V/C Ratio(X)	0.81	1.02	0.45	0.59	0.89	0.89	0.54	0.83	0.08	1.20	0.00	0.00
Avail Cap(c_a), veh/h	388	931	413	310	464	484	465	488	410	463	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	52.7	43.3	36.3	52.6	42.4	42.4	43.9	46.5	40.3	43.3	0.0	0.0
Incr Delay (d2), s/veh	7.6	35.4	1.6	1.6	20.4	19.8	1.8	8.8	0.1	109.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	17.2	4.4	2.1	13.0	13.5	4.6	8.4	0.5	26.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	78.7	38.0	54.2	62.8	62.2	45.7	55.3	40.4	152.4	0.0	0.0
LnGrp LOS	E	F	D	D	E	E	D	E	D	F	A	A
Approach Vol, veh/h		1255			891			471				556
Approach Delay, s/veh		71.0			61.8			51.1				152.4
Approach LOS		E			E			D				F
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.7	37.6		36.5	16.9	36.4		26.9				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	6.7	32.1		32.0	9.5	27.0		18.4				
Green Ext Time (p_c), s	0.1	0.0		0.0	0.2	1.9		2.0				

Intersection Summary

HCM 6th Ctrl Delay	79.7
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗		↘	↗	↗	↘	↗	↗	↘	↗	↗
Traffic Volume (veh/h)	180	160	270	20	50	20	110	418	20	30	526	70
Future Volume (veh/h)	180	160	270	20	50	20	110	418	20	30	526	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	209	186	79	23	58	3	128	486	10	35	612	31
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	245	525	214	78	427	188	160	1520	676	81	1957	605
Arrive On Green	0.14	0.21	0.21	0.04	0.12	0.12	0.09	0.42	0.42	0.04	0.38	0.38
Sat Flow, veh/h	1810	2495	1019	1810	3610	1590	1810	3610	1604	1810	5187	1604
Grp Volume(v), veh/h	209	133	132	23	58	3	128	486	10	35	612	31
Grp Sat Flow(s),veh/h/ln	1810	1805	1708	1810	1805	1590	1810	1805	1604	1810	1729	1604
Q Serve(g_s), s	10.5	5.8	6.2	1.1	1.3	0.2	6.4	8.4	0.3	1.7	7.7	1.1
Cycle Q Clear(g_c), s	10.5	5.8	6.2	1.1	1.3	0.2	6.4	8.4	0.3	1.7	7.7	1.1
Prop In Lane	1.00		0.60	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	380	359	78	427	188	160	1520	676	81	1957	605
V/C Ratio(X)	0.85	0.35	0.37	0.29	0.14	0.02	0.80	0.32	0.01	0.43	0.31	0.05
Avail Cap(c_a), veh/h	390	486	460	390	973	428	390	1520	676	390	1957	605
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	31.2	31.4	43.0	36.7	36.1	41.5	18.0	15.6	43.2	20.4	18.3
Incr Delay (d2), s/veh	5.7	0.4	0.5	0.8	0.1	0.0	3.4	0.6	0.0	1.3	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	2.4	2.5	0.5	0.6	0.1	2.9	3.3	0.1	0.8	3.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	31.6	31.8	43.8	36.8	36.2	44.9	18.5	15.7	44.5	20.8	18.5
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	B
Approach Vol, veh/h		474			84			624			678	
Approach Delay, s/veh		37.5			38.7			23.9			21.9	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	45.6	10.5	26.0	14.7	41.5	19.1	17.5				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	13.7	10.4	3.1	8.2	8.4	9.7	12.5	3.3				
Green Ext Time (p_c), s	0.0	3.6	0.0	1.0	0.1	4.9	0.2	0.2				

Intersection Summary

HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	10	72	50	10	20	61	448	30	30	826	20
Future Volume (veh/h)	50	10	72	50	10	20	61	448	30	30	826	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	57	11	13	57	11	3	70	515	18	34	949	23
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	222	196	133	445	196	112	2533	784	79	2448	59
Arrive On Green	0.07	0.12	0.12	0.07	0.12	0.12	0.06	0.49	0.49	0.04	0.47	0.47
Sat Flow, veh/h	1810	1805	1591	1810	3610	1591	1810	5187	1605	1810	5209	126
Grp Volume(v), veh/h	57	11	13	57	11	3	70	515	18	34	630	342
Grp Sat Flow(s),veh/h/ln	1810	1805	1591	1810	1805	1591	1810	1729	1605	1810	1729	1877
Q Serve(g_s), s	2.9	0.5	0.7	2.9	0.3	0.2	3.6	5.4	0.6	1.8	11.3	11.3
Cycle Q Clear(g_c), s	2.9	0.5	0.7	2.9	0.3	0.2	3.6	5.4	0.6	1.8	11.3	11.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	133	222	196	133	445	196	112	2533	784	79	1625	882
V/C Ratio(X)	0.43	0.05	0.07	0.43	0.02	0.02	0.63	0.20	0.02	0.43	0.39	0.39
Avail Cap(c_a), veh/h	473	679	598	473	1358	598	473	2533	784	473	1625	882
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	42.4	37.0	37.1	42.4	36.9	36.9	43.8	13.9	12.7	44.6	16.4	16.4
Incr Delay (d2), s/veh	0.8	0.1	0.1	0.8	0.0	0.0	2.1	0.2	0.1	1.4	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	0.3	1.3	0.1	0.1	1.6	1.9	0.2	0.8	4.2	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	37.1	37.2	43.3	36.9	36.9	46.0	14.1	12.7	46.0	17.1	17.7
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		81			71			603			1006	
Approach Delay, s/veh		41.4			42.0			17.8			18.3	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	53.2	13.5	18.3	12.4	51.5	13.5	18.3				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	25.0	45.0	25.0	36.0	25.0	45.0	25.0	36.0				
Max Q Clear Time (g_c+1), s	13.8	7.4	4.9	2.7	5.6	13.3	4.9	2.3				
Green Ext Time (p_c), s	0.0	4.3	0.1	0.1	0.1	8.1	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	60	450	440	250	310	50	220	369	100	40	868	60
Future Volume (veh/h)	60	450	440	250	310	50	220	369	100	40	868	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	469	185	260	323	17	229	384	52	42	904	23
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	297	710	314	369	783	426	312	1840	738	173	1636	642
Arrive On Green	0.08	0.20	0.20	0.10	0.22	0.22	0.09	0.35	0.35	0.05	0.32	0.32
Sat Flow, veh/h	3510	3610	1598	3510	3610	1599	3510	5187	1603	3510	5187	1603
Grp Volume(v), veh/h	62	469	185	260	323	17	229	384	52	42	904	23
Grp Sat Flow(s),veh/h/ln	1755	1805	1598	1755	1805	1599	1755	1729	1603	1755	1729	1603
Q Serve(g_s), s	1.6	11.4	10.0	6.8	7.3	0.8	6.0	4.9	1.7	1.1	13.7	0.8
Cycle Q Clear(g_c), s	1.6	11.4	10.0	6.8	7.3	0.8	6.0	4.9	1.7	1.1	13.7	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	297	710	314	369	783	426	312	1840	738	173	1636	642
V/C Ratio(X)	0.21	0.66	0.59	0.71	0.41	0.04	0.73	0.21	0.07	0.24	0.55	0.04
Avail Cap(c_a), veh/h	738	1138	504	738	1138	584	738	1840	738	738	1636	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	35.3	34.7	41.2	32.0	25.9	42.3	21.4	14.3	43.5	27.0	17.4
Incr Delay (d2), s/veh	0.3	1.3	2.1	1.8	0.4	0.0	2.5	0.3	0.2	0.5	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.8	3.8	2.9	3.0	0.3	2.6	1.9	0.6	0.5	5.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	36.6	36.8	43.0	32.5	25.9	44.8	21.6	14.5	44.0	28.4	17.5
LnGrp LOS	D	D	D	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		716			600			665			969	
Approach Delay, s/veh		37.0			36.8			29.0			28.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	40.3	17.5	26.2	14.9	36.5	15.6	28.1				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1/3), s	13.1	6.9	8.8	13.4	8.0	15.7	3.6	9.3				
Green Ext Time (p_c), s	0.0	3.0	0.5	3.7	0.4	5.8	0.1	2.1				

Intersection Summary

HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘ ↙	↔	↗	↘ ↙	↑↑↑			↑↑↑	↗
Traffic Volume (veh/h)	0	0	0	406	0	202	490	497	0	0	1258	390
Future Volume (veh/h)	0	0	0	406	0	202	490	497	0	0	1258	390
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				427	0	0	516	523	0	0	1324	164
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				901	0	401	1014	3227	0	0	1816	443
Arrive On Green				0.25	0.00	0.00	0.10	0.21	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1596
Grp Volume(v), veh/h				427	0	0	516	523	0	0	1324	164
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1596
Q Serve(g_s), s				9.0	0.0	0.0	12.6	7.5	0.0	0.0	16.5	7.4
Cycle Q Clear(g_c), s				9.0	0.0	0.0	12.6	7.5	0.0	0.0	16.5	7.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				901	0	401	1014	3227	0	0	1816	443
V/C Ratio(X)				0.47	0.00	0.00	0.51	0.16	0.00	0.00	0.73	0.37
Avail Cap(c_a), veh/h				901	0	401	1014	3227	0	0	1816	443
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.90	0.90	0.00	0.00	0.74	0.74
Uniform Delay (d), s/veh				28.8	0.0	0.0	34.6	16.5	0.0	0.0	29.4	26.2
Incr Delay (d2), s/veh				1.8	0.0	0.0	1.6	0.1	0.0	0.0	1.9	1.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.1	0.0	0.0	6.0	2.8	0.0	0.0	6.2	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.6	0.0	0.0	36.3	16.6	0.0	0.0	31.4	27.9
LnGrp LOS				C	A	A	D	B	A	A	C	C
Approach Vol, veh/h					427			1039			1488	
Approach Delay, s/veh					30.6			26.4			31.0	
Approach LOS					C			C			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		61.8		28.2	31.0	30.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		56.0		22.4	26.0	25.0						
Max Q Clear Time (g_c+I1), s		9.5		11.0	14.6	18.5						
Green Ext Time (p_c), s		3.6		1.2	0.8	4.3						

Intersection Summary

HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	0	420	0	0	0	0	917	478	479	1174	0
Future Volume (veh/h)	70	0	420	0	0	0	0	917	478	479	1174	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	49	0	339				0	955	161	499	1223	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	611	0	1088				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.21	0.71	0.00
Sat Flow, veh/h	1810	0	3220				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	49	0	339				0	955	161	499	1223	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	1.7	0.0	7.0				0.0	10.4	6.8	12.5	9.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	7.0				0.0	10.4	6.8	12.5	9.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	611	0	1088				0	2106	515	546	2766	0
V/C Ratio(X)	0.08	0.00	0.31				0.00	0.45	0.31	0.91	0.44	0.00
Avail Cap(c_a), veh/h	611	0	1088				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.65	0.65	0.00
Uniform Delay (d), s/veh	20.3	0.0	22.1				0.0	24.2	23.0	35.1	7.4	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.7				0.0	0.7	1.6	16.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.7				0.0	3.8	2.6	6.0	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	22.8				0.0	24.9	24.6	51.2	7.7	0.0
LnGrp LOS	C	A	C				A	C	C	D	A	A
Approach Vol, veh/h		388						1116			1722	
Approach Delay, s/veh		22.5						24.9			20.3	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+14), s	14.5	12.4					11.0	9.0				
Green Ext Time (p_c), s	0.0	6.1					10.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	280	0	470	0	2523	0	0	1896	1048	0	0
Future Volume (veh/h)	280	0	470	0	2523	0	0	1896	1048	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	295	295	454	0	2656	0	0	2380	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	563	563	1002	0	3791	0	0	4408			
Arrive On Green	0.31	0.31	0.31	0.00	0.58	0.00	0.00	0.58	0.00		
Sat Flow, veh/h	1810	1810	3220	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	295	295	454	0	2656	0	0	2380	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	0	0	1900	1610		
Q Serve(g_s), s	13.4	13.4	11.3	0.0	28.8	0.0	0.0	19.1	0.0		
Cycle Q Clear(g_c), s	13.4	13.4	11.3	0.0	28.8	0.0	0.0	19.1	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	563	563	1002	0	3791	0	0	4408			
V/C Ratio(X)	0.52	0.52	0.45	0.00	0.70	0.00	0.00	0.54			
Avail Cap(c_a), veh/h	563	563	1002	0	3791	0	0	4408			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	28.4	28.4	27.6	0.0	14.9	0.0	0.0	12.8	0.0		
Incr Delay (d2), s/veh	3.5	3.5	1.5	0.0	1.1	0.0	0.0	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.3	6.3	4.5	0.0	9.3	0.0	0.0	7.4	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	31.8	31.8	29.1	0.0	16.0	0.0	0.0	13.3	0.0		
LnGrp LOS	C	C	C	A	B	A	A	B			
Approach Vol, veh/h	749	749			2656			2380	A		
Approach Delay, s/veh	30.2	30.2			16.0			13.3			
Approach LOS	C	C			B			B			
Timer - Assigned Phs	2		4			6					
Phs Duration (G+Y+Rc), s	63.8		36.2			63.8					
Change Period (Y+Rc), s	5.8		5.1			5.8					
Max Green Setting (Gmax), s	58.0		31.1			58.0					
Max Q Clear Time (g_c+I1), s	30.8		15.4			21.1					
Green Ext Time (p_c), s	17.7		1.4			18.5					

Intersection Summary

HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	621	0	277	0	2710	894	0	1647	0	0	0
Future Volume (veh/h)	621	0	277	0	2710	894	0	1647	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	647	647	247	0	2823	0	0	1716	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	581	581	1034	0	3726		0	3726	0		
Arrive On Green	0.32	0.32	0.32	0.00	0.57	0.00	0.00	0.57	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	647	647	247	0	2823	0	0	1716	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	32.1	32.1	5.6	0.0	32.7	0.0	0.0	15.3	0.0		
Cycle Q Clear(g_c), s	32.1	32.1	5.6	0.0	32.7	0.0	0.0	15.3	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	581	581	1034	0	3726		0	3726	0		
V/C Ratio(X)	1.11	1.11	0.24	0.00	0.76		0.00	0.46	0.00		
Avail Cap(c_a), veh/h	581	581	1034	0	3726		0	3726	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.34	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	33.9	33.9	25.0	0.0	16.3	0.0	0.0	12.5	0.0		
Incr Delay (d2), s/veh	72.6	72.6	0.5	0.0	0.5	0.0	0.0	0.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	25.4	25.4	2.2	0.0	11.4	0.0	0.0	5.1	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	106.6	106.6	25.5	0.0	16.8	0.0	0.0	12.9	0.0		
LnGrp LOS	F	F	C	A	B		A	B	A		
Approach Vol, veh/h	894	894			2823	A		1716			
Approach Delay, s/veh	84.2	84.2			16.8			12.9			
Approach LOS	F	F			B			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	62.8		37.2		62.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	57.0		32.1		57.0						
Max Q Clear Time (g_c+I1), s	34.7		34.1		17.3						
Green Ext Time (p_c), s	17.9		0.0		10.8						

Intersection Summary

HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↗	↔↔	↑	↗↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	410	100	210	70	60	290	70	2904	120	200	1613	120
Future Volume (veh/h)	410	100	210	70	60	290	70	2904	120	200	1613	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	423	103	27	72	62	31	72	2994	61	206	1663	66
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	464	219	184	259	109	162	188	3559	874	257	3688	906
Arrive On Green	0.13	0.12	0.12	0.07	0.06	0.06	0.05	0.54	0.54	0.07	0.56	0.56
Sat Flow, veh/h	3510	1900	1589	3510	1900	2834	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	423	103	27	72	62	31	72	2994	61	206	1663	66
Grp Sat Flow(s),veh/h/ln	1755	1900	1589	1755	1900	1417	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	16.6	7.1	2.1	2.7	4.5	1.5	2.8	53.9	2.5	8.1	20.8	2.6
Cycle Q Clear(g_c), s	16.6	7.1	2.1	2.7	4.5	1.5	2.8	53.9	2.5	8.1	20.8	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	219	184	259	109	162	188	3559	874	257	3688	906
V/C Ratio(X)	0.91	0.47	0.15	0.28	0.57	0.19	0.38	0.84	0.07	0.80	0.45	0.07
Avail Cap(c_a), veh/h	464	387	324	464	387	577	602	3559	874	602	3688	906
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	0.31	0.31	0.31	0.90	0.90	0.90
Uniform Delay (d), s/veh	59.9	57.9	55.7	61.3	64.3	62.9	64.0	26.8	15.1	63.9	17.8	13.9
Incr Delay (d2), s/veh	21.7	0.6	0.1	0.2	1.7	0.2	0.1	0.8	0.0	2.0	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	3.4	0.8	1.2	2.2	0.5	1.2	19.8	0.9	3.6	7.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.7	58.5	55.8	61.5	66.1	63.1	64.1	27.6	15.1	65.8	18.2	14.0
LnGrp LOS	F	E	E	E	E	E	E	C	B	E	B	B
Approach Vol, veh/h		553			165			3127			1935	
Approach Delay, s/veh		76.1			63.5			28.2			23.1	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.3	83.2	16.8	22.7	14.5	86.0	25.0	14.5				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	24.0	42.0	18.5	28.5	24.0	42.0	18.5	28.5				
Max Q Clear Time (g_c+10), s	11.0	55.9	4.7	9.1	4.8	22.8	18.6	6.5				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.2	0.1	9.7	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↓		↔↔	↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	380	484	560	154	499	504	445	2229	40	119	1624	160
Future Volume (veh/h)	380	484	560	154	499	504	445	2229	40	119	1624	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	384	489	451	156	504	243	449	2252	16	120	1640	73
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	443	528	469	210	817	364	508	2503	614	172	1877	460
Arrive On Green	0.13	0.29	0.29	0.06	0.23	0.23	0.14	0.38	0.38	0.05	0.29	0.29
Sat Flow, veh/h	3510	1805	1602	3510	3610	1610	3510	6536	1604	3510	6536	1602
Grp Volume(v), veh/h	384	489	451	156	504	243	449	2252	16	120	1640	73
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1610	1755	1634	1604	1755	1634	1602
Q Serve(g_s), s	14.6	35.9	37.8	6.0	17.1	18.8	17.1	44.3	0.8	4.6	32.6	4.6
Cycle Q Clear(g_c), s	14.6	35.9	37.8	6.0	17.1	18.8	17.1	44.3	0.8	4.6	32.6	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	443	528	469	210	817	364	508	2503	614	172	1877	460
V/C Ratio(X)	0.87	0.93	0.96	0.74	0.62	0.67	0.88	0.90	0.03	0.70	0.87	0.16
Avail Cap(c_a), veh/h	772	529	470	772	1058	472	772	2503	614	772	1916	470
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	58.5	46.8	47.5	63.1	47.5	48.1	57.2	39.6	26.2	63.9	46.3	36.3
Incr Delay (d2), s/veh	2.0	22.4	31.8	1.9	0.8	2.3	5.6	5.0	0.0	1.9	4.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	18.9	18.7	2.7	7.6	7.5	7.7	17.5	0.3	2.1	13.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	69.2	79.4	65.0	48.2	50.4	62.8	44.6	26.3	65.8	51.1	36.5
LnGrp LOS	E	E	E	E	D	D	E	D	C	E	D	D
Approach Vol, veh/h		1324		903			2717			1833		
Approach Delay, s/veh		70.1		51.7			47.5			51.5		
Approach LOS		E		D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.2	59.7	15.2	47.3	27.3	46.7	24.2	38.3				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+1), s	10.6	46.3	8.0	39.8	19.1	34.6	16.6	20.8				
Green Ext Time (p_c), s	0.2	0.0	0.2	0.1	0.6	4.4	0.6	3.6				

Intersection Summary

HCM 6th Ctrl Delay	53.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔ ↑↑↔			↔ ↑↑	↔ ↑↑ ↔		↔	↔	↔		↔	
Traffic Volume (veh/h)	10	554	10	30	601	30	10	0	50	50	0	10
Future Volume (veh/h)	10	554	10	30	601	30	10	0	50	50	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	684	11	37	742	11	12	0	29	62	0	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	1552	25	80	1160	518	636	0	578	591	0	0
Arrive On Green	0.02	0.30	0.30	0.04	0.32	0.32	0.36	0.00	0.36	0.36	0.00	0.00
Sat Flow, veh/h	1810	5258	84	1810	3610	1610	1440	0	1610	1357	0	0
Grp Volume(v), veh/h	12	449	246	37	742	11	12	0	29	62	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1885	1810	1805	1610	1440	0	1610	1357	0	0
Q Serve(g_s), s	0.5	7.3	7.3	1.4	12.2	0.3	0.0	0.0	0.8	2.1	0.0	0.0
Cycle Q Clear(g_c), s	0.5	7.3	7.3	1.4	12.2	0.3	0.3	0.0	0.8	2.9	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	32	1021	556	80	1160	518	636	0	578	591	0	0
V/C Ratio(X)	0.37	0.44	0.44	0.46	0.64	0.02	0.02	0.00	0.05	0.10	0.00	0.00
Avail Cap(c_a), veh/h	390	3229	1760	390	3370	1503	636	0	578	591	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.8	19.9	19.9	32.5	20.2	16.1	14.4	0.0	14.6	15.5	0.0	0.0
Incr Delay (d2), s/veh	6.9	0.4	0.8	4.2	0.8	0.0	0.1	0.0	0.2	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.7	3.0	0.7	4.6	0.1	0.1	0.0	0.3	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	20.3	20.7	36.6	21.0	16.2	14.4	0.0	14.7	15.9	0.0	0.0
LnGrp LOS	D	C	C	D	C	B	B	A	B	B	A	A
Approach Vol, veh/h		707			790			41			62	
Approach Delay, s/veh		20.8			21.7			14.6			15.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.0	10.1	27.6		32.0	8.2	29.4				
Change Period (Y+Rc), s		7.0	7.0	7.0		7.0	7.0	7.0				
Max Green Setting (Gmax), s		25.0	15.0	65.0		25.0	15.0	65.0				
Max Q Clear Time (g_c+1), s		2.8	3.4	9.3		4.9	2.5	14.2				
Green Ext Time (p_c), s		0.1	0.0	6.9		0.2	0.0	8.2				

Intersection Summary

HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	594	60	70	581	10	70	0	60	10	0	10
Future Volume (veh/h)	0	594	60	70	581	10	70	0	60	10	0	10
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	0.99		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	716	66	84	700	12	84	0	11	12	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3020	277	110	1421	24	215	0	128	131	0	0
Arrive On Green	0.00	0.62	0.62	0.06	0.76	0.76	0.08	0.00	0.08	0.08	0.00	0.00
Sat Flow, veh/h	1810	4834	443	1810	1862	32	1663	0	1580	622	0	0
Grp Volume(v), veh/h	0	511	271	84	0	712	84	0	11	12	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1818	1810	0	1894	1663	0	1580	622	0	0
Q Serve(g_s), s	0.0	5.9	5.9	4.1	0.0	12.8	0.0	0.0	0.6	0.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.9	5.9	4.1	0.0	12.8	4.1	0.0	0.6	4.8	0.0	0.0
Prop In Lane	1.00		0.24	1.00		0.02	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	2	2160	1136	110	0	1446	215	0	128	131	0	0
V/C Ratio(X)	0.00	0.24	0.24	0.77	0.00	0.49	0.39	0.00	0.09	0.09	0.00	0.00
Avail Cap(c_a), veh/h	322	2160	1136	322	0	1446	684	0	650	595	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.84	0.84	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.4	7.4	41.6	0.0	4.0	39.9	0.0	38.2	42.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	10.5	0.0	1.2	1.2	0.0	0.3	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	2.0	2.1	0.0	3.2	1.9	0.0	0.2	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.7	7.9	52.2	0.0	5.2	41.0	0.0	38.5	42.5	0.0	0.0
LnGrp LOS	A	A	A	D	A	A	D	A	D	D	A	A
Approach Vol, veh/h	782		796		95		12					
Approach Delay, s/veh	7.7		10.2		40.7		42.5					
Approach LOS	A		B		D		D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	14.3		12.5		63.2		14.3		0.0		75.7	
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0		7.0		7.0	
Max Green Setting (Gmax), s	37.0		16.0		16.0		37.0		16.0		16.0	
Max Q Clear Time (g_c+11), s	6.1		6.1		7.9		6.8		0.0		14.8	
Green Ext Time (p_c), s	0.5		0.1		2.9		0.0		0.0		0.5	

Intersection Summary

HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔	↑↑↑	↔	↔	↑↑↑	↔
Traffic Volume (veh/h)	414	351	50	389	273	159	50	2068	212	223	1797	348
Future Volume (veh/h)	414	351	50	389	273	159	50	2068	212	223	1797	348
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	422	358	8	397	279	27	51	2110	71	228	1834	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	435	638	196	435	444	198	123	2105	516	242	2536	
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.07	0.32	0.32	0.13	0.39	0.00
Sat Flow, veh/h	3510	5187	1591	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	422	358	8	397	279	27	51	2110	71	228	1834	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1591	1755	1805	1610	1810	1634	1603	1810	1634	1610
Q Serve(g_s), s	12.1	6.6	0.4	11.3	7.4	1.5	2.7	32.5	3.2	12.6	24.1	0.0
Cycle Q Clear(g_c), s	12.1	6.6	0.4	11.3	7.4	1.5	2.7	32.5	3.2	12.6	24.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	435	638	196	435	444	198	123	2105	516	242	2536	
V/C Ratio(X)	0.97	0.56	0.04	0.91	0.63	0.14	0.42	1.00	0.14	0.94	0.72	
Avail Cap(c_a), veh/h	435	1619	496	435	1127	503	206	2105	516	242	2536	
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	0.00
Uniform Delay (d), s/veh	44.0	41.7	39.0	43.7	42.1	39.5	45.1	34.2	24.3	43.3	26.3	0.0
Incr Delay (d2), s/veh	35.2	0.8	0.1	23.0	1.5	0.3	0.8	20.2	0.1	41.6	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	2.7	0.2	6.1	3.3	0.6	1.2	14.6	1.2	8.1	8.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.3	42.5	39.1	66.7	43.5	39.8	45.9	54.4	24.4	84.9	27.4	0.0
LnGrp LOS	E	D	D	E	D	D	D	F	C	F	C	
Approach Vol, veh/h		788			703			2232			2062	A
Approach Delay, s/veh		62.1			56.4			53.2			33.7	
Approach LOS		E			E			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	40.0	20.0	19.9	14.3	46.7	20.0	19.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	13.5	32.5	12.5	31.5	11.5	34.5	12.5	31.5				
Max Q Clear Time (g_c+1/4), s	14.6	34.5	13.3	8.6	4.7	26.1	14.1	9.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.1	0.0	6.8	0.0	1.6				

Intersection Summary

HCM 6th Ctrl Delay	47.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	40	837	10	10	700	36	10	10	10	52	0	81
Future Volume (veh/h)	40	837	10	10	700	36	10	10	10	52	0	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	872	7	10	729	15	10	10	4	54	0	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	403	2268	18	399	1543	684	540	313	125	533	462	389
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	726	5307	43	640	3610	1601	1408	1288	515	1413	1900	1600
Grp Volume(v), veh/h	42	568	311	10	729	15	10	0	14	54	0	18
Grp Sat Flow(s),veh/h/ln	726	1729	1892	640	1805	1601	1408	0	1803	1413	1900	1600
Q Serve(g_s), s	1.6	4.1	4.1	0.4	5.3	0.2	0.2	0.0	0.2	1.1	0.0	0.3
Cycle Q Clear(g_c), s	6.9	4.1	4.1	4.5	5.3	0.2	0.2	0.0	0.2	1.3	0.0	0.3
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	403	1478	809	399	1543	684	540	0	438	533	462	389
V/C Ratio(X)	0.10	0.38	0.38	0.03	0.47	0.02	0.02	0.00	0.03	0.10	0.00	0.05
Avail Cap(c_a), veh/h	790	3323	1818	741	3469	1538	1164	0	1238	1160	1304	1098
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	7.1	7.1	8.7	7.5	6.0	10.5	0.0	10.5	11.0	0.0	10.6
Incr Delay (d2), s/veh	0.1	0.2	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.8	0.9	0.0	1.1	0.0	0.1	0.0	0.1	0.3	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	7.3	7.4	8.7	7.7	6.0	10.5	0.0	10.5	11.1	0.0	10.6
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		921			754			24				72
Approach Delay, s/veh		7.5			7.7			10.5				11.0
Approach LOS		A			A			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.9		22.6		13.9		22.6				
Change Period (Y+Rc), s		5.0		7.0		5.0		7.0				
Max Green Setting (Gmax), s		25.0		35.0		25.0		35.0				
Max Q Clear Time (g_c+I1), s		2.2		8.9		3.3		7.3				
Green Ext Time (p_c), s		0.0		5.9		0.2		5.0				

Intersection Summary

HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	789	30	30	621	289	20	40	80	350	30	104
Future Volume (veh/h)	70	789	30	30	621	289	20	40	80	350	30	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	822	12	31	647	0	21	42	14	365	31	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	118	2365	730	76	1562		66	139	46	312	294	247
Arrive On Green	0.07	0.46	0.46	0.03	0.29	0.00	0.04	0.10	0.10	0.09	0.15	0.15
Sat Flow, veh/h	1810	5187	1601	1810	3610	1610	1810	1358	453	3510	1900	1595
Grp Volume(v), veh/h	73	822	12	31	647	0	21	0	56	365	31	25
Grp Sat Flow(s),veh/h/ln	1810	1729	1601	1810	1805	1610	1810	0	1811	1755	1900	1595
Q Serve(g_s), s	3.5	9.2	0.4	1.5	13.0	0.0	1.0	0.0	2.6	8.0	1.3	1.2
Cycle Q Clear(g_c), s	3.5	9.2	0.4	1.5	13.0	0.0	1.0	0.0	2.6	8.0	1.3	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	118	2365	730	76	1562		66	0	185	312	294	247
V/C Ratio(X)	0.62	0.35	0.02	0.41	0.41		0.32	0.00	0.30	1.17	0.11	0.10
Avail Cap(c_a), veh/h	161	2365	730	161	1562		161	0	402	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.97	0.97	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	15.8	13.4	42.6	22.7	0.0	42.3	0.0	37.4	41.0	32.7	32.7
Incr Delay (d2), s/veh	5.6	0.4	0.0	4.1	0.8	0.0	1.0	0.0	0.7	105.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.4	0.1	0.7	5.7	0.0	0.5	0.0	1.1	8.0	0.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	16.2	13.5	46.7	23.5	0.0	43.3	0.0	38.1	146.2	32.8	32.8
LnGrp LOS	D	B	B	D	C		D	A	D	F	C	C
Approach Vol, veh/h		907			678	A		77			421	
Approach Delay, s/veh		18.6			24.6			39.5			131.1	
Approach LOS		B			C			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	16.2	10.8	48.0	10.3	20.9	12.9	45.9				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	20.0	20.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+fl), s	4.6	4.6	3.5	11.2	3.0	3.3	5.5	15.0				
Green Ext Time (p_c), s	0.0	0.1	0.0	5.3	0.0	0.1	0.0	3.4				

Intersection Summary

HCM 6th Ctrl Delay	44.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙ ↑↑↑			↙ ↑↑↑			↙ ↑↑	↑↑		↙ ↑↑	↑↑	
Traffic Volume (veh/h)	40	1169	30	50	821	30	40	40	130	60	30	40
Future Volume (veh/h)	40	1169	30	50	821	30	40	40	130	60	30	40
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	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	1218	30	52	855	29	42	42	19	62	31	7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	3249	80	73	3237	110	222	279	118	210	333	72
Arrive On Green	0.07	1.00	1.00	0.04	0.63	0.63	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1810	5206	128	1810	5152	174	1375	2464	1038	1347	2941	639
Grp Volume(v), veh/h	42	809	439	52	573	311	42	30	31	62	19	19
Grp Sat Flow(s),veh/h/ln	1810	1729	1877	1810	1729	1868	1375	1805	1697	1347	1805	1775
Q Serve(g_s), s	2.0	0.0	0.0	2.6	6.7	6.7	2.5	1.3	1.5	3.9	0.8	0.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	2.6	6.7	6.7	3.4	1.3	1.5	5.4	0.8	0.9
Prop In Lane	1.00		0.07	1.00		0.09	1.00		0.61	1.00		0.36
Lane Grp Cap(c), veh/h	65	2158	1171	73	2173	1174	222	205	192	210	205	201
V/C Ratio(X)	0.64	0.37	0.37	0.71	0.26	0.26	0.19	0.15	0.16	0.29	0.09	0.10
Avail Cap(c_a), veh/h	201	2158	1171	281	2173	1174	509	582	547	492	582	572
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	0.0	0.0	42.7	7.5	7.5	37.3	36.0	36.0	38.5	35.7	35.8
Incr Delay (d2), s/veh	3.0	0.4	0.7	4.1	0.3	0.5	0.4	0.3	0.4	0.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.2	1.2	2.1	2.3	0.8	0.6	0.6	1.3	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.2	0.4	0.7	46.8	7.7	7.9	37.7	36.3	36.4	39.2	35.9	36.0
LnGrp LOS	D	A	A	D	A	A	D	D	D	D	D	D
Approach Vol, veh/h	1290			936			103			100		
Approach Delay, s/veh	1.9			10.0			36.9			38.0		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	16.2	10.6	63.2		16.2	10.3	63.5					
Change Period (Y+Rc), s	6.0	7.0	7.0		6.0	7.0	7.0					
Max Green Setting (Gmax), s	29.0	14.0	27.0		29.0	10.0	31.0					
Max Q Clear Time (g_c+I1), s	5.4	4.6	2.0		7.4	4.0	8.7					
Green Ext Time (p_c), s	0.4	0.0	11.8		0.3	0.0	7.6					
Intersection Summary												
HCM 6th Ctrl Delay			8.0									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑		↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	130	1019	130	370	621	134	160	896	410	230	957	70
Future Volume (veh/h)	130	1019	130	370	621	134	160	896	410	230	957	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	1073	36	389	654	123	168	943	172	242	1007	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	1401	435	463	1357	252	299	1309	406	312	1327	562
Arrive On Green	0.09	0.27	0.27	0.13	0.31	0.31	0.09	0.25	0.25	0.09	0.26	0.26
Sat Flow, veh/h	3510	5187	1610	3510	4395	816	3510	5187	1610	3510	5187	1610
Grp Volume(v), veh/h	137	1073	36	389	513	264	168	943	172	242	1007	27
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1753	1755	1729	1610	1755	1729	1610
Q Serve(g_s), s	4.3	22.2	1.9	12.6	14.0	14.3	5.4	19.4	10.4	7.9	20.9	1.3
Cycle Q Clear(g_c), s	4.3	22.2	1.9	12.6	14.0	14.3	5.4	19.4	10.4	7.9	20.9	1.3
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	1401	435	463	1068	541	299	1309	406	312	1327	562
V/C Ratio(X)	0.42	0.77	0.08	0.84	0.48	0.49	0.56	0.72	0.42	0.78	0.76	0.05
Avail Cap(c_a), veh/h	752	1777	552	752	1185	601	752	1777	552	752	1777	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	50.0	39.2	31.8	49.5	32.7	32.8	51.3	39.9	36.5	52.1	40.1	25.2
Incr Delay (d2), s/veh	0.6	1.7	0.1	3.7	0.4	0.8	1.2	1.1	0.8	3.1	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	9.3	0.8	5.6	5.7	6.0	2.3	8.0	4.1	3.5	8.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	40.9	31.9	53.2	33.2	33.7	52.5	40.9	37.4	55.2	41.6	25.2
LnGrp LOS	D	D	C	D	C	C	D	D	D	E	D	C
Approach Vol, veh/h		1246			1166			1283			1276	
Approach Delay, s/veh		41.7			39.9			42.0			43.8	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.9	37.0	22.9	39.0	17.5	37.4	18.4	43.5				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (G_max), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+19.5), s	19.5	21.4	14.6	24.2	7.4	22.9	6.3	16.3				
Green Ext Time (p_c), s	0.5	7.4	0.8	7.3	0.3	6.9	0.3	5.8				

Intersection Summary

HCM 6th Ctrl Delay 41.9
HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	120	1543	6	64	917	50	48	20	125	400	10	140
Future Volume (veh/h)	120	1543	6	64	917	50	48	20	125	400	10	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00		0.98		1.00		0.99
Parking Bus, Adj	1.00		1.00	1.00		1.00		1.00		1.00		1.00
Work Zone On Approach	No			No		No		No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	129	1659	6	69	986	50	52	22	17	430	11	43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	1946	7	135	1776	90	108	174	145	433	515	434
Arrive On Green	0.09	0.36	0.36	0.07	0.35	0.35	0.06	0.09	0.09	0.24	0.27	0.27
Sat Flow, veh/h	1810	5335	19	1810	5055	256	1810	1900	1584	1810	1900	1601
Grp Volume(v), veh/h	129	1075	590	69	674	362	52	22	17	430	11	43
Grp Sat Flow(s),veh/h/ln	1810	1729	1896	1810	1729	1853	1810	1900	1584	1810	1900	1601
Q Serve(g_s), s	7.3	29.9	29.9	3.8	16.4	16.4	2.9	1.1	1.0	24.8	0.4	2.1
Cycle Q Clear(g_c), s	7.3	29.9	29.9	3.8	16.4	16.4	2.9	1.1	1.0	24.8	0.4	2.1
Prop In Lane	1.00		0.01	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	1261	692	135	1215	651	108	174	145	433	515	434
V/C Ratio(X)	0.81	0.85	0.85	0.51	0.55	0.56	0.48	0.13	0.12	0.99	0.02	0.10
Avail Cap(c_a), veh/h	347	1325	726	347	1325	710	347	364	303	433	515	434
HCM Platoon Ratio	1.00											
Upstream Filter(l)	1.00											
Uniform Delay (d), s/veh	46.8	30.6	30.6	46.5	27.3	27.3	47.5	43.6	43.6	39.6	27.9	28.5
Incr Delay (d2), s/veh	3.7	5.5	9.5	1.1	0.5	0.9	1.2	0.2	0.3	41.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0											
%ile BackOfQ(50%),veh/ln	8.3	12.6	14.5	1.7	6.5	7.0	1.4	0.5	0.4	15.9	0.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	36.1	40.1	47.6	27.8	28.3	48.8	43.8	43.8	80.8	27.9	28.6
LnGrp LOS	D	D	D	D	C	C	D	D	D	F	C	C
Approach Vol, veh/h	1794		1105		91		484					
Approach Delay, s/veh	38.4		29.2		46.7		74.9					
Approach LOS	D		C		D		E					
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.0	14.5	14.8	45.1	11.2	33.3	16.2	43.7				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	20.0	20.0	40.0	20.0	25.0	20.0	40.0				
Max Q Clear Time (g_c+20.8)	20.8	3.1	5.8	31.9	4.9	4.1	9.3	18.4				
Green Ext Time (p_c), s	0.0	0.1	0.0	6.2	0.0	0.1	0.1	7.7				

Intersection Summary												
HCM 6th Ctrl Delay			40.8									
HCM 6th LOS			D									

Notes
 User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	1527	601	500	677	0	0	0	0	240	0	426
Future Volume (veh/h)	0	1527	601	500	677	0	0	0	0	240	0	426
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1607	295	526	713	0				289	0	78
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1963	552	741	3170	0				885	0	394
Arrive On Green	0.00	0.34	0.34	0.07	0.20	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	5700	1603	3510	5358	0				3619	0	1610
Grp Volume(v), veh/h	0	1607	295	526	713	0				289	0	78
Grp Sat Flow(s),veh/h/ln	0	1900	1603	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	23.2	13.3	13.2	10.3	0.0				5.9	0.0	3.5
Cycle Q Clear(g_c), s	0.0	23.2	13.3	13.2	10.3	0.0				5.9	0.0	3.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1963	552	741	3170	0				885	0	394
V/C Ratio(X)	0.00	0.82	0.53	0.71	0.22	0.00				0.33	0.00	0.20
Avail Cap(c_a), veh/h	0	1963	552	741	3170	0				885	0	394
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.39	0.39	0.86	0.86	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.9	23.7	39.2	18.1	0.0				27.9	0.0	27.0
Incr Delay (d2), s/veh	0.0	1.6	1.4	4.9	0.1	0.0				1.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.8	4.9	6.6	4.2	0.0				2.6	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.5	25.1	44.1	18.2	0.0				28.9	0.0	28.1
LnGrp LOS		A	C	C	D	B	A			C	A	C
Approach Vol, veh/h		1902			1239						367	
Approach Delay, s/veh		28.0			29.2						28.7	
Approach LOS		C			C						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.0	37.5		28.5		61.5						
Change Period (Y+Rc), s	5.0	6.5		6.5		6.5						
Max Green Setting (Gmax), s	19.0	31.0		22.0		55.0						
Max Q Clear Time (g_c+1/2), s	11.5	25.2		7.9		12.3						
Green Ext Time (p_c), s	0.5	4.6		1.1		4.0						

Intersection Summary

HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Opening Year (2025) Plus Phase 1 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	586	1171	0	0	1061	520	125	0	270	0	0	0
Future Volume (veh/h)	586	1171	0	0	1061	520	125	0	270	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	610	1220	0	0	1105	245	168	0	82			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	702	3458	0	0	2132	662	684	0	304			
Arrive On Green	0.20	0.67	0.00	0.00	0.41	0.41	0.19	0.00	0.19			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	3619	0	1610			
Grp Volume(v), veh/h	610	1220	0	0	1105	245	168	0	82			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	15.1	9.2	0.0	0.0	14.3	9.5	3.6	0.0	3.9			
Cycle Q Clear(g_c), s	15.1	9.2	0.0	0.0	14.3	9.5	3.6	0.0	3.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	702	3458	0	0	2132	662	684	0	304			
V/C Ratio(X)	0.87	0.35	0.00	0.00	0.52	0.37	0.25	0.00	0.27			
Avail Cap(c_a), veh/h	702	3458	0	0	2132	662	684	0	304			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.14	0.14	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	34.9	6.5	0.0	0.0	19.8	18.4	31.0	0.0	31.2			
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.0	0.9	1.6	0.9	0.0	2.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.3	2.5	0.0	0.0	5.4	3.5	1.6	0.0	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	6.6	0.0	0.0	20.7	20.0	31.9	0.0	33.4			
LnGrp LOS	D	A	A	A	C	B	C	A	C			
Approach Vol, veh/h		1830			1350			250				
Approach Delay, s/veh		16.8			20.6			32.4				
Approach LOS		B			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.5			23.0	43.5		23.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		60.0			18.0	37.0		17.0				
Max Q Clear Time (g_c+I1), s		11.2			17.1	16.3		5.9				
Green Ext Time (p_c), s		8.1			0.2	8.2		0.5				

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	817	91	132	629	227	161	831	74	259	866	188
Future Volume (veh/h)	301	817	91	132	629	227	161	831	74	259	866	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	342	928	27	150	715	150	183	944	74	294	984	53
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	963	427	216	952	422	319	838	66	321	898	398
Arrive On Green	0.12	0.27	0.27	0.12	0.26	0.26	0.13	0.25	0.25	0.13	0.25	0.25
Sat Flow, veh/h	1810	3610	1601	1810	3610	1601	1810	3390	266	1810	3610	1600
Grp Volume(v), veh/h	342	928	27	150	715	150	183	503	515	294	984	53
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1601	1810	1805	1850	1810	1805	1600
Q Serve(g_s), s	11.0	22.8	1.1	7.2	16.4	6.8	6.3	22.3	22.3	10.8	22.4	2.3
Cycle Q Clear(g_c), s	11.0	22.8	1.1	7.2	16.4	6.8	6.3	22.3	22.3	10.8	22.4	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	221	963	427	216	952	422	319	446	458	321	898	398
V/C Ratio(X)	1.55	0.96	0.06	0.69	0.75	0.36	0.57	1.13	1.13	0.92	1.10	0.13
Avail Cap(c_a), veh/h	221	963	427	221	963	427	321	446	458	321	898	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.76	0.76	0.76	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	32.6	24.6	38.1	30.4	26.9	22.0	33.9	33.9	23.4	33.8	26.3
Incr Delay (d2), s/veh	267.1	20.8	0.1	7.6	2.7	0.5	3.0	81.7	81.3	29.9	59.8	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	21.0	11.9	0.4	3.4	6.9	2.5	2.7	19.3	19.8	6.9	16.7	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	306.6	53.4	24.7	45.6	33.1	27.5	25.1	115.6	115.1	53.3	93.6	27.0
LnGrp LOS	F	D	C	D	C	C	C	F	F	D	F	C
Approach Vol, veh/h		1297			1015			1201			1331	
Approach Delay, s/veh		119.6			34.1			101.6			82.0	
Approach LOS		F			C			F			F	
Timer - Assigned Phs												
Phs Duration (G+Y+Rc), s	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	28.1	15.4	29.8	16.6	28.2	15.7	29.5				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.0	* 11	24.0	* 12	22.0	* 11	24.0				
Max Q Clear Time (g_c+I1), s	12.8	24.3	9.2	24.8	8.3	24.4	13.0	18.4				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.2	0.0	0.0	2.9				

Intersection Summary

HCM 6th Ctrl Delay	86.9
HCM 6th LOS	F

Notes

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

HCM 6th Signalized Intersection Summary

2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1141	50	60	887	50	50	150	60	60	140	50
Future Volume (veh/h)	60	1141	50	60	887	50	50	150	60	60	140	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	1311	33	69	1020	29	57	172	60	69	161	49
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	1838	820	102	1838	816	128	272	86	147	260	71
Arrive On Green	0.06	0.51	0.51	0.06	0.51	0.51	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1810	3610	1610	1810	3610	1602	240	1150	364	309	1100	300
Grp Volume(v), veh/h	69	1311	33	69	1020	29	289	0	0	279	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1602	1754	0	0	1709	0	0
Q Serve(g_s), s	2.3	17.0	0.6	2.3	11.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	17.0	0.6	2.3	11.7	0.5	8.7	0.0	0.0	8.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.20		0.21	0.25		0.18
Lane Grp Cap(c), veh/h	102	1838	820	102	1838	816	486	0	0	479	0	0
V/C Ratio(X)	0.67	0.71	0.04	0.67	0.55	0.04	0.59	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	1042	2079	927	1042	2079	923	1043	0	0	1020	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.1	11.5	7.5	28.1	10.2	7.5	21.0	0.0	0.0	20.9	0.0	0.0
Incr Delay (d2), s/veh	15.2	1.5	0.0	15.2	0.6	0.0	2.5	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.2	0.2	1.3	3.5	0.1	3.7	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	12.9	7.5	43.3	10.8	7.5	23.5	0.0	0.0	23.3	0.0	0.0
LnGrp LOS	D	B	A	D	B	A	C	A	A	C	A	A
Approach Vol, veh/h	1413			1118			289			279		
Approach Delay, s/veh	14.3			12.7			23.5			23.3		
Approach LOS	B			B			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	34.9		18.4	7.4	34.9		18.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	35.0	35.0		35.0	35.0	35.0		35.0				
Max Q Clear Time (g_c+I), s	14.3	19.0		10.6	4.3	13.7		10.7				
Green Ext Time (p_c), s	0.4	11.9		3.2	0.4	11.8		3.3				
Intersection Summary												
HCM 6th Ctrl Delay			15.4									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1098	103	50	866	60	112	250	50	115	281	60
Future Volume (veh/h)	30	1098	103	50	866	60	112	250	50	115	281	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/lane	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	1234	53	56	973	31	126	281	48	129	316	48
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	1614	716	106	1664	740	269	421	72	195	838	126
Arrive On Green	0.04	0.45	0.45	0.12	0.92	0.92	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1601	1810	3610	1605	1031	1580	270	1065	3144	473
Grp Volume(v), veh/h	34	1234	53	56	973	31	126	0	329	129	180	184
Grp Sat Flow(s), veh/h/lane	1810	1805	1601	1810	1805	1605	1031	0	1850	1065	1805	1812
Q Serve(g_s), s	1.6	25.9	1.7	2.6	4.1	0.1	10.2	0.0	14.3	9.7	7.3	7.5
Cycle Q Clear(g_c), s	1.6	25.9	1.7	2.6	4.1	0.1	17.7	0.0	14.3	24.0	7.3	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.26
Lane Grp Cap(c), veh/h	81	1614	716	106	1664	740	269	0	493	195	481	483
V/C Ratio(X)	0.42	0.76	0.07	0.53	0.58	0.04	0.47	0.00	0.67	0.66	0.37	0.38
Avail Cap(c_a), veh/h	181	1614	716	181	1664	740	269	0	493	195	481	483
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	20.9	14.2	38.6	2.1	1.9	34.2	0.0	29.4	40.7	26.9	26.9
Incr Delay (d2), s/veh	7.3	3.5	0.2	7.3	1.3	0.1	5.7	0.0	7.0	16.3	2.2	2.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/lane	0.9	10.4	0.6	1.3	1.0	0.1	2.9	0.0	7.0	3.7	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.2	24.4	14.4	45.9	3.4	2.0	39.9	0.0	36.4	56.9	29.1	29.2
LnGrp LOS	D	C	B	D	A	A	D	A	D	E	C	C
Approach Vol, veh/h		1321			1060			455			493	
Approach Delay, s/veh		24.7			5.6			37.4			36.4	
Approach LOS		C			A			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	11.0	48.5		30.5	12.3	47.2				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	9.0	38.0		* 24	9.0	* 39				
Max Q Clear Time (g_c+I1), s		19.7	3.6	6.1		26.0	4.6	27.9				
Green Ext Time (p_c), s		1.1	0.0	14.2		0.0	0.1	8.5				

Intersection Summary

HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

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

HCM 6th Signalized Intersection Summary
4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1111	103	40	884	70	52	133	20	70	154	40
Future Volume (veh/h)	40	1111	103	40	884	70	52	133	20	70	154	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	1248	59	45	993	41	58	149	5	79	173	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	1723	764	81	1723	764	51	106	368	53	73	368
Arrive On Green	0.05	0.48	0.48	0.05	0.48	0.48	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	0	415	1441	0	286	1441
Grp Volume(v), veh/h	45	1248	59	45	993	41	207	0	5	252	0	10
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	415	0	1441	286	0	1441
Q Serve(g_s), s	2.2	24.9	1.8	2.2	17.9	1.2	0.0	0.0	0.2	0.0	0.0	0.5
Cycle Q Clear(g_c), s	2.2	24.9	1.8	2.2	17.9	1.2	23.0	0.0	0.2	23.0	0.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	0.28		1.00	0.31		1.00
Lane Grp Cap(c), veh/h	81	1723	764	81	1723	764	157	0	368	126	0	368
V/C Ratio(X)	0.55	0.72	0.08	0.55	0.58	0.05	1.32	0.00	0.01	2.00	0.00	0.03
Avail Cap(c_a), veh/h	181	1723	764	181	1723	764	157	0	368	126	0	368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.42	0.42	0.42	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	18.8	12.8	42.1	17.0	12.6	31.2	0.0	25.0	32.6	0.0	25.1
Incr Delay (d2), s/veh	1.3	1.7	0.1	0.9	0.6	0.1	180.2	0.0	0.0	478.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	9.5	0.6	1.0	6.7	0.4	10.4	0.0	0.1	19.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	20.5	12.9	43.0	17.6	12.7	211.4	0.0	25.0	511.5	0.0	25.1
LnGrp LOS	D	C	B	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1352			1079			212			262	
Approach Delay, s/veh		20.9			18.4			207.0			493.0	
Approach LOS		C			B			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	49.9		29.0	11.1	49.9		29.0				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	38.0	38.0		23.0	9.0	38.0		23.0				
Max Q Clear Time (g_c+1/2), s	14.2	26.9		25.0	4.2	19.9		25.0				
Green Ext Time (p_c), s	0.0	6.9		0.0	0.0	7.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	76.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

5: Mission Blvd & Grove Ave

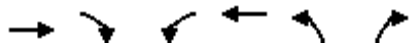
Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	303	733	175	50	707	444	122	717	30	577	1075	255
Future Volume (veh/h)	303	733	175	50	707	444	122	717	30	577	1075	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	333	805	83	55	777	128	134	788	32	634	1181	248
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	383	963	427	173	747	331	155	959	39	588	2217	861
Arrive On Green	0.11	0.27	0.27	0.05	0.21	0.21	0.09	0.19	0.19	0.33	0.43	0.43
Sat Flow, veh/h	3510	3610	1601	3510	3610	1598	1810	5112	207	1810	5187	1605
Grp Volume(v), veh/h	333	805	83	55	777	128	134	532	288	634	1181	248
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1598	1810	1729	1861	1810	1729	1605
Q Serve(g_s), s	15.8	35.6	6.8	2.6	35.0	11.7	12.4	25.0	25.1	55.0	28.6	14.3
Cycle Q Clear(g_c), s	15.8	35.6	6.8	2.6	35.0	11.7	12.4	25.0	25.1	55.0	28.6	14.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	383	963	427	173	747	331	155	649	349	588	2217	861
V/C Ratio(X)	0.87	0.84	0.19	0.32	1.04	0.39	0.87	0.82	0.82	1.08	0.53	0.29
Avail Cap(c_a), veh/h	622	963	427	415	747	331	214	715	385	588	2217	861
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	74.2	58.6	48.0	77.7	67.1	57.9	76.4	66.0	66.0	57.1	35.9	21.5
Incr Delay (d2), s/veh	6.2	6.6	0.3	0.8	43.9	0.9	21.0	7.5	13.4	59.9	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	16.7	2.7	1.2	20.4	4.8	6.6	11.6	13.1	34.3	12.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.4	65.2	48.2	78.5	111.0	58.8	97.4	73.5	79.4	117.0	36.3	21.8
LnGrp LOS	F	E	D	E	F	E	F	E	E	F	D	C
Approach Vol, veh/h	1221			960			954			2063		
Approach Delay, s/veh	68.2			102.2			78.6			59.3		
Approach LOS	E			F			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	62.0	38.8	15.8	52.6	21.5	79.3	26.0	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+br), s	57.0	27.1	4.6	37.6	14.4	30.6	17.8	37.0				
Green Ext Time (p_c), s	0.0	3.8	0.1	3.4	0.1	16.4	0.7	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				72.9								
HCM 6th LOS				E								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵↵	↵
Traffic Volume (veh/h)	1139	140	80	1188	43	20
Future Volume (veh/h)	1139	140	80	1188	43	20
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1309	109	92	1366	49	2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2317	1030	119	2855	169	77
Arrive On Green	0.64	0.64	0.07	0.79	0.05	0.05
Sat Flow, veh/h	3705	1604	1810	3705	3510	1610
Grp Volume(v), veh/h	1309	109	92	1366	49	2
Grp Sat Flow(s),veh/h/ln	1805	1604	1810	1805	1755	1610
Q Serve(g_s), s	18.3	2.3	4.5	11.5	1.2	0.1
Cycle Q Clear(g_c), s	18.3	2.3	4.5	11.5	1.2	0.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2317	1030	119	2855	169	77
V/C Ratio(X)	0.56	0.11	0.77	0.48	0.29	0.03
Avail Cap(c_a), veh/h	2317	1030	251	2855	702	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.28	0.28	0.69	0.69	1.00	1.00
Uniform Delay (d), s/veh	9.1	6.2	41.4	3.2	41.4	40.8
Incr Delay (d2), s/veh	0.3	0.1	5.5	0.4	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.6	2.1	1.5	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	6.2	46.9	3.6	42.1	40.9
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1418			1458	51	
Approach Delay, s/veh	9.1			6.3	42.0	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	33.4	65.3		11.3		78.7
Change Period (Y+Rc), s	7.5	* 7.5		7.0		7.5
Max Green Setting (Gmax), s	12.5	* 38		18.0		57.5
Max Q Clear Time (g_c+I), s	10.5	20.3		3.2		13.5
Green Ext Time (p_c), s	0.1	6.9		0.1		11.8

Intersection Summary

HCM 6th Ctrl Delay		8.3	
HCM 6th LOS		A	

Notes

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

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	10	0	90	10	0	10	10	60	10	10	0
Future Vol, veh/h	0	10	0	90	10	0	10	10	60	10	10	0
Peak Hour Factor	0.92	0.92	0.92	0.84	0.92	0.84	0.92	0.84	0.84	0.84	0.84	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	107	11	0	11	12	71	12	12	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	8	8.4	7.4	8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	50%	0%	0%	100%	80%	75%	0%
Vol Thru, %	50%	0%	100%	0%	20%	25%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	60	10	50	51	13	7
LT Vol	10	0	0	50	41	10	0
Through Vol	10	0	10	0	10	3	7
RT Vol	0	60	0	0	0	0	0
Lane Flow Rate	23	71	11	59	59	16	8
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.032	0.083	0.015	0.085	0.084	0.023	0.011
Departure Headway (Hd)	5.121	4.168	4.919	5.203	5.104	5.299	4.922
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	703	864	731	681	694	679	731
Service Time	2.823	1.87	2.924	2.99	2.891	3.003	2.626
HCM Lane V/C Ratio	0.033	0.082	0.015	0.087	0.085	0.024	0.011
HCM Control Delay	8	7.2	8	8.5	8.4	8.1	7.7
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.3	0	0.3	0.3	0.1	0

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	60	0	0	100	0
Future Vol, veh/h	0	0	0	0	0	0	0	60	0	0	100	0
Conflicting Peds, #/hr	0	0	5	0	0	5	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	74	0	0	123	0
























Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	170	207	72	146	207	47	128	0	0	79	0	0
Stage 1	128	128	-	79	79	-	-	-	-	-	-	-
Stage 2	42	79	-	67	128	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	783	693	982	814	693	1019	1470	-	-	1532	-	-
Stage 1	868	794	-	927	833	-	-	-	-	-	-	-
Stage 2	973	833	-	941	794	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	775	686	973	806	686	1009	1463	-	-	1525	-	-
Mov Cap-2 Maneuver	775	686	-	806	686	-	-	-	-	-	-	-
Stage 1	864	790	-	922	829	-	-	-	-	-	-	-
Stage 2	968	829	-	937	790	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1463	-	-	-	-	1525	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary
9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1049	200	80	1204	10	143	30	30	10	40	50
Future Volume (veh/h)	30	1049	200	80	1204	10	143	30	30	10	40	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	1179	156	90	1353	11	161	34	6	11	45	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	1510	674	158	1674	14	326	594	265	330	594	
Arrive On Green	0.05	0.42	0.42	0.09	0.46	0.46	0.16	0.16	0.16	0.16	0.16	0.00
Sat Flow, veh/h	1810	3610	1610	1810	3670	30	1383	3610	1610	1389	3610	1610
Grp Volume(v), veh/h	34	1179	156	90	665	699	161	34	6	11	45	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1895	1383	1805	1610	1389	1805	1610
Q Serve(g_s), s	1.2	18.0	4.0	3.0	20.2	20.2	7.1	0.5	0.2	0.4	0.7	0.0
Cycle Q Clear(g_c), s	1.2	18.0	4.0	3.0	20.2	20.2	7.8	0.5	0.2	0.9	0.7	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	1510	674	158	823	864	326	594	265	330	594	
V/C Ratio(X)	0.38	0.78	0.23	0.57	0.81	0.81	0.49	0.06	0.02	0.03	0.08	
Avail Cap(c_a), veh/h	568	1700	758	568	850	892	532	1133	505	538	1133	
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	0.00
Uniform Delay (d), s/veh	29.3	16.0	11.9	27.9	14.9	14.9	25.8	22.5	22.3	22.8	22.5	0.0
Incr Delay (d2), s/veh	1.0	2.4	0.2	1.2	6.0	5.8	2.0	0.1	0.1	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	6.0	1.1	1.2	7.3	7.6	2.4	0.2	0.1	0.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.3	18.4	12.2	29.1	20.9	20.7	27.8	22.5	22.4	22.9	22.6	0.0
LnGrp LOS	C	B	B	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		1369			1454			201			56	A
Approach Delay, s/veh		18.0			21.3			26.7			22.7	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	33.7		17.5	10.2	36.1		17.5				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	20.0	30.0		20.0	20.0	30.0		20.0				
Max Q Clear Time (g_c+I1), s	5.0	20.0		2.9	3.2	22.2		9.8				
Green Ext Time (p_c), s	0.1	6.7		0.2	0.0	5.6		0.8				

Intersection Summary

HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	120	71	30	140	20	121	270	110	20	250	30
Future Volume (veh/h)	23	120	71	30	140	20	121	270	110	20	250	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	132	12	33	154	3	133	297	62	22	275	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	238	376	165	250	401	177	661	1754	780	600	1600	711
Arrive On Green	0.03	0.10	0.10	0.04	0.11	0.11	0.07	0.49	0.49	0.03	0.44	0.44
Sat Flow, veh/h	1810	3610	1587	1810	3610	1588	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	25	132	12	33	154	3	133	297	62	22	275	14
Grp Sat Flow(s),veh/h/ln	1810	1805	1587	1810	1805	1588	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	1.0	2.7	0.5	1.3	3.1	0.1	3.0	3.6	1.6	0.5	3.6	0.4
Cycle Q Clear(g_c), s	1.0	2.7	0.5	1.3	3.1	0.1	3.0	3.6	1.6	0.5	3.6	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	376	165	250	401	177	661	1754	780	600	1600	711
V/C Ratio(X)	0.11	0.35	0.07	0.13	0.38	0.02	0.20	0.17	0.08	0.04	0.17	0.02
Avail Cap(c_a), veh/h	523	1600	703	522	1600	704	874	1754	780	891	1600	711
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	29.9	32.9	31.9	29.6	32.6	31.3	10.1	11.4	10.9	11.1	13.3	12.4
Incr Delay (d2), s/veh	0.2	0.8	0.3	0.2	0.9	0.1	0.2	0.2	0.2	0.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.1	0.2	0.5	1.3	0.1	1.0	1.3	0.5	0.2	1.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	33.7	32.2	29.8	33.5	31.3	10.3	11.6	11.1	11.2	13.5	12.4
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h	169			190			492			311		
Approach Delay, s/veh	33.1			32.8			11.2			13.3		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	45.4	9.6	14.7	12.7	42.0	9.0	15.3				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	15.0	35.0	15.0	35.0	15.0	35.0	15.0	35.0				
Max Q Clear Time (g_c+1), s	12.5	5.6	3.3	4.7	5.0	5.6	3.0	5.1				
Green Ext Time (p_c), s	0.0	2.8	0.0	1.1	0.3	2.4	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↖	↗	↖	↗
Traffic Volume (veh/h)	30	200	160	70	270	70	140	601	130	70	271	20
Future Volume (veh/h)	30	200	160	70	270	70	140	601	130	70	271	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	208	31	73	281	44	146	626	48	73	282	16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	181	355	52	226	421	65	178	1549	691	94	1329	75
Arrive On Green	0.02	0.11	0.11	0.04	0.13	0.13	0.20	0.86	0.86	0.05	0.38	0.38
Sat Flow, veh/h	1810	3152	462	1810	3128	484	1810	3610	1610	1810	3473	196
Grp Volume(v), veh/h	31	118	121	73	161	164	146	626	48	73	146	152
Grp Sat Flow(s),veh/h/ln	1810	1805	1809	1810	1805	1807	1810	1805	1610	1810	1805	1864
Q Serve(g_s), s	1.2	5.0	5.1	2.8	6.8	6.9	6.2	3.0	0.4	3.2	4.3	4.4
Cycle Q Clear(g_c), s	1.2	5.0	5.1	2.8	6.8	6.9	6.2	3.0	0.4	3.2	4.3	4.4
Prop In Lane	1.00		0.26	1.00		0.27	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	181	203	204	226	243	243	178	1549	691	94	691	713
V/C Ratio(X)	0.17	0.58	0.59	0.32	0.66	0.68	0.82	0.40	0.07	0.78	0.21	0.21
Avail Cap(c_a), veh/h	220	395	396	226	395	395	204	1549	691	113	691	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	0.99	0.99	0.99
Uniform Delay (d), s/veh	30.7	33.7	33.8	29.8	32.9	32.9	31.4	3.5	3.3	37.5	16.6	16.6
Incr Delay (d2), s/veh	0.2	1.9	2.1	0.3	2.3	2.4	16.5	0.7	0.2	19.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	2.2	1.2	2.9	3.0	3.1	0.9	0.1	1.8	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	35.6	35.8	30.1	35.2	35.4	47.9	4.2	3.4	56.5	17.3	17.3
LnGrp LOS	C	D	D	C	D	D	D	A	A	E	B	B
Approach Vol, veh/h		270			398			820			371	
Approach Delay, s/veh		35.2			34.3			11.9			25.0	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	41.3	11.0	16.5	14.9	37.6	9.2	18.3				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	15.0	25.0	3.5	17.5	9.0	21.0	3.5	17.5				
Max Q Clear Time (g_c+1/2), s	15.2	5.0	4.8	7.1	8.2	6.4	3.2	8.9				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.6	0.0	1.0	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	10	130	10	50	20	781	500	110	401	10
Future Volume (veh/h)	10	10	10	130	10	50	20	781	500	110	401	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	1	141	0	7	21	805	225	113	413	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	59	55	6	330	0	145	51	1854	823	113	1980	43
Arrive On Green	0.03	0.03	0.03	0.09	0.00	0.09	0.01	0.17	0.17	0.13	1.00	1.00
Sat Flow, veh/h	1810	1699	170	3619	0	1584	1810	3610	1602	1810	3612	79
Grp Volume(v), veh/h	10	0	11	141	0	7	21	805	225	113	206	216
Grp Sat Flow(s),veh/h/ln	1810	0	1869	1810	0	1584	1810	1805	1602	1810	1805	1885
Q Serve(g_s), s	0.4	0.0	0.5	2.9	0.0	0.3	0.9	16.0	9.8	5.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.5	2.9	0.0	0.3	0.9	16.0	9.8	5.0	0.0	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	59	0	61	330	0	145	51	1854	823	113	989	1033
V/C Ratio(X)	0.17	0.00	0.18	0.43	0.00	0.05	0.41	0.43	0.27	1.00	0.21	0.21
Avail Cap(c_a), veh/h	181	0	187	769	0	337	136	1854	823	113	989	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	0.98	0.98	0.98
Uniform Delay (d), s/veh	37.6	0.0	37.7	34.4	0.0	33.2	39.0	22.8	20.2	35.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.6	0.0	0.1	5.7	0.7	0.7	83.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	1.3	0.0	0.1	0.5	7.7	3.8	4.6	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	38.2	35.0	0.0	33.3	44.6	23.5	20.9	118.5	0.5	0.5
LnGrp LOS	D	A	D	D	A	C	D	C	C	F	A	A
Approach Vol, veh/h		21			148			1051			535	
Approach Delay, s/veh		38.2			34.9			23.3			25.4	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	48.1		7.6	9.2	50.8		12.3				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	5.0	26.0		8.0	6.0	25.0		17.0				
Max Q Clear Time (g_c+1), s	17.0	18.0		2.5	2.9	2.0		4.9				
Green Ext Time (p_c), s	0.0	4.1		0.0	0.0	1.7		0.3				

Intersection Summary

HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						↕ ↗	↖ ↗	↕ ↗			↕ ↗	↖ ↗
Traffic Volume (veh/h)	0	0	0	197	0	410	220	891	0	0	391	150
Future Volume (veh/h)	0	0	0	197	0	410	220	891	0	0	391	150
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				207	0	332	232	938	0	0	412	58
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				461	0	411	362	3112	0	0	1751	539
Arrive On Green				0.25	0.00	0.25	0.40	1.00	0.00	0.00	0.11	0.11
Sat Flow, veh/h				1810	0	1610	1810	5358	0	0	5358	1598
Grp Volume(v), veh/h				207	0	332	232	938	0	0	412	58
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1598
Q Serve(g_s), s				7.7	0.0	15.5	8.3	0.0	0.0	0.0	5.8	2.6
Cycle Q Clear(g_c), s				7.7	0.0	15.5	8.3	0.0	0.0	0.0	5.8	2.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				461	0	411	362	3112	0	0	1751	539
V/C Ratio(X)				0.45	0.00	0.81	0.64	0.30	0.00	0.00	0.24	0.11
Avail Cap(c_a), veh/h				461	0	411	362	3112	0	0	1751	539
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.79	0.79	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				25.1	0.0	28.0	21.7	0.0	0.0	0.0	26.1	24.7
Incr Delay (d2), s/veh				3.1	0.0	15.7	6.7	0.2	0.0	0.0	0.3	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
%ile BackOfQ(50%),veh/ln				3.6	0.0	7.5	3.4	0.1	0.0	0.0	2.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.2	0.0	43.6	28.4	0.2	0.0	0.0	26.4	25.1
LnGrp LOS				C	A	D	C	A	A	A	C	C
Approach Vol, veh/h					539			1170			470	
Approach Delay, s/veh					37.7			5.8			26.3	
Approach LOS					D			A			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		53.8			21.0	32.8		26.2				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			10.3	7.8		17.5				
Green Ext Time (p_c), s		5.7			0.2	2.1		1.2				
Intersection Summary												
HCM 6th Ctrl Delay											18.1	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↕↕		↗	↕↕↕	
Traffic Volume (veh/h)	550	0	180	0	0	0	0	601	383	160	418	0
Future Volume (veh/h)	550	0	180	0	0	0	0	601	383	160	418	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	579	0	61				0	633	276	168	440	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	575	0	511				0	1270	542	213	2788	0
Arrive On Green	0.32	0.00	0.32				0.00	0.36	0.36	0.04	0.18	0.00
Sat Flow, veh/h	1810	0	1610				0	3726	1518	1810	5358	0
Grp Volume(v), veh/h	579	0	61				0	615	294	168	440	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1614	1810	1729	0
Q Serve(g_s), s	25.4	0.0	2.1				0.0	11.1	11.4	7.4	5.7	0.0
Cycle Q Clear(g_c), s	25.4	0.0	2.1				0.0	11.1	11.4	7.4	5.7	0.0
Prop In Lane	1.00		1.00				0.00		0.94	1.00		0.00
Lane Grp Cap(c), veh/h	575	0	511				0	1235	577	213	2788	0
V/C Ratio(X)	1.01	0.00	0.12				0.00	0.50	0.51	0.79	0.16	0.00
Avail Cap(c_a), veh/h	575	0	511				0	1235	577	271	2788	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	27.3	0.0	19.4				0.0	20.1	20.2	37.5	17.6	0.0
Incr Delay (d2), s/veh	39.5	0.0	0.5				0.0	1.4	3.2	8.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.6	0.0	0.8				0.0	4.3	4.4	3.8	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.8	0.0	19.8				0.0	21.5	23.4	45.9	17.7	0.0
LnGrp LOS	F	A	B				A	C	C	D	B	A
Approach Vol, veh/h		640						909			608	
Approach Delay, s/veh		62.3						22.1			25.5	
Approach LOS		E						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	14.4	34.4	31.2	48.8								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	12.0	26.0	25.4	43.0								
Max Q Clear Time (g_c+I), s	19.4	13.4	27.4	7.7								
Green Ext Time (p_c), s	0.1	3.8	0.0	2.3								
Intersection Summary												
HCM 6th Ctrl Delay			35.0									
HCM 6th LOS			D									

Intersection												
Intersection Delay, s/veh	16.8											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔	↔		↔	↔	↔	↔	↔
Traffic Vol, veh/h	10	110	20	378	120	180	30	120	160	90	30	10
Future Vol, veh/h	10	110	20	378	120	180	30	120	160	90	30	10
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	129	24	445	141	212	35	141	188	106	35	12
Number of Lanes	0	1	1	1	1	1	0	1	2	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	3
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	3	2	3
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	3	2	3	2
HCM Control Delay	14.8	19	13.9	14.2
HCM LOS	B	C	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	20%	0%	0%	8%	0%	100%	52%	0%	100%	0%
Vol Thru, %	80%	0%	0%	92%	0%	0%	48%	0%	0%	75%
Vol Right, %	0%	100%	100%	0%	100%	0%	0%	100%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	150	80	80	120	20	246	252	180	90	40
LT Vol	30	0	0	10	0	246	132	0	90	0
Through Vol	120	0	0	110	0	0	120	0	0	30
RT Vol	0	80	80	0	20	0	0	180	0	10
Lane Flow Rate	176	94	94	141	24	289	297	212	106	47
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.398	0.191	0.191	0.332	0.05	0.609	0.606	0.375	0.267	0.11
Departure Headway (Hd)	8.129	7.315	7.315	8.477	7.721	7.59	7.349	6.374	9.075	8.386
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	443	489	489	424	462	474	490	563	395	426
Service Time	5.889	5.075	5.075	6.25	5.494	5.341	5.1	4.125	6.845	6.156
HCM Lane V/C Ratio	0.397	0.192	0.192	0.333	0.052	0.61	0.606	0.377	0.268	0.11
HCM Control Delay	16.2	11.8	11.8	15.4	10.9	21.5	20.8	12.9	15.1	12.2
HCM Lane LOS	C	B	B	C	B	C	C	B	C	B
HCM 95th-tile Q	1.9	0.7	0.7	1.4	0.2	4	4	1.7	1.1	0.4

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕	↗	↗	↕	↗
Traffic Volume (veh/h)	10	0	10	10	0	10	20	350	40	20	408	20
Future Volume (veh/h)	10	0	10	10	0	10	20	350	40	20	408	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.96		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	0	1	12	0	12	24	422	36	24	492	17
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.84	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	154	0	101	81	13	49	83	2580	1147	83	2580	1147
Arrive On Green	0.06	0.00	0.06	0.06	0.00	0.06	0.05	0.71	0.71	0.05	0.71	0.71
Sat Flow, veh/h	1452	0	1562	558	206	764	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	12	0	1	24	0	0	24	422	36	24	492	17
Grp Sat Flow(s),veh/h/ln1452	0	1562	1528	0	0	1810	1805	1605	1810	1805	1605	1605
Q Serve(g_s), s	0.0	0.0	0.1	0.0	0.0	0.0	1.5	4.5	0.8	1.5	5.4	0.4
Cycle Q Clear(g_c), s	0.8	0.0	0.1	1.6	0.0	0.0	1.5	4.5	0.8	1.5	5.4	0.4
Prop In Lane	1.00		1.00	0.50		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	154	0	101	144	0	0	83	2580	1147	83	2580	1147
V/C Ratio(X)	0.08	0.00	0.01	0.17	0.00	0.00	0.29	0.16	0.03	0.29	0.19	0.01
Avail Cap(c_a), veh/h	443	0	430	453	0	0	196	2580	1147	196	2580	1147
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	0.00	1.00	1.00	0.00	0.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	0.0	52.5	53.2	0.0	0.0	55.4	5.5	5.0	55.4	5.7	4.9
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	2.1	0.1	0.0	2.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.4	0.0	0.0	0.7	0.0	0.0	0.0	0.7	1.5	0.2	0.7	1.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	0.0	52.6	53.9	0.0	0.0	57.4	5.7	5.0	57.6	5.8	5.0
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	A	A
Approach Vol, veh/h		13			24			482			533	
Approach Delay, s/veh		53.1			53.9			8.2			8.1	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	92.7		14.7	12.5	92.7		14.7				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1), s	13.5	6.5		2.8	3.5	7.4		3.6				
Green Ext Time (p_c), s	0.0	5.9		0.0	0.0	6.8		0.1				

Intersection Summary

HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	609	150	120	896	50	220	240	70	20	240	158
Future Volume (veh/h)	100	609	150	120	896	50	220	240	70	20	240	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	648	59	128	953	53	234	255	13	21	255	168
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	895	397	156	900	50	299	314	263	22	263	174
Arrive On Green	0.08	0.25	0.25	0.09	0.26	0.26	0.17	0.17	0.17	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1600	1810	3476	193	1810	1900	1596	84	1017	670
Grp Volume(v), veh/h	106	648	59	128	495	511	234	255	13	444	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1600	1810	1805	1864	1810	1900	1596	1771	0	0
Q Serve(g_s), s	6.7	19.1	3.3	8.1	30.0	30.0	14.4	15.0	0.8	28.7	0.0	0.0
Cycle Q Clear(g_c), s	6.7	19.1	3.3	8.1	30.0	30.0	14.4	15.0	0.8	28.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	0.05		0.38
Lane Grp Cap(c), veh/h	136	895	397	156	467	483	299	314	263	459	0	0
V/C Ratio(X)	0.78	0.72	0.15	0.82	1.06	1.06	0.78	0.81	0.05	0.97	0.00	0.00
Avail Cap(c_a), veh/h	391	935	415	312	467	483	469	492	413	459	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	52.6	39.9	34.0	52.0	42.9	42.9	46.4	46.6	40.7	42.4	0.0	0.0
Incr Delay (d2), s/veh	7.0	3.4	0.4	4.0	58.0	57.4	5.4	6.6	0.1	33.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	8.4	1.3	3.7	20.0	20.6	6.8	7.5	0.3	16.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	43.4	34.4	56.1	100.9	100.3	51.7	53.3	40.8	76.3	0.0	0.0
LnGrp LOS	E	D	C	E	F	F	D	D	D	E	A	A
Approach Vol, veh/h		813			1134			502			444	
Approach Delay, s/veh		44.8			95.6			52.2			76.3	
Approach LOS		D			F			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.5	36.2		36.5	16.2	37.5		25.6				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	10.1	21.1		30.7	8.7	32.0		17.0				
Green Ext Time (p_c), s	0.1	4.3		0.0	0.1	0.0		2.1				

Intersection Summary

HCM 6th Ctrl Delay	70.8
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	20	100	10	10	10	220	480	30	20	350	130
Future Volume (veh/h)	40	20	100	10	10	10	220	480	30	20	350	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	22	20	11	11	11	244	533	19	22	389	58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	120	286	225	43	387	170	281	1832	815	59	1997	618
Arrive On Green	0.07	0.15	0.15	0.02	0.11	0.11	0.16	0.51	0.51	0.03	0.39	0.39
Sat Flow, veh/h	1810	1909	1507	1810	3610	1588	1810	3610	1605	1810	5187	1604
Grp Volume(v), veh/h	44	21	21	11	11	11	244	533	19	22	389	58
Grp Sat Flow(s),veh/h/ln	1810	1805	1611	1810	1805	1588	1810	1805	1605	1810	1729	1604
Q Serve(g_s), s	2.1	0.9	1.0	0.5	0.2	0.6	12.0	7.8	0.5	1.1	4.5	2.1
Cycle Q Clear(g_c), s	2.1	0.9	1.0	0.5	0.2	0.6	12.0	7.8	0.5	1.1	4.5	2.1
Prop In Lane	1.00		0.94	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	270	241	43	387	170	281	1832	815	59	1997	618
V/C Ratio(X)	0.37	0.08	0.09	0.25	0.03	0.06	0.87	0.29	0.02	0.37	0.19	0.09
Avail Cap(c_a), veh/h	398	496	443	398	993	437	398	1832	815	398	1997	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	33.2	33.3	43.6	36.3	36.5	37.5	12.9	11.2	43.0	18.6	17.8
Incr Delay (d2), s/veh	0.7	0.1	0.1	1.1	0.0	0.1	10.4	0.4	0.1	1.4	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4	0.4	0.2	0.1	0.2	5.8	2.9	0.2	0.5	1.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	33.3	33.4	44.7	36.4	36.6	47.8	13.3	11.2	44.5	18.8	18.1
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		86			33			796			469	
Approach Delay, s/veh		37.4			39.2			23.9			19.9	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	52.6	8.7	20.1	20.6	41.5	12.5	16.2				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	13.1	9.8	2.5	3.0	14.0	6.5	4.1	2.6				
Green Ext Time (p_c), s	0.0	4.1	0.0	0.1	0.2	3.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗	↗	↖	↗	↗
Traffic Volume (veh/h)	10	10	21	20	10	30	71	710	70	50	360	30
Future Volume (veh/h)	10	10	21	20	10	30	71	710	70	50	360	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	11	3	22	11	4	79	789	42	56	400	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	292	76	77	439	194	121	2632	815	106	2458	182
Arrive On Green	0.02	0.10	0.10	0.04	0.12	0.12	0.07	0.51	0.51	0.06	0.50	0.50
Sat Flow, veh/h	1810	2826	734	1810	3610	1590	1810	5187	1605	1810	4926	365
Grp Volume(v), veh/h	11	7	7	22	11	4	79	789	42	56	279	151
Grp Sat Flow(s),veh/h/ln	1810	1805	1755	1810	1805	1590	1810	1729	1605	1810	1729	1833
Q Serve(g_s), s	0.5	0.3	0.3	1.1	0.2	0.2	3.8	8.0	1.2	2.7	4.0	4.0
Cycle Q Clear(g_c), s	0.5	0.3	0.3	1.1	0.2	0.2	3.8	8.0	1.2	2.7	4.0	4.0
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	43	187	182	77	439	194	121	2632	815	106	1726	915
V/C Ratio(X)	0.25	0.04	0.04	0.29	0.03	0.02	0.65	0.30	0.05	0.53	0.16	0.16
Avail Cap(c_a), veh/h	502	721	701	502	1441	635	502	2632	815	502	1726	915
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	43.2	36.4	36.4	41.9	34.9	34.9	41.0	12.9	11.2	41.2	12.3	12.3
Incr Delay (d2), s/veh	1.1	0.1	0.1	0.8	0.0	0.0	2.2	0.3	0.1	1.5	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.1	0.5	0.1	0.1	1.7	2.8	0.4	1.2	1.4	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	36.4	36.5	42.6	34.9	34.9	43.3	13.2	11.4	42.8	12.5	12.7
LnGrp LOS	D	D	D	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		25			37			910			486	
Approach Delay, s/veh		39.9			39.5			15.7			16.1	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	52.3	10.3	15.8	12.5	51.5	8.7	17.5				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	25.0	45.0	25.0	36.0	25.0	45.0	25.0	36.0				
Max Q Clear Time (g_c+1), s	14.7	10.0	3.1	2.3	5.8	6.0	2.5	2.2				
Green Ext Time (p_c), s	0.0	7.0	0.0	0.0	0.1	3.2	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	50	200	150	140	440	60	380	771	230	50	311	50
Future Volume (veh/h)	50	200	150	140	440	60	380	771	230	50	311	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	217	34	152	478	15	413	838	103	54	338	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	275	611	270	351	689	305	496	2030	628	193	1581	488
Arrive On Green	0.08	0.17	0.17	0.10	0.19	0.19	0.14	0.39	0.39	0.05	0.30	0.30
Sat Flow, veh/h	3510	3610	1596	3510	3610	1598	3510	5187	1604	3510	5187	1602
Grp Volume(v), veh/h	54	217	34	152	478	15	413	838	103	54	338	17
Grp Sat Flow(s),veh/h/ln	1755	1805	1596	1755	1805	1598	1755	1729	1604	1755	1729	1602
Q Serve(g_s), s	1.4	5.2	1.8	4.0	12.2	0.8	11.3	11.5	4.1	1.5	4.8	0.7
Cycle Q Clear(g_c), s	1.4	5.2	1.8	4.0	12.2	0.8	11.3	11.5	4.1	1.5	4.8	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	611	270	351	689	305	496	2030	628	193	1581	488
V/C Ratio(X)	0.20	0.36	0.13	0.43	0.69	0.05	0.83	0.41	0.16	0.28	0.21	0.03
Avail Cap(c_a), veh/h	713	1100	486	713	1100	487	713	2030	628	713	1581	488
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	42.4	36.1	34.7	41.7	37.1	32.5	41.1	21.7	19.5	44.6	25.4	24.0
Incr Delay (d2), s/veh	0.3	0.4	0.3	0.6	1.5	0.1	4.9	0.6	0.6	0.6	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.2	0.7	1.7	5.2	0.3	5.0	4.5	1.5	0.6	1.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	36.6	34.9	42.3	38.7	32.6	46.1	22.4	20.0	45.2	25.7	24.2
LnGrp LOS	D	D	C	D	D	C	D	C	C	D	C	C
Approach Vol, veh/h		305			645			1354			409	
Approach Delay, s/veh		37.5			39.4			29.4			28.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	45.0	17.3	24.2	20.4	36.5	15.2	26.3				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1/5), s	13.5	13.5	6.0	7.2	13.3	6.8	3.4	14.2				
Green Ext Time (p_c), s	0.1	6.1	0.3	1.5	0.7	2.5	0.1	3.0				

Intersection Summary

HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↶	↶	↶			↷	↶
Traffic Volume (veh/h)	0	0	0	347	0	420	760	1121	0	0	451	140
Future Volume (veh/h)	0	0	0	347	0	420	760	1121	0	0	451	140
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				471	0	243	776	1144	0	0	460	23
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				941	0	419	1170	3170	0	0	1452	354
Arrive On Green				0.26	0.00	0.26	0.22	0.41	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1592
Grp Volume(v), veh/h				471	0	243	776	1144	0	0	460	23
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1592
Q Serve(g_s), s				10.0	0.0	11.8	18.1	13.8	0.0	0.0	5.3	1.0
Cycle Q Clear(g_c), s				10.0	0.0	11.8	18.1	13.8	0.0	0.0	5.3	1.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				941	0	419	1170	3170	0	0	1452	354
V/C Ratio(X)				0.50	0.00	0.58	0.66	0.36	0.00	0.00	0.32	0.07
Avail Cap(c_a), veh/h				941	0	419	1170	3170	0	0	1452	354
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.66	0.66	0.00	0.00	0.96	0.96
Uniform Delay (d), s/veh				28.3	0.0	29.0	30.3	14.4	0.0	0.0	29.3	27.6
Incr Delay (d2), s/veh				1.9	0.0	5.8	2.0	0.2	0.0	0.0	0.6	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.5	0.0	11.2	8.1	5.4	0.0	0.0	2.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.2	0.0	34.8	32.3	14.6	0.0	0.0	29.8	28.0
LnGrp LOS				C	A	C	C	B	A	A	C	C
Approach Vol, veh/h					714			1920			483	
Approach Delay, s/veh					31.8			21.8			29.7	
Approach LOS					C			C			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		60.8		29.2	35.0	25.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		55.0		23.4	30.0	20.0						
Max Q Clear Time (g_c+I1), s		15.8		13.8	20.1	7.3						
Green Ext Time (p_c), s		9.2		2.0	1.2	2.3						

Intersection Summary

HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	0	450	0	0	0	0	1511	613	120	678	0
Future Volume (veh/h)	360	0	450	0	0	0	0	1511	613	120	678	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	470	0	220				0	1542	203	122	692	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1222	0	544				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.05	0.18	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	470	0	220				0	1542	203	122	692	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	8.9	0.0	9.4				0.0	18.8	8.9	3.0	10.3	0.0
Cycle Q Clear(g_c), s	8.9	0.0	9.4				0.0	18.8	8.9	3.0	10.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1222	0	544				0	2106	515	546	2766	0
V/C Ratio(X)	0.38	0.00	0.40				0.00	0.73	0.39	0.22	0.25	0.00
Avail Cap(c_a), veh/h	1222	0	544				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.91	0.91	0.00
Uniform Delay (d), s/veh	22.7	0.0	22.9				0.0	27.1	23.7	37.5	21.6	0.0
Incr Delay (d2), s/veh	0.9	0.0	2.2				0.0	2.3	2.3	0.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	3.8				0.0	7.1	3.4	1.3	4.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	25.1				0.0	29.3	25.9	38.3	21.8	0.0
LnGrp LOS	C	A	C				A	C	C	D	C	A
Approach Vol, veh/h		690						1745			814	
Approach Delay, s/veh		24.1						29.0			24.2	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+1/3), s	15.0	20.8					12.3	11.4				
Green Ext Time (p_c), s	0.1	5.9					4.8	2.4				

Intersection Summary

HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	524	0	683	0	2334	0	0	1589	565	0	0
Future Volume (veh/h)	524	0	683	0	2334	0	0	1589	565	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	540	540	690	0	2406	0	0	1845	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	925	925	1641	0	2484	0	0	2888			
Arrive On Green	0.51	0.51	0.51	0.00	0.38	0.00	0.00	0.38	0.00		
Sat Flow, veh/h	1810	1810	3211	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	540	540	690	0	2406	0	0	1845	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1605	0	1634	0	0	1900	1610		
Q Serve(g_s), s	20.8	20.8	13.4	0.0	36.1	0.0	0.0	19.9	0.0		
Cycle Q Clear(g_c), s	20.8	20.8	13.4	0.0	36.1	0.0	0.0	19.9	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	925	925	1641	0	2484	0	0	2888			
V/C Ratio(X)	0.58	0.58	0.42	0.00	0.97	0.00	0.00	0.64			
Avail Cap(c_a), veh/h	925	925	1641	0	2484	0	0	2888			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	17.0	17.0	15.2	0.0	30.4	0.0	0.0	25.4	0.0		
Incr Delay (d2), s/veh	2.7	2.7	0.8	0.0	12.1	0.0	0.0	1.1	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.9	8.9	4.9	0.0	15.1	0.0	0.0	8.7	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	19.7	19.7	16.0	0.0	42.5	0.0	0.0	26.5	0.0		
LnGrp LOS	B	B	B	A	D	A	A	C			
Approach Vol, veh/h	1230	1230			2406			1845	A		
Approach Delay, s/veh	17.7	17.7			42.5			26.5			
Approach LOS	B	B			D			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	43.8		56.2		43.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	38.0		51.1		38.0						
Max Q Clear Time (g_c+I1), s	38.1		22.8		21.9						
Green Ext Time (p_c), s	0.0		2.6		8.5						

Intersection Summary

HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	997	0	790	0	1769	340	0	1635	0	0	0
Future Volume (veh/h)	997	0	790	0	1769	340	0	1635	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	1028	1028	800	0	1824	0	0	1686	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	961	961	1710	0	2353		0	2353	0		
Arrive On Green	0.53	0.53	0.53	0.00	0.36	0.00	0.00	0.36	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	1028	1028	800	0	1824	0	0	1686	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	53.1	53.1	15.5	0.0	24.8	0.0	0.0	22.2	0.0		
Cycle Q Clear(g_c), s	53.1	53.1	15.5	0.0	24.8	0.0	0.0	22.2	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	961	961	1710	0	2353		0	2353	0		
V/C Ratio(X)	1.07	1.07	0.47	0.00	0.78		0.00	0.72	0.00		
Avail Cap(c_a), veh/h	961	961	1710	0	2353		0	2353	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.85	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	23.5	23.5	14.6	0.0	28.4	0.0	0.0	27.6	0.0		
Incr Delay (d2), s/veh	49.6	49.6	0.9	0.0	2.2	0.0	0.0	1.9	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	34.0	34.0	5.6	0.0	9.8	0.0	0.0	8.5	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	73.1	73.1	15.6	0.0	30.6	0.0	0.0	29.5	0.0		
LnGrp LOS	F	F	B	A	C		A	C	A		
Approach Vol, veh/h	1828	1828			1824	A		1686			
Approach Delay, s/veh	47.9	47.9			30.6			29.5			
Approach LOS	D	D			C			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	41.8		58.2		41.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	36.0		53.1		36.0						
Max Q Clear Time (g_c+I1), s	26.8		55.1		24.2						
Green Ext Time (p_c), s	6.1		0.0		6.3						

Intersection Summary

HCM 6th Ctrl Delay	36.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖↗	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	50	30	30	80	50	200	230	1848	150	200	1895	340
Future Volume (veh/h)	50	30	30	80	50	200	230	1848	150	200	1895	340
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	30	3	81	51	14	232	1867	82	202	1914	270
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	263	164	137	300	184	271	291	3455	849	261	3399	835
Arrive On Green	0.07	0.09	0.09	0.09	0.10	0.10	0.08	0.53	0.53	0.07	0.52	0.52
Sat Flow, veh/h	3510	1900	1582	3510	1900	2790	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	51	30	3	81	51	14	232	1867	82	202	1914	270
Grp Sat Flow(s),veh/h/ln	1755	1900	1582	1755	1900	1395	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	1.6	1.8	0.2	2.6	3.0	0.5	7.8	22.6	3.0	6.8	23.9	11.6
Cycle Q Clear(g_c), s	1.6	1.8	0.2	2.6	3.0	0.5	7.8	22.6	3.0	6.8	23.9	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	164	137	300	184	271	291	3455	849	261	3399	835
V/C Ratio(X)	0.19	0.18	0.02	0.27	0.28	0.05	0.80	0.54	0.10	0.77	0.56	0.32
Avail Cap(c_a), veh/h	453	372	310	453	372	546	556	3455	849	556	3399	835
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	0.27	0.27	0.27	0.69	0.69	0.69
Uniform Delay (d), s/veh	52.1	50.9	50.2	51.4	50.3	49.2	54.0	18.7	14.0	54.5	19.5	16.6
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.2	0.3	0.0	0.5	0.2	0.1	1.3	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.8	0.1	1.1	1.4	0.2	3.4	8.0	1.0	3.0	8.5	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	51.1	50.2	51.5	50.6	49.2	54.5	18.8	14.1	55.8	20.0	17.3
LnGrp LOS	D	D	D	D	D	D	D	B	B	E	C	B
Approach Vol, veh/h		84			146			2181			2386	
Approach Delay, s/veh		51.7			51.0			22.4			22.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.9	70.4	16.8	16.9	17.0	69.4	15.5	18.1				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	19.0	35.0	15.5	23.5	19.0	35.0	15.5	23.5				
Max Q Clear Time (g_c+1), s	19.8	24.6	4.6	3.8	9.8	25.9	3.6	5.0				
Green Ext Time (p_c), s	0.2	7.2	0.0	0.0	0.2	6.9	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕		↖↗	↕	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	20	229	170	192	233	332	186	1886	120	748	1228	30
Future Volume (veh/h)	20	229	170	192	233	332	186	1886	120	748	1228	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	239	105	200	243	131	194	1965	32	779	1279	11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	350	149	260	707	315	254	2066	506	825	3128	768
Arrive On Green	0.02	0.14	0.14	0.07	0.20	0.20	0.07	0.32	0.32	0.23	0.48	0.48
Sat Flow, veh/h	3510	2459	1045	3510	3610	1610	3510	6536	1603	3510	6536	1605
Grp Volume(v), veh/h	21	173	171	200	243	131	194	1965	32	779	1279	11
Grp Sat Flow(s),veh/h/ln	1755	1805	1699	1755	1805	1610	1755	1634	1603	1755	1634	1605
Q Serve(g_s), s	0.7	11.5	12.1	7.1	7.3	9.0	6.9	37.2	1.8	27.6	16.0	0.5
Cycle Q Clear(g_c), s	0.7	11.5	12.1	7.1	7.3	9.0	6.9	37.2	1.8	27.6	16.0	0.5
Prop In Lane	1.00		0.62	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	72	257	242	260	707	315	254	2066	506	825	3128	768
V/C Ratio(X)	0.29	0.67	0.71	0.77	0.34	0.42	0.76	0.95	0.06	0.94	0.41	0.01
Avail Cap(c_a), veh/h	833	571	538	833	1142	510	833	2068	507	833	3128	768
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	61.0	51.4	51.7	57.5	43.8	44.5	57.6	42.3	30.2	47.6	21.4	17.3
Incr Delay (d2), s/veh	0.8	3.1	3.7	1.8	0.3	0.9	1.8	10.6	0.1	18.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.3	5.3	3.1	3.2	3.6	3.0	15.6	0.7	13.8	5.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	54.5	55.4	59.3	44.1	45.4	59.4	52.9	30.2	66.3	21.5	17.3
LnGrp LOS	E	D	E	E	D	D	E	D	C	E	C	B
Approach Vol, veh/h		365		574		2191		2069				
Approach Delay, s/veh		55.3		49.7		53.1		38.3				
Approach LOS		E		D		D		D				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.2	47.4	16.4	25.4	16.6	68.0	9.6	32.2				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+Q), s	29.6	39.2	9.1	14.1	8.9	18.0	2.7	11.0				
Green Ext Time (p_c), s	0.1	0.8	0.3	1.8	0.3	10.4	0.0	1.8				

Intersection Summary

HCM 6th Ctrl Delay	47.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑	↑↑		↑	↑	↑		↑↓	
Traffic Volume (veh/h)	20	350	20	50	658	20	10	0	30	20	10	10
Future Volume (veh/h)	20	350	20	50	658	20	10	0	30	20	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	417	18	60	783	7	12	0	17	24	12	6
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	1599	69	105	1227	543	586	0	548	362	175	77
Arrive On Green	0.03	0.31	0.31	0.06	0.34	0.34	0.34	0.00	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1810	5098	218	1810	3610	1598	1411	0	1603	834	512	224
Grp Volume(v), veh/h	24	282	153	60	783	7	12	0	17	42	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1859	1810	1805	1598	1411	0	1603	1570	0	0
Q Serve(g_s), s	1.0	4.5	4.5	2.4	13.4	0.2	0.0	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	4.5	4.5	2.4	13.4	0.2	0.3	0.0	0.5	1.1	0.0	0.0
Prop In Lane	1.00		0.12	1.00		1.00	1.00		1.00	0.57		0.14
Lane Grp Cap(c), veh/h	57	1085	583	105	1227	543	586	0	548	614	0	0
V/C Ratio(X)	0.42	0.26	0.26	0.57	0.64	0.01	0.02	0.00	0.03	0.07	0.00	0.00
Avail Cap(c_a), veh/h	371	3071	1651	371	3206	1419	586	0	548	614	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.8	18.8	18.8	33.6	20.4	16.0	16.0	0.0	16.0	16.2	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.2	0.3	4.9	0.8	0.0	0.1	0.0	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.6	1.8	1.1	5.1	0.1	0.1	0.0	0.2	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	18.9	19.1	38.5	21.2	16.0	16.0	0.0	16.1	16.4	0.0	0.0
LnGrp LOS	D	B	B	D	C	B	B	A	B	B	A	A
Approach Vol, veh/h	459			850			29			42		
Approach Delay, s/veh	20.1			22.3			16.1			16.4		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	32.0		11.2	30.0		32.0		9.3	31.9			
Change Period (Y+Rc), s	7.0		7.0	7.0		7.0		7.0	7.0			
Max Green Setting (Gmax), s	25.0		15.0	65.0		25.0		15.0	65.0			
Max Q Clear Time (g_c+1), s	2.5		4.4	6.5		3.1		3.0	15.4			
Green Ext Time (p_c), s	0.1		0.1	4.0		0.1		0.0	8.7			

Intersection Summary

HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	320	50	50	728	10	60	0	30	0	0	0
Future Volume (veh/h)	0	320	50	50	728	10	60	0	30	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	360	37	56	818	10	67	0	15	0	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3053	308	91	1435	18	191	0	124	0	149	0
Arrive On Green	0.00	0.64	0.64	0.05	0.77	0.77	0.08	0.00	0.08	0.00	0.00	0.00
Sat Flow, veh/h	1810	4786	483	1810	1873	23	1412	0	1579	0	1900	0
Grp Volume(v), veh/h	0	258	139	56	0	828	67	0	15	0	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1811	1810	0	1896	1412	0	1579	0	1900	0
Q Serve(g_s), s	0.0	2.6	2.7	2.7	0.0	16.3	4.1	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.6	2.7	2.7	0.0	16.3	4.1	0.0	0.8	0.0	0.0	0.0
Prop In Lane	1.00		0.27	1.00		0.01	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	2	2206	1155	91	0	1452	191	0	124	0	149	0
V/C Ratio(X)	0.00	0.12	0.12	0.62	0.00	0.57	0.35	0.00	0.12	0.00	0.00	0.00
Avail Cap(c_a), veh/h	322	2206	1155	322	0	1452	661	0	649	0	781	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.93	0.93	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	6.4	6.4	41.9	0.0	4.4	40.1	0.0	38.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	6.6	0.0	1.6	1.1	0.0	0.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.9	1.3	0.0	4.0	1.5	0.0	0.3	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.5	6.6	48.5	0.0	6.0	41.2	0.0	39.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	D	A	A	D	A	D	A	A	A
Approach Vol, veh/h		397			884			82			0	
Approach Delay, s/veh		6.5			8.7			40.8			0.0	
Approach LOS		A			A			D				
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.1	11.5	64.4		14.1	0.0	75.9				
Change Period (Y+Rc), s		7.0	7.0	7.0		7.0	7.0	7.0				
Max Green Setting (Gmax), s		37.0	16.0	16.0		37.0	16.0	16.0				
Max Q Clear Time (g_c+I1), s		6.1	4.7	4.7		0.0	0.0	18.3				
Green Ext Time (p_c), s		0.4	0.1	1.7		0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay		10.0										
HCM 6th LOS		A										
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔	↑↑↑	↔	↔	↑↑↑	↔
Traffic Volume (veh/h)	30	420	90	284	378	173	90	2277	237	32	1448	530
Future Volume (veh/h)	30	420	90	284	378	173	90	2277	237	32	1448	530
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	433	26	293	390	60	93	2347	77	33	1493	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	232	751	231	430	726	324	164	2236	549	102	2013	
Arrive On Green	0.07	0.14	0.14	0.12	0.20	0.20	0.09	0.34	0.34	0.06	0.31	0.00
Sat Flow, veh/h	3510	5187	1593	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	31	433	26	293	390	60	93	2347	77	33	1493	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1593	1755	1805	1610	1810	1634	1603	1810	1634	1610
Q Serve(g_s), s	0.7	7.0	1.3	7.2	8.7	2.8	4.4	30.7	3.0	1.6	18.4	0.0
Cycle Q Clear(g_c), s	0.7	7.0	1.3	7.2	8.7	2.8	4.4	30.7	3.0	1.6	18.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	232	751	231	430	726	324	164	2236	549	102	2013	
V/C Ratio(X)	0.13	0.58	0.11	0.68	0.54	0.19	0.57	1.05	0.14	0.32	0.74	
Avail Cap(c_a), veh/h	528	1879	577	685	1348	601	192	2236	549	192	2222	
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	0.00
Uniform Delay (d), s/veh	39.5	35.8	33.4	37.7	32.1	29.7	39.1	29.5	20.4	40.7	27.8	0.0
Incr Delay (d2), s/veh	0.1	0.7	0.2	0.7	0.6	0.3	1.2	33.6	0.1	0.7	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.8	0.5	3.0	3.6	1.0	1.9	15.7	1.1	0.7	6.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	36.5	33.6	38.4	32.7	30.0	40.3	63.1	20.5	41.4	29.2	0.0
LnGrp LOS	D	D	C	D	C	C	D	F	C	D	C	
Approach Vol, veh/h		490			743			2517			1526	A
Approach Delay, s/veh		36.5			34.7			60.9			29.4	
Approach LOS		D			C			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.5	38.2	18.5	20.5	15.6	35.1	13.4	25.6				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	30.5	30.5	17.5	32.5	9.5	30.5	13.5	33.5				
Max Q Clear Time (g_c+1), s	13.6	32.7	9.2	9.0	6.4	20.4	2.7	10.7				
Green Ext Time (p_c), s	0.0	0.0	0.3	2.7	0.0	6.9	0.0	2.4				

Intersection Summary

HCM 6th Ctrl Delay	45.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	50	826	20	10	698	36	10	10	10	52	0	91
Future Volume (veh/h)	50	826	20	10	698	36	10	10	10	52	0	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	860	17	10	727	12	10	10	6	54	0	51
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	408	2272	45	402	1567	695	524	267	160	525	457	385
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	730	5235	103	641	3610	1601	1367	1110	666	1411	1900	1600
Grp Volume(v), veh/h	52	568	309	10	727	12	10	0	16	54	0	51
Grp Sat Flow(s),veh/h/ln	730	1729	1881	641	1805	1601	1367	0	1775	1411	1900	1600
Q Serve(g_s), s	2.0	4.1	4.1	0.4	5.3	0.2	0.2	0.0	0.3	1.1	0.0	0.9
Cycle Q Clear(g_c), s	7.3	4.1	4.1	4.5	5.3	0.2	0.2	0.0	0.3	1.4	0.0	0.9
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	408	1501	816	402	1567	695	524	0	427	525	457	385
V/C Ratio(X)	0.13	0.38	0.38	0.02	0.46	0.02	0.02	0.00	0.04	0.10	0.00	0.13
Avail Cap(c_a), veh/h	784	3283	1786	733	3428	1520	1122	0	1204	1142	1289	1085
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	7.1	7.1	8.6	7.4	5.9	10.7	0.0	10.7	11.3	0.0	11.0
Incr Delay (d2), s/veh	0.1	0.2	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.8	0.9	0.0	1.1	0.0	0.1	0.0	0.1	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	7.2	7.4	8.6	7.6	6.0	10.7	0.0	10.8	11.3	0.0	11.1
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		929			749			26			105	
Approach Delay, s/veh		7.4			7.6			10.7			11.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.9		23.0		13.9		23.0				
Change Period (Y+Rc), s		5.0		7.0		5.0		7.0				
Max Green Setting (Gmax), s		25.0		35.0		25.0		35.0				
Max Q Clear Time (g_c+11), s		2.3		9.3		3.4		7.3				
Green Ext Time (p_c), s		0.1		6.0		0.3		5.0				

Intersection Summary

HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	778	30	30	619	299	20	40	80	360	30	104
Future Volume (veh/h)	80	778	30	30	619	299	20	40	80	360	30	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	83	810	9	31	645	0	21	42	23	375	31	35
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	123	2360	729	76	1548		66	118	65	312	296	248
Arrive On Green	0.07	0.45	0.45	0.03	0.29	0.00	0.04	0.10	0.10	0.09	0.16	0.16
Sat Flow, veh/h	1810	5187	1601	1810	3610	1610	1810	1148	628	3510	1900	1595
Grp Volume(v), veh/h	83	810	9	31	645	0	21	0	65	375	31	35
Grp Sat Flow(s),veh/h/ln	1810	1729	1601	1810	1805	1610	1810	0	1776	1755	1900	1595
Q Serve(g_s), s	4.0	9.1	0.3	1.5	13.0	0.0	1.0	0.0	3.1	8.0	1.3	1.7
Cycle Q Clear(g_c), s	4.0	9.1	0.3	1.5	13.0	0.0	1.0	0.0	3.1	8.0	1.3	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	123	2360	729	76	1548		66	0	183	312	296	248
V/C Ratio(X)	0.67	0.34	0.01	0.41	0.42		0.32	0.00	0.36	1.20	0.10	0.14
Avail Cap(c_a), veh/h	161	2360	729	161	1548		161	0	395	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.97	0.97	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	15.8	13.4	42.6	23.0	0.0	42.3	0.0	37.6	41.0	32.6	32.8
Incr Delay (d2), s/veh	7.4	0.4	0.0	4.1	0.8	0.0	1.0	0.0	0.9	117.4	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.3	0.1	0.7	5.7	0.0	0.5	0.0	1.3	8.5	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	16.2	13.5	46.7	23.8	0.0	43.3	0.0	38.4	158.4	32.7	33.0
LnGrp LOS	D	B	B	D	C		D	A	D	F	C	C
Approach Vol, veh/h		902			676	A		86			441	
Approach Delay, s/veh		19.1			24.8			39.6			139.6	
Approach LOS		B			C			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	16.3	10.8	47.9	10.3	21.0	13.1	45.6				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	20.0	20.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+fl), s	5.1	5.1	3.5	11.1	3.0	3.7	6.0	15.0				
Green Ext Time (p_c), s	0.0	0.1	0.0	5.2	0.0	0.1	0.0	3.4				

Intersection Summary

HCM 6th Ctrl Delay	47.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙ ↑↑↑			↙ ↑↑↑			↙ ↑↑	↑↑		↙ ↑↑		
Traffic Volume (veh/h)	40	1178	30	60	829	30	40	40	130	60	30	40
Future Volume (veh/h)	40	1178	30	60	829	30	40	40	130	60	30	40
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	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	1227	29	62	864	28	42	42	53	62	31	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	3159	75	80	3171	103	236	230	202	207	295	148
Arrive On Green	0.07	1.00	1.00	0.04	0.61	0.61	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1810	5212	123	1810	5160	167	1364	1805	1591	1309	2316	1164
Grp Volume(v), veh/h	42	814	442	62	578	314	42	42	53	62	24	24
Grp Sat Flow(s),veh/h/ln	1810	1729	1877	1810	1729	1869	1364	1805	1591	1309	1805	1674
Q Serve(g_s), s	2.0	0.0	0.0	3.1	7.0	7.0	2.5	1.9	2.7	4.0	1.0	1.2
Cycle Q Clear(g_c), s	2.0	0.0	0.0	3.1	7.0	7.0	3.7	1.9	2.7	6.7	1.0	1.2
Prop In Lane	1.00		0.07	1.00		0.09	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	65	2096	1138	80	2125	1149	236	230	202	207	230	213
V/C Ratio(X)	0.64	0.39	0.39	0.77	0.27	0.27	0.18	0.18	0.26	0.30	0.10	0.11
Avail Cap(c_a), veh/h	201	2096	1138	281	2125	1149	502	582	513	463	582	539
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	0.0	0.0	42.5	8.0	8.0	36.4	35.1	35.5	38.5	34.7	34.8
Incr Delay (d2), s/veh	2.9	0.4	0.8	5.0	0.3	0.5	0.4	0.4	0.7	0.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.2	1.4	2.2	2.4	0.8	0.8	1.1	1.3	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	0.4	0.8	47.5	8.3	8.5	36.8	35.5	36.1	39.3	34.9	35.0
LnGrp LOS	D	A	A	D	A	A	D	D	D	D	C	D
Approach Vol, veh/h	1298		954		137		110					
Approach Delay, s/veh	1.9		10.9		36.1		37.4					
Approach LOS	A		B		D		D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	17.4		11.0		61.5		17.4		10.3		62.3	
Change Period (Y+Rc), s	6.0		7.0		7.0		6.0		7.0		7.0	
Max Green Setting (Gmax), s	29.0		14.0		27.0		29.0		10.0		31.0	
Max Q Clear Time (g_c+1), s	5.7		5.1		2.0		8.7		4.0		9.0	
Green Ext Time (p_c), s	0.5		0.0		11.9		0.3		0.0		7.6	
Intersection Summary												
HCM 6th Ctrl Delay			8.8									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑		↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	140	1018	140	390	619	144	170	926	430	240	1007	70
Future Volume (veh/h)	140	1018	140	390	619	144	170	926	430	240	1007	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	1072	36	411	652	131	179	975	212	253	1060	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	310	1409	435	480	1389	275	283	1341	414	319	1394	573
Arrive On Green	0.09	0.27	0.27	0.14	0.32	0.32	0.08	0.26	0.26	0.09	0.27	0.27
Sat Flow, veh/h	3510	5187	1601	3510	4339	859	3510	5187	1601	3510	5187	1601
Grp Volume(v), veh/h	147	1072	36	411	518	265	179	975	212	253	1060	30
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1741	1755	1729	1601	1755	1729	1601
Q Serve(g_s), s	4.9	23.5	2.1	14.2	14.8	15.1	6.1	21.3	14.0	8.7	23.3	1.5
Cycle Q Clear(g_c), s	4.9	23.5	2.1	14.2	14.8	15.1	6.1	21.3	14.0	8.7	23.3	1.5
Prop In Lane	1.00		1.00	1.00		0.49	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	310	1409	435	480	1107	557	283	1341	414	319	1394	573
V/C Ratio(X)	0.47	0.76	0.08	0.86	0.47	0.48	0.63	0.73	0.51	0.79	0.76	0.05
Avail Cap(c_a), veh/h	709	1675	517	709	1117	562	709	1675	517	709	1675	659
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	53.7	41.4	33.6	52.3	33.7	33.8	55.2	41.9	39.2	55.2	41.6	26.1
Incr Delay (d2), s/veh	0.8	1.9	0.1	6.0	0.4	0.8	1.7	1.4	1.2	3.4	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	9.9	0.8	6.5	6.1	6.3	2.7	8.9	5.5	3.9	9.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	43.3	33.7	58.3	34.0	34.5	56.9	43.3	40.4	58.5	43.5	26.1
LnGrp LOS	D	D	C	E	C	C	E	D	D	E	D	C
Approach Vol, veh/h		1255			1194			1366			1343	
Approach Delay, s/veh		44.3			42.5			44.6			45.9	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.7	39.5	24.4	41.2	17.5	40.8	18.4	47.2				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+10), s	11.0	23.3	16.2	25.5	8.1	25.3	6.9	17.1				
Green Ext Time (p_c), s	0.5	7.4	0.8	6.9	0.4	6.7	0.3	5.8				

Intersection Summary

HCM 6th Ctrl Delay	44.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	130	1572	6	74	925	50	48	20	135	420	10	140
Future Volume (veh/h)	130	1572	6	74	925	50	48	20	135	420	10	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	1690	6	80	995	50	52	22	39	452	11	60
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	171	1951	7	140	1763	88	107	174	145	430	512	432
Arrive On Green	0.09	0.37	0.37	0.08	0.35	0.35	0.06	0.09	0.09	0.24	0.27	0.27
Sat Flow, veh/h	1810	5335	19	1810	5057	254	1810	1900	1584	1810	1900	1601
Grp Volume(v), veh/h	140	1095	601	80	680	365	52	22	39	452	11	60
Grp Sat Flow(s),veh/h/ln	1810	1729	1896	1810	1729	1853	1810	1900	1584	1810	1900	1601
Q Serve(g_s), s	8.0	30.9	31.0	4.5	16.8	16.8	2.9	1.1	2.4	25.0	0.4	3.0
Cycle Q Clear(g_c), s	8.0	30.9	31.0	4.5	16.8	16.8	2.9	1.1	2.4	25.0	0.4	3.0
Prop In Lane	1.00		0.01	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	1265	694	140	1205	646	107	174	145	430	512	432
V/C Ratio(X)	0.82	0.87	0.87	0.57	0.56	0.57	0.48	0.13	0.27	1.05	0.02	0.14
Avail Cap(c_a), veh/h	344	1314	721	344	1314	704	344	361	301	430	512	432
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	46.8	31.0	31.0	46.9	27.8	27.8	47.9	43.9	44.5	40.1	28.2	29.2
Incr Delay (d2), s/veh	3.7	6.3	10.7	1.4	0.6	1.0	1.3	0.2	0.7	57.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	13.1	15.2	2.0	6.6	7.2	1.4	0.5	0.9	17.9	0.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	37.3	41.7	48.3	28.4	28.9	49.2	44.2	45.3	97.8	28.2	29.3
LnGrp LOS	D	D	D	D	C	C	D	D	D	F	C	C
Approach Vol, veh/h	1836				1125		113				523	
Approach Delay, s/veh	39.7				29.9		46.9				88.4	
Approach LOS	D				C		D				F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.0	14.6	15.1	45.5	11.3	33.4	16.9	43.7				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	20.0	20.0	40.0	20.0	25.0	20.0	40.0				
Max Q Clear Time (g_c+Y), s	27.0	4.4	6.5	33.0	4.9	5.0	10.0	18.8				
Green Ext Time (p_c), s	0.0	0.1	0.1	5.5	0.0	0.1	0.1	7.7				

Intersection Summary

HCM 6th Ctrl Delay	44.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	1576	611	530	686	0	0	0	0	250	0	424
Future Volume (veh/h)	0	1576	611	530	686	0	0	0	0	250	0	424
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1659	306	558	722	0				348	0	179
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1963	552	741	3170	0				885	0	394
Arrive On Green	0.00	0.34	0.34	0.07	0.20	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	5700	1603	3510	5358	0				3619	0	1610
Grp Volume(v), veh/h	0	1659	306	558	722	0				348	0	179
Grp Sat Flow(s),veh/h/ln	0	1900	1603	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	24.2	13.9	14.0	10.5	0.0				7.2	0.0	8.5
Cycle Q Clear(g_c), s	0.0	24.2	13.9	14.0	10.5	0.0				7.2	0.0	8.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1963	552	741	3170	0				885	0	394
V/C Ratio(X)	0.00	0.84	0.55	0.75	0.23	0.00				0.39	0.00	0.45
Avail Cap(c_a), veh/h	0	1963	552	741	3170	0				885	0	394
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.34	0.34	0.84	0.84	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	27.3	23.9	39.6	18.2	0.0				28.4	0.0	28.9
Incr Delay (d2), s/veh	0.0	1.7	1.4	5.9	0.1	0.0				1.3	0.0	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.3	5.1	7.1	4.3	0.0				3.2	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.9	25.3	45.5	18.3	0.0				29.7	0.0	32.7
LnGrp LOS		A	C	C	D	B	A			C	A	C
Approach Vol, veh/h		1965			1280					527		
Approach Delay, s/veh		28.4			30.1					30.7		
Approach LOS		C			C					C		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.0	37.5		28.5		61.5						
Change Period (Y+Rc), s	5.0	6.5		6.5		6.5						
Max Green Setting (Gmax), s	19.0	31.0		22.0		55.0						
Max Q Clear Time (g_c+1/3), s	11.0	26.2		10.5		12.5						
Green Ext Time (p_c), s	0.4	3.9		1.5		4.1						

Intersection Summary

HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	602	1214	0	0	1105	540	110	0	290	0	0	0
Future Volume (veh/h)	602	1214	0	0	1105	540	110	0	290	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	627	1265	0	0	1151	266	77	0	260			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	702	3458	0	0	2132	662	342	0	608			
Arrive On Green	0.20	0.67	0.00	0.00	0.41	0.41	0.19	0.00	0.19			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	0	3220			
Grp Volume(v), veh/h	627	1265	0	0	1151	266	77	0	260			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	15.7	9.7	0.0	0.0	15.1	10.5	3.2	0.0	6.4			
Cycle Q Clear(g_c), s	15.7	9.7	0.0	0.0	15.1	10.5	3.2	0.0	6.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	702	3458	0	0	2132	662	342	0	608			
V/C Ratio(X)	0.89	0.37	0.00	0.00	0.54	0.40	0.23	0.00	0.43			
Avail Cap(c_a), veh/h	702	3458	0	0	2132	662	342	0	608			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.1	6.6	0.0	0.0	20.1	18.7	30.9	0.0	32.2			
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.0	1.0	1.8	1.5	0.0	2.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.5	2.7	0.0	0.0	5.7	3.9	1.5	0.0	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.9	6.6	0.0	0.0	21.0	20.5	32.4	0.0	34.4			
LnGrp LOS	D	A	A	A	C	C	C	A	C			
Approach Vol, veh/h		1892			1417			337				
Approach Delay, s/veh		16.7			20.9			34.0				
Approach LOS		B			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.5			23.0	43.5		23.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		60.0			18.0	37.0		17.0				
Max Q Clear Time (g_c+I1), s		11.7			17.7	17.1		8.4				
Green Ext Time (p_c), s		8.6			0.1	8.5		0.6				

Intersection Summary

HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	877	182	174	872	305	111	1008	72	189	998	152
Future Volume (veh/h)	228	877	182	174	872	305	111	1008	72	189	998	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	245	943	87	187	938	219	119	1084	68	203	1073	45
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	963	427	221	963	429	309	846	53	320	907	402
Arrive On Green	0.12	0.27	0.27	0.12	0.27	0.27	0.13	0.25	0.25	0.13	0.25	0.25
Sat Flow, veh/h	1810	3610	1601	1810	3610	1610	1810	3448	216	1810	3610	1601
Grp Volume(v), veh/h	245	943	87	187	938	219	119	567	585	203	1073	45
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1610	1810	1805	1860	1810	1805	1601
Q Serve(g_s), s	11.0	23.3	3.8	9.1	23.2	10.4	4.0	22.1	22.1	7.1	22.6	1.9
Cycle Q Clear(g_c), s	11.0	23.3	3.8	9.1	23.2	10.4	4.0	22.1	22.1	7.1	22.6	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	221	963	427	221	963	429	309	443	456	320	907	402
V/C Ratio(X)	1.11	0.98	0.20	0.85	0.97	0.51	0.39	1.28	1.28	0.63	1.18	0.11
Avail Cap(c_a), veh/h	221	963	427	221	963	429	321	443	456	321	907	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	32.8	25.6	38.7	32.7	28.0	21.7	34.0	34.0	22.3	33.7	26.0
Incr Delay (d2), s/veh	92.4	24.1	0.3	18.1	17.6	0.9	1.1	142.9	142.9	4.7	93.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	12.5	1.4	4.9	11.6	3.8	1.7	26.7	27.5	3.2	21.1	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	131.9	56.8	25.9	56.7	50.3	28.9	22.8	176.9	176.9	27.0	127.3	26.5
LnGrp LOS	F	E	C	E	D	C	C	F	F	C	F	C
Approach Vol, veh/h		1275			1344			1271			1321	
Approach Delay, s/veh		69.1			47.7			162.5			108.5	
Approach LOS		E			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.6	27.9	15.7	29.8	16.1	28.4	15.7	29.8				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.0	* 11	24.0	* 12	22.0	* 11	24.0				
Max Q Clear Time (g_c+I1), s	9.1	24.1	11.1	25.3	6.0	24.6	13.0	25.2				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	96.4											
HCM 6th LOS	F											
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1018	40	80	1171	80	30	180	50	80	190	70
Future Volume (veh/h)	50	1018	40	80	1171	80	30	180	50	80	190	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1049	16	82	1207	46	31	186	46	82	196	66
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	86	1685	748	115	1743	773	97	377	87	157	296	91
Arrive On Green	0.05	0.47	0.47	0.06	0.48	0.48	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	116	1371	315	309	1075	329
Grp Volume(v), veh/h	52	1049	16	82	1207	46	263	0	0	344	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	1802	0	0	1713	0	0
Q Serve(g_s), s	1.7	13.5	0.3	2.7	16.1	0.9	0.0	0.0	0.0	3.3	0.0	0.0
Cycle Q Clear(g_c), s	1.7	13.5	0.3	2.7	16.1	0.9	7.5	0.0	0.0	10.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.12		0.17	0.24		0.19
Lane Grp Cap(c), veh/h	86	1685	748	115	1743	773	561	0	0	544	0	0
V/C Ratio(X)	0.60	0.62	0.02	0.71	0.69	0.06	0.47	0.00	0.00	0.63	0.00	0.00
Avail Cap(c_a), veh/h	1024	2044	907	1024	2044	907	1058	0	0	1010	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.9	12.4	8.9	28.4	12.4	8.5	18.9	0.0	0.0	20.0	0.0	0.0
Incr Delay (d2), s/veh	13.5	0.8	0.0	15.8	1.3	0.1	1.3	0.0	0.0	2.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	4.3	0.1	1.6	5.1	0.3	3.1	0.0	0.0	4.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	13.2	8.9	44.2	13.7	8.6	20.2	0.0	0.0	22.6	0.0	0.0
LnGrp LOS	D	B	A	D	B	A	C	A	A	C	A	A
Approach Vol, veh/h		1117			1335			263			344	
Approach Delay, s/veh		14.5			15.4			20.2			22.6	
Approach LOS		B			B			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.0	7.9	32.9		21.0	7.0	33.8				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		35.0	35.0	35.0		35.0	35.0	35.0				
Max Q Clear Time (g_c+I1), s		9.5	4.7	15.5		12.7	3.7	18.1				
Green Ext Time (p_c), s		3.0	0.5	11.4		3.9	0.3	11.8				
Intersection Summary												
HCM 6th Ctrl Delay											16.3	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1007	92	60	1141	80	101	387	50	76	293	50
Future Volume (veh/h)	50	1007	92	60	1141	80	101	387	50	76	293	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1049	45	62	1189	40	105	403	48	79	305	37
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	2412	1073	111	2429	1079	280	444	53	111	865	104
Arrive On Green	0.06	0.67	0.67	0.02	0.22	0.22	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1607	1810	3610	1604	1052	1665	198	954	3242	390
Grp Volume(v), veh/h	52	1049	45	62	1189	40	105	0	451	79	169	173
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1604	1052	0	1863	954	1805	1827
Q Serve(g_s), s	2.5	12.2	0.9	3.1	25.9	1.8	8.1	0.0	21.1	2.9	6.8	6.9
Cycle Q Clear(g_c), s	2.5	12.2	0.9	3.1	25.9	1.8	15.0	0.0	21.1	24.0	6.8	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.21
Lane Grp Cap(c), veh/h	102	2412	1073	111	2429	1079	280	0	497	111	481	487
V/C Ratio(X)	0.51	0.43	0.04	0.56	0.49	0.04	0.38	0.00	0.91	0.71	0.35	0.36
Avail Cap(c_a), veh/h	141	2412	1073	141	2429	1079	280	0	497	111	481	487
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.76	0.76	0.76	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	7.0	5.1	42.9	21.5	12.1	32.8	0.0	31.9	44.4	26.7	26.7
Incr Delay (d2), s/veh	8.1	0.6	0.1	7.0	0.5	0.0	3.8	0.0	23.0	32.2	2.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.7	0.2	1.6	12.4	0.5	2.3	0.0	12.1	2.7	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	7.6	5.2	49.9	22.1	12.2	36.6	0.0	54.9	76.6	28.7	28.8
LnGrp LOS	D	A	A	D	C	B	D	A	D	E	C	C
Approach Vol, veh/h		1146			1291			556			421	
Approach Delay, s/veh		9.4			23.1			51.4			37.7	
Approach LOS		A			C			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	12.5	67.7		30.5	12.1	68.1				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	7.0	40.0		* 24	7.0	* 41				
Max Q Clear Time (g_c+11), s		23.1	5.1	14.2		26.0	4.5	27.9				
Green Ext Time (p_c), s		0.0	0.0	13.8		0.0	0.0	9.5				

Intersection Summary

HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1011	42	40	1140	110	91	382	50	70	205	80
Future Volume (veh/h)	50	1011	42	40	1140	110	91	382	50	70	205	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1042	20	41	1175	54	94	394	14	72	211	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	1731	768	77	1710	759	48	53	368	50	84	368
Arrive On Green	0.02	0.16	0.16	0.04	0.47	0.47	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	0	208	1441	0	330	1441
Grp Volume(v), veh/h	52	1042	20	41	1175	54	488	0	14	283	0	21
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	208	0	1441	330	0	1441
Q Serve(g_s), s	2.6	24.2	0.9	2.0	22.9	1.7	0.0	0.0	0.7	0.0	0.0	1.0
Cycle Q Clear(g_c), s	2.6	24.2	0.9	2.0	22.9	1.7	23.0	0.0	0.7	23.0	0.0	1.0
Prop In Lane	1.00		1.00	1.00		1.00	0.19		1.00	0.25		1.00
Lane Grp Cap(c), veh/h	88	1731	768	77	1710	759	101	0	368	135	0	368
V/C Ratio(X)	0.59	0.60	0.03	0.53	0.69	0.07	4.84	0.00	0.04	2.10	0.00	0.06
Avail Cap(c_a), veh/h	141	1731	768	141	1710	759	101	0	368	135	0	368
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.20	0.20	0.20	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.4	29.9	20.1	42.2	18.5	12.9	33.5	0.0	25.2	31.8	0.0	25.3
Incr Delay (d2), s/veh	1.7	1.1	0.0	0.4	0.5	0.0	1749.6	0.0	0.0	520.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	11.7	0.3	0.9	8.4	0.5	51.2	0.0	0.2	22.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	31.0	20.2	42.6	18.9	12.9	1783.1	0.0	25.2	552.6	0.0	25.4
LnGrp LOS	D	C	C	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1114			1270			502			304	
Approach Delay, s/veh		31.5			19.4			1734.1			516.2	
Approach LOS		C			B			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	50.2		29.0	11.4	49.6		29.0				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	40.0	40.0		23.0	7.0	40.0		23.0				
Max Q Clear Time (g_c+1/4), s	26.2	26.2		25.0	4.6	24.9		25.0				
Green Ext Time (p_c), s	0.0	6.6		0.0	0.0	8.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay	340.8											
HCM 6th LOS	F											

Notes
 User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↔	↔↔	↑↑	↔	↔↑↑↔			↔	↑↑↑	↔
Traffic Volume (veh/h)	276	791	124	40	852	602	225	1103	60	465	940	233
Future Volume (veh/h)	276	791	124	40	852	602	225	1103	60	465	940	233
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	279	799	34	40	861	208	227	1114	59	470	949	203
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	332	977	433	166	807	357	231	1126	60	495	1915	744
Arrive On Green	0.09	0.27	0.27	0.05	0.22	0.22	0.13	0.22	0.22	0.27	0.37	0.37
Sat Flow, veh/h	3510	3610	1601	3510	3610	1599	1810	5041	267	1810	5187	1604
Grp Volume(v), veh/h	279	799	34	40	861	208	227	764	409	470	949	203
Grp Sat Flow(s), veh/h/ln	1755	1805	1601	1755	1805	1599	1810	1729	1850	1810	1729	1604
Q Serve(g_s), s	12.2	32.5	2.5	1.7	35.0	18.2	19.6	34.5	34.5	39.9	22.1	12.2
Cycle Q Clear(g_c), s	12.2	32.5	2.5	1.7	35.0	18.2	19.6	34.5	34.5	39.9	22.1	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	332	977	433	166	807	357	231	773	413	495	1915	744
V/C Ratio(X)	0.84	0.82	0.08	0.24	1.07	0.58	0.98	0.99	0.99	0.95	0.50	0.27
Avail Cap(c_a), veh/h	672	1037	460	448	807	357	231	773	413	635	2318	869
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	69.7	53.5	42.6	71.9	60.8	54.3	68.1	60.6	60.6	55.9	38.2	25.8
Incr Delay (d2), s/veh	4.3	5.1	0.1	0.5	51.3	2.6	54.0	29.5	41.5	20.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	14.9	1.0	0.8	21.4	7.5	12.4	18.0	20.6	20.6	9.3	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	58.6	42.7	72.4	112.1	56.9	122.2	90.1	102.1	76.3	38.4	26.1
LnGrp LOS	E	E	D	E	F	E	F	F	F	E	D	C
Approach Vol, veh/h		1112			1109			1400			1622	
Approach Delay, s/veh		62.0			100.3			98.8			47.9	
Approach LOS		E			F			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	49.8	42.0	14.9	49.9	27.0	64.8	22.3	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (G_max), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+R), s	41.0	36.5	3.7	34.5	21.6	24.1	14.2	37.0				
Green Ext Time (p_c), s	0.9	0.0	0.0	4.1	0.0	12.7	0.6	0.0				

Intersection Summary

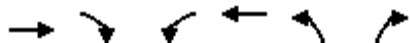
HCM 6th Ctrl Delay	75.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↗↖	↗
Traffic Volume (veh/h)	1361	86	30	1255	159	80
Future Volume (veh/h)	1361	86	30	1255	159	80
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1418	63	31	1307	166	9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2438	1083	65	2868	253	116
Arrive On Green	0.68	0.68	0.04	0.79	0.07	0.07
Sat Flow, veh/h	3705	1604	1810	3705	3510	1610
Grp Volume(v), veh/h	1418	63	31	1307	166	9
Grp Sat Flow(s),veh/h/ln	1805	1604	1810	1805	1755	1610
Q Serve(g_s), s	18.9	1.2	1.5	10.5	4.1	0.5
Cycle Q Clear(g_c), s	18.9	1.2	1.5	10.5	4.1	0.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2438	1083	65	2868	253	116
V/C Ratio(X)	0.58	0.06	0.48	0.46	0.66	0.08
Avail Cap(c_a), veh/h	2438	1083	251	2868	800	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.55	0.55	1.00	1.00
Uniform Delay (d), s/veh	7.8	4.9	42.6	3.0	40.7	39.0
Incr Delay (d2), s/veh	0.5	0.0	2.2	0.3	2.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.3	0.7	1.3	1.8	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.3	5.0	44.8	3.3	43.5	39.2
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1481			1338	175	
Approach Delay, s/veh	8.1			4.2	43.3	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	10.7	68.3		79.0	11.0	
Change Period (Y+Rc), s	7.5	* 7.5		7.5	4.5	
Max Green Setting (Gmax), s	12.5	* 38		57.5	20.5	
Max Q Clear Time (g_c+1), s	13.5	20.9		12.5	6.1	
Green Ext Time (p_c), s	0.0	7.4		11.0	0.4	

Intersection Summary

HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

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

Intersection												
Intersection Delay, s/veh	8.1											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	0	0	100	10	0	0	10	110	10	10	0
Future Vol, veh/h	0	0	0	100	10	0	0	10	110	10	10	0
Peak Hour Factor	0.95	0.95	0.95	0.79	0.95	0.79	0.95	0.79	0.79	0.79	0.79	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	127	11	0	0	13	139	13	13	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	0	8.6	7.7	8.1
HCM LOS	-	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	82%	75%	0%
Vol Thru, %	100%	0%	100%	0%	18%	25%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	110	0	54	56	13	7
LT Vol	0	0	0	54	46	10	0
Through Vol	10	0	0	0	10	3	7
RT Vol	0	110	0	0	0	0	0
Lane Flow Rate	13	139	0	68	69	17	8
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.017	0.163	0	0.103	0.102	0.025	0.012
Departure Headway (Hd)	4.906	4.203	5.07	5.407	5.317	5.375	4.999
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	733	856	0	667	678	668	718
Service Time	2.616	1.914	3.09	3.107	3.017	3.089	2.713
HCM Lane V/C Ratio	0.018	0.162	0	0.102	0.102	0.025	0.011
HCM Control Delay	7.7	7.7	8.1	8.7	8.6	8.2	7.8
HCM Lane LOS	A	A	N	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0	0.3	0.3	0.1	0

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	↕
Traffic Vol, veh/h	0	0	0	0	0	0	0	110	0	0	100	10
Future Vol, veh/h	0	0	0	0	0	0	0	110	0	0	100	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	147	0	0	133	13

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	214	287	73	214	293	74	146	0	0	147	0	0
Stage 1	140	140	-	147	147	-	-	-	-	-	-	-
Stage 2	74	147	-	67	146	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	729	626	981	729	621	979	1448	-	-	1447	-	-
Stage 1	854	785	-	847	779	-	-	-	-	-	-	-
Stage 2	933	779	-	941	780	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	729	626	981	729	621	979	1448	-	-	1447	-	-
Mov Cap-2 Maneuver	729	626	-	729	621	-	-	-	-	-	-	-
Stage 1	854	785	-	847	779	-	-	-	-	-	-	-
Stage 2	933	779	-	941	780	-	-	-	-	-	-	-
























Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1448	-	-	-	-	1447	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary

9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1305	196	60	1096	10	259	50	100	10	40	50
Future Volume (veh/h)	60	1305	196	60	1096	10	259	50	100	10	40	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	1359	119	62	1142	10	270	52	25	10	42	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	125	1475	658	125	1499	13	410	842	375	397	842	
Arrive On Green	0.07	0.41	0.41	0.07	0.41	0.41	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1810	3610	1610	1810	3667	32	1386	3610	1610	1343	3610	1610
Grp Volume(v), veh/h	62	1359	119	62	562	590	270	52	25	10	42	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1894	1386	1805	1610	1343	1805	1610
Q Serve(g_s), s	2.4	25.9	3.4	2.4	19.4	19.4	13.6	0.8	0.9	0.4	0.7	0.0
Cycle Q Clear(g_c), s	2.4	25.9	3.4	2.4	19.4	19.4	14.3	0.8	0.9	1.2	0.7	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	1475	658	125	738	774	410	842	375	397	842	
V/C Ratio(X)	0.50	0.92	0.18	0.50	0.76	0.76	0.66	0.06	0.07	0.03	0.05	
Avail Cap(c_a), veh/h	499	1492	665	499	746	783	469	995	444	454	995	
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	0.00
Uniform Delay (d), s/veh	32.6	20.4	13.7	32.6	18.4	18.4	27.1	21.7	21.7	22.1	21.6	0.0
Incr Delay (d2), s/veh	3.1	9.8	0.2	3.1	4.9	4.7	3.4	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	10.6	1.0	1.1	7.5	7.8	4.7	0.3	0.3	0.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.6	30.1	13.9	35.6	23.3	23.1	30.6	21.7	21.8	22.2	21.6	0.0
LnGrp LOS	D	C	B	D	C	C	C	C	C	C	C	C
Approach Vol, veh/h		1540			1214			347			52	A
Approach Delay, s/veh		29.1			23.9			28.6			21.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	36.7		23.9	12.0	36.7		23.9				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	20.0	30.0		20.0	20.0	30.0		20.0				
Max Q Clear Time (g_c+I1), s	4.4	27.9		3.2	4.4	21.4		16.3				
Green Ext Time (p_c), s	0.1	1.8		0.2	0.1	5.2		0.7				

Intersection Summary

HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	280	102	130	210	50	41	260	50	30	330	26
Future Volume (veh/h)	39	280	102	130	210	50	41	260	50	30	330	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	326	24	151	244	16	48	302	23	35	384	11
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	329	571	252	324	735	325	494	1463	650	528	1434	637
Arrive On Green	0.05	0.16	0.16	0.09	0.20	0.20	0.05	0.41	0.41	0.04	0.40	0.40
Sat Flow, veh/h	1810	3610	1595	1810	3610	1598	1810	3610	1604	1810	3610	1604
Grp Volume(v), veh/h	45	326	24	151	244	16	48	302	23	35	384	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1595	1810	1805	1598	1810	1805	1604	1810	1805	1604
Q Serve(g_s), s	1.8	7.4	1.1	6.0	5.1	0.7	1.3	4.8	0.8	1.0	6.3	0.4
Cycle Q Clear(g_c), s	1.8	7.4	1.1	6.0	5.1	0.7	1.3	4.8	0.8	1.0	6.3	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	329	571	252	324	735	325	494	1463	650	528	1434	637
V/C Ratio(X)	0.14	0.57	0.10	0.47	0.33	0.05	0.10	0.21	0.04	0.07	0.27	0.02
Avail Cap(c_a), veh/h	555	1434	634	468	1434	635	717	1463	650	765	1434	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	34.3	31.7	27.5	30.0	28.2	14.2	17.0	15.8	14.4	17.9	16.1
Incr Delay (d2), s/veh	0.2	1.3	0.2	1.0	0.4	0.1	0.1	0.3	0.1	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.2	0.4	2.5	2.1	0.3	0.5	1.8	0.3	0.4	2.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	35.6	31.9	28.5	30.3	28.3	14.3	17.3	15.9	14.4	18.4	16.2
LnGrp LOS	C	D	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		395			411			373			430	
Approach Delay, s/veh		34.6			29.6			16.8			18.0	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	42.7	14.5	20.4	11.1	42.0	10.5	24.4				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	15.0	35.0	15.0	35.0	15.0	35.0	15.0	35.0				
Max Q Clear Time (g_c+1), s	13.0	6.8	8.0	9.4	3.3	8.3	3.8	7.1				
Green Ext Time (p_c), s	0.0	2.6	0.2	2.8	0.1	3.4	0.1	2.1				

Intersection Summary												
HCM 6th Ctrl Delay											24.8	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary

11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	420	260	190	400	60	120	231	90	70	602	30
Future Volume (veh/h)	20	420	260	190	400	60	120	231	90	70	602	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	467	181	211	444	55	133	257	24	78	669	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	257	523	201	257	884	109	164	1065	475	101	914	41
Arrive On Green	0.01	0.21	0.21	0.08	0.27	0.27	0.18	0.59	0.59	0.06	0.26	0.26
Sat Flow, veh/h	1810	2543	978	1810	3232	398	1810	3610	1610	1810	3518	158
Grp Volume(v), veh/h	22	330	318	211	247	252	133	257	24	78	343	356
Grp Sat Flow(s),veh/h/ln	1810	1805	1716	1810	1805	1826	1810	1805	1610	1810	1805	1871
Q Serve(g_s), s	0.8	14.2	14.4	6.5	9.2	9.3	5.6	2.7	0.5	3.4	13.9	13.9
Cycle Q Clear(g_c), s	0.8	14.2	14.4	6.5	9.2	9.3	5.6	2.7	0.5	3.4	13.9	13.9
Prop In Lane	1.00		0.57	1.00		0.22	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	257	371	353	257	494	500	164	1065	475	101	469	486
V/C Ratio(X)	0.09	0.89	0.90	0.82	0.50	0.50	0.81	0.24	0.05	0.78	0.73	0.73
Avail Cap(c_a), veh/h	290	372	354	257	494	500	204	1065	475	113	469	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.96	0.96	0.96
Uniform Delay (d), s/veh	24.8	30.9	31.0	26.2	24.4	24.5	32.1	12.1	11.7	37.3	27.1	27.1
Incr Delay (d2), s/veh	0.1	22.0	24.5	17.6	0.6	0.6	14.2	0.5	0.2	21.0	9.3	9.1
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	0.3	7.9	7.8	4.1	3.6	3.7	2.8	1.0	0.2	2.0	6.7	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	52.9	55.5	43.8	25.0	25.1	46.3	12.7	11.9	58.3	36.4	36.1
LnGrp LOS	C	D	E	D	C	C	D	B	B	E	D	D
Approach Vol, veh/h		670			710			414			777	
Approach Delay, s/veh		53.2			30.6			23.4			38.5	
Approach LOS		D			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	30.6	14.0	24.0	14.3	27.8	8.6	29.4				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	23.0	6.5	16.5	9.0	19.0	2.5	20.5				
Max Q Clear Time (g_c+1/4), s	11.4	4.7	8.5	16.4	7.6	15.9	2.8	11.3				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.0	0.0	1.0	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	40	390	10	110	20	351	130	60	942	10
Future Volume (veh/h)	10	10	40	390	10	110	20	351	130	60	942	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	11	2	437	0	24	22	386	54	66	1035	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	57	10	575	0	253	26	1688	749	68	1797	17
Arrive On Green	0.04	0.04	0.04	0.16	0.00	0.16	0.00	0.15	0.15	0.08	0.98	0.98
Sat Flow, veh/h	1810	1564	284	3619	0	1595	1810	3610	1602	1810	3663	35
Grp Volume(v), veh/h	11	0	13	437	0	24	22	386	54	66	510	535
Grp Sat Flow(s),veh/h/ln	1810	0	1849	1810	0	1595	1810	1805	1602	1810	1805	1893
Q Serve(g_s), s	0.5	0.0	0.5	9.2	0.0	1.0	1.0	7.5	2.3	2.9	1.0	1.0
Cycle Q Clear(g_c), s	0.5	0.0	0.5	9.2	0.0	1.0	1.0	7.5	2.3	2.9	1.0	1.0
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	65	0	67	575	0	253	26	1688	749	68	885	929
V/C Ratio(X)	0.17	0.00	0.19	0.76	0.00	0.09	0.84	0.23	0.07	0.97	0.58	0.58
Avail Cap(c_a), veh/h	158	0	162	950	0	419	68	1688	749	68	885	929
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.99	0.99	0.99	0.47	0.47	0.47
Uniform Delay (d), s/veh	37.4	0.0	37.4	32.2	0.0	28.7	39.7	21.2	19.0	37.0	0.4	0.4
Incr Delay (d2), s/veh	0.4	0.0	0.5	1.6	0.0	0.1	53.1	0.3	0.2	66.1	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	4.1	0.0	0.4	0.8	3.1	0.8	2.4	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	0.0	37.9	33.8	0.0	28.9	92.8	21.5	19.2	103.1	1.7	1.6
LnGrp LOS	D	A	D	C	A	C	F	C	B	F	A	A
Approach Vol, veh/h		24			461			462			1111	
Approach Delay, s/veh		37.9			33.5			24.6			7.7	
Approach LOS		D			C			C			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	40.0	44.4		7.9	8.2	46.2		17.7				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	30.0	25.0		7.0	3.0	25.0		21.0				
Max Q Clear Time (g_c+14), s	14.0	9.5		2.5	3.0	3.0		11.2				
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	5.1		1.0				

Intersection Summary

HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						↕ ↗	↗ ↗ ↗	↗ ↗ ↗ ↗			↗ ↗ ↗	↗
Traffic Volume (veh/h)	0	0	0	326	0	140	240	351	0	0	862	550
Future Volume (veh/h)	0	0	0	326	0	140	240	351	0	0	862	550
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				351	0	39	258	377	0	0	927	306
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				461	0	411	292	3112	0	0	1950	601
Arrive On Green				0.25	0.00	0.25	0.32	1.00	0.00	0.00	0.12	0.12
Sat Flow, veh/h				1810	0	1610	1810	5358	0	0	5358	1599
Grp Volume(v), veh/h				351	0	39	258	377	0	0	927	306
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1599
Q Serve(g_s), s				14.3	0.0	1.5	10.8	0.0	0.0	0.0	13.3	14.3
Cycle Q Clear(g_c), s				14.3	0.0	1.5	10.8	0.0	0.0	0.0	13.3	14.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				461	0	411	292	3112	0	0	1950	601
V/C Ratio(X)				0.76	0.00	0.09	0.88	0.12	0.00	0.00	0.48	0.51
Avail Cap(c_a), veh/h				461	0	411	362	3112	0	0	1950	601
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.79	0.79	0.00	0.00	0.78	0.78
Uniform Delay (d), s/veh				27.5	0.0	22.8	26.4	0.0	0.0	0.0	27.7	28.1
Incr Delay (d2), s/veh				11.2	0.0	0.5	13.7	0.1	0.0	0.0	0.7	2.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.4	0.0	0.6	4.7	0.0	0.0	0.0	6.1	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				38.8	0.0	23.2	40.1	0.1	0.0	0.0	28.3	30.5
LnGrp LOS				D	A	C	D	A	A	A	C	C
Approach Vol, veh/h					390			635			1233	
Approach Delay, s/veh					37.2			16.3			28.9	
Approach LOS					D			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		53.8			17.9	35.9		26.2				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			12.8	16.3		16.3				
Green Ext Time (p_c), s		2.0			0.1	4.3		1.3				
Intersection Summary												
HCM 6th Ctrl Delay											26.8	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↕↕		↗	↕↕↕	
Traffic Volume (veh/h)	90	0	190	0	0	0	0	501	368	390	797	0
Future Volume (veh/h)	90	0	190	0	0	0	0	501	368	390	797	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	97	0	59				0	539	229	419	857	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	385	0	342				0	1154	475	469	3333	0
Arrive On Green	0.21	0.00	0.21				0.00	0.32	0.32	0.09	0.21	0.00
Sat Flow, veh/h	1810	0	1610				0	3769	1480	1810	5358	0
Grp Volume(v), veh/h	97	0	59				0	517	251	419	857	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1620	1810	1729	0
Q Serve(g_s), s	3.6	0.0	2.4				0.0	9.6	9.9	18.3	11.0	0.0
Cycle Q Clear(g_c), s	3.6	0.0	2.4				0.0	9.6	9.9	18.3	11.0	0.0
Prop In Lane	1.00		1.00				0.00		0.91	1.00		0.00
Lane Grp Cap(c), veh/h	385	0	342				0	1110	520	469	3333	0
V/C Ratio(X)	0.25	0.00	0.17				0.00	0.47	0.48	0.89	0.26	0.00
Avail Cap(c_a), veh/h	385	0	342				0	1110	520	611	3333	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.86	0.86	0.00
Uniform Delay (d), s/veh	26.2	0.0	25.7				0.0	21.7	21.8	35.5	15.6	0.0
Incr Delay (d2), s/veh	1.6	0.0	1.1				0.0	1.4	3.2	9.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	1.0				0.0	3.7	3.9	10.0	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	0.0	26.8				0.0	23.1	25.0	45.2	15.8	0.0
LnGrp LOS	C	A	C				A	C	C	D	B	A
Approach Vol, veh/h		156						768			1276	
Approach Delay, s/veh		27.4						23.7			25.4	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	25.7	31.5	22.8	57.2								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	27.0	19.0	17.0	51.4								
Max Q Clear Time (g_c+20), s	20.3	11.9	5.6	13.0								
Green Ext Time (p_c), s	0.4	2.3	0.9	5.0								

Intersection Summary

HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	18.6											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔	↔		↔	↔↔	↔	↔	
Traffic Vol, veh/h	20	140	30	401	80	130	20	90	360	20	20	20
Future Vol, veh/h	20	140	30	401	80	130	20	90	360	20	20	20
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	171	37	489	98	159	24	110	439	24	24	24
Number of Lanes	0	1	1	1	1	1	0	1	2	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	3	2
HCM Control Delay	18	21.8	15.5	13.2
HCM LOS	C	C	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	18%	0%	0%	12%	0%	100%	67%	0%	100%	0%
Vol Thru, %	82%	0%	0%	88%	0%	0%	33%	0%	0%	50%
Vol Right, %	0%	100%	100%	0%	100%	0%	0%	100%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	180	180	160	30	241	240	130	20	40
LT Vol	20	0	0	20	0	241	160	0	20	0
Through Vol	90	0	0	140	0	0	80	0	0	20
RT Vol	0	180	180	0	30	0	0	130	0	20
Lane Flow Rate	134	220	220	195	37	293	293	159	24	49
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.302	0.444	0.444	0.474	0.081	0.655	0.641	0.3	0.067	0.124
Departure Headway (Hd)	8.093	7.289	7.289	8.744	7.967	8.035	7.866	6.817	9.914	9.14
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	443	492	492	410	447	449	457	525	360	395
Service Time	5.863	5.058	5.058	6.534	5.757	5.802	5.633	4.583	7.714	6.84
HCM Lane V/C Ratio	0.302	0.447	0.447	0.476	0.083	0.653	0.641	0.303	0.067	0.124
HCM Control Delay	14.4	15.8	15.8	19.2	11.5	24.9	23.7	12.5	13.4	13.1
HCM Lane LOS	B	C	C	C	B	C	C	B	B	B
HCM 95th-tile Q	1.3	2.2	2.2	2.5	0.3	4.6	4.4	1.3	0.2	0.4

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕	↗	↗	↕	↗
Traffic Volume (veh/h)	20	0	30	20	0	10	20	430	10	20	481	10
Future Volume (veh/h)	20	0	30	20	0	10	20	430	10	20	481	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.97		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	0	5	23	0	0	23	500	9	23	559	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	0	108	138	0	0	81	2569	1142	81	2569	1142
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.00	0.04	0.71	0.71	0.04	0.71	0.71
Sat Flow, veh/h	1546	0	1562	1138	0	0	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	23	0	5	23	0	0	23	500	9	23	559	9
Grp Sat Flow(s),veh/h/ln	1546	0	1562	1138	0	0	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	0.0	0.0	0.4	1.9	0.0	0.0	1.5	5.6	0.2	1.5	6.3	0.2
Cycle Q Clear(g_c), s	1.5	0.0	0.4	3.4	0.0	0.0	1.5	5.6	0.2	1.5	6.3	0.2
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	0	108	138	0	0	81	2569	1142	81	2569	1142
V/C Ratio(X)	0.14	0.00	0.05	0.17	0.00	0.00	0.28	0.19	0.01	0.28	0.22	0.01
Avail Cap(c_a), veh/h	455	0	430	424	0	0	196	2569	1142	196	2569	1142
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	0.00	1.00	1.00	0.00	0.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	0.0	52.2	54.3	0.0	0.0	55.5	5.8	5.0	55.5	5.9	5.0
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.7	0.0	0.0	2.0	0.1	0.0	2.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.1	0.7	0.0	0.0	0.7	1.8	0.1	0.7	2.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	0.0	52.4	55.0	0.0	0.0	57.5	5.9	5.0	57.8	6.1	5.0
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	A	A
Approach Vol, veh/h		28			23			532			591	
Approach Delay, s/veh		53.0			55.0			8.2			8.1	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	92.4		15.3	12.4	92.4		15.3				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1), s	13.5	7.6		3.5	3.5	8.3		5.4				
Green Ext Time (p_c), s	0.0	6.9		0.1	0.0	7.8		0.1				

Intersection Summary

HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	925	270	70	765	20	160	250	110	30	330	151
Future Volume (veh/h)	110	925	270	70	765	20	160	250	110	30	330	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	995	195	75	823	22	172	269	21	32	355	162
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	945	419	127	902	24	309	324	272	27	299	136
Arrive On Green	0.08	0.26	0.26	0.07	0.25	0.25	0.17	0.17	0.17	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1601	1810	3591	96	1810	1900	1596	105	1161	530
Grp Volume(v), veh/h	118	995	195	75	414	431	172	269	21	549	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1882	1810	1900	1596	1796	0	0
Q Serve(g_s), s	7.5	30.5	11.9	4.7	26.0	26.0	10.2	16.0	1.3	30.0	0.0	0.0
Cycle Q Clear(g_c), s	7.5	30.5	11.9	4.7	26.0	26.0	10.2	16.0	1.3	30.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	0.06		0.30
Lane Grp Cap(c), veh/h	146	945	419	127	454	473	309	324	272	462	0	0
V/C Ratio(X)	0.81	1.05	0.47	0.59	0.91	0.91	0.56	0.83	0.08	1.19	0.00	0.00
Avail Cap(c_a), veh/h	388	945	419	310	464	484	465	489	411	462	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	52.7	43.1	36.2	52.6	42.4	42.4	44.3	46.7	40.6	43.3	0.0	0.0
Incr Delay (d2), s/veh	7.6	44.3	1.7	1.6	23.0	22.3	1.9	8.2	0.1	104.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	18.6	4.6	2.1	13.8	14.3	4.6	8.1	0.5	26.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	87.3	37.9	54.2	65.4	64.7	46.2	54.9	40.8	148.1	0.0	0.0
LnGrp LOS	E	F	D	D	E	E	D	D	D	F	A	A
Approach Vol, veh/h		1308			920			462			549	
Approach Delay, s/veh		77.5			64.2			51.0			148.1	
Approach LOS		E			E			D			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.7	38.0		36.5	16.9	36.8		26.4				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	6.7	32.5		32.0	9.5	28.0		18.0				
Green Ext Time (p_c), s	0.1	0.0		0.0	0.2	1.3		1.9				

Intersection Summary

HCM 6th Ctrl Delay	81.9
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖	↖↗	↖	↖	↖↗↘	↖
Traffic Volume (veh/h)	190	170	290	20	50	30	110	420	20	30	520	80
Future Volume (veh/h)	190	170	290	20	50	30	110	420	20	30	520	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	198	108	23	58	6	128	488	10	35	605	35
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	257	494	258	78	424	187	160	1509	671	81	1940	600
Arrive On Green	0.14	0.22	0.22	0.04	0.12	0.12	0.09	0.42	0.42	0.04	0.37	0.37
Sat Flow, veh/h	1810	2287	1193	1810	3610	1590	1810	3610	1604	1810	5187	1604
Grp Volume(v), veh/h	221	154	152	23	58	6	128	488	10	35	605	35
Grp Sat Flow(s),veh/h/ln	1810	1805	1675	1810	1805	1590	1810	1805	1604	1810	1729	1604
Q Serve(g_s), s	11.2	6.9	7.3	1.2	1.3	0.3	6.5	8.5	0.3	1.8	7.7	1.3
Cycle Q Clear(g_c), s	11.2	6.9	7.3	1.2	1.3	0.3	6.5	8.5	0.3	1.8	7.7	1.3
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	390	362	78	424	187	160	1509	671	81	1940	600
V/C Ratio(X)	0.86	0.40	0.42	0.29	0.14	0.03	0.80	0.32	0.01	0.43	0.31	0.06
Avail Cap(c_a), veh/h	387	482	448	387	965	425	387	1509	671	387	1940	600
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	31.4	31.6	43.4	37.0	36.6	41.8	18.3	15.9	43.5	20.7	18.7
Incr Delay (d2), s/veh	8.1	0.5	0.6	0.8	0.1	0.1	3.4	0.6	0.0	1.4	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.9	2.9	0.5	0.6	0.1	2.9	3.4	0.1	0.8	3.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	31.9	32.2	44.1	37.1	36.6	45.3	18.9	16.0	44.9	21.2	18.9
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	B
Approach Vol, veh/h		527			87			626			675	
Approach Delay, s/veh		38.4			39.0			24.2			22.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	45.6	10.5	26.7	14.8	41.5	19.8	17.5				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	13.8	10.5	3.2	9.3	8.5	9.7	13.2	3.3				
Green Ext Time (p_c), s	0.0	3.6	0.0	1.1	0.1	4.8	0.2	0.2				

Intersection Summary

HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖↗↘	↖↗↘	↖	↖↗	↖↗↘	
Traffic Volume (veh/h)	50	10	72	50	10	20	71	450	30	30	840	20
Future Volume (veh/h)	50	10	72	50	10	20	71	450	30	30	840	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	57	11	13	57	11	3	82	517	18	34	966	22
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	222	196	132	444	196	117	2540	786	79	2444	56
Arrive On Green	0.07	0.12	0.12	0.07	0.12	0.12	0.06	0.49	0.49	0.04	0.47	0.47
Sat Flow, veh/h	1810	1805	1591	1810	3610	1591	1810	5187	1605	1810	5217	119
Grp Volume(v), veh/h	57	11	13	57	11	3	82	517	18	34	640	348
Grp Sat Flow(s),veh/h/ln	1810	1805	1591	1810	1805	1591	1810	1729	1605	1810	1729	1878
Q Serve(g_s), s	2.9	0.5	0.7	2.9	0.3	0.2	4.3	5.4	0.6	1.8	11.6	11.6
Cycle Q Clear(g_c), s	2.9	0.5	0.7	2.9	0.3	0.2	4.3	5.4	0.6	1.8	11.6	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	132	222	196	132	444	196	117	2540	786	79	1620	880
V/C Ratio(X)	0.43	0.05	0.07	0.43	0.02	0.02	0.70	0.20	0.02	0.43	0.40	0.40
Avail Cap(c_a), veh/h	471	676	596	471	1353	596	471	2540	786	471	1620	880
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	42.6	37.2	37.2	42.6	37.1	37.0	44.0	13.9	12.6	44.8	16.7	16.7
Incr Delay (d2), s/veh	0.8	0.1	0.1	0.8	0.0	0.0	2.8	0.2	0.1	1.4	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	0.3	1.3	0.1	0.1	1.9	2.0	0.2	0.8	4.3	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	37.2	37.4	43.4	37.1	37.0	46.8	14.1	12.7	46.2	17.4	18.0
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		81			71			617			1022	
Approach Delay, s/veh		41.6			42.2			18.4			18.5	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	53.5	13.5	18.3	12.7	51.5	13.5	18.3				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	25.0	45.0	25.0	36.0	25.0	45.0	25.0	36.0				
Max Q Clear Time (g_c+1), s	13.8	7.4	4.9	2.7	6.3	13.6	4.9	2.3				
Green Ext Time (p_c), s	0.0	4.3	0.1	0.1	0.1	8.2	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay											20.5	
HCM 6th LOS											C	
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘↘	↑↑	↗	↘↘	↑↑	↗	↘↘	↑↑↑	↗	↘↘	↑↑↑	↗
Traffic Volume (veh/h)	70	470	460	260	330	50	230	371	100	50	882	60
Future Volume (veh/h)	70	470	460	260	330	50	230	371	100	50	882	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	490	210	271	344	18	240	386	52	52	919	23
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	313	730	323	364	782	435	322	1809	726	192	1616	643
Arrive On Green	0.09	0.20	0.20	0.10	0.22	0.22	0.09	0.35	0.35	0.05	0.31	0.31
Sat Flow, veh/h	3510	3610	1598	3510	3610	1599	3510	5187	1603	3510	5187	1602
Grp Volume(v), veh/h	73	490	210	271	344	18	240	386	52	52	919	23
Grp Sat Flow(s),veh/h/ln	1755	1805	1598	1755	1805	1599	1755	1729	1603	1755	1729	1602
Q Serve(g_s), s	1.9	12.1	11.6	7.2	7.9	0.8	6.4	5.0	1.8	1.4	14.3	0.8
Cycle Q Clear(g_c), s	1.9	12.1	11.6	7.2	7.9	0.8	6.4	5.0	1.8	1.4	14.3	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	730	323	364	782	435	322	1809	726	192	1616	643
V/C Ratio(X)	0.23	0.67	0.65	0.74	0.44	0.04	0.74	0.21	0.07	0.27	0.57	0.04
Avail Cap(c_a), veh/h	729	1125	498	729	1125	586	729	1809	726	729	1616	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	35.5	35.3	41.9	32.6	25.9	42.6	22.1	14.9	43.7	27.7	17.5
Incr Delay (d2), s/veh	0.3	1.3	2.7	2.3	0.5	0.0	2.6	0.3	0.2	0.6	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.1	4.5	3.1	3.3	0.3	2.8	2.0	0.6	0.6	5.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	36.8	37.9	44.2	33.1	25.9	45.2	22.3	15.1	44.2	29.2	17.7
LnGrp LOS	D	D	D	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		773			633			678			994	
Approach Delay, s/veh		37.5			37.6			29.9			29.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	40.1	17.5	27.0	15.3	36.5	16.1	28.4				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1), s	13.4	7.0	9.2	14.1	8.4	16.3	3.9	9.9				
Green Ext Time (p_c), s	0.1	3.0	0.5	3.9	0.4	5.7	0.1	2.3				

Intersection Summary

HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘	↔	↗	↘	↗	↗		↑↑↑	↗
Traffic Volume (veh/h)	0	0	0	426	0	200	510	511	0	0	1292	410
Future Volume (veh/h)	0	0	0	426	0	200	510	511	0	0	1292	410
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				469	0	46	537	538	0	0	1360	178
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				901	0	401	1014	3227	0	0	1816	443
Arrive On Green				0.25	0.00	0.25	0.10	0.21	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1596
Grp Volume(v), veh/h				469	0	46	537	538	0	0	1360	178
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1596
Q Serve(g_s), s				10.1	0.0	2.0	13.1	7.7	0.0	0.0	17.1	8.2
Cycle Q Clear(g_c), s				10.1	0.0	2.0	13.1	7.7	0.0	0.0	17.1	8.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				901	0	401	1014	3227	0	0	1816	443
V/C Ratio(X)				0.52	0.00	0.11	0.53	0.17	0.00	0.00	0.75	0.40
Avail Cap(c_a), veh/h				901	0	401	1014	3227	0	0	1816	443
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.90	0.90	0.00	0.00	0.72	0.72
Uniform Delay (d), s/veh				29.2	0.0	26.1	34.9	16.6	0.0	0.0	29.6	26.4
Incr Delay (d2), s/veh				2.1	0.0	0.6	1.8	0.1	0.0	0.0	2.1	1.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.5	0.0	2.1	6.3	2.9	0.0	0.0	6.5	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				31.3	0.0	26.7	36.7	16.7	0.0	0.0	31.7	28.4
LnGrp LOS				C	A	C	D	B	A	A	C	C
Approach Vol, veh/h					515			1075			1538	
Approach Delay, s/veh					30.9			26.7			31.3	
Approach LOS					C			C			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		61.8		28.2	31.0	30.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		56.0		22.4	26.0	25.0						
Max Q Clear Time (g_c+I1), s		9.7		12.1	15.1	19.1						
Green Ext Time (p_c), s		3.7		1.4	0.8	4.1						

Intersection Summary

HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	440	0	0	0	0	951	498	490	1227	0
Future Volume (veh/h)	80	0	440	0	0	0	0	951	498	490	1227	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	55	0	425				0	991	168	510	1278	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	611	0	1088				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.21	0.71	0.00
Sat Flow, veh/h	1810	0	3220				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	55	0	425				0	991	168	510	1278	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	1.9	0.0	9.1				0.0	10.9	7.2	12.9	9.6	0.0
Cycle Q Clear(g_c), s	1.9	0.0	9.1				0.0	10.9	7.2	12.9	9.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	611	0	1088				0	2106	515	546	2766	0
V/C Ratio(X)	0.09	0.00	0.39				0.00	0.47	0.33	0.93	0.46	0.00
Avail Cap(c_a), veh/h	611	0	1088				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.62	0.62	0.00
Uniform Delay (d), s/veh	20.4	0.0	22.7				0.0	24.4	23.1	35.2	7.5	0.0
Incr Delay (d2), s/veh	0.3	0.0	1.1				0.0	0.8	1.7	18.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	3.5				0.0	4.0	2.7	6.2	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	0.0	23.8				0.0	25.1	24.8	53.2	7.8	0.0
LnGrp LOS	C	A	C				A	C	C	D	A	A
Approach Vol, veh/h		480						1159			1788	
Approach Delay, s/veh		23.4						25.1			20.8	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+14), s	14.0	12.9					11.6	11.1				
Green Ext Time (p_c), s	0.0	6.3					10.6	1.8				

Intersection Summary

HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	288	0	490	0	2626	0	0	1980	1098	0	0
Future Volume (veh/h)	288	0	490	0	2626	0	0	1980	1098	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	303	303	496	0	2764	0	0	2071	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	563	563	1002	0	3791	0	0	3306			
Arrive On Green	0.31	0.31	0.31	0.00	0.58	0.00	0.00	0.58	0.00		
Sat Flow, veh/h	1810	1810	3220	0	7068	0	0	5700	3220		
Grp Volume(v), veh/h	303	303	496	0	2764	0	0	2071	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	0	0	1900	1610		
Q Serve(g_s), s	13.9	13.9	12.5	0.0	30.8	0.0	0.0	24.0	0.0		
Cycle Q Clear(g_c), s	13.9	13.9	12.5	0.0	30.8	0.0	0.0	24.0	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	563	563	1002	0	3791	0	0	3306			
V/C Ratio(X)	0.54	0.54	0.50	0.00	0.73	0.00	0.00	0.63			
Avail Cap(c_a), veh/h	563	563	1002	0	3791	0	0	3306			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	28.5	28.5	28.1	0.0	15.3	0.0	0.0	13.9	0.0		
Incr Delay (d2), s/veh	3.7	3.7	1.7	0.0	1.3	0.0	0.0	0.9	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.5	6.5	5.0	0.0	10.0	0.0	0.0	9.3	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	32.2	32.2	29.8	0.0	16.5	0.0	0.0	14.8	0.0		
LnGrp LOS	C	C	C	A	B	A	A	B			
Approach Vol, veh/h	799	799			2764			2071	A		
Approach Delay, s/veh	30.7	30.7			16.5			14.8			
Approach LOS	C	C			B			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	63.8		36.2		63.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	58.0		31.1		58.0						
Max Q Clear Time (g_c+I1), s	32.8		15.9		26.0						
Green Ext Time (p_c), s	17.7		1.5		13.9						

Intersection Summary

HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	641	0	287	0	2823	917	0	1709	0	0	0
Future Volume (veh/h)	641	0	287	0	2823	917	0	1709	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	0.97	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	668	668	278	0	2941	0	0	1780	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	581	581	1007	0	3726		0	3726	0		
Arrive On Green	0.32	0.32	0.32	0.00	0.57	0.00	0.00	0.57	0.00		
Sat Flow, veh/h	1810	1810	3137	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	668	668	278	0	2941	0	0	1780	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1569	0	1634	1610	0	1634	0		
Q Serve(g_s), s	32.1	32.1	6.6	0.0	35.2	0.0	0.0	16.1	0.0		
Cycle Q Clear(g_c), s	32.1	32.1	6.6	0.0	35.2	0.0	0.0	16.1	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	581	581	1007	0	3726		0	3726	0		
V/C Ratio(X)	1.15	1.15	0.28	0.00	0.79		0.00	0.48	0.00		
Avail Cap(c_a), veh/h	581	581	1007	0	3726		0	3726	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.26	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	33.9	33.9	25.3	0.0	16.8	0.0	0.0	12.7	0.0		
Incr Delay (d2), s/veh	86.1	86.1	0.7	0.0	0.5	0.0	0.0	0.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	27.5	27.5	2.5	0.0	12.2	0.0	0.0	5.4	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	120.1	120.1	26.0	0.0	17.3	0.0	0.0	13.1	0.0		
LnGrp LOS	F	F	C	A	B		A	B	A		
Approach Vol, veh/h	946	946			2941	A		1780			
Approach Delay, s/veh	92.4	92.4			17.3			13.1			
Approach LOS	F	F			B			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	62.8		37.2		62.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	57.0		32.1		57.0						
Max Q Clear Time (g_c+I1), s	37.2		34.1		18.1						
Green Ext Time (p_c), s	16.8		0.0		11.5						

Intersection Summary

HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖↗	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	430	100	220	70	60	300	70	3010	130	210	1665	130
Future Volume (veh/h)	430	100	220	70	60	300	70	3010	130	210	1665	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	443	103	38	72	62	32	72	3103	67	216	1716	72
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	464	219	184	259	109	162	188	3540	870	268	3688	906
Arrive On Green	0.13	0.12	0.12	0.07	0.06	0.06	0.05	0.54	0.54	0.08	0.56	0.56
Sat Flow, veh/h	3510	1900	1589	3510	1900	2834	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	443	103	38	72	62	32	72	3103	67	216	1716	72
Grp Sat Flow(s),veh/h/ln	1755	1900	1589	1755	1900	1417	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	17.5	7.1	3.0	2.7	4.5	1.5	2.8	58.0	2.8	8.5	21.7	2.9
Cycle Q Clear(g_c), s	17.5	7.1	3.0	2.7	4.5	1.5	2.8	58.0	2.8	8.5	21.7	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	219	184	259	109	162	188	3540	870	268	3688	906
V/C Ratio(X)	0.95	0.47	0.21	0.28	0.57	0.20	0.38	0.88	0.08	0.81	0.47	0.08
Avail Cap(c_a), veh/h	464	387	324	464	387	577	602	3540	870	602	3688	906
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	0.25	0.25	0.25	0.88	0.88	0.88
Uniform Delay (d), s/veh	60.3	57.9	56.1	61.3	64.3	62.9	64.0	28.0	15.3	63.7	18.0	13.9
Incr Delay (d2), s/veh	30.3	0.6	0.2	0.2	1.7	0.2	0.1	0.9	0.0	1.9	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	3.4	1.2	1.2	2.2	0.5	1.2	21.3	1.0	3.8	7.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.6	58.5	56.3	61.5	66.1	63.2	64.1	28.9	15.4	65.6	18.4	14.1
LnGrp LOS	F	E	E	E	E	E	E	C	B	E	B	B
Approach Vol, veh/h		584			166			3242			2004	
Approach Delay, s/veh		82.7			63.5			29.4			23.3	
Approach LOS		F			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.7	82.8	16.8	22.7	14.5	86.0	25.0	14.5				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	24.0	42.0	18.5	28.5	24.0	42.0	18.5	28.5				
Max Q Clear Time (g_c+I), s	10.5	60.0	4.7	9.1	4.8	23.7	19.5	6.5				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.2	0.1	9.8	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑		↖ ↗	↑	↖	↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑	↖
Traffic Volume (veh/h)	400	504	590	154	519	524	465	2305	40	119	1676	160
Future Volume (veh/h)	400	504	590	154	519	524	465	2305	40	119	1676	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	404	509	487	156	524	274	470	2328	15	120	1693	71
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	463	523	464	210	786	351	528	2539	623	172	1875	459
Arrive On Green	0.13	0.29	0.29	0.06	0.22	0.22	0.15	0.39	0.39	0.05	0.29	0.29
Sat Flow, veh/h	3510	1805	1602	3510	3610	1610	3510	6536	1604	3510	6536	1602
Grp Volume(v), veh/h	404	509	487	156	524	274	470	2328	15	120	1693	71
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1610	1755	1634	1604	1755	1634	1602
Q Serve(g_s), s	15.6	38.5	40.0	6.0	18.3	22.1	18.1	46.7	0.8	4.6	34.4	4.6
Cycle Q Clear(g_c), s	15.6	38.5	40.0	6.0	18.3	22.1	18.1	46.7	0.8	4.6	34.4	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	463	523	464	210	786	351	528	2539	623	172	1875	459
V/C Ratio(X)	0.87	0.97	1.05	0.74	0.67	0.78	0.89	0.92	0.02	0.70	0.90	0.15
Avail Cap(c_a), veh/h	763	523	464	763	1046	467	763	2539	623	763	1895	464
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	58.8	48.5	49.0	63.8	49.4	50.9	57.5	40.1	26.1	64.6	47.4	36.7
Incr Delay (d2), s/veh	3.4	32.3	55.1	2.0	1.0	6.1	7.0	5.9	0.0	1.9	6.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	21.5	22.6	2.7	8.1	9.2	8.3	18.6	0.3	2.1	14.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	80.8	104.1	65.8	50.4	57.0	64.5	46.0	26.1	66.5	53.9	36.9
LnGrp LOS	E	F	F	E	D	E	E	D	C	E	D	D
Approach Vol, veh/h		1400		954			2813			1884		
Approach Delay, s/veh		83.5		54.8			49.0			54.1		
Approach LOS		F		D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	64.3	61.1	15.2	47.4	28.3	47.1	25.2	37.5				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+1), s	11.6	48.7	8.0	42.0	20.1	36.4	17.6	24.1				
Green Ext Time (p_c), s	0.2	0.0	0.2	0.0	0.6	3.1	0.6	3.6				
Intersection Summary												
HCM 6th Ctrl Delay			58.0									
HCM 6th LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔ ↑↑↔			↔ ↑↑		↔	↔	↔			↔	
Traffic Volume (veh/h)	10	520	10	30	571	30	10	0	50	50	0	10
Future Volume (veh/h)	10	520	10	30	571	30	10	0	50	50	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	642	11	37	705	11	12	0	29	62	0	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	1483	25	80	1115	497	648	0	589	602	0	0
Arrive On Green	0.02	0.28	0.28	0.04	0.31	0.31	0.37	0.00	0.37	0.37	0.00	0.00
Sat Flow, veh/h	1810	5252	90	1810	3610	1610	1440	0	1610	1358	0	0
Grp Volume(v), veh/h	12	422	231	37	705	11	12	0	29	62	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1884	1810	1805	1610	1440	0	1610	1358	0	0
Q Serve(g_s), s	0.4	6.8	6.8	1.4	11.5	0.3	0.0	0.0	0.8	2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	6.8	6.8	1.4	11.5	0.3	0.3	0.0	0.8	2.8	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	32	977	532	80	1115	497	648	0	589	602	0	0
V/C Ratio(X)	0.37	0.43	0.43	0.46	0.63	0.02	0.02	0.00	0.05	0.10	0.00	0.00
Avail Cap(c_a), veh/h	397	3290	1792	397	3435	1532	648	0	589	602	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.2	20.0	20.0	31.9	20.3	16.4	13.8	0.0	14.0	14.9	0.0	0.0
Incr Delay (d2), s/veh	6.9	0.4	0.8	4.1	0.9	0.0	0.1	0.0	0.2	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.5	2.8	0.6	4.3	0.1	0.1	0.0	0.3	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	20.5	20.8	35.9	21.1	16.5	13.9	0.0	14.1	15.2	0.0	0.0
LnGrp LOS	D	C	C	D	C	B	B	A	B	B	A	A
Approach Vol, veh/h	665		753		41			62				
Approach Delay, s/veh	21.0		21.8		14.1			15.2				
Approach LOS	C		C		B			B				
Timer - Assigned Phs	2	3	4	6	7	8						
Phs Duration (G+Y+Rc), s	32.0	10.0	26.3	32.0	8.2	28.1						
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0						
Max Green Setting (Gmax), s	25.0	15.0	65.0	25.0	15.0	65.0						
Max Q Clear Time (g_c+11), s	2.8	3.4	8.8	4.8	2.4	13.5						
Green Ext Time (p_c), s	0.1	0.0	6.4	0.2	0.0	7.6						

Intersection Summary

HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↗				↖ ↗			↕	
Traffic Volume (veh/h)	0	560	60	80	561	10	70	0	60	10	0	10
Future Volume (veh/h)	0	560	60	80	561	10	70	0	60	10	0	10
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	0.99		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	675	60	96	676	11	84	0	31	12	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	2976	263	125	1417	23	220	0	133	134	0	0
Arrive On Green	0.00	0.61	0.61	0.07	0.76	0.76	0.08	0.00	0.08	0.08	0.00	0.00
Sat Flow, veh/h	1810	4851	428	1810	1864	30	1654	0	1582	643	0	0
Grp Volume(v), veh/h	0	480	255	96	0	687	84	0	31	12	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1821	1810	0	1895	1654	0	1582	643	0	0
Q Serve(g_s), s	0.0	5.6	5.7	4.7	0.0	12.3	0.0	0.0	1.6	0.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.6	5.7	4.7	0.0	12.3	4.1	0.0	1.6	4.8	0.0	0.0
Prop In Lane	1.00		0.24	1.00		0.02	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	2	2121	1117	125	0	1440	220	0	133	134	0	0
V/C Ratio(X)	0.00	0.23	0.23	0.77	0.00	0.48	0.38	0.00	0.23	0.09	0.00	0.00
Avail Cap(c_a), veh/h	322	2121	1117	322	0	1440	684	0	650	586	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.8	7.8	41.2	0.0	4.1	39.6	0.0	38.5	41.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	9.6	0.0	1.1	1.1	0.0	0.9	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	1.9	2.3	0.0	3.1	1.8	0.0	0.6	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.0	8.2	50.8	0.0	5.2	40.7	0.0	39.4	42.2	0.0	0.0
LnGrp LOS	A	A	A	D	A	A	D	A	D	D	A	A
Approach Vol, veh/h	735		783		115		12					
Approach Delay, s/veh	8.1		10.8		40.3		42.2					
Approach LOS	A		B		D		D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	14.6	13.2	62.2		14.6	0.0	75.4					
Change Period (Y+Rc), s	7.0	7.0	7.0		7.0	7.0	7.0					
Max Green Setting (Gmax), s	37.0	16.0	16.0		37.0	16.0	16.0					
Max Q Clear Time (g_c+11), s	6.1	6.7	7.7		6.8	0.0	14.3					
Green Ext Time (p_c), s	0.6	0.1	2.7		0.0	0.0	0.7					
Intersection Summary												
HCM 6th Ctrl Delay			11.9									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑	↖	↖	↑ ↑ ↑	↖	↖	↑ ↑ ↑	↖
Traffic Volume (veh/h)	410	320	50	399	251	159	50	2158	222	233	1877	340
Future Volume (veh/h)	410	320	50	399	251	159	50	2158	222	233	1877	340
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	418	327	13	407	256	41	51	2202	65	238	1915	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	435	638	196	435	444	198	123	2105	516	242	2536	
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.07	0.32	0.32	0.13	0.39	0.00
Sat Flow, veh/h	3510	5187	1591	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	418	327	13	407	256	41	51	2202	65	238	1915	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1591	1755	1805	1610	1810	1634	1603	1810	1634	1610
Q Serve(g_s), s	12.0	6.0	0.7	11.6	6.8	2.3	2.7	32.5	2.9	13.2	25.6	0.0
Cycle Q Clear(g_c), s	12.0	6.0	0.7	11.6	6.8	2.3	2.7	32.5	2.9	13.2	25.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	435	638	196	435	444	198	123	2105	516	242	2536	
V/C Ratio(X)	0.96	0.51	0.07	0.94	0.58	0.21	0.42	1.05	0.13	0.98	0.76	
Avail Cap(c_a), veh/h	435	1619	496	435	1127	503	206	2105	516	242	2536	
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	0.00
Uniform Delay (d), s/veh	44.0	41.4	39.1	43.8	41.8	39.8	45.1	34.2	24.2	43.6	26.7	0.0
Incr Delay (d2), s/veh	33.0	0.6	0.1	27.4	1.2	0.5	0.8	33.0	0.1	52.8	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	2.5	0.3	6.5	3.0	0.9	1.2	16.5	1.1	9.1	9.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.0	42.1	39.3	71.2	43.0	40.3	45.9	67.2	24.3	96.4	28.1	0.0
LnGrp LOS	E	D	D	E	D	D	D	F	C	F	C	
Approach Vol, veh/h		758		704				2318			2153	A
Approach Delay, s/veh		61.3		59.1				65.5			35.7	
Approach LOS		E		E				E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	40.0	20.0	19.9	14.3	46.7	20.0	19.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	13.5	32.5	12.5	31.5	11.5	34.5	12.5	31.5				
Max Q Clear Time (g_c+1/2p_c), s	11.2	34.5	13.6	8.0	4.7	27.6	14.0	8.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.0	5.8	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	53.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	50	826	20	10	698	36	10	10	10	52	0	91
Future Volume (veh/h)	50	826	20	10	698	36	10	10	10	52	0	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	860	17	10	727	12	10	10	6	54	0	51
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	408	2272	45	402	1567	695	524	267	160	525	457	385
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	730	5235	103	641	3610	1601	1367	1110	666	1411	1900	1600
Grp Volume(v), veh/h	52	568	309	10	727	12	10	0	16	54	0	51
Grp Sat Flow(s),veh/h/ln	730	1729	1881	641	1805	1601	1367	0	1775	1411	1900	1600
Q Serve(g_s), s	2.0	4.1	4.1	0.4	5.3	0.2	0.2	0.0	0.3	1.1	0.0	0.9
Cycle Q Clear(g_c), s	7.3	4.1	4.1	4.5	5.3	0.2	0.2	0.0	0.3	1.4	0.0	0.9
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	408	1501	816	402	1567	695	524	0	427	525	457	385
V/C Ratio(X)	0.13	0.38	0.38	0.02	0.46	0.02	0.02	0.00	0.04	0.10	0.00	0.13
Avail Cap(c_a), veh/h	784	3283	1786	733	3428	1520	1122	0	1204	1142	1289	1085
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	7.1	7.1	8.6	7.4	5.9	10.7	0.0	10.7	11.3	0.0	11.0
Incr Delay (d2), s/veh	0.1	0.2	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.8	0.9	0.0	1.1	0.0	0.1	0.0	0.1	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	7.2	7.4	8.6	7.6	6.0	10.7	0.0	10.8	11.3	0.0	11.1
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		929			749			26			105	
Approach Delay, s/veh		7.4			7.6			10.7			11.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.9		23.0		13.9		23.0				
Change Period (Y+Rc), s		5.0		7.0		5.0		7.0				
Max Green Setting (Gmax), s		25.0		35.0		25.0		35.0				
Max Q Clear Time (g_c+1), s		2.3		9.3		3.4		7.3				
Green Ext Time (p_c), s		0.1		6.0		0.3		5.0				

Intersection Summary

HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑	↗	↖	↑	↗	↖↗	↑	↗
Traffic Volume (veh/h)	60	518	10	40	805	282	10	10	20	126	10	37
Future Volume (veh/h)	60	518	10	40	805	282	10	10	20	126	10	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	563	3	43	875	0	11	11	7	137	11	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	2420	747	93	1644		39	92	58	302	284	239
Arrive On Green	0.06	0.47	0.47	0.02	0.15	0.00	0.02	0.09	0.09	0.09	0.15	0.15
Sat Flow, veh/h	1810	5187	1602	1810	3610	1610	1810	1077	686	3510	1900	1594
Grp Volume(v), veh/h	65	563	3	43	875	0	11	0	18	137	11	15
Grp Sat Flow(s),veh/h/ln	1810	1729	1602	1810	1805	1610	1810	0	1763	1755	1900	1594
Q Serve(g_s), s	3.1	5.8	0.1	2.1	20.1	0.0	0.5	0.0	0.8	3.3	0.4	0.7
Cycle Q Clear(g_c), s	3.1	5.8	0.1	2.1	20.1	0.0	0.5	0.0	0.8	3.3	0.4	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	113	2420	747	93	1644		39	0	150	302	284	239
V/C Ratio(X)	0.58	0.23	0.00	0.46	0.53		0.28	0.00	0.12	0.45	0.04	0.06
Avail Cap(c_a), veh/h	161	2420	747	161	1644		161	0	392	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.94	0.94	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	14.4	12.8	43.0	29.4	0.0	43.4	0.0	38.1	39.1	32.7	32.8
Incr Delay (d2), s/veh	5.3	0.2	0.0	4.0	1.2	0.0	1.5	0.0	0.3	0.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.1	0.0	1.0	9.8	0.0	0.2	0.0	0.4	1.5	0.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	14.6	12.8	47.1	30.6	0.0	44.8	0.0	38.3	39.5	32.8	32.9
LnGrp LOS	D	B	B	D	C		D	A	D	D	C	C
Approach Vol, veh/h		631			918			A	29		163	
Approach Delay, s/veh		17.8			31.3				40.8		38.5	
Approach LOS		B			C				D		D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	14.7	11.6	49.0	8.9	20.5	12.6	48.0				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	20.0	20.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+1), s	11.3	11.3	2.8	4.1	7.8	2.5	2.7	5.1	22.1			
Green Ext Time (p_c), s	0.1	0.0	0.0	3.9	0.0	0.0	0.0	2.1				

Intersection Summary

HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵ ↑↑↑			↵ ↑↑↑			↵ ↑↑	↑↑		↵ ↑↑	↑↑	
Traffic Volume (veh/h)	60	574	30	80	1088	40	30	10	40	10	10	10
Future Volume (veh/h)	60	574	30	80	1088	40	30	10	40	10	10	10
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	0.98		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	604	27	84	1145	39	32	11	17	11	11	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	3236	144	109	3350	114	188	148	129	179	202	85
Arrive On Green	0.01	0.21	0.21	0.06	0.65	0.65	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1810	5090	226	1810	5151	175	1395	1805	1581	1381	2464	1033
Grp Volume(v), veh/h	63	409	222	84	769	415	32	11	17	11	8	8
Grp Sat Flow(s),veh/h/ln	1810	1729	1859	1810	1729	1868	1395	1805	1581	1381	1805	1691
Q Serve(g_s), s	3.1	8.8	8.8	4.1	9.0	9.0	1.9	0.5	0.9	0.7	0.4	0.4
Cycle Q Clear(g_c), s	3.1	8.8	8.8	4.1	9.0	9.0	2.4	0.5	0.9	1.6	0.4	0.4
Prop In Lane	1.00		0.12	1.00		0.09	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	82	2198	1182	109	2249	1215	188	148	129	179	148	139
V/C Ratio(X)	0.77	0.19	0.19	0.77	0.34	0.34	0.17	0.07	0.13	0.06	0.05	0.06
Avail Cap(c_a), veh/h	241	2198	1182	281	2249	1215	523	582	509	511	582	545
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	16.4	16.4	41.7	7.1	7.1	39.2	38.2	38.3	39.1	38.1	38.1
Incr Delay (d2), s/veh	5.4	0.2	0.3	2.9	0.3	0.5	0.4	0.2	0.5	0.1	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.4	3.7	1.8	2.6	2.9	0.7	0.2	0.4	0.2	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	16.6	16.8	44.6	7.3	7.6	39.6	38.4	38.8	39.2	38.2	38.3
LnGrp LOS	D	B	B	D	A	A	D	D	D	D	D	D
Approach Vol, veh/h	694			1268			60			27		
Approach Delay, s/veh	19.6			9.9			39.2			38.7		
Approach LOS	B			A			D			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	13.4	12.4	64.2		13.4	11.1	65.5					
Change Period (Y+Rc), s	6.0	7.0	7.0		6.0	7.0	7.0					
Max Green Setting (Gmax), s	29.0	14.0	27.0		29.0	12.0	29.0					
Max Q Clear Time (g_c+1), s	4.4	6.1	10.8		3.6	5.1	11.0					
Green Ext Time (p_c), s	0.2	0.0	4.5		0.1	0.0	9.3					
Intersection Summary												
HCM 6th Ctrl Delay	14.4											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary
33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	454	50	440	886	122	162	883	350	80	547	50
Future Volume (veh/h)	100	454	50	440	886	122	162	883	350	80	547	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	108	488	10	473	953	120	174	949	127	86	588	17
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	337	1147	354	552	1318	165	316	1380	426	295	1349	416
Arrive On Green	0.10	0.22	0.22	0.16	0.28	0.28	0.09	0.27	0.27	0.08	0.26	0.26
Sat Flow, veh/h	3510	5187	1599	3510	4663	585	3510	5187	1601	3510	5187	1601
Grp Volume(v), veh/h	108	488	10	473	706	367	174	949	127	86	588	17
Grp Sat Flow(s),veh/h/ln	1755	1729	1599	1755	1729	1791	1755	1729	1601	1755	1729	1601
Q Serve(g_s), s	3.2	8.9	0.5	14.5	20.3	20.4	5.2	18.2	7.0	2.5	10.5	0.9
Cycle Q Clear(g_c), s	3.2	8.9	0.5	14.5	20.3	20.4	5.2	18.2	7.0	2.5	10.5	0.9
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	337	1147	354	552	977	506	316	1380	426	295	1349	416
V/C Ratio(X)	0.32	0.43	0.03	0.86	0.72	0.73	0.55	0.69	0.30	0.29	0.44	0.04
Avail Cap(c_a), veh/h	794	1877	579	794	1252	648	794	1877	579	794	1877	579
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	46.6	37.0	33.7	45.4	35.7	35.8	48.1	36.4	32.3	47.5	34.1	30.6
Incr Delay (d2), s/veh	0.4	0.3	0.0	5.8	1.7	3.3	1.1	0.8	0.5	0.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.7	0.2	6.5	8.4	9.0	2.3	7.4	2.7	1.1	4.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	37.3	33.8	51.1	37.4	39.1	49.3	37.2	32.8	47.9	34.4	30.6
LnGrp LOS	D	D	C	D	D	D	D	D	C	D	C	C
Approach Vol, veh/h		606			1546			1250			691	
Approach Delay, s/veh		39.0			42.0			38.4			36.0	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	36.2	18.1	38.7	16.8	36.9	24.9	31.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1), s	17.2	12.5	5.2	22.4	4.5	20.2	16.5	10.9				
Green Ext Time (p_c), s	0.3	4.5	0.2	7.3	0.2	7.4	0.9	3.8				

Intersection Summary

HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑			↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	140	655	49	49	1362	160	6	20	24	130	10	70
Future Volume (veh/h)	140	655	49	49	1362	160	6	20	24	130	10	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	689	47	52	1434	157	6	21	7	137	11	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	191	2177	148	137	1943	213	23	185	155	175	345	290
Arrive On Green	0.11	0.44	0.44	0.08	0.41	0.41	0.01	0.10	0.10	0.10	0.18	0.18
Sat Flow, veh/h	1810	4959	336	1810	4743	519	1810	1900	1585	1810	1900	1597
Grp Volume(v), veh/h	147	479	257	52	1045	546	6	21	7	137	11	30
Grp Sat Flow(s),veh/h/ln	1810	1729	1837	1810	1729	1804	1810	1900	1585	1810	1900	1597
Q Serve(g_s), s	6.5	7.4	7.5	2.3	21.1	21.1	0.3	0.8	0.3	6.1	0.4	1.3
Cycle Q Clear(g_c), s	6.5	7.4	7.5	2.3	21.1	21.1	0.3	0.8	0.3	6.1	0.4	1.3
Prop In Lane	1.00		0.18	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	1518	806	137	1416	739	23	185	155	175	345	290
V/C Ratio(X)	0.77	0.32	0.32	0.38	0.74	0.74	0.27	0.11	0.05	0.78	0.03	0.10
Avail Cap(c_a), veh/h	439	1677	891	439	1677	875	439	461	384	548	576	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	15.1	15.1	36.3	20.6	20.6	40.4	34.0	33.7	36.4	27.8	28.2
Incr Delay (d2), s/veh	2.5	0.1	0.3	0.6	1.6	3.0	2.3	0.2	0.1	5.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.6	2.8	1.0	7.8	8.4	0.1	0.4	0.1	2.9	0.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	15.2	15.4	36.9	22.2	23.6	42.7	34.2	33.8	42.1	27.8	28.3
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h	883			1643			34			178		
Approach Delay, s/veh	19.1			23.1			35.6			38.9		
Approach LOS	B			C			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	13.0	13.3	43.2	6.0	20.0	15.7	40.8				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	20.0	20.0	40.0	20.0	25.0	20.0	40.0				
Max Q Clear Time (g_c+1), s	10.5	2.8	4.3	9.5	2.3	3.3	8.5	23.1				
Green Ext Time (p_c), s	0.2	0.0	0.0	5.7	0.0	0.1	0.1	10.7				

Intersection Summary

HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	656	183	260	732	0	0	0	0	620	0	1111
Future Volume (veh/h)	0	656	183	260	732	0	0	0	0	620	0	1111
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	729	57	289	813	0				459	0	1356
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1393	391	585	2421	0				704	0	1252
Arrive On Green	0.00	0.24	0.24	0.33	0.93	0.00				0.39	0.00	0.39
Sat Flow, veh/h	0	5700	1600	3510	5358	0				1810	0	3220
Grp Volume(v), veh/h	0	729	57	289	813	0				459	0	1356
Grp Sat Flow(s),veh/h/ln	0	1900	1600	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	10.0	2.5	5.9	1.4	0.0				18.7	0.0	35.0
Cycle Q Clear(g_c), s	0.0	10.0	2.5	5.9	1.4	0.0				18.7	0.0	35.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1393	391	585	2421	0				704	0	1252
V/C Ratio(X)	0.00	0.52	0.15	0.49	0.34	0.00				0.65	0.00	1.08
Avail Cap(c_a), veh/h	0	1393	391	585	2421	0				704	0	1252
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.96	0.96	0.92	0.92	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.5	26.6	27.0	1.6	0.0				22.5	0.0	27.5
Incr Delay (d2), s/veh	0.0	1.4	0.8	2.7	0.3	0.0				4.7	0.0	51.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.4	1.0	2.4	0.4	0.0				8.5	0.0	21.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.8	27.4	29.7	2.0	0.0				27.2	0.0	78.5
LnGrp LOS	A	C	C	C	A	A				C	A	F
Approach Vol, veh/h		786			1102						1815	
Approach Delay, s/veh		30.6			9.3						65.5	
Approach LOS		C			A						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.0	28.5		41.5		48.5						
Change Period (Y+Rc), s	5.0	6.5		6.5		6.5						
Max Green Setting (Gmax), s	15.0	22.0		35.0		42.0						
Max Q Clear Time (g_c+1), s	17.0	12.0		37.0		3.4						
Green Ext Time (p_c), s	0.3	2.9		0.0		4.7						

Intersection Summary

HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑			↑ ↑ ↑	↖ ↗	↖ ↗	↕	↖ ↗			
Traffic Volume (veh/h)	390	916	0	0	611	450	341	0	490	0	0	0
Future Volume (veh/h)	390	916	0	0	611	450	341	0	490	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	415	974	0	0	650	101	501	0	269			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	390	2824	0	0	1960	608	1126	0	501			
Arrive On Green	0.22	1.00	0.00	0.00	0.38	0.38	0.31	0.00	0.31			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	3619	0	1610			
Grp Volume(v), veh/h	415	974	0	0	650	101	501	0	269			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	10.0	0.0	0.0	0.0	8.0	3.7	10.0	0.0	12.4			
Cycle Q Clear(g_c), s	10.0	0.0	0.0	0.0	8.0	3.7	10.0	0.0	12.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	390	2824	0	0	1960	608	1126	0	501			
V/C Ratio(X)	1.06	0.34	0.00	0.00	0.33	0.17	0.44	0.00	0.54			
Avail Cap(c_a), veh/h	390	2824	0	0	1960	608	1126	0	501			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.56	0.56	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.0	0.0	0.0	0.0	19.9	18.6	24.8	0.0	25.6			
Incr Delay (d2), s/veh	52.4	0.2	0.0	0.0	0.5	0.6	1.3	0.0	4.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.4	0.0	0.0	0.0	3.0	1.4	4.4	0.0	5.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.4	0.2	0.0	0.0	20.4	19.2	26.1	0.0	29.7			
LnGrp LOS	F	A	A	A	C	B	C	A	C			
Approach Vol, veh/h		1389			751			770				
Approach Delay, s/veh		26.2			20.2			27.3				
Approach LOS		C			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.5			15.0	40.5		34.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		49.0			10.0	34.0		28.0				
Max Q Clear Time (g_c+1), s		2.0			12.0	10.0		14.4				
Green Ext Time (p_c), s		6.0			0.0	3.6		2.5				

Intersection Summary

HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	825	91	132	636	231	161	831	74	263	866	188
Future Volume (veh/h)	301	825	91	132	636	231	161	831	74	263	866	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	342	938	28	150	723	154	183	944	74	299	984	53
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	963	427	216	952	422	319	838	66	321	898	398
Arrive On Green	0.12	0.27	0.27	0.12	0.26	0.26	0.13	0.25	0.25	0.13	0.25	0.25
Sat Flow, veh/h	1810	3610	1601	1810	3610	1601	1810	3390	266	1810	3610	1600
Grp Volume(v), veh/h	342	938	28	150	723	154	183	503	515	299	984	53
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1601	1810	1805	1850	1810	1805	1600
Q Serve(g_s), s	11.0	23.2	1.2	7.2	16.6	7.1	6.3	22.3	22.3	11.0	22.4	2.3
Cycle Q Clear(g_c), s	11.0	23.2	1.2	7.2	16.6	7.1	6.3	22.3	22.3	11.0	22.4	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	221	963	427	216	952	422	319	446	458	321	898	398
V/C Ratio(X)	1.55	0.97	0.07	0.69	0.76	0.36	0.57	1.13	1.13	0.93	1.10	0.13
Avail Cap(c_a), veh/h	221	963	427	221	963	427	321	446	458	321	898	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.76	0.76	0.76	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	32.7	24.6	38.1	30.5	27.0	22.0	33.9	33.9	23.4	33.8	26.3
Incr Delay (d2), s/veh	267.1	22.9	0.1	7.6	2.9	0.6	3.0	81.7	81.3	33.0	59.8	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	21.0	12.3	0.4	3.4	7.0	2.6	2.7	19.3	19.8	7.3	16.7	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	306.6	55.6	24.7	45.6	33.4	27.6	25.1	115.6	115.1	56.5	93.6	27.0
LnGrp LOS	F	E	C	D	C	C	C	F	F	E	F	C
Approach Vol, veh/h		1308			1027			1201			1336	
Approach Delay, s/veh		120.6			34.3			101.6			82.6	
Approach LOS		F			C			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	28.1	15.4	29.8	16.6	28.2	15.7	29.5				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.0	* 11	24.0	* 12	22.0	* 11	24.0				
Max Q Clear Time (g_c+I1), s	13.0	24.3	9.2	25.2	8.3	24.4	13.0	18.6				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.2	0.0	0.0	2.9				
Intersection Summary												
HCM 6th Ctrl Delay			87.3									
HCM 6th LOS			F									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
 2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1153	50	60	898	50	50	150	60	60	140	50
Future Volume (veh/h)	60	1153	50	60	898	50	50	150	60	60	140	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	1325	49	69	1032	33	57	172	55	69	161	42
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	1835	818	102	1835	814	127	272	79	147	262	61
Arrive On Green	0.06	0.51	0.51	0.06	0.51	0.51	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	3610	1610	1810	3610	1602	246	1170	340	319	1126	264
Grp Volume(v), veh/h	69	1325	49	69	1032	33	284	0	0	272	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1602	1757	0	0	1709	0	0
Q Serve(g_s), s	2.3	17.6	1.0	2.3	12.1	0.6	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	17.6	1.0	2.3	12.1	0.6	8.7	0.0	0.0	8.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.20		0.19	0.25		0.15
Lane Grp Cap(c), veh/h	102	1835	818	102	1835	814	478	0	0	470	0	0
V/C Ratio(X)	0.68	0.72	0.06	0.68	0.56	0.04	0.59	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	1014	2052	915	1014	2052	911	1031	0	0	1008	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.5	11.8	7.7	28.5	10.4	7.6	21.5	0.0	0.0	21.3	0.0	0.0
Incr Delay (d2), s/veh	7.6	1.6	0.1	7.6	0.6	0.0	2.5	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.5	0.3	1.1	3.6	0.2	3.7	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	13.3	7.7	36.1	11.0	7.6	24.0	0.0	0.0	23.7	0.0	0.0
LnGrp LOS	D	B	A	D	B	A	C	A	A	C	A	A
Approach Vol, veh/h	1443			1134			284			272		
Approach Delay, s/veh	14.2			12.4			24.0			23.7		
Approach LOS	B			B			C			C		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.0	35.3	18.3		8.0	35.3	18.3					
Change Period (Y+Rc), s	4.5	4.0	4.0		4.5	4.0	4.0					
Max Green Setting (Gmax), s	34.5	35.0	35.0		34.5	35.0	35.0					
Max Q Clear Time (g_c+1), s	14.3	19.6	10.5		4.3	14.1	10.7					
Green Ext Time (p_c), s	0.2	11.7	3.1		0.2	11.9	3.2					

Intersection Summary

HCM 6th Ctrl Delay	15.3
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary 3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1110	103	50	877	60	112	250	50	115	281	60
Future Volume (veh/h)	30	1110	103	50	877	60	112	250	50	115	281	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	1247	53	56	985	31	126	281	48	129	316	48
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	1614	716	106	1664	740	269	421	72	195	838	126
Arrive On Green	0.04	0.45	0.45	0.12	0.92	0.92	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1601	1810	3610	1605	1031	1580	270	1065	3144	473
Grp Volume(v), veh/h	34	1247	53	56	985	31	126	0	329	129	180	184
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1605	1031	0	1850	1065	1805	1812
Q Serve(g_s), s	1.6	26.3	1.7	2.6	4.2	0.1	10.2	0.0	14.3	9.7	7.3	7.5
Cycle Q Clear(g_c), s	1.6	26.3	1.7	2.6	4.2	0.1	17.7	0.0	14.3	24.0	7.3	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.26
Lane Grp Cap(c), veh/h	81	1614	716	106	1664	740	269	0	493	195	481	483
V/C Ratio(X)	0.42	0.77	0.07	0.53	0.59	0.04	0.47	0.00	0.67	0.66	0.37	0.38
Avail Cap(c_a), veh/h	181	1614	716	181	1664	740	269	0	493	195	481	483
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	21.0	14.2	38.6	2.1	1.9	34.2	0.0	29.4	40.7	26.9	26.9
Incr Delay (d2), s/veh	7.3	3.7	0.2	7.3	1.3	0.1	5.7	0.0	7.0	16.3	2.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	10.6	0.6	1.3	1.0	0.1	2.9	0.0	7.0	3.7	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	24.7	14.4	45.9	3.4	2.0	39.9	0.0	36.4	56.9	29.1	29.2
LnGrp LOS	D	C	B	D	A	A	D	A	D	E	C	C
Approach Vol, veh/h	1334			1072			455			493		
Approach Delay, s/veh	24.9			5.6			37.4			36.4		
Approach LOS	C			A			D			D		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	30.5	11.0	48.5	30.5		12.3	47.2					
Change Period (Y+Rc), s	6.5	7.0	7.0	* 6.5		7.0	* 7					
Max Green Setting (Gmax), s	22.5	9.0	38.0	* 24		9.0	* 39					
Max Q Clear Time (g_c+I1), s	19.7	3.6	6.2	26.0		4.6	28.3					
Green Ext Time (p_c), s	1.1	0.0	14.4	0.0		0.1	8.3					
Intersection Summary												
HCM 6th Ctrl Delay	22.1											
HCM 6th LOS	C											
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
 4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1123	103	40	895	70	52	133	20	70	154	40
Future Volume (veh/h)	40	1123	103	40	895	70	52	133	20	70	154	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	1262	59	45	1006	41	58	149	5	79	173	10
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	1723	764	81	1723	764	51	106	368	53	73	368
Arrive On Green	0.05	0.48	0.48	0.05	0.48	0.48	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	0	415	1441	0	286	1441
Grp Volume(v), veh/h	45	1262	59	45	1006	41	207	0	5	252	0	10
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	415	0	1441	286	0	1441
Q Serve(g_s), s	2.2	25.3	1.8	2.2	18.2	1.2	0.0	0.0	0.2	0.0	0.0	0.5
Cycle Q Clear(g_c), s	2.2	25.3	1.8	2.2	18.2	1.2	23.0	0.0	0.2	23.0	0.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	0.28		1.00	0.31		1.00
Lane Grp Cap(c), veh/h	81	1723	764	81	1723	764	157	0	368	126	0	368
V/C Ratio(X)	0.55	0.73	0.08	0.55	0.58	0.05	1.32	0.00	0.01	2.00	0.00	0.03
Avail Cap(c_a), veh/h	181	1723	764	181	1723	764	157	0	368	126	0	368
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	0.39	0.39	0.39	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	18.9	12.8	42.1	17.1	12.6	31.2	0.0	25.0	32.6	0.0	25.1
Incr Delay (d2), s/veh	1.3	1.7	0.1	0.8	0.6	0.1	180.2	0.0	0.0	478.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.6	0.6	1.0	6.8	0.4	10.4	0.0	0.1	19.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	20.6	12.9	42.9	17.6	12.7	211.4	0.0	25.0	511.5	0.0	25.1
LnGrp LOS	D	C	B	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1366			1092			212			262	
Approach Delay, s/veh		21.0			18.5			207.0			493.0	
Approach LOS		C			B			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	49.9		29.0	11.1	49.9		29.0				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	38.0	38.0		23.0	9.0	38.0		23.0				
Max Q Clear Time (g_c+1/2), s	14.2	27.3		25.0	4.2	20.2		25.0				
Green Ext Time (p_c), s	0.0	6.7		0.0	0.0	7.5		0.0				

Intersection Summary												
HCM 6th Ctrl Delay											75.7	
HCM 6th LOS											E	

Notes
 User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗↘	↑↑	↗	↗↘	↑↑	↗	↗↑↑↑			↗↑↑↑		↗
Traffic Volume (veh/h)	303	745	175	50	718	451	122	717	30	585	1075	255
Future Volume (veh/h)	303	745	175	50	718	451	122	717	30	585	1075	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	333	819	83	55	789	136	134	788	32	643	1181	248
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	383	963	427	173	747	331	155	959	39	588	2217	861
Arrive On Green	0.11	0.27	0.27	0.05	0.21	0.21	0.09	0.19	0.19	0.33	0.43	0.43
Sat Flow, veh/h	3510	3610	1601	3510	3610	1598	1810	5112	207	1810	5187	1605
Grp Volume(v), veh/h	333	819	83	55	789	136	134	532	288	643	1181	248
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1598	1810	1729	1861	1810	1729	1605
Q Serve(g_s), s	15.8	36.4	6.8	2.6	35.0	12.5	12.4	25.0	25.1	55.0	28.6	14.3
Cycle Q Clear(g_c), s	15.8	36.4	6.8	2.6	35.0	12.5	12.4	25.0	25.1	55.0	28.6	14.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	383	963	427	173	747	331	155	649	349	588	2217	861
V/C Ratio(X)	0.87	0.85	0.19	0.32	1.06	0.41	0.87	0.82	0.82	1.09	0.53	0.29
Avail Cap(c_a), veh/h	622	963	427	415	747	331	214	715	385	588	2217	861
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	74.2	58.8	48.0	77.7	67.1	58.2	76.4	66.0	66.0	57.1	35.9	21.5
Incr Delay (d2), s/veh	6.2	7.5	0.3	0.8	48.9	1.0	21.0	7.5	13.4	65.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	17.1	2.7	1.2	20.9	5.1	6.6	11.6	13.1	35.2	12.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.4	66.3	48.2	78.5	116.0	59.2	97.4	73.5	79.4	122.2	36.3	21.8
LnGrp LOS	F	E	D	E	F	E	F	E	E	F	D	C
Approach Vol, veh/h		1235			980			954			2072	
Approach Delay, s/veh		68.9			106.0			78.6			61.2	
Approach LOS		E			F			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	62.0	38.8	15.8	52.6	21.5	79.3	26.0	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+Y), s	57.0	27.1	4.6	38.4	14.4	30.6	17.8	37.0				
Green Ext Time (p_c), s	0.0	3.8	0.1	3.1	0.1	16.4	0.7	0.0				

Intersection Summary

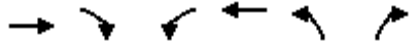
HCM 6th Ctrl Delay 74.6
HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵↵	↵
Traffic Volume (veh/h)	1159	140	80	1205	43	20
Future Volume (veh/h)	1159	140	80	1205	43	20
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1332	108	92	1385	49	2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2317	1030	119	2855	169	77
Arrive On Green	0.64	0.64	0.07	0.79	0.05	0.05
Sat Flow, veh/h	3705	1604	1810	3705	3510	1610
Grp Volume(v), veh/h	1332	108	92	1385	49	2
Grp Sat Flow(s),veh/h/ln	1805	1604	1810	1805	1755	1610
Q Serve(g_s), s	18.8	2.3	4.5	11.7	1.2	0.1
Cycle Q Clear(g_c), s	18.8	2.3	4.5	11.7	1.2	0.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2317	1030	119	2855	169	77
V/C Ratio(X)	0.57	0.10	0.77	0.49	0.29	0.03
Avail Cap(c_a), veh/h	2317	1030	251	2855	702	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.25	0.25	0.61	0.61	1.00	1.00
Uniform Delay (d), s/veh	9.1	6.2	41.4	3.2	41.4	40.8
Incr Delay (d2), s/veh	0.3	0.1	4.9	0.4	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.6	2.0	1.5	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.4	6.2	46.3	3.6	42.1	40.9
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1440			1477	51	
Approach Delay, s/veh	9.2			6.2	42.0	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	33.4	65.3		11.3		78.7
Change Period (Y+Rc), s	7.5	* 7.5		7.0		7.5
Max Green Setting (Gmax), s	12.5	* 38		18.0		57.5
Max Q Clear Time (g_c+I), s	10.5	20.8		3.2		13.7
Green Ext Time (p_c), s	0.1	7.0		0.1		12.1

Intersection Summary

HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

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

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	10	0	138	10	0	10	10	118	10	10	0
Future Vol, veh/h	0	10	0	138	10	0	10	10	118	10	10	0
Peak Hour Factor	0.92	0.92	0.92	0.84	0.92	0.84	0.92	0.84	0.84	0.84	0.84	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	164	11	0	11	12	140	12	12	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	8.3	8.9	7.9	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	50%	0%	0%	100%	87%	75%	0%
Vol Thru, %	50%	0%	100%	0%	13%	25%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	118	10	73	75	13	7
LT Vol	10	0	0	73	65	10	0
Through Vol	10	0	10	0	10	3	7
RT Vol	0	118	0	0	0	0	0
Lane Flow Rate	23	140	11	87	88	16	8
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.033	0.169	0.016	0.131	0.131	0.024	0.011
Departure Headway (Hd)	5.288	4.334	5.149	5.436	5.369	5.528	5.151
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	680	832	696	661	669	650	697
Service Time	2.997	2.043	3.171	3.155	3.088	3.244	2.867
HCM Lane V/C Ratio	0.034	0.168	0.016	0.132	0.132	0.025	0.011
HCM Control Delay	8.2	7.9	8.3	9	8.9	8.4	7.9
HCM Lane LOS	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.6	0	0.4	0.4	0.1	0

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	118	0	0	148	0
Future Vol, veh/h	0	0	0	0	0	0	0	118	0	0	148	0
Conflicting Peds, #/hr	0	0	5	0	0	5	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	146	0	0	183	0

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	266	339	102	248	339	83	188	0	0	151	0	0
Stage 1	188	188	-	151	151	-	-	-	-	-	-	-
Stage 2	78	151	-	97	188	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	671	586	940	690	586	966	1398	-	-	1442	-	-
Stage 1	801	748	-	842	776	-	-	-	-	-	-	-
Stage 2	928	776	-	905	748	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	664	580	931	683	580	957	1391	-	-	1435	-	-
Mov Cap-2 Maneuver	664	580	-	683	580	-	-	-	-	-	-	-
Stage 1	797	744	-	838	772	-	-	-	-	-	-	-
Stage 2	924	772	-	901	744	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1391	-	-	-	-	1435	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary

9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1049	200	80	1204	12	143	66	30	10	71	67
Future Volume (veh/h)	50	1049	200	80	1204	12	143	66	30	10	71	67
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/l	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	56	1179	152	90	1353	13	161	74	7	11	80	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	123	1497	668	156	1584	15	325	648	289	327	648	
Arrive On Green	0.07	0.41	0.41	0.09	0.43	0.43	0.18	0.18	0.18	0.18	0.18	0.00
Sat Flow, veh/h	1810	3610	1610	1810	3663	35	1339	3610	1610	1338	3610	1610
Grp Volume(v), veh/h	56	1179	152	90	666	700	161	74	7	11	80	0
Grp Sat Flow(s),veh/h/l	1810	1805	1610	1810	1805	1894	1339	1805	1610	1338	1805	1610
Q Serve(g_s), s	2.0	18.6	4.0	3.1	21.8	21.8	7.5	1.1	0.2	0.5	1.2	0.0
Cycle Q Clear(g_c), s	2.0	18.6	4.0	3.1	21.8	21.8	8.7	1.1	0.2	1.6	1.2	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	1497	668	156	781	819	325	648	289	327	648	
V/C Ratio(X)	0.45	0.79	0.23	0.58	0.85	0.85	0.50	0.11	0.02	0.03	0.12	
Avail Cap(c_a), veh/h	551	1650	736	551	825	865	493	1100	491	494	1100	
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	0.00
Uniform Delay (d), s/veh	29.4	16.7	12.4	28.9	16.8	16.8	26.3	22.6	22.2	23.2	22.6	0.0
Incr Delay (d2), s/veh	1.0	2.6	0.2	1.3	8.7	8.4	2.0	0.1	0.1	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/l	0.8	6.4	1.2	1.3	8.6	8.9	2.5	0.5	0.1	0.1	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.4	19.3	12.7	30.1	25.5	25.2	28.3	22.7	22.3	23.3	22.8	0.0
LnGrp LOS	C	B	B	C	C	C	C	C	C	C	C	
Approach Vol, veh/h		1387			1456			242			91	A
Approach Delay, s/veh		19.0			25.6			26.4			22.8	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	34.2		18.8	11.5	35.4		18.8				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	20.0	30.0		20.0	20.0	30.0		20.0				
Max Q Clear Time (g_c+I1), s	5.1	20.6		3.6	4.0	23.8		10.7				
Green Ext Time (p_c), s	0.1	6.3		0.5	0.0	4.6		1.1				

Intersection Summary

HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	120	71	30	140	20	121	306	110	26	275	30
Future Volume (veh/h)	23	120	71	30	140	20	121	306	110	26	275	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	132	12	33	154	3	133	336	62	29	302	14
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	238	376	165	250	401	177	645	1730	769	582	1600	711
Arrive On Green	0.03	0.10	0.10	0.04	0.11	0.11	0.07	0.48	0.48	0.04	0.44	0.44
Sat Flow, veh/h	1810	3610	1587	1810	3610	1588	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	25	132	12	33	154	3	133	336	62	29	302	14
Grp Sat Flow(s),veh/h/ln	1810	1805	1587	1810	1805	1588	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	1.0	2.7	0.5	1.3	3.1	0.1	3.0	4.2	1.7	0.7	4.0	0.4
Cycle Q Clear(g_c), s	1.0	2.7	0.5	1.3	3.1	0.1	3.0	4.2	1.7	0.7	4.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	376	165	250	401	177	645	1730	769	582	1600	711
V/C Ratio(X)	0.11	0.35	0.07	0.13	0.38	0.02	0.21	0.19	0.08	0.05	0.19	0.02
Avail Cap(c_a), veh/h	523	1600	703	522	1600	704	859	1730	769	861	1600	711
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	29.9	32.9	31.9	29.6	32.6	31.3	10.1	11.8	11.1	10.9	13.4	12.4
Incr Delay (d2), s/veh	0.2	0.8	0.3	0.2	0.9	0.1	0.2	0.3	0.2	0.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.1	0.2	0.5	1.3	0.1	1.0	1.5	0.6	0.2	1.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	33.7	32.2	29.8	33.5	31.3	10.3	12.1	11.3	11.0	13.6	12.4
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		169		190		531		345				
Approach Delay, s/veh		33.1		32.8		11.5		13.4				
Approach LOS		C		C		B		B				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	44.9	9.6	14.7	12.7	42.0	9.0	15.3				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	15.0	35.0	15.0	35.0	15.0	35.0	15.0	35.0				
Max Q Clear Time (g_c+1), s	12.5	6.2	3.3	4.7	5.0	6.0	3.0	5.1				
Green Ext Time (p_c), s	0.0	3.1	0.0	1.1	0.3	2.6	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay		18.3										
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary

11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	200	160	70	270	70	140	637	130	70	296	20
Future Volume (veh/h)	30	200	160	70	270	70	140	637	130	70	296	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	31	208	31	73	281	44	146	664	48	73	308	16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	181	355	52	226	421	65	178	1549	691	94	1336	69
Arrive On Green	0.02	0.11	0.11	0.04	0.13	0.13	0.20	0.86	0.86	0.05	0.38	0.38
Sat Flow, veh/h	1810	3152	462	1810	3128	484	1810	3610	1610	1810	3491	181
Grp Volume(v), veh/h	31	118	121	73	161	164	146	664	48	73	159	165
Grp Sat Flow(s),veh/h/ln	1810	1805	1809	1810	1805	1807	1810	1805	1610	1810	1805	1867
Q Serve(g_s), s	1.2	5.0	5.1	2.8	6.8	6.9	6.2	3.3	0.4	3.2	4.8	4.8
Cycle Q Clear(g_c), s	1.2	5.0	5.1	2.8	6.8	6.9	6.2	3.3	0.4	3.2	4.8	4.8
Prop In Lane	1.00		0.26	1.00		0.27	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	181	203	204	226	243	243	178	1549	691	94	691	714
V/C Ratio(X)	0.17	0.58	0.59	0.32	0.66	0.68	0.82	0.43	0.07	0.78	0.23	0.23
Avail Cap(c_a), veh/h	220	395	396	226	395	395	204	1549	691	113	691	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	0.99	0.99	0.99
Uniform Delay (d), s/veh	30.7	33.7	33.8	29.8	32.9	32.9	31.4	3.5	3.3	37.5	16.7	16.7
Incr Delay (d2), s/veh	0.2	1.9	2.1	0.3	2.3	2.4	16.3	0.8	0.2	19.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	2.2	1.2	2.9	3.0	3.1	1.0	0.1	1.8	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	35.6	35.8	30.1	35.2	35.4	47.8	4.3	3.4	56.5	17.5	17.5
LnGrp LOS	C	D	D	C	D	D	D	A	A	E	B	B
Approach Vol, veh/h		270			398			858			397	
Approach Delay, s/veh		35.2			34.3			11.6			24.7	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	41.3	11.0	16.5	14.9	37.6	9.2	18.3				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	25.0	3.5	17.5	9.0	21.0	3.5	17.5				
Max Q Clear Time (g_c+I), s	11.2	5.3	4.8	7.1	8.2	6.8	3.2	8.9				
Green Ext Time (p_c), s	0.0	3.4	0.0	0.6	0.0	1.1	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay											22.3	
HCM 6th LOS											C	
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	10	130	10	50	20	817	500	110	426	10
Future Volume (veh/h)	10	10	10	130	10	50	20	817	500	110	426	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	10	1	141	0	7	21	842	225	113	439	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	59	55	6	330	0	145	51	1854	823	113	1977	45
Arrive On Green	0.03	0.03	0.03	0.09	0.00	0.09	0.01	0.17	0.17	0.13	1.00	1.00
Sat Flow, veh/h	1810	1699	170	3619	0	1584	1810	3610	1602	1810	3608	82
Grp Volume(v), veh/h	10	0	11	141	0	7	21	842	225	113	219	230
Grp Sat Flow(s),veh/h/ln	1810	0	1869	1810	0	1584	1810	1805	1602	1810	1805	1885
Q Serve(g_s), s	0.4	0.0	0.5	2.9	0.0	0.3	0.9	16.8	9.8	5.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.5	2.9	0.0	0.3	0.9	16.8	9.8	5.0	0.0	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	59	0	61	330	0	145	51	1854	823	113	989	1033
V/C Ratio(X)	0.17	0.00	0.18	0.43	0.00	0.05	0.41	0.45	0.27	1.00	0.22	0.22
Avail Cap(c_a), veh/h	181	0	187	769	0	337	136	1854	823	113	989	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.87	0.87	0.87	0.97	0.97	0.97
Uniform Delay (d), s/veh	37.6	0.0	37.7	34.4	0.0	33.2	39.0	23.1	20.2	35.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.6	0.0	0.1	5.6	0.7	0.7	83.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	1.3	0.0	0.1	0.5	8.1	3.8	4.5	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	38.2	35.0	0.0	33.3	44.6	23.8	20.9	118.1	0.5	0.5
LnGrp LOS	D	A	D	D	A	C	D	C	C	F	A	A
Approach Vol, veh/h		21			148			1088			562	
Approach Delay, s/veh		38.2			34.9			23.6			24.1	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	2.0	48.1		7.6	9.2	50.8		12.3				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	5.0	26.0		8.0	6.0	25.0		17.0				
Max Q Clear Time (g_c+1), s	17.0	18.8		2.5	2.9	2.0		4.9				
Green Ext Time (p_c), s	0.0	3.9		0.0	0.0	1.8		0.3				

Intersection Summary

HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations						↕ ↗	↗ ↕	↕ ↗ ↗ ↗			↕ ↗ ↗ ↗	↗ ↕
Traffic Volume (veh/h)	0	0	0	197	0	410	220	927	0	0	394	172
Future Volume (veh/h)	0	0	0	197	0	410	220	927	0	0	394	172
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				207	0	339	232	976	0	0	415	67
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				461	0	411	362	3112	0	0	1751	539
Arrive On Green				0.25	0.00	0.25	0.40	1.00	0.00	0.00	0.11	0.11
Sat Flow, veh/h				1810	0	1610	1810	5358	0	0	5358	1598
Grp Volume(v), veh/h				207	0	339	232	976	0	0	415	67
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1598
Q Serve(g_s), s				7.7	0.0	15.9	8.3	0.0	0.0	0.0	5.8	3.0
Cycle Q Clear(g_c), s				7.7	0.0	15.9	8.3	0.0	0.0	0.0	5.8	3.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				461	0	411	362	3112	0	0	1751	539
V/C Ratio(X)				0.45	0.00	0.83	0.64	0.31	0.00	0.00	0.24	0.12
Avail Cap(c_a), veh/h				461	0	411	362	3112	0	0	1751	539
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.79	0.79	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				25.1	0.0	28.1	21.7	0.0	0.0	0.0	26.1	24.9
Incr Delay (d2), s/veh				3.1	0.0	17.1	6.7	0.2	0.0	0.0	0.3	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.0	7.8	3.4	0.1	0.0	0.0	2.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.2	0.0	45.2	28.4	0.2	0.0	0.0	26.5	25.4
LnGrp LOS				C	A	D	C	A	A	A	C	C
Approach Vol, veh/h					546			1208			482	
Approach Delay, s/veh					38.7			5.6			26.3	
Approach LOS					D			A			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		53.8			21.0	32.8		26.2				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			10.3	7.8		17.9				
Green Ext Time (p_c), s		6.0			0.2	2.1		1.1				
Intersection Summary												
HCM 6th Ctrl Delay											18.2	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↕↕		↗	↕↕↕	
Traffic Volume (veh/h)	582	0	180	0	0	0	0	605	383	160	421	0
Future Volume (veh/h)	582	0	180	0	0	0	0	605	383	160	421	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	613	0	61				0	637	261	168	443	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	575	0	511				0	1296	520	213	2788	0
Arrive On Green	0.32	0.00	0.32				0.00	0.36	0.36	0.04	0.18	0.00
Sat Flow, veh/h	1810	0	1610				0	3799	1456	1810	5358	0
Grp Volume(v), veh/h	613	0	61				0	607	291	168	443	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1626	1810	1729	0
Q Serve(g_s), s	25.4	0.0	2.1				0.0	10.9	11.2	7.4	5.8	0.0
Cycle Q Clear(g_c), s	25.4	0.0	2.1				0.0	10.9	11.2	7.4	5.8	0.0
Prop In Lane	1.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	575	0	511				0	1235	581	213	2788	0
V/C Ratio(X)	1.07	0.00	0.12				0.00	0.49	0.50	0.79	0.16	0.00
Avail Cap(c_a), veh/h	575	0	511				0	1235	581	271	2788	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	27.3	0.0	19.4				0.0	20.0	20.1	37.5	17.6	0.0
Incr Delay (d2), s/veh	56.7	0.0	0.5				0.0	1.4	3.1	8.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.4	0.0	0.8				0.0	4.2	4.3	3.8	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.0	0.0	19.8				0.0	21.4	23.2	45.9	17.7	0.0
LnGrp LOS	F	A	B				A	C	C	D	B	A
Approach Vol, veh/h		674						898			611	
Approach Delay, s/veh		78.2						22.0			25.5	
Approach LOS		E						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	14.4	34.4	31.2	48.8								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	12.0	26.0	25.4	43.0								
Max Q Clear Time (g_c+I), s	19.4	13.2	27.4	7.8								
Green Ext Time (p_c), s	0.1	3.8	0.0	2.3								
Intersection Summary												
HCM 6th Ctrl Delay			40.3									
HCM 6th LOS			D									

Intersection												
Intersection Delay, s/veh	20.5											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔	↔		↔	↔	↔	↔	↔
Traffic Vol, veh/h	10	141	61	378	153	180	51	120	160	90	30	10
Future Vol, veh/h	10	141	61	378	153	180	51	120	160	90	30	10
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	166	72	445	180	212	60	141	188	106	35	12
Number of Lanes	0	1	1	1	1	1	0	1	2	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	3	2
HCM Control Delay	17	24.3	16.5	15.6
HCM LOS	C	C	C	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	30%	0%	0%	7%	0%	100%	43%	0%	100%	0%
Vol Thru, %	70%	0%	0%	93%	0%	0%	57%	0%	0%	75%
Vol Right, %	0%	100%	100%	0%	100%	0%	0%	100%	0%	25%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	171	80	80	151	61	261	270	180	90	40
LT Vol	51	0	0	10	0	261	117	0	90	0
Through Vol	120	0	0	141	0	0	153	0	0	30
RT Vol	0	80	80	0	61	0	0	180	0	10
Lane Flow Rate	201	94	94	178	72	307	318	212	106	47
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.495	0.209	0.209	0.444	0.164	0.7	0.7	0.411	0.291	0.12
Departure Headway (Hd)	8.859	7.991	7.991	8.993	8.244	8.213	7.925	6.991	9.893	9.199
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	408	451	451	401	435	442	458	517	363	390
Service Time	6.583	5.714	5.714	6.744	5.995	5.93	5.642	4.707	7.649	6.956
HCM Lane V/C Ratio	0.493	0.208	0.208	0.444	0.166	0.695	0.694	0.41	0.292	0.121
HCM Control Delay	20	12.8	12.8	18.8	12.6	28	27.2	14.5	16.7	13.2
HCM Lane LOS	C	B	B	C	B	D	D	B	C	B
HCM 95th-tile Q	2.7	0.8	0.8	2.2	0.6	5.3	5.3	2	1.2	0.4

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	10	0	10	10	0	10	20	371	40	20	449	20
Future Volume (veh/h)	10	0	10	10	0	10	20	371	40	20	449	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.97	0.95		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	0	1	12	0	0	24	447	36	24	541	18
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.84	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	0	77	119	0	0	83	2635	1171	83	2635	1171
Arrive On Green	0.05	0.00	0.05	0.05	0.00	0.00	0.05	0.73	0.73	0.05	0.73	0.73
Sat Flow, veh/h	1486	0	1562	1186	0	0	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	12	0	1	12	0	0	24	447	36	24	541	18
Grp Sat Flow(s),veh/h/ln	1486	0	1562	1186	0	0	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	0.0	0.0	0.1	1.0	0.0	0.0	1.5	4.6	0.7	1.5	5.7	0.4
Cycle Q Clear(g_c), s	0.8	0.0	0.1	1.8	0.0	0.0	1.5	4.6	0.7	1.5	5.7	0.4
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	133	0	77	119	0	0	83	2635	1171	83	2635	1171
V/C Ratio(X)	0.09	0.00	0.01	0.10	0.00	0.00	0.29	0.17	0.03	0.29	0.21	0.02
Avail Cap(c_a), veh/h	444	0	430	428	0	0	196	2635	1171	196	2635	1171
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	0.00	1.00	1.00	0.00	0.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.6	0.0	54.3	55.5	0.0	0.0	55.4	5.0	4.5	55.4	5.2	4.4
Incr Delay (d2), s/veh	0.3	0.0	0.1	0.4	0.0	0.0	2.1	0.1	0.0	2.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.4	0.0	0.0	0.7	1.4	0.2	0.7	1.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	0.0	54.3	55.9	0.0	0.0	57.4	5.1	4.5	57.6	5.3	4.5
LnGrp LOS	D	A	D	E	A	A	E	A	A	E	A	A
Approach Vol, veh/h		13			12			507			583	
Approach Delay, s/veh		54.9			55.9			7.6			7.5	
Approach LOS		D			E			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	94.6		12.9	12.5	94.6		12.9				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1), s	13.5	6.6		2.8	3.5	7.7		3.8				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	7.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2025) Plus Phase 1 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑	↗		↕	
Traffic Volume (veh/h)	100	599	150	120	858	50	210	242	60	20	253	158
Future Volume (veh/h)	100	599	150	120	858	50	210	242	60	20	253	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	637	59	128	913	53	223	257	13	21	269	168
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	894	396	156	897	52	300	315	265	21	270	168
Arrive On Green	0.08	0.25	0.25	0.09	0.26	0.26	0.17	0.17	0.17	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1600	1810	3466	201	1810	1900	1596	81	1042	651
Grp Volume(v), veh/h	106	637	59	128	475	491	223	257	13	458	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1600	1810	1805	1862	1810	1900	1596	1774	0	0
Q Serve(g_s), s	6.7	18.7	3.3	8.1	30.0	30.0	13.6	15.1	0.8	29.9	0.0	0.0
Cycle Q Clear(g_c), s	6.7	18.7	3.3	8.1	30.0	30.0	13.6	15.1	0.8	29.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	0.05		0.37
Lane Grp Cap(c), veh/h	136	894	396	156	467	482	300	315	265	459	0	0
V/C Ratio(X)	0.78	0.71	0.15	0.82	1.02	1.02	0.74	0.82	0.05	1.00	0.00	0.00
Avail Cap(c_a), veh/h	390	934	414	312	467	482	468	492	413	459	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	52.7	39.8	34.1	52.1	43.0	43.0	46.0	46.6	40.7	42.9	0.0	0.0
Incr Delay (d2), s/veh	7.0	3.2	0.4	4.0	46.2	45.6	4.4	6.9	0.1	41.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	8.2	1.3	3.7	18.5	19.0	6.3	7.6	0.3	17.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.7	43.0	34.4	56.1	89.2	88.5	50.4	53.5	40.8	84.2	0.0	0.0
LnGrp LOS	E	D	C	E	F	F	D	D	D	F	A	A
Approach Vol, veh/h		802			1094			493			458	
Approach Delay, s/veh		44.6			85.0			51.8			84.2	
Approach LOS		D			F			D			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.5	36.2		36.5	16.2	37.5		25.7				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	10.1	20.7		31.9	8.7	32.0		17.1				
Green Ext Time (p_c), s	0.1	4.3		0.0	0.1	0.0		2.1				

Intersection Summary

HCM 6th Ctrl Delay	67.8
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	20	100	10	10	10	220	501	30	20	391	130
Future Volume (veh/h)	40	20	100	10	10	10	220	501	30	20	391	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	22	20	11	11	1	244	557	19	22	434	58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	120	279	220	43	374	165	281	1839	818	59	2007	621
Arrive On Green	0.07	0.15	0.15	0.02	0.10	0.10	0.16	0.51	0.51	0.03	0.39	0.39
Sat Flow, veh/h	1810	1909	1506	1810	3610	1587	1810	3610	1605	1810	5187	1604
Grp Volume(v), veh/h	44	21	21	11	11	1	244	557	19	22	434	58
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1587	1810	1805	1605	1810	1729	1604
Q Serve(g_s), s	2.1	0.9	1.0	0.5	0.2	0.1	11.9	8.1	0.5	1.1	5.1	2.1
Cycle Q Clear(g_c), s	2.1	0.9	1.0	0.5	0.2	0.1	11.9	8.1	0.5	1.1	5.1	2.1
Prop In Lane	1.00		0.94	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	264	235	43	374	165	281	1839	818	59	2007	621
V/C Ratio(X)	0.37	0.08	0.09	0.25	0.03	0.01	0.87	0.30	0.02	0.37	0.22	0.09
Avail Cap(c_a), veh/h	400	499	445	400	998	439	400	1839	818	400	2007	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	33.3	33.4	43.3	36.4	36.4	37.3	12.9	11.0	42.8	18.5	17.6
Incr Delay (d2), s/veh	0.7	0.1	0.1	1.1	0.0	0.0	10.1	0.4	0.1	1.4	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4	0.4	0.2	0.1	0.0	5.8	3.0	0.2	0.5	1.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	33.4	33.5	44.5	36.5	36.4	47.4	13.3	11.1	44.2	18.8	17.9
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		86			23			820			514	
Approach Delay, s/veh		37.4			40.3			23.4			19.8	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	52.6	8.7	19.7	20.6	41.5	12.5	15.9				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	10.1	10.1	2.5	3.0	13.9	7.1	4.1	2.2				
Green Ext Time (p_c), s	0.0	4.3	0.0	0.1	0.2	3.5	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖↗↘	↖↗↘	↖	↖↗↘	↖↗↘	
Traffic Volume (veh/h)	10	10	21	20	10	30	71	731	70	50	401	30
Future Volume (veh/h)	10	10	21	20	10	30	71	731	70	50	401	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	11	3	22	11	4	79	812	42	56	446	31
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	292	76	77	439	194	121	2632	815	106	2473	170
Arrive On Green	0.02	0.10	0.10	0.04	0.12	0.12	0.07	0.51	0.51	0.06	0.50	0.50
Sat Flow, veh/h	1810	2826	734	1810	3610	1590	1810	5187	1605	1810	4955	341
Grp Volume(v), veh/h	11	7	7	22	11	4	79	812	42	56	310	167
Grp Sat Flow(s),veh/h/ln	1810	1805	1755	1810	1805	1590	1810	1729	1605	1810	1729	1837
Q Serve(g_s), s	0.5	0.3	0.3	1.1	0.2	0.2	3.8	8.2	1.2	2.7	4.4	4.5
Cycle Q Clear(g_c), s	0.5	0.3	0.3	1.1	0.2	0.2	3.8	8.2	1.2	2.7	4.4	4.5
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	43	187	182	77	439	194	121	2632	815	106	1726	917
V/C Ratio(X)	0.25	0.04	0.04	0.29	0.03	0.02	0.65	0.31	0.05	0.53	0.18	0.18
Avail Cap(c_a), veh/h	502	721	701	502	1441	635	502	2632	815	502	1726	917
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	43.2	36.4	36.4	41.9	34.9	34.9	41.0	13.0	11.2	41.2	12.4	12.4
Incr Delay (d2), s/veh	1.1	0.1	0.1	0.8	0.0	0.0	2.2	0.3	0.1	1.5	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.1	0.5	0.1	0.1	1.7	2.9	0.4	1.2	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	36.4	36.5	42.6	34.9	34.9	43.3	13.3	11.4	42.8	12.7	12.9
LnGrp LOS	D	D	D	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		25			37			933			533	
Approach Delay, s/veh		39.9			39.5			15.7			15.9	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	52.3	10.3	15.8	12.5	51.5	8.7	17.5				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	25.0	45.0	25.0	36.0	25.0	45.0	25.0	36.0				
Max Q Clear Time (g_c+1), s	14.7	10.2	3.1	2.3	5.8	6.5	2.5	2.2				
Green Ext Time (p_c), s	0.0	7.3	0.0	0.0	0.1	3.6	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	50	200	150	140	440	60	380	792	230	50	352	50
Future Volume (veh/h)	50	200	150	140	440	60	380	792	230	50	352	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	217	34	152	478	15	413	861	103	54	383	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	275	611	270	351	689	305	496	2030	628	193	1581	488
Arrive On Green	0.08	0.17	0.17	0.10	0.19	0.19	0.14	0.39	0.39	0.05	0.30	0.30
Sat Flow, veh/h	3510	3610	1596	3510	3610	1598	3510	5187	1604	3510	5187	1602
Grp Volume(v), veh/h	54	217	34	152	478	15	413	861	103	54	383	17
Grp Sat Flow(s),veh/h/ln	1755	1805	1596	1755	1805	1598	1755	1729	1604	1755	1729	1602
Q Serve(g_s), s	1.4	5.2	1.8	4.0	12.2	0.8	11.3	11.9	4.1	1.5	5.5	0.7
Cycle Q Clear(g_c), s	1.4	5.2	1.8	4.0	12.2	0.8	11.3	11.9	4.1	1.5	5.5	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	611	270	351	689	305	496	2030	628	193	1581	488
V/C Ratio(X)	0.20	0.36	0.13	0.43	0.69	0.05	0.83	0.42	0.16	0.28	0.24	0.03
Avail Cap(c_a), veh/h	713	1100	486	713	1100	487	713	2030	628	713	1581	488
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	42.4	36.1	34.7	41.7	37.1	32.5	41.1	21.9	19.5	44.6	25.7	24.0
Incr Delay (d2), s/veh	0.3	0.4	0.3	0.6	1.5	0.1	4.9	0.7	0.6	0.6	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.2	0.7	1.7	5.2	0.3	5.0	4.6	1.5	0.6	2.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	36.6	34.9	42.3	38.7	32.6	46.1	22.5	20.0	45.2	26.0	24.2
LnGrp LOS	D	D	C	D	D	C	D	C	C	D	C	C
Approach Vol, veh/h		305			645			1377			454	
Approach Delay, s/veh		37.5			39.4			29.4			28.3	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.9	45.0	17.3	24.2	20.4	36.5	15.2	26.3				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1), s	13.5	13.9	6.0	7.2	13.3	7.5	3.4	14.2				
Green Ext Time (p_c), s	0.1	6.2	0.3	1.5	0.7	2.8	0.1	3.0				

Intersection Summary

HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↶	↶	↶	↶		↷	↶
Traffic Volume (veh/h)	0	0	0	347	0	437	760	1125	0	0	492	140
Future Volume (veh/h)	0	0	0	347	0	437	760	1125	0	0	492	140
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				455	0	217	776	1148	0	0	502	24
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				941	0	419	1170	4737	0	0	3428	840
Arrive On Green				0.26	0.00	0.26	0.22	0.61	0.00	0.00	0.52	0.52
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1602
Grp Volume(v), veh/h				455	0	217	776	1148	0	0	502	24
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1602
Q Serve(g_s), s				9.6	0.0	10.4	18.1	9.1	0.0	0.0	3.6	0.7
Cycle Q Clear(g_c), s				9.6	0.0	10.4	18.1	9.1	0.0	0.0	3.6	0.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				941	0	419	1170	4737	0	0	3428	840
V/C Ratio(X)				0.48	0.00	0.52	0.66	0.24	0.00	0.00	0.15	0.03
Avail Cap(c_a), veh/h				941	0	419	1170	4737	0	0	3428	840
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.65	0.65	0.00	0.00	0.96	0.96
Uniform Delay (d), s/veh				28.2	0.0	28.5	30.3	3.3	0.0	0.0	11.0	10.3
Incr Delay (d2), s/veh				1.8	0.0	4.5	1.9	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.3	0.0	10.0	8.1	0.0	0.0	0.0	1.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.0	0.0	33.0	32.3	3.4	0.0	0.0	11.1	10.4
LnGrp LOS				C	A	C	C	A	A	A	B	B
Approach Vol, veh/h						672		1924			526	
Approach Delay, s/veh						30.9		15.0			11.1	
Approach LOS						C		B			B	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		88.8		29.2	35.0	53.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	* 5.8						
Max Green Setting (Gmax), s		55.0		23.4	30.0	* 21						
Max Q Clear Time (g_c+I1), s		11.1		12.4	20.1	5.6						
Green Ext Time (p_c), s		9.4		2.0	1.2	2.7						

Intersection Summary

HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	0	450	0	0	0	0	1515	613	158	681	0
Future Volume (veh/h)	360	0	450	0	0	0	0	1515	613	158	681	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	442	0	162				0	1546	203	161	695	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1222	0	544				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.05	0.18	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	442	0	162				0	1546	203	161	695	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	8.3	0.0	6.7				0.0	18.9	8.9	4.0	10.4	0.0
Cycle Q Clear(g_c), s	8.3	0.0	6.7				0.0	18.9	8.9	4.0	10.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1222	0	544				0	2106	515	546	2766	0
V/C Ratio(X)	0.36	0.00	0.30				0.00	0.73	0.39	0.29	0.25	0.00
Avail Cap(c_a), veh/h	1222	0	544				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.90	0.90	0.00
Uniform Delay (d), s/veh	22.5	0.0	21.9				0.0	27.1	23.7	37.9	21.6	0.0
Incr Delay (d2), s/veh	0.8	0.0	1.4				0.0	2.3	2.3	1.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	2.7				0.0	7.1	3.4	1.8	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	0.0	23.3				0.0	29.4	25.9	39.2	21.8	0.0
LnGrp LOS	C	A	C				A	C	C	D	C	A
Approach Vol, veh/h		604						1749			856	
Approach Delay, s/veh		23.3						29.0			25.1	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+1), s	10.0	20.9					12.4	10.3				
Green Ext Time (p_c), s	0.2	5.8					4.8	2.1				

Intersection Summary

HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	532	0	683	0	2337	0	0	1593	565	0	0
Future Volume (veh/h)	532	0	683	0	2337	0	0	1593	565	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	548	548	674	0	2409	0	0	1642	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	925	925	1641	0	2484	0	0	2888			
Arrive On Green	0.51	0.51	0.51	0.00	0.38	0.00	0.00	0.38	0.00		
Sat Flow, veh/h	1810	1810	3211	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	548	548	674	0	2409	0	0	1642	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1605	0	1634	0	0	1900	1610		
Q Serve(g_s), s	21.2	21.2	13.0	0.0	36.2	0.0	0.0	17.1	0.0		
Cycle Q Clear(g_c), s	21.2	21.2	13.0	0.0	36.2	0.0	0.0	17.1	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	925	925	1641	0	2484	0	0	2888			
V/C Ratio(X)	0.59	0.59	0.41	0.00	0.97	0.00	0.00	0.57			
Avail Cap(c_a), veh/h	925	925	1641	0	2484	0	0	2888			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	17.1	17.1	15.1	0.0	30.4	0.0	0.0	24.5	0.0		
Incr Delay (d2), s/veh	2.8	2.8	0.8	0.0	12.3	0.0	0.0	0.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	9.1	9.1	4.7	0.0	15.1	0.0	0.0	7.4	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	19.9	19.9	15.9	0.0	42.7	0.0	0.0	25.3	0.0		
LnGrp LOS	B	B	B	A	D	A	A	C			
Approach Vol, veh/h	1222	1222			2409			1642	A		
Approach Delay, s/veh	17.7	17.7			42.7			25.3			
Approach LOS	B	B			D			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	43.8		56.2		43.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	38.0		51.1		38.0						
Max Q Clear Time (g_c+I1), s	38.2		23.2		19.1						
Green Ext Time (p_c), s	0.0		2.6		8.0						

Intersection Summary

HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	997	0	790	0	1772	347	0	1647	0	0	0
Future Volume (veh/h)	997	0	790	0	1772	347	0	1647	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	1028	1028	800	0	1827	0	0	1698	0		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	961	961	1710	0	2353		0	2353	0		
Arrive On Green	0.53	0.53	0.53	0.00	0.36	0.00	0.00	0.36	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	1028	1028	800	0	1827	0	0	1698	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	53.1	53.1	15.5	0.0	24.8	0.0	0.0	22.5	0.0		
Cycle Q Clear(g_c), s	53.1	53.1	15.5	0.0	24.8	0.0	0.0	22.5	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	961	961	1710	0	2353		0	2353	0		
V/C Ratio(X)	1.07	1.07	0.47	0.00	0.78		0.00	0.72	0.00		
Avail Cap(c_a), veh/h	961	961	1710	0	2353		0	2353	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.85	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	23.5	23.5	14.6	0.0	28.4	0.0	0.0	27.7	0.0		
Incr Delay (d2), s/veh	49.6	49.6	0.9	0.0	2.2	0.0	0.0	2.0	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	34.0	34.0	5.6	0.0	9.8	0.0	0.0	8.6	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	73.1	73.1	15.6	0.0	30.6	0.0	0.0	29.6	0.0		
LnGrp LOS	F	F	B	A	C		A	C	A		
Approach Vol, veh/h	1828	1828			1827	A		1698			
Approach Delay, s/veh	47.9	47.9			30.6			29.6			
Approach LOS	D	D			C			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	41.8		58.2		41.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	36.0		53.1		36.0						
Max Q Clear Time (g_c+I1), s	26.8		55.1		24.5						
Green Ext Time (p_c), s	6.1		0.0		6.3						

Intersection Summary

HCM 6th Ctrl Delay	36.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑	↔	↔↔	↑	↔↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	50	30	30	80	50	200	230	1858	150	200	1907	340
Future Volume (veh/h)	50	30	30	80	50	200	230	1858	150	200	1907	340
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	30	3	81	51	14	232	1877	82	202	1926	270
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	263	164	137	300	184	271	291	3455	849	261	3399	835
Arrive On Green	0.07	0.09	0.09	0.09	0.10	0.10	0.08	0.53	0.53	0.07	0.52	0.52
Sat Flow, veh/h	3510	1900	1582	3510	1900	2790	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	51	30	3	81	51	14	232	1877	82	202	1926	270
Grp Sat Flow(s),veh/h/ln	1755	1900	1582	1755	1900	1395	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	1.6	1.8	0.2	2.6	3.0	0.5	7.8	22.8	3.0	6.8	24.1	11.6
Cycle Q Clear(g_c), s	1.6	1.8	0.2	2.6	3.0	0.5	7.8	22.8	3.0	6.8	24.1	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	164	137	300	184	271	291	3455	849	261	3399	835
V/C Ratio(X)	0.19	0.18	0.02	0.27	0.28	0.05	0.80	0.54	0.10	0.77	0.57	0.32
Avail Cap(c_a), veh/h	453	372	310	453	372	546	556	3455	849	556	3399	835
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	0.26	0.26	0.26	0.68	0.68	0.68
Uniform Delay (d), s/veh	52.1	50.9	50.2	51.4	50.3	49.2	54.0	18.7	14.0	54.5	19.6	16.6
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.2	0.3	0.0	0.5	0.2	0.1	1.3	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.8	0.1	1.1	1.4	0.2	3.4	8.0	1.0	3.0	8.6	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	51.1	50.2	51.5	50.6	49.2	54.5	18.9	14.1	55.8	20.1	17.3
LnGrp LOS	D	D	D	D	D	D	D	B	B	E	C	B
Approach Vol, veh/h		84			146			2191			2398	
Approach Delay, s/veh		51.7			51.0			22.5			22.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.9	70.4	16.8	16.9	17.0	69.4	15.5	18.1				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	19.0	35.0	15.5	23.5	19.0	35.0	15.5	23.5				
Max Q Clear Time (g_c+1), s	19.8	24.8	4.6	3.8	9.8	26.1	3.6	5.0				
Green Ext Time (p_c), s	0.2	7.2	0.0	0.0	0.2	6.8	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕		↖↗	↕	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	20	229	170	192	233	332	186	1896	120	748	1240	30
Future Volume (veh/h)	20	229	170	192	233	332	186	1896	120	748	1240	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	239	105	200	243	131	194	1975	32	779	1292	11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	72	350	149	260	707	315	254	2066	507	825	3129	768
Arrive On Green	0.02	0.14	0.14	0.07	0.20	0.20	0.07	0.32	0.32	0.23	0.48	0.48
Sat Flow, veh/h	3510	2459	1045	3510	3610	1610	3510	6536	1603	3510	6536	1605
Grp Volume(v), veh/h	21	173	171	200	243	131	194	1975	32	779	1292	11
Grp Sat Flow(s),veh/h/ln	1755	1805	1699	1755	1805	1610	1755	1634	1603	1755	1634	1605
Q Serve(g_s), s	0.7	11.5	12.1	7.1	7.3	9.0	6.9	37.4	1.8	27.6	16.2	0.5
Cycle Q Clear(g_c), s	0.7	11.5	12.1	7.1	7.3	9.0	6.9	37.4	1.8	27.6	16.2	0.5
Prop In Lane	1.00		0.62	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	72	257	242	260	707	315	254	2066	507	825	3129	768
V/C Ratio(X)	0.29	0.67	0.71	0.77	0.34	0.42	0.76	0.96	0.06	0.94	0.41	0.01
Avail Cap(c_a), veh/h	833	571	537	833	1142	509	833	2068	507	833	3129	768
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	61.0	51.4	51.7	57.5	43.8	44.5	57.6	42.4	30.2	47.6	21.4	17.3
Incr Delay (d2), s/veh	0.8	3.1	3.7	1.8	0.3	0.9	1.8	11.3	0.1	18.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	5.3	5.3	3.1	3.2	3.6	3.0	15.8	0.7	13.8	6.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	54.5	55.4	59.3	44.1	45.4	59.4	53.6	30.2	66.3	21.5	17.3
LnGrp LOS	E	D	E	E	D	D	E	D	C	E	C	B
Approach Vol, veh/h		365		574		2201		2082				
Approach Delay, s/veh		55.4		49.7		53.8		38.3				
Approach LOS		E		D		D		D				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.2	47.5	16.4	25.4	16.6	68.0	9.6	32.2				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+Q), s	29.6	39.4	9.1	14.1	8.9	18.2	2.7	11.0				
Green Ext Time (p_c), s	0.1	0.5	0.3	1.8	0.3	10.5	0.0	1.8				

Intersection Summary

HCM 6th Ctrl Delay	47.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗		↖ ↗	↖ ↗	↖ ↗			↕	
Traffic Volume (veh/h)	20	381	20	50	691	20	10	0	30	20	10	10
Future Volume (veh/h)	20	381	20	50	691	20	10	0	30	20	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	454	18	60	823	7	12	0	17	24	12	6
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	1668	66	104	1269	562	576	0	537	355	172	75
Arrive On Green	0.03	0.33	0.33	0.06	0.35	0.35	0.34	0.00	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1810	5118	202	1810	3610	1599	1411	0	1603	834	512	224
Grp Volume(v), veh/h	24	306	166	60	823	7	12	0	17	42	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1862	1810	1805	1599	1411	0	1603	1570	0	0
Q Serve(g_s), s	1.0	4.9	4.9	2.4	14.3	0.2	0.0	0.0	0.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	4.9	4.9	2.4	14.3	0.2	0.3	0.0	0.5	1.2	0.0	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	0.57		0.14
Lane Grp Cap(c), veh/h	57	1127	607	104	1269	562	576	0	537	602	0	0
V/C Ratio(X)	0.42	0.27	0.27	0.58	0.65	0.01	0.02	0.00	0.03	0.07	0.00	0.00
Avail Cap(c_a), veh/h	364	3014	1623	364	3147	1394	576	0	537	602	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.4	18.6	18.6	34.3	20.3	15.7	16.6	0.0	16.7	16.9	0.0	0.0
Incr Delay (d2), s/veh	4.9	0.2	0.3	5.0	0.8	0.0	0.1	0.0	0.1	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.8	2.0	1.1	5.4	0.1	0.1	0.0	0.2	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	18.8	18.9	39.3	21.1	15.8	16.7	0.0	16.8	17.1	0.0	0.0
LnGrp LOS	D	B	B	D	C	B	B	A	B	B	A	A
Approach Vol, veh/h	496		890		29		42					
Approach Delay, s/veh	19.9		22.3		16.7		17.1					
Approach LOS	B		C		B		B					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	32.0		11.3		31.3		32.0		9.4		33.2	
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0		7.0		7.0	
Max Green Setting (Gmax), s	25.0		15.0		65.0		25.0		15.0		65.0	
Max Q Clear Time (g_c+1), s	2.5		4.4		6.9		3.2		3.0		16.3	
Green Ext Time (p_c), s	0.1		0.1		4.4		0.1		0.0		9.3	
Intersection Summary												
HCM 6th Ctrl Delay			21.2									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	351	50	50	761	10	60	0	30	0	0	0
Future Volume (veh/h)	0	351	50	50	761	10	60	0	30	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	394	38	56	855	11	67	0	15	0	0	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3073	292	91	1434	18	191	0	124	0	149	0
Arrive On Green	0.00	0.64	0.64	0.05	0.77	0.77	0.08	0.00	0.08	0.00	0.00	0.00
Sat Flow, veh/h	1810	4816	457	1810	1872	24	1412	0	1579	0	1900	0
Grp Volume(v), veh/h	0	281	151	56	0	866	67	0	15	0	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1816	1810	0	1896	1412	0	1579	0	1900	0
Q Serve(g_s), s	0.0	2.9	3.0	2.7	0.0	17.7	4.1	0.0	0.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.9	3.0	2.7	0.0	17.7	4.1	0.0	0.8	0.0	0.0	0.0
Prop In Lane	1.00		0.25	1.00		0.01	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	2	2206	1158	91	0	1452	191	0	124	0	149	0
V/C Ratio(X)	0.00	0.13	0.13	0.62	0.00	0.60	0.35	0.00	0.12	0.00	0.00	0.00
Avail Cap(c_a), veh/h	322	2206	1158	322	0	1452	661	0	649	0	781	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.93	0.93	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	6.4	6.4	41.9	0.0	4.5	40.1	0.0	38.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	6.6	0.0	1.8	1.1	0.0	0.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.9	1.0	1.3	0.0	4.4	1.5	0.0	0.3	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.5	6.6	48.5	0.0	6.4	41.2	0.0	39.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	D	A	A	D	A	D	A	A	A
Approach Vol, veh/h	432		922		82		0					
Approach Delay, s/veh	6.6		8.9		40.8		0.0					
Approach LOS	A		A		D							
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	14.1	11.5	64.4		14.1	0.0	75.9					
Change Period (Y+Rc), s	7.0	7.0	7.0		7.0	7.0	7.0					
Max Green Setting (Gmax), s	37.0	16.0	16.0		37.0	16.0	16.0					
Max Q Clear Time (g_c+I1), s	6.1	4.7	5.0		0.0	0.0	19.7					
Green Ext Time (p_c), s	0.4	0.1	1.8		0.0	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖	↑↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	40	441	90	284	399	173	90	2277	237	32	1448	542
Future Volume (veh/h)	40	441	90	284	399	173	90	2277	237	32	1448	542
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	455	26	293	411	57	93	2347	77	33	1493	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	275	775	238	427	696	311	163	2226	546	102	2005	
Arrive On Green	0.08	0.15	0.15	0.12	0.19	0.19	0.09	0.34	0.34	0.06	0.31	0.00
Sat Flow, veh/h	3510	5187	1594	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	41	455	26	293	411	57	93	2347	77	33	1493	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1594	1755	1805	1610	1810	1634	1603	1810	1634	1610
Q Serve(g_s), s	1.0	7.4	1.3	7.2	9.4	2.7	4.5	30.8	3.0	1.6	18.5	0.0
Cycle Q Clear(g_c), s	1.0	7.4	1.3	7.2	9.4	2.7	4.5	30.8	3.0	1.6	18.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	775	238	427	696	311	163	2226	546	102	2005	
V/C Ratio(X)	0.15	0.59	0.11	0.69	0.59	0.18	0.57	1.05	0.14	0.33	0.74	
Avail Cap(c_a), veh/h	525	1867	574	680	1339	597	190	2226	546	190	2207	
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	0.00
Uniform Delay (d), s/veh	38.8	35.8	33.2	38.0	33.2	30.5	39.4	29.8	20.6	41.0	28.1	0.0
Incr Delay (d2), s/veh	0.1	0.7	0.2	0.7	0.8	0.3	1.2	35.3	0.1	0.7	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.0	0.5	3.0	3.9	1.0	1.9	16.0	1.1	0.7	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.9	36.5	33.4	38.7	34.0	30.8	40.6	65.1	20.8	41.7	29.5	0.0
LnGrp LOS	D	D	C	D	C	C	D	F	C	D	C	
Approach Vol, veh/h		522			761			2517			1526	A
Approach Delay, s/veh		36.6			35.6			62.8			29.7	
Approach LOS		D			D			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.6	38.3	18.5	21.0	15.6	35.2	14.6	24.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	9.5	30.5	17.5	32.5	9.5	30.5	13.5	33.5				
Max Q Clear Time (g_c+1/3), s	13.6	32.8	9.2	9.4	6.5	20.5	3.0	11.4				
Green Ext Time (p_c), s	0.0	0.0	0.3	2.8	0.0	6.8	0.0	2.6				

Intersection Summary

HCM 6th Ctrl Delay	46.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	50	550	10	10	773	79	0	0	10	28	0	33
Future Volume (veh/h)	50	550	10	10	773	79	0	0	10	28	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	604	9	11	849	30	0	0	7	31	0	18
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	361	2273	34	490	1558	691	196	0	386	535	459	386
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.24	0.24	0.00	0.24
Sat Flow, veh/h	640	5265	78	820	3610	1601	1417	0	1600	1422	1900	1600
Grp Volume(v), veh/h	55	396	217	11	849	30	0	0	7	31	0	18
Grp Sat Flow(s),veh/h/ln	640	1729	1885	820	1805	1601	1417	0	1600	1422	1900	1600
Q Serve(g_s), s	2.6	2.7	2.7	0.3	6.4	0.4	0.0	0.0	0.1	0.6	0.0	0.3
Cycle Q Clear(g_c), s	9.0	2.7	2.7	3.0	6.4	0.4	0.0	0.0	0.1	0.7	0.0	0.3
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	361	1493	814	490	1558	691	196	0	386	535	459	386
V/C Ratio(X)	0.15	0.27	0.27	0.02	0.54	0.04	0.00	0.00	0.02	0.06	0.00	0.05
Avail Cap(c_a), veh/h	695	3297	1798	918	3442	1527	819	0	1090	1160	1294	1090
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.1	6.7	6.7	7.7	7.8	6.0	0.0	0.0	10.6	10.9	0.0	10.7
Incr Delay (d2), s/veh	0.2	0.1	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.5	0.6	0.0	1.3	0.1	0.0	0.0	0.0	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	6.8	6.9	7.7	8.0	6.1	0.0	0.0	10.6	10.9	0.0	10.7
LnGrp LOS	B	A	A	A	A	A	A	A	B	B	A	B
Approach Vol, veh/h		668			890			7				49
Approach Delay, s/veh		7.2			8.0			10.6				10.9
Approach LOS		A			A			B				B
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.9		22.8		13.9		22.8				
Change Period (Y+Rc), s		5.0		7.0		5.0		7.0				
Max Green Setting (Gmax), s		25.0		35.0		25.0		35.0				
Max Q Clear Time (g_c+1), s		2.1		11.0		2.7		8.4				
Green Ext Time (p_c), s		0.0		4.1		0.1		6.0				

Intersection Summary

HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷		↶	↷	↷
Traffic Volume (veh/h)	60	518	10	40	805	282	10	10	20	126	10	37
Future Volume (veh/h)	60	518	10	40	805	282	10	10	20	126	10	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	563	3	43	875	0	11	11	7	137	11	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	2420	747	93	1644		39	92	58	302	284	239
Arrive On Green	0.06	0.47	0.47	0.02	0.15	0.00	0.02	0.09	0.09	0.09	0.15	0.15
Sat Flow, veh/h	1810	5187	1602	1810	3610	1610	1810	1077	686	3510	1900	1594
Grp Volume(v), veh/h	65	563	3	43	875	0	11	0	18	137	11	15
Grp Sat Flow(s),veh/h/ln	1810	1729	1602	1810	1805	1610	1810	0	1763	1755	1900	1594
Q Serve(g_s), s	3.1	5.8	0.1	2.1	20.1	0.0	0.5	0.0	0.8	3.3	0.4	0.7
Cycle Q Clear(g_c), s	3.1	5.8	0.1	2.1	20.1	0.0	0.5	0.0	0.8	3.3	0.4	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	113	2420	747	93	1644		39	0	150	302	284	239
V/C Ratio(X)	0.58	0.23	0.00	0.46	0.53		0.28	0.00	0.12	0.45	0.04	0.06
Avail Cap(c_a), veh/h	161	2420	747	161	1644		161	0	392	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.94	0.94	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	14.4	12.8	43.0	29.4	0.0	43.4	0.0	38.1	39.1	32.7	32.8
Incr Delay (d2), s/veh	5.3	0.2	0.0	4.0	1.2	0.0	1.5	0.0	0.3	0.4	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.1	0.0	1.0	9.8	0.0	0.2	0.0	0.4	1.5	0.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	14.6	12.8	47.1	30.6	0.0	44.8	0.0	38.3	39.5	32.8	32.9
LnGrp LOS	D	B	B	D	C		D	A	D	D	C	C
Approach Vol, veh/h		631			918	A		29			163	
Approach Delay, s/veh		17.8			31.3			40.8			38.5	
Approach LOS		B			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	14.7	11.6	49.0	8.9	20.5	12.6	48.0				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	20.0	20.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+1/3), s	11.3	11.3	2.8	4.1	7.8	2.5	2.7	5.1	22.1			
Green Ext Time (p_c), s	0.1	0.0	0.0	3.9	0.0	0.0	0.0	2.1				

Intersection Summary

HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑			↖ ↑↑	↖ ↑↑		↖ ↑↑		
Traffic Volume (veh/h)	60	574	30	80	1088	40	30	10	40	10	10	10
Future Volume (veh/h)	60	574	30	80	1088	40	30	10	40	10	10	10
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	0.98		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	604	27	84	1145	39	32	11	17	11	11	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	3236	144	109	3350	114	188	148	129	179	202	85
Arrive On Green	0.01	0.21	0.21	0.06	0.65	0.65	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1810	5090	226	1810	5151	175	1395	1805	1581	1381	2464	1033
Grp Volume(v), veh/h	63	409	222	84	769	415	32	11	17	11	8	8
Grp Sat Flow(s),veh/h/ln	1810	1729	1859	1810	1729	1868	1395	1805	1581	1381	1805	1691
Q Serve(g_s), s	3.1	8.8	8.8	4.1	9.0	9.0	1.9	0.5	0.9	0.7	0.4	0.4
Cycle Q Clear(g_c), s	3.1	8.8	8.8	4.1	9.0	9.0	2.4	0.5	0.9	1.6	0.4	0.4
Prop In Lane	1.00		0.12	1.00		0.09	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	82	2198	1182	109	2249	1215	188	148	129	179	148	139
V/C Ratio(X)	0.77	0.19	0.19	0.77	0.34	0.34	0.17	0.07	0.13	0.06	0.05	0.06
Avail Cap(c_a), veh/h	241	2198	1182	281	2249	1215	523	582	509	511	582	545
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	16.4	16.4	41.7	7.1	7.1	39.2	38.2	38.3	39.1	38.1	38.1
Incr Delay (d2), s/veh	5.4	0.2	0.3	2.9	0.3	0.5	0.4	0.2	0.5	0.1	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.4	3.7	1.8	2.6	2.9	0.7	0.2	0.4	0.2	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	16.6	16.8	44.6	7.3	7.6	39.6	38.4	38.8	39.2	38.2	38.3
LnGrp LOS	D	B	B	D	A	A	D	D	D	D	D	D
Approach Vol, veh/h	694		1268				60		27			
Approach Delay, s/veh	19.6		9.9				39.2		38.7			
Approach LOS	B		A				D		D			
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	13.4	12.4	64.2		13.4	11.1	65.5					
Change Period (Y+Rc), s	6.0	7.0	7.0		6.0	7.0	7.0					
Max Green Setting (Gmax), s	29.0	14.0	27.0		29.0	12.0	29.0					
Max Q Clear Time (g_c+1), s	4.4	6.1	10.8		3.6	5.1	11.0					
Green Ext Time (p_c), s	0.2	0.0	4.5		0.1	0.0	9.3					
Intersection Summary												
HCM 6th Ctrl Delay			14.4									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑		↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	100	454	50	440	886	122	162	883	350	80	547	50
Future Volume (veh/h)	100	454	50	440	886	122	162	883	350	80	547	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	108	488	10	473	953	120	174	949	127	86	588	17
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	337	1147	354	552	1318	165	316	1380	426	295	1349	416
Arrive On Green	0.10	0.22	0.22	0.16	0.28	0.28	0.09	0.27	0.27	0.08	0.26	0.26
Sat Flow, veh/h	3510	5187	1599	3510	4663	585	3510	5187	1601	3510	5187	1601
Grp Volume(v), veh/h	108	488	10	473	706	367	174	949	127	86	588	17
Grp Sat Flow(s),veh/h/ln	1755	1729	1599	1755	1729	1791	1755	1729	1601	1755	1729	1601
Q Serve(g_s), s	3.2	8.9	0.5	14.5	20.3	20.4	5.2	18.2	7.0	2.5	10.5	0.9
Cycle Q Clear(g_c), s	3.2	8.9	0.5	14.5	20.3	20.4	5.2	18.2	7.0	2.5	10.5	0.9
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	337	1147	354	552	977	506	316	1380	426	295	1349	416
V/C Ratio(X)	0.32	0.43	0.03	0.86	0.72	0.73	0.55	0.69	0.30	0.29	0.44	0.04
Avail Cap(c_a), veh/h	794	1877	579	794	1252	648	794	1877	579	794	1877	579
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	46.6	37.0	33.7	45.4	35.7	35.8	48.1	36.4	32.3	47.5	34.1	30.6
Incr Delay (d2), s/veh	0.4	0.3	0.0	5.8	1.7	3.3	1.1	0.8	0.5	0.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	3.7	0.2	6.5	8.4	9.0	2.3	7.4	2.7	1.1	4.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	37.3	33.8	51.1	37.4	39.1	49.3	37.2	32.8	47.9	34.4	30.6
LnGrp LOS	D	D	C	D	D	D	D	D	C	D	C	C
Approach Vol, veh/h		606			1546			1250			691	
Approach Delay, s/veh		39.0			42.0			38.4			36.0	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	36.2	18.1	38.7	16.8	36.9	24.9	31.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1), s	17.2	12.5	5.2	22.4	4.5	20.2	16.5	10.9				
Green Ext Time (p_c), s	0.3	4.5	0.2	7.3	0.2	7.4	0.9	3.8				

Intersection Summary

HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖ ↑	↑	↖ ↗	↖ ↗	↑	↖ ↗
Traffic Volume (veh/h)	140	655	49	49	1362	160	6	20	24	130	10	70
Future Volume (veh/h)	140	655	49	49	1362	160	6	20	24	130	10	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	689	47	52	1434	157	6	21	7	137	11	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	191	2177	148	137	1943	213	23	185	155	175	345	290
Arrive On Green	0.11	0.44	0.44	0.08	0.41	0.41	0.01	0.10	0.10	0.10	0.18	0.18
Sat Flow, veh/h	1810	4959	336	1810	4743	519	1810	1900	1585	1810	1900	1597
Grp Volume(v), veh/h	147	479	257	52	1045	546	6	21	7	137	11	30
Grp Sat Flow(s),veh/h/ln	1810	1729	1837	1810	1729	1804	1810	1900	1585	1810	1900	1597
Q Serve(g_s), s	6.5	7.4	7.5	2.3	21.1	21.1	0.3	0.8	0.3	6.1	0.4	1.3
Cycle Q Clear(g_c), s	6.5	7.4	7.5	2.3	21.1	21.1	0.3	0.8	0.3	6.1	0.4	1.3
Prop In Lane	1.00		0.18	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	1518	806	137	1416	739	23	185	155	175	345	290
V/C Ratio(X)	0.77	0.32	0.32	0.38	0.74	0.74	0.27	0.11	0.05	0.78	0.03	0.10
Avail Cap(c_a), veh/h	439	1677	891	439	1677	875	439	461	384	548	576	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	15.1	15.1	36.3	20.6	20.6	40.4	34.0	33.7	36.4	27.8	28.2
Incr Delay (d2), s/veh	2.5	0.1	0.3	0.6	1.6	3.0	2.3	0.2	0.1	5.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.6	2.8	1.0	7.8	8.4	0.1	0.4	0.1	2.9	0.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	15.2	15.4	36.9	22.2	23.6	42.7	34.2	33.8	42.1	27.8	28.3
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h	883				1643		34				178	
Approach Delay, s/veh	19.1				23.1		35.6				38.9	
Approach LOS	B				C		D				D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	13.0	13.3	43.2	6.0	20.0	15.7	40.8				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	20.0	20.0	40.0	20.0	25.0	20.0	40.0				
Max Q Clear Time (g_c+1), s	10.5	2.8	4.3	9.5	2.3	3.3	8.5	23.1				
Green Ext Time (p_c), s	0.2	0.0	0.0	5.7	0.0	0.1	0.1	10.7				

Intersection Summary

HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	656	183	260	732	0	0	0	0	620	0	1111
Future Volume (veh/h)	0	656	183	260	732	0	0	0	0	620	0	1111
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	729	57	289	813	0				459	0	1356
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1393	391	585	2421	0				704	0	1252
Arrive On Green	0.00	0.24	0.24	0.33	0.93	0.00				0.39	0.00	0.39
Sat Flow, veh/h	0	5700	1600	3510	5358	0				1810	0	3220
Grp Volume(v), veh/h	0	729	57	289	813	0				459	0	1356
Grp Sat Flow(s),veh/h/ln	0	1900	1600	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	10.0	2.5	5.9	1.4	0.0				18.7	0.0	35.0
Cycle Q Clear(g_c), s	0.0	10.0	2.5	5.9	1.4	0.0				18.7	0.0	35.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1393	391	585	2421	0				704	0	1252
V/C Ratio(X)	0.00	0.52	0.15	0.49	0.34	0.00				0.65	0.00	1.08
Avail Cap(c_a), veh/h	0	1393	391	585	2421	0				704	0	1252
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.96	0.96	0.92	0.92	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.5	26.6	27.0	1.6	0.0				22.5	0.0	27.5
Incr Delay (d2), s/veh	0.0	1.4	0.8	2.7	0.3	0.0				4.7	0.0	51.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.4	1.0	2.4	0.4	0.0				8.5	0.0	21.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.8	27.4	29.7	2.0	0.0				27.2	0.0	78.5
LnGrp LOS		A	C	C	C	A	A			C	A	F
Approach Vol, veh/h		786		1102						1815		
Approach Delay, s/veh		30.6		9.3						65.5		
Approach LOS		C		A						E		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	20.0	28.5	41.5		48.5							
Change Period (Y+Rc), s	5.0	6.5	6.5		6.5							
Max Green Setting (Gmax), s	15.0	22.0	35.0		42.0							
Max Q Clear Time (g_c+1), s	17.0	12.0	37.0		3.4							
Green Ext Time (p_c), s	0.3	2.9	0.0		4.7							

Intersection Summary

HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑			↑ ↑ ↑	↖ ↗	↖ ↗	↕	↖ ↗			
Traffic Volume (veh/h)	390	916	0	0	611	450	341	0	490	0	0	0
Future Volume (veh/h)	390	916	0	0	611	450	341	0	490	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	415	974	0	0	650	101	501	0	269			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	390	2824	0	0	1960	608	1126	0	501			
Arrive On Green	0.22	1.00	0.00	0.00	0.38	0.38	0.31	0.00	0.31			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	3619	0	1610			
Grp Volume(v), veh/h	415	974	0	0	650	101	501	0	269			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	10.0	0.0	0.0	0.0	8.0	3.7	10.0	0.0	12.4			
Cycle Q Clear(g_c), s	10.0	0.0	0.0	0.0	8.0	3.7	10.0	0.0	12.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	390	2824	0	0	1960	608	1126	0	501			
V/C Ratio(X)	1.06	0.34	0.00	0.00	0.33	0.17	0.44	0.00	0.54			
Avail Cap(c_a), veh/h	390	2824	0	0	1960	608	1126	0	501			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.56	0.56	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.0	0.0	0.0	0.0	19.9	18.6	24.8	0.0	25.6			
Incr Delay (d2), s/veh	52.4	0.2	0.0	0.0	0.5	0.6	1.3	0.0	4.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.4	0.0	0.0	0.0	3.0	1.4	4.4	0.0	5.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.4	0.2	0.0	0.0	20.4	19.2	26.1	0.0	29.7			
LnGrp LOS	F	A	A	A	C	B	C	A	C			
Approach Vol, veh/h		1389			751			770				
Approach Delay, s/veh		26.2			20.2			27.3				
Approach LOS		C			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.5			15.0	40.5		34.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		49.0			10.0	34.0		28.0				
Max Q Clear Time (g_c+I1), s		2.0			12.0	10.0		14.4				
Green Ext Time (p_c), s		6.0			0.0	3.6		2.5				

Intersection Summary

























HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	228	888	182	174	885	312	111	1008	72	195	998	152
Future Volume (veh/h)	228	888	182	174	885	312	111	1008	72	195	998	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	245	955	87	187	952	226	119	1084	68	210	1073	71
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	963	427	221	963	429	309	845	53	320	907	402
Arrive On Green	0.12	0.27	0.27	0.12	0.27	0.27	0.13	0.25	0.25	0.13	0.25	0.25
Sat Flow, veh/h	1810	3610	1601	1810	3610	1610	1810	3448	216	1810	3610	1601
Grp Volume(v), veh/h	245	955	87	187	952	226	119	567	585	210	1073	71
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1610	1810	1805	1860	1810	1805	1601
Q Serve(g_s), s	11.0	23.7	3.8	9.1	23.6	10.8	4.0	22.1	22.1	7.4	22.6	3.1
Cycle Q Clear(g_c), s	11.0	23.7	3.8	9.1	23.6	10.8	4.0	22.1	22.1	7.4	22.6	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	221	963	427	221	963	429	309	442	456	320	907	402
V/C Ratio(X)	1.11	0.99	0.20	0.85	0.99	0.53	0.39	1.28	1.28	0.66	1.18	0.18
Avail Cap(c_a), veh/h	221	963	427	221	963	429	321	442	456	321	907	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	32.9	25.6	38.7	32.9	28.2	21.7	34.0	34.0	22.4	33.7	26.4
Incr Delay (d2), s/veh	92.4	27.0	0.3	17.8	20.5	1.0	1.1	143.2	143.2	5.4	93.6	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	10.2	13.0	1.4	4.9	12.1	3.9	1.7	26.7	27.5	3.4	21.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	131.9	59.9	25.9	56.5	53.4	29.2	22.8	177.2	177.2	27.8	127.3	27.4
LnGrp LOS	F	E	C	E	D	C	C	F	F	C	F	C
Approach Vol, veh/h		1287			1365			1271			1354	
Approach Delay, s/veh		71.3			49.8			162.7			106.7	
Approach LOS		E			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.6	27.9	15.7	29.8	16.1	28.4	15.7	29.8				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.0	* 11	24.0	* 12	22.0	* 11	24.0				
Max Q Clear Time (g_c+I1), s	9.4	24.1	11.1	25.7	6.0	24.6	13.0	25.6				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			96.8									
HCM 6th LOS			F									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary

2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1035	40	80	1191	80	30	180	50	80	190	70
Future Volume (veh/h)	50	1035	40	80	1191	80	30	180	50	80	190	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1067	17	82	1228	48	31	186	45	82	196	66
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	86	1693	751	115	1751	777	97	378	85	157	295	90
Arrive On Green	0.05	0.47	0.47	0.06	0.49	0.49	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	117	1376	310	310	1075	329
Grp Volume(v), veh/h	52	1067	17	82	1228	48	262	0	0	344	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	1803	0	0	1713	0	0
Q Serve(g_s), s	1.8	13.9	0.4	2.8	16.5	1.0	0.0	0.0	0.0	3.4	0.0	0.0
Cycle Q Clear(g_c), s	1.8	13.9	0.4	2.8	16.5	1.0	7.5	0.0	0.0	10.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	0.12		0.17	0.24		0.19
Lane Grp Cap(c), veh/h	86	1693	751	115	1751	777	560	0	0	542	0	0
V/C Ratio(X)	0.60	0.63	0.02	0.71	0.70	0.06	0.47	0.00	0.00	0.63	0.00	0.00
Avail Cap(c_a), veh/h	1016	2028	900	1016	2028	900	1051	0	0	1002	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.1	12.5	8.9	28.6	12.5	8.5	19.1	0.0	0.0	20.2	0.0	0.0
Incr Delay (d2), s/veh	13.7	0.9	0.0	15.8	1.4	0.1	1.3	0.0	0.0	2.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.5	0.1	1.6	5.3	0.3	3.1	0.0	0.0	4.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	13.4	8.9	44.4	13.9	8.6	20.4	0.0	0.0	22.8	0.0	0.0
LnGrp LOS	D	B	A	D	B	A	C	A	A	C	A	A
Approach Vol, veh/h		1136			1358			262			344	
Approach Delay, s/veh		14.6			15.5			20.4			22.8	
Approach LOS		B			B			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.1	8.0	33.2		21.1	7.0	34.2				
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0				
Max Green Setting (Gmax), s		35.0	35.0	35.0		35.0	35.0	35.0				
Max Q Clear Time (g_c+I1), s		9.5	4.8	15.9		12.8	3.8	18.5				
Green Ext Time (p_c), s		2.9	0.5	11.4		3.9	0.3	11.7				
Intersection Summary												
HCM 6th Ctrl Delay											16.4	
HCM 6th LOS											B	

HCM 6th Signalized Intersection Summary
 3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1024	92	60	1161	80	101	387	50	76	293	50
Future Volume (veh/h)	50	1024	92	60	1161	80	101	387	50	76	293	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1067	45	62	1209	40	105	403	48	79	305	37
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	2412	1073	111	2429	1079	280	444	53	111	865	104
Arrive On Green	0.06	0.67	0.67	0.02	0.22	0.22	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	3610	1607	1810	3610	1604	1052	1665	198	954	3242	390
Grp Volume(v), veh/h	52	1067	45	62	1209	40	105	0	451	79	169	173
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1810	1805	1604	1052	0	1863	954	1805	1827
Q Serve(g_s), s	2.5	12.5	0.9	3.1	26.4	1.8	8.1	0.0	21.1	2.9	6.8	6.9
Cycle Q Clear(g_c), s	2.5	12.5	0.9	3.1	26.4	1.8	15.0	0.0	21.1	24.0	6.8	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.21
Lane Grp Cap(c), veh/h	102	2412	1073	111	2429	1079	280	0	497	111	481	487
V/C Ratio(X)	0.51	0.44	0.04	0.56	0.50	0.04	0.38	0.00	0.91	0.71	0.35	0.36
Avail Cap(c_a), veh/h	141	2412	1073	141	2429	1079	280	0	497	111	481	487
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.74	0.74	0.74	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	7.0	5.1	42.9	21.7	12.1	32.8	0.0	31.9	44.4	26.7	26.7
Incr Delay (d2), s/veh	8.1	0.6	0.1	6.8	0.5	0.0	3.8	0.0	23.0	32.2	2.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.8	0.2	1.5	12.6	0.5	2.3	0.0	12.1	2.7	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	7.6	5.2	49.7	22.3	12.2	36.6	0.0	54.9	76.6	28.7	28.8
LnGrp LOS	D	A	A	D	C	B	D	A	D	E	C	C
Approach Vol, veh/h		1164			1311			556			421	
Approach Delay, s/veh		9.4			23.2			51.4			37.7	
Approach LOS		A			C			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	12.5	67.7		30.5	12.1	68.1				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	7.0	40.0		* 24	7.0	* 41				
Max Q Clear Time (g_c+1), s		23.1	5.1	14.5		26.0	4.5	28.4				
Green Ext Time (p_c), s		0.0	0.0	14.0		0.0	0.0	9.3				

Intersection Summary

HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1028	42	40	1160	110	91	382	50	70	205	80
Future Volume (veh/h)	50	1028	42	40	1160	110	91	382	50	70	205	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1060	20	41	1196	54	94	394	14	72	211	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	1731	768	77	1710	759	48	53	368	50	84	368
Arrive On Green	0.02	0.16	0.16	0.04	0.47	0.47	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	3610	1602	1810	3610	1602	0	208	1441	0	330	1441
Grp Volume(v), veh/h	52	1060	20	41	1196	54	488	0	14	283	0	21
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1602	208	0	1441	330	0	1441
Q Serve(g_s), s	2.6	24.6	0.9	2.0	23.5	1.7	0.0	0.0	0.7	0.0	0.0	1.0
Cycle Q Clear(g_c), s	2.6	24.6	0.9	2.0	23.5	1.7	23.0	0.0	0.7	23.0	0.0	1.0
Prop In Lane	1.00		1.00	1.00		1.00	0.19		1.00	0.25		1.00
Lane Grp Cap(c), veh/h	88	1731	768	77	1710	759	101	0	368	135	0	368
V/C Ratio(X)	0.59	0.61	0.03	0.53	0.70	0.07	4.84	0.00	0.04	2.10	0.00	0.06
Avail Cap(c_a), veh/h	141	1731	768	141	1710	759	101	0	368	135	0	368
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	0.14	0.14	0.14	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.4	30.1	20.1	42.2	18.6	12.9	33.5	0.0	25.2	31.8	0.0	25.3
Incr Delay (d2), s/veh	1.7	1.2	0.0	0.3	0.3	0.0	1749.6	0.0	0.0	520.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	12.0	0.3	0.9	8.7	0.5	51.2	0.0	0.2	22.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	31.3	20.2	42.5	19.0	12.9	1783.1	0.0	25.2	552.6	0.0	25.4
LnGrp LOS	D	C	C	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1132			1291			502			304	
Approach Delay, s/veh		31.7			19.5			1734.1			516.2	
Approach LOS		C			B			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	50.2		29.0	11.4	49.6		29.0				
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0				
Max Green Setting (Gmax), s	40.0			23.0	7.0	40.0		23.0				
Max Q Clear Time (g_c+1/4), s	26.6			25.0	4.6	25.5		25.0				
Green Ext Time (p_c), s	0.0	6.6		0.0	0.0	8.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	337.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↑↑↑			↖	↑↑↑	↖
Traffic Volume (veh/h)	276	808	124	40	872	616	225	1103	60	477	940	233
Future Volume (veh/h)	276	808	124	40	872	616	225	1103	60	477	940	233
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	279	816	34	40	881	222	227	1114	59	482	949	204
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	332	970	430	165	799	354	229	1115	59	506	1943	753
Arrive On Green	0.09	0.27	0.27	0.05	0.22	0.22	0.13	0.22	0.22	0.28	0.37	0.37
Sat Flow, veh/h	3510	3610	1601	3510	3610	1599	1810	5041	267	1810	5187	1604
Grp Volume(v), veh/h	279	816	34	40	881	222	227	764	409	482	949	204
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1599	1810	1729	1850	1810	1729	1604
Q Serve(g_s), s	12.4	33.8	2.5	1.7	35.0	19.9	19.8	34.9	35.0	41.4	22.2	12.2
Cycle Q Clear(g_c), s	12.4	33.8	2.5	1.7	35.0	19.9	19.8	34.9	35.0	41.4	22.2	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	332	970	430	165	799	354	229	765	409	506	1943	753
V/C Ratio(X)	0.84	0.84	0.08	0.24	1.10	0.63	0.99	1.00	1.00	0.95	0.49	0.27
Avail Cap(c_a), veh/h	666	1027	455	444	799	354	229	765	409	629	2295	862
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	70.5	54.7	43.2	72.7	61.6	55.7	69.0	61.6	61.6	55.9	37.9	25.6
Incr Delay (d2), s/veh	4.3	6.3	0.1	0.6	63.9	3.8	57.2	32.1	44.3	21.5	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	15.7	1.0	0.8	22.8	8.3	12.7	18.4	21.1	21.5	9.3	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.8	61.0	43.3	73.2	125.5	59.5	126.2	93.7	105.9	77.5	38.1	25.8
LnGrp LOS	E	E	D	E	F	E	F	F	F	E	D	C
Approach Vol, veh/h		1129			1143			1400			1635	
Approach Delay, s/veh		63.9			110.8			102.5			48.2	
Approach LOS		E			F			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	51.2	42.0	14.9	50.0	27.0	66.2	22.4	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+Y), s	40.4	37.0	3.7	35.8	21.8	24.2	14.4	37.0				
Green Ext Time (p_c), s	0.9	0.0	0.0	3.8	0.0	12.7	0.6	0.0				

Intersection Summary

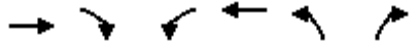
HCM 6th Ctrl Delay	79.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖↗	↗
Traffic Volume (veh/h)	1389	86	30	1288	159	80
Future Volume (veh/h)	1389	86	30	1288	159	80
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1447	65	31	1342	166	9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	2438	1083	65	2868	253	116
Arrive On Green	0.68	0.68	0.04	0.79	0.07	0.07
Sat Flow, veh/h	3705	1604	1810	3705	3510	1610
Grp Volume(v), veh/h	1447	65	31	1342	166	9
Grp Sat Flow(s),veh/h/ln	1805	1604	1810	1805	1755	1610
Q Serve(g_s), s	19.6	1.2	1.5	10.9	4.1	0.5
Cycle Q Clear(g_c), s	19.6	1.2	1.5	10.9	4.1	0.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2438	1083	65	2868	253	116
V/C Ratio(X)	0.59	0.06	0.48	0.47	0.66	0.08
Avail Cap(c_a), veh/h	2438	1083	251	2868	800	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.58	0.58	1.00	1.00
Uniform Delay (d), s/veh	7.9	4.9	42.6	3.0	40.7	39.0
Incr Delay (d2), s/veh	0.5	0.0	2.3	0.3	2.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.3	0.7	1.3	1.8	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	5.0	44.9	3.3	43.5	39.2
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1512			1373	175	
Approach Delay, s/veh	8.2			4.3	43.3	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.7	68.3			79.0	11.0
Change Period (Y+Rc), s	7.5	* 7.5			7.5	4.5
Max Green Setting (Gmax), s	12.5	* 38			57.5	20.5
Max Q Clear Time (g_c+1), s	13.5	21.6			12.9	6.1
Green Ext Time (p_c), s	0.0	7.4			11.5	0.4

Intersection Summary

HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

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

Intersection												
Intersection Delay, s/veh	9.1											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕↔	
Traffic Vol, veh/h	0	0	0	162	10	0	0	10	185	10	10	0
Future Vol, veh/h	0	0	0	162	10	0	0	10	185	10	10	0
Peak Hour Factor	0.92	0.92	0.92	0.79	0.92	0.79	0.92	0.79	0.79	0.79	0.79	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	205	11	0	0	13	234	13	13	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	0	9.5	8.8	8.4
HCM LOS	-	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	88%	75%	0%
Vol Thru, %	100%	0%	100%	0%	12%	25%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	185	0	86	86	13	7
LT Vol	0	0	0	86	76	10	0
Through Vol	10	0	0	0	10	3	7
RT Vol	0	185	0	0	0	0	0
Lane Flow Rate	13	234	0	109	107	17	8
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.018	0.288	0	0.169	0.165	0.027	0.012
Departure Headway (Hd)	5.139	4.435	5.408	5.61	5.552	5.703	5.325
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	699	813	0	639	646	628	672
Service Time	2.854	2.15	3.452	3.345	3.287	3.432	3.054
HCM Lane V/C Ratio	0.019	0.288	0	0.171	0.166	0.027	0.012
HCM Control Delay	7.9	8.9	8.5	9.5	9.4	8.6	8.1
HCM Lane LOS	A	A	N	A	A	A	A
HCM 95th-tile Q	0.1	1.2	0	0.6	0.6	0.1	0

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	10	0	185	0	0	162	10
Future Vol, veh/h	0	0	0	0	0	10	0	185	0	0	162	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	13	0	247	0	0	216	13

























Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	347	470	115	355	476	124	229	0	0	247	0	0
Stage 1	223	223	-	247	247	-	-	-	-	-	-	-
Stage 2	124	247	-	108	229	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	588	495	922	581	491	910	1351	-	-	1331	-	-
Stage 1	765	723	-	741	706	-	-	-	-	-	-	-
Stage 2	873	706	-	892	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	579	495	922	581	491	910	1351	-	-	1331	-	-
Mov Cap-2 Maneuver	579	495	-	581	491	-	-	-	-	-	-	-
Stage 1	765	723	-	741	706	-	-	-	-	-	-	-
Stage 2	860	706	-	892	718	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	9	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1351	-	-	-	910	1331	-	-
HCM Lane V/C Ratio	-	-	-	-	0.015	-	-	-
HCM Control Delay (s)	0	-	-	0	9	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0	0	-	-

HCM 6th Signalized Intersection Summary
 9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	1305	196	60	1096	13	259	94	100	10	69	83
Future Volume (veh/h)	88	1305	196	60	1096	13	259	94	100	10	69	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	1359	114	62	1142	14	270	98	32	10	72	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	122	1457	650	123	1601	20	406	880	393	383	880	
Arrive On Green	0.07	0.40	0.40	0.07	0.44	0.44	0.24	0.24	0.24	0.24	0.24	0.00
Sat Flow, veh/h	1810	3610	1610	1810	3652	45	1349	3610	1610	1280	3610	1610
Grp Volume(v), veh/h	92	1359	114	62	564	592	270	98	32	10	72	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1892	1349	1805	1610	1280	1805	1610
Q Serve(g_s), s	3.7	26.6	3.4	2.4	18.9	18.9	14.3	1.6	1.1	0.5	1.1	0.0
Cycle Q Clear(g_c), s	3.7	26.6	3.4	2.4	18.9	18.9	15.4	1.6	1.1	2.0	1.1	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	1457	650	123	791	829	406	880	393	383	880	
V/C Ratio(X)	0.76	0.93	0.18	0.50	0.71	0.71	0.67	0.11	0.08	0.03	0.08	
Avail Cap(c_a), veh/h	552	1467	654	490	791	829	442	978	436	417	978	
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	0.00
Uniform Delay (d), s/veh	33.8	21.1	14.1	33.2	16.9	16.9	27.5	21.7	21.5	22.5	21.5	0.0
Incr Delay (d2), s/veh	9.1	11.2	0.2	1.2	3.3	3.2	4.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	11.2	1.0	1.0	6.9	7.2	4.9	0.7	0.4	0.1	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	32.3	14.3	34.4	20.3	20.1	31.4	21.8	21.7	22.5	21.6	0.0
LnGrp LOS	D	C	B	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		1565			1218			400			82	A
Approach Delay, s/veh		31.6			20.9			28.3			21.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	36.8		25.0	9.5	39.4		25.0				
Change Period (Y+Rc), s	7.0	7.0		7.0	4.5	7.0		7.0				
Max Green Setting (Gmax), s	20.0	30.0		20.0	22.5	30.0		20.0				
Max Q Clear Time (g_c+I1), s	4.4	28.6		4.0	5.7	20.9		17.4				
Green Ext Time (p_c), s	0.0	1.2		0.4	0.2	5.5		0.6				

Intersection Summary

HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	280	102	130	210	50	41	292	62	30	359	26
Future Volume (veh/h)	39	280	102	130	210	50	41	292	62	30	359	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	326	24	151	244	16	48	340	29	35	417	11
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	329	571	252	324	735	325	478	1463	650	505	1434	637
Arrive On Green	0.05	0.16	0.16	0.09	0.20	0.20	0.05	0.41	0.41	0.04	0.40	0.40
Sat Flow, veh/h	1810	3610	1595	1810	3610	1598	1810	3610	1604	1810	3610	1604
Grp Volume(v), veh/h	45	326	24	151	244	16	48	340	29	35	417	11
Grp Sat Flow(s),veh/h/ln	1810	1805	1595	1810	1805	1598	1810	1805	1604	1810	1805	1604
Q Serve(g_s), s	1.8	7.4	1.1	6.0	5.1	0.7	1.3	5.4	1.0	1.0	6.9	0.4
Cycle Q Clear(g_c), s	1.8	7.4	1.1	6.0	5.1	0.7	1.3	5.4	1.0	1.0	6.9	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	329	571	252	324	735	325	478	1463	650	505	1434	637
V/C Ratio(X)	0.14	0.57	0.10	0.47	0.33	0.05	0.10	0.23	0.04	0.07	0.29	0.02
Avail Cap(c_a), veh/h	555	1434	634	468	1434	635	700	1463	650	743	1434	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	34.3	31.7	27.5	30.0	28.2	14.3	17.2	15.9	14.4	18.1	16.1
Incr Delay (d2), s/veh	0.2	1.3	0.2	1.0	0.4	0.1	0.1	0.4	0.1	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.2	0.4	2.5	2.1	0.3	0.5	2.1	0.3	0.4	2.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	35.6	31.9	28.5	30.3	28.3	14.4	17.6	16.0	14.5	18.6	16.2
LnGrp LOS	C	D	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		395			411			417			463	
Approach Delay, s/veh		34.6			29.6			17.1			18.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	42.7	14.5	20.4	11.1	42.0	10.5	24.4				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	15.0	35.0	15.0	35.0	15.0	35.0	15.0	35.0				
Max Q Clear Time (g_c+1), s	13.0	7.4	8.0	9.4	3.3	8.9	3.8	7.1				
Green Ext Time (p_c), s	0.0	3.0	0.2	2.8	0.1	3.7	0.1	2.1				
Intersection Summary												
HCM 6th Ctrl Delay											24.6	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	420	260	190	400	60	120	263	90	70	631	30
Future Volume (veh/h)	20	420	260	190	400	60	120	263	90	70	631	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	467	181	211	444	55	133	292	24	78	701	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	257	523	201	257	884	109	164	1065	475	101	916	39
Arrive On Green	0.01	0.21	0.21	0.08	0.27	0.27	0.18	0.59	0.59	0.06	0.26	0.26
Sat Flow, veh/h	1810	2543	978	1810	3232	398	1810	3610	1610	1810	3526	151
Grp Volume(v), veh/h	22	330	318	211	247	252	133	292	24	78	359	372
Grp Sat Flow(s),veh/h/ln	1810	1805	1716	1810	1805	1826	1810	1805	1610	1810	1805	1872
Q Serve(g_s), s	0.8	14.2	14.4	6.5	9.2	9.3	5.6	3.2	0.5	3.4	14.7	14.7
Cycle Q Clear(g_c), s	0.8	14.2	14.4	6.5	9.2	9.3	5.6	3.2	0.5	3.4	14.7	14.7
Prop In Lane	1.00		0.57	1.00		0.22	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	257	371	353	257	494	500	164	1065	475	101	469	486
V/C Ratio(X)	0.09	0.89	0.90	0.82	0.50	0.50	0.81	0.27	0.05	0.78	0.77	0.77
Avail Cap(c_a), veh/h	290	372	354	257	494	500	204	1065	475	113	469	486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	0.95	0.95	0.95
Uniform Delay (d), s/veh	24.8	30.9	31.0	26.2	24.4	24.5	32.1	12.2	11.7	37.3	27.4	27.4
Incr Delay (d2), s/veh	0.1	22.0	24.5	17.6	0.6	0.6	14.1	0.6	0.2	20.8	10.8	10.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	7.9	7.8	4.1	3.6	3.7	2.8	1.2	0.2	2.0	7.2	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	52.9	55.5	43.8	25.0	25.1	46.1	12.8	11.9	58.1	38.1	37.8
LnGrp LOS	C	D	E	D	C	C	D	B	B	E	D	D
Approach Vol, veh/h		670		710		449		809				
Approach Delay, s/veh		53.2		30.6		22.7		39.9				
Approach LOS		D		C		C		D				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	30.6	14.0	24.0	14.3	27.8	8.6	29.4				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	23.0	6.5	16.5	9.0	19.0	2.5	20.5				
Max Q Clear Time (g_c+1/4), s	11.4	5.2	8.5	16.4	7.6	16.7	2.8	11.3				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.0	0.0	0.8	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay	37.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	10	40	390	10	110	20	383	130	60	971	10
Future Volume (veh/h)	10	10	40	390	10	110	20	383	130	60	971	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	11	2	437	0	24	22	421	54	66	1067	11
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	57	10	575	0	253	26	1688	749	68	1795	19
Arrive On Green	0.04	0.04	0.04	0.16	0.00	0.16	0.00	0.15	0.15	0.08	0.98	0.98
Sat Flow, veh/h	1810	1564	284	3619	0	1595	1810	3610	1602	1810	3660	38
Grp Volume(v), veh/h	11	0	13	437	0	24	22	421	54	66	526	552
Grp Sat Flow(s),veh/h/ln	1810	0	1849	1810	0	1595	1810	1805	1602	1810	1805	1893
Q Serve(g_s), s	0.5	0.0	0.5	9.2	0.0	1.0	1.0	8.2	2.3	2.9	1.1	1.1
Cycle Q Clear(g_c), s	0.5	0.0	0.5	9.2	0.0	1.0	1.0	8.2	2.3	2.9	1.1	1.1
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	65	0	67	575	0	253	26	1688	749	68	885	929
V/C Ratio(X)	0.17	0.00	0.19	0.76	0.00	0.09	0.84	0.25	0.07	0.97	0.59	0.59
Avail Cap(c_a), veh/h	158	0	162	950	0	419	68	1688	749	68	885	929
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.99	0.99	0.99	0.42	0.42	0.42
Uniform Delay (d), s/veh	37.4	0.0	37.4	32.2	0.0	28.7	39.7	21.5	19.0	37.0	0.4	0.4
Incr Delay (d2), s/veh	0.4	0.0	0.5	1.6	0.0	0.1	53.1	0.4	0.2	62.2	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	4.1	0.0	0.4	0.8	3.5	0.8	2.3	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	0.0	37.9	33.8	0.0	28.9	92.8	21.8	19.2	99.1	1.6	1.6
LnGrp LOS	D	A	D	C	A	C	F	C	B	F	A	A
Approach Vol, veh/h		24			461			497			1144	
Approach Delay, s/veh		37.9			33.5			24.7			7.2	
Approach LOS		D			C			C			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	44.4		7.9	8.2	46.2		17.7				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		7.0	3.0	25.0		21.0				
Max Q Clear Time (g_c+1/4), s	10.0	10.2		2.5	3.0	3.1		11.2				
Green Ext Time (p_c), s	0.0	2.7		0.0	0.0	5.3		1.0				

Intersection Summary

HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕	↗	↖	↑↑↑			↑↑↑	↗
Traffic Volume (veh/h)	0	0	0	326	0	140	240	383	0	0	869	572
Future Volume (veh/h)	0	0	0	326	0	140	240	383	0	0	869	572
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				351	0	39	258	412	0	0	934	221
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				461	0	411	292	3112	0	0	1950	601
Arrive On Green				0.25	0.00	0.25	0.32	1.00	0.00	0.00	0.12	0.12
Sat Flow, veh/h				1810	0	1610	1810	5358	0	0	5358	1599
Grp Volume(v), veh/h				351	0	39	258	412	0	0	934	221
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1599
Q Serve(g_s), s				14.3	0.0	1.5	10.8	0.0	0.0	0.0	13.4	10.1
Cycle Q Clear(g_c), s				14.3	0.0	1.5	10.8	0.0	0.0	0.0	13.4	10.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				461	0	411	292	3112	0	0	1950	601
V/C Ratio(X)				0.76	0.00	0.09	0.88	0.13	0.00	0.00	0.48	0.37
Avail Cap(c_a), veh/h				461	0	411	362	3112	0	0	1950	601
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	0.77	0.77
Uniform Delay (d), s/veh				27.5	0.0	22.8	26.4	0.0	0.0	0.0	27.7	26.3
Incr Delay (d2), s/veh				11.2	0.0	0.5	13.6	0.1	0.0	0.0	0.7	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.4	0.0	0.6	4.6	0.0	0.0	0.0	6.1	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				38.8	0.0	23.2	39.9	0.1	0.0	0.0	28.4	27.6
LnGrp LOS				D	A	C	D	A	A	A	C	C
Approach Vol, veh/h					390			670			1155	
Approach Delay, s/veh					37.2			15.4			28.2	
Approach LOS					D			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		53.8			17.9	35.9		26.2				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			12.8	15.4		16.3				
Green Ext Time (p_c), s		2.2			0.1	4.3		1.3				
Intersection Summary												
HCM 6th Ctrl Delay											25.9	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕↕↕		↗	↕↕↕	
Traffic Volume (veh/h)	116	0	190	0	0	0	0	507	368	390	804	0
Future Volume (veh/h)	116	0	190	0	0	0	0	507	368	390	804	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	125	0	61				0	545	233	419	865	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	385	0	342				0	1152	477	469	3333	0
Arrive On Green	0.21	0.00	0.21				0.00	0.32	0.32	0.09	0.21	0.00
Sat Flow, veh/h	1810	0	1610				0	3761	1487	1810	5358	0
Grp Volume(v), veh/h	125	0	61				0	524	254	419	865	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1619	1810	1729	0
Q Serve(g_s), s	4.7	0.0	2.5				0.0	9.7	10.1	18.3	11.1	0.0
Cycle Q Clear(g_c), s	4.7	0.0	2.5				0.0	9.7	10.1	18.3	11.1	0.0
Prop In Lane	1.00		1.00				0.00		0.92	1.00		0.00
Lane Grp Cap(c), veh/h	385	0	342				0	1110	519	469	3333	0
V/C Ratio(X)	0.33	0.00	0.18				0.00	0.47	0.49	0.89	0.26	0.00
Avail Cap(c_a), veh/h	385	0	342				0	1110	519	611	3333	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.86	0.86	0.00
Uniform Delay (d), s/veh	26.6	0.0	25.8				0.0	21.7	21.9	35.5	15.7	0.0
Incr Delay (d2), s/veh	2.2	0.0	1.1				0.0	1.4	3.3	9.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.0				0.0	3.8	3.9	10.0	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	0.0	26.9				0.0	23.2	25.1	45.2	15.8	0.0
LnGrp LOS	C	A	C				A	C	C	D	B	A
Approach Vol, veh/h		186						778			1284	
Approach Delay, s/veh		28.2						23.8			25.4	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	25.7	31.5	22.8	57.2								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	27.0	19.0	17.0	51.4								
Max Q Clear Time (g_c+20), s	20.3	12.1	6.7	13.1								
Green Ext Time (p_c), s	0.4	2.3	1.1	5.1								

Intersection Summary

HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Intersection Delay, s/veh	26.3											
Intersection LOS	D											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔	↔		↔	↔↔	↔	↔	
Traffic Vol, veh/h	20	207	56	401	130	130	38	90	360	20	20	20
Future Vol, veh/h	20	207	56	401	130	130	38	90	360	20	20	20
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	252	68	489	159	159	46	110	439	24	24	24
Number of Lanes	0	1	1	1	1	1	0	1	2	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	2	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	3	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	2	3	2
HCM Control Delay	29.3	32	18.4	14.7
HCM LOS	D	D	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	30%	0%	0%	9%	0%	100%	52%	0%	100%	0%
Vol Thru, %	70%	0%	0%	91%	0%	0%	48%	0%	0%	50%
Vol Right, %	0%	100%	100%	0%	100%	0%	0%	100%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	128	180	180	227	56	261	270	130	20	40
LT Vol	38	0	0	20	0	261	140	0	20	0
Through Vol	90	0	0	207	0	0	130	0	0	20
RT Vol	0	180	180	0	56	0	0	130	0	20
Lane Flow Rate	156	220	220	277	68	318	330	159	24	49
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.391	0.497	0.497	0.723	0.164	0.778	0.785	0.334	0.075	0.138
Departure Headway (Hd)	9.018	8.149	8.149	9.408	8.648	8.816	8.57	7.589	11.088	10.207
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	400	443	443	385	415	410	422	474	323	351
Service Time	6.769	5.9	5.9	7.171	6.41	6.564	6.318	5.337	8.863	7.982
HCM Lane V/C Ratio	0.39	0.497	0.497	0.719	0.164	0.776	0.782	0.335	0.074	0.14
HCM Control Delay	17.5	18.7	18.7	33.3	13.1	36.4	36.3	14.1	14.8	14.6
HCM Lane LOS	C	C	C	D	B	E	E	B	B	B
HCM 95th-tile Q	1.8	2.7	2.7	5.5	0.6	6.6	6.8	1.5	0.2	0.5

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	20	0	30	20	0	10	20	448	10	20	507	10
Future Volume (veh/h)	20	0	30	20	0	10	20	448	10	20	507	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.97		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	0	5	23	0	0	23	521	9	23	590	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	0	108	138	0	0	81	2569	1142	81	2569	1142
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.00	0.04	0.71	0.71	0.04	0.71	0.71
Sat Flow, veh/h	1546	0	1562	1138	0	0	1810	3610	1605	1810	3610	1605
Grp Volume(v), veh/h	23	0	5	23	0	0	23	521	9	23	590	9
Grp Sat Flow(s),veh/h/ln	1546	0	1562	1138	0	0	1810	1805	1605	1810	1805	1605
Q Serve(g_s), s	0.0	0.0	0.4	1.9	0.0	0.0	1.5	5.8	0.2	1.5	6.8	0.2
Cycle Q Clear(g_c), s	1.5	0.0	0.4	3.4	0.0	0.0	1.5	5.8	0.2	1.5	6.8	0.2
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	0	108	138	0	0	81	2569	1142	81	2569	1142
V/C Ratio(X)	0.14	0.00	0.05	0.17	0.00	0.00	0.28	0.20	0.01	0.28	0.23	0.01
Avail Cap(c_a), veh/h	455	0	430	424	0	0	196	2569	1142	196	2569	1142
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	0.00	1.00	1.00	0.00	0.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	0.0	52.2	54.3	0.0	0.0	55.5	5.8	5.0	55.5	6.0	5.0
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.7	0.0	0.0	2.0	0.2	0.0	2.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.1	0.7	0.0	0.0	0.7	1.9	0.1	0.7	2.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	0.0	52.4	55.0	0.0	0.0	57.4	6.0	5.0	57.8	6.2	5.0
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	A	A
Approach Vol, veh/h		28			23			553			622	
Approach Delay, s/veh		53.0			55.0			8.1			8.1	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	92.4		15.3	12.4	92.4		15.3				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1), s	13.5	7.8		3.5	3.5	8.8		5.4				
Green Ext Time (p_c), s	0.0	7.2		0.1	0.0	8.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	925	270	70	768	20	160	268	110	30	356	151
Future Volume (veh/h)	110	925	270	70	768	20	160	268	110	30	356	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	995	194	75	826	22	172	288	22	32	383	162
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	146	940	417	126	896	24	325	342	287	25	303	128
Arrive On Green	0.08	0.26	0.26	0.07	0.25	0.25	0.18	0.18	0.18	0.25	0.25	0.25
Sat Flow, veh/h	1810	3610	1601	1810	3591	96	1810	1900	1597	100	1195	506
Grp Volume(v), veh/h	118	995	194	75	415	433	172	288	22	577	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1882	1810	1900	1597	1800	0	0
Q Serve(g_s), s	7.6	30.8	12.1	4.8	26.5	26.5	10.2	17.3	1.4	30.0	0.0	0.0
Cycle Q Clear(g_c), s	7.6	30.8	12.1	4.8	26.5	26.5	10.2	17.3	1.4	30.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	0.06		0.28
Lane Grp Cap(c), veh/h	146	940	417	126	450	469	325	342	287	456	0	0
V/C Ratio(X)	0.81	1.06	0.47	0.60	0.92	0.92	0.53	0.84	0.08	1.26	0.00	0.00
Avail Cap(c_a), veh/h	382	940	417	306	458	477	459	482	405	456	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	53.5	43.8	36.8	53.4	43.3	43.3	44.0	46.9	40.4	44.2	0.0	0.0
Incr Delay (d2), s/veh	7.7	46.0	1.7	1.7	24.9	24.2	1.6	10.0	0.1	135.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	18.9	4.7	2.1	14.3	14.8	4.6	9.0	0.5	30.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.2	89.7	38.5	55.1	68.2	67.5	45.6	57.0	40.5	179.6	0.0	0.0
LnGrp LOS	E	F	D	E	E	E	D	E	D	F	A	A
Approach Vol, veh/h		1307			923			482			577	
Approach Delay, s/veh		79.5			66.8			52.2			179.6	
Approach LOS		E			E			D			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.7	38.3		36.5	17.0	37.0		27.8				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	20.0	30.0		30.0	25.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	6.8	32.8		32.0	9.6	28.5		19.3				
Green Ext Time (p_c), s	0.1	0.0		0.0	0.2	1.0		1.9				

Intersection Summary

HCM 6th Ctrl Delay	89.5
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

HCM 6th Signalized Intersection Summary
 18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗	↖	↖	↗	↖
Traffic Volume (veh/h)	190	170	290	20	50	30	110	438	20	30	546	80
Future Volume (veh/h)	190	170	290	20	50	30	110	438	20	30	546	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	198	108	23	58	6	128	509	10	35	635	35
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	257	494	258	78	424	187	160	1509	671	81	1940	600
Arrive On Green	0.14	0.22	0.22	0.04	0.12	0.12	0.09	0.42	0.42	0.04	0.37	0.37
Sat Flow, veh/h	1810	2287	1193	1810	3610	1590	1810	3610	1604	1810	5187	1604
Grp Volume(v), veh/h	221	154	152	23	58	6	128	509	10	35	635	35
Grp Sat Flow(s),veh/h/ln	1810	1805	1675	1810	1805	1590	1810	1805	1604	1810	1729	1604
Q Serve(g_s), s	11.2	6.9	7.3	1.2	1.3	0.3	6.5	8.9	0.3	1.8	8.2	1.3
Cycle Q Clear(g_c), s	11.2	6.9	7.3	1.2	1.3	0.3	6.5	8.9	0.3	1.8	8.2	1.3
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	257	390	362	78	424	187	160	1509	671	81	1940	600
V/C Ratio(X)	0.86	0.40	0.42	0.29	0.14	0.03	0.80	0.34	0.01	0.43	0.33	0.06
Avail Cap(c_a), veh/h	387	482	448	387	965	425	387	1509	671	387	1940	600
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	31.4	31.6	43.4	37.0	36.6	41.8	18.4	15.9	43.5	20.9	18.7
Incr Delay (d2), s/veh	8.1	0.5	0.6	0.8	0.1	0.1	3.4	0.6	0.0	1.4	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.9	2.9	0.5	0.6	0.1	2.9	3.5	0.1	0.8	3.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	31.9	32.2	44.1	37.1	36.6	45.3	19.1	16.0	44.9	21.3	18.9
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	B
Approach Vol, veh/h		527			87			647			705	
Approach Delay, s/veh		38.4			39.0			24.2			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	10.7	45.6	10.5	26.7	14.8	41.5	19.8	17.5				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	13.8	10.9	3.2	9.3	8.5	10.2	13.2	3.3				
Green Ext Time (p_c), s	0.0	3.8	0.0	1.1	0.1	5.1	0.2	0.2				

Intersection Summary

HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗	↖	↗	↗	↖
Traffic Volume (veh/h)	50	10	72	50	10	20	71	468	30	30	866	20
Future Volume (veh/h)	50	10	72	50	10	20	71	468	30	30	866	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	57	11	13	57	11	3	82	538	18	34	995	23
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	222	196	132	444	196	117	2540	786	79	2443	56
Arrive On Green	0.07	0.12	0.12	0.07	0.12	0.12	0.06	0.49	0.49	0.04	0.47	0.47
Sat Flow, veh/h	1810	1805	1591	1810	3610	1591	1810	5187	1605	1810	5215	120
Grp Volume(v), veh/h	57	11	13	57	11	3	82	538	18	34	659	359
Grp Sat Flow(s),veh/h/ln	1810	1805	1591	1810	1805	1591	1810	1729	1605	1810	1729	1878
Q Serve(g_s), s	2.9	0.5	0.7	2.9	0.3	0.2	4.3	5.7	0.6	1.8	12.0	12.0
Cycle Q Clear(g_c), s	2.9	0.5	0.7	2.9	0.3	0.2	4.3	5.7	0.6	1.8	12.0	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	132	222	196	132	444	196	117	2540	786	79	1620	880
V/C Ratio(X)	0.43	0.05	0.07	0.43	0.02	0.02	0.70	0.21	0.02	0.43	0.41	0.41
Avail Cap(c_a), veh/h	471	676	596	471	1353	596	471	2540	786	471	1620	880
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	42.6	37.2	37.2	42.6	37.1	37.0	44.0	14.0	12.6	44.8	16.8	16.8
Incr Delay (d2), s/veh	0.8	0.1	0.1	0.8	0.0	0.0	2.8	0.2	0.1	1.4	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	0.3	1.3	0.1	0.1	1.9	2.1	0.2	0.8	4.5	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	37.2	37.4	43.4	37.1	37.0	46.8	14.1	12.7	46.2	17.5	18.2
LnGrp LOS	D	D	D	D	D	D	D	B	B	D	B	B
Approach Vol, veh/h		81			71			638			1052	
Approach Delay, s/veh		41.6			42.2			18.3			18.7	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.7	53.5	13.5	18.3	12.7	51.5	13.5	18.3				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	25.0	45.0	25.0	36.0	25.0	45.0	25.0	36.0				
Max Q Clear Time (g_c+1), s	13.8	7.7	4.9	2.7	6.3	14.0	4.9	2.3				
Green Ext Time (p_c), s	0.0	4.5	0.1	0.1	0.1	8.5	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	70	470	460	260	330	50	230	389	100	50	908	60
Future Volume (veh/h)	70	470	460	260	330	50	230	389	100	50	908	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	490	210	271	344	18	240	405	52	52	946	23
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	313	730	323	364	782	435	322	1809	726	192	1616	643
Arrive On Green	0.09	0.20	0.20	0.10	0.22	0.22	0.09	0.35	0.35	0.05	0.31	0.31
Sat Flow, veh/h	3510	3610	1598	3510	3610	1599	3510	5187	1603	3510	5187	1602
Grp Volume(v), veh/h	73	490	210	271	344	18	240	405	52	52	946	23
Grp Sat Flow(s),veh/h/ln	1755	1805	1598	1755	1805	1599	1755	1729	1603	1755	1729	1602
Q Serve(g_s), s	1.9	12.1	11.6	7.2	7.9	0.8	6.4	5.3	1.8	1.4	14.8	0.8
Cycle Q Clear(g_c), s	1.9	12.1	11.6	7.2	7.9	0.8	6.4	5.3	1.8	1.4	14.8	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	730	323	364	782	435	322	1809	726	192	1616	643
V/C Ratio(X)	0.23	0.67	0.65	0.74	0.44	0.04	0.74	0.22	0.07	0.27	0.59	0.04
Avail Cap(c_a), veh/h	729	1125	498	729	1125	586	729	1809	726	729	1616	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	35.5	35.3	41.9	32.6	25.9	42.6	22.1	14.9	43.7	27.9	17.5
Incr Delay (d2), s/veh	0.3	1.3	2.7	2.3	0.5	0.0	2.6	0.3	0.2	0.6	1.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.1	4.5	3.1	3.3	0.3	2.8	2.1	0.6	0.6	6.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	36.8	37.9	44.2	33.1	25.9	45.2	22.4	15.1	44.2	29.5	17.7
LnGrp LOS	D	D	D	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		773			633			697			1021	
Approach Delay, s/veh		37.5			37.6			29.7			30.0	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	40.1	17.5	27.0	15.3	36.5	16.1	28.4				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1), s	13.4	7.3	9.2	14.1	8.4	16.8	3.9	9.9				
Green Ext Time (p_c), s	0.1	3.1	0.5	3.9	0.4	5.8	0.1	2.3				

Intersection Summary

HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↶	↶	↶	↶		↷	↷
Traffic Volume (veh/h)	0	0	0	426	0	212	510	517	0	0	1318	410
Future Volume (veh/h)	0	0	0	426	0	212	510	517	0	0	1318	410
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				470	0	46	537	544	0	0	1387	185
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				901	0	401	1014	3227	0	0	1816	443
Arrive On Green				0.25	0.00	0.25	0.10	0.21	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1596
Grp Volume(v), veh/h				470	0	46	537	544	0	0	1387	185
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1596
Q Serve(g_s), s				10.1	0.0	2.0	13.1	7.8	0.0	0.0	17.5	8.5
Cycle Q Clear(g_c), s				10.1	0.0	2.0	13.1	7.8	0.0	0.0	17.5	8.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				901	0	401	1014	3227	0	0	1816	443
V/C Ratio(X)				0.52	0.00	0.11	0.53	0.17	0.00	0.00	0.76	0.42
Avail Cap(c_a), veh/h				901	0	401	1014	3227	0	0	1816	443
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.89	0.89	0.00	0.00	0.71	0.71
Uniform Delay (d), s/veh				29.2	0.0	26.1	34.9	16.6	0.0	0.0	29.8	26.6
Incr Delay (d2), s/veh				2.2	0.0	0.6	1.8	0.1	0.0	0.0	2.2	2.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.6	0.0	2.1	6.3	2.9	0.0	0.0	6.7	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				31.3	0.0	26.7	36.6	16.7	0.0	0.0	32.0	28.6
LnGrp LOS				C	A	C	D	B	A	A	C	C
Approach Vol, veh/h					516			1081			1572	
Approach Delay, s/veh					30.9			26.6			31.6	
Approach LOS					C			C			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		61.8		28.2	31.0	30.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		56.0		22.4	26.0	25.0						
Max Q Clear Time (g_c+I1), s		9.8		12.1	15.1	19.5						
Green Ext Time (p_c), s		3.7		1.4	0.8	3.9						

Intersection Summary

HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	440	0	0	0	0	957	498	509	1234	0
Future Volume (veh/h)	80	0	440	0	0	0	0	957	498	509	1234	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	55	0	363				0	997	168	530	1285	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	611	0	1088				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.21	0.71	0.00
Sat Flow, veh/h	1810	0	3220				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	55	0	363				0	997	168	530	1285	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	1.9	0.0	7.6				0.0	11.0	7.2	13.5	9.7	0.0
Cycle Q Clear(g_c), s	1.9	0.0	7.6				0.0	11.0	7.2	13.5	9.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	611	0	1088				0	2106	515	546	2766	0
V/C Ratio(X)	0.09	0.00	0.33				0.00	0.47	0.33	0.97	0.46	0.00
Avail Cap(c_a), veh/h	611	0	1088				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.60	0.60	0.00
Uniform Delay (d), s/veh	20.4	0.0	22.2				0.0	24.4	23.1	35.5	7.5	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.8				0.0	0.8	1.7	23.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	2.9				0.0	4.0	2.7	6.9	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	0.0	23.1				0.0	25.2	24.8	59.0	7.8	0.0
LnGrp LOS	C	A	C				A	C	C	E	A	A
Approach Vol, veh/h		418						1165			1815	
Approach Delay, s/veh		22.7						25.1			22.8	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+1/5), s	11.5	13.0					11.7	9.6				
Green Ext Time (p_c), s	0.0	6.3					10.7	1.6				

Intersection Summary

HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	300	0	490	0	2633	0	0	1986	1098	0	0
Future Volume (veh/h)	300	0	490	0	2633	0	0	1986	1098	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No				No				No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	316	316	475	0	2772	0	0	2495	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	563	563	1002	0	3791	0	0	4408			
Arrive On Green	0.31	0.31	0.31	0.00	0.58	0.00	0.00	0.58	0.00		
Sat Flow, veh/h	1810	1810	3220	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	316	316	475	0	2772	0	0	2495	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	0	0	1900	1610		
Q Serve(g_s), s	14.6	14.6	11.9	0.0	30.9	0.0	0.0	20.5	0.0		
Cycle Q Clear(g_c), s	14.6	14.6	11.9	0.0	30.9	0.0	0.0	20.5	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	563	563	1002	0	3791	0	0	4408			
V/C Ratio(X)	0.56	0.56	0.47	0.00	0.73	0.00	0.00	0.57			
Avail Cap(c_a), veh/h	563	563	1002	0	3791	0	0	4408			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	28.8	28.8	27.8	0.0	15.3	0.0	0.0	13.1	0.0		
Incr Delay (d2), s/veh	4.0	4.0	1.6	0.0	1.3	0.0	0.0	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.8	6.8	4.7	0.0	10.1	0.0	0.0	7.9	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	32.8	32.8	29.5	0.0	16.6	0.0	0.0	13.7	0.0		
LnGrp LOS	C	C	C	A	B	A	A	B			
Approach Vol, veh/h	791	791			2772			2495	A		
Approach Delay, s/veh	30.8	30.8			16.6			13.7			
Approach LOS	C	C			B			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	63.8		36.2		63.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	58.0		31.1		58.0						
Max Q Clear Time (g_c+I1), s	32.9		16.6		22.5						
Green Ext Time (p_c), s	17.7		1.5		19.7						

Intersection Summary

HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	641	0	287	0	2830	937	0	1727	0	0	0
Future Volume (veh/h)	641	0	287	0	2830	937	0	1727	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	668	668	278	0	2948	0	0	1799	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	581	581	1034	0	3726		0	3726	0		
Arrive On Green	0.32	0.32	0.32	0.00	0.57	0.00	0.00	0.57	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	668	668	278	0	2948	0	0	1799	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	32.1	32.1	6.4	0.0	35.3	0.0	0.0	16.3	0.0		
Cycle Q Clear(g_c), s	32.1	32.1	6.4	0.0	35.3	0.0	0.0	16.3	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	581	581	1034	0	3726		0	3726	0		
V/C Ratio(X)	1.15	1.15	0.27	0.00	0.79		0.00	0.48	0.00		
Avail Cap(c_a), veh/h	581	581	1034	0	3726		0	3726	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.24	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	33.9	33.9	25.2	0.0	16.8	0.0	0.0	12.8	0.0		
Incr Delay (d2), s/veh	86.1	86.1	0.6	0.0	0.4	0.0	0.0	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	27.5	27.5	2.5	0.0	12.3	0.0	0.0	5.5	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	120.1	120.1	25.9	0.0	17.3	0.0	0.0	13.2	0.0		
LnGrp LOS	F	F	C	A	B		A	B	A		
Approach Vol, veh/h	946	946			2948	A		1799			
Approach Delay, s/veh	92.4	92.4			17.3			13.2			
Approach LOS	F	F			B			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	62.8		37.2		62.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	57.0		32.1		57.0						
Max Q Clear Time (g_c+I1), s	37.3		34.1		18.3						
Green Ext Time (p_c), s	16.7		0.0		11.7						

Intersection Summary

HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖↗	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	430	100	220	70	60	300	70	3037	130	210	1683	130
Future Volume (veh/h)	430	100	220	70	60	300	70	3037	130	210	1683	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	443	103	38	72	62	32	72	3131	67	216	1735	72
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	464	219	184	259	109	162	188	3540	870	268	3688	906
Arrive On Green	0.13	0.12	0.12	0.07	0.06	0.06	0.05	0.54	0.54	0.08	0.56	0.56
Sat Flow, veh/h	3510	1900	1589	3510	1900	2834	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	443	103	38	72	62	32	72	3131	67	216	1735	72
Grp Sat Flow(s),veh/h/ln	1755	1900	1589	1755	1900	1417	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	17.5	7.1	3.0	2.7	4.5	1.5	2.8	59.0	2.8	8.5	22.0	2.9
Cycle Q Clear(g_c), s	17.5	7.1	3.0	2.7	4.5	1.5	2.8	59.0	2.8	8.5	22.0	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	219	184	259	109	162	188	3540	870	268	3688	906
V/C Ratio(X)	0.95	0.47	0.21	0.28	0.57	0.20	0.38	0.88	0.08	0.81	0.47	0.08
Avail Cap(c_a), veh/h	464	387	324	464	387	577	602	3540	870	602	3688	906
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	0.23	0.23	0.23	0.88	0.88	0.88
Uniform Delay (d), s/veh	60.3	57.9	56.1	61.3	64.3	62.9	64.0	28.2	15.3	63.7	18.1	13.9
Incr Delay (d2), s/veh	30.3	0.6	0.2	0.2	1.7	0.2	0.1	0.9	0.0	1.9	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	3.4	1.2	1.2	2.2	0.5	1.2	21.7	1.0	3.8	8.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.6	58.5	56.3	61.5	66.1	63.2	64.1	29.1	15.4	65.6	18.5	14.1
LnGrp LOS	F	E	E	E	E	E	E	C	B	E	B	B
Approach Vol, veh/h		584			166			3270			2023	
Approach Delay, s/veh		82.7			63.5			29.6			23.4	
Approach LOS		F			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.7	82.8	16.8	22.7	14.5	86.0	25.0	14.5				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	24.0	42.0	18.5	28.5	24.0	42.0	18.5	28.5				
Max Q Clear Time (g_c+10), s	110.5	61.0	4.7	9.1	4.8	24.0	19.5	6.5				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.2	0.1	9.8	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↓		↔↔	↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	400	504	590	154	519	524	465	2332	40	119	1694	160
Future Volume (veh/h)	400	504	590	154	519	524	465	2332	40	119	1694	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	404	509	487	156	524	274	470	2356	15	120	1711	71
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	463	523	464	210	785	350	528	2541	624	172	1877	460
Arrive On Green	0.13	0.29	0.29	0.06	0.22	0.22	0.15	0.39	0.39	0.05	0.29	0.29
Sat Flow, veh/h	3510	1805	1602	3510	3610	1610	3510	6536	1604	3510	6536	1602
Grp Volume(v), veh/h	404	509	487	156	524	274	470	2356	15	120	1711	71
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1610	1755	1634	1604	1755	1634	1602
Q Serve(g_s), s	15.6	38.5	40.0	6.0	18.3	22.2	18.1	47.6	0.8	4.6	34.9	4.6
Cycle Q Clear(g_c), s	15.6	38.5	40.0	6.0	18.3	22.2	18.1	47.6	0.8	4.6	34.9	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	463	523	464	210	785	350	528	2541	624	172	1877	460
V/C Ratio(X)	0.87	0.97	1.05	0.74	0.67	0.78	0.89	0.93	0.02	0.70	0.91	0.15
Avail Cap(c_a), veh/h	763	523	464	763	1046	466	763	2541	624	763	1893	464
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	58.8	48.5	49.0	63.9	49.4	50.9	57.5	40.3	26.0	64.7	47.5	36.7
Incr Delay (d2), s/veh	3.4	32.5	55.4	2.0	1.0	6.1	7.1	6.7	0.0	1.9	7.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	21.5	22.6	2.7	8.1	9.3	8.3	19.1	0.3	2.1	14.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.2	81.0	104.4	65.9	50.4	57.1	64.6	47.0	26.1	66.6	54.7	36.9
LnGrp LOS	E	F	F	E	D	E	E	D	C	E	D	D
Approach Vol, veh/h		1400		954		2841		1902				
Approach Delay, s/veh		83.7		54.9		49.8		54.8				
Approach LOS		F		D		D		D				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	64.3	61.2	15.2	47.4	28.3	47.2	25.2	37.4				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+1), s	10.6	49.6	8.0	42.0	20.1	36.9	17.6	24.2				
Green Ext Time (p_c), s	0.2	0.0	0.2	0.0	0.6	2.7	0.6	3.6				

Intersection Summary

HCM 6th Ctrl Delay	58.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘			↖ ↗	↖ ↗		↖	↗	↘		↖ ↗	
Traffic Volume (veh/h)	10	587	10	30	621	30	10	0	50	50	0	10
Future Volume (veh/h)	10	587	10	30	621	30	10	0	50	50	0	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	725	11	37	767	11	12	0	29	62	0	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	1599	24	79	1191	531	628	0	571	583	0	0
Arrive On Green	0.02	0.30	0.30	0.04	0.33	0.33	0.35	0.00	0.35	0.35	0.00	0.00
Sat Flow, veh/h	1810	5264	80	1810	3610	1610	1440	0	1610	1356	0	0
Grp Volume(v), veh/h	12	476	260	37	767	11	12	0	29	62	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1886	1810	1805	1610	1440	0	1610	1356	0	0
Q Serve(g_s), s	0.5	7.8	7.9	1.4	12.7	0.3	0.0	0.0	0.8	2.1	0.0	0.0
Cycle Q Clear(g_c), s	0.5	7.8	7.9	1.4	12.7	0.3	0.3	0.0	0.8	3.0	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	32	1051	573	79	1191	531	628	0	571	583	0	0
V/C Ratio(X)	0.37	0.45	0.45	0.47	0.64	0.02	0.02	0.00	0.05	0.11	0.00	0.00
Avail Cap(c_a), veh/h	385	3187	1738	385	3327	1484	628	0	571	583	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.2	19.8	19.8	32.9	20.1	15.9	14.8	0.0	15.0	15.9	0.0	0.0
Incr Delay (d2), s/veh	7.0	0.4	0.8	4.2	0.8	0.0	0.1	0.0	0.2	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.8	3.2	0.7	4.8	0.1	0.1	0.0	0.3	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	20.3	20.6	37.1	20.9	16.0	14.8	0.0	15.1	16.3	0.0	0.0
LnGrp LOS	D	C	C	D	C	B	B	A	B	B	A	A
Approach Vol, veh/h		748			815			41			62	
Approach Delay, s/veh		20.7			21.6			15.0			16.3	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		32.0	10.1	28.4		32.0	8.3	30.3				
Change Period (Y+Rc), s		7.0	7.0	7.0		7.0	7.0	7.0				
Max Green Setting (Gmax), s		25.0	15.0	65.0		25.0	15.0	65.0				
Max Q Clear Time (g_c+1), s		2.8	3.4	9.9		5.0	2.5	14.7				
Green Ext Time (p_c), s		0.1	0.0	7.4		0.2	0.0	8.5				

Intersection Summary

HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	627	60	80	611	10	70	0	60	10	0	10
Future Volume (veh/h)	0	627	60	80	611	10	70	0	60	10	0	10
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	0.99		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	755	61	96	736	12	84	0	31	12	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3001	241	125	1417	23	220	0	133	134	0	0
Arrive On Green	0.00	0.61	0.61	0.07	0.76	0.76	0.08	0.00	0.08	0.08	0.00	0.00
Sat Flow, veh/h	1810	4892	393	1810	1864	30	1654	0	1582	643	0	0
Grp Volume(v), veh/h	0	533	283	96	0	748	84	0	31	12	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1827	1810	0	1895	1654	0	1582	643	0	0
Q Serve(g_s), s	0.0	6.3	6.4	4.7	0.0	14.1	0.0	0.0	1.6	0.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.3	6.4	4.7	0.0	14.1	4.1	0.0	1.6	4.8	0.0	0.0
Prop In Lane	1.00		0.22	1.00		0.02	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	2	2121	1121	125	0	1440	220	0	133	134	0	0
V/C Ratio(X)	0.00	0.25	0.25	0.77	0.00	0.52	0.38	0.00	0.23	0.09	0.00	0.00
Avail Cap(c_a), veh/h	322	2121	1121	322	0	1440	684	0	650	586	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.9	8.0	41.2	0.0	4.3	39.6	0.0	38.5	41.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.5	9.6	0.0	1.3	1.1	0.0	0.9	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	2.2	2.3	0.0	3.5	1.8	0.0	0.6	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.2	8.4	50.8	0.0	5.6	40.7	0.0	39.4	42.2	0.0	0.0
LnGrp LOS	A	A	A	D	A	A	D	A	D	D	A	A
Approach Vol, veh/h		816			844			115			12	
Approach Delay, s/veh		8.3			10.8			40.3			42.2	
Approach LOS		A			B			D			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.6	13.2	62.2		14.6	0.0	75.4				
Change Period (Y+Rc), s		7.0	7.0	7.0		7.0	7.0	7.0				
Max Green Setting (Gmax), s		37.0	16.0	16.0		37.0	16.0	16.0				
Max Q Clear Time (g_c+1), s		6.1	6.7	8.4		6.8	0.0	16.1				
Green Ext Time (p_c), s		0.6	0.1	2.9		0.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay		11.7										
HCM 6th LOS		B										
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔	↑↑↑	↔	↔	↑↑↑	↔
Traffic Volume (veh/h)	437	361	50	399	283	159	50	2158	222	233	1877	358
Future Volume (veh/h)	437	361	50	399	283	159	50	2158	222	233	1877	358
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	446	368	13	407	289	41	51	2202	65	238	1915	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	435	638	196	435	444	198	123	2105	516	242	2536	
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.07	0.32	0.32	0.13	0.39	0.00
Sat Flow, veh/h	3510	5187	1591	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	446	368	13	407	289	41	51	2202	65	238	1915	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1591	1755	1805	1610	1810	1634	1603	1810	1634	1610
Q Serve(g_s), s	12.5	6.8	0.7	11.6	7.7	2.3	2.7	32.5	2.9	13.2	25.6	0.0
Cycle Q Clear(g_c), s	12.5	6.8	0.7	11.6	7.7	2.3	2.7	32.5	2.9	13.2	25.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	435	638	196	435	444	198	123	2105	516	242	2536	
V/C Ratio(X)	1.03	0.58	0.07	0.94	0.65	0.21	0.42	1.05	0.13	0.98	0.76	
Avail Cap(c_a), veh/h	435	1619	496	435	1127	503	206	2105	516	242	2536	
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	0.00
Uniform Delay (d), s/veh	44.2	41.8	39.1	43.8	42.2	39.8	45.1	34.2	24.2	43.6	26.7	0.0
Incr Delay (d2), s/veh	49.9	0.8	0.1	27.4	1.6	0.5	0.8	33.0	0.1	52.8	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	2.8	0.3	6.5	3.4	0.9	1.2	16.5	1.1	9.1	9.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.1	42.6	39.3	71.2	43.8	40.3	45.9	67.2	24.3	96.4	28.1	0.0
LnGrp LOS	F	D	D	E	D	D	D	F	C	F	C	
Approach Vol, veh/h		827			737			2318			2153	A
Approach Delay, s/veh		70.3			58.7			65.5			35.7	
Approach LOS		E			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.0	40.0	20.0	19.9	14.3	46.7	20.0	19.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	13.5	32.5	12.5	31.5	11.5	34.5	12.5	31.5				
Max Q Clear Time (g_c+1/2), s	11.2	34.5	13.6	8.8	4.7	27.6	14.5	9.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.2	0.0	5.8	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗		↖ ↗	↖ ↗	↖ ↗		↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	50	867	20	10	730	36	10	10	10	52	0	91
Future Volume (veh/h)	50	867	20	10	730	36	10	10	10	52	0	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	903	18	10	760	12	10	10	6	54	0	51
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	401	2327	46	394	1605	712	514	262	157	515	449	378
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.24	0.24	0.24	0.24	0.00	0.24
Sat Flow, veh/h	708	5234	104	616	3610	1601	1367	1109	666	1411	1900	1600
Grp Volume(v), veh/h	52	596	325	10	760	12	10	0	16	54	0	51
Grp Sat Flow(s),veh/h/ln	708	1729	1881	616	1805	1601	1367	0	1775	1411	1900	1600
Q Serve(g_s), s	2.1	4.4	4.4	0.4	5.6	0.2	0.2	0.0	0.3	1.2	0.0	0.9
Cycle Q Clear(g_c), s	7.7	4.4	4.4	4.8	5.6	0.2	0.2	0.0	0.3	1.4	0.0	0.9
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	401	1537	836	394	1605	712	514	0	419	515	449	378
V/C Ratio(X)	0.13	0.39	0.39	0.03	0.47	0.02	0.02	0.00	0.04	0.10	0.00	0.13
Avail Cap(c_a), veh/h	746	3220	1751	693	3361	1491	1101	0	1181	1120	1264	1064
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	7.0	7.0	8.6	7.3	5.8	11.0	0.0	11.1	11.6	0.0	11.3
Incr Delay (d2), s/veh	0.1	0.2	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.8	0.9	0.0	1.1	0.0	0.1	0.0	0.1	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.2	7.2	7.3	8.6	7.6	5.9	11.1	0.0	11.1	11.7	0.0	11.5
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	A	B
Approach Vol, veh/h		973			782			26			105	
Approach Delay, s/veh		7.4			7.6			11.1			11.6	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.9		23.7		13.9		23.7				
Change Period (Y+Rc), s		5.0		7.0		5.0		7.0				
Max Green Setting (Gmax), s		25.0		35.0		25.0		35.0				
Max Q Clear Time (g_c+11), s		2.3		9.7		3.4		7.6				
Green Ext Time (p_c), s		0.1		6.3		0.3		5.3				

Intersection Summary

HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷	↷	↶	↷	↷	↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	80	819	30	30	651	299	20	40	80	360	30	104
Future Volume (veh/h)	80	819	30	30	651	299	20	40	80	360	30	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	83	853	9	31	678	0	21	42	23	375	31	35
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	123	2360	729	76	1548		66	118	65	312	296	248
Arrive On Green	0.07	0.45	0.45	0.03	0.29	0.00	0.04	0.10	0.10	0.09	0.16	0.16
Sat Flow, veh/h	1810	5187	1601	1810	3610	1610	1810	1148	628	3510	1900	1595
Grp Volume(v), veh/h	83	853	9	31	678	0	21	0	65	375	31	35
Grp Sat Flow(s),veh/h/ln	1810	1729	1601	1810	1805	1610	1810	0	1776	1755	1900	1595
Q Serve(g_s), s	4.0	9.7	0.3	1.5	13.8	0.0	1.0	0.0	3.1	8.0	1.3	1.7
Cycle Q Clear(g_c), s	4.0	9.7	0.3	1.5	13.8	0.0	1.0	0.0	3.1	8.0	1.3	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	123	2360	729	76	1548		66	0	183	312	296	248
V/C Ratio(X)	0.67	0.36	0.01	0.41	0.44		0.32	0.00	0.36	1.20	0.10	0.14
Avail Cap(c_a), veh/h	161	2360	729	161	1548		161	0	395	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.97	0.97	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	16.0	13.4	42.6	23.2	0.0	42.3	0.0	37.6	41.0	32.6	32.8
Incr Delay (d2), s/veh	7.3	0.4	0.0	4.1	0.9	0.0	1.0	0.0	0.9	117.4	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.5	0.1	0.7	6.1	0.0	0.5	0.0	1.3	8.5	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	16.4	13.5	46.7	24.1	0.0	43.3	0.0	38.4	158.4	32.7	33.0
LnGrp LOS	D	B	B	D	C		D	A	D	F	C	C
Approach Vol, veh/h		945			709	A		86			441	
Approach Delay, s/veh		19.2			25.1			39.6			139.6	
Approach LOS		B			C			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	16.3	10.8	47.9	10.3	21.0	13.1	45.6				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	20.0	20.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+fl), s	5.1	5.1	3.5	11.7	3.0	3.7	6.0	15.8				
Green Ext Time (p_c), s	0.0	0.1	0.0	5.4	0.0	0.1	0.0	3.5				

Intersection Summary

HCM 6th Ctrl Delay	46.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑			↖ ↑↑	↑↑		↖ ↑↑	↑↑	
Traffic Volume (veh/h)	40	1219	30	60	861	30	40	40	130	60	30	40
Future Volume (veh/h)	40	1219	30	60	861	30	40	40	130	60	30	40
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	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	42	1270	29	62	897	28	42	42	53	62	31	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	3162	72	80	3175	99	236	230	202	207	295	148
Arrive On Green	0.07	1.00	1.00	0.04	0.61	0.61	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1810	5217	119	1810	5167	161	1364	1805	1591	1309	2316	1164
Grp Volume(v), veh/h	42	842	457	62	600	325	42	42	53	62	24	24
Grp Sat Flow(s),veh/h/ln	1810	1729	1878	1810	1729	1871	1364	1805	1591	1309	1805	1674
Q Serve(g_s), s	2.0	0.0	0.0	3.1	7.3	7.3	2.5	1.9	2.7	4.0	1.0	1.2
Cycle Q Clear(g_c), s	2.0	0.0	0.0	3.1	7.3	7.3	3.7	1.9	2.7	6.7	1.0	1.2
Prop In Lane	1.00		0.06	1.00		0.09	1.00		1.00	1.00		0.70
Lane Grp Cap(c), veh/h	65	2096	1138	80	2125	1149	236	230	202	207	230	213
V/C Ratio(X)	0.64	0.40	0.40	0.77	0.28	0.28	0.18	0.18	0.26	0.30	0.10	0.11
Avail Cap(c_a), veh/h	201	2096	1138	281	2125	1149	502	582	513	463	582	539
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	0.0	0.0	42.5	8.1	8.1	36.4	35.1	35.5	38.5	34.7	34.8
Incr Delay (d2), s/veh	2.9	0.4	0.8	5.0	0.3	0.5	0.4	0.4	0.7	0.8	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.3	1.4	2.3	2.6	0.8	0.8	1.1	1.3	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.1	0.4	0.8	47.5	8.4	8.6	36.8	35.5	36.1	39.3	34.9	35.0
LnGrp LOS	D	A	A	D	A	A	D	D	D	D	C	D
Approach Vol, veh/h	1341			987			137			110		
Approach Delay, s/veh	1.9			10.9			36.1			37.4		
Approach LOS	A			B			D			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	17.4	11.0	61.5		17.4	10.3	62.3					
Change Period (Y+Rc), s	6.0	7.0	7.0		6.0	7.0	7.0					
Max Green Setting (Gmax), s	29.0	14.0	27.0		29.0	10.0	31.0					
Max Q Clear Time (g_c+I1), s	5.7	5.1	2.0		8.7	4.0	9.3					
Green Ext Time (p_c), s	0.5	0.0	12.4		0.3	0.0	7.9					
Intersection Summary												
HCM 6th Ctrl Delay			8.7									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑		↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	140	1059	140	390	651	144	170	926	430	240	1007	70
Future Volume (veh/h)	140	1059	140	390	651	144	170	926	430	240	1007	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	1115	38	411	685	132	179	975	210	253	1060	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	315	1415	439	481	1401	267	288	1310	407	320	1358	566
Arrive On Green	0.09	0.27	0.27	0.14	0.32	0.32	0.08	0.25	0.25	0.09	0.26	0.26
Sat Flow, veh/h	3510	5187	1610	3510	4375	833	3510	5187	1610	3510	5187	1610
Grp Volume(v), veh/h	147	1115	38	411	540	277	179	975	210	253	1060	30
Grp Sat Flow(s),veh/h/ln	1755	1729	1610	1755	1729	1750	1755	1729	1610	1755	1729	1610
Q Serve(g_s), s	4.8	24.2	2.1	13.9	15.3	15.6	6.0	21.1	13.7	8.6	23.1	1.5
Cycle Q Clear(g_c), s	4.8	24.2	2.1	13.9	15.3	15.6	6.0	21.1	13.7	8.6	23.1	1.5
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	315	1415	439	481	1107	560	288	1310	407	320	1358	566
V/C Ratio(X)	0.47	0.79	0.09	0.85	0.49	0.49	0.62	0.74	0.52	0.79	0.78	0.05
Avail Cap(c_a), veh/h	721	1704	529	721	1136	575	721	1704	529	721	1704	673
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	52.7	41.0	33.0	51.3	33.3	33.4	54.1	41.9	39.1	54.2	41.7	26.1
Incr Delay (d2), s/veh	0.8	2.3	0.1	5.6	0.4	0.8	1.6	1.5	1.2	3.3	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	10.3	0.8	6.3	6.3	6.5	2.6	8.8	5.4	3.8	9.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	43.3	33.1	57.0	33.7	34.3	55.7	43.3	40.3	57.5	43.7	26.1
LnGrp LOS	D	D	C	E	C	C	E	D	D	E	D	C
Approach Vol, veh/h		1300			1228			1364			1343	
Approach Delay, s/veh		44.1			41.6			44.5			45.9	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	38.3	24.2	40.7	17.5	39.4	18.4	46.5				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+10), s	11.0	23.1	15.9	26.2	8.0	25.1	6.8	17.6				
Green Ext Time (p_c), s	0.5	7.4	0.8	7.0	0.4	6.8	0.3	6.0				

Intersection Summary

HCM 6th Ctrl Delay	44.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	130	1613	6	74	957	50	48	20	135	420	10	140
Future Volume (veh/h)	130	1613	6	74	957	50	48	20	135	420	10	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	1734	6	80	1029	51	52	22	39	452	11	60
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	171	1965	7	139	1776	88	107	173	144	428	510	430
Arrive On Green	0.09	0.37	0.37	0.08	0.35	0.35	0.06	0.09	0.09	0.24	0.27	0.27
Sat Flow, veh/h	1810	5336	18	1810	5061	251	1810	1900	1584	1810	1900	1601
Grp Volume(v), veh/h	140	1124	616	80	703	377	52	22	39	452	11	60
Grp Sat Flow(s),veh/h/ln	1810	1729	1897	1810	1729	1854	1810	1900	1584	1810	1900	1601
Q Serve(g_s), s	8.0	32.1	32.1	4.5	17.5	17.5	2.9	1.1	2.4	25.0	0.5	3.0
Cycle Q Clear(g_c), s	8.0	32.1	32.1	4.5	17.5	17.5	2.9	1.1	2.4	25.0	0.5	3.0
Prop In Lane	1.00		0.01	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	1273	698	139	1213	650	107	173	144	428	510	430
V/C Ratio(X)	0.82	0.88	0.88	0.57	0.58	0.58	0.49	0.13	0.27	1.06	0.02	0.14
Avail Cap(c_a), veh/h	342	1309	718	342	1309	702	342	360	300	428	510	430
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	47.0	31.3	31.3	47.1	27.9	28.0	48.2	44.2	44.7	40.3	28.4	29.4
Incr Delay (d2), s/veh	3.7	7.4	12.4	1.4	0.6	1.2	1.3	0.2	0.7	59.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	13.8	16.1	2.0	6.9	7.6	1.4	0.5	1.0	18.1	0.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	38.6	43.7	48.5	28.6	29.2	49.4	44.4	45.5	99.4	28.5	29.5
LnGrp LOS	D	D	D	D	C	C	D	D	D	F	C	C
Approach Vol, veh/h	1880				1160				113		523	
Approach Delay, s/veh	41.2				30.1				47.1		89.9	
Approach LOS	D				C				D		F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.0	14.6	15.1	45.9	11.3	33.4	17.0	44.1				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	25.0	20.0	20.0	40.0	20.0	25.0	20.0	40.0				
Max Q Clear Time (g_c+Y), s	27.0	4.4	6.5	34.1	4.9	5.0	10.0	19.5				
Green Ext Time (p_c), s	0.0	0.1	0.1	4.8	0.0	0.1	0.1	7.9				

Intersection Summary

HCM 6th Ctrl Delay	44.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	1597	631	530	707	0	0	0	0	250	0	436
Future Volume (veh/h)	0	1597	631	530	707	0	0	0	0	250	0	436
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1681	311	558	744	0				304	0	88
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1963	552	741	3170	0				885	0	394
Arrive On Green	0.00	0.34	0.34	0.07	0.20	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	5700	1603	3510	5358	0				3619	0	1610
Grp Volume(v), veh/h	0	1681	311	558	744	0				304	0	88
Grp Sat Flow(s),veh/h/ln	0	1900	1603	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	24.7	14.2	14.0	10.8	0.0				6.2	0.0	3.9
Cycle Q Clear(g_c), s	0.0	24.7	14.2	14.0	10.8	0.0				6.2	0.0	3.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1963	552	741	3170	0				885	0	394
V/C Ratio(X)	0.00	0.86	0.56	0.75	0.23	0.00				0.34	0.00	0.22
Avail Cap(c_a), veh/h	0	1963	552	741	3170	0				885	0	394
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.30	0.30	0.84	0.84	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	27.4	24.0	39.6	18.3	0.0				28.0	0.0	27.2
Incr Delay (d2), s/veh	0.0	1.6	1.3	5.9	0.1	0.0				1.1	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.5	5.1	7.1	4.5	0.0				2.8	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.0	25.2	45.5	18.4	0.0				29.1	0.0	28.5
LnGrp LOS		A	C	C	D	B	A			C	A	C
Approach Vol, veh/h		1992			1302						392	
Approach Delay, s/veh		28.4			30.0						29.0	
Approach LOS		C			C						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	24.0	37.5		28.5		61.5						
Change Period (Y+Rc), s	5.0	6.5		6.5		6.5						
Max Green Setting (Gmax), s	19.0	31.0		22.0		55.0						
Max Q Clear Time (g_c+110), s	11.0	26.7		8.2		12.8						
Green Ext Time (p_c), s	0.4	3.6		1.2		4.2						

Intersection Summary

HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	616	1221	0	0	1111	540	125	0	290	0	0	0
Future Volume (veh/h)	616	1221	0	0	1111	540	125	0	290	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	642	1272	0	0	1157	266	180	0	97			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	702	3458	0	0	2132	662	684	0	304			
Arrive On Green	0.20	0.67	0.00	0.00	0.41	0.41	0.19	0.00	0.19			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	3619	0	1610			
Grp Volume(v), veh/h	642	1272	0	0	1157	266	180	0	97			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	16.1	9.7	0.0	0.0	15.2	10.5	3.8	0.0	4.7			
Cycle Q Clear(g_c), s	16.1	9.7	0.0	0.0	15.2	10.5	3.8	0.0	4.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	702	3458	0	0	2132	662	684	0	304			
V/C Ratio(X)	0.91	0.37	0.00	0.00	0.54	0.40	0.26	0.00	0.32			
Avail Cap(c_a), veh/h	702	3458	0	0	2132	662	684	0	304			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.2	6.6	0.0	0.0	20.1	18.7	31.2	0.0	31.5			
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.0	1.0	1.8	0.9	0.0	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			
%ile BackOfQ(50%),veh/ln	6.7	2.7	0.0	0.0	5.7	3.9	1.7	0.0	2.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	6.7	0.0	0.0	21.1	20.5	32.1	0.0	34.3			
LnGrp LOS	D	A	A	A	C	C	C	A	C			
Approach Vol, veh/h		1914			1423			277				
Approach Delay, s/veh		17.0			21.0			32.8				
Approach LOS		B			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.5			23.0	43.5		23.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		60.0			18.0	37.0		17.0				
Max Q Clear Time (g_c+I1), s		11.7			18.1	17.2		6.7				
Green Ext Time (p_c), s		8.7			0.0	8.5		0.5				

Intersection Summary
























HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	609	150	120	896	50	220	240	70	20	240	158
Future Volume (veh/h)	100	609	150	120	896	50	220	240	70	20	240	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	648	44	128	953	53	234	255	27	21	255	168
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	138	1027	455	155	1022	57	245	642	542	69	256	169
Arrive On Green	0.08	0.28	0.28	0.09	0.29	0.29	0.14	0.34	0.34	0.04	0.24	0.24
Sat Flow, veh/h	1810	3610	1602	1810	3476	193	1810	1900	1603	1810	1066	702
Grp Volume(v), veh/h	106	648	44	128	495	511	234	255	27	21	0	423
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1864	1810	1900	1603	1810	0	1768
Q Serve(g_s), s	6.6	17.9	2.3	8.0	30.5	30.5	14.7	11.7	1.3	1.3	0.0	27.3
Cycle Q Clear(g_c), s	6.6	17.9	2.3	8.0	30.5	30.5	14.7	11.7	1.3	1.3	0.0	27.3
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	138	1027	455	155	531	548	245	642	542	69	0	425
V/C Ratio(X)	0.77	0.63	0.10	0.82	0.93	0.93	0.95	0.40	0.05	0.30	0.00	0.99
Avail Cap(c_a), veh/h	142	1027	455	184	537	554	245	642	542	142	0	425
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	0.00	1.00
Uniform Delay (d), s/veh	51.8	35.7	30.1	51.4	39.2	39.2	49.1	28.9	25.5	53.5	0.0	43.3
Incr Delay (d2), s/veh	20.9	1.8	0.2	19.4	23.9	23.4	44.5	0.5	0.0	0.9	0.0	42.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	7.6	0.9	4.3	16.1	16.5	9.5	5.3	0.5	0.6	0.0	16.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.7	37.5	30.3	70.8	63.2	62.6	93.5	29.4	25.5	54.4	0.0	85.4
LnGrp LOS	E	D	C	E	E	E	F	C	C	D	A	F
Approach Vol, veh/h		798			1134			516				444
Approach Delay, s/veh		41.7			63.8			58.3				83.9
Approach LOS		D			E			E				F
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.3	40.0	23.0	34.0	16.2	41.1	11.9	45.1				
Change Period (Y+Rc), s	7.5	7.5	7.5	6.5	7.5	7.5	7.5	6.5				
Max Green Setting (Gmax), s	11.6	31.4	15.5	27.5	9.0	34.0	9.0	34.0				
Max Q Clear Time (g_c+I1), s	10.0	19.9	16.7	29.3	8.6	32.5	3.3	13.7				
Green Ext Time (p_c), s	0.0	5.0	0.0	0.0	0.0	1.1	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			59.8									
HCM 6th LOS			E									
Notes												
User approved ignoring U-Turning movement.												



























HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2029) Without Project - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	925	270	70	765	20	160	250	110	30	330	151
Future Volume (veh/h)	110	925	270	70	765	20	160	250	110	30	330	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	995	167	75	823	22	172	269	43	32	355	162
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	143	1043	463	129	1011	27	182	637	537	91	351	160
Arrive On Green	0.08	0.29	0.29	0.07	0.28	0.28	0.10	0.34	0.34	0.05	0.28	0.28
Sat Flow, veh/h	1810	3610	1602	1810	3591	96	1810	1900	1603	1810	1233	563
Grp Volume(v), veh/h	118	995	167	75	414	431	172	269	43	32	0	517
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1882	1810	1900	1603	1810	0	1795
Q Serve(g_s), s	7.3	30.9	9.4	4.6	24.4	24.4	10.8	12.5	2.1	2.0	0.0	32.5
Cycle Q Clear(g_c), s	7.3	30.9	9.4	4.6	24.4	24.4	10.8	12.5	2.1	2.0	0.0	32.5
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	143	1043	463	129	508	530	182	637	537	91	0	511
V/C Ratio(X)	0.83	0.95	0.36	0.58	0.81	0.81	0.94	0.42	0.08	0.35	0.00	1.01
Avail Cap(c_a), veh/h	143	1044	463	143	522	544	182	637	537	143	0	511
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	0.00	1.00
Uniform Delay (d), s/veh	51.8	39.8	32.2	51.3	38.2	38.2	51.0	29.4	25.9	52.4	0.0	40.8
Incr Delay (d2), s/veh	30.7	18.1	1.0	2.4	10.7	10.3	50.2	0.5	0.1	0.9	0.0	42.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	15.4	3.7	2.1	11.6	12.0	7.3	5.6	0.8	0.9	0.0	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.5	58.0	33.2	53.7	48.9	48.5	101.2	29.9	26.0	53.3	0.0	83.5
LnGrp LOS	F	E	C	D	D	D	F	C	C	D	A	F
Approach Vol, veh/h		1280			920			484			549	
Approach Delay, s/veh		57.0			49.1			54.9			81.8	
Approach LOS		E			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.7	40.5	19.0	39.0	16.5	39.6	13.2	44.8				
Change Period (Y+Rc), s	7.5	7.5	7.5	6.5	7.5	7.5	7.5	6.5				
Max Green Setting (Gmax), s	9.0	33.0	11.5	32.5	9.0	33.0	9.0	35.0				
Max Q Clear Time (g_c+I1), s	6.6	32.9	12.8	34.5	9.3	26.4	4.0	14.5				
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	3.9	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			58.6									
HCM 6th LOS			E									
Notes												
User approved ignoring U-Turning movement.												

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Traffic Volume (veh/h)	100	609	150	120	898	50	220	261	70	20	281	158
Future Volume (veh/h)	100	609	150	120	898	50	220	261	70	20	281	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	648	44	128	955	53	234	278	29	21	299	168
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	130	1014	450	154	1021	57	240	692	584	68	307	172
Arrive On Green	0.07	0.28	0.28	0.08	0.29	0.29	0.13	0.36	0.36	0.04	0.27	0.27
Sat Flow, veh/h	1810	3610	1602	1810	3476	193	1810	1900	1604	1810	1140	641
Grp Volume(v), veh/h	106	648	44	128	496	512	234	278	29	21	0	467
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1864	1810	1900	1604	1810	0	1780
Q Serve(g_s), s	7.2	19.6	2.5	8.7	33.3	33.3	16.0	13.6	1.5	1.4	0.0	32.4
Cycle Q Clear(g_c), s	7.2	19.6	2.5	8.7	33.3	33.3	16.0	13.6	1.5	1.4	0.0	32.4
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	130	1014	450	154	530	548	240	692	584	68	0	479
V/C Ratio(X)	0.81	0.64	0.10	0.83	0.94	0.94	0.98	0.40	0.05	0.31	0.00	0.98
Avail Cap(c_a), veh/h	131	1014	450	179	536	554	240	692	584	131	0	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.0	39.3	33.1	56.1	42.8	42.8	53.8	29.5	25.6	58.4	0.0	45.1
Incr Delay (d2), s/veh	30.4	1.9	0.2	21.7	24.5	24.0	51.1	0.5	0.0	1.0	0.0	34.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	8.5	1.0	4.7	17.6	18.1	10.6	6.2	0.6	0.6	0.0	18.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.3	41.2	33.3	77.9	67.3	66.8	105.0	29.9	25.7	59.3	0.0	79.7
LnGrp LOS	F	D	C	E	E	E	F	C	C	E	A	E
Approach Vol, veh/h		798			1136			541			488	
Approach Delay, s/veh		46.9			68.3			62.2			78.9	
Approach LOS		D			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.1	42.5	24.0	40.0	16.5	44.1	12.1	51.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	6.5	7.5	7.5	7.5	6.5				
Max Green Setting (Gmax), s	12.3	33.7	16.5	33.5	9.0	37.0	9.0	41.0				
Max Q Clear Time (g_c+I1), s	10.7	21.6	18.0	34.4	9.2	35.3	3.4	15.6				
Green Ext Time (p_c), s	0.0	5.2	0.0	0.0	0.0	1.3	0.0	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			63.1									
HCM 6th LOS			E									
Notes												
User approved ignoring U-Turning movement.												

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	925	270	70	768	20	160	268	110	30	356	151
Future Volume (veh/h)	110	925	270	70	768	20	160	268	110	30	356	151
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	995	177	75	826	22	172	288	46	32	383	162
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	1044	463	121	1013	27	182	688	580	88	392	166
Arrive On Green	0.07	0.29	0.29	0.07	0.28	0.28	0.10	0.36	0.36	0.05	0.31	0.31
Sat Flow, veh/h	1810	3610	1602	1810	3592	96	1810	1900	1603	1810	1265	535
Grp Volume(v), veh/h	118	995	177	75	415	433	172	288	46	32	0	545
Grp Sat Flow(s),veh/h/ln	1810	1805	1602	1810	1805	1882	1810	1900	1603	1810	0	1801
Q Serve(g_s), s	8.0	33.6	11.0	5.0	26.6	26.6	11.7	14.2	2.3	2.1	0.0	37.2
Cycle Q Clear(g_c), s	8.0	33.6	11.0	5.0	26.6	26.6	11.7	14.2	2.3	2.1	0.0	37.2
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	134	1044	463	121	509	531	182	688	580	88	0	558
V/C Ratio(X)	0.88	0.95	0.38	0.62	0.82	0.82	0.94	0.42	0.08	0.37	0.00	0.98
Avail Cap(c_a), veh/h	134	1046	464	131	520	542	182	688	580	131	0	558
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	0.00	1.00
Uniform Delay (d), s/veh	57.0	43.3	35.3	56.4	41.6	41.6	55.5	29.8	26.0	57.3	0.0	42.4
Incr Delay (d2), s/veh	43.7	17.9	1.1	5.0	10.8	10.4	50.6	0.5	0.1	0.9	0.0	32.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	16.7	4.4	2.4	12.7	13.2	7.8	6.4	0.9	1.0	0.0	20.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.7	61.3	36.4	61.4	52.4	52.0	106.1	30.3	26.1	58.2	0.0	74.6
LnGrp LOS	F	E	D	E	D	D	F	C	C	E	A	E
Approach Vol, veh/h		1290			923			506				577
Approach Delay, s/veh		61.5			52.9			55.7				73.7
Approach LOS		E			D			E				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.8	43.4	20.0	45.0	16.7	42.6	13.5	51.5				
Change Period (Y+Rc), s	7.5	7.5	7.5	6.5	7.5	7.5	7.5	6.5				
Max Green Setting (Gmax), s	9.0	36.0	12.5	38.5	9.2	35.8	9.0	42.0				
Max Q Clear Time (g_c+I1), s	7.0	35.6	13.7	39.2	10.0	28.6	4.1	16.2				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	4.1	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			60.3									
HCM 6th LOS			E									
Notes												
User approved ignoring U-Turning movement.												

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	430	1280	90	320	890	200	190	1300	160	380	960	220
Future Volume (veh/h)	430	1280	90	320	890	200	190	1300	160	380	960	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	453	1347	26	337	937	103	200	1368	151	400	1011	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	1339	26	227	1212	133	358	1195	132	321	1313	405
Arrive On Green	0.13	0.26	0.26	0.13	0.26	0.26	0.13	0.25	0.25	0.13	0.25	0.25
Sat Flow, veh/h	1810	5238	101	1810	4741	520	1810	4737	523	1810	5187	1601
Grp Volume(v), veh/h	453	889	484	337	683	357	200	999	520	400	1011	61
Grp Sat Flow(s),veh/h/ln	1810	1729	1881	1810	1729	1803	1810	1729	1802	1810	1729	1601
Q Serve(g_s), s	11.3	23.0	23.0	11.3	16.5	16.6	6.9	22.7	22.7	12.0	16.3	2.7
Cycle Q Clear(g_c), s	11.3	23.0	23.0	11.3	16.5	16.6	6.9	22.7	22.7	12.0	16.3	2.7
Prop In Lane	1.00		0.05	1.00		0.29	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	227	884	481	227	884	461	358	872	455	321	1313	405
V/C Ratio(X)	1.99	1.01	1.01	1.48	0.77	0.78	0.56	1.14	1.14	1.25	0.77	0.15
Avail Cap(c_a), veh/h	227	884	481	227	884	461	360	872	455	321	1313	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	33.5	33.5	39.3	31.1	31.1	21.4	33.6	33.7	23.7	31.2	26.1
Incr Delay (d2), s/veh	462.6	31.8	42.6	237.1	4.0	7.6	2.4	78.7	88.3	133.7	4.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.9	12.7	15.3	19.7	6.8	7.6	2.9	18.5	20.5	16.6	7.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	502.0	65.3	76.1	276.5	35.1	38.7	23.8	112.4	122.0	157.5	35.6	26.9
LnGrp LOS	F	F	F	F	D	D	C	F	F	F	D	C
Approach Vol, veh/h		1826			1377			1719			1472	
Approach Delay, s/veh		176.5			95.1			105.0			68.3	
Approach LOS		F			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	28.5	16.0	28.8	16.6	28.6	16.0	28.8				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.7	* 11	23.0	* 12	22.7	* 11	23.0				
Max Q Clear Time (g_c+I1), s	14.0	24.7	13.3	25.0	8.9	18.3	13.3	18.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	3.6	0.0	2.8				
Intersection Summary												
HCM 6th Ctrl Delay				114.8								
HCM 6th LOS				F								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary

2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗				↕			↕		
Traffic Volume (veh/h)	60	1570	70	60	1180	50	50	150	60	60	140	50	
Future Volume (veh/h)	60	1570	70	60	1180	50	50	150	60	60	140	50	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No			No			No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	63	1653	42	63	1242	29	53	158	48	63	147	40	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0	
Cap, veh/h	99	2776	71	99	2782	65	126	250	69	143	239	58	
Arrive On Green	0.05	0.53	0.53	0.05	0.53	0.53	0.21	0.21	0.21	0.21	0.21	0.21	
Sat Flow, veh/h	1810	5202	132	1810	5214	122	253	1193	329	320	1140	278	
Grp Volume(v), veh/h	63	1099	596	63	824	447	259	0	0	250	0	0	
Grp Sat Flow(s),veh/h/ln	1810	1729	1876	1810	1729	1877	1775	0	0	1739	0	0	
Q Serve(g_s), s	2.0	12.9	12.9	2.0	8.6	8.6	0.2	0.0	0.0	0.0	0.0	0.0	
Cycle Q Clear(g_c), s	2.0	12.9	12.9	2.0	8.6	8.6	7.6	0.0	0.0	7.5	0.0	0.0	
Prop In Lane	1.00		0.07	1.00		0.06	0.20		0.19	0.25		0.16	
Lane Grp Cap(c), veh/h	99	1845	1001	99	1845	1002	445	0	0	440	0	0	
V/C Ratio(X)	0.64	0.60	0.60	0.64	0.45	0.45	0.58	0.00	0.00	0.57	0.00	0.00	
Avail Cap(c_a), veh/h	168	2079	1128	196	2131	1157	824	0	0	810	0	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/veh	27.4	9.4	9.4	27.4	8.5	8.5	21.5	0.0	0.0	21.4	0.0	0.0	
Incr Delay (d2), s/veh	13.8	0.7	1.3	13.8	0.4	0.7	2.6	0.0	0.0	2.5	0.0	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	3.5	4.0	1.2	2.3	2.6	3.3	0.0	0.0	3.2	0.0	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	41.2	10.1	10.7	41.2	8.8	9.1	24.1	0.0	0.0	23.9	0.0	0.0	
LnGrp LOS	D	B	B	D	A	A	C	A	A	C	A	A	
Approach Vol, veh/h	1758				1334		259		250				
Approach Delay, s/veh	11.5				10.5		24.1		23.9				
Approach LOS	B				B		C		C				
Timer - Assigned Phs	1	2	4		5	6	8						
Phs Duration (G+Y+Rc), s	7.2	35.6	16.4		7.2	35.6	16.4						
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0						
Max Green Setting (Gmax), s	4.0	35.6	26.0		5.5	36.5	26.0						
Max Q Clear Time (g_c+14), s	4.0	14.9	9.5		4.0	10.6	9.6						
Green Ext Time (p_c), s	0.0	16.7	2.3		0.0	15.5	2.4						
Intersection Summary													
HCM 6th Ctrl Delay			12.9										
HCM 6th LOS			B										

HCM 6th Signalized Intersection Summary
3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔ ↑↑↑			↔ ↑↑↑			↔ ↑	↑		↔ ↑	↑↑	
Traffic Volume (veh/h)	210	1390	90	50	980	60	100	450	90	100	280	320
Future Volume (veh/h)	210	1390	90	50	980	60	100	450	90	100	280	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	1463	46	53	1032	27	105	474	88	105	295	160
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	181	5244	165	103	5053	132	226	415	77	80	607	321
Arrive On Green	0.10	1.00	1.00	0.11	1.00	1.00	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	5166	162	1810	5197	136	949	1557	289	862	2278	1203
Grp Volume(v), veh/h	221	979	530	53	686	373	105	0	562	105	232	223
Grp Sat Flow(s),veh/h/ln	1810	1729	1870	1810	1729	1875	949	0	1846	862	1805	1675
Q Serve(g_s), s	9.0	0.0	0.0	2.5	0.0	0.0	9.5	0.0	24.0	0.0	9.7	10.1
Cycle Q Clear(g_c), s	9.0	0.0	0.0	2.5	0.0	0.0	19.6	0.0	24.0	24.0	9.7	10.1
Prop In Lane	1.00		0.09	1.00		0.07	1.00		0.16	1.00		0.72
Lane Grp Cap(c), veh/h	181	3510	1899	103	3362	1823	226	0	492	80	481	447
V/C Ratio(X)	1.22	0.28	0.28	0.51	0.20	0.20	0.46	0.00	1.14	1.31	0.48	0.50
Avail Cap(c_a), veh/h	181	3510	1899	181	3362	1823	226	0	492	80	481	447
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	0.0	0.0	38.7	0.0	0.0	36.2	0.0	33.0	45.0	27.8	27.9
Incr Delay (d2), s/veh	138.9	0.2	0.4	7.5	0.1	0.2	3.1	0.0	85.7	205.3	1.6	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.2	1.2	0.1	0.1	2.3	0.0	21.8	6.3	4.2	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	179.4	0.2	0.4	46.2	0.1	0.2	39.4	0.0	118.7	250.3	29.4	29.8
LnGrp LOS	F	A	A	D	A	A	D	A	F	F	C	C
Approach Vol, veh/h	1730		1112				667			560		
Approach Delay, s/veh	23.1		2.4				106.2			71.0		
Approach LOS	C		A				F			E		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	30.5	16.0	96.0		30.5		12.1	99.9				
Change Period (Y+Rc), s	6.5	7.0	7.0		* 6.5		7.0	* 7				
Max Green Setting (Gmax), s	22.5	9.0	38.0		* 24		9.0	* 39				
Max Q Clear Time (g_c+I1), s	26.0	11.0	2.0		26.0		4.5	2.0				
Green Ext Time (p_c), s	0.0	0.0	15.1		0.0		0.1	23.5				

Intersection Summary

HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙ ↑↑↑ ↘			↙ ↑↑↑ ↘				↙ ↑↑ ↘		↙ ↘	↙ ↑↑ ↘	
Traffic Volume (veh/h)	90	1330	80	50	960	70	60	350	40	70	230	120
Future Volume (veh/h)	90	1330	80	50	960	70	60	350	40	70	230	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	1400	40	53	1011	34	63	368	11	74	242	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	2569	73	89	2462	83	116	597	336	148	447	336
Arrive On Green	0.09	0.66	0.66	0.05	0.48	0.48	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	5183	148	1810	5153	173	271	2560	1440	349	1916	1440
Grp Volume(v), veh/h	95	934	506	53	678	367	191	240	11	112	204	32
Grp Sat Flow(s),veh/h/ln	1810	1729	1873	1810	1729	1868	1188	1643	1440	623	1643	1440
Q Serve(g_s), s	4.6	12.9	12.9	2.6	11.5	11.5	5.5	11.8	0.5	6.5	9.8	1.6
Cycle Q Clear(g_c), s	4.6	12.9	12.9	2.6	11.5	11.5	15.3	11.8	0.5	18.3	9.8	1.6
Prop In Lane	1.00		0.08	1.00		0.09	0.33		1.00	0.66		1.00
Lane Grp Cap(c), veh/h	121	1714	928	89	1652	893	330	383	336	212	383	336
V/C Ratio(X)	0.78	0.54	0.54	0.60	0.41	0.41	0.58	0.63	0.03	0.53	0.53	0.10
Avail Cap(c_a), veh/h	181	1714	928	181	1652	893	365	420	368	239	420	368
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	9.9	9.9	41.9	15.3	15.3	32.3	31.0	26.7	36.4	30.2	27.1
Incr Delay (d2), s/veh	4.7	0.9	1.7	1.7	0.5	1.0	1.9	2.5	0.0	2.1	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.7	4.2	1.1	4.1	4.6	3.9	4.7	0.2	2.4	3.8	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	10.8	11.6	43.7	15.8	16.3	34.1	33.5	26.7	38.4	31.4	27.2
LnGrp LOS	D	B	B	D	B	B	C	C	C	D	C	C
Approach Vol, veh/h	1535				1098		442				348	
Approach Delay, s/veh	13.2				17.3		33.6				33.3	
Approach LOS	B				B		C				C	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	11.4	51.6	27.0		13.0	50.0	27.0					
Change Period (Y+Rc), s	7.0	7.0	6.0		7.0	7.0	6.0					
Max Green Setting (Gmax), s	38.0	38.0	23.0		9.0	38.0	23.0					
Max Q Clear Time (g_c+14), s	14.6	14.9	20.3		6.6	13.5	17.3					
Green Ext Time (p_c), s	0.0	11.6	0.4		0.0	8.1	1.1					

Intersection Summary

HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑	↖	↖ ↑ ↑ ↗			↖	↑ ↑ ↑	↖
Traffic Volume (veh/h)	280	1040	240	60	690	800	150	890	50	800	1020	260
Future Volume (veh/h)	280	1040	240	60	690	800	150	890	50	800	1020	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	295	1095	141	63	726	428	158	937	51	842	1074	243
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	344	1312	405	176	1063	328	178	1032	56	583	2224	846
Arrive On Green	0.10	0.25	0.25	0.05	0.21	0.21	0.10	0.21	0.21	0.32	0.43	0.43
Sat Flow, veh/h	3510	5187	1601	3510	5187	1598	1810	5033	273	1810	5187	1605
Grp Volume(v), veh/h	295	1095	141	63	726	428	158	643	345	842	1074	243
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1598	1810	1729	1848	1810	1729	1605
Q Serve(g_s), s	14.1	34.1	12.3	3.0	22.1	35.0	14.7	31.0	31.1	55.0	25.5	14.4
Cycle Q Clear(g_c), s	14.1	34.1	12.3	3.0	22.1	35.0	14.7	31.0	31.1	55.0	25.5	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	344	1312	405	176	1063	328	178	709	379	583	2224	846
V/C Ratio(X)	0.86	0.83	0.35	0.36	0.68	1.31	0.89	0.91	0.91	1.44	0.48	0.29
Avail Cap(c_a), veh/h	617	1367	422	411	1063	328	212	709	379	583	2224	846
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	75.8	60.4	52.2	78.4	62.7	67.9	76.0	66.3	66.3	57.9	35.1	22.5
Incr Delay (d2), s/veh	4.7	4.6	0.6	0.9	1.9	158.2	29.0	17.5	28.3	209.5	0.8	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	6.5	15.1	5.0	1.4	9.8	28.5	8.2	15.2	17.4	58.5	10.8	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.6	65.0	52.9	79.3	64.6	226.0	105.0	83.8	94.6	267.4	35.9	23.4
LnGrp LOS	F	E	D	E	E	F	F	F	F	F	D	C
Approach Vol, veh/h		1531			1217			1146			2159	
Approach Delay, s/veh		66.9			122.2			90.0			124.8	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	62.0	42.0	16.0	50.7	23.8	80.2	24.2	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+Y), s	57.0	33.1	5.0	36.1	16.7	27.5	16.1	37.0				
Green Ext Time (p_c), s	0.0	1.3	0.1	5.1	0.1	15.0	0.6	0.0				

Intersection Summary

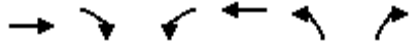
HCM 6th Ctrl Delay	103.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖	↑↑↑	↖	↗
Traffic Volume (veh/h)	1550	170	150	1510	70	50
Future Volume (veh/h)	1550	170	150	1510	70	50
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1632	127	158	1589	74	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	3069	949	193	4054	202	92
Arrive On Green	0.59	0.59	0.11	0.78	0.06	0.06
Sat Flow, veh/h	5358	1603	1810	5358	3510	1610
Grp Volume(v), veh/h	1632	127	158	1589	74	5
Grp Sat Flow(s),veh/h/ln	1729	1603	1810	1729	1755	1610
Q Serve(g_s), s	16.9	3.2	7.7	8.7	1.8	0.3
Cycle Q Clear(g_c), s	16.9	3.2	7.7	8.7	1.8	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3069	949	193	4054	202	92
V/C Ratio(X)	0.53	0.13	0.82	0.39	0.37	0.05
Avail Cap(c_a), veh/h	3069	949	251	4054	702	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.74	0.74	1.00	1.00
Uniform Delay (d), s/veh	10.9	8.1	39.4	3.1	40.8	40.1
Incr Delay (d2), s/veh	0.1	0.0	10.5	0.2	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.9	3.7	1.2	0.8	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.0	8.2	49.9	3.3	41.7	40.3
LnGrp LOS	B	A	D	A	D	D
Approach Vol, veh/h	1759			1747	79	
Approach Delay, s/veh	10.8			7.5	41.6	
Approach LOS	B			A	D	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	7.1	60.8		12.2		77.8
Change Period (Y+Rc), s	7.5	* 7.5		7.0		7.5
Max Green Setting (Gmax), s	12.5	* 38		18.0		57.5
Max Q Clear Time (g_c+I), s	19.7	18.9		3.8		10.7
Green Ext Time (p_c), s	0.1	9.1		0.1		14.5

Intersection Summary

HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes

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

Intersection												
Intersection Delay, s/veh	12.5											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕↔	
Traffic Vol, veh/h	0	10	0	260	10	0	10	80	430	10	30	0
Future Vol, veh/h	0	10	0	260	10	0	10	80	430	10	30	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	274	11	0	11	84	453	11	32	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	9.5	11.3	13.4	9.2
HCM LOS	A	B	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	11%	0%	0%	100%	93%	50%	0%
Vol Thru, %	89%	0%	100%	0%	7%	50%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	430	10	135	135	20	20
LT Vol	10	0	0	135	125	10	0
Through Vol	80	0	10	0	10	10	20
RT Vol	0	430	0	0	0	0	0
Lane Flow Rate	95	453	11	142	142	21	21
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.145	0.595	0.019	0.255	0.253	0.037	0.035
Departure Headway (Hd)	5.492	4.731	6.394	6.444	6.407	6.304	6.05
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	648	756	562	561	563	569	593
Service Time	3.267	2.505	4.405	4.147	4.11	4.025	3.771
HCM Lane V/C Ratio	0.147	0.599	0.02	0.253	0.252	0.037	0.035
HCM Control Delay	9.2	14.3	9.5	11.3	11.3	9.3	9
HCM Lane LOS	A	B	A	B	B	A	A
HCM 95th-tile Q	0.5	4	0.1	1	1	0.1	0.1

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	520	0	0	290	0
Future Vol, veh/h	0	0	0	0	0	0	0	520	0	0	290	0
Conflicting Peds, #/hr	0	0	5	0	0	5	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	547	0	0	305	0






























Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	589	862	163	710	862	284	310	0	0	552	0	0
Stage 1	310	310	-	552	552	-	-	-	-	-	-	-
Stage 2	279	552	-	158	310	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	396	295	859	324	295	719	1262	-	-	1028	-	-
Stage 1	681	663	-	491	518	-	-	-	-	-	-	-
Stage 2	710	518	-	834	663	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	392	292	851	321	292	712	1256	-	-	1023	-	-
Mov Cap-2 Maneuver	392	292	-	321	292	-	-	-	-	-	-	-
Stage 1	678	660	-	489	515	-	-	-	-	-	-	-
Stage 2	707	515	-	830	660	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1256	-	-	-	-	1023	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary
9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	210	1070	190	70	1140	40	220	270	70	10	130	150
Future Volume (veh/h)	210	1070	190	70	1140	40	220	270	70	10	130	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	1126	120	74	1200	40	232	284	7	11	137	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	235	2181	677	131	1869	62	353	845	377	280	845	
Arrive On Green	0.13	0.42	0.42	0.07	0.36	0.36	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1810	5187	1610	1810	5155	172	1272	3610	1610	1105	3610	1610
Grp Volume(v), veh/h	221	1126	120	74	805	435	232	284	7	11	137	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1869	1272	1805	1610	1105	1805	1610
Q Serve(g_s), s	9.3	12.4	3.6	3.0	14.9	14.9	13.7	5.0	0.3	0.6	2.3	0.0
Cycle Q Clear(g_c), s	9.3	12.4	3.6	3.0	14.9	14.9	16.0	5.0	0.3	5.7	2.3	0.0
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	2181	677	131	1254	678	353	845	377	280	845	
V/C Ratio(X)	0.94	0.52	0.18	0.57	0.64	0.64	0.66	0.34	0.02	0.04	0.16	
Avail Cap(c_a), veh/h	235	2970	922	165	1845	997	353	845	377	280	845	
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	0.00
Uniform Delay (d), s/veh	33.1	16.5	13.9	34.5	20.3	20.3	29.8	24.5	22.6	26.8	23.4	0.0
Incr Delay (d2), s/veh	41.5	0.3	0.2	1.4	0.8	1.5	5.4	0.4	0.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	4.1	1.1	1.3	5.2	5.7	4.6	2.2	0.1	0.2	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.6	16.8	14.1	35.9	21.1	21.8	35.2	24.9	22.7	26.9	23.6	0.0
LnGrp LOS	E	B	B	D	C	C	D	C	C	C	C	
Approach Vol, veh/h		1467			1314			523			148	A
Approach Delay, s/veh		25.3			22.2			29.4			23.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	39.3		25.0	17.0	34.9		25.0				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	7.0	44.0		18.0	10.0	41.0		18.0				
Max Q Clear Time (g_c+I1), s	5.0	14.4		7.7	11.3	16.9		18.0				
Green Ext Time (p_c), s	0.0	12.2		0.7	0.0	11.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				24.7								
HCM 6th LOS				C								
Notes												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary
 10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	220	100	50	160	40	140	570	130	50	240	40
Future Volume (veh/h)	190	220	100	50	160	40	140	570	130	50	240	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	200	232	23	53	168	8	147	600	54	53	253	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	328	509	225	286	413	182	596	1410	627	406	1328	590
Arrive On Green	0.08	0.14	0.14	0.05	0.11	0.11	0.08	0.39	0.39	0.05	0.37	0.37
Sat Flow, veh/h	1810	3610	1593	1810	3610	1589	1810	3610	1604	1810	3610	1604
Grp Volume(v), veh/h	200	232	23	53	168	8	147	600	54	53	253	16
Grp Sat Flow(s),veh/h/ln	1810	1805	1593	1810	1805	1589	1810	1805	1604	1810	1805	1604
Q Serve(g_s), s	6.0	4.4	0.9	1.9	3.2	0.3	3.7	9.1	1.6	1.3	3.6	0.5
Cycle Q Clear(g_c), s	6.0	4.4	0.9	1.9	3.2	0.3	3.7	9.1	1.6	1.3	3.6	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	509	225	286	413	182	596	1410	627	406	1328	590
V/C Ratio(X)	0.61	0.46	0.10	0.19	0.41	0.04	0.25	0.43	0.09	0.13	0.19	0.03
Avail Cap(c_a), veh/h	328	1304	575	371	1376	606	602	1410	627	454	1328	590
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	28.0	29.5	28.0	26.7	30.8	29.5	12.7	16.6	14.4	13.3	16.1	15.1
Incr Delay (d2), s/veh	3.5	0.9	0.3	0.3	0.9	0.1	0.3	0.9	0.3	0.2	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.8	0.4	0.8	1.4	0.1	1.3	3.4	0.6	0.5	1.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	30.4	28.3	27.0	31.7	29.6	12.9	17.6	14.6	13.5	16.4	15.2
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		455			229			801			322	
Approach Delay, s/veh		30.8			30.5			16.5			15.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	36.2	10.5	17.0	12.7	34.5	12.5	15.1				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	6.0	27.5	7.5	27.0	6.0	27.5	6.0	28.5				
Max Q Clear Time (g_c+1), s	13.3	11.1	3.9	6.4	5.7	5.6	8.0	5.2				
Green Ext Time (p_c), s	0.0	4.7	0.0	1.8	0.0	2.0	0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay											21.8	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	380	180	90	260	70	240	880	180	90	280	30
Future Volume (veh/h)	150	380	180	90	260	70	240	880	180	90	280	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	396	118	94	271	43	250	917	60	94	292	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	497	146	206	565	89	204	1264	564	113	1025	73
Arrive On Green	0.04	0.18	0.18	0.04	0.18	0.18	0.22	0.70	0.70	0.06	0.30	0.30
Sat Flow, veh/h	1810	2744	808	1810	3123	489	1810	3610	1610	1810	3415	244
Grp Volume(v), veh/h	156	259	255	94	155	159	250	917	60	94	154	159
Grp Sat Flow(s),veh/h/ln	1810	1805	1747	1810	1805	1807	1810	1805	1610	1810	1805	1855
Q Serve(g_s), s	3.5	11.0	11.2	3.4	6.2	6.3	9.0	12.4	1.0	4.1	5.2	5.3
Cycle Q Clear(g_c), s	3.5	11.0	11.2	3.4	6.2	6.3	9.0	12.4	1.0	4.1	5.2	5.3
Prop In Lane	1.00		0.46	1.00		0.27	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	279	327	316	206	327	327	204	1264	564	113	542	557
V/C Ratio(X)	0.56	0.79	0.81	0.46	0.47	0.49	1.23	0.73	0.11	0.83	0.28	0.29
Avail Cap(c_a), veh/h	279	395	382	206	395	395	204	1264	564	113	542	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.59	0.59	0.59	0.99	0.99	0.99
Uniform Delay (d), s/veh	29.2	31.3	31.4	26.2	29.3	29.4	31.0	9.6	7.9	37.1	21.4	21.4
Incr Delay (d2), s/veh	1.5	8.1	9.5	0.6	0.8	0.8	125.6	2.2	0.2	36.2	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	5.1	5.1	1.4	2.5	2.6	10.3	3.0	0.3	2.9	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	39.5	40.9	26.8	30.1	30.2	156.6	11.8	8.2	73.3	22.7	22.7
LnGrp LOS	C	D	D	C	C	C	F	B	A	E	C	C
Approach Vol, veh/h		670			408			1227			407	
Approach Delay, s/veh		38.0			29.4			41.1			34.4	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	35.0	11.0	22.0	16.0	31.0	11.0	22.0				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	25.0	3.5	17.5	9.0	21.0	3.5	17.5				
Max Q Clear Time (g_c+10), s	10.5	14.4	5.4	13.2	11.0	7.3	5.5	8.3				
Green Ext Time (p_c), s	0.0	3.8	0.0	0.9	0.0	1.0	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	20	20	140	20	50	30	1230	490	100	460	20
Future Volume (veh/h)	20	20	20	140	20	50	30	1230	490	100	460	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	21	1	162	0	7	32	1295	267	105	484	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	97	5	335	0	146	69	1773	787	113	1825	72
Arrive On Green	0.05	0.05	0.05	0.09	0.00	0.09	0.03	0.33	0.33	0.13	1.00	1.00
Sat Flow, veh/h	1810	1799	86	3619	0	1584	1810	3610	1602	1810	3540	139
Grp Volume(v), veh/h	21	0	22	162	0	7	32	1295	267	105	246	257
Grp Sat Flow(s),veh/h/ln	1810	0	1885	1810	0	1584	1810	1805	1602	1810	1805	1874
Q Serve(g_s), s	0.9	0.0	0.9	3.4	0.0	0.3	1.4	25.3	10.1	4.6	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	0.9	3.4	0.0	0.3	1.4	25.3	10.1	4.6	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	97	0	101	335	0	146	69	1773	787	113	931	966
V/C Ratio(X)	0.22	0.00	0.22	0.48	0.00	0.05	0.46	0.73	0.34	0.93	0.26	0.27
Avail Cap(c_a), veh/h	181	0	188	769	0	337	136	1773	787	113	931	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	0.93	0.93	0.93
Uniform Delay (d), s/veh	36.2	0.0	36.2	34.5	0.0	33.1	38.2	22.2	17.0	34.8	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.4	0.8	0.0	0.1	5.1	2.4	1.0	58.9	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.4	1.5	0.0	0.1	0.7	11.3	3.7	3.6	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	0.0	36.6	35.3	0.0	33.2	43.2	24.5	18.1	93.7	0.6	0.6
LnGrp LOS	D	A	D	D	A	C	D	C	B	F	A	A
Approach Vol, veh/h		43			169			1594			608	
Approach Delay, s/veh		36.6			35.2			23.8			16.7	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	2.0	46.3		9.3	10.1	48.2		12.4				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	5.0	26.0		8.0	6.0	25.0		17.0				
Max Q Clear Time (g_c+I), s	10.6	27.3		2.9	3.4	2.0		5.4				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	2.1		0.3				

Intersection Summary

HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↵	↵	↵↵	↵	↵↵↵			↵↵↵	↵
Traffic Volume (veh/h)	0	0	0	190	0	390	310	1340	0	0	460	150
Future Volume (veh/h)	0	0	0	190	0	390	310	1340	0	0	460	150
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				200	0	332	326	1411	0	0	484	55
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				579	0	516	362	3604	0	0	2243	692
Arrive On Green				0.16	0.00	0.16	0.40	1.00	0.00	0.00	0.14	0.14
Sat Flow, veh/h				3619	0	3220	1810	5358	0	0	5358	1601
Grp Volume(v), veh/h				200	0	332	326	1411	0	0	484	55
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1601
Q Serve(g_s), s				3.9	0.0	7.7	13.5	0.0	0.0	0.0	6.6	2.4
Cycle Q Clear(g_c), s				3.9	0.0	7.7	13.5	0.0	0.0	0.0	6.6	2.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				579	0	516	362	3604	0	0	2243	692
V/C Ratio(X)				0.35	0.00	0.64	0.90	0.39	0.00	0.00	0.22	0.08
Avail Cap(c_a), veh/h				923	0	821	362	3604	0	0	2243	692
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.39	0.39	0.00	0.00	0.98	0.98
Uniform Delay (d), s/veh				29.9	0.0	31.5	23.3	0.0	0.0	0.0	22.3	20.5
Incr Delay (d2), s/veh				0.8	0.0	2.9	13.5	0.1	0.0	0.0	0.2	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.7	0.0	3.1	5.4	0.0	0.0	0.0	2.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.6	0.0	34.3	36.8	0.1	0.0	0.0	22.5	20.7
LnGrp LOS				C	A	C	D	A	A	A	C	C
Approach Vol, veh/h					532			1737			539	
Approach Delay, s/veh					32.9			7.0			22.3	
Approach LOS					C			A			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.4			21.0	40.4		18.6				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			15.5	8.6		9.7				
Green Ext Time (p_c), s		10.1			0.0	2.4		3.1				

Intersection Summary

HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↘	↙					↑↑↑			↖ ↑↑↑	
Traffic Volume (veh/h)	520	0	170	0	0	0	0	1170	480	150	480	0
Future Volume (veh/h)	520	0	170	0	0	0	0	1170	480	150	480	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	547	0	58				0	1232	450	158	505	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1149	0	1022				0	1357	494	203	2788	0
Arrive On Green	0.32	0.00	0.32				0.00	0.36	0.36	0.04	0.18	0.00
Sat Flow, veh/h	3619	0	3220				0	3911	1362	1810	5358	0
Grp Volume(v), veh/h	547	0	58				0	1139	543	158	505	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1644	1810	1729	0
Q Serve(g_s), s	9.7	0.0	1.0				0.0	25.0	25.2	6.9	6.6	0.0
Cycle Q Clear(g_c), s	9.7	0.0	1.0				0.0	25.0	25.2	6.9	6.6	0.0
Prop In Lane	1.00		1.00				0.00		0.83	1.00		0.00
Lane Grp Cap(c), veh/h	1149	0	1022				0	1254	596	203	2788	0
V/C Ratio(X)	0.48	0.00	0.06				0.00	0.91	0.91	0.78	0.18	0.00
Avail Cap(c_a), veh/h	1149	0	1022				0	1254	596	271	2788	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	21.9	0.0	19.0				0.0	24.2	24.3	37.5	17.9	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.1				0.0	11.2	20.4	6.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	0.4				0.0	10.9	12.0	3.4	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	0.0	19.1				0.0	35.4	44.7	44.1	18.1	0.0
LnGrp LOS	C	A	B				A	D	D	D	B	A
Approach Vol, veh/h		605						1682			663	
Approach Delay, s/veh		23.0						38.4			24.3	
Approach LOS		C						D			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	34.0	34.8	31.2	48.8								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	12.0	26.0	25.4	43.0								
Max Q Clear Time (g_c+I), s	10.5	27.2	11.7	8.6								
Green Ext Time (p_c), s	0.1	0.0	4.0	2.7								

Intersection Summary

HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 15: Archibald Ave & Jurupa St

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	100	20	530	110	180	30	110	1010	90	30	20
Future Volume (veh/h)	20	100	20	530	110	180	30	110	1010	90	30	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	105	3	558	116	55	32	116	299	95	32	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	215	180	927	487	408	65	370	547	133	350	77
Arrive On Green	0.11	0.11	0.11	0.26	0.26	0.26	0.04	0.19	0.19	0.07	0.23	0.23
Sat Flow, veh/h	1810	1900	1589	3619	1900	1594	1810	1900	2812	1810	1508	330
Grp Volume(v), veh/h	21	105	3	558	116	55	32	116	299	95	0	39
Grp Sat Flow(s),veh/h/ln	1810	1900	1589	1810	1900	1594	1810	1900	1406	1810	0	1838
Q Serve(g_s), s	0.5	2.6	0.1	6.7	2.4	1.3	0.9	2.6	4.8	2.5	0.0	0.8
Cycle Q Clear(g_c), s	0.5	2.6	0.1	6.7	2.4	1.3	0.9	2.6	4.8	2.5	0.0	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	205	215	180	927	487	408	65	370	547	133	0	427
V/C Ratio(X)	0.10	0.49	0.02	0.60	0.24	0.13	0.49	0.31	0.55	0.71	0.00	0.09
Avail Cap(c_a), veh/h	1568	1646	1377	3464	1819	1526	182	1397	2068	182	0	1352
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	0.00	1.00
Uniform Delay (d), s/veh	19.7	20.7	19.6	16.2	14.6	14.2	23.5	17.1	18.0	22.5	0.0	14.9
Incr Delay (d2), s/veh	0.2	1.7	0.0	0.6	0.3	0.1	5.7	0.5	0.9	7.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.1	0.0	2.6	1.0	0.4	0.4	1.1	1.5	1.2	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	22.4	19.6	16.9	14.9	14.4	29.1	17.6	18.9	30.4	0.0	15.0
LnGrp LOS	B	C	B	B	B	B	C	B	B	C	A	B
Approach Vol, veh/h		129		729		447		134				
Approach Delay, s/veh		21.9		16.4		19.3		25.9				
Approach LOS		C		B		B		C				
Timer - Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	8.2	14.2	10.1	6.3	16.0	17.2						
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5						
Max Green Setting (Gmax), s	5.0	36.5	43.0	5.0	36.5	47.5						
Max Q Clear Time (g_c+1), s	14.5	6.8	4.6	2.9	2.8	8.7						
Green Ext Time (p_c), s	0.0	2.0	0.6	0.0	0.1	3.2						

Intersection Summary

HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕↕	↗	↗	↕↕	↗
Traffic Volume (veh/h)	20	0	20	20	0	20	30	1360	40	30	600	30
Future Volume (veh/h)	20	0	20	20	0	20	30	1360	40	30	600	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.98	0.98		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	0	1	21	0	2	32	1432	30	32	632	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	0	100	125	3	7	99	2552	1134	99	2552	1134
Arrive On Green	0.06	0.00	0.06	0.06	0.00	0.06	0.05	0.71	0.71	0.05	0.71	0.71
Sat Flow, veh/h	1533	0	1581	1064	43	105	1810	3610	1604	1810	3610	1604
Grp Volume(v), veh/h	21	0	1	23	0	0	32	1432	30	32	632	24
Grp Sat Flow(s),veh/h/ln	1533	0	1581	1212	0	0	1810	1805	1604	1810	1805	1604
Q Serve(g_s), s	0.0	0.0	0.1	1.6	0.0	0.0	2.0	23.1	0.7	2.0	7.5	0.5
Cycle Q Clear(g_c), s	1.4	0.0	0.1	3.0	0.0	0.0	2.0	23.1	0.7	2.0	7.5	0.5
Prop In Lane	1.00		1.00	0.91		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	0	100	134	0	0	99	2552	1134	99	2552	1134
V/C Ratio(X)	0.13	0.00	0.01	0.17	0.00	0.00	0.32	0.56	0.03	0.32	0.25	0.02
Avail Cap(c_a), veh/h	452	0	435	435	0	0	196	2552	1134	196	2552	1134
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	0.00	1.00	1.00	0.00	0.00	0.79	0.79	0.79	0.88	0.88	0.88
Uniform Delay (d), s/veh	53.3	0.0	52.7	54.4	0.0	0.0	54.6	8.5	5.3	54.6	6.2	5.2
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.7	0.0	0.0	1.8	0.7	0.0	2.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.7	0.0	0.0	1.0	7.6	0.2	1.0	2.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	0.0	52.7	55.1	0.0	0.0	56.4	9.3	5.3	56.6	6.5	5.3
LnGrp LOS	D	A	D	E	A	A	E	A	A	E	A	A
Approach Vol, veh/h		22			23			1494			688	
Approach Delay, s/veh		53.7			55.1			10.2			8.7	
Approach LOS		D			E			B			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.6	91.8		14.6	13.6	91.8		14.6				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.6	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+14), s	14.0	25.1		3.4	4.0	9.5		5.0				
Green Ext Time (p_c), s	0.0	19.7		0.1	0.0	9.2		0.1				

Intersection Summary
































HCM 6th Ctrl Delay	10.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			  			  	
Traffic Volume (veh/h)	150	680	320	130	1060	100	260	910	80	50	360	180
Future Volume (veh/h)	150	680	320	130	1060	100	260	910	80	50	360	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	158	716	151	137	1116	93	274	958	0	53	379	189
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	192	1515	468	175	1379	115	327	1931		217	1287	597
Arrive On Green	0.11	0.29	0.29	0.10	0.28	0.28	0.37	0.37	0.00	0.37	0.37	0.37
Sat Flow, veh/h	1810	5187	1602	1810	4876	406	856	5187	1610	595	3458	1604
Grp Volume(v), veh/h	158	716	151	137	791	418	274	958	0	53	379	189
Grp Sat Flow(s),veh/h/ln	1810	1729	1602	1810	1729	1824	856	1729	1610	595	1729	1604
Q Serve(g_s), s	7.7	10.2	6.6	6.7	19.2	19.2	26.0	12.8	0.0	6.8	7.0	7.5
Cycle Q Clear(g_c), s	7.7	10.2	6.6	6.7	19.2	19.2	33.5	12.8	0.0	19.6	7.0	7.5
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	1515	468	175	978	516	327	1931		217	1287	597
V/C Ratio(X)	0.82	0.47	0.32	0.78	0.81	0.81	0.84	0.50		0.24	0.29	0.32
Avail Cap(c_a), veh/h	231	1515	468	231	978	516	327	1931		217	1287	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	0.69	0.69	0.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	39.4	26.2	24.9	39.7	30.0	30.0	33.3	21.8	0.0	29.3	19.9	20.1
Incr Delay (d2), s/veh	15.2	0.9	1.6	8.5	7.2	12.9	12.8	0.2	0.0	0.7	0.1	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	4.0	3.9	2.5	3.2	8.1	9.4	7.0	4.9	0.0	1.0	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	27.1	26.5	48.2	37.2	43.0	46.1	21.9	0.0	30.0	20.1	20.5
LnGrp LOS	D	C	C	D	D	D	D	C		C	C	C
Approach Vol, veh/h		1025			1346			1232	A		621	
Approach Delay, s/veh		31.3			40.1			27.3			21.0	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.2	33.8		40.0	17.1	32.9		40.0				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	11.5	23.5		33.5	11.5	23.5		33.5				
Max Q Clear Time (g_c+I1), s	8.7	12.2		21.6	9.7	21.2		35.5				
Green Ext Time (p_c), s	0.0	5.9		3.5	0.0	1.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	40	110	20	30	40	220	1100	30	80	540	170
Future Volume (veh/h)	130	40	110	20	30	40	220	1100	30	80	540	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	42	27	21	32	6	232	1158	14	84	568	65
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	365	213	73	410	180	268	1632	725	119	1919	593
Arrive On Green	0.09	0.17	0.17	0.04	0.11	0.11	0.15	0.45	0.45	0.07	0.37	0.37
Sat Flow, veh/h	1810	2185	1276	1810	3610	1589	1810	3610	1605	1810	5187	1604
Grp Volume(v), veh/h	137	34	35	21	32	6	232	1158	14	84	568	65
Grp Sat Flow(s),veh/h/ln	1810	1805	1657	1810	1805	1589	1810	1805	1605	1810	1729	1604
Q Serve(g_s), s	7.0	1.5	1.7	1.1	0.8	0.3	11.9	24.5	0.5	4.3	7.3	2.5
Cycle Q Clear(g_c), s	7.0	1.5	1.7	1.1	0.8	0.3	11.9	24.5	0.5	4.3	7.3	2.5
Prop In Lane	1.00		0.77	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	301	277	73	410	180	268	1632	725	119	1919	593
V/C Ratio(X)	0.81	0.11	0.13	0.29	0.08	0.03	0.87	0.71	0.02	0.70	0.30	0.11
Avail Cap(c_a), veh/h	383	477	438	383	954	420	383	1632	725	383	1919	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	42.0	33.5	33.5	44.1	37.5	37.3	39.4	20.9	14.3	43.3	21.1	19.6
Incr Delay (d2), s/veh	3.4	0.1	0.2	0.8	0.1	0.1	10.3	2.6	0.0	2.8	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	3.2	0.6	0.7	0.5	0.3	0.1	5.8	9.8	0.2	1.9	2.8	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.4	33.6	33.7	44.9	37.6	37.4	49.7	23.6	14.4	46.1	21.5	19.9
LnGrp LOS	D	C	C	D	D	D	D	C	B	D	C	B
Approach Vol, veh/h		206			59			1404			717	
Approach Delay, s/veh		41.5			40.2			27.8			24.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.7	49.3	10.3	22.3	20.5	41.5	15.4	17.2				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	10.3	26.5	3.1	3.7	13.9	9.3	9.0	2.8				
Green Ext Time (p_c), s	0.1	5.2	0.0	0.2	0.2	4.6	0.1	0.1				

Intersection Summary

HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	20	20	40	20	40	60	1270	60	50	540	40
Future Volume (veh/h)	20	20	20	40	20	40	60	1270	60	50	540	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	21	2	42	21	6	63	1337	32	53	568	38
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	75	444	42	121	573	253	116	2230	690	107	2111	140
Arrive On Green	0.04	0.13	0.13	0.07	0.16	0.16	0.06	0.43	0.43	0.06	0.42	0.42
Sat Flow, veh/h	1810	3332	312	1810	3610	1595	1810	5187	1605	1810	4967	330
Grp Volume(v), veh/h	21	11	12	42	21	6	63	1337	32	53	394	212
Grp Sat Flow(s),veh/h/ln	1810	1805	1840	1810	1805	1595	1810	1729	1605	1810	1729	1839
Q Serve(g_s), s	0.9	0.5	0.5	1.9	0.4	0.3	2.8	16.6	1.0	2.4	6.2	6.3
Cycle Q Clear(g_c), s	0.9	0.5	0.5	1.9	0.4	0.3	2.8	16.6	1.0	2.4	6.2	6.3
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	75	241	245	121	573	253	116	2230	690	107	1469	782
V/C Ratio(X)	0.28	0.05	0.05	0.35	0.04	0.02	0.54	0.60	0.05	0.49	0.27	0.27
Avail Cap(c_a), veh/h	195	905	923	195	1811	800	166	2230	690	151	1469	782
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	38.9	31.6	31.7	37.3	29.8	29.7	38.0	18.3	13.9	38.2	15.6	15.6
Incr Delay (d2), s/veh	0.7	0.1	0.1	0.6	0.0	0.0	1.5	1.2	0.1	1.3	0.4	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	0.4	0.2	0.2	0.8	0.2	0.1	1.2	6.1	0.4	1.0	2.3	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	31.7	31.7	37.9	29.8	29.8	39.4	19.5	14.0	39.5	16.1	16.5
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		44			69			1432			659	
Approach Delay, s/veh		35.5			34.8			20.3			18.1	
Approach LOS		D			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	42.5	12.1	17.7	11.9	42.1	10.0	19.8				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	36.0	9.0	42.0	7.7	35.3	9.0	42.0					
Max Q Clear Time (g_c+1/4), s	18.6	3.9	2.5	4.8	8.3	2.9	2.4					
Green Ext Time (p_c), s	0.0	9.6	0.0	0.1	0.0	4.4	0.1					

Intersection Summary

HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	50	330	190	160	440	60	360	1350	530	50	540	50
Future Volume (veh/h)	50	330	190	160	440	60	360	1350	530	50	540	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	347	40	168	463	16	379	1421	229	53	568	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	276	593	262	360	679	301	465	2013	623	193	1612	498
Arrive On Green	0.08	0.16	0.16	0.10	0.19	0.19	0.13	0.39	0.39	0.06	0.31	0.31
Sat Flow, veh/h	3510	3610	1595	3510	3610	1597	3510	5187	1604	3510	5187	1602
Grp Volume(v), veh/h	53	347	40	168	463	16	379	1421	229	53	568	17
Grp Sat Flow(s),veh/h/ln	1755	1805	1595	1755	1805	1597	1755	1729	1604	1755	1729	1602
Q Serve(g_s), s	1.4	8.6	2.1	4.4	11.5	0.8	10.1	22.3	9.8	1.4	8.2	0.7
Cycle Q Clear(g_c), s	1.4	8.6	2.1	4.4	11.5	0.8	10.1	22.3	9.8	1.4	8.2	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	593	262	360	679	301	465	2013	623	193	1612	498
V/C Ratio(X)	0.19	0.58	0.15	0.47	0.68	0.05	0.82	0.71	0.37	0.27	0.35	0.03
Avail Cap(c_a), veh/h	727	1122	496	727	1122	496	727	2013	623	727	1612	498
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	41.6	37.3	34.6	40.8	36.5	32.1	40.7	24.9	21.1	43.8	25.7	23.2
Incr Delay (d2), s/veh	0.2	1.1	0.3	0.7	1.5	0.1	3.2	2.1	1.7	0.6	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.7	0.8	1.8	4.9	0.3	4.4	8.8	3.7	0.6	3.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	38.4	34.9	41.5	37.9	32.2	44.0	27.0	22.8	44.3	26.4	23.3
LnGrp LOS	D	D	C	D	D	C	D	C	C	D	C	C
Approach Vol, veh/h		440			647			2029			638	
Approach Delay, s/veh		38.5			38.7			29.7			27.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	44.0	17.4	23.4	19.3	36.5	15.1	25.7				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1/4), s	13.4	24.3	6.4	10.6	12.1	10.2	3.4	13.5				
Green Ext Time (p_c), s	0.1	4.5	0.3	2.3	0.6	4.1	0.1	2.9				

Intersection Summary

HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↶	↶	↶			↷	↶
Traffic Volume (veh/h)	0	0	0	320	0	480	710	1820	0	0	710	180
Future Volume (veh/h)	0	0	0	320	0	480	710	1820	0	0	710	180
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				492	0	279	747	1916	0	0	747	38
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				941	0	419	1170	3170	0	0	1452	354
Arrive On Green				0.26	0.00	0.26	0.22	0.41	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1592
Grp Volume(v), veh/h				492	0	279	747	1916	0	0	747	38
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1592
Q Serve(g_s), s				10.5	0.0	14.0	17.3	26.1	0.0	0.0	9.0	1.7
Cycle Q Clear(g_c), s				10.5	0.0	14.0	17.3	26.1	0.0	0.0	9.0	1.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				941	0	419	1170	3170	0	0	1452	354
V/C Ratio(X)				0.52	0.00	0.67	0.64	0.60	0.00	0.00	0.51	0.11
Avail Cap(c_a), veh/h				941	0	419	1170	3170	0	0	1452	354
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.57	0.57	0.00	0.00	0.93	0.93
Uniform Delay (d), s/veh				28.5	0.0	29.8	30.0	18.0	0.0	0.0	30.7	27.9
Incr Delay (d2), s/veh				2.1	0.0	8.1	1.5	0.5	0.0	0.0	1.2	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.7	0.0	13.1	7.7	10.6	0.0	0.0	3.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.6	0.0	38.0	31.6	18.5	0.0	0.0	31.9	28.5
LnGrp LOS				C	A	D	C	B	A	A	C	C
Approach Vol, veh/h					771			2663			785	
Approach Delay, s/veh					33.3			22.2			31.8	
Approach LOS					C			C			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		60.8		29.2	35.0	25.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		55.0		23.4	30.0	20.0						
Max Q Clear Time (g_c+I1), s		28.1		16.0	19.3	11.0						
Green Ext Time (p_c), s		16.1		1.9	1.2	3.2						

Intersection Summary

HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	450	0	430	0	0	0	0	1980	530	250	780	0
Future Volume (veh/h)	450	0	430	0	0	0	0	1980	530	250	780	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	586	0	240				0	2084	180	263	821	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1054	0	469				0	2702	662	390	3008	0
Arrive On Green	0.29	0.00	0.29				0.00	0.41	0.41	0.04	0.19	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	1600	3510	5358	0
Grp Volume(v), veh/h	586	0	240				0	2084	180	263	821	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1600	1755	1729	0
Q Serve(g_s), s	12.3	0.0	11.2				0.0	24.7	6.7	6.7	12.2	0.0
Cycle Q Clear(g_c), s	12.3	0.0	11.2				0.0	24.7	6.7	6.7	12.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1054	0	469				0	2702	662	390	3008	0
V/C Ratio(X)	0.56	0.00	0.51				0.00	0.77	0.27	0.67	0.27	0.00
Avail Cap(c_a), veh/h	1054	0	469				0	2702	662	390	3008	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.81	0.81	0.00
Uniform Delay (d), s/veh	27.0	0.0	26.6				0.0	22.7	17.5	41.7	20.2	0.0
Incr Delay (d2), s/veh	2.1	0.0	4.0				0.0	2.2	1.0	7.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	4.7				0.0	8.9	2.4	3.3	5.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	0.0	30.5				0.0	24.9	18.5	49.1	20.4	0.0
LnGrp LOS	C	A	C				A	C	B	D	C	A
Approach Vol, veh/h		826						2264			1084	
Approach Delay, s/veh		29.5						24.4			27.3	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	5.0	43.0					58.0	32.0				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	10.0	37.2					52.2	26.2				
Max Q Clear Time (g_c+1/3), s	10.0	26.7					14.2	14.3				
Green Ext Time (p_c), s	0.1	8.7					5.9	2.6				

Intersection Summary

HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	500	0	900	0	2600	0	0	1690	460	0	0
Future Volume (veh/h)	500	0	900	0	2600	0	0	1690	460	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	526	526	932	0	2737	0	0	1779	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	925	925	1641	0	2484	0	0	2888			
Arrive On Green	0.51	0.51	0.51	0.00	0.38	0.00	0.00	0.38	0.00		
Sat Flow, veh/h	1810	1810	3211	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	526	526	932	0	2737	0	0	1779	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1605	0	1634	0	0	1900	1610		
Q Serve(g_s), s	20.0	20.0	20.0	0.0	38.0	0.0	0.0	18.9	0.0		
Cycle Q Clear(g_c), s	20.0	20.0	20.0	0.0	38.0	0.0	0.0	18.9	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	925	925	1641	0	2484	0	0	2888			
V/C Ratio(X)	0.57	0.57	0.57	0.00	1.10	0.00	0.00	0.62			
Avail Cap(c_a), veh/h	925	925	1641	0	2484	0	0	2888			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	16.9	16.9	16.8	0.0	31.0	0.0	0.0	25.1	0.0		
Incr Delay (d2), s/veh	2.5	2.5	1.4	0.0	52.7	0.0	0.0	1.0	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	8.6	8.6	7.3	0.0	22.8	0.0	0.0	8.2	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	19.4	19.4	18.3	0.0	83.7	0.0	0.0	26.1	0.0		
LnGrp LOS	B	B	B	A	F	A	A	C			
Approach Vol, veh/h	1458	1458			2737			1779	A		
Approach Delay, s/veh	18.7	18.7			83.7			26.1			
Approach LOS	B	B			F			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	43.8		56.2		43.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	38.0		51.1		38.0						
Max Q Clear Time (g_c+I1), s	40.0		22.0		20.9						
Green Ext Time (p_c), s	0.0		3.4		8.4						

Intersection Summary

HCM 6th Ctrl Delay	50.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	620	0	390	0	3180	830	0	1790	0	0	0
Future Volume (veh/h)	620	0	390	0	3180	830	0	1790	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	653	653	391	0	3347	0	0	1884	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	581	581	1034	0	3726		0	3726	0		
Arrive On Green	0.32	0.32	0.32	0.00	0.57	0.00	0.00	0.57	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	653	653	391	0	3347	0	0	1884	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	32.1	32.1	9.4	0.0	45.1	0.0	0.0	17.4	0.0		
Cycle Q Clear(g_c), s	32.1	32.1	9.4	0.0	45.1	0.0	0.0	17.4	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	581	581	1034	0	3726		0	3726	0		
V/C Ratio(X)	1.12	1.12	0.38	0.00	0.90		0.00	0.51	0.00		
Avail Cap(c_a), veh/h	581	581	1034	0	3726		0	3726	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.27	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	33.9	33.9	26.2	0.0	18.9	0.0	0.0	13.0	0.0		
Incr Delay (d2), s/veh	76.4	76.4	1.1	0.0	1.1	0.0	0.0	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	26.0	26.0	3.7	0.0	15.8	0.0	0.0	5.8	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	110.4	110.4	27.3	0.0	20.1	0.0	0.0	13.5	0.0		
LnGrp LOS	F	F	C	A	C		A	B	A		
Approach Vol, veh/h	1044	1044			3347	A		1884			
Approach Delay, s/veh	79.2	79.2			20.1			13.5			
Approach LOS	E	E			C			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	62.8		37.2		62.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	57.0		32.1		57.0						
Max Q Clear Time (g_c+I1), s	47.1		34.1		19.4						
Green Ext Time (p_c), s	9.4		0.0		12.5						

Intersection Summary

HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖↗	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	400	100	210	70	60	290	80	2950	120	200	1870	120
Future Volume (veh/h)	400	100	210	70	60	290	80	2950	120	200	1870	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	421	105	38	74	63	30	84	3105	63	211	1968	66
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	464	219	183	260	109	162	193	3550	872	263	3679	904
Arrive On Green	0.13	0.12	0.12	0.07	0.06	0.06	0.05	0.54	0.54	0.07	0.56	0.56
Sat Flow, veh/h	3510	1900	1589	3510	1900	2834	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	421	105	38	74	63	30	84	3105	63	211	1968	66
Grp Sat Flow(s),veh/h/ln	1755	1900	1589	1755	1900	1417	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	16.6	7.2	3.0	2.8	4.5	1.4	3.2	57.9	2.6	8.3	26.4	2.6
Cycle Q Clear(g_c), s	16.6	7.2	3.0	2.8	4.5	1.4	3.2	57.9	2.6	8.3	26.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	219	183	260	109	162	193	3550	872	263	3679	904
V/C Ratio(X)	0.91	0.48	0.21	0.28	0.58	0.19	0.44	0.87	0.07	0.80	0.53	0.07
Avail Cap(c_a), veh/h	464	387	324	464	387	577	602	3550	872	602	3679	904
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	0.28	0.28	0.28	0.86	0.86	0.86
Uniform Delay (d), s/veh	59.9	58.0	56.2	61.3	64.4	62.9	64.0	27.8	15.2	63.8	19.1	13.9
Incr Delay (d2), s/veh	21.0	0.6	0.2	0.2	1.8	0.2	0.2	1.0	0.0	1.9	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	3.5	1.2	1.2	2.2	0.5	1.4	21.3	0.9	3.7	9.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.9	58.6	56.4	61.5	66.2	63.1	64.2	28.8	15.3	65.6	19.6	14.1
LnGrp LOS	F	E	E	E	E	E	E	C	B	E	B	B
Approach Vol, veh/h		564			167			3252			2245	
Approach Delay, s/veh		75.1			63.6			29.5			23.8	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	83.0	16.9	22.6	14.7	85.8	25.0	14.5				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	24.0	42.0	18.5	28.5	24.0	42.0	18.5	28.5				
Max Q Clear Time (g_c+10), s	11.0	59.9	4.8	9.2	5.2	28.4	18.6	6.5				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.2	0.1	9.2	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕		↖↗	↕	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	430	640	670	70	670	740	720	2250	50	30	1750	170
Future Volume (veh/h)	430	640	670	70	670	740	720	2250	50	30	1750	170
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	434	646	585	71	677	501	727	2273	21	30	1768	85
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	483	638	567	111	893	398	652	2681	658	80	1617	396
Arrive On Green	0.14	0.35	0.35	0.03	0.25	0.25	0.19	0.41	0.41	0.02	0.25	0.25
Sat Flow, veh/h	3510	1805	1603	3510	3610	1610	3510	6536	1604	3510	6536	1600
Grp Volume(v), veh/h	434	646	585	71	677	501	727	2273	21	30	1768	85
Grp Sat Flow(s),veh/h/ln	1755	1805	1603	1755	1805	1610	1755	1634	1604	1755	1634	1600
Q Serve(g_s), s	19.7	57.1	57.1	3.2	28.1	40.0	30.0	50.8	1.3	1.4	40.0	6.8
Cycle Q Clear(g_c), s	19.7	57.1	57.1	3.2	28.1	40.0	30.0	50.8	1.3	1.4	40.0	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	483	638	567	111	893	398	652	2681	658	80	1617	396
V/C Ratio(X)	0.90	1.01	1.03	0.64	0.76	1.26	1.12	0.85	0.03	0.37	1.09	0.21
Avail Cap(c_a), veh/h	652	638	567	652	893	398	652	2681	658	652	1617	396
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	68.6	52.3	52.3	77.4	56.3	60.8	65.8	43.1	28.5	77.8	60.8	48.3
Incr Delay (d2), s/veh	10.4	38.8	46.3	2.3	3.8	134.8	71.5	2.8	0.0	1.1	52.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	32.0	29.6	1.5	13.0	30.8	19.5	20.1	0.5	0.6	22.1	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.0	91.0	98.6	79.7	60.1	195.6	137.3	45.9	28.5	78.9	113.2	48.7
LnGrp LOS	E	F	F	E	E	F	F	D	C	E	F	D
Approach Vol, veh/h		1665			1249			3021			1883	
Approach Delay, s/veh		90.5			115.6			67.8			109.7	
Approach LOS		F			F			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	73.8	12.1	64.5	37.5	47.5	29.2	47.4				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+1/4), s	13.4	52.8	5.2	59.1	32.0	42.0	21.7	42.0				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0	0.6	0.0				

Intersection Summary

HCM 6th Ctrl Delay	90.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑↑		↖	↖	↖			↕	
Traffic Volume (veh/h)	160	570	20	30	1400	120	20	0	50	260	0	380
Future Volume (veh/h)	160	570	20	30	1400	120	20	0	50	260	0	380
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	600	19	32	1474	42	21	0	19	274	0	302
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	2030	64	62	1633	507	407	0	605	314	0	292
Arrive On Green	0.11	0.39	0.39	0.03	0.31	0.31	0.38	0.00	0.38	0.38	0.00	0.38
Sat Flow, veh/h	1810	5166	163	1810	5187	1610	1094	0	1610	705	0	777
Grp Volume(v), veh/h	168	401	218	32	1474	42	21	0	19	576	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1871	1810	1729	1610	1094	0	1610	1481	0	0
Q Serve(g_s), s	9.7	8.5	8.5	1.9	29.0	2.0	0.0	0.0	0.8	39.2	0.0	0.0
Cycle Q Clear(g_c), s	9.7	8.5	8.5	1.9	29.0	2.0	1.6	0.0	0.8	40.0	0.0	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	0.48		0.52
Lane Grp Cap(c), veh/h	204	1359	735	62	1633	507	407	0	605	606	0	0
V/C Ratio(X)	0.82	0.30	0.30	0.51	0.90	0.08	0.05	0.00	0.03	0.95	0.00	0.00
Avail Cap(c_a), veh/h	594	1948	1054	153	1655	514	407	0	605	606	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.2	22.2	22.2	50.6	34.9	25.7	21.3	0.0	21.0	34.3	0.0	0.0
Incr Delay (d2), s/veh	8.1	0.2	0.3	6.4	7.4	0.1	0.2	0.0	0.1	26.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.3	3.6	0.9	12.6	0.7	0.4	0.0	0.3	19.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	22.4	22.5	56.9	42.4	25.8	21.5	0.0	21.1	60.5	0.0	0.0
LnGrp LOS	D	C	C	E	D	C	C	A	C	E	A	A
Approach Vol, veh/h	787			1548			40			576		
Approach Delay, s/veh	29.2			42.2			21.3			60.5		
Approach LOS	C			D			C			E		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	47.0	10.7	48.9		47.0	19.0	40.5					
Change Period (Y+Rc), s	7.0	7.0	7.0		7.0	7.0	7.0					
Max Green Setting (Gmax), s	40.0	9.0	60.0		40.0	35.0	34.0					
Max Q Clear Time (g_c+1), s	3.6	3.9	10.5		42.0	11.7	31.0					
Green Ext Time (p_c), s	0.2	0.0	5.9		0.0	0.4	2.5					

Intersection Summary

HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	700	60	80	1180	20	80	0	60	20	0	20
Future Volume (veh/h)	0	700	60	80	1180	20	80	0	60	20	0	20
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	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	737	54	84	1242	20	84	0	26	21	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3067	224	110	1417	23	220	0	133	126	4	5
Arrive On Green	0.00	0.62	0.62	0.06	0.76	0.76	0.08	0.00	0.08	0.08	0.00	0.08
Sat Flow, veh/h	1810	4932	360	1810	1865	30	1660	0	1582	585	43	60
Grp Volume(v), veh/h	0	516	275	84	0	1262	84	0	26	23	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1834	1810	0	1895	1660	0	1582	687	0	0
Q Serve(g_s), s	0.0	6.0	6.0	4.1	0.0	43.1	0.0	0.0	1.4	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.0	6.0	4.1	0.0	43.1	4.1	0.0	1.4	5.3	0.0	0.0
Prop In Lane	1.00		0.20	1.00		0.02	1.00		1.00	0.91		0.09
Lane Grp Cap(c), veh/h	2	2150	1140	110	0	1440	220	0	133	134	0	0
V/C Ratio(X)	0.00	0.24	0.24	0.77	0.00	0.88	0.38	0.00	0.20	0.17	0.00	0.00
Avail Cap(c_a), veh/h	322	2150	1140	322	0	1440	684	0	650	593	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.97	0.97	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.6	7.6	41.6	0.0	7.8	39.6	0.0	38.4	41.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.5	10.5	0.0	7.8	1.1	0.0	0.7	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	2.1	2.1	0.0	12.3	1.9	0.0	0.5	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.8	8.1	52.2	0.0	15.5	40.7	0.0	39.1	42.0	0.0	0.0
LnGrp LOS	A	A	A	D	A	B	D	A	D	D	A	A
Approach Vol, veh/h	791		1346		110		23					
Approach Delay, s/veh	7.9		17.8		40.3		42.0					
Approach LOS	A		B		D		D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	14.6		12.5		63.0		14.6		0.0		75.4	
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0		7.0		7.0	
Max Green Setting (Gmax), s	37.0		16.0		16.0		37.0		16.0		16.0	
Max Q Clear Time (g_c+1), s	6.1		6.1		8.0		7.3		0.0		45.1	
Green Ext Time (p_c), s	0.5		0.1		2.9		0.1		0.0		0.0	
Intersection Summary												
HCM 6th Ctrl Delay			15.7									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑	↔	↔	↑↑↑	↔	↔	↑↑↑	↔
Traffic Volume (veh/h)	510	780	170	490	610	130	90	2150	360	210	1700	720
Future Volume (veh/h)	510	780	170	490	610	130	90	2150	360	210	1700	720
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	531	812	48	510	635	36	94	2240	180	219	1771	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	590	993	306	569	669	298	115	2311	567	165	2490	
Arrive On Green	0.17	0.19	0.19	0.16	0.19	0.19	0.06	0.35	0.35	0.09	0.38	0.00
Sat Flow, veh/h	3510	5187	1598	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	531	812	48	510	635	36	94	2240	180	219	1771	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1598	1755	1805	1610	1810	1634	1603	1810	1634	1610
Q Serve(g_s), s	22.0	22.3	3.7	21.1	25.8	2.8	7.6	50.0	12.1	13.5	34.2	0.0
Cycle Q Clear(g_c), s	22.0	22.3	3.7	21.1	25.8	2.8	7.6	50.0	12.1	13.5	34.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	590	993	306	569	669	298	115	2311	567	165	2490	
V/C Ratio(X)	0.90	0.82	0.16	0.90	0.95	0.12	0.82	0.97	0.32	1.33	0.71	
Avail Cap(c_a), veh/h	1100	993	306	1100	669	298	165	2312	567	165	2490	
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	0.00
Uniform Delay (d), s/veh	60.5	57.5	50.0	61.0	59.8	50.4	68.6	47.2	34.9	67.5	39.0	0.0
Incr Delay (d2), s/veh	2.1	5.5	0.2	2.1	23.1	0.2	12.7	12.4	0.4	184.3	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	10.1	1.5	9.4	13.7	1.1	3.8	21.3	4.7	14.5	13.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.6	63.0	50.3	63.1	82.9	50.6	81.4	59.5	35.3	251.8	40.0	0.0
LnGrp LOS	E	E	D	E	F	D	F	E	D	F	D	
Approach Vol, veh/h		1391			1181			2514			1990	A
Approach Delay, s/veh		62.4			73.3			58.6			63.3	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	60.0	31.5	35.9	16.9	64.0	32.4	35.0				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	13.5	52.5	46.5	27.5	13.5	52.5	46.5	27.5				
Max Q Clear Time (g_c+1/5), s	11.5	52.0	23.1	24.3	9.6	36.2	24.0	27.8				
Green Ext Time (p_c), s	0.0	0.5	0.9	1.6	0.0	11.4	0.9	0.0				

Intersection Summary

HCM 6th Ctrl Delay	63.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗		↖ ↗	↖ ↗	↖ ↗		↖ ↗	↖ ↗	↖ ↗
Traffic Volume (veh/h)	320	1170	20	20	1010	20	20	20	20	30	0	210
Future Volume (veh/h)	320	1170	20	20	1010	20	20	20	20	30	0	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	337	1232	20	21	1063	15	21	21	5	32	0	122
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	440	4133	67	395	2838	1266	196	145	35	189	186	158
Arrive On Green	0.79	0.79	0.79	0.79	0.79	0.79	0.10	0.10	0.10	0.10	0.00	0.10
Sat Flow, veh/h	532	5257	85	451	3610	1610	1289	1483	353	1407	1900	1610
Grp Volume(v), veh/h	337	810	442	21	1063	15	21	0	26	32	0	122
Grp Sat Flow(s),veh/h/ln	532	1729	1885	451	1805	1610	1289	0	1836	1407	1900	1610
Q Serve(g_s), s	54.2	6.8	6.8	1.4	9.2	0.2	1.5	0.0	1.3	2.2	0.0	7.6
Cycle Q Clear(g_c), s	63.4	6.8	6.8	8.1	9.2	0.2	1.5	0.0	1.3	3.5	0.0	7.6
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	440	2718	1481	395	2838	1266	196	0	180	189	186	158
V/C Ratio(X)	0.77	0.30	0.30	0.05	0.37	0.01	0.11	0.00	0.14	0.17	0.00	0.77
Avail Cap(c_a), veh/h	536	3343	1822	476	3490	1557	543	0	675	568	698	591
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.9	3.1	3.1	4.2	3.4	2.4	42.8	0.0	42.7	44.3	0.0	45.5
Incr Delay (d2), s/veh	5.3	0.1	0.1	0.1	0.1	0.0	0.2	0.0	0.4	0.4	0.0	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	1.4	1.5	0.1	2.0	0.0	0.5	0.0	0.6	0.8	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	3.2	3.2	4.3	3.4	2.4	43.0	0.0	43.1	44.7	0.0	53.4
LnGrp LOS	B	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h	1589				1099				47		154	
Approach Delay, s/veh	6.4				3.4				43.0		51.6	
Approach LOS	A				A				D		D	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	15.1		88.3		15.1		88.3					
Change Period (Y+Rc), s	5.0		7.0		5.0		7.0					
Max Green Setting (Gmax), s	38.0		100.0		38.0		100.0					
Max Q Clear Time (g_c+1), s	3.5		65.4		9.6		11.2					
Green Ext Time (p_c), s	0.2		15.8		0.5		9.6					

Intersection Summary

HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	1030	30	30	990	650	30	40	80	300	30	80
Future Volume (veh/h)	280	1030	30	30	990	650	30	40	80	300	30	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	295	1084	10	32	1042	0	32	42	22	316	32	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	2355	727	78	1353		89	120	63	312	272	228
Arrive On Green	0.12	0.45	0.45	0.01	0.12	0.00	0.05	0.10	0.10	0.09	0.14	0.14
Sat Flow, veh/h	1810	5187	1601	1810	3610	1610	1810	1168	612	3510	1900	1593
Grp Volume(v), veh/h	295	1084	10	32	1042	0	32	0	64	316	32	24
Grp Sat Flow(s),veh/h/ln	1810	1729	1601	1810	1805	1610	1810	0	1779	1755	1900	1593
Q Serve(g_s), s	11.0	13.0	0.3	1.6	25.2	0.0	1.5	0.0	3.0	8.0	1.3	1.2
Cycle Q Clear(g_c), s	11.0	13.0	0.3	1.6	25.2	0.0	1.5	0.0	3.0	8.0	1.3	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	221	2355	727	78	1353		89	0	183	312	272	228
V/C Ratio(X)	1.33	0.46	0.01	0.41	0.77		0.36	0.00	0.35	1.01	0.12	0.11
Avail Cap(c_a), veh/h	221	2355	727	161	1353		161	0	395	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	0.83	0.83	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	17.0	13.5	43.2	35.7	0.0	41.4	0.0	37.6	41.0	33.6	33.6
Incr Delay (d2), s/veh	176.8	0.6	0.0	3.5	3.6	0.0	0.9	0.0	0.8	54.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	4.7	0.1	0.8	12.6	0.0	0.7	0.0	1.3	5.8	0.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	216.3	17.6	13.5	46.7	39.3	0.0	42.4	0.0	38.4	95.2	33.8	33.7
LnGrp LOS	F	B	B	D	D		D	A	D	F	C	C
Approach Vol, veh/h		1389			1074	A		96			372	
Approach Delay, s/veh		59.7			39.5			39.7			86.0	
Approach LOS		E			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	16.3	10.9	47.9	11.4	19.9	18.0	40.7				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	20.0	20.0	8.0	26.0	8.0	20.0	11.0	23.0				
Max Q Clear Time (g_c+I1), s	5.0	5.0	3.6	15.0	3.5	3.3	13.0	27.2				
Green Ext Time (p_c), s	0.0	0.1	0.0	5.8	0.0	0.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	55.0
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗			↖ ↑	↑ ↗		↖ ↑	↑ ↗	
Traffic Volume (veh/h)	70	1410	30	50	1360	70	40	40	130	110	30	140
Future Volume (veh/h)	70	1410	30	50	1360	70	40	40	130	110	30	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	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	1484	31	53	1432	69	42	42	48	116	32	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	3012	63	74	2861	138	257	290	257	258	290	257
Arrive On Green	0.11	1.00	1.00	0.04	0.56	0.56	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1810	5229	109	1810	5069	244	1327	1805	1595	1317	1805	1595
Grp Volume(v), veh/h	74	981	534	53	977	524	42	42	48	116	32	50
Grp Sat Flow(s),veh/h/ln	1810	1729	1880	1810	1729	1855	1327	1805	1595	1317	1805	1595
Q Serve(g_s), s	3.6	0.0	0.0	2.6	15.4	15.4	2.5	1.8	2.3	7.5	1.4	2.4
Cycle Q Clear(g_c), s	3.6	0.0	0.0	2.6	15.4	15.4	5.0	1.8	2.3	9.9	1.4	2.4
Prop In Lane	1.00		0.06	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	1992	1083	74	1951	1047	257	290	257	258	290	257
V/C Ratio(X)	0.78	0.49	0.49	0.72	0.50	0.50	0.16	0.14	0.19	0.45	0.11	0.19
Avail Cap(c_a), veh/h	201	1992	1083	281	1951	1047	472	582	514	470	582	514
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	0.0	42.7	11.9	11.9	34.9	32.4	32.7	36.9	32.3	32.7
Incr Delay (d2), s/veh	4.1	0.7	1.3	3.3	0.6	1.1	0.3	0.2	0.3	1.2	0.2	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	1.6	0.2	0.4	1.2	5.2	5.7	0.8	0.8	0.9	2.4	0.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	0.7	1.3	45.9	12.5	13.1	35.2	32.7	33.0	38.2	32.4	33.1
LnGrp LOS	D	A	A	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h	1589				1554		132				198	
Approach Delay, s/veh	2.9				13.8		33.6				35.9	
Approach LOS	A				B		C				D	
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	20.5		10.7		58.8		20.5		11.7		57.8	
Change Period (Y+Rc), s	6.0		7.0		7.0		6.0		7.0		7.0	
Max Green Setting (Gmax), s	29.0		14.0		27.0		29.0		10.0		31.0	
Max Q Clear Time (g_c+1), s	7.0		4.6		2.0		11.9		5.6		17.4	
Green Ext Time (p_c), s	0.5		0.0		14.7		0.7		0.0		9.5	
Intersection Summary												
HCM 6th Ctrl Delay			10.8									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↗	↖↗	↑↑↑		↖↗	↑↑↑	↗	↖↗	↑↑↑	↗
Traffic Volume (veh/h)	200	1180	190	560	1020	140	270	1120	550	310	970	110
Future Volume (veh/h)	200	1180	190	560	1020	140	270	1120	550	310	970	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	211	1242	52	589	1074	138	284	1179	341	326	1021	64
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	264	1367	422	590	1656	213	339	1341	414	381	1403	554
Arrive On Green	0.08	0.26	0.26	0.17	0.36	0.36	0.10	0.26	0.26	0.11	0.27	0.27
Sat Flow, veh/h	3510	5187	1601	3510	4651	597	3510	5187	1601	3510	5187	1601
Grp Volume(v), veh/h	211	1242	52	589	798	414	284	1179	341	326	1021	64
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1790	1755	1729	1601	1755	1729	1601
Q Serve(g_s), s	8.8	34.5	3.7	25.0	28.8	28.8	11.8	32.5	29.9	13.6	26.6	4.1
Cycle Q Clear(g_c), s	8.8	34.5	3.7	25.0	28.8	28.8	11.8	32.5	29.9	13.6	26.6	4.1
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	1367	422	590	1232	637	339	1341	414	381	1403	554
V/C Ratio(X)	0.80	0.91	0.12	1.00	0.65	0.65	0.84	0.88	0.82	0.86	0.73	0.12
Avail Cap(c_a), veh/h	590	1394	430	590	1232	637	590	1394	430	590	1403	554
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	67.7	53.1	41.7	61.9	40.1	40.1	66.1	53.0	52.0	65.2	49.3	33.2
Incr Delay (d2), s/veh	4.1	9.0	0.2	36.8	1.3	2.5	4.2	6.7	12.2	6.4	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	15.8	1.5	13.9	12.2	12.8	5.4	14.5	13.2	6.3	11.4	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.8	62.1	41.9	98.7	41.4	42.6	70.3	59.7	64.3	71.6	51.3	33.3
LnGrp LOS	E	E	D	F	D	D	E	E	E	E	D	C
Approach Vol, veh/h		1505			1801			1804			1411	
Approach Delay, s/veh		62.8			60.4			62.2			55.2	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.7	46.0	32.5	46.7	21.9	47.8	18.7	60.5				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1/6), s	11.6	34.5	27.0	36.5	13.8	28.6	10.8	30.8				
Green Ext Time (p_c), s	0.6	4.0	0.0	2.5	0.5	5.6	0.4	5.4				

Intersection Summary

HCM 6th Ctrl Delay	60.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	140	1920	0	70	1540	50	20	30	100	400	20	140
Future Volume (veh/h)	140	1920	0	70	1540	50	20	30	100	400	20	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		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	2021	0	74	1621	51	21	32	27	421	21	147
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	173	2102	0	120	1943	61	60	188	157	432	578	488
Arrive On Green	0.10	0.41	0.00	0.07	0.38	0.38	0.03	0.10	0.10	0.24	0.30	0.30
Sat Flow, veh/h	1810	5358	0	1810	5166	162	1810	1900	1586	1810	1900	1602
Grp Volume(v), veh/h	147	2021	0	74	1085	587	21	32	27	421	21	147
Grp Sat Flow(s),veh/h/ln	1810	1729	0	1810	1729	1870	1810	1900	1586	1810	1900	1602
Q Serve(g_s), s	10.0	47.7	0.0	5.0	35.8	35.9	1.4	1.9	2.0	29.0	1.0	8.8
Cycle Q Clear(g_c), s	10.0	47.7	0.0	5.0	35.8	35.9	1.4	1.9	2.0	29.0	1.0	8.8
Prop In Lane	1.00		0.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	173	2102	0	120	1301	703	60	188	157	432	578	488
V/C Ratio(X)	0.85	0.96	0.00	0.62	0.83	0.83	0.35	0.17	0.17	0.97	0.04	0.30
Avail Cap(c_a), veh/h	173	2106	0	130	1321	714	115	544	454	432	877	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.0	36.4	0.0	57.1	35.6	35.6	59.4	51.9	51.9	47.4	30.7	33.5
Incr Delay (d2), s/veh	30.0	11.9	0.0	5.0	4.8	8.5	1.3	0.3	0.4	36.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	21.3	0.0	2.4	15.2	17.2	0.7	1.0	0.8	17.5	0.5	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.0	48.3	0.0	62.1	40.4	44.2	60.7	52.2	52.3	83.9	30.7	33.7
LnGrp LOS	F	D	A	E	D	D	E	D	D	F	C	C
Approach Vol, veh/h	2168				1746		80		589			
Approach Delay, s/veh	50.9				42.6		54.5		69.4			
Approach LOS	D				D		D		E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	35.0	17.4	15.3	57.9	9.2	43.2	19.0	54.3				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	30.0	36.0	9.0	51.0	8.0	58.0	12.0	48.0				
Max Q Clear Time (g_c+D), s	10.0	4.0	7.0	49.7	3.4	10.8	12.0	37.9				
Green Ext Time (p_c), s	0.0	0.2	0.0	1.2	0.0	0.5	0.0	7.5				

Intersection Summary

HCM 6th Ctrl Delay	50.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	1990	590	540	1200	0	0	0	0	260	0	480
Future Volume (veh/h)	0	1990	590	540	1200	0	0	0	0	260	0	480
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2095	268	568	1263	0				183	0	525
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2578	726	585	3498	0				328	0	583
Arrive On Green	0.00	0.45	0.45	0.06	0.22	0.00				0.18	0.00	0.18
Sat Flow, veh/h	0	5700	1605	3510	5358	0				1810	0	3220
Grp Volume(v), veh/h	0	2095	268	568	1263	0				183	0	525
Grp Sat Flow(s),veh/h/ln	0	1900	1605	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	28.7	9.9	14.5	18.5	0.0				8.3	0.0	14.4
Cycle Q Clear(g_c), s	0.0	28.7	9.9	14.5	18.5	0.0				8.3	0.0	14.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2578	726	585	3498	0				328	0	583
V/C Ratio(X)	0.00	0.81	0.37	0.97	0.36	0.00				0.56	0.00	0.90
Avail Cap(c_a), veh/h	0	2578	726	585	3498	0				328	0	583
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.22	0.22	0.59	0.59	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.3	16.2	42.3	18.6	0.0				33.6	0.0	36.1
Incr Delay (d2), s/veh	0.0	0.7	0.3	22.3	0.2	0.0				6.7	0.0	19.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.4	3.3	8.5	8.4	0.0				4.2	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.0	16.5	64.7	18.8	0.0				40.3	0.0	55.5
LnGrp LOS		A	C	B	E	B	A			D	A	E
Approach Vol, veh/h		2363			1831					708		
Approach Delay, s/veh		21.4			33.0					51.6		
Approach LOS		C			C					D		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	30.0	47.2		22.8		67.2						
Change Period (Y+Rc), s	5.0	6.5		6.5		6.5						
Max Green Setting (Gmax), s	15.0	40.7		16.3		60.7						
Max Q Clear Time (g_c+1/5), s	11.0	30.7		16.4		20.5						
Green Ext Time (p_c), s	0.0	8.5		0.0		8.4						

Intersection Summary

HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	600	1650	0	0	1530	540	210	0	370	0	0	0
Future Volume (veh/h)	600	1650	0	0	1530	540	210	0	370	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	632	1737	0	0	1611	293	329	0	190			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	702	3458	0	0	2132	662	684	0	304			
Arrive On Green	0.20	0.67	0.00	0.00	0.41	0.41	0.19	0.00	0.19			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	3619	0	1610			
Grp Volume(v), veh/h	632	1737	0	0	1611	293	329	0	190			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	15.8	15.1	0.0	0.0	23.9	11.8	7.3	0.0	9.8			
Cycle Q Clear(g_c), s	15.8	15.1	0.0	0.0	23.9	11.8	7.3	0.0	9.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	702	3458	0	0	2132	662	684	0	304			
V/C Ratio(X)	0.90	0.50	0.00	0.00	0.76	0.44	0.48	0.00	0.62			
Avail Cap(c_a), veh/h	702	3458	0	0	2132	662	684	0	304			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.19	0.19	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.1	7.5	0.0	0.0	22.6	19.1	32.6	0.0	33.6			
Incr Delay (d2), s/veh	4.0	0.1	0.0	0.0	2.5	2.1	2.4	0.0	9.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.7	4.2	0.0	0.0	9.2	4.4	3.4	0.0	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	7.6	0.0	0.0	25.2	21.2	35.0	0.0	42.9			
LnGrp LOS	D	A	A	A	C	C	C	A	D			
Approach Vol, veh/h		2369			1904			519				
Approach Delay, s/veh		16.0			24.6			37.9				
Approach LOS		B			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.5			23.0	43.5		23.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		60.0			18.0	37.0		17.0				
Max Q Clear Time (g_c+I1), s		17.1			17.8	25.9		11.8				
Green Ext Time (p_c), s		14.0			0.0	7.9		0.7				
Intersection Summary												
HCM 6th Ctrl Delay					21.8							
HCM 6th LOS					C							
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↑↑↑		↗	↑↑↑		↗	↑↑↑		↗	↑↑↑	↗
Traffic Volume (veh/h)	270	1030	170	260	1200	270	110	1190	220	170	1440	150
Future Volume (veh/h)	270	1030	170	260	1200	270	110	1190	220	170	1440	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	284	1084	71	274	1263	176	116	1253	204	179	1516	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	1271	83	227	1176	164	308	1139	185	319	1346	416
Arrive On Green	0.13	0.26	0.26	0.13	0.26	0.26	0.13	0.25	0.25	0.13	0.26	0.26
Sat Flow, veh/h	1810	4972	325	1810	4601	641	1810	4490	731	1810	5187	1601
Grp Volume(v), veh/h	284	754	401	274	949	490	116	965	492	179	1516	51
Grp Sat Flow(s),veh/h/ln	1810	1729	1839	1810	1729	1785	1810	1729	1763	1810	1729	1601
Q Serve(g_s), s	11.3	18.7	18.7	11.3	23.0	23.0	3.8	22.8	22.8	6.1	23.4	2.2
Cycle Q Clear(g_c), s	11.3	18.7	18.7	11.3	23.0	23.0	3.8	22.8	22.8	6.1	23.4	2.2
Prop In Lane	1.00		0.18	1.00		0.36	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	227	884	470	227	884	456	308	877	447	319	1346	416
V/C Ratio(X)	1.25	0.85	0.85	1.21	1.07	1.07	0.38	1.10	1.10	0.56	1.13	0.12
Avail Cap(c_a), veh/h	227	884	470	227	884	456	321	877	447	321	1346	416
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	31.9	31.9	39.3	33.5	33.5	21.4	33.6	33.6	21.8	33.3	25.5
Incr Delay (d2), s/veh	143.6	8.3	14.6	119.7	48.5	58.0	1.1	61.4	72.4	2.8	66.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	8.2	9.5	12.2	14.8	16.4	1.6	16.5	18.2	2.6	17.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	182.9	40.2	46.5	159.0	82.0	91.5	22.5	95.0	106.0	24.5	100.2	26.1
LnGrp LOS	F	D	D	F	F	F	C	F	F	C	F	C
Approach Vol, veh/h		1439			1713			1573			1746	
Approach Delay, s/veh		70.1			97.1			93.1			90.2	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.6	28.6	16.0	28.8	16.0	29.2	16.0	28.8				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.7	* 11	23.0	* 12	22.7	* 11	23.0				
Max Q Clear Time (g_c+I1), s	8.1	24.8	13.3	20.7	5.8	25.4	13.3	25.0				
Green Ext Time (p_c), s	0.2	0.0	0.0	1.7	0.2	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	88.3
HCM 6th LOS	F

Notes

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

HCM 6th Signalized Intersection Summary
2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑				↕			↕	
Traffic Volume (veh/h)	50	1340	50	80	1500	80	50	170	50	80	170	70
Future Volume (veh/h)	50	1340	50	80	1500	80	50	170	50	80	170	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	1411	27	84	1579	44	53	179	42	84	179	60
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	2593	50	111	2636	73	125	317	68	158	262	79
Arrive On Green	0.05	0.49	0.49	0.06	0.51	0.51	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1810	5239	100	1810	5187	145	225	1253	268	340	1037	314
Grp Volume(v), veh/h	53	931	507	84	1053	570	274	0	0	323	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1881	1810	1729	1873	1746	0	0	1690	0	0
Q Serve(g_s), s	1.8	11.7	11.7	2.9	13.5	13.5	0.0	0.0	0.0	2.3	0.0	0.0
Cycle Q Clear(g_c), s	1.8	11.7	11.7	2.9	13.5	13.5	8.4	0.0	0.0	10.7	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.08	0.19		0.15	0.26		0.19
Lane Grp Cap(c), veh/h	87	1712	931	111	1757	952	510	0	0	500	0	0
V/C Ratio(X)	0.61	0.54	0.54	0.76	0.60	0.60	0.54	0.00	0.00	0.65	0.00	0.00
Avail Cap(c_a), veh/h	158	1959	1066	184	2008	1088	775	0	0	756	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.3	11.0	11.0	29.0	10.9	10.9	20.6	0.0	0.0	21.4	0.0	0.0
Incr Delay (d2), s/veh	13.9	0.6	1.1	19.9	0.7	1.4	1.9	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	3.9	1.7	4.0	4.5	3.5	0.0	0.0	4.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	11.5	12.0	49.0	11.7	12.3	22.5	0.0	0.0	24.4	0.0	0.0
LnGrp LOS	D	B	B	D	B	B	C	A	A	C	A	A
Approach Vol, veh/h	1491				1707		274		323			
Approach Delay, s/veh	12.8				13.7		22.5		24.4			
Approach LOS	B				B		C		C			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.8	35.1	19.9		7.0	35.9	19.9					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	4.0	35.6	26.0		5.5	36.5	26.0					
Max Q Clear Time (g_c+14), s	4.0	13.7	12.7		3.8	15.5	10.4					
Green Ext Time (p_c), s	0.0	15.5	2.8		0.0	16.4	2.5					
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖ ↑	↗		↖ ↑	↗	
Traffic Volume (veh/h)	260	1180	90	130	1470	80	130	430	60	70	630	50
Future Volume (veh/h)	260	1180	90	130	1470	80	130	430	60	70	630	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	274	1242	42	137	1547	38	137	453	59	74	663	47
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	7070	239	141	7145	175	147	439	57	80	911	65
Arrive On Green	0.08	1.00	1.00	0.16	1.00	1.00	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	5152	174	1810	5207	128	750	1646	214	902	3418	242
Grp Volume(v), veh/h	274	834	450	137	1027	558	137	0	512	74	350	360
Grp Sat Flow(s),veh/h/ln	1810	1729	1868	1810	1729	1877	750	0	1860	902	1805	1855
Q Serve(g_s), s	7.0	0.0	0.0	6.8	0.0	0.0	8.1	0.0	24.0	0.0	15.9	15.9
Cycle Q Clear(g_c), s	7.0	0.0	0.0	6.8	0.0	0.0	24.0	0.0	24.0	24.0	15.9	15.9
Prop In Lane	1.00		0.09	1.00		0.07	1.00		0.12	1.00		0.13
Lane Grp Cap(c), veh/h	141	4745	2564	141	4745	2575	147	0	496	80	481	495
V/C Ratio(X)	1.95	0.18	0.18	0.97	0.22	0.22	0.93	0.00	1.03	0.92	0.73	0.73
Avail Cap(c_a), veh/h	141	4745	2564	141	4745	2575	147	0	496	80	481	495
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.56	0.56	0.56	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	0.0	0.0	37.9	0.0	0.0	43.0	0.0	33.0	45.0	30.0	30.0
Incr Delay (d2), s/veh	450.9	0.1	0.1	49.5	0.1	0.1	54.5	0.0	49.0	77.4	6.7	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.6	0.1	0.1	4.6	0.0	0.1	5.2	0.0	16.9	3.3	7.4	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	492.4	0.1	0.1	87.5	0.1	0.1	97.5	0.0	82.0	122.4	36.7	36.6
LnGrp LOS	F	A	A	F	A	A	F	A	F	F	D	D
Approach Vol, veh/h	1558		1722		649		784					
Approach Delay, s/veh	86.7		7.0		85.2		44.7					
Approach LOS	F		A		F		D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	30.5		14.0		133.0		30.5		14.0		133.0	
Change Period (Y+Rc), s	6.5		7.0		7.0		* 6.5		7.0		* 7	
Max Green Setting (Gmax), s	22.5		7.0		40.0		* 24		7.0		* 41	
Max Q Clear Time (g_c+I1), s	26.0		8.8		2.0		26.0		9.0		2.0	
Green Ext Time (p_c), s	0.0		0.0		19.7		0.0		0.0		25.6	

Intersection Summary

HCM 6th Ctrl Delay	50.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙ ↑↑↑ ↘			↙ ↑↑↑ ↘				↙ ↑↑ ↘		↙ ↘	↙ ↑↑ ↘	
Traffic Volume (veh/h)	70	1210	50	60	1500	110	80	500	50	70	450	100
Future Volume (veh/h)	70	1210	50	60	1500	110	80	500	50	70	450	100
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	0.90	1.00	1.00	0.90
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	1274	25	63	1579	54	84	526	14	74	474	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	96	1965	39	81	1891	65	145	806	516	138	779	516
Arrive On Green	0.04	0.25	0.25	0.04	0.37	0.37	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	5236	103	1810	5149	176	252	2255	1443	229	2177	1443
Grp Volume(v), veh/h	74	841	458	63	1060	573	223	387	14	188	360	27
Grp Sat Flow(s),veh/h/ln	1810	1729	1881	1810	1729	1867	864	1643	1443	764	1643	1443
Q Serve(g_s), s	3.7	19.6	19.6	3.1	25.2	25.2	9.1	17.8	0.6	7.5	16.2	1.1
Cycle Q Clear(g_c), s	3.7	19.6	19.6	3.1	25.2	25.2	25.3	17.8	0.6	25.3	16.2	1.1
Prop In Lane	1.00		0.05	1.00		0.09	0.38		1.00	0.39		1.00
Lane Grp Cap(c), veh/h	96	1298	706	81	1270	686	364	587	516	329	587	516
V/C Ratio(X)	0.77	0.65	0.65	0.77	0.83	0.84	0.61	0.66	0.03	0.57	0.61	0.05
Avail Cap(c_a), veh/h	101	1298	706	101	1270	686	556	821	722	515	821	722
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	0.13	0.13	0.13	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	28.4	28.4	42.5	26.0	26.0	28.2	24.3	18.8	28.0	23.8	18.9
Incr Delay (d2), s/veh	21.0	1.9	3.5	3.0	0.9	1.7	1.7	1.3	0.0	1.6	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	8.6	9.6	1.4	9.5	10.5	4.4	6.5	0.2	3.7	5.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	30.3	31.9	45.5	26.9	27.7	29.9	25.6	18.8	29.6	24.8	19.0
LnGrp LOS	E	C	C	D	C	C	C	C	C	B	C	C
Approach Vol, veh/h	1373		1696				624		575			
Approach Delay, s/veh	32.7		27.9				27.0		26.1			
Approach LOS	C		C				C		C			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	1.0	40.8	38.2		11.8	40.0	38.2					
Change Period (Y+Rc), s	7.0	7.0	6.0		7.0	7.0	6.0					
Max Green Setting (Gmax), s	5.0	20.0	45.0		5.0	20.0	45.0					
Max Q Clear Time (g_c+1.5), s	1.5	21.6	27.3		5.7	27.2	27.3					
Green Ext Time (p_c), s	0.0	0.0	2.8		0.0	0.0	3.3					

Intersection Summary

HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑	↖	↖ ↑ ↑ ↗			↖ ↑ ↑ ↑	↖	
Traffic Volume (veh/h)	280	880	140	40	1130	950	240	980	70	800	930	210
Future Volume (veh/h)	280	880	140	40	1130	950	240	980	70	800	930	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	283	889	39	40	1141	563	242	990	68	808	939	183
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	332	1325	409	158	1067	329	213	1020	70	585	2135	812
Arrive On Green	0.09	0.26	0.26	0.04	0.21	0.21	0.12	0.21	0.21	0.32	0.41	0.41
Sat Flow, veh/h	3510	5187	1601	3510	5187	1598	1810	4954	340	1810	5187	1604
Grp Volume(v), veh/h	283	889	39	40	1141	563	242	690	368	808	939	183
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1598	1810	1729	1836	1810	1729	1604
Q Serve(g_s), s	13.5	26.2	3.2	1.9	35.0	35.0	20.0	33.7	33.8	55.0	22.1	10.8
Cycle Q Clear(g_c), s	13.5	26.2	3.2	1.9	35.0	35.0	20.0	33.7	33.8	55.0	22.1	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	332	1325	409	158	1067	329	213	712	378	585	2135	812
V/C Ratio(X)	0.85	0.67	0.10	0.25	1.07	1.71	1.14	0.97	0.97	1.38	0.44	0.23
Avail Cap(c_a), veh/h	619	1372	424	413	1067	329	213	712	378	585	2135	812
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	75.8	56.9	48.3	78.5	67.5	67.5	75.0	67.0	67.1	57.5	36.0	23.4
Incr Delay (d2), s/veh	4.7	1.3	0.1	0.6	47.9	332.9	103.6	26.5	39.1	181.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	11.3	1.3	0.9	19.9	44.5	15.3	17.3	19.7	54.1	9.3	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.5	58.2	48.4	79.1	115.5	400.4	178.6	93.6	106.1	239.4	36.2	23.6
LnGrp LOS	F	E	D	E	F	F	F	F	F	F	D	C
Approach Vol, veh/h		1211			1744			1300			1930	
Approach Delay, s/veh		63.1			206.6			112.9			120.1	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	62.0	42.0	15.1	50.9	27.0	77.0	23.6	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+Y), s	57.0	35.8	3.9	28.2	22.0	24.1	15.5	37.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.9	0.0	12.4	0.6	0.0				

Intersection Summary

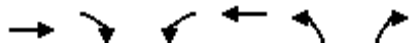
HCM 6th Ctrl Delay	131.8
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖	↑↑↑	↖↗	↗
Traffic Volume (veh/h)	1720	90	60	1780	150	140
Future Volume (veh/h)	1720	90	60	1780	150	140
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1811	73	63	1874	158	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	3427	1060	96	4133	245	112
Arrive On Green	0.66	0.66	0.05	0.80	0.07	0.07
Sat Flow, veh/h	5358	1604	1810	5358	3510	1610
Grp Volume(v), veh/h	1811	73	63	1874	158	15
Grp Sat Flow(s),veh/h/ln	1729	1604	1810	1729	1755	1610
Q Serve(g_s), s	16.4	1.5	3.1	10.3	3.9	0.8
Cycle Q Clear(g_c), s	16.4	1.5	3.1	10.3	3.9	0.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3427	1060	96	4133	245	112
V/C Ratio(X)	0.53	0.07	0.66	0.45	0.64	0.13
Avail Cap(c_a), veh/h	3427	1060	251	4133	800	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.63	0.63	1.00	1.00
Uniform Delay (d), s/veh	8.0	5.4	41.8	2.9	40.8	39.3
Incr Delay (d2), s/veh	0.1	0.0	3.6	0.2	2.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.3	1.4	1.1	1.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.0	5.4	45.4	3.1	43.6	39.8
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1884			1937	173	
Approach Delay, s/veh	7.9			4.5	43.3	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	2.3	67.0			79.2	10.8
Change Period (Y+Rc), s	7.5	* 7.5			7.5	4.5
Max Green Setting (Gmax), s	12.5	* 38			57.5	20.5
Max Q Clear Time (g_c+1/4), s	15.1	18.4			12.3	5.9
Green Ext Time (p_c), s	0.0	10.2			18.9	0.4

Intersection Summary

HCM 6th Ctrl Delay		7.8	
HCM 6th LOS		A	

Notes

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

Intersection

Intersection Delay, s/veh 11.1

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	10	0	390	10	0	0	30	240	20	60	0
Future Vol, veh/h	0	10	0	390	10	0	0	30	240	20	60	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	411	11	0	0	32	253	21	63	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	9.2	11.8	10.5	9.5
HCM LOS	A	B	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	95%	50%	0%
Vol Thru, %	100%	0%	100%	0%	5%	50%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	240	10	199	201	40	40
LT Vol	0	0	0	199	191	20	0
Through Vol	30	0	10	0	10	20	40
RT Vol	0	240	0	0	0	0	0
Lane Flow Rate	32	253	11	209	212	42	42
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.051	0.357	0.018	0.344	0.346	0.073	0.07
Departure Headway (Hd)	5.797	5.09	6.125	5.914	5.889	6.261	6.008
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	614	702	588	601	605	567	590
Service Time	3.569	2.861	4.125	3.713	3.688	4.061	3.807
HCM Lane V/C Ratio	0.052	0.36	0.019	0.348	0.35	0.074	0.071
HCM Control Delay	8.9	10.7	9.2	11.8	11.8	9.6	9.3
HCM Lane LOS	A	B	A	B	B	A	A
HCM 95th-tile Q	0.2	1.6	0.1	1.5	1.5	0.2	0.2

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	270	0	0	440	0
Future Vol, veh/h	0	0	0	0	0	0	0	270	0	0	440	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	284	0	0	463	0

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	605	747	232	516	747	142	463	0	0	284	0	0
Stage 1	463	463	-	284	284	-	-	-	-	-	-	-
Stage 2	142	284	-	232	463	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	386	344	776	446	344	886	1109	-	-	1290	-	-
Stage 1	554	568	-	705	680	-	-	-	-	-	-	-
Stage 2	852	680	-	756	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	386	344	776	446	344	886	1109	-	-	1290	-	-
Mov Cap-2 Maneuver	386	344	-	446	344	-	-	-	-	-	-	-
Stage 1	554	568	-	705	680	-	-	-	-	-	-	-
Stage 2	852	680	-	756	568	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1109	-	-	-	-	1290	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary
9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	1290	280	70	1300	10	290	90	90	10	260	160
Future Volume (veh/h)	170	1290	280	70	1300	10	290	90	90	10	260	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	179	1358	215	74	1368	10	305	95	10	11	274	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	220	2188	679	131	2152	16	285	843	376	372	843	
Arrive On Green	0.12	0.42	0.42	0.07	0.41	0.41	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1810	5187	1610	1810	5312	39	1123	3610	1610	1309	3610	1610
Grp Volume(v), veh/h	179	1358	215	74	891	487	305	95	10	11	274	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1893	1123	1805	1610	1309	1805	1610
Q Serve(g_s), s	7.4	15.8	6.9	3.0	15.9	15.9	13.1	1.6	0.4	0.5	4.9	0.0
Cycle Q Clear(g_c), s	7.4	15.8	6.9	3.0	15.9	15.9	18.0	1.6	0.4	2.1	4.9	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	220	2188	679	131	1401	767	285	843	376	372	843	
V/C Ratio(X)	0.82	0.62	0.32	0.57	0.64	0.64	1.07	0.11	0.03	0.03	0.32	
Avail Cap(c_a), veh/h	293	2961	919	164	1840	1007	285	843	376	372	843	
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	0.00
Uniform Delay (d), s/veh	33.0	17.5	14.9	34.6	18.4	18.4	34.1	23.3	22.8	24.1	24.5	0.0
Incr Delay (d2), s/veh	12.3	0.4	0.4	1.4	0.7	1.3	73.2	0.1	0.0	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	5.2	2.1	1.3	5.4	6.0	11.1	0.7	0.1	0.2	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	17.9	15.2	36.0	19.1	19.6	107.3	23.3	22.8	24.1	24.9	0.0
LnGrp LOS	D	B	B	D	B	B	F	C	C	C	C	
Approach Vol, veh/h		1752			1452			410			285	A
Approach Delay, s/veh		20.3			20.1			85.8			24.9	
Approach LOS		C			C			F			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	39.5		25.0	13.9	38.2		25.0				
Change Period (Y+Rc), s	7.0	7.0		7.0	4.5	7.0		7.0				
Max Green Setting (Gmax), s	7.0	44.0		18.0	12.5	41.0		18.0				
Max Q Clear Time (g_c+I1), s	5.0	17.8		6.9	9.4	17.9		20.0				
Green Ext Time (p_c), s	0.0	14.7		1.7	0.1	12.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	330	90	190	430	80	100	280	50	50	580	180
Future Volume (veh/h)	60	330	90	190	430	80	100	280	50	50	580	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	347	20	200	453	22	105	295	19	53	611	65
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	273	601	265	337	733	324	370	1283	570	504	1227	545
Arrive On Green	0.06	0.17	0.17	0.09	0.20	0.20	0.07	0.36	0.36	0.05	0.34	0.34
Sat Flow, veh/h	1810	3610	1596	1810	3610	1598	1810	3610	1603	1810	3610	1603
Grp Volume(v), veh/h	63	347	20	200	453	22	105	295	19	53	611	65
Grp Sat Flow(s),veh/h/ln	1810	1805	1596	1810	1805	1598	1810	1805	1603	1810	1805	1603
Q Serve(g_s), s	2.3	7.2	0.9	7.4	9.3	0.9	3.0	4.6	0.6	1.5	10.9	2.3
Cycle Q Clear(g_c), s	2.3	7.2	0.9	7.4	9.3	0.9	3.0	4.6	0.6	1.5	10.9	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	601	265	337	733	324	370	1283	570	504	1227	545
V/C Ratio(X)	0.23	0.58	0.08	0.59	0.62	0.07	0.28	0.23	0.03	0.11	0.50	0.12
Avail Cap(c_a), veh/h	306	1205	533	337	1272	563	382	1283	570	545	1227	545
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	25.6	31.1	28.5	25.4	29.4	26.1	15.9	18.3	17.0	15.5	21.2	18.4
Incr Delay (d2), s/veh	0.5	1.3	0.2	2.8	1.2	0.1	0.5	0.4	0.1	0.1	1.4	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	0.9	3.0	0.3	3.2	3.8	0.3	1.1	1.8	0.2	0.6	4.4	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.1	32.3	28.6	28.2	30.6	26.2	16.4	18.7	17.1	15.6	22.7	18.8
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	C	B
Approach Vol, veh/h		430			675			419			729	
Approach Delay, s/veh		31.3			29.7			18.1			21.8	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	35.8	14.0	20.0	12.4	34.5	11.0	22.9				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	6.0	27.5	7.5	27.0	6.0	27.5	6.0	28.5				
Max Q Clear Time (g_c+1), s	13.5	6.6	9.4	9.2	5.0	12.9	4.3	11.3				
Green Ext Time (p_c), s	0.0	2.3	0.0	2.6	0.0	4.7	0.0	3.5				
Intersection Summary												
HCM 6th Ctrl Delay											25.3	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖↗	↖	↖	↖↗	
Traffic Volume (veh/h)	30	480	360	240	670	100	120	220	100	70	840	120
Future Volume (veh/h)	30	480	360	240	670	100	120	220	100	70	840	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	505	239	253	705	93	126	232	27	74	884	112
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	168	490	231	237	858	113	157	1073	479	95	848	107
Arrive On Green	0.02	0.21	0.21	0.08	0.27	0.27	0.17	0.59	0.59	0.05	0.26	0.26
Sat Flow, veh/h	1810	2375	1119	1810	3204	422	1810	3610	1610	1810	3221	408
Grp Volume(v), veh/h	32	383	361	253	397	401	126	232	27	74	495	501
Grp Sat Flow(s),veh/h/ln	1810	1805	1689	1810	1805	1821	1810	1805	1610	1810	1805	1824
Q Serve(g_s), s	1.1	16.5	16.5	6.5	16.5	16.5	5.4	2.4	0.6	3.2	21.1	21.1
Cycle Q Clear(g_c), s	1.1	16.5	16.5	6.5	16.5	16.5	5.4	2.4	0.6	3.2	21.1	21.1
Prop In Lane	1.00		0.66	1.00		0.23	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	168	372	348	237	483	488	157	1073	479	95	476	480
V/C Ratio(X)	0.19	1.03	1.04	1.07	0.82	0.82	0.80	0.22	0.06	0.78	1.04	1.04
Avail Cap(c_a), veh/h	189	372	348	237	483	488	204	1073	479	113	476	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	0.87	0.87	0.87
Uniform Delay (d), s/veh	25.3	31.7	31.8	27.7	27.5	27.5	32.4	11.9	11.5	37.4	29.5	29.5
Incr Delay (d2), s/veh	0.2	54.4	57.8	77.4	10.6	10.6	12.2	0.5	0.2	17.5	49.8	49.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	12.1	11.7	6.2	7.8	7.9	2.6	0.9	0.2	1.8	14.9	15.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	86.1	89.5	105.2	38.1	38.1	44.6	12.3	11.7	55.0	79.3	79.1
LnGrp LOS	C	F	F	F	D	D	D	B	B	D	F	F
Approach Vol, veh/h		776			1051			385			1070	
Approach Delay, s/veh		85.2			54.3			22.9			77.5	
Approach LOS		F			D			C			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	30.8	14.0	24.0	13.9	28.1	9.1	28.9				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	23.0	6.5	16.5	9.0	19.0	2.5	20.5				
Max Q Clear Time (g_c+1/2), s	11.2	4.4	8.5	18.5	7.4	23.1	3.1	18.5				
Green Ext Time (p_c), s	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	65.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	20	50	390	20	110	30	350	160	60	1350	20
Future Volume (veh/h)	20	20	50	390	20	110	30	350	160	60	1350	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	21	5	426	0	22	32	368	61	63	1421	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	84	20	564	0	248	39	1624	721	68	1697	24
Arrive On Green	0.06	0.06	0.06	0.16	0.00	0.16	0.01	0.15	0.15	0.08	0.93	0.93
Sat Flow, veh/h	1810	1483	353	3619	0	1595	1810	3610	1601	1810	3644	51
Grp Volume(v), veh/h	21	0	26	426	0	22	32	368	61	63	703	738
Grp Sat Flow(s),veh/h/ln	1810	0	1836	1810	0	1595	1810	1805	1601	1810	1805	1890
Q Serve(g_s), s	0.9	0.0	1.1	9.0	0.0	0.9	1.4	7.2	2.6	2.8	9.7	9.7
Cycle Q Clear(g_c), s	0.9	0.0	1.1	9.0	0.0	0.9	1.4	7.2	2.6	2.8	9.7	9.7
Prop In Lane	1.00		0.19	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	103	0	104	564	0	248	39	1624	721	68	841	881
V/C Ratio(X)	0.20	0.00	0.25	0.76	0.00	0.09	0.81	0.23	0.08	0.93	0.84	0.84
Avail Cap(c_a), veh/h	158	0	161	950	0	419	68	1624	721	68	841	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	36.0	0.0	36.1	32.3	0.0	28.9	39.6	21.8	19.9	36.9	1.8	1.8
Incr Delay (d2), s/veh	0.4	0.0	0.5	1.6	0.0	0.1	36.5	0.3	0.2	17.4	1.0	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	0.4	0.0	0.5	4.0	0.0	0.4	1.0	3.0	0.9	1.4	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	0.0	36.6	33.9	0.0	29.0	76.1	22.1	20.1	54.3	2.8	2.7
LnGrp LOS	D	A	D	C	A	C	E	C	C	D	A	A
Approach Vol, veh/h		47			448			461			1504	
Approach Delay, s/veh		36.5			33.6			25.6			4.9	
Approach LOS		D			C			C			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	43.0		9.5	8.7	44.3		17.5				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	30.0	25.0		7.0	3.0	25.0		21.0				
Max Q Clear Time (g_c+1/4), s	14.8	9.2		3.1	3.4	11.7		11.0				
Green Ext Time (p_c), s	0.0	2.5		0.0	0.0	6.2		1.0				

Intersection Summary

HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↵	↵	↵↵	↵	↵↵↵			↵↵↵	↵
Traffic Volume (veh/h)	0	0	0	520	0	140	220	380	0	0	1330	520
Future Volume (veh/h)	0	0	0	520	0	140	220	380	0	0	1330	520
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				547	0	38	232	400	0	0	1400	375
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				720	0	641	268	3403	0	0	2311	713
Arrive On Green				0.20	0.00	0.20	0.30	1.00	0.00	0.00	0.15	0.15
Sat Flow, veh/h				3619	0	3220	1810	5358	0	0	5358	1601
Grp Volume(v), veh/h				547	0	38	232	400	0	0	1400	375
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1601
Q Serve(g_s), s				11.4	0.0	0.8	9.7	0.0	0.0	0.0	20.2	17.3
Cycle Q Clear(g_c), s				11.4	0.0	0.8	9.7	0.0	0.0	0.0	20.2	17.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				720	0	641	268	3403	0	0	2311	713
V/C Ratio(X)				0.76	0.00	0.06	0.87	0.12	0.00	0.00	0.61	0.53
Avail Cap(c_a), veh/h				923	0	821	362	3403	0	0	2311	713
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.38	0.38
Uniform Delay (d), s/veh				30.2	0.0	26.0	27.4	0.0	0.0	0.0	27.5	26.3
Incr Delay (d2), s/veh				4.3	0.0	0.1	10.4	0.1	0.0	0.0	0.5	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.2	0.0	0.3	4.1	0.0	0.0	0.0	9.2	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.5	0.0	26.1	37.8	0.1	0.0	0.0	28.0	27.4
LnGrp LOS				C	A	C	D	A	A	A	C	C
Approach Vol, veh/h					585			632			1775	
Approach Delay, s/veh					34.0			13.9			27.9	
Approach LOS					C			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		58.3			16.8	41.4		21.7				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			11.7	22.2		13.4				
Green Ext Time (p_c), s		2.1			0.1	3.4		2.5				

Intersection Summary

HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↘	↙					↑ ↑ ↑		↖ ↗	↑ ↑ ↑	
Traffic Volume (veh/h)	90	0	240	0	0	0	0	500	410	380	1480	0
Future Volume (veh/h)	90	0	240	0	0	0	0	500	410	380	1480	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	95	0	171				0	526	248	400	1558	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	769	0	684				0	1152	524	450	3333	0
Arrive On Green	0.21	0.00	0.21				0.00	0.33	0.33	0.08	0.21	0.00
Sat Flow, veh/h	3619	0	3220				0	3647	1582	1810	5358	0
Grp Volume(v), veh/h	95	0	171				0	523	251	400	1558	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1601	1810	1729	0
Q Serve(g_s), s	1.7	0.0	3.5				0.0	9.5	9.9	17.5	21.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	3.5				0.0	9.5	9.9	17.5	21.0	0.0
Prop In Lane	1.00		1.00				0.00		0.99	1.00		0.00
Lane Grp Cap(c), veh/h	769	0	684				0	1146	530	450	3333	0
V/C Ratio(X)	0.12	0.00	0.25				0.00	0.46	0.47	0.89	0.47	0.00
Avail Cap(c_a), veh/h	769	0	684				0	1146	530	611	3333	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.66	0.66	0.00
Uniform Delay (d), s/veh	25.5	0.0	26.2				0.0	21.1	21.2	35.6	19.5	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.9				0.0	1.3	3.0	6.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.4				0.0	3.7	3.8	9.2	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	0.0	27.1				0.0	22.4	24.2	42.4	19.9	0.0
LnGrp LOS	C	A	C				A	C	C	D	B	A
Approach Vol, veh/h		266						774			1958	
Approach Delay, s/veh		26.6						23.0			24.5	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	24.9	32.3	22.8	57.2								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	27.0	19.0	17.0	51.4								
Max Q Clear Time (g_c+119), s	119.5	11.9	5.5	23.0								
Green Ext Time (p_c), s	0.4	2.3	1.5	10.5								

Intersection Summary

HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 15: Archibald Ave & Jurupa St

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	130	30	1210	90	120	30	90	380	30	20	20
Future Volume (veh/h)	30	130	30	1210	90	120	30	90	380	30	20	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	137	6	1274	95	66	32	95	55	32	21	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	199	209	177	1644	863	731	63	180	268	63	154	22
Arrive On Green	0.11	0.11	0.11	0.45	0.45	0.45	0.03	0.09	0.09	0.03	0.09	0.09
Sat Flow, veh/h	1810	1900	1610	3619	1900	1610	1810	1900	2834	1810	1626	232
Grp Volume(v), veh/h	32	137	6	1274	95	66	32	95	55	32	0	24
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1417	1810	0	1858
Q Serve(g_s), s	0.9	4.1	0.2	17.4	1.7	1.4	1.0	2.8	1.1	1.0	0.0	0.7
Cycle Q Clear(g_c), s	0.9	4.1	0.2	17.4	1.7	1.4	1.0	2.8	1.1	1.0	0.0	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	199	209	177	1644	863	731	63	180	268	63	0	176
V/C Ratio(X)	0.16	0.66	0.03	0.78	0.11	0.09	0.51	0.53	0.21	0.51	0.00	0.14
Avail Cap(c_a), veh/h	1326	1392	1179	2928	1537	1303	154	1181	1762	154	0	1155
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	0.00	1.00
Uniform Delay (d), s/veh	23.7	25.1	23.3	13.5	9.2	9.1	27.8	25.3	24.5	27.8	0.0	24.4
Incr Delay (d2), s/veh	0.4	3.5	0.1	0.8	0.1	0.1	6.3	2.4	0.4	6.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.8	0.1	6.3	0.6	0.4	0.5	1.3	0.4	0.5	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	28.5	23.4	14.3	9.3	9.2	34.1	27.7	24.9	34.1	0.0	24.7
LnGrp LOS	C	C	C	B	A	A	C	C	C	C	A	C
Approach Vol, veh/h		175			1435			182			56	
Approach Delay, s/veh		27.5			13.7			28.0			30.1	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	10.1		11.0	6.5	10.1		31.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	36.5		43.0	5.0	36.5		47.5				
Max Q Clear Time (g_c+1), s	13.0	4.8		6.1	3.0	2.7		19.4				
Green Ext Time (p_c), s	0.0	0.8		0.8	0.0	0.1		7.3				

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↑↑	↗	↖	↑↑	↗
Traffic Volume (veh/h)	20	0	30	20	0	20	30	420	20	20	1400	20
Future Volume (veh/h)	20	0	30	20	0	20	30	420	20	20	1400	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.98	0.98		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	0	4	21	0	2	32	442	15	21	1474	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	160	0	104	128	3	7	99	2590	1151	76	2544	1131
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.05	0.72	0.72	0.04	0.70	0.70
Sat Flow, veh/h	1529	0	1581	1071	41	106	1810	3610	1605	1810	3610	1604
Grp Volume(v), veh/h	21	0	4	23	0	0	32	442	15	21	1474	15
Grp Sat Flow(s),veh/h/ln	1529	0	1581	1218	0	0	1810	1805	1605	1810	1805	1604
Q Serve(g_s), s	0.0	0.0	0.3	1.6	0.0	0.0	2.0	4.7	0.3	1.3	24.5	0.3
Cycle Q Clear(g_c), s	1.4	0.0	0.3	3.0	0.0	0.0	2.0	4.7	0.3	1.3	24.5	0.3
Prop In Lane	1.00		1.00	0.91		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	160	0	104	137	0	0	99	2590	1151	76	2544	1131
V/C Ratio(X)	0.13	0.00	0.04	0.17	0.00	0.00	0.32	0.17	0.01	0.28	0.58	0.01
Avail Cap(c_a), veh/h	452	0	435	434	0	0	196	2590	1151	196	2544	1131
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	0.00	1.00	1.00	0.00	0.00	0.96	0.96	0.96	0.65	0.65	0.65
Uniform Delay (d), s/veh	53.0	0.0	52.5	54.2	0.0	0.0	54.6	5.5	4.8	55.7	8.8	5.3
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.7	0.0	0.0	2.2	0.1	0.0	1.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	0.7	0.0	0.0	1.0	1.5	0.1	0.6	8.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	0.0	52.7	54.8	0.0	0.0	56.8	5.6	4.9	57.2	9.5	5.3
LnGrp LOS	D	A	D	D	A	A	E	A	A	E	A	A
Approach Vol, veh/h		25			23			489			1510	
Approach Delay, s/veh		53.3			54.8			8.9			10.1	
Approach LOS		D			D			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	93.1		14.9	13.6	91.6		14.9				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1), s	13.3	6.7		3.4	4.0	26.5		5.0				
Green Ext Time (p_c), s	0.0	6.0		0.1	0.0	19.4		0.1				

Intersection Summary
































HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			  			  	
Traffic Volume (veh/h)	140	1080	310	110	1060	50	230	240	140	80	1020	230
Future Volume (veh/h)	140	1080	310	110	1060	50	230	240	140	80	1020	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	1137	243	116	1116	49	242	253	0	84	1074	242
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	183	1873	579	171	1805	79	109	1585		388	1292	291
Arrive On Green	0.10	0.36	0.36	0.09	0.35	0.35	0.31	0.31	0.00	0.31	0.31	0.31
Sat Flow, veh/h	1810	5187	1603	1810	5093	223	424	5187	1610	1141	4229	952
Grp Volume(v), veh/h	147	1137	243	116	757	408	242	253	0	84	878	438
Grp Sat Flow(s),veh/h/ln	1810	1729	1603	1810	1729	1859	424	1729	1610	1141	1729	1723
Q Serve(g_s), s	7.2	16.1	10.3	5.6	16.3	16.3	6.2	3.2	0.0	5.2	21.3	21.3
Cycle Q Clear(g_c), s	7.2	16.1	10.3	5.6	16.3	16.3	27.5	3.2	0.0	8.4	21.3	21.3
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	183	1873	579	171	1226	659	109	1585		388	1057	526
V/C Ratio(X)	0.80	0.61	0.42	0.68	0.62	0.62	2.22	0.16		0.22	0.83	0.83
Avail Cap(c_a), veh/h	432	1873	579	211	1226	659	109	1585		388	1057	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	0.92	0.92	0.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	39.6	23.5	21.7	39.4	24.0	24.0	44.2	22.8	0.0	25.9	29.1	29.1
Incr Delay (d2), s/veh	5.1	1.2	1.9	3.7	2.3	4.3	573.4	0.1	0.0	0.3	4.8	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	6.0	3.7	2.5	6.3	7.1	19.8	1.2	0.0	1.4	8.8	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	24.8	23.5	43.1	26.4	28.3	617.6	22.9	0.0	26.2	33.9	38.3
LnGrp LOS	D	C	C	D	C	C	F	C		C	C	D
Approach Vol, veh/h		1527			1281			495	A		1400	
Approach Delay, s/veh		26.5			28.5			313.6			34.8	
Approach LOS		C			C			F			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	40.0		34.0	16.6	39.4		34.0				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	10.5	30.5		27.5	21.5	19.5		27.5				
Max Q Clear Time (g_c+I1), s	7.6	18.1		23.3	9.2	18.3		29.5				
Green Ext Time (p_c), s	0.0	9.1		3.1	0.2	1.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	59.7
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	170	280	30	60	80	130	410	30	60	980	330
Future Volume (veh/h)	190	170	280	30	60	80	130	410	30	60	980	330
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	200	179	64	32	63	10	137	432	13	63	1032	227
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	236	510	176	99	427	188	170	1482	659	110	1956	605
Arrive On Green	0.13	0.19	0.19	0.05	0.12	0.12	0.09	0.41	0.41	0.06	0.38	0.38
Sat Flow, veh/h	1810	2627	906	1810	3610	1590	1810	3610	1604	1810	5187	1604
Grp Volume(v), veh/h	200	121	122	32	63	10	137	432	13	63	1032	227
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1810	1805	1590	1810	1805	1604	1810	1729	1604
Q Serve(g_s), s	10.0	5.4	5.7	1.6	1.5	0.5	6.9	7.4	0.4	3.1	14.4	9.5
Cycle Q Clear(g_c), s	10.0	5.4	5.7	1.6	1.5	0.5	6.9	7.4	0.4	3.1	14.4	9.5
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	236	351	336	99	427	188	170	1482	659	110	1956	605
V/C Ratio(X)	0.85	0.35	0.36	0.32	0.15	0.05	0.80	0.29	0.02	0.57	0.53	0.38
Avail Cap(c_a), veh/h	390	486	466	390	972	428	390	1482	659	390	1956	605
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	39.4	32.3	32.4	42.2	36.7	36.3	41.2	18.3	16.3	42.4	22.5	21.0
Incr Delay (d2), s/veh	4.1	0.4	0.5	0.7	0.1	0.1	3.4	0.5	0.1	1.8	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.3	2.3	0.7	0.6	0.2	3.1	3.0	0.2	1.4	5.6	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	32.7	32.9	42.9	36.8	36.4	44.6	18.8	16.3	44.2	23.5	22.8
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	C
Approach Vol, veh/h		443			105			582			1322	
Approach Delay, s/veh		37.7			38.7			24.8			24.4	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	44.6	11.6	24.5	15.2	41.5	18.6	17.5				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	11.5	9.4	3.6	7.7	8.9	16.4	12.0	3.5				
Green Ext Time (p_c), s	0.0	3.2	0.0	0.9	0.1	8.5	0.2	0.2				

Intersection Summary

HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	20	70	50	20	20	70	460	60	40	1270	20
Future Volume (veh/h)	50	20	70	50	20	20	70	460	60	40	1270	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	21	11	53	21	3	74	484	30	42	1337	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	335	161	136	513	226	122	2219	686	93	2168	32
Arrive On Green	0.08	0.14	0.14	0.08	0.14	0.14	0.07	0.43	0.43	0.05	0.41	0.41
Sat Flow, veh/h	1810	2355	1132	1810	3610	1593	1810	5187	1605	1810	5265	79
Grp Volume(v), veh/h	53	16	16	53	21	3	74	484	30	42	878	479
Grp Sat Flow(s),veh/h/ln	1810	1805	1682	1810	1805	1593	1810	1729	1605	1810	1729	1885
Q Serve(g_s), s	2.4	0.6	0.7	2.4	0.4	0.1	3.4	5.0	0.9	1.9	17.2	17.2
Cycle Q Clear(g_c), s	2.4	0.6	0.7	2.4	0.4	0.1	3.4	5.0	0.9	1.9	17.2	17.2
Prop In Lane	1.00		0.67	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	136	256	239	136	513	226	122	2219	686	93	1424	776
V/C Ratio(X)	0.39	0.06	0.07	0.39	0.04	0.01	0.60	0.22	0.04	0.45	0.62	0.62
Avail Cap(c_a), veh/h	190	884	824	190	1769	781	163	2219	686	148	1424	776
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	37.8	31.8	31.9	37.8	31.7	31.6	38.9	15.5	14.3	39.5	19.9	19.9
Incr Delay (d2), s/veh	0.7	0.1	0.1	0.7	0.0	0.0	1.8	0.2	0.1	1.3	2.0	3.7
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	1.1	0.3	0.3	1.1	0.2	0.1	1.5	1.8	0.4	0.9	6.5	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	31.9	31.9	38.4	31.8	31.6	40.6	15.7	14.4	40.7	21.9	23.5
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h		85			77			588			1399	
Approach Delay, s/veh		36.0			36.3			18.8			23.0	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	43.2	13.0	18.7	12.3	41.8	13.0	18.7				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	36.0	9.0	42.0	7.7	35.3	9.0	42.0					
Max Q Clear Time (g_c+1), s	7.0	4.4	2.7	5.4	19.2	4.4	2.4					
Green Ext Time (p_c), s	0.0	3.9	0.0	0.1	0.0	8.8	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	70	560	430	480	550	50	300	460	230	50	1280	80
Future Volume (veh/h)	70	560	430	480	550	50	300	460	230	50	1280	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	589	209	505	579	17	316	484	87	53	1347	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	281	769	341	568	1064	472	387	1693	523	177	1381	426
Arrive On Green	0.08	0.21	0.21	0.16	0.29	0.29	0.11	0.33	0.33	0.05	0.27	0.27
Sat Flow, veh/h	3510	3610	1599	3510	3610	1602	3510	5187	1603	3510	5187	1601
Grp Volume(v), veh/h	74	589	209	505	579	17	316	484	87	53	1347	24
Grp Sat Flow(s),veh/h/ln	1755	1805	1599	1755	1805	1602	1755	1729	1603	1755	1729	1601
Q Serve(g_s), s	2.2	17.3	13.3	15.9	15.2	0.9	9.9	7.8	4.4	1.6	29.0	1.3
Cycle Q Clear(g_c), s	2.2	17.3	13.3	15.9	15.2	0.9	9.9	7.8	4.4	1.6	29.0	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	769	341	568	1064	472	387	1693	523	177	1381	426
V/C Ratio(X)	0.26	0.77	0.61	0.89	0.54	0.04	0.82	0.29	0.17	0.30	0.98	0.06
Avail Cap(c_a), veh/h	623	961	426	623	1064	472	623	1693	523	623	1381	426
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	48.7	41.7	40.1	46.2	33.4	28.3	49.0	28.2	27.0	51.6	41.0	30.8
Incr Delay (d2), s/veh	0.4	3.2	2.2	13.6	0.7	0.0	3.4	0.4	0.7	0.7	19.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	7.7	5.2	7.7	6.4	0.3	4.4	3.2	1.7	0.7	14.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.1	44.9	42.3	59.9	34.0	28.3	52.4	28.6	27.7	52.3	59.9	31.0
LnGrp LOS	D	D	D	E	C	C	D	C	C	D	E	C
Approach Vol, veh/h		872			1101			887			1424	
Approach Delay, s/veh		44.6			45.8			37.0			59.2	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	42.2	43.3	25.7	31.5	18.9	36.5	16.5	40.7				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1), s	13.6	9.8	17.9	19.3	11.9	31.0	4.2	17.2				
Green Ext Time (p_c), s	0.1	3.8	0.4	3.7	0.5	0.0	0.1	3.3				

Intersection Summary

HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘	↔	↗	↘	↗	↗		↑↑↑	↗
Traffic Volume (veh/h)	0	0	0	400	0	300	480	690	0	0	1820	430
Future Volume (veh/h)	0	0	0	400	0	300	480	690	0	0	1820	430
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				465	0	94	505	726	0	0	1916	265
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				852	0	379	702	3297	0	0	2484	608
Arrive On Green				0.24	0.00	0.24	0.07	0.21	0.00	0.00	0.38	0.38
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1600
Grp Volume(v), veh/h				465	0	94	505	726	0	0	1916	265
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1600
Q Serve(g_s), s				10.1	0.0	4.3	12.7	10.4	0.0	0.0	23.1	11.1
Cycle Q Clear(g_c), s				10.1	0.0	4.3	12.7	10.4	0.0	0.0	23.1	11.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				852	0	379	702	3297	0	0	2484	608
V/C Ratio(X)				0.55	0.00	0.25	0.72	0.22	0.00	0.00	0.77	0.44
Avail Cap(c_a), veh/h				852	0	379	702	3297	0	0	2484	608
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.90	0.90	0.00	0.00	0.32	0.32
Uniform Delay (d), s/veh				30.2	0.0	27.9	39.6	17.1	0.0	0.0	24.5	20.7
Incr Delay (d2), s/veh				2.5	0.0	1.6	5.7	0.1	0.0	0.0	0.8	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
%ile BackOfQ(50%),veh/ln				4.6	0.0	4.3	6.4	4.2	0.0	0.0	8.2	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.7	0.0	29.5	45.2	17.2	0.0	0.0	25.2	21.5
LnGrp LOS				C	A	C	D	B	A	A	C	C
Approach Vol, veh/h					559			1231			2181	
Approach Delay, s/veh					32.1			28.7			24.8	
Approach LOS					C			C			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		63.0		27.0	23.0	40.0						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		57.2		21.2	18.0	34.2						
Max Q Clear Time (g_c+I1), s		12.4		12.1	14.7	25.1						
Green Ext Time (p_c), s		5.2		1.5	0.4	7.4						

Intersection Summary

HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	0	410	0	0	0	0	940	480	520	1700	0
Future Volume (veh/h)	160	0	410	0	0	0	0	940	480	520	1700	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	112	0	430				0	989	164	547	1789	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	611	0	1088				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.16	0.53	0.00
Sat Flow, veh/h	1810	0	3220				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	112	0	430				0	989	164	547	1789	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	3.9	0.0	9.2				0.0	10.9	7.0	14.0	22.1	0.0
Cycle Q Clear(g_c), s	3.9	0.0	9.2				0.0	10.9	7.0	14.0	22.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	611	0	1088				0	2106	515	546	2766	0
V/C Ratio(X)	0.18	0.00	0.40				0.00	0.47	0.32	1.00	0.65	0.00
Avail Cap(c_a), veh/h	611	0	1088				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.57	0.57	0.00
Uniform Delay (d), s/veh	21.0	0.0	22.8				0.0	24.4	23.0	38.0	15.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.1				0.0	0.8	1.6	29.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.5				0.0	4.0	2.7	7.9	7.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	0.0	23.9				0.0	25.1	24.7	67.5	15.6	0.0
LnGrp LOS	C	A	C				A	C	C	F	B	A
Approach Vol, veh/h		542						1153			2336	
Approach Delay, s/veh		23.4						25.0			27.8	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+110), s	11.0	12.9					24.1	11.2				
Green Ext Time (p_c), s	0.0	6.3					13.8	2.0				

Intersection Summary

HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	230	0	450	0	2930	0	0	2040	970	0	0
Future Volume (veh/h)	230	0	450	0	2930	0	0	2040	970	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	242	242	454	0	3084	0	0	2440	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	563	563	1002	0	3791	0	0	4408			
Arrive On Green	0.31	0.31	0.31	0.00	0.58	0.00	0.00	0.58	0.00		
Sat Flow, veh/h	1810	1810	3220	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	242	242	454	0	3084	0	0	2440	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	0	0	1900	1610		
Q Serve(g_s), s	10.6	10.6	11.3	0.0	37.5	0.0	0.0	19.9	0.0		
Cycle Q Clear(g_c), s	10.6	10.6	11.3	0.0	37.5	0.0	0.0	19.9	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	563	563	1002	0	3791	0	0	4408			
V/C Ratio(X)	0.43	0.43	0.45	0.00	0.81	0.00	0.00	0.55			
Avail Cap(c_a), veh/h	563	563	1002	0	3791	0	0	4408			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	27.4	27.4	27.6	0.0	16.7	0.0	0.0	13.0	0.0		
Incr Delay (d2), s/veh	2.4	2.4	1.5	0.0	2.0	0.0	0.0	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.9	4.9	4.5	0.0	12.4	0.0	0.0	7.6	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	29.8	29.8	29.1	0.0	18.7	0.0	0.0	13.5	0.0		
LnGrp LOS	C	C	C	A	B	A	A	B			
Approach Vol, veh/h	696	696			3084			2440	A		
Approach Delay, s/veh	29.3	29.3			18.7			13.5			
Approach LOS	C	C			B			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	63.8		36.2		63.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	58.0		31.1		58.0						
Max Q Clear Time (g_c+I1), s	39.5		13.3		21.9						
Green Ext Time (p_c), s	15.5		1.3		19.1						

Intersection Summary

HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	620	0	390	0	3180	830	0	1790	0	0	0
Future Volume (veh/h)	620	0	390	0	3180	830	0	1790	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No			No			No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	653	653	391	0	3347	0	0	1884	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	581	581	1034	0	3726		0	3726	0		
Arrive On Green	0.32	0.32	0.32	0.00	0.57	0.00	0.00	0.57	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	653	653	391	0	3347	0	0	1884	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	32.1	32.1	9.4	0.0	45.1	0.0	0.0	17.4	0.0		
Cycle Q Clear(g_c), s	32.1	32.1	9.4	0.0	45.1	0.0	0.0	17.4	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	581	581	1034	0	3726		0	3726	0		
V/C Ratio(X)	1.12	1.12	0.38	0.00	0.90		0.00	0.51	0.00		
Avail Cap(c_a), veh/h	581	581	1034	0	3726		0	3726	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.27	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	33.9	33.9	26.2	0.0	18.9	0.0	0.0	13.0	0.0		
Incr Delay (d2), s/veh	76.4	76.4	1.1	0.0	1.1	0.0	0.0	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	26.0	26.0	3.7	0.0	15.8	0.0	0.0	5.8	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	110.4	110.4	27.3	0.0	20.1	0.0	0.0	13.5	0.0		
LnGrp LOS	F	F	C	A	C		A	B	A		
Approach Vol, veh/h	1044	1044			3347	A		1884			
Approach Delay, s/veh	79.2	79.2			20.1			13.5			
Approach LOS	E	E			C			B			
Timer - Assigned Phs		2		4		6					
Phs Duration (G+Y+Rc), s		62.8		37.2		62.8					
Change Period (Y+Rc), s		5.8		5.1		5.8					
Max Green Setting (Gmax), s		57.0		32.1		57.0					
Max Q Clear Time (g_c+I1), s		47.1		34.1		19.4					
Green Ext Time (p_c), s		9.4		0.0		12.5					

Intersection Summary

HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖↗	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	400	100	210	70	60	290	80	2950	120	200	1870	120
Future Volume (veh/h)	400	100	210	70	60	290	80	2950	120	200	1870	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	421	105	38	74	63	30	84	3105	63	211	1968	66
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	464	219	183	260	109	162	193	3550	872	263	3679	904
Arrive On Green	0.13	0.12	0.12	0.07	0.06	0.06	0.05	0.54	0.54	0.07	0.56	0.56
Sat Flow, veh/h	3510	1900	1589	3510	1900	2834	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	421	105	38	74	63	30	84	3105	63	211	1968	66
Grp Sat Flow(s),veh/h/ln	1755	1900	1589	1755	1900	1417	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	16.6	7.2	3.0	2.8	4.5	1.4	3.2	57.9	2.6	8.3	26.4	2.6
Cycle Q Clear(g_c), s	16.6	7.2	3.0	2.8	4.5	1.4	3.2	57.9	2.6	8.3	26.4	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	219	183	260	109	162	193	3550	872	263	3679	904
V/C Ratio(X)	0.91	0.48	0.21	0.28	0.58	0.19	0.44	0.87	0.07	0.80	0.53	0.07
Avail Cap(c_a), veh/h	464	387	324	464	387	577	602	3550	872	602	3679	904
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	0.28	0.28	0.28	0.86	0.86	0.86
Uniform Delay (d), s/veh	59.9	58.0	56.2	61.3	64.4	62.9	64.0	27.8	15.2	63.8	19.1	13.9
Incr Delay (d2), s/veh	21.0	0.6	0.2	0.2	1.8	0.2	0.2	1.0	0.0	1.9	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	3.5	1.2	1.2	2.2	0.5	1.4	21.3	0.9	3.7	9.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.9	58.6	56.4	61.5	66.2	63.1	64.2	28.8	15.3	65.6	19.6	14.1
LnGrp LOS	F	E	E	E	E	E	E	C	B	E	B	B
Approach Vol, veh/h		564			167			3252			2245	
Approach Delay, s/veh		75.1			63.6			29.5			23.8	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	83.0	16.9	22.6	14.7	85.8	25.0	14.5				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	24.0	42.0	18.5	28.5	24.0	42.0	18.5	28.5				
Max Q Clear Time (g_c+10), s	11.0	59.9	4.8	9.2	5.2	28.4	18.6	6.5				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.2	0.1	9.2	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↓		↔↔	↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	430	640	670	70	670	740	720	2250	50	30	1750	170
Future Volume (veh/h)	430	640	670	70	670	740	720	2250	50	30	1750	170
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	434	646	585	71	677	501	727	2273	21	30	1768	85
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	483	638	567	111	893	398	652	2681	658	80	1617	396
Arrive On Green	0.14	0.35	0.35	0.03	0.25	0.25	0.19	0.41	0.41	0.02	0.25	0.25
Sat Flow, veh/h	3510	1805	1603	3510	3610	1610	3510	6536	1604	3510	6536	1600
Grp Volume(v), veh/h	434	646	585	71	677	501	727	2273	21	30	1768	85
Grp Sat Flow(s),veh/h/ln	1755	1805	1603	1755	1805	1610	1755	1634	1604	1755	1634	1600
Q Serve(g_s), s	19.7	57.1	57.1	3.2	28.1	40.0	30.0	50.8	1.3	1.4	40.0	6.8
Cycle Q Clear(g_c), s	19.7	57.1	57.1	3.2	28.1	40.0	30.0	50.8	1.3	1.4	40.0	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	483	638	567	111	893	398	652	2681	658	80	1617	396
V/C Ratio(X)	0.90	1.01	1.03	0.64	0.76	1.26	1.12	0.85	0.03	0.37	1.09	0.21
Avail Cap(c_a), veh/h	652	638	567	652	893	398	652	2681	658	652	1617	396
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	68.6	52.3	52.3	77.4	56.3	60.8	65.8	43.1	28.5	77.8	60.8	48.3
Incr Delay (d2), s/veh	10.4	38.8	46.3	2.3	3.8	134.8	71.5	2.8	0.0	1.1	52.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	32.0	29.6	1.5	13.0	30.8	19.5	20.1	0.5	0.6	22.1	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.0	91.0	98.6	79.7	60.1	195.6	137.3	45.9	28.5	78.9	113.2	48.7
LnGrp LOS	E	F	F	E	E	F	F	D	C	E	F	D
Approach Vol, veh/h		1665			1249			3021			1883	
Approach Delay, s/veh		90.5			115.6			67.8			109.7	
Approach LOS		F			F			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	73.8	12.1	64.5	37.5	47.5	29.2	47.4				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+1/4), s	13.4	52.8	5.2	59.1	32.0	42.0	21.7	42.0				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0	0.6	0.0				

Intersection Summary

HCM 6th Ctrl Delay	90.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑↑ ↗		↖	↖	↖	↖		↕	
Traffic Volume (veh/h)	160	570	20	30	1400	120	20	0	50	260	0	380
Future Volume (veh/h)	160	570	20	30	1400	120	20	0	50	260	0	380
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	600	19	32	1474	42	21	0	19	274	0	302
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	2030	64	62	1633	507	407	0	605	314	0	292
Arrive On Green	0.11	0.39	0.39	0.03	0.31	0.31	0.38	0.00	0.38	0.38	0.00	0.38
Sat Flow, veh/h	1810	5166	163	1810	5187	1610	1094	0	1610	705	0	777
Grp Volume(v), veh/h	168	401	218	32	1474	42	21	0	19	576	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1871	1810	1729	1610	1094	0	1610	1481	0	0
Q Serve(g_s), s	9.7	8.5	8.5	1.9	29.0	2.0	0.0	0.0	0.8	39.2	0.0	0.0
Cycle Q Clear(g_c), s	9.7	8.5	8.5	1.9	29.0	2.0	1.6	0.0	0.8	40.0	0.0	0.0
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	0.48		0.52
Lane Grp Cap(c), veh/h	204	1359	735	62	1633	507	407	0	605	606	0	0
V/C Ratio(X)	0.82	0.30	0.30	0.51	0.90	0.08	0.05	0.00	0.03	0.95	0.00	0.00
Avail Cap(c_a), veh/h	594	1948	1054	153	1655	514	407	0	605	606	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.2	22.2	22.2	50.6	34.9	25.7	21.3	0.0	21.0	34.3	0.0	0.0
Incr Delay (d2), s/veh	8.1	0.2	0.3	6.4	7.4	0.1	0.2	0.0	0.1	26.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.3	3.6	0.9	12.6	0.7	0.4	0.0	0.3	19.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	22.4	22.5	56.9	42.4	25.8	21.5	0.0	21.1	60.5	0.0	0.0
LnGrp LOS	D	C	C	E	D	C	C	A	C	E	A	A
Approach Vol, veh/h	787			1548			40			576		
Approach Delay, s/veh	29.2			42.2			21.3			60.5		
Approach LOS	C			D			C			E		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	47.0	10.7	48.9		47.0	19.0	40.5					
Change Period (Y+Rc), s	7.0	7.0	7.0		7.0	7.0	7.0					
Max Green Setting (Gmax), s	40.0	9.0	60.0		40.0	35.0	34.0					
Max Q Clear Time (g_c+1), s	3.6	3.9	10.5		42.0	11.7	31.0					
Green Ext Time (p_c), s	0.2	0.0	5.9		0.0	0.4	2.5					

Intersection Summary

HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	700	60	80	1180	20	80	0	60	20	0	20
Future Volume (veh/h)	0	700	60	80	1180	20	80	0	60	20	0	20
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	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	737	54	84	1242	20	84	0	26	21	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3067	224	110	1417	23	220	0	133	126	4	5
Arrive On Green	0.00	0.62	0.62	0.06	0.76	0.76	0.08	0.00	0.08	0.08	0.00	0.08
Sat Flow, veh/h	1810	4932	360	1810	1865	30	1660	0	1582	585	43	60
Grp Volume(v), veh/h	0	516	275	84	0	1262	84	0	26	23	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1834	1810	0	1895	1660	0	1582	687	0	0
Q Serve(g_s), s	0.0	6.0	6.0	4.1	0.0	43.1	0.0	0.0	1.4	1.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.0	6.0	4.1	0.0	43.1	4.1	0.0	1.4	5.3	0.0	0.0
Prop In Lane	1.00		0.20	1.00		0.02	1.00		1.00	0.91		0.09
Lane Grp Cap(c), veh/h	2	2150	1140	110	0	1440	220	0	133	134	0	0
V/C Ratio(X)	0.00	0.24	0.24	0.77	0.00	0.88	0.38	0.00	0.20	0.17	0.00	0.00
Avail Cap(c_a), veh/h	322	2150	1140	322	0	1440	684	0	650	593	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.97	0.97	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.6	7.6	41.6	0.0	7.8	39.6	0.0	38.4	41.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.5	10.5	0.0	7.8	1.1	0.0	0.7	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	2.1	2.1	0.0	12.3	1.9	0.0	0.5	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.8	8.1	52.2	0.0	15.5	40.7	0.0	39.1	42.0	0.0	0.0
LnGrp LOS	A	A	A	D	A	B	D	A	D	D	A	A
Approach Vol, veh/h	791		1346		110		23					
Approach Delay, s/veh	7.9		17.8		40.3		42.0					
Approach LOS	A		B		D		D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	14.6		12.5		63.0		14.6		0.0		75.4	
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0		7.0		7.0	
Max Green Setting (Gmax), s	37.0		16.0		16.0		37.0		16.0		16.0	
Max Q Clear Time (g_c+1), s	6.1		6.1		8.0		7.3		0.0		45.1	
Green Ext Time (p_c), s	0.5		0.1		2.9		0.1		0.0		0.0	
Intersection Summary												
HCM 6th Ctrl Delay			15.7									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖	↑↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	520	681	110	270	761	160	250	1850	360	20	1750	852
Future Volume (veh/h)	520	681	110	270	761	160	250	1850	360	20	1750	852
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	547	717	31	284	801	46	263	1947	130	21	1842	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	595	1480	457	327	755	337	195	2633	646	61	2151	
Arrive On Green	0.17	0.29	0.29	0.09	0.21	0.21	0.11	0.40	0.40	0.03	0.33	0.00
Sat Flow, veh/h	3510	5187	1602	3510	3610	1610	1810	6536	1604	1810	6536	1610
Grp Volume(v), veh/h	547	717	31	284	801	46	263	1947	130	21	1842	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1602	1755	1805	1610	1810	1634	1604	1810	1634	1610
Q Serve(g_s), s	24.9	18.6	2.3	13.0	34.0	3.8	17.5	41.2	8.6	1.8	42.8	0.0
Cycle Q Clear(g_c), s	24.9	18.6	2.3	13.0	34.0	3.8	17.5	41.2	8.6	1.8	42.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	595	1480	457	327	755	337	195	2633	646	61	2151	
V/C Ratio(X)	0.92	0.48	0.07	0.87	1.06	0.14	1.35	0.74	0.20	0.34	0.86	
Avail Cap(c_a), veh/h	702	1532	473	400	755	337	195	2633	646	100	2252	
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	0.00
Uniform Delay (d), s/veh	66.4	48.2	42.3	72.7	64.2	52.3	72.5	41.3	31.5	76.7	50.9	0.0
Incr Delay (d2), s/veh	14.7	0.2	0.1	13.7	50.0	0.2	187.3	1.2	0.2	1.2	3.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	8.0	0.9	6.4	20.6	1.5	18.1	16.1	3.3	0.9	17.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.1	48.4	42.4	86.4	114.2	52.5	259.8	42.4	31.7	77.9	54.4	0.0
LnGrp LOS	F	D	D	F	F	D	F	D	C	E	D	
Approach Vol, veh/h		1295			1131			2340			1863	A
Approach Delay, s/veh		62.1			104.7			66.3			54.7	
Approach LOS		E			F			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.0	73.0	22.7	53.9	25.0	61.0	35.0	41.5				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	9.0	64.5	18.5	48.0	17.5	56.0	32.5	34.0				
Max Q Clear Time (g_c+1), s	13.8	43.2	15.0	20.6	19.5	44.8	26.9	36.0				
Green Ext Time (p_c), s	0.0	15.6	0.2	4.9	0.0	8.7	0.6	0.0				

Intersection Summary

HCM 6th Ctrl Delay	68.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑	↑↑		↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	160	791	20	20	901	40	0	0	20	20	0	240
Future Volume (veh/h)	160	791	20	20	901	40	0	0	20	20	0	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	833	19	21	948	19	0	0	9	21	0	162
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	390	3019	69	464	2089	928	137	0	309	404	367	309
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.58	0.00	0.00	0.19	0.19	0.00	0.19
Sat Flow, veh/h	590	5217	119	657	3610	1603	1243	0	1598	1418	1900	1598
Grp Volume(v), veh/h	168	552	300	21	948	19	0	0	9	21	0	162
Grp Sat Flow(s),veh/h/ln	590	1729	1878	657	1805	1603	1243	0	1598	1418	1900	1598
Q Serve(g_s), s	12.0	4.2	4.2	0.9	7.9	0.3	0.0	0.0	0.2	0.6	0.0	4.8
Cycle Q Clear(g_c), s	19.9	4.2	4.2	5.1	7.9	0.3	0.0	0.0	0.2	0.9	0.0	4.8
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	390	2001	1087	464	2089	928	137	0	309	404	367	309
V/C Ratio(X)	0.43	0.28	0.28	0.05	0.45	0.02	0.00	0.00	0.03	0.05	0.00	0.53
Avail Cap(c_a), veh/h	1170	6576	3572	1333	6865	3049	795	0	1155	1155	1373	1155
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	5.6	5.6	6.8	6.3	4.7	0.0	0.0	17.2	17.6	0.0	19.0
Incr Delay (d2), s/veh	0.8	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.9	1.0	0.1	1.7	0.1	0.0	0.0	0.1	0.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.8	5.6	5.7	6.9	6.5	4.7	0.0	0.0	17.3	17.6	0.0	20.4
LnGrp LOS	B	A	A	A	A	A	A	A	B	B	A	C
Approach Vol, veh/h	1020			988			9			183		
Approach Delay, s/veh	6.8			6.5			17.3			20.1		
Approach LOS	A			A			B			C		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	15.2		37.4		15.2		37.4					
Change Period (Y+Rc), s	5.0		7.0		5.0		7.0					
Max Green Setting (Gmax), s	38.0		100.0		38.0		100.0					
Max Q Clear Time (g_c+I1), s	2.2		21.9		6.8		9.9					
Green Ext Time (p_c), s	0.0		8.6		0.6		7.9					
Intersection Summary												
HCM 6th Ctrl Delay			7.8									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑	↗	↖	↖		↖↗	↑	↗
Traffic Volume (veh/h)	90	771	20	40	1001	200	20	20	20	470	20	100
Future Volume (veh/h)	90	771	20	40	1001	200	20	20	20	470	20	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	812	6	42	1054	0	21	21	6	495	21	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	2185	674	91	1448		66	134	38	429	344	289
Arrive On Green	0.07	0.42	0.42	0.02	0.13	0.00	0.04	0.09	0.09	0.12	0.18	0.18
Sat Flow, veh/h	1810	5187	1601	1810	3610	1610	1810	1415	404	3510	1900	1597
Grp Volume(v), veh/h	95	812	6	42	1054	0	21	0	27	495	21	34
Grp Sat Flow(s),veh/h/ln	1810	1729	1601	1810	1805	1610	1810	0	1820	1755	1900	1597
Q Serve(g_s), s	4.6	9.7	0.2	2.1	25.2	0.0	1.0	0.0	1.2	11.0	0.8	1.6
Cycle Q Clear(g_c), s	4.6	9.7	0.2	2.1	25.2	0.0	1.0	0.0	1.2	11.0	0.8	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	128	2185	674	91	1448		66	0	173	429	344	289
V/C Ratio(X)	0.74	0.37	0.01	0.46	0.73		0.32	0.00	0.16	1.15	0.06	0.12
Avail Cap(c_a), veh/h	161	2185	674	161	1448		161	0	344	429	422	355
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.89	0.89	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	17.9	15.1	43.0	34.3	0.0	42.3	0.0	37.4	39.5	30.5	30.9
Incr Delay (d2), s/veh	13.7	0.5	0.0	3.8	2.9	0.0	1.0	0.0	0.3	92.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.6	0.1	1.0	12.5	0.0	0.5	0.0	0.5	10.2	0.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.8	18.3	15.2	46.8	37.2	0.0	43.3	0.0	37.7	132.2	30.6	31.0
LnGrp LOS	D	B	B	D	D		D	A	D	F	C	C
Approach Vol, veh/h		913			1096	A		48			550	
Approach Delay, s/veh		22.1			37.6			40.2			122.0	
Approach LOS		C			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	15.5	11.6	44.9	10.3	23.3	13.3	43.1				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	18.0	17.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+fl), s	18.0	3.2	4.1	11.7	3.0	3.6	6.6	27.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.1	0.0	0.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	50.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑			↖ ↑↑	↖ ↑↑		↖ ↑↑		
Traffic Volume (veh/h)	140	941	30	80	1151	110	30	20	40	30	20	30
Future Volume (veh/h)	140	941	30	80	1151	110	30	20	40	30	20	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	991	30	84	1212	103	32	21	15	32	21	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	3264	99	109	2874	244	187	182	116	185	204	98
Arrive On Green	0.03	0.21	0.21	0.06	0.59	0.59	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1810	5173	156	1810	4869	414	1377	2103	1334	1372	2352	1127
Grp Volume(v), veh/h	147	662	359	84	861	454	32	18	18	32	16	16
Grp Sat Flow(s),veh/h/ln	1810	1729	1871	1810	1729	1824	1377	1805	1632	1372	1805	1674
Q Serve(g_s), s	7.3	14.6	14.6	4.1	12.2	12.2	2.0	0.8	0.9	2.0	0.7	0.8
Cycle Q Clear(g_c), s	7.3	14.6	14.6	4.1	12.2	12.2	2.8	0.8	0.9	2.9	0.7	0.8
Prop In Lane	1.00		0.08	1.00		0.23	1.00		0.82	1.00		0.67
Lane Grp Cap(c), veh/h	182	2182	1181	109	2041	1077	187	156	141	185	156	145
V/C Ratio(X)	0.81	0.30	0.30	0.77	0.42	0.42	0.17	0.11	0.13	0.17	0.10	0.11
Avail Cap(c_a), veh/h	241	2182	1181	281	2041	1077	511	582	526	508	582	539
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	18.9	18.9	41.7	10.1	10.1	39.2	37.9	38.0	39.3	37.9	37.9
Incr Delay (d2), s/veh	7.7	0.3	0.5	3.2	0.5	0.9	0.4	0.3	0.4	0.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	6.7	7.3	1.8	3.9	4.3	0.7	0.4	0.4	0.7	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.4	19.2	19.4	44.9	10.5	10.9	39.6	38.2	38.4	39.8	38.1	38.3
LnGrp LOS	D	B	B	D	B	B	D	D	D	D	D	D
Approach Vol, veh/h	1168			1399			68			64		
Approach Delay, s/veh	23.2			12.7			38.9			39.0		
Approach LOS	C			B			D			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	13.8	12.4	63.8		13.8	16.1	60.1					
Change Period (Y+Rc), s	6.0	7.0	7.0		6.0	7.0	7.0					
Max Green Setting (Gmax), s	29.0	14.0	27.0		29.0	12.0	29.0					
Max Q Clear Time (g_c+I1), s	4.8	6.1	16.6		4.9	9.3	14.2					
Green Ext Time (p_c), s	0.2	0.0	5.6		0.2	0.0	9.1					
Intersection Summary												
HCM 6th Ctrl Delay			18.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑		↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	130	761	110	590	891	190	200	850	530	180	810	160
Future Volume (veh/h)	130	761	110	590	891	190	200	850	530	180	810	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	801	23	621	938	180	211	895	303	189	853	62
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	309	1168	360	676	1440	275	283	1346	415	283	1345	415
Arrive On Green	0.09	0.23	0.23	0.19	0.33	0.33	0.08	0.26	0.26	0.08	0.26	0.26
Sat Flow, veh/h	3510	5187	1599	3510	4368	835	3510	5187	1601	3510	5187	1601
Grp Volume(v), veh/h	137	801	23	621	742	376	211	895	303	189	853	62
Grp Sat Flow(s),veh/h/ln	1755	1729	1599	1755	1729	1745	1755	1729	1601	1755	1729	1601
Q Serve(g_s), s	4.6	17.5	1.4	21.5	22.7	22.8	7.3	19.1	21.4	6.5	18.1	3.7
Cycle Q Clear(g_c), s	4.6	17.5	1.4	21.5	22.7	22.8	7.3	19.1	21.4	6.5	18.1	3.7
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	1168	360	676	1140	575	283	1346	415	283	1345	415
V/C Ratio(X)	0.44	0.69	0.06	0.92	0.65	0.65	0.74	0.67	0.73	0.67	0.63	0.15
Avail Cap(c_a), veh/h	709	1675	517	709	1140	575	709	1675	517	709	1675	517
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	53.6	44.0	37.7	49.1	35.4	35.5	55.7	41.0	41.9	55.3	40.7	35.3
Incr Delay (d2), s/veh	0.7	0.9	0.1	16.5	1.4	2.8	2.9	0.8	4.4	2.0	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	7.4	0.5	10.7	9.4	9.8	3.2	7.9	8.7	2.9	7.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	44.8	37.8	65.5	36.8	38.3	58.6	41.9	46.3	57.3	41.3	35.5
LnGrp LOS	D	D	D	E	D	D	E	D	D	E	D	D
Approach Vol, veh/h		961			1739			1409			1104	
Approach Delay, s/veh		46.0			47.4			45.3			43.7	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	39.6	18.4	48.3	17.5	39.6	31.3	35.4				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1), s	19.3	20.1	6.6	24.8	8.5	23.4	23.5	19.5				
Green Ext Time (p_c), s	0.4	6.4	0.3	7.1	0.4	7.2	0.3	6.0				

Intersection Summary

HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	160	1261	20	30	1591	150	0	20	30	130	20	80
Future Volume (veh/h)	160	1261	20	30	1591	150	0	20	30	130	20	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	1327	21	32	1675	151	0	21	10	137	21	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	2714	43	95	2216	199	2	204	171	168	472	398
Arrive On Green	0.11	0.52	0.52	0.05	0.46	0.46	0.00	0.11	0.11	0.09	0.25	0.25
Sat Flow, veh/h	1810	5259	83	1810	4842	436	1810	1900	1588	1810	1900	1600
Grp Volume(v), veh/h	168	872	476	32	1195	631	0	21	10	137	21	36
Grp Sat Flow(s),veh/h/ln	1810	1729	1885	1810	1729	1820	1810	1900	1588	1810	1900	1600
Q Serve(g_s), s	9.4	16.9	16.9	1.8	29.7	29.8	0.0	1.0	0.6	7.7	0.9	1.8
Cycle Q Clear(g_c), s	9.4	16.9	16.9	1.8	29.7	29.8	0.0	1.0	0.6	7.7	0.9	1.8
Prop In Lane	1.00		0.04	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	1784	972	95	1583	833	2	204	171	168	472	398
V/C Ratio(X)	0.84	0.49	0.49	0.34	0.76	0.76	0.00	0.10	0.06	0.82	0.04	0.09
Avail Cap(c_a), veh/h	314	2168	1182	157	1868	983	140	678	567	262	806	679
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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	16.2	16.2	47.4	23.3	23.3	0.0	41.8	41.6	46.2	29.6	29.9
Incr Delay (d2), s/veh	6.3	0.3	0.5	0.8	1.6	3.1	0.0	0.2	0.1	8.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	6.1	6.7	0.8	11.4	12.4	0.0	0.5	0.2	3.9	0.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	16.5	16.7	48.2	24.9	26.4	0.0	41.9	41.7	54.7	29.6	30.0
LnGrp LOS	D	B	B	D	C	C	A	D	D	D	C	C
Approach Vol, veh/h	1516				1858		31				194	
Approach Delay, s/veh	20.4				25.8		41.8				47.4	
Approach LOS	C				C		D				D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.6	16.1	12.4	60.5	0.0	30.8	18.5	54.5				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	15.0	37.0	9.0	65.0	8.0	44.0	18.0	56.0				
Max Q Clear Time (g_c+1), s	19.7	3.0	3.8	18.9	0.0	3.8	11.4	31.8				
Green Ext Time (p_c), s	0.1	0.1	0.0	13.9	0.0	0.2	0.1	15.6				
Intersection Summary												
HCM 6th Ctrl Delay			24.9									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary

35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	1040	321	290	764	0	0	0	0	650	0	1358
Future Volume (veh/h)	0	1040	321	290	764	0	0	0	0	650	0	1358
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1095	106	305	804	0				456	0	1619
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1387	389	312	2011	0				846	0	1506
Arrive On Green	0.00	0.24	0.24	0.18	0.78	0.00				0.47	0.00	0.47
Sat Flow, veh/h	0	5700	1600	3510	5358	0				1810	0	3220
Grp Volume(v), veh/h	0	1095	106	305	804	0				456	0	1619
Grp Sat Flow(s),veh/h/ln	0	1900	1600	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	16.2	4.8	7.8	4.5	0.0				16.1	0.0	42.1
Cycle Q Clear(g_c), s	0.0	16.2	4.8	7.8	4.5	0.0				16.1	0.0	42.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1387	389	312	2011	0				846	0	1506
V/C Ratio(X)	0.00	0.79	0.27	0.98	0.40	0.00				0.54	0.00	1.07
Avail Cap(c_a), veh/h	0	1387	389	312	2011	0				846	0	1506
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.89	0.89	0.91	0.91	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	31.9	27.6	36.9	6.7	0.0				17.0	0.0	24.0
Incr Delay (d2), s/veh	0.0	4.1	1.5	43.2	0.5	0.0				2.5	0.0	46.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.5	1.9	4.7	1.3	0.0				6.9	0.0	24.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.0	29.1	80.2	7.2	0.0				19.5	0.0	70.1
LnGrp LOS		A	D	C	F	A				B	A	F
Approach Vol, veh/h		1201			1109					2075		
Approach Delay, s/veh		35.4			27.3					59.0		
Approach LOS		D			C					E		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.0	28.4		48.6		41.4						
Change Period (Y+Rc), s	5.0	6.5		6.5		6.5						
Max Green Setting (Gmax), s	3.0	21.9		42.1		34.9						
Max Q Clear Time (g_c+I), s	19.8	18.2		44.1		6.5						
Green Ext Time (p_c), s	0.0	2.1		0.0		4.5						

Intersection Summary

HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) No Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑			↑↑↑	↖	↖	↕	↖			
Traffic Volume (veh/h)	427	1303	0	0	764	440	260	0	570	0	0	0
Future Volume (veh/h)	427	1303	0	0	764	440	260	0	570	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	449	1372	0	0	804	116	183	0	620			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	390	2824	0	0	1960	608	563	0	1002			
Arrive On Green	0.22	1.00	0.00	0.00	0.38	0.38	0.31	0.00	0.31			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	0	3220			
Grp Volume(v), veh/h	449	1372	0	0	804	116	183	0	620			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	10.0	0.0	0.0	0.0	10.3	4.3	7.0	0.0	14.8			
Cycle Q Clear(g_c), s	10.0	0.0	0.0	0.0	10.3	4.3	7.0	0.0	14.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	390	2824	0	0	1960	608	563	0	1002			
V/C Ratio(X)	1.15	0.49	0.00	0.00	0.41	0.19	0.33	0.00	0.62			
Avail Cap(c_a), veh/h	390	2824	0	0	1960	608	563	0	1002			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.34	0.34	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.0	0.0	0.0	0.0	20.6	18.8	23.8	0.0	26.4			
Incr Delay (d2), s/veh	78.4	0.2	0.0	0.0	0.6	0.7	1.5	0.0	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			
%ile BackOfQ(50%),veh/ln	7.8	0.1	0.0	0.0	3.9	1.6	3.2	0.0	5.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	113.4	0.2	0.0	0.0	21.3	19.5	25.3	0.0	29.3			
LnGrp LOS	F	A	A	A	C	B	C	A	C			
Approach Vol, veh/h		1821			920			803				
Approach Delay, s/veh		28.1			21.0			28.4				
Approach LOS		C			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.5			15.0	40.5		34.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		49.0			10.0	34.0		28.0				
Max Q Clear Time (g_c+1), s		2.0			12.0	12.3		16.8				
Green Ext Time (p_c), s		9.7			0.0	4.5		2.6				

Intersection Summary

























HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	430	1288	90	320	897	204	190	1300	160	384	960	220
Future Volume (veh/h)	430	1288	90	320	897	204	190	1300	160	384	960	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	453	1356	26	337	944	107	200	1368	151	404	1011	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	1339	26	227	1207	136	358	1195	132	321	1313	405
Arrive On Green	0.13	0.26	0.26	0.13	0.26	0.26	0.13	0.25	0.25	0.13	0.25	0.25
Sat Flow, veh/h	1810	5239	100	1810	4724	534	1810	4737	523	1810	5187	1601
Grp Volume(v), veh/h	453	895	487	337	690	361	200	999	520	404	1011	72
Grp Sat Flow(s),veh/h/ln	1810	1729	1881	1810	1729	1800	1810	1729	1802	1810	1729	1601
Q Serve(g_s), s	11.3	23.0	23.0	11.3	16.7	16.8	6.9	22.7	22.7	12.0	16.3	3.2
Cycle Q Clear(g_c), s	11.3	23.0	23.0	11.3	16.7	16.8	6.9	22.7	22.7	12.0	16.3	3.2
Prop In Lane	1.00		0.05	1.00		0.30	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	227	884	481	227	884	460	358	872	455	321	1313	405
V/C Ratio(X)	1.99	1.01	1.01	1.48	0.78	0.78	0.56	1.14	1.14	1.26	0.77	0.18
Avail Cap(c_a), veh/h	227	884	481	227	884	460	359	872	455	321	1313	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	33.5	33.5	39.3	31.2	31.2	21.4	33.6	33.7	23.7	31.2	26.3
Incr Delay (d2), s/veh	462.6	33.5	44.3	237.1	4.3	8.1	2.4	78.7	88.3	138.7	4.4	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	33.9	12.9	15.5	19.7	6.9	7.7	2.9	18.5	20.5	17.1	7.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	502.0	67.0	77.8	276.5	35.4	39.3	23.8	112.4	122.0	162.5	35.6	27.2
LnGrp LOS	F	F	F	F	D	D	C	F	F	F	D	C
Approach Vol, veh/h		1835			1388			1719			1487	
Approach Delay, s/veh		177.2			95.0			105.0			69.7	
Approach LOS		F			F			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	28.5	16.0	28.8	16.6	28.6	16.0	28.8				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.7	* 11	23.0	* 12	22.7	* 11	23.0				
Max Q Clear Time (g_c+I1), s	14.0	24.7	13.3	25.0	8.9	18.3	13.3	18.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	3.6	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay	115.3											
HCM 6th LOS	F											
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary

2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗				↕			↕	
Traffic Volume (veh/h)	60	1582	70	60	1191	50	50	150	60	60	140	50
Future Volume (veh/h)	60	1582	70	60	1191	50	50	150	60	60	140	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	1665	41	63	1254	29	53	158	48	63	147	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	98	2782	68	98	2786	64	126	249	69	143	238	58
Arrive On Green	0.05	0.53	0.53	0.05	0.53	0.53	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	5207	128	1810	5215	121	253	1192	329	320	1140	278
Grp Volume(v), veh/h	63	1106	600	63	831	452	259	0	0	250	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1877	1810	1729	1878	1775	0	0	1738	0	0
Q Serve(g_s), s	2.0	13.0	13.0	2.0	8.8	8.8	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.0	13.0	13.0	2.0	8.8	8.8	7.6	0.0	0.0	7.5	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.06	0.20		0.19	0.25		0.16
Lane Grp Cap(c), veh/h	98	1847	1003	98	1847	1003	444	0	0	440	0	0
V/C Ratio(X)	0.64	0.60	0.60	0.64	0.45	0.45	0.58	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	168	2074	1126	195	2126	1155	822	0	0	808	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	9.5	9.5	27.5	8.5	8.5	21.6	0.0	0.0	21.5	0.0	0.0
Incr Delay (d2), s/veh	13.8	0.7	1.3	13.8	0.4	0.7	2.6	0.0	0.0	2.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.5	4.0	1.2	2.3	2.6	3.3	0.0	0.0	3.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	10.2	10.8	41.3	8.8	9.2	24.2	0.0	0.0	24.0	0.0	0.0
LnGrp LOS	D	B	B	D	A	A	C	A	A	C	A	A
Approach Vol, veh/h	1769				1346		259				250	
Approach Delay, s/veh	11.5				10.5		24.2				24.0	
Approach LOS	B				B		C				C	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.2	35.7	16.4		7.2	35.7	16.4					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	35.6	35.6	26.0		5.5	36.5	26.0					
Max Q Clear Time (g_c+14), s	15.0	15.0	9.5		4.0	10.8	9.6					
Green Ext Time (p_c), s	0.0	16.7	2.3		0.0	15.6	2.4					
Intersection Summary												
HCM 6th Ctrl Delay			12.9									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
 3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔ ↑↑↑			↔ ↑↑↑			↔ ↑	↑		↔ ↑	↑	
Traffic Volume (veh/h)	210	1402	90	50	991	60	100	450	90	100	280	320
Future Volume (veh/h)	210	1402	90	50	991	60	100	450	90	100	280	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	221	1476	46	53	1043	27	105	474	88	105	295	162
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	181	5246	163	103	5055	131	225	415	77	80	605	323
Arrive On Green	0.10	1.00	1.00	0.11	1.00	1.00	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	5167	161	1810	5199	135	947	1557	289	862	2267	1212
Grp Volume(v), veh/h	221	988	534	53	694	376	105	0	562	105	233	224
Grp Sat Flow(s),veh/h/ln	1810	1729	1871	1810	1729	1876	947	0	1846	862	1805	1674
Q Serve(g_s), s	9.0	0.0	0.0	2.5	0.0	0.0	9.5	0.0	24.0	0.0	9.8	10.2
Cycle Q Clear(g_c), s	9.0	0.0	0.0	2.5	0.0	0.0	19.7	0.0	24.0	24.0	9.8	10.2
Prop In Lane	1.00		0.09	1.00		0.07	1.00		0.16	1.00		0.72
Lane Grp Cap(c), veh/h	181	3510	1899	103	3362	1823	225	0	492	80	481	446
V/C Ratio(X)	1.22	0.28	0.28	0.51	0.21	0.21	0.47	0.00	1.14	1.31	0.48	0.50
Avail Cap(c_a), veh/h	181	3510	1899	181	3362	1823	225	0	492	80	481	446
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	0.0	0.0	38.7	0.0	0.0	36.3	0.0	33.0	45.0	27.8	27.9
Incr Delay (d2), s/veh	138.9	0.2	0.4	7.5	0.1	0.2	3.2	0.0	85.7	205.3	1.6	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.2	1.2	0.1	0.1	2.3	0.0	21.8	6.3	4.2	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	179.4	0.2	0.4	46.2	0.1	0.2	39.4	0.0	118.7	250.3	29.4	29.8
LnGrp LOS	F	A	A	D	A	A	D	A	F	F	C	C
Approach Vol, veh/h		1743			1123			667			562	
Approach Delay, s/veh		23.0			2.3			106.2			70.8	
Approach LOS		C			A			F			E	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	16.0	96.0		30.5	12.1	99.9				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	9.0	38.0		* 24	9.0	* 39				
Max Q Clear Time (g_c+I1), s		26.0	11.0	2.0		26.0	4.5	2.0				
Green Ext Time (p_c), s		0.0	0.0	15.3		0.0	0.1	23.7				

Intersection Summary

HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙ ↑↑↑ ↘			↙ ↑↑↑ ↘				↙ ↑↑ ↘		↙	↙↑	↘
Traffic Volume (veh/h)	90	1342	80	50	971	70	60	350	40	70	230	120
Future Volume (veh/h)	90	1342	80	50	971	70	60	350	40	70	230	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	1413	44	53	1022	37	63	368	8	74	242	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	2563	80	89	2456	89	116	597	335	148	447	335
Arrive On Green	0.09	0.66	0.66	0.05	0.48	0.48	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	5168	161	1810	5138	186	272	2563	1440	349	1919	1440
Grp Volume(v), veh/h	95	946	511	53	688	371	192	239	8	113	203	26
Grp Sat Flow(s),veh/h/ln	1810	1729	1870	1810	1729	1866	1192	1643	1440	626	1643	1440
Q Serve(g_s), s	4.6	13.2	13.2	2.6	11.7	11.7	5.5	11.8	0.4	6.5	9.8	1.3
Cycle Q Clear(g_c), s	4.6	13.2	13.2	2.6	11.7	11.7	15.3	11.8	0.4	18.2	9.8	1.3
Prop In Lane	1.00		0.09	1.00		0.10	0.33		1.00	0.66		1.00
Lane Grp Cap(c), veh/h	121	1715	928	89	1653	892	331	382	335	212	382	335
V/C Ratio(X)	0.78	0.55	0.55	0.60	0.42	0.42	0.58	0.63	0.02	0.53	0.53	0.08
Avail Cap(c_a), veh/h	181	1715	928	181	1653	892	366	420	368	239	420	368
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.72	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	10.0	10.0	41.9	15.3	15.3	32.3	31.0	26.6	36.4	30.2	27.0
Incr Delay (d2), s/veh	4.7	0.9	1.7	1.8	0.6	1.1	1.9	2.5	0.0	2.1	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.7	4.3	1.1	4.2	4.7	3.9	4.6	0.1	2.4	3.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	10.9	11.7	43.7	15.9	16.4	34.1	33.5	26.7	38.4	31.4	27.1
LnGrp LOS	D	B	B	D	B	B	C	C	C	D	C	C
Approach Vol, veh/h	1552		1112				439			342		
Approach Delay, s/veh	13.2		17.4				33.7			33.4		
Approach LOS	B		B				C			C		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	11.4	51.6	27.0		13.0	50.0	27.0					
Change Period (Y+Rc), s	7.0	7.0	6.0		7.0	7.0	6.0					
Max Green Setting (Gmax), s	38.0	38.0	23.0		9.0	38.0	23.0					
Max Q Clear Time (g_c+14), s	14.6	15.2	20.2		6.6	13.7	17.3					
Green Ext Time (p_c), s	0.0	11.7	0.4		0.0	8.3	1.1					

Intersection Summary

HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑	↖	↖ ↑ ↑ ↗			↖ ↑ ↑ ↑	↖	↖
Traffic Volume (veh/h)	280	1052	240	60	701	807	150	890	50	808	1020	260
Future Volume (veh/h)	280	1052	240	60	701	807	150	890	50	808	1020	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	295	1107	120	63	738	433	158	937	51	851	1074	243
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	344	1315	406	176	1067	329	178	1021	55	585	2218	844
Arrive On Green	0.10	0.25	0.25	0.05	0.21	0.21	0.10	0.20	0.20	0.32	0.43	0.43
Sat Flow, veh/h	3510	5187	1601	3510	5187	1598	1810	5033	273	1810	5187	1605
Grp Volume(v), veh/h	295	1107	120	63	738	433	158	643	345	851	1074	243
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1598	1810	1729	1848	1810	1729	1605
Q Serve(g_s), s	14.1	34.5	10.3	3.0	22.4	35.0	14.7	31.0	31.1	55.0	25.4	14.4
Cycle Q Clear(g_c), s	14.1	34.5	10.3	3.0	22.4	35.0	14.7	31.0	31.1	55.0	25.4	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	344	1315	406	176	1067	329	178	701	375	585	2218	844
V/C Ratio(X)	0.86	0.84	0.30	0.36	0.69	1.32	0.89	0.92	0.92	1.46	0.48	0.29
Avail Cap(c_a), veh/h	619	1372	423	413	1067	329	213	711	380	585	2218	844
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	75.6	60.3	51.3	78.2	62.6	67.6	75.8	66.4	66.5	57.6	35.2	22.6
Incr Delay (d2), s/veh	4.7	4.9	0.5	0.9	2.0	162.7	28.8	17.0	27.3	214.3	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	15.3	4.2	1.3	10.0	28.9	8.2	15.1	17.3	59.4	10.7	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.3	65.2	51.8	79.1	64.6	230.3	104.6	83.4	93.8	271.9	35.4	22.8
LnGrp LOS	F	E	D	E	E	F	F	F	F	F	D	C
Approach Vol, veh/h		1522			1234			1146			2168	
Approach Delay, s/veh		67.1			123.5			89.4			126.8	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	62.0	41.5	16.0	50.6	23.8	79.8	24.2	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+Y), s	57.0	33.1	5.0	36.5	16.7	27.4	16.1	37.0				
Green Ext Time (p_c), s	0.0	1.3	0.1	5.0	0.1	15.0	0.6	0.0				

Intersection Summary

HCM 6th Ctrl Delay	104.1
HCM 6th LOS	F

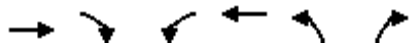
Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖	↑↑↑	↖	↗
Traffic Volume (veh/h)	1570	170	150	1527	70	50
Future Volume (veh/h)	1570	170	150	1527	70	50
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1653	104	158	1607	74	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	3069	949	193	4054	202	92
Arrive On Green	0.59	0.59	0.11	0.78	0.06	0.06
Sat Flow, veh/h	5358	1603	1810	5358	3510	1610
Grp Volume(v), veh/h	1653	104	158	1607	74	5
Grp Sat Flow(s),veh/h/ln	1729	1603	1810	1729	1755	1610
Q Serve(g_s), s	17.2	2.5	7.7	8.8	1.8	0.3
Cycle Q Clear(g_c), s	17.2	2.5	7.7	8.8	1.8	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3069	949	193	4054	202	92
V/C Ratio(X)	0.54	0.11	0.82	0.40	0.37	0.05
Avail Cap(c_a), veh/h	3069	949	251	4054	702	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.74	0.74	1.00	1.00
Uniform Delay (d), s/veh	11.0	8.0	39.4	3.1	40.8	40.1
Incr Delay (d2), s/veh	0.1	0.0	10.5	0.2	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.7	3.7	1.2	0.8	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	8.0	49.9	3.3	41.7	40.3
LnGrp LOS	B	A	D	A	D	D
Approach Vol, veh/h	1757			1765	79	
Approach Delay, s/veh	10.9			7.5	41.6	
Approach LOS	B			A	D	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	7.1	60.8		12.2		77.8
Change Period (Y+Rc), s	7.5	* 7.5		7.0		7.5
Max Green Setting (Gmax), s	12.5	* 38		18.0		57.5
Max Q Clear Time (g_c+I), s	19.7	19.2		3.8		10.8
Green Ext Time (p_c), s	0.1	9.1		0.1		14.7

Intersection Summary

HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes

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

Intersection												
Intersection Delay, s/veh	15.3											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	10	0	308	10	0	10	80	488	10	30	0
Future Vol, veh/h	0	10	0	308	10	0	10	80	488	10	30	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	324	11	0	11	84	514	11	32	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	9.9	12.3	17.5	9.5
HCM LOS	A	B	C	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	11%	0%	0%	100%	94%	50%	0%
Vol Thru, %	89%	0%	100%	0%	6%	50%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	488	10	160	158	20	20
LT Vol	10	0	0	160	148	10	0
Through Vol	80	0	10	0	10	10	20
RT Vol	0	488	0	0	0	0	0
Lane Flow Rate	95	514	11	169	166	21	21
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.151	0.711	0.02	0.31	0.305	0.039	0.037
Departure Headway (Hd)	5.748	4.986	6.682	6.63	6.598	6.59	6.336
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	628	729	536	543	545	543	565
Service Time	3.448	2.686	4.724	4.36	4.328	4.33	4.075
HCM Lane V/C Ratio	0.151	0.705	0.021	0.311	0.305	0.039	0.037
HCM Control Delay	9.5	19	9.9	12.3	12.2	9.6	9.3
HCM Lane LOS	A	C	A	B	B	A	A
HCM 95th-tile Q	0.5	6	0.1	1.3	1.3	0.1	0.1

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	578	0	0	338	0
Future Vol, veh/h	0	0	0	0	0	0	0	578	0	0	338	0
Conflicting Peds, #/hr	0	0	5	0	0	5	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	608	0	0	356	0

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	670	974	188	796	974	314	361	0	0	613	0	0
Stage 1	361	361	-	613	613	-	-	-	-	-	-	-
Stage 2	309	613	-	183	361	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	347	254	828	281	254	688	1209	-	-	976	-	-
Stage 1	636	629	-	451	486	-	-	-	-	-	-	-
Stage 2	682	486	-	807	629	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	344	251	820	278	251	681	1203	-	-	971	-	-
Mov Cap-2 Maneuver	344	251	-	278	251	-	-	-	-	-	-	-
Stage 1	633	626	-	449	484	-	-	-	-	-	-	-
Stage 2	679	484	-	803	626	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1203	-	-	-	971	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	-	-
HCM Lane LOS	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary
 9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	1070	190	70	1140	42	220	306	70	10	161	167
Future Volume (veh/h)	230	1070	190	70	1140	42	220	306	70	10	161	167
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	242	1126	81	74	1200	41	232	322	8	11	169	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	235	2181	677	131	1869	64	336	845	377	263	845	
Arrive On Green	0.13	0.42	0.42	0.07	0.36	0.36	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1810	5187	1610	1810	5150	176	1236	3610	1610	1067	3610	1610
Grp Volume(v), veh/h	242	1126	81	74	806	435	232	322	8	11	169	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1868	1236	1805	1610	1067	1805	1610
Q Serve(g_s), s	10.0	12.4	2.4	3.0	14.9	14.9	14.3	5.8	0.3	0.7	2.9	0.0
Cycle Q Clear(g_c), s	10.0	12.4	2.4	3.0	14.9	14.9	17.2	5.8	0.3	6.4	2.9	0.0
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	2181	677	131	1255	678	336	845	377	263	845	
V/C Ratio(X)	1.03	0.52	0.12	0.57	0.64	0.64	0.69	0.38	0.02	0.04	0.20	
Avail Cap(c_a), veh/h	235	2968	921	165	1844	996	336	845	377	263	845	
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	0.00
Uniform Delay (d), s/veh	33.4	16.5	13.6	34.5	20.4	20.4	30.6	24.8	22.7	27.5	23.7	0.0
Incr Delay (d2), s/veh	66.2	0.3	0.1	1.4	0.8	1.5	6.9	0.5	0.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	4.1	0.7	1.3	5.2	5.7	4.8	2.5	0.1	0.2	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.7	16.8	13.7	35.9	21.1	21.8	37.5	25.3	22.7	27.6	23.9	0.0
LnGrp LOS	F	B	B	D	C	C	D	C	C	C	C	
Approach Vol, veh/h		1449			1315			562			180	A
Approach Delay, s/veh		30.4			22.2			30.3			24.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	39.3		25.0	17.0	34.9		25.0				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	7.0	44.0		18.0	10.0	41.0		18.0				
Max Q Clear Time (g_c+I1), s	5.0	14.4		8.4	12.0	16.9		19.2				
Green Ext Time (p_c), s	0.0	11.9		0.9	0.0	11.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	220	100	50	160	40	140	606	130	56	265	40
Future Volume (veh/h)	190	220	100	50	160	40	140	606	130	56	265	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	200	232	23	53	168	8	147	638	54	59	279	16
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	328	509	225	286	413	182	581	1399	622	394	1328	590
Arrive On Green	0.08	0.14	0.14	0.05	0.11	0.11	0.08	0.39	0.39	0.06	0.37	0.37
Sat Flow, veh/h	1810	3610	1593	1810	3610	1589	1810	3610	1604	1810	3610	1604
Grp Volume(v), veh/h	200	232	23	53	168	8	147	638	54	59	279	16
Grp Sat Flow(s),veh/h/ln	1810	1805	1593	1810	1805	1589	1810	1805	1604	1810	1805	1604
Q Serve(g_s), s	6.0	4.4	0.9	1.9	3.2	0.3	3.7	9.8	1.6	1.5	4.0	0.5
Cycle Q Clear(g_c), s	6.0	4.4	0.9	1.9	3.2	0.3	3.7	9.8	1.6	1.5	4.0	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	509	225	286	413	182	581	1399	622	394	1328	590
V/C Ratio(X)	0.61	0.46	0.10	0.19	0.41	0.04	0.25	0.46	0.09	0.15	0.21	0.03
Avail Cap(c_a), veh/h	328	1304	575	371	1376	606	588	1399	622	437	1328	590
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	28.0	29.5	28.0	26.7	30.8	29.5	12.7	17.0	14.5	13.3	16.2	15.1
Incr Delay (d2), s/veh	3.5	0.9	0.3	0.3	0.9	0.1	0.3	1.1	0.3	0.2	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	1.8	0.4	0.8	1.4	0.1	1.3	3.7	0.6	0.5	1.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	30.4	28.3	27.0	31.7	29.6	13.0	18.1	14.8	13.5	16.6	15.2
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		455			229			839			354	
Approach Delay, s/veh		30.8			30.5			17.0			16.0	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	36.0	10.5	17.0	12.7	34.5	12.5	15.1				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	6.0	27.5	7.5	27.0	6.0	27.5	6.0	28.5				
Max Q Clear Time (g_c+1), s	13.5	11.8	3.9	6.4	5.7	6.0	8.0	5.2				
Green Ext Time (p_c), s	0.0	4.9	0.0	1.8	0.0	2.2	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	380	180	90	260	70	240	916	180	90	305	30
Future Volume (veh/h)	150	380	180	90	260	70	240	916	180	90	305	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	396	118	94	271	43	250	954	60	94	318	22
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	497	146	206	565	89	204	1264	564	113	1028	71
Arrive On Green	0.04	0.18	0.18	0.04	0.18	0.18	0.22	0.70	0.70	0.06	0.30	0.30
Sat Flow, veh/h	1810	2744	808	1810	3123	489	1810	3610	1610	1810	3425	236
Grp Volume(v), veh/h	156	259	255	94	155	159	250	954	60	94	167	173
Grp Sat Flow(s),veh/h/ln	1810	1805	1747	1810	1805	1807	1810	1805	1610	1810	1805	1856
Q Serve(g_s), s	3.5	11.0	11.2	3.4	6.2	6.3	9.0	13.4	1.0	4.1	5.7	5.8
Cycle Q Clear(g_c), s	3.5	11.0	11.2	3.4	6.2	6.3	9.0	13.4	1.0	4.1	5.7	5.8
Prop In Lane	1.00		0.46	1.00		0.27	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	279	327	316	206	327	327	204	1264	564	113	542	557
V/C Ratio(X)	0.56	0.79	0.81	0.46	0.47	0.49	1.23	0.75	0.11	0.83	0.31	0.31
Avail Cap(c_a), veh/h	279	395	382	206	395	395	204	1264	564	113	542	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.56	0.56	0.56	0.99	0.99	0.99
Uniform Delay (d), s/veh	29.2	31.3	31.4	26.2	29.3	29.4	31.0	9.8	7.9	37.1	21.6	21.6
Incr Delay (d2), s/veh	1.5	8.1	9.5	0.6	0.8	0.8	124.6	2.4	0.2	36.2	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	5.1	5.1	1.4	2.5	2.6	10.2	3.1	0.3	2.9	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	39.5	40.9	26.8	30.1	30.2	155.6	12.2	8.1	73.3	23.0	23.0
LnGrp LOS	C	D	D	C	C	C	F	B	A	E	C	C
Approach Vol, veh/h		670			408			1264			434	
Approach Delay, s/veh		38.0			29.4			40.4			33.9	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	35.0	11.0	22.0	16.0	31.0	11.0	22.0				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	25.0	3.5	17.5	9.0	21.0	3.5	17.5				
Max Q Clear Time (g_c+10), s	10.0	15.4	5.4	13.2	11.0	7.8	5.5	8.3				
Green Ext Time (p_c), s	0.0	3.7	0.0	0.9	0.0	1.1	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	20	20	140	20	50	30	1266	490	100	485	20
Future Volume (veh/h)	20	20	20	140	20	50	30	1266	490	100	485	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	21	1	162	0	7	32	1333	275	105	511	20
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	97	5	335	0	146	69	1773	787	113	1825	71
Arrive On Green	0.05	0.05	0.05	0.09	0.00	0.09	0.03	0.33	0.33	0.13	1.00	1.00
Sat Flow, veh/h	1810	1799	86	3619	0	1584	1810	3610	1602	1810	3541	138
Grp Volume(v), veh/h	21	0	22	162	0	7	32	1333	275	105	260	271
Grp Sat Flow(s),veh/h/ln	1810	0	1885	1810	0	1584	1810	1805	1602	1810	1805	1874
Q Serve(g_s), s	0.9	0.0	0.9	3.4	0.0	0.3	1.4	26.3	10.4	4.6	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	0.9	3.4	0.0	0.3	1.4	26.3	10.4	4.6	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	97	0	101	335	0	146	69	1773	787	113	931	966
V/C Ratio(X)	0.22	0.00	0.22	0.48	0.00	0.05	0.46	0.75	0.35	0.93	0.28	0.28
Avail Cap(c_a), veh/h	181	0	188	769	0	337	136	1773	787	113	931	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	0.92	0.92	0.92
Uniform Delay (d), s/veh	36.2	0.0	36.2	34.5	0.0	33.1	38.2	22.5	17.1	34.8	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.4	0.8	0.0	0.1	5.1	2.6	1.1	58.5	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.4	1.5	0.0	0.1	0.7	11.8	3.9	3.6	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	0.0	36.6	35.3	0.0	33.2	43.2	25.1	18.2	93.4	0.7	0.7
LnGrp LOS	D	A	D	D	A	C	D	C	B	F	A	A
Approach Vol, veh/h		43			169			1640			636	
Approach Delay, s/veh		36.6			35.2			24.3			16.0	
Approach LOS		D			D			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	2.0	46.3		9.3	10.1	48.2		12.4				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	5.0	26.0		8.0	6.0	25.0		17.0				
Max Q Clear Time (g_c+1), s	10.6	28.3		2.9	3.4	2.0		5.4				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	2.2		0.3				

Intersection Summary

HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↵	↵	↵↵	↵	↵↵↵			↵↵↵	↵
Traffic Volume (veh/h)	0	0	0	190	0	390	310	1376	0	0	463	172
Future Volume (veh/h)	0	0	0	190	0	390	310	1376	0	0	463	172
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				200	0	332	326	1448	0	0	487	62
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				579	0	516	362	3604	0	0	2243	692
Arrive On Green				0.16	0.00	0.16	0.40	1.00	0.00	0.00	0.14	0.14
Sat Flow, veh/h				3619	0	3220	1810	5358	0	0	5358	1601
Grp Volume(v), veh/h				200	0	332	326	1448	0	0	487	62
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1601
Q Serve(g_s), s				3.9	0.0	7.7	13.5	0.0	0.0	0.0	6.6	2.7
Cycle Q Clear(g_c), s				3.9	0.0	7.7	13.5	0.0	0.0	0.0	6.6	2.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				579	0	516	362	3604	0	0	2243	692
V/C Ratio(X)				0.35	0.00	0.64	0.90	0.40	0.00	0.00	0.22	0.09
Avail Cap(c_a), veh/h				923	0	821	362	3604	0	0	2243	692
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.38	0.38	0.00	0.00	0.97	0.97
Uniform Delay (d), s/veh				29.9	0.0	31.5	23.3	0.0	0.0	0.0	22.3	20.6
Incr Delay (d2), s/veh				0.8	0.0	2.9	13.2	0.1	0.0	0.0	0.2	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.7	0.0	3.1	5.3	0.0	0.0	0.0	2.6	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.6	0.0	34.3	36.5	0.1	0.0	0.0	22.5	20.9
LnGrp LOS				C	A	C	D	A	A	A	C	C
Approach Vol, veh/h						532		1774			549	
Approach Delay, s/veh						32.9		6.8			22.3	
Approach LOS						C		A			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		61.4			21.0	40.4		18.6				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			15.5	8.6		9.7				
Green Ext Time (p_c), s		10.5			0.0	2.4		3.1				

Intersection Summary

HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖	↗					↑ ↑ ↑		↖ ↑ ↑ ↑		
Traffic Volume (veh/h)	552	0	170	0	0	0	0	1174	480	150	483	0
Future Volume (veh/h)	552	0	170	0	0	0	0	1174	480	150	483	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	581	0	58				0	1236	413	158	508	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1149	0	1022				0	1392	464	203	2788	0
Arrive On Green	0.32	0.00	0.32				0.00	0.36	0.36	0.04	0.18	0.00
Sat Flow, veh/h	3619	0	3220				0	4008	1280	1810	5358	0
Grp Volume(v), veh/h	581	0	58				0	1114	535	158	508	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1659	1810	1729	0
Q Serve(g_s), s	10.4	0.0	1.0				0.0	24.2	24.3	6.9	6.7	0.0
Cycle Q Clear(g_c), s	10.4	0.0	1.0				0.0	24.2	24.3	6.9	6.7	0.0
Prop In Lane	1.00		1.00				0.00		0.77	1.00		0.00
Lane Grp Cap(c), veh/h	1149	0	1022				0	1254	602	203	2788	0
V/C Ratio(X)	0.51	0.00	0.06				0.00	0.89	0.89	0.78	0.18	0.00
Avail Cap(c_a), veh/h	1149	0	1022				0	1254	602	271	2788	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	22.2	0.0	19.0				0.0	24.0	24.0	37.5	18.0	0.0
Incr Delay (d2), s/veh	1.6	0.0	0.1				0.0	9.5	17.8	6.5	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	0.4				0.0	10.4	11.4	3.4	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	0.0	19.1				0.0	33.5	41.7	44.1	18.1	0.0
LnGrp LOS	C	A	B				A	C	D	D	B	A
Approach Vol, veh/h		639						1649			666	
Approach Delay, s/veh		23.4						36.2			24.3	
Approach LOS		C						D			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	14.0	34.8	31.2	48.8								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	12.0	26.0	25.4	43.0								
Max Q Clear Time (g_c+I), s	10.9	26.3	12.4	8.7								
Green Ext Time (p_c), s	0.1	0.0	4.1	2.7								

Intersection Summary

HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 15: Archibald Ave & Jurupa St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	131	61	530	143	180	51	110	1010	90	30	20
Future Volume (veh/h)	20	131	61	530	143	180	51	110	1010	90	30	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	138	12	558	151	55	54	116	256	95	32	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	239	251	210	901	473	397	95	366	541	131	341	53
Arrive On Green	0.13	0.13	0.13	0.25	0.25	0.25	0.05	0.19	0.19	0.07	0.21	0.21
Sat Flow, veh/h	1810	1900	1592	3619	1900	1594	1810	1900	2812	1810	1602	250
Grp Volume(v), veh/h	21	138	12	558	151	55	54	116	256	95	0	37
Grp Sat Flow(s),veh/h/ln	1810	1900	1592	1810	1900	1594	1810	1900	1406	1810	0	1853
Q Serve(g_s), s	0.5	3.5	0.3	7.0	3.3	1.4	1.5	2.7	4.1	2.6	0.0	0.8
Cycle Q Clear(g_c), s	0.5	3.5	0.3	7.0	3.3	1.4	1.5	2.7	4.1	2.6	0.0	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	239	251	210	901	473	397	95	366	541	131	0	394
V/C Ratio(X)	0.09	0.55	0.06	0.62	0.32	0.14	0.57	0.32	0.47	0.72	0.00	0.09
Avail Cap(c_a), veh/h	1263	1327	1111	3915	2055	1724	178	1364	2019	178	0	1330
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	0.00	1.00
Uniform Delay (d), s/veh	19.4	20.7	19.3	17.0	15.6	14.9	23.5	17.7	18.2	23.1	0.0	16.1
Incr Delay (d2), s/veh	0.2	1.9	0.1	0.7	0.4	0.2	5.3	0.5	0.6	9.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.4	0.1	2.7	1.4	0.5	0.7	1.1	1.3	1.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	22.5	19.4	17.7	16.0	15.0	28.8	18.1	18.9	32.0	0.0	16.2
LnGrp LOS	B	C	B	B	B	B	C	B	B	C	A	B
Approach Vol, veh/h		171			764			426			132	
Approach Delay, s/veh		22.0			17.1			19.9			27.6	
Approach LOS		C			B			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	14.3		11.2	7.2	15.3		17.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	36.5		35.5	5.0	36.5		55.0				
Max Q Clear Time (g_c+14), s	14.6	6.1		5.5	3.5	2.8		9.0				
Green Ext Time (p_c), s	0.0	1.8		0.8	0.0	0.1		3.5				

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
 User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕	↗	↗	↕	↗
Traffic Volume (veh/h)	20	0	20	20	0	20	30	1381	40	30	641	30
Future Volume (veh/h)	20	0	20	20	0	20	30	1381	40	30	641	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.98	0.98		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	0	1	21	0	0	32	1454	30	32	675	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	0	98	131	0	0	99	2556	1136	99	2556	1136
Arrive On Green	0.06	0.00	0.06	0.06	0.00	0.00	0.05	0.71	0.71	0.05	0.71	0.71
Sat Flow, veh/h	1542	0	1581	1150	0	0	1810	3610	1604	1810	3610	1604
Grp Volume(v), veh/h	21	0	1	21	0	0	32	1454	30	32	675	24
Grp Sat Flow(s),veh/h/ln	1542	0	1581	1150	0	0	1810	1805	1604	1810	1805	1604
Q Serve(g_s), s	0.0	0.0	0.1	1.7	0.0	0.0	2.0	23.6	0.7	2.0	8.1	0.5
Cycle Q Clear(g_c), s	1.4	0.0	0.1	3.1	0.0	0.0	2.0	23.6	0.7	2.0	8.1	0.5
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	0	98	132	0	0	99	2556	1136	99	2556	1136
V/C Ratio(X)	0.13	0.00	0.01	0.16	0.00	0.00	0.32	0.57	0.03	0.32	0.26	0.02
Avail Cap(c_a), veh/h	453	0	435	431	0	0	196	2556	1136	196	2556	1136
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	0.00	1.00	1.00	0.00	0.00	0.79	0.79	0.79	0.88	0.88	0.88
Uniform Delay (d), s/veh	53.4	0.0	52.8	54.9	0.0	0.0	54.6	8.6	5.2	54.6	6.3	5.2
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.7	0.0	0.0	1.8	0.7	0.0	2.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.6	0.0	0.0	1.0	7.8	0.2	1.0	2.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	0.0	52.9	55.6	0.0	0.0	56.4	9.3	5.2	56.6	6.5	5.2
LnGrp LOS	D	A	D	E	A	A	E	A	A	E	A	A
Approach Vol, veh/h		22			21			1516			731	
Approach Delay, s/veh		53.8			55.6			10.2			8.7	
Approach LOS		D			E			B			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.6	92.0		14.5	13.6	92.0		14.5				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.6	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+14), s	14.0	25.6		3.4	4.0	10.1		5.1				
Green Ext Time (p_c), s	0.0	19.7		0.1	0.0	9.9		0.1				

Intersection Summary

HCM 6th Ctrl Delay	10.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	680	320	130	1062	100	260	931	80	50	401	180
Future Volume (veh/h)	150	680	320	130	1062	100	260	931	80	50	401	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	158	716	170	137	1118	93	274	980	0	53	422	189
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	192	1515	468	175	1379	115	313	1931		212	1325	565
Arrive On Green	0.11	0.29	0.29	0.10	0.28	0.28	0.37	0.37	0.00	0.37	0.37	0.37
Sat Flow, veh/h	1810	5187	1602	1810	4877	405	823	5187	1610	583	3560	1517
Grp Volume(v), veh/h	158	716	170	137	792	419	274	980	0	53	409	202
Grp Sat Flow(s),veh/h/ln	1810	1729	1602	1810	1729	1824	823	1729	1610	583	1729	1620
Q Serve(g_s), s	7.7	10.2	7.6	6.7	19.2	19.2	25.5	13.2	0.0	7.0	7.6	8.0
Cycle Q Clear(g_c), s	7.7	10.2	7.6	6.7	19.2	19.2	33.5	13.2	0.0	20.1	7.6	8.0
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		0.94
Lane Grp Cap(c), veh/h	192	1515	468	175	978	516	313	1931		212	1287	603
V/C Ratio(X)	0.82	0.47	0.36	0.78	0.81	0.81	0.88	0.51		0.25	0.32	0.33
Avail Cap(c_a), veh/h	231	1515	468	231	978	516	313	1931		212	1287	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	1.00	1.00	1.00	0.67	0.67	0.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	39.4	26.2	25.2	39.7	30.0	30.0	34.2	21.9	0.0	29.7	20.1	20.3
Incr Delay (d2), s/veh	15.2	0.9	1.9	8.5	7.3	13.0	17.1	0.2	0.0	0.7	0.2	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	4.0	3.9	2.9	3.2	8.2	9.4	7.4	5.0	0.0	1.0	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	27.1	27.2	48.2	37.3	43.1	51.3	22.0	0.0	30.4	20.3	20.6
LnGrp LOS	D	C	C	D	D	D	D	C		C	C	C
Approach Vol, veh/h		1044			1348			1254	A		664	
Approach Delay, s/veh		31.3			40.2			28.4			21.2	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.2	33.8		40.0	17.1	32.9		40.0				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	11.5	23.5		33.5	11.5	23.5		33.5				
Max Q Clear Time (g_c+I1), s	8.7	12.2		22.1	9.7	21.2		35.5				
Green Ext Time (p_c), s	0.0	6.0		3.7	0.0	1.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	40	110	20	30	40	220	1121	30	80	581	170
Future Volume (veh/h)	130	40	110	20	30	40	220	1121	30	80	581	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	42	27	21	32	6	232	1180	14	84	612	74
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	170	365	213	73	410	180	268	1632	725	119	1919	593
Arrive On Green	0.09	0.17	0.17	0.04	0.11	0.11	0.15	0.45	0.45	0.07	0.37	0.37
Sat Flow, veh/h	1810	2185	1276	1810	3610	1589	1810	3610	1605	1810	5187	1604
Grp Volume(v), veh/h	137	34	35	21	32	6	232	1180	14	84	612	74
Grp Sat Flow(s),veh/h/ln	1810	1805	1657	1810	1805	1589	1810	1805	1605	1810	1729	1604
Q Serve(g_s), s	7.0	1.5	1.7	1.1	0.8	0.3	11.9	25.2	0.5	4.3	8.0	2.9
Cycle Q Clear(g_c), s	7.0	1.5	1.7	1.1	0.8	0.3	11.9	25.2	0.5	4.3	8.0	2.9
Prop In Lane	1.00		0.77	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	301	277	73	410	180	268	1632	725	119	1919	593
V/C Ratio(X)	0.81	0.11	0.13	0.29	0.08	0.03	0.87	0.72	0.02	0.70	0.32	0.12
Avail Cap(c_a), veh/h	383	477	438	383	954	420	383	1632	725	383	1919	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	42.0	33.5	33.5	44.1	37.5	37.3	39.4	21.1	14.3	43.3	21.3	19.7
Incr Delay (d2), s/veh	3.4	0.1	0.2	0.8	0.1	0.1	10.3	2.8	0.0	2.8	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	3.2	0.6	0.7	0.5	0.3	0.1	5.8	10.1	0.2	1.9	3.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.4	33.6	33.7	44.9	37.6	37.4	49.7	23.9	14.4	46.1	21.7	20.1
LnGrp LOS	D	C	C	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		206			59			1426			770	
Approach Delay, s/veh		41.5			40.2			28.0			24.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.7	49.3	10.3	22.3	20.5	41.5	15.4	17.2				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+I), s	10.3	27.2	3.1	3.7	13.9	10.0	9.0	2.8				
Green Ext Time (p_c), s	0.1	4.9	0.0	0.2	0.2	5.0	0.1	0.1				

Intersection Summary

HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	20	20	40	20	40	60	1291	60	50	581	40
Future Volume (veh/h)	20	20	20	40	20	40	60	1291	60	50	581	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	21	2	42	21	6	63	1359	32	53	612	38
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	75	444	42	121	573	253	116	2230	690	107	2122	131
Arrive On Green	0.04	0.13	0.13	0.07	0.16	0.16	0.06	0.43	0.43	0.06	0.42	0.42
Sat Flow, veh/h	1810	3332	312	1810	3610	1595	1810	5187	1605	1810	4993	308
Grp Volume(v), veh/h	21	11	12	42	21	6	63	1359	32	53	423	227
Grp Sat Flow(s),veh/h/ln	1810	1805	1840	1810	1805	1595	1810	1729	1605	1810	1729	1843
Q Serve(g_s), s	0.9	0.5	0.5	1.9	0.4	0.3	2.8	16.9	1.0	2.4	6.7	6.8
Cycle Q Clear(g_c), s	0.9	0.5	0.5	1.9	0.4	0.3	2.8	16.9	1.0	2.4	6.7	6.8
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	75	241	245	121	573	253	116	2230	690	107	1469	783
V/C Ratio(X)	0.28	0.05	0.05	0.35	0.04	0.02	0.54	0.61	0.05	0.49	0.29	0.29
Avail Cap(c_a), veh/h	195	905	923	195	1811	800	166	2230	690	151	1469	783
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	38.9	31.6	31.7	37.3	29.8	29.7	38.0	18.4	13.9	38.2	15.8	15.8
Incr Delay (d2), s/veh	0.7	0.1	0.1	0.6	0.0	0.0	1.5	1.3	0.1	1.3	0.5	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	0.4	0.2	0.2	0.8	0.2	0.1	1.2	6.2	0.4	1.0	2.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	31.7	31.7	37.9	29.8	29.8	39.4	19.7	14.0	39.5	16.3	16.7
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h		44			69			1454			703	
Approach Delay, s/veh		35.5			34.8			20.4			18.2	
Approach LOS		D			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.5	42.5	12.1	17.7	11.9	42.1	10.0	19.8				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	36.0	9.0	42.0	7.7	35.3	9.0	42.0					
Max Q Clear Time (g_c+1/4), s	18.9	3.9	2.5	4.8	8.8	2.9	2.4					
Green Ext Time (p_c), s	0.0	9.6	0.0	0.1	0.0	4.8	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay											20.4	
HCM 6th LOS											C	

HCM 6th Signalized Intersection Summary
 20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	50	330	190	160	440	60	360	1371	530	50	581	50
Future Volume (veh/h)	50	330	190	160	440	60	360	1371	530	50	581	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	347	40	168	463	16	379	1443	229	53	612	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	276	593	262	360	679	301	465	2013	623	193	1612	498
Arrive On Green	0.08	0.16	0.16	0.10	0.19	0.19	0.13	0.39	0.39	0.06	0.31	0.31
Sat Flow, veh/h	3510	3610	1595	3510	3610	1597	3510	5187	1604	3510	5187	1602
Grp Volume(v), veh/h	53	347	40	168	463	16	379	1443	229	53	612	17
Grp Sat Flow(s),veh/h/ln	1755	1805	1595	1755	1805	1597	1755	1729	1604	1755	1729	1602
Q Serve(g_s), s	1.4	8.6	2.1	4.4	11.5	0.8	10.1	22.8	9.8	1.4	8.9	0.7
Cycle Q Clear(g_c), s	1.4	8.6	2.1	4.4	11.5	0.8	10.1	22.8	9.8	1.4	8.9	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	593	262	360	679	301	465	2013	623	193	1612	498
V/C Ratio(X)	0.19	0.58	0.15	0.47	0.68	0.05	0.82	0.72	0.37	0.27	0.38	0.03
Avail Cap(c_a), veh/h	727	1122	496	727	1122	496	727	2013	623	727	1612	498
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	41.6	37.3	34.6	40.8	36.5	32.1	40.7	25.0	21.1	43.8	26.0	23.2
Incr Delay (d2), s/veh	0.2	1.1	0.3	0.7	1.5	0.1	3.2	2.2	1.7	0.6	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.7	0.8	1.8	4.9	0.3	4.4	9.0	3.7	0.6	3.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	38.4	34.9	41.5	37.9	32.2	44.0	27.3	22.8	44.3	26.7	23.3
LnGrp LOS	D	D	C	D	D	C	D	C	C	D	C	C
Approach Vol, veh/h		440			647			2051			682	
Approach Delay, s/veh		38.5			38.7			29.8			28.0	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	44.0	17.4	23.4	19.3	36.5	15.1	25.7				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1), s	13.4	24.8	6.4	10.6	12.1	10.9	3.4	13.5				
Green Ext Time (p_c), s	0.1	4.2	0.3	2.3	0.6	4.4	0.1	2.9				

Intersection Summary

HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶	↷	↶	↶	↶			↷	↶
Traffic Volume (veh/h)	0	0	0	320	0	497	710	1824	0	0	751	180
Future Volume (veh/h)	0	0	0	320	0	497	710	1824	0	0	751	180
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				496	0	282	747	1920	0	0	791	40
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				941	0	419	1170	3170	0	0	1452	354
Arrive On Green				0.26	0.00	0.26	0.33	0.61	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1592
Grp Volume(v), veh/h				496	0	282	747	1920	0	0	791	40
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1592
Q Serve(g_s), s				10.6	0.0	14.1	16.2	20.6	0.0	0.0	9.6	1.8
Cycle Q Clear(g_c), s				10.6	0.0	14.1	16.2	20.6	0.0	0.0	9.6	1.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				941	0	419	1170	3170	0	0	1452	354
V/C Ratio(X)				0.53	0.00	0.67	0.64	0.61	0.00	0.00	0.54	0.11
Avail Cap(c_a), veh/h				941	0	419	1170	3170	0	0	1452	354
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.56	0.56	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh				28.6	0.0	29.9	25.4	10.8	0.0	0.0	31.0	27.9
Incr Delay (d2), s/veh				2.1	0.0	8.4	1.5	0.5	0.0	0.0	1.4	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.8	0.0	13.2	6.5	6.4	0.0	0.0	3.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.7	0.0	38.3	26.9	11.3	0.0	0.0	32.3	28.5
LnGrp LOS				C	A	D	C	B	A	A	C	C
Approach Vol, veh/h					778			2667			831	
Approach Delay, s/veh					33.4			15.7			32.1	
Approach LOS					C			B			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		60.8		29.2	35.0	25.8						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		55.0		23.4	30.0	20.0						
Max Q Clear Time (g_c+I1), s		22.6		16.1	18.2	11.6						
Green Ext Time (p_c), s		18.0		1.9	1.2	3.2						

Intersection Summary

HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
 User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	450	0	430	0	0	0	0	1984	530	288	783	0
Future Volume (veh/h)	450	0	430	0	0	0	0	1984	530	288	783	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	579	0	225				0	2088	180	303	824	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1013	0	451				0	2702	662	429	3066	0
Arrive On Green	0.28	0.00	0.28				0.00	0.41	0.41	0.04	0.20	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	1600	3510	5358	0
Grp Volume(v), veh/h	579	0	225				0	2088	180	303	824	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1600	1755	1729	0
Q Serve(g_s), s	12.3	0.0	10.5				0.0	24.8	6.7	7.7	12.1	0.0
Cycle Q Clear(g_c), s	12.3	0.0	10.5				0.0	24.8	6.7	7.7	12.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1013	0	451				0	2702	662	429	3066	0
V/C Ratio(X)	0.57	0.00	0.50				0.00	0.77	0.27	0.71	0.27	0.00
Avail Cap(c_a), veh/h	1013	0	451				0	2702	662	429	3066	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.79	0.79	0.00
Uniform Delay (d), s/veh	27.8	0.0	27.1				0.0	22.8	17.5	41.6	19.7	0.0
Incr Delay (d2), s/veh	2.3	0.0	3.9				0.0	2.2	1.0	7.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	4.4				0.0	8.9	2.4	3.8	5.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	31.0				0.0	25.0	18.5	49.1	19.9	0.0
LnGrp LOS	C	A	C				A	C	B	D	B	A
Approach Vol, veh/h		804						2268			1127	
Approach Delay, s/veh		30.4						24.5			27.7	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	60.0	43.0					59.0	31.0				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	60.0	37.2					53.2	25.2				
Max Q Clear Time (g_c+1/3), s	19.7	26.8					14.1	14.3				
Green Ext Time (p_c), s	0.1	8.6					6.0	2.4				

Intersection Summary

HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	
Lane Configurations												
Traffic Volume (veh/h)	508	0	900	0	2603	0	0	1694	460	0	0	
Future Volume (veh/h)	508	0	900	0	2603	0	0	1694	460	0	0	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900			
Adj Flow Rate, veh/h	535	535	918	0	2740	0	0	1783	0			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	722	722	1280	0	3216	0	0	3739				
Arrive On Green	0.40	0.40	0.40	0.00	0.49	0.00	0.00	0.49	0.00			
Sat Flow, veh/h	1810	1810	3208	0	7068	0	0	7600	1610			
Grp Volume(v), veh/h	535	535	918	0	2740	0	0	1783	0			
Grp Sat Flow(s),veh/h/ln	1810	1810	1604	0	1634	0	0	1900	1610			
Q Serve(g_s), s	25.2	25.2	24.1	0.0	36.7	0.0	0.0	15.6	0.0			
Cycle Q Clear(g_c), s	25.2	25.2	24.1	0.0	36.7	0.0	0.0	15.6	0.0			
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00			
Lane Grp Cap(c), veh/h	722	722	1280	0	3216	0	0	3739				
V/C Ratio(X)	0.74	0.74	0.72	0.00	0.85	0.00	0.00	0.48				
Avail Cap(c_a), veh/h	722	722	1280	0	3216	0	0	3739				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00			
Uniform Delay (d), s/veh	25.6	25.6	25.3	0.0	22.2	0.0	0.0	16.9	0.0			
Incr Delay (d2), s/veh	6.7	6.7	3.5	0.0	3.1	0.0	0.0	0.4	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	11.8	11.8	9.5	0.0	13.1	0.0	0.0	6.4	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	32.4	28.8	0.0	25.3	0.0	0.0	17.3	0.0			
LnGrp LOS	C	C	C	A	C	A	A	B				
Approach Vol, veh/h	1453	1453			2740			1783	A			
Approach Delay, s/veh	30.1	30.1			25.3			17.3				
Approach LOS	C	C			C			B				
Timer - Assigned Phs	2		4		6							
Phs Duration (G+Y+Rc), s	55.0		45.0		55.0							
Change Period (Y+Rc), s	5.8		5.1		5.8							
Max Green Setting (Gmax), s	49.2		39.9		49.2							
Max Q Clear Time (g_c+I1), s	38.7		27.2		17.6							
Green Ext Time (p_c), s	8.7		3.0		10.9							

Intersection Summary

HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	860	0	950	0	1783	387	0	1772	0	0	0
Future Volume (veh/h)	860	0	950	0	1783	387	0	1772	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	905	905	985	0	1877	0	0	1865	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	961	961	1710	0	2353		0	2353	0		
Arrive On Green	0.53	0.53	0.53	0.00	0.36	0.00	0.00	0.36	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	905	905	985	0	1877	0	0	1865	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	46.9	46.9	20.7	0.0	25.8	0.0	0.0	25.6	0.0		
Cycle Q Clear(g_c), s	46.9	46.9	20.7	0.0	25.8	0.0	0.0	25.6	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	961	961	1710	0	2353		0	2353	0		
V/C Ratio(X)	0.94	0.94	0.58	0.00	0.80		0.00	0.79	0.00		
Avail Cap(c_a), veh/h	961	961	1710	0	2353		0	2353	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.82	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	22.0	22.0	15.8	0.0	28.7	0.0	0.0	28.7	0.0		
Incr Delay (d2), s/veh	18.0	18.0	1.4	0.0	2.4	0.0	0.0	2.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	23.2	23.2	7.5	0.0	10.2	0.0	0.0	9.9	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	40.0	40.0	17.3	0.0	31.1	0.0	0.0	31.5	0.0		
LnGrp LOS	D	D	B	A	C		A	C	A		
Approach Vol, veh/h	1890	1890			1877	A		1865			
Approach Delay, s/veh	28.1	28.1			31.1			31.5			
Approach LOS	C	C			C			C			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	41.8		58.2		41.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	36.0		53.1		36.0						
Max Q Clear Time (g_c+I1), s	27.8		48.9		27.6						
Green Ext Time (p_c), s	5.7		3.0		5.5						

Intersection Summary

HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖↗	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	60	40	40	80	50	190	220	1920	150	190	2232	310
Future Volume (veh/h)	60	40	40	80	50	190	220	1920	150	190	2232	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	42	3	84	53	15	232	2021	87	200	2349	253
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	282	165	137	302	175	257	291	3453	848	259	3393	834
Arrive On Green	0.08	0.09	0.09	0.09	0.09	0.09	0.08	0.53	0.53	0.07	0.52	0.52
Sat Flow, veh/h	3510	1900	1582	3510	1900	2788	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	63	42	3	84	53	15	232	2021	87	200	2349	253
Grp Sat Flow(s),veh/h/ln1755	1900	1582	1755	1900	1394	1755	1634	1606	1755	1634	1606	
Q Serve(g_s), s	2.0	2.5	0.2	2.7	3.1	0.6	7.8	25.3	3.2	6.7	32.4	10.8
Cycle Q Clear(g_c), s	2.0	2.5	0.2	2.7	3.1	0.6	7.8	25.3	3.2	6.7	32.4	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	282	165	137	302	175	257	291	3453	848	259	3393	834
V/C Ratio(X)	0.22	0.25	0.02	0.28	0.30	0.06	0.80	0.59	0.10	0.77	0.69	0.30
Avail Cap(c_a), veh/h	453	372	310	453	372	546	556	3453	848	556	3393	834
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	0.17	0.17	0.17	0.57	0.57	0.57
Uniform Delay (d), s/veh	51.7	51.2	50.1	51.3	50.8	49.7	54.0	19.3	14.1	54.6	21.7	16.5
Incr Delay (d2), s/veh	0.1	0.3	0.0	0.2	0.4	0.0	0.3	0.1	0.0	1.1	0.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln0.9	1.2	0.1	1.2	1.5	0.2	3.4	8.9	1.1	2.9	11.6	3.8	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	51.5	50.2	51.5	51.2	49.7	54.3	19.4	14.2	55.6	22.3	17.0
LnGrp LOS	D	D	D	D	D	D	D	B	B	E	C	B
Approach Vol, veh/h		108			152			2340			2802	
Approach Delay, s/veh		51.6			51.2			22.7			24.2	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.9	70.4	16.8	16.9	17.0	69.3	16.2	17.6				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	19.0	35.0	15.5	23.5	19.0	35.0	15.5	23.5				
Max Q Clear Time (g_c+1), s	19.7	27.3	4.7	4.5	9.8	34.4	4.0	5.1				
Green Ext Time (p_c), s	0.2	6.0	0.0	0.1	0.2	0.6	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕		↔↔	↕↕	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	140	430	530	160	220	290	280	1790	110	730	1772	40
Future Volume (veh/h)	140	430	530	160	220	290	280	1790	110	730	1772	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	448	434	167	229	96	292	1865	30	760	1846	15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	196	486	431	217	994	441	345	1759	431	709	2437	598
Arrive On Green	0.06	0.27	0.27	0.06	0.28	0.28	0.10	0.27	0.27	0.20	0.37	0.37
Sat Flow, veh/h	3510	1805	1601	3510	3610	1601	3510	6536	1601	3510	6536	1604
Grp Volume(v), veh/h	146	448	434	167	229	96	292	1865	30	760	1846	15
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1601	1755	1634	1601	1755	1634	1604
Q Serve(g_s), s	6.1	35.9	40.0	7.0	7.3	6.9	12.2	40.0	2.1	30.0	36.7	0.9
Cycle Q Clear(g_c), s	6.1	35.9	40.0	7.0	7.3	6.9	12.2	40.0	2.1	30.0	36.7	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	196	486	431	217	994	441	345	1759	431	709	2437	598
V/C Ratio(X)	0.75	0.92	1.01	0.77	0.23	0.22	0.85	1.06	0.07	1.07	0.76	0.03
Avail Cap(c_a), veh/h	709	486	431	709	994	441	709	1759	431	709	2437	598
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	69.1	52.8	54.3	68.7	41.7	41.5	65.9	54.3	40.4	59.3	40.7	29.5
Incr Delay (d2), s/veh	2.1	23.2	45.1	2.2	0.1	0.2	2.3	39.4	0.1	54.9	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	19.0	21.1	3.1	3.2	2.7	5.4	20.6	0.8	18.4	14.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.2	76.0	99.4	70.8	41.8	41.8	68.2	93.7	40.5	114.2	42.2	29.5
LnGrp LOS	E	E	F	E	D	D	E	F	D	F	D	C
Approach Vol, veh/h		1028			492			2187			2621	
Approach Delay, s/veh		85.2			51.6			89.6			63.0	
Approach LOS		F			D			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.5	47.5	16.2	47.4	22.1	62.9	15.3	48.3				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+Rc), s	30.0	42.0	9.0	42.0	14.2	38.7	8.1	9.3				
Green Ext Time (p_c), s	0.0	0.0	0.2	0.0	0.4	1.2	0.2	1.6				

Intersection Summary

HCM 6th Ctrl Delay	74.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘ ↙			↖ ↗ ↘ ↙		↖	↖	↖			↕	↕
Traffic Volume (veh/h)	480	1231	20	50	953	220	20	0	40	80	20	130
Future Volume (veh/h)	480	1231	20	50	953	220	20	0	40	80	20	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	505	1296	21	53	1003	57	21	0	14	84	21	101
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	500	2513	41	72	1253	385	425	0	506	225	67	241
Arrive On Green	0.28	0.48	0.48	0.04	0.24	0.24	0.32	0.00	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1810	5257	85	1810	5187	1594	1285	0	1603	584	210	764
Grp Volume(v), veh/h	505	852	465	53	1003	57	21	0	14	206	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1884	1810	1729	1594	1285	0	1603	1558	0	0
Q Serve(g_s), s	35.0	21.6	21.6	3.7	23.0	3.6	0.0	0.0	0.8	10.0	0.0	0.0
Cycle Q Clear(g_c), s	35.0	21.6	21.6	3.7	23.0	3.6	2.0	0.0	0.8	12.9	0.0	0.0
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	0.41		0.49
Lane Grp Cap(c), veh/h	500	1653	901	72	1253	385	425	0	506	533	0	0
V/C Ratio(X)	1.01	0.52	0.52	0.73	0.80	0.15	0.05	0.00	0.03	0.39	0.00	0.00
Avail Cap(c_a), veh/h	500	1653	901	129	1393	428	425	0	506	533	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	45.8	22.9	22.9	60.1	45.1	37.8	30.3	0.0	29.9	33.9	0.0	0.0
Incr Delay (d2), s/veh	42.5	0.4	0.7	13.2	3.4	0.3	0.2	0.0	0.1	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	8.4	9.3	1.9	10.0	1.4	0.5	0.0	0.3	5.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.3	23.3	23.6	73.2	48.5	38.0	30.5	0.0	30.0	36.0	0.0	0.0
LnGrp LOS	F	C	C	E	D	D	C	A	C	D	A	A
Approach Vol, veh/h	1822			1113			35			206		
Approach Delay, s/veh	41.4			49.2			30.3			36.0		
Approach LOS	D			D			C			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	47.0	12.1	67.5	47.0		42.0	37.6					
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0		7.0	7.0					
Max Green Setting (Gmax), s	40.0	9.0	60.0	40.0		35.0	34.0					
Max Q Clear Time (g_c+I1), s	4.0	5.7	23.6	14.9		37.0	25.0					
Green Ext Time (p_c), s	0.1	0.0	15.0	1.3		0.0	5.3					
Intersection Summary												
HCM 6th Ctrl Delay	43.6											
HCM 6th LOS	D											

HCM 6th Signalized Intersection Summary
28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	991	50	50	1133	20	50	0	30	0	0	0
Future Volume (veh/h)	0	991	50	50	1133	20	50	0	30	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	1043	49	53	1193	20	53	0	13	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3289	154	89	1443	24	178	0	110	0	133	0
Arrive On Green	0.00	0.65	0.65	0.05	0.77	0.77	0.07	0.00	0.07	0.00	0.00	0.00
Sat Flow, veh/h	1810	5076	238	1810	1863	31	1409	0	1576	0	1900	0
Grp Volume(v), veh/h	0	710	382	53	0	1213	53	0	13	0	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1856	1810	0	1894	1409	0	1576	0	1900	0
Q Serve(g_s), s	0.0	8.2	8.2	2.6	0.0	36.1	3.3	0.0	0.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	8.2	8.2	2.6	0.0	36.1	3.3	0.0	0.7	0.0	0.0	0.0
Prop In Lane	1.00		0.13	1.00		0.02	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	2	2241	1203	89	0	1468	178	0	110	0	133	0
V/C Ratio(X)	0.00	0.32	0.32	0.60	0.00	0.83	0.30	0.00	0.12	0.00	0.00	0.00
Avail Cap(c_a), veh/h	322	2241	1203	322	0	1468	659	0	648	0	781	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	1.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.0	7.0	41.9	0.0	6.4	40.5	0.0	39.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.6	6.3	0.0	5.5	0.9	0.0	0.5	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	2.7	1.3	0.0	9.2	1.2	0.0	0.3	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.3	7.6	48.3	0.0	11.8	41.4	0.0	39.7	0.0	0.0	0.0
LnGrp LOS	A	A	A	D	A	B	D	A	D	A	A	A
Approach Vol, veh/h	1092				1266		66				0	
Approach Delay, s/veh	7.4				13.3		41.1				0.0	
Approach LOS	A				B		D					
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	13.3		11.4		65.3		13.3		0.0		76.7	
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0		7.0		7.0	
Max Green Setting (Gmax), s	37.0		16.0		16.0		37.0		16.0		16.0	
Max Q Clear Time (g_c+1), s	5.3		4.6		10.2		0.0		0.0		38.1	
Green Ext Time (p_c), s	0.3		0.1		3.1		0.0		0.0		0.0	
Intersection Summary												
HCM 6th Ctrl Delay			11.4									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖	↑↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	520	681	110	270	761	160	250	1850	360	20	1750	852
Future Volume (veh/h)	520	681	110	270	761	160	250	1850	360	20	1750	852
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	547	717	31	284	801	46	263	1947	130	21	1842	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	595	1480	457	327	755	337	195	2633	646	61	2151	
Arrive On Green	0.17	0.29	0.29	0.09	0.21	0.21	0.11	0.40	0.40	0.03	0.33	0.00
Sat Flow, veh/h	3510	5187	1602	3510	3610	1610	1810	6536	1604	1810	6536	1610
Grp Volume(v), veh/h	547	717	31	284	801	46	263	1947	130	21	1842	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1602	1755	1805	1610	1810	1634	1604	1810	1634	1610
Q Serve(g_s), s	24.9	18.6	2.3	13.0	34.0	3.8	17.5	41.2	8.6	1.8	42.8	0.0
Cycle Q Clear(g_c), s	24.9	18.6	2.3	13.0	34.0	3.8	17.5	41.2	8.6	1.8	42.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	595	1480	457	327	755	337	195	2633	646	61	2151	
V/C Ratio(X)	0.92	0.48	0.07	0.87	1.06	0.14	1.35	0.74	0.20	0.34	0.86	
Avail Cap(c_a), veh/h	702	1532	473	400	755	337	195	2633	646	100	2252	
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	0.00
Uniform Delay (d), s/veh	66.4	48.2	42.3	72.7	64.2	52.3	72.5	41.3	31.5	76.7	50.9	0.0
Incr Delay (d2), s/veh	14.7	0.2	0.1	13.7	50.0	0.2	187.3	1.2	0.2	1.2	3.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	8.0	0.9	6.4	20.6	1.5	18.1	16.1	3.3	0.9	17.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.1	48.4	42.4	86.4	114.2	52.5	259.8	42.4	31.7	77.9	54.4	0.0
LnGrp LOS	F	D	D	F	F	D	F	D	C	E	D	
Approach Vol, veh/h		1295			1131			2340			1863	A
Approach Delay, s/veh		62.1			104.7			66.3			54.7	
Approach LOS		E			F			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.0	73.0	22.7	53.9	25.0	61.0	35.0	41.5				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	9.0	64.5	18.5	48.0	17.5	56.0	32.5	34.0				
Max Q Clear Time (g_c+1), s	13.8	43.2	15.0	20.6	19.5	44.8	26.9	36.0				
Green Ext Time (p_c), s	0.0	15.6	0.2	4.9	0.0	8.7	0.6	0.0				

Intersection Summary

HCM 6th Ctrl Delay	68.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗			↖ ↗	↖ ↗		↖	↗		↖	↗	↖
Traffic Volume (veh/h)	160	791	20	20	901	40	0	0	20	20	0	240
Future Volume (veh/h)	160	791	20	20	901	40	0	0	20	20	0	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	833	19	21	948	19	0	0	9	21	0	162
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	390	3019	69	464	2089	928	137	0	309	404	367	309
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.58	0.00	0.00	0.19	0.19	0.00	0.19
Sat Flow, veh/h	590	5217	119	657	3610	1603	1243	0	1598	1418	1900	1598
Grp Volume(v), veh/h	168	552	300	21	948	19	0	0	9	21	0	162
Grp Sat Flow(s),veh/h/ln	590	1729	1878	657	1805	1603	1243	0	1598	1418	1900	1598
Q Serve(g_s), s	12.0	4.2	4.2	0.9	7.9	0.3	0.0	0.0	0.2	0.6	0.0	4.8
Cycle Q Clear(g_c), s	19.9	4.2	4.2	5.1	7.9	0.3	0.0	0.0	0.2	0.9	0.0	4.8
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	390	2001	1087	464	2089	928	137	0	309	404	367	309
V/C Ratio(X)	0.43	0.28	0.28	0.05	0.45	0.02	0.00	0.00	0.03	0.05	0.00	0.53
Avail Cap(c_a), veh/h	1170	6576	3572	1333	6865	3049	795	0	1155	1155	1373	1155
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	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.0	5.6	5.6	6.8	6.3	4.7	0.0	0.0	17.2	17.6	0.0	19.0
Incr Delay (d2), s/veh	0.8	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.9	1.0	0.1	1.7	0.1	0.0	0.0	0.1	0.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.8	5.6	5.7	6.9	6.5	4.7	0.0	0.0	17.3	17.6	0.0	20.4
LnGrp LOS	B	A	A	A	A	A	A	A	B	B	A	C
Approach Vol, veh/h	1020				988		9				183	
Approach Delay, s/veh	6.8				6.5		17.3				20.1	
Approach LOS	A				A		B				C	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	15.2		37.4		15.2		37.4					
Change Period (Y+Rc), s	5.0		7.0		5.0		7.0					
Max Green Setting (Gmax), s	38.0		100.0		38.0		100.0					
Max Q Clear Time (g_c+1), s	2.2		21.9		6.8		9.9					
Green Ext Time (p_c), s	0.0		8.6		0.6		7.9					
Intersection Summary												
HCM 6th Ctrl Delay			7.8									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
 31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑	↗	↖	↖	↖	↖↗	↑	↗
Traffic Volume (veh/h)	90	771	20	40	1001	200	20	20	20	470	20	100
Future Volume (veh/h)	90	771	20	40	1001	200	20	20	20	470	20	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	812	6	42	1054	0	21	21	6	495	21	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	2185	674	91	1448		66	134	38	429	344	289
Arrive On Green	0.07	0.42	0.42	0.02	0.13	0.00	0.04	0.09	0.09	0.12	0.18	0.18
Sat Flow, veh/h	1810	5187	1601	1810	3610	1610	1810	1415	404	3510	1900	1597
Grp Volume(v), veh/h	95	812	6	42	1054	0	21	0	27	495	21	34
Grp Sat Flow(s),veh/h/ln	1810	1729	1601	1810	1805	1610	1810	0	1820	1755	1900	1597
Q Serve(g_s), s	4.6	9.7	0.2	2.1	25.2	0.0	1.0	0.0	1.2	11.0	0.8	1.6
Cycle Q Clear(g_c), s	4.6	9.7	0.2	2.1	25.2	0.0	1.0	0.0	1.2	11.0	0.8	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	128	2185	674	91	1448		66	0	173	429	344	289
V/C Ratio(X)	0.74	0.37	0.01	0.46	0.73		0.32	0.00	0.16	1.15	0.06	0.12
Avail Cap(c_a), veh/h	161	2185	674	161	1448		161	0	344	429	422	355
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.89	0.89	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	17.9	15.1	43.0	34.3	0.0	42.3	0.0	37.4	39.5	30.5	30.9
Incr Delay (d2), s/veh	13.7	0.5	0.0	3.8	2.9	0.0	1.0	0.0	0.3	92.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.6	0.1	1.0	12.5	0.0	0.5	0.0	0.5	10.2	0.4	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.8	18.3	15.2	46.8	37.2	0.0	43.3	0.0	37.7	132.2	30.6	31.0
LnGrp LOS	D	B	B	D	D		D	A	D	F	C	C
Approach Vol, veh/h		913			1096	A		48			550	
Approach Delay, s/veh		22.1			37.6			40.2			122.0	
Approach LOS		C			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.0	15.5	11.6	44.9	10.3	23.3	13.3	43.1				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	18.0	17.0	8.0	26.0	8.0	20.0	8.0	26.0				
Max Q Clear Time (g_c+fl), s	18.0	3.2	4.1	11.7	3.0	3.6	6.6	27.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	5.1	0.0	0.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	50.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑			↖ ↑↑	↖ ↑↑		↖ ↑↑		
Traffic Volume (veh/h)	140	941	30	80	1151	110	30	20	40	30	20	30
Future Volume (veh/h)	140	941	30	80	1151	110	30	20	40	30	20	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	991	30	84	1212	103	32	21	15	32	21	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	182	3264	99	109	2874	244	187	182	116	185	204	98
Arrive On Green	0.03	0.21	0.21	0.06	0.59	0.59	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1810	5173	156	1810	4869	414	1377	2103	1334	1372	2352	1127
Grp Volume(v), veh/h	147	662	359	84	861	454	32	18	18	32	16	16
Grp Sat Flow(s),veh/h/ln	1810	1729	1871	1810	1729	1824	1377	1805	1632	1372	1805	1674
Q Serve(g_s), s	7.3	14.6	14.6	4.1	12.2	12.2	2.0	0.8	0.9	2.0	0.7	0.8
Cycle Q Clear(g_c), s	7.3	14.6	14.6	4.1	12.2	12.2	2.8	0.8	0.9	2.9	0.7	0.8
Prop In Lane	1.00		0.08	1.00		0.23	1.00		0.82	1.00		0.67
Lane Grp Cap(c), veh/h	182	2182	1181	109	2041	1077	187	156	141	185	156	145
V/C Ratio(X)	0.81	0.30	0.30	0.77	0.42	0.42	0.17	0.11	0.13	0.17	0.10	0.11
Avail Cap(c_a), veh/h	241	2182	1181	281	2041	1077	511	582	526	508	582	539
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	18.9	18.9	41.7	10.1	10.1	39.2	37.9	38.0	39.3	37.9	37.9
Incr Delay (d2), s/veh	7.7	0.3	0.5	3.2	0.5	0.9	0.4	0.3	0.4	0.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	6.7	7.3	1.8	3.9	4.3	0.7	0.4	0.4	0.7	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.4	19.2	19.4	44.9	10.5	10.9	39.6	38.2	38.4	39.8	38.1	38.3
LnGrp LOS	D	B	B	D	B	B	D	D	D	D	D	D
Approach Vol, veh/h	1168			1399			68			64		
Approach Delay, s/veh	23.2			12.7			38.9			39.0		
Approach LOS	C			B			D			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	13.8	12.4	63.8		13.8	16.1	60.1					
Change Period (Y+Rc), s	6.0	7.0	7.0		6.0	7.0	7.0					
Max Green Setting (Gmax), s	29.0	14.0	27.0		29.0	12.0	29.0					
Max Q Clear Time (g_c+I1), s	4.8	6.1	16.6		4.9	9.3	14.2					
Green Ext Time (p_c), s	0.2	0.0	5.6		0.2	0.0	9.1					
Intersection Summary												
HCM 6th Ctrl Delay	18.5											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑		↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	130	761	110	590	891	190	200	850	530	180	810	160
Future Volume (veh/h)	130	761	110	590	891	190	200	850	530	180	810	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	801	23	621	938	180	211	895	303	189	853	62
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	309	1168	360	676	1440	275	283	1346	415	283	1345	415
Arrive On Green	0.09	0.23	0.23	0.19	0.33	0.33	0.08	0.26	0.26	0.08	0.26	0.26
Sat Flow, veh/h	3510	5187	1599	3510	4368	835	3510	5187	1601	3510	5187	1601
Grp Volume(v), veh/h	137	801	23	621	742	376	211	895	303	189	853	62
Grp Sat Flow(s),veh/h/ln	1755	1729	1599	1755	1729	1745	1755	1729	1601	1755	1729	1601
Q Serve(g_s), s	4.6	17.5	1.4	21.5	22.7	22.8	7.3	19.1	21.4	6.5	18.1	3.7
Cycle Q Clear(g_c), s	4.6	17.5	1.4	21.5	22.7	22.8	7.3	19.1	21.4	6.5	18.1	3.7
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	1168	360	676	1140	575	283	1346	415	283	1345	415
V/C Ratio(X)	0.44	0.69	0.06	0.92	0.65	0.65	0.74	0.67	0.73	0.67	0.63	0.15
Avail Cap(c_a), veh/h	709	1675	517	709	1140	575	709	1675	517	709	1675	517
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	53.6	44.0	37.7	49.1	35.4	35.5	55.7	41.0	41.9	55.3	40.7	35.3
Incr Delay (d2), s/veh	0.7	0.9	0.1	16.5	1.4	2.8	2.9	0.8	4.4	2.0	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	7.4	0.5	10.7	9.4	9.8	3.2	7.9	8.7	2.9	7.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	44.8	37.8	65.5	36.8	38.3	58.6	41.9	46.3	57.3	41.3	35.5
LnGrp LOS	D	D	D	E	D	D	E	D	D	E	D	D
Approach Vol, veh/h		961			1739			1409			1104	
Approach Delay, s/veh		46.0			47.4			45.3			43.7	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	39.6	18.4	48.3	17.5	39.6	31.3	35.4				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1), s	19.3	20.1	6.6	24.8	8.5	23.4	23.5	19.5				
Green Ext Time (p_c), s	0.4	6.4	0.3	7.1	0.4	7.2	0.3	6.0				

Intersection Summary

HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	160	1261	20	30	1591	150	0	20	30	130	20	80
Future Volume (veh/h)	160	1261	20	30	1591	150	0	20	30	130	20	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	1327	21	32	1675	151	0	21	10	137	21	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	2714	43	95	2216	199	2	204	171	168	472	398
Arrive On Green	0.11	0.52	0.52	0.05	0.46	0.46	0.00	0.11	0.11	0.09	0.25	0.25
Sat Flow, veh/h	1810	5259	83	1810	4842	436	1810	1900	1588	1810	1900	1600
Grp Volume(v), veh/h	168	872	476	32	1195	631	0	21	10	137	21	36
Grp Sat Flow(s),veh/h/ln	1810	1729	1885	1810	1729	1820	1810	1900	1588	1810	1900	1600
Q Serve(g_s), s	9.4	16.9	16.9	1.8	29.7	29.8	0.0	1.0	0.6	7.7	0.9	1.8
Cycle Q Clear(g_c), s	9.4	16.9	16.9	1.8	29.7	29.8	0.0	1.0	0.6	7.7	0.9	1.8
Prop In Lane	1.00		0.04	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	200	1784	972	95	1583	833	2	204	171	168	472	398
V/C Ratio(X)	0.84	0.49	0.49	0.34	0.76	0.76	0.00	0.10	0.06	0.82	0.04	0.09
Avail Cap(c_a), veh/h	314	2168	1182	157	1868	983	140	678	567	262	806	679
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	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	16.2	16.2	47.4	23.3	23.3	0.0	41.8	41.6	46.2	29.6	29.9
Incr Delay (d2), s/veh	6.3	0.3	0.5	0.8	1.6	3.1	0.0	0.2	0.1	8.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	6.1	6.7	0.8	11.4	12.4	0.0	0.5	0.2	3.9	0.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	16.5	16.7	48.2	24.9	26.4	0.0	41.9	41.7	54.7	29.6	30.0
LnGrp LOS	D	B	B	D	C	C	A	D	D	D	C	C
Approach Vol, veh/h	1516				1858		31				194	
Approach Delay, s/veh	20.4				25.8		41.8				47.4	
Approach LOS	C				C		D				D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.6	16.1	12.4	60.5	0.0	30.8	18.5	54.5				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	15.0	37.0	9.0	65.0	8.0	44.0	18.0	56.0				
Max Q Clear Time (g_c+1), s	19.7	3.0	3.8	18.9	0.0	3.8	11.4	31.8				
Green Ext Time (p_c), s	0.1	0.1	0.0	13.9	0.0	0.2	0.1	15.6				

Intersection Summary												
HCM 6th Ctrl Delay			24.9									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
 35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	1040	321	290	764	0	0	0	0	650	0	1358
Future Volume (veh/h)	0	1040	321	290	764	0	0	0	0	650	0	1358
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1095	106	305	804	0				456	0	1619
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1387	389	312	2011	0				846	0	1506
Arrive On Green	0.00	0.24	0.24	0.18	0.78	0.00				0.47	0.00	0.47
Sat Flow, veh/h	0	5700	1600	3510	5358	0				1810	0	3220
Grp Volume(v), veh/h	0	1095	106	305	804	0				456	0	1619
Grp Sat Flow(s),veh/h/ln	0	1900	1600	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	16.2	4.8	7.8	4.5	0.0				16.1	0.0	42.1
Cycle Q Clear(g_c), s	0.0	16.2	4.8	7.8	4.5	0.0				16.1	0.0	42.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1387	389	312	2011	0				846	0	1506
V/C Ratio(X)	0.00	0.79	0.27	0.98	0.40	0.00				0.54	0.00	1.07
Avail Cap(c_a), veh/h	0	1387	389	312	2011	0				846	0	1506
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.89	0.89	0.91	0.91	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	31.9	27.6	36.9	6.7	0.0				17.0	0.0	24.0
Incr Delay (d2), s/veh	0.0	4.1	1.5	43.2	0.5	0.0				2.5	0.0	46.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.5	1.9	4.7	1.3	0.0				6.9	0.0	24.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.0	29.1	80.2	7.2	0.0				19.5	0.0	70.1
LnGrp LOS		A	D	C	F	A				B	A	F
Approach Vol, veh/h		1201			1109					2075		
Approach Delay, s/veh		35.4			27.3					59.0		
Approach LOS		D			C					E		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.0	28.4		48.6		41.4						
Change Period (Y+Rc), s	5.0	6.5		6.5		6.5						
Max Green Setting (Gmax), s	3.0	21.9		42.1		34.9						
Max Q Clear Time (g_c+I), s	19.8	18.2		44.1		6.5						
Green Ext Time (p_c), s	0.0	2.1		0.0		4.5						

Intersection Summary

HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary

36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



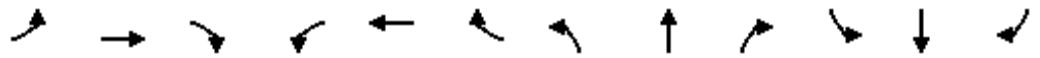
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗↘	↑↑↑			↑↑↑	↗	↘	↕	↗			
Traffic Volume (veh/h)	427	1303	0	0	764	440	260	0	570	0	0	0
Future Volume (veh/h)	427	1303	0	0	764	440	260	0	570	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	449	1372	0	0	804	116	183	0	620			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	390	2824	0	0	1960	608	563	0	1002			
Arrive On Green	0.22	1.00	0.00	0.00	0.38	0.38	0.31	0.00	0.31			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	0	3220			
Grp Volume(v), veh/h	449	1372	0	0	804	116	183	0	620			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	10.0	0.0	0.0	0.0	10.3	4.3	7.0	0.0	14.8			
Cycle Q Clear(g_c), s	10.0	0.0	0.0	0.0	10.3	4.3	7.0	0.0	14.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	390	2824	0	0	1960	608	563	0	1002			
V/C Ratio(X)	1.15	0.49	0.00	0.00	0.41	0.19	0.33	0.00	0.62			
Avail Cap(c_a), veh/h	390	2824	0	0	1960	608	563	0	1002			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.34	0.34	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.0	0.0	0.0	0.0	20.6	18.8	23.8	0.0	26.4			
Incr Delay (d2), s/veh	78.4	0.2	0.0	0.0	0.6	0.7	1.5	0.0	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			
%ile BackOfQ(50%),veh/ln	7.8	0.1	0.0	0.0	3.9	1.6	3.2	0.0	5.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	113.4	0.2	0.0	0.0	21.3	19.5	25.3	0.0	29.3			
LnGrp LOS	F	A	A	A	C	B	C	A	C			
Approach Vol, veh/h		1821			920			803				
Approach Delay, s/veh		28.1			21.0			28.4				
Approach LOS		C			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.5			15.0	40.5		34.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		49.0			10.0	34.0		28.0				
Max Q Clear Time (g_c+1), s		2.0			12.0	12.3		16.8				
Green Ext Time (p_c), s		9.7			0.0	4.5		2.6				
Intersection Summary												
HCM 6th Ctrl Delay					26.3							
HCM 6th LOS					C							
Notes												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary

1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center

Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	1041	170	260	1213	277	110	1190	220	176	1440	150
Future Volume (veh/h)	270	1041	170	260	1213	277	110	1190	220	176	1440	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	284	1096	71	274	1277	184	116	1253	204	185	1516	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	1272	82	221	1155	166	308	1153	188	319	1364	421
Arrive On Green	0.13	0.26	0.26	0.12	0.25	0.25	0.13	0.26	0.26	0.13	0.26	0.26
Sat Flow, veh/h	1810	4976	322	1810	4579	660	1810	4490	731	1810	5187	1601
Grp Volume(v), veh/h	284	761	406	274	964	497	116	965	492	185	1516	51
Grp Sat Flow(s),veh/h/ln	1810	1729	1840	1810	1729	1781	1810	1729	1763	1810	1729	1601
Q Serve(g_s), s	11.3	18.9	18.9	11.0	22.7	22.7	3.8	23.1	23.1	6.3	23.7	2.2
Cycle Q Clear(g_c), s	11.3	18.9	18.9	11.0	22.7	22.7	3.8	23.1	23.1	6.3	23.7	2.2
Prop In Lane	1.00		0.18	1.00		0.37	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	227	884	470	221	872	449	308	888	453	319	1364	421
V/C Ratio(X)	1.25	0.86	0.86	1.24	1.11	1.11	0.38	1.09	1.09	0.58	1.11	0.12
Avail Cap(c_a), veh/h	227	884	470	221	872	449	321	888	453	321	1364	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	32.0	32.0	39.5	33.6	33.7	21.3	33.4	33.4	21.7	33.2	25.3
Incr Delay (d2), s/veh	143.6	9.0	15.6	132.8	60.2	68.9	1.1	56.4	67.6	3.2	61.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	8.3	9.7	12.7	16.0	17.6	1.6	16.1	17.8	2.7	17.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	182.9	40.9	47.6	172.3	93.8	102.6	22.4	89.9	101.0	24.9	94.3	25.8
LnGrp LOS	F	D	D	F	F	F	C	F	F	C	F	C
Approach Vol, veh/h		1451			1735			1573			1752	
Approach Delay, s/veh		70.6			108.7			88.4			84.9	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.6	28.9	15.7	28.8	16.0	29.5	16.0	28.5				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	23.0	* 11	23.0	* 12	23.0	* 11	22.7				
Max Q Clear Time (g_c+I1), s	8.3	25.1	13.0	20.9	5.8	25.7	13.3	24.7				
Green Ext Time (p_c), s	0.2	0.0	0.0	1.5	0.2	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	88.9
HCM 6th LOS	F

Notes

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

HCM 6th Signalized Intersection Summary
 2: Mission Blvd & Sultana Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔ ↑↑↑			↔ ↑↑↑				↕			↕	
Traffic Volume (veh/h)	50	1357	50	80	1520	80	50	170	50	80	170	70
Future Volume (veh/h)	50	1357	50	80	1520	80	50	170	50	80	170	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	1428	27	84	1600	51	53	179	42	84	179	60
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	2604	49	110	2633	84	125	316	68	157	261	79
Arrive On Green	0.05	0.50	0.50	0.06	0.51	0.51	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1810	5240	99	1810	5163	165	225	1252	267	340	1035	314
Grp Volume(v), veh/h	53	942	513	84	1072	579	274	0	0	323	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1882	1810	1729	1869	1744	0	0	1688	0	0
Q Serve(g_s), s	1.8	11.9	11.9	2.9	13.9	13.9	0.0	0.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	1.8	11.9	11.9	2.9	13.9	13.9	8.5	0.0	0.0	10.8	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.09	0.19		0.15	0.26		0.19
Lane Grp Cap(c), veh/h	87	1718	935	110	1763	953	508	0	0	498	0	0
V/C Ratio(X)	0.61	0.55	0.55	0.76	0.61	0.61	0.54	0.00	0.00	0.65	0.00	0.00
Avail Cap(c_a), veh/h	157	1945	1058	183	1994	1078	769	0	0	750	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.6	11.0	11.0	29.3	11.0	11.0	20.8	0.0	0.0	21.6	0.0	0.0
Incr Delay (d2), s/veh	14.0	0.6	1.1	20.3	0.8	1.5	1.9	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.6	4.0	1.8	4.1	4.6	3.5	0.0	0.0	4.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	11.6	12.1	49.5	11.8	12.5	22.7	0.0	0.0	24.6	0.0	0.0
LnGrp LOS	D	B	B	D	B	B	C	A	A	C	A	A
Approach Vol, veh/h	1508				1735		274				323	
Approach Delay, s/veh	12.9				13.9		22.7				24.6	
Approach LOS	B				B		C				C	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.9	35.4	20.0		7.0	36.3	20.0					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	4.0	35.6	26.0		5.5	36.5	26.0					
Max Q Clear Time (g_c+14), s	4.0	13.9	12.8		3.8	15.9	10.5					
Green Ext Time (p_c), s	0.0	15.5	2.8		0.0	16.3	2.5					
Intersection Summary												
HCM 6th Ctrl Delay			15.0									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
3: Mission Blvd & Campus Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑			↖ ↑	↑		↖ ↑	↑	
Traffic Volume (veh/h)	260	1197	90	130	1490	80	130	430	60	70	630	50
Future Volume (veh/h)	260	1197	90	130	1490	80	130	430	60	70	630	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	274	1260	42	137	1568	39	137	453	59	74	663	47
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	7074	236	141	7142	178	147	439	57	80	911	65
Arrive On Green	0.08	1.00	1.00	0.16	1.00	1.00	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	5155	172	1810	5205	129	750	1646	214	902	3418	242
Grp Volume(v), veh/h	274	845	457	137	1042	565	137	0	512	74	350	360
Grp Sat Flow(s),veh/h/ln	1810	1729	1869	1810	1729	1876	750	0	1860	902	1805	1855
Q Serve(g_s), s	7.0	0.0	0.0	6.8	0.0	0.0	8.1	0.0	24.0	0.0	15.9	15.9
Cycle Q Clear(g_c), s	7.0	0.0	0.0	6.8	0.0	0.0	24.0	0.0	24.0	24.0	15.9	15.9
Prop In Lane	1.00		0.09	1.00		0.07	1.00		0.12	1.00		0.13
Lane Grp Cap(c), veh/h	141	4745	2564	141	4745	2575	147	0	496	80	481	495
V/C Ratio(X)	1.95	0.18	0.18	0.97	0.22	0.22	0.93	0.00	1.03	0.92	0.73	0.73
Avail Cap(c_a), veh/h	141	4745	2564	141	4745	2575	147	0	496	80	481	495
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.54	0.54	0.54	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	0.0	0.0	37.9	0.0	0.0	43.0	0.0	33.0	45.0	30.0	30.0
Incr Delay (d2), s/veh	450.9	0.1	0.2	48.6	0.1	0.1	54.5	0.0	49.0	77.4	6.7	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.6	0.1	0.1	4.5	0.0	0.1	5.2	0.0	16.9	3.3	7.4	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	492.4	0.1	0.2	86.5	0.1	0.1	97.5	0.0	82.0	122.4	36.7	36.6
LnGrp LOS	F	A	A	F	A	A	F	A	F	F	D	D
Approach Vol, veh/h		1576			1744			649			784	
Approach Delay, s/veh		85.7			6.9			85.2			44.7	
Approach LOS		F			A			F			D	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		30.5	14.0	133.0		30.5	14.0	133.0				
Change Period (Y+Rc), s		6.5	7.0	7.0		* 6.5	7.0	* 7				
Max Green Setting (Gmax), s		22.5	7.0	40.0		* 24	7.0	* 41				
Max Q Clear Time (g_c+I1), s		26.0	8.8	2.0		26.0	9.0	2.0				
Green Ext Time (p_c), s		0.0	0.0	20.1		0.0	0.0	26.0				

Intersection Summary

HCM 6th Ctrl Delay	50.0
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary

4: Mission Blvd & Bon View Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗			↖ ↑		↗		↖ ↑	
Traffic Volume (veh/h)	70	1227	50	60	1520	110	80	500	50	70	450	100
Future Volume (veh/h)	70	1227	50	60	1520	110	80	500	50	70	450	100
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	0.90	1.00	1.00	0.90
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	1292	25	63	1600	54	84	526	14	74	474	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	1924	37	96	1875	63	145	806	516	138	779	516
Arrive On Green	0.04	0.25	0.25	0.05	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	5238	101	1810	5152	174	252	2255	1443	229	2177	1443
Grp Volume(v), veh/h	74	853	464	63	1074	580	223	387	14	188	360	27
Grp Sat Flow(s),veh/h/ln	1810	1729	1881	1810	1729	1868	864	1643	1443	764	1643	1443
Q Serve(g_s), s	3.6	20.0	20.1	3.1	25.8	25.8	9.1	17.8	0.6	7.5	16.2	1.1
Cycle Q Clear(g_c), s	3.6	20.0	20.1	3.1	25.8	25.8	25.3	17.8	0.6	25.3	16.2	1.1
Prop In Lane	1.00		0.05	1.00		0.09	0.38		1.00	0.39		1.00
Lane Grp Cap(c), veh/h	102	1270	691	96	1259	680	364	587	516	329	587	516
V/C Ratio(X)	0.73	0.67	0.67	0.66	0.85	0.85	0.61	0.66	0.03	0.57	0.61	0.05
Avail Cap(c_a), veh/h	121	1270	691	121	1259	680	556	821	722	515	821	722
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.10	0.10	0.10	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	29.0	29.0	41.8	26.4	26.4	28.2	24.3	18.8	28.0	23.8	18.9
Incr Delay (d2), s/veh	9.6	2.2	3.9	0.4	0.8	1.5	1.7	1.3	0.0	1.6	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	8.8	9.9	1.3	9.7	10.7	4.4	6.5	0.2	3.7	5.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	31.2	33.0	42.3	27.2	27.9	29.9	25.6	18.8	29.6	24.8	19.0
LnGrp LOS	D	C	C	D	C	C	C	C	B	C	C	B
Approach Vol, veh/h	1391			1717			624			575		
Approach Delay, s/veh	32.9			28.0			27.0			26.1		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	1.8	40.1	38.2		12.1	39.8	38.2					
Change Period (Y+Rc), s	7.0	7.0	6.0		7.0	7.0	6.0					
Max Green Setting (Gmax), s	19.0	19.0	45.0		6.0	19.0	45.0					
Max Q Clear Time (g_c+1.5), s	22.1	22.1	27.3		5.6	27.8	27.3					
Green Ext Time (p_c), s	0.0	0.0	2.8		0.0	0.0	3.3					

Intersection Summary

HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔	↔	↑↑↑↔		↔	↑↑↑	↔
Traffic Volume (veh/h)	280	897	140	40	1150	964	240	980	70	812	930	210
Future Volume (veh/h)	280	897	140	40	1150	964	240	980	70	812	930	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	283	906	39	40	1162	577	242	990	68	820	939	183
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	332	1325	409	158	1067	329	213	1020	70	585	2135	812
Arrive On Green	0.09	0.26	0.26	0.04	0.21	0.21	0.12	0.21	0.21	0.32	0.41	0.41
Sat Flow, veh/h	3510	5187	1601	3510	5187	1598	1810	4954	340	1810	5187	1604
Grp Volume(v), veh/h	283	906	39	40	1162	577	242	690	368	820	939	183
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1598	1810	1729	1836	1810	1729	1604
Q Serve(g_s), s	13.5	26.8	3.2	1.9	35.0	35.0	20.0	33.7	33.8	55.0	22.1	10.8
Cycle Q Clear(g_c), s	13.5	26.8	3.2	1.9	35.0	35.0	20.0	33.7	33.8	55.0	22.1	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	332	1325	409	158	1067	329	213	712	378	585	2135	812
V/C Ratio(X)	0.85	0.68	0.10	0.25	1.09	1.75	1.14	0.97	0.97	1.40	0.44	0.23
Avail Cap(c_a), veh/h	619	1372	424	413	1067	329	213	712	378	585	2135	812
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	75.8	57.1	48.3	78.5	67.5	67.5	75.0	67.0	67.1	57.5	36.0	23.4
Incr Delay (d2), s/veh	4.7	1.4	0.1	0.6	54.9	351.6	103.6	26.5	39.1	190.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	11.6	1.3	0.9	20.6	46.2	15.3	17.3	19.7	55.6	9.3	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.5	58.6	48.4	79.1	122.4	419.2	178.6	93.6	106.1	248.3	36.2	23.6
LnGrp LOS	F	E	D	E	F	F	F	F	F	F	D	C
Approach Vol, veh/h		1228			1779			1300			1942	
Approach Delay, s/veh		63.3			217.7			112.9			124.5	
Approach LOS		E			F			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	62.0	42.0	15.1	50.9	27.0	77.0	23.6	42.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+Y), s	57.0	35.8	3.9	28.8	22.0	24.1	15.5	37.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	6.0	0.0	12.4	0.6	0.0				

Intersection Summary

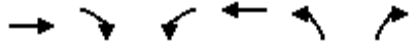
HCM 6th Ctrl Delay	136.6
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
6: Baker Ave & Mission Blvd

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖	↑↑↑	↘	↙
Traffic Volume (veh/h)	1748	90	60	1813	150	140
Future Volume (veh/h)	1748	90	60	1813	150	140
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1840	63	63	1908	158	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	3427	1060	96	4133	245	112
Arrive On Green	0.66	0.66	0.05	0.80	0.07	0.07
Sat Flow, veh/h	5358	1604	1810	5358	3510	1610
Grp Volume(v), veh/h	1840	63	63	1908	158	15
Grp Sat Flow(s),veh/h/ln	1729	1604	1810	1729	1755	1610
Q Serve(g_s), s	16.8	1.2	3.1	10.6	3.9	0.8
Cycle Q Clear(g_c), s	16.8	1.2	3.1	10.6	3.9	0.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3427	1060	96	4133	245	112
V/C Ratio(X)	0.54	0.06	0.66	0.46	0.64	0.13
Avail Cap(c_a), veh/h	3427	1060	251	4133	800	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.61	0.61	1.00	1.00
Uniform Delay (d), s/veh	8.0	5.4	41.8	2.9	40.8	39.3
Incr Delay (d2), s/veh	0.1	0.0	3.5	0.2	2.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.3	1.4	1.2	1.7	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	5.4	45.3	3.2	43.6	39.8
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1903			1971	173	
Approach Delay, s/veh	8.0			4.5	43.3	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	2.3	67.0		79.2	10.8	
Change Period (Y+Rc), s	7.5	* 7.5		7.5	4.5	
Max Green Setting (Gmax), s	12.5	* 38		57.5	20.5	
Max Q Clear Time (g_c+1.5), s	15.5	18.8		12.6	5.9	
Green Ext Time (p_c), s	0.0	10.3		19.4	0.4	

Intersection Summary

HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

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

Intersection												
Intersection Delay, s/veh	12.9											
Intersection LOS	B											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕			↕	↕		↕	
Traffic Vol, veh/h	0	10	0	452	10	0	0	30	315	20	60	0
Future Vol, veh/h	0	10	0	452	10	0	0	30	315	20	60	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	11	0	476	11	0	0	32	332	21	63	0
Number of Lanes	0	1	0	1	1	0	0	1	1	0	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	9.7	13.5	12.9	9.9
HCM LOS	A	B	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	96%	50%	0%
Vol Thru, %	100%	0%	100%	0%	4%	50%	100%
Vol Right, %	0%	100%	0%	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	315	10	231	231	40	40
LT Vol	0	0	0	231	221	20	0
Through Vol	30	0	10	0	10	20	40
RT Vol	0	315	0	0	0	0	0
Lane Flow Rate	32	332	11	243	244	42	42
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.054	0.498	0.019	0.422	0.422	0.078	0.075
Departure Headway (Hd)	6.116	5.407	6.512	6.258	6.236	6.7	6.445
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	589	670	549	578	577	534	555
Service Time	3.816	3.107	4.556	3.985	3.963	4.444	4.189
HCM Lane V/C Ratio	0.054	0.496	0.02	0.42	0.423	0.079	0.076
HCM Control Delay	9.2	13.3	9.7	13.5	13.5	10	9.7
HCM Lane LOS	A	B	A	B	B	A	A
HCM 95th-tile Q	0.2	2.8	0.1	2.1	2.1	0.3	0.2

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	345	0	0	502	0
Future Vol, veh/h	0	0	0	0	0	0	0	345	0	0	502	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0	0	363	0	0	528	0

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	710	891	264	627	891	182	528	0	0	363	0	0
Stage 1	528	528	-	363	363	-	-	-	-	-	-	-
Stage 2	182	363	-	264	528	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	324	284	741	372	284	836	1049	-	-	1207	-	-
Stage 1	507	531	-	634	628	-	-	-	-	-	-	-
Stage 2	808	628	-	724	531	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	324	284	741	372	284	836	1049	-	-	1207	-	-
Mov Cap-2 Maneuver	324	284	-	372	284	-	-	-	-	-	-	-
Stage 1	507	531	-	634	628	-	-	-	-	-	-	-
Stage 2	808	628	-	724	531	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1049	-	-	-	-	1207	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

HCM 6th Signalized Intersection Summary
9: Vineyard Ave & Mission Blvd

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	1290	280	70	1300	13	290	134	90	10	289	193
Future Volume (veh/h)	198	1290	280	70	1300	13	290	134	90	10	289	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	208	1358	222	74	1368	13	305	141	12	11	304	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	249	2205	684	130	2076	20	269	838	374	345	838	
Arrive On Green	0.14	0.43	0.43	0.07	0.39	0.39	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1810	5187	1610	1810	5299	50	1092	3610	1610	1254	3610	1610
Grp Volume(v), veh/h	208	1358	222	74	893	488	305	141	12	11	304	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1610	1810	1729	1891	1092	1805	1610	1254	1805	1610
Q Serve(g_s), s	8.7	15.8	7.1	3.1	16.4	16.4	12.5	2.4	0.4	0.5	5.5	0.0
Cycle Q Clear(g_c), s	8.7	15.8	7.1	3.1	16.4	16.4	18.0	2.4	0.4	3.0	5.5	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	2205	684	130	1355	741	269	838	374	345	838	
V/C Ratio(X)	0.84	0.62	0.32	0.57	0.66	0.66	1.13	0.17	0.03	0.03	0.36	
Avail Cap(c_a), veh/h	292	2943	914	163	1828	1000	269	838	374	345	838	
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	0.00
Uniform Delay (d), s/veh	32.6	17.4	14.9	34.8	19.3	19.3	34.7	23.8	23.0	25.0	25.0	0.0
Incr Delay (d2), s/veh	16.6	0.4	0.4	1.5	0.8	1.4	95.4	0.1	0.0	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	5.2	2.2	1.3	5.6	6.3	12.2	1.0	0.2	0.2	2.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	17.8	15.3	36.3	20.1	20.8	130.0	23.9	23.1	25.0	25.4	0.0
LnGrp LOS	D	B	B	D	C	C	F	C	C	C	C	
Approach Vol, veh/h		1788			1455			458			315	A
Approach Delay, s/veh		21.1			21.2			94.6			25.4	
Approach LOS		C			C			F			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	40.0		25.0	15.2	37.4		25.0				
Change Period (Y+Rc), s	7.0	7.0		7.0	4.5	7.0		7.0				
Max Green Setting (Gmax), s	7.0	44.0		18.0	12.5	41.0		18.0				
Max Q Clear Time (g_c+I1), s	5.1	17.8		7.5	10.7	18.4		20.0				
Green Ext Time (p_c), s	0.0	14.7		1.9	0.1	12.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 10: Vineyard Ave & Francis St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	330	90	190	430	80	100	312	62	50	609	180
Future Volume (veh/h)	60	330	90	190	430	80	100	312	62	50	609	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	347	20	200	453	22	105	328	24	53	641	65
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	273	601	265	337	733	324	359	1283	570	486	1227	545
Arrive On Green	0.06	0.17	0.17	0.09	0.20	0.20	0.07	0.36	0.36	0.05	0.34	0.34
Sat Flow, veh/h	1810	3610	1596	1810	3610	1598	1810	3610	1603	1810	3610	1603
Grp Volume(v), veh/h	63	347	20	200	453	22	105	328	24	53	641	65
Grp Sat Flow(s),veh/h/ln	1810	1805	1596	1810	1805	1598	1810	1805	1603	1810	1805	1603
Q Serve(g_s), s	2.3	7.2	0.9	7.4	9.3	0.9	3.0	5.2	0.8	1.5	11.5	2.3
Cycle Q Clear(g_c), s	2.3	7.2	0.9	7.4	9.3	0.9	3.0	5.2	0.8	1.5	11.5	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	601	265	337	733	324	359	1283	570	486	1227	545
V/C Ratio(X)	0.23	0.58	0.08	0.59	0.62	0.07	0.29	0.26	0.04	0.11	0.52	0.12
Avail Cap(c_a), veh/h	306	1205	533	337	1272	563	372	1283	570	527	1227	545
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	25.6	31.1	28.5	25.4	29.4	26.1	16.0	18.5	17.1	15.5	21.4	18.4
Incr Delay (d2), s/veh	0.5	1.3	0.2	2.8	1.2	0.1	0.5	0.5	0.1	0.1	1.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.0	0.3	3.2	3.8	0.3	1.1	2.0	0.3	0.6	4.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.1	32.3	28.6	28.2	30.6	26.2	16.6	19.0	17.2	15.6	23.0	18.8
LnGrp LOS	C	C	C	C	C	C	B	B	B	B	C	B
Approach Vol, veh/h		430			675			457			759	
Approach Delay, s/veh		31.3			29.7			18.3			22.1	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	35.8	14.0	20.0	12.4	34.5	11.0	22.9				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	6.0	27.5	7.5	27.0	6.0	27.5	6.0	28.5				
Max Q Clear Time (g_c+1), s	13.5	7.2	9.4	9.2	5.0	13.5	4.3	11.3				
Green Ext Time (p_c), s	0.0	2.6	0.0	2.6	0.0	4.8	0.0	3.5				

Intersection Summary

HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	480	360	240	670	100	120	252	100	70	869	120
Future Volume (veh/h)	30	480	360	240	670	100	120	252	100	70	869	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	505	239	253	705	93	126	265	27	74	915	113
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	168	490	231	237	858	113	157	1073	479	95	851	105
Arrive On Green	0.02	0.21	0.21	0.08	0.27	0.27	0.17	0.59	0.59	0.05	0.26	0.26
Sat Flow, veh/h	1810	2375	1119	1810	3204	422	1810	3610	1610	1810	3231	399
Grp Volume(v), veh/h	32	383	361	253	397	401	126	265	27	74	511	517
Grp Sat Flow(s),veh/h/ln	1810	1805	1689	1810	1805	1821	1810	1805	1610	1810	1805	1825
Q Serve(g_s), s	1.1	16.5	16.5	6.5	16.5	16.5	5.4	2.8	0.6	3.2	21.1	21.1
Cycle Q Clear(g_c), s	1.1	16.5	16.5	6.5	16.5	16.5	5.4	2.8	0.6	3.2	21.1	21.1
Prop In Lane	1.00		0.66	1.00		0.23	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	168	372	348	237	483	488	157	1073	479	95	476	481
V/C Ratio(X)	0.19	1.03	1.04	1.07	0.82	0.82	0.80	0.25	0.06	0.78	1.07	1.07
Avail Cap(c_a), veh/h	189	372	348	237	483	488	204	1073	479	113	476	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	0.86	0.86	0.86
Uniform Delay (d), s/veh	25.3	31.7	31.8	27.7	27.5	27.5	32.4	12.0	11.5	37.4	29.5	29.5
Incr Delay (d2), s/veh	0.2	54.4	57.8	77.4	10.6	10.6	12.1	0.5	0.2	17.4	59.9	59.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	12.1	11.7	6.2	7.8	7.9	2.6	1.0	0.2	1.8	16.2	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	86.1	89.5	105.2	38.1	38.1	44.5	12.5	11.7	54.8	89.4	89.2
LnGrp LOS	C	F	F	F	D	D	D	B	B	D	F	F
Approach Vol, veh/h		776			1051			418			1102	
Approach Delay, s/veh		85.2			54.3			22.1			87.0	
Approach LOS		F			D			C			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	30.8	14.0	24.0	13.9	28.1	9.1	28.9				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	23.0	6.5	16.5	9.0	19.0	2.5	20.5				
Max Q Clear Time (g_c+1/2), s	1.2	4.8	8.5	18.5	7.4	23.1	3.1	18.5				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	68.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 12: Vineyard Ave & Raymond Kay Way

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	20	50	390	20	110	30	382	160	60	1379	20
Future Volume (veh/h)	20	20	50	390	20	110	30	382	160	60	1379	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	21	5	426	0	22	32	402	61	63	1452	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	84	20	564	0	248	39	1624	721	68	1697	25
Arrive On Green	0.06	0.06	0.06	0.16	0.00	0.16	0.01	0.15	0.15	0.08	0.93	0.93
Sat Flow, veh/h	1810	1483	353	3619	0	1595	1810	3610	1601	1810	3643	53
Grp Volume(v), veh/h	21	0	26	426	0	22	32	402	61	63	719	754
Grp Sat Flow(s),veh/h/ln	1810	0	1836	1810	0	1595	1810	1805	1601	1810	1805	1890
Q Serve(g_s), s	0.9	0.0	1.1	9.0	0.0	0.9	1.4	7.9	2.6	2.8	10.7	10.8
Cycle Q Clear(g_c), s	0.9	0.0	1.1	9.0	0.0	0.9	1.4	7.9	2.6	2.8	10.7	10.8
Prop In Lane	1.00		0.19	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	103	0	104	564	0	248	39	1624	721	68	841	880
V/C Ratio(X)	0.20	0.00	0.25	0.76	0.00	0.09	0.81	0.25	0.08	0.93	0.86	0.86
Avail Cap(c_a), veh/h	158	0	161	950	0	419	68	1624	721	68	841	880
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.99	0.99	0.99	0.09	0.09	0.09
Uniform Delay (d), s/veh	36.0	0.0	36.1	32.3	0.0	28.9	39.6	22.1	19.9	36.9	1.8	1.8
Incr Delay (d2), s/veh	0.4	0.0	0.5	1.6	0.0	0.1	36.2	0.4	0.2	17.4	1.1	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	0.4	0.0	0.5	4.0	0.0	0.4	1.0	3.3	0.9	1.4	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	0.0	36.6	33.9	0.0	29.0	75.8	22.4	20.1	54.3	2.9	2.9
LnGrp LOS	D	A	D	C	A	C	E	C	C	D	A	A
Approach Vol, veh/h		47			448			495			1536	
Approach Delay, s/veh		36.5			33.6			25.6			5.0	
Approach LOS		D			C			C			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	40.0	43.0		9.5	8.7	44.3		17.5				
Change Period (Y+Rc), s	7.0	7.0		5.0	7.0	7.0		5.0				
Max Green Setting (Gmax), s	30.0	25.0		7.0	3.0	25.0		21.0				
Max Q Clear Time (g_c+1/4), s	14.8	9.9		3.1	3.4	12.8		11.0				
Green Ext Time (p_c), s	0.0	2.6		0.0	0.0	6.1		1.0				

Intersection Summary

HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↘	↙	↗	↘	↑↑↑			↑↑↑	↗
Traffic Volume (veh/h)	0	0	0	520	0	140	220	412	0	0	1337	542
Future Volume (veh/h)	0	0	0	520	0	140	220	412	0	0	1337	542
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				547	0	38	232	434	0	0	1407	314
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				720	0	641	268	3403	0	0	2311	713
Arrive On Green				0.20	0.00	0.20	0.30	1.00	0.00	0.00	0.15	0.15
Sat Flow, veh/h				3619	0	3220	1810	5358	0	0	5358	1601
Grp Volume(v), veh/h				547	0	38	232	434	0	0	1407	314
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1810	1729	0	0	1729	1601
Q Serve(g_s), s				11.4	0.0	0.8	9.7	0.0	0.0	0.0	20.3	14.3
Cycle Q Clear(g_c), s				11.4	0.0	0.8	9.7	0.0	0.0	0.0	20.3	14.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				720	0	641	268	3403	0	0	2311	713
V/C Ratio(X)				0.76	0.00	0.06	0.87	0.13	0.00	0.00	0.61	0.44
Avail Cap(c_a), veh/h				923	0	821	362	3403	0	0	2311	713
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.83	0.83	0.00	0.00	0.35	0.35
Uniform Delay (d), s/veh				30.2	0.0	26.0	27.4	0.0	0.0	0.0	27.6	25.0
Incr Delay (d2), s/veh				4.3	0.0	0.1	10.5	0.1	0.0	0.0	0.4	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
%ile BackOfQ(50%),veh/ln				5.2	0.0	0.3	4.1	0.0	0.0	0.0	9.3	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.5	0.0	26.1	37.9	0.1	0.0	0.0	28.0	25.7
LnGrp LOS				C	A	C	D	A	A	A	C	C
Approach Vol, veh/h					585			666			1721	
Approach Delay, s/veh					34.0			13.2			27.6	
Approach LOS					C			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		58.3			16.8	41.4		21.7				
Change Period (Y+Rc), s		5.8			5.0	5.8		5.8				
Max Green Setting (Gmax), s		48.0			16.0	27.0		20.4				
Max Q Clear Time (g_c+I1), s		2.0			11.7	22.3		13.4				
Green Ext Time (p_c), s		2.3			0.1	3.2		2.5				

Intersection Summary

HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↘	↖					↖↗		↖	↖↗	
Traffic Volume (veh/h)	116	0	240	0	0	0	0	506	410	380	1487	0
Future Volume (veh/h)	116	0	240	0	0	0	0	506	410	380	1487	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	122	0	171				0	533	250	400	1565	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	769	0	684				0	1153	523	450	3333	0
Arrive On Green	0.21	0.00	0.21				0.00	0.33	0.33	0.08	0.21	0.00
Sat Flow, veh/h	3619	0	3220				0	3652	1578	1810	5358	0
Grp Volume(v), veh/h	122	0	171				0	529	254	400	1565	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1602	1810	1729	0
Q Serve(g_s), s	2.2	0.0	3.5				0.0	9.7	10.1	17.5	21.1	0.0
Cycle Q Clear(g_c), s	2.2	0.0	3.5				0.0	9.7	10.1	17.5	21.1	0.0
Prop In Lane	1.00		1.00				0.00		0.99	1.00		0.00
Lane Grp Cap(c), veh/h	769	0	684				0	1146	531	450	3333	0
V/C Ratio(X)	0.16	0.00	0.25				0.00	0.46	0.48	0.89	0.47	0.00
Avail Cap(c_a), veh/h	769	0	684				0	1146	531	611	3333	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.66	0.66	0.00
Uniform Delay (d), s/veh	25.7	0.0	26.2				0.0	21.1	21.3	35.6	19.6	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.9				0.0	1.3	3.1	6.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.4				0.0	3.7	3.9	9.2	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.1	0.0	27.1				0.0	22.5	24.3	42.4	19.9	0.0
LnGrp LOS	C	A	C				A	C	C	D	B	A
Approach Vol, veh/h		293						783			1965	
Approach Delay, s/veh		26.7						23.1			24.5	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	24.9	32.3	22.8	57.2								
Change Period (Y+Rc), s	5.0	5.8	5.8	5.8								
Max Green Setting (Gmax), s	27.0	19.0	17.0	51.4								
Max Q Clear Time (g_c+19.5), s	11.5	12.1	5.5	23.1								
Green Ext Time (p_c), s	0.4	2.3	1.6	10.5								

Intersection Summary

HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 15: Archibald Ave & Jurupa St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	197	56	1210	140	120	48	90	380	30	20	20
Future Volume (veh/h)	30	197	56	1210	140	120	48	90	380	30	20	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	207	12	1274	147	66	51	95	65	32	21	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	292	307	258	1588	834	702	80	234	344	59	181	26
Arrive On Green	0.16	0.16	0.16	0.44	0.44	0.44	0.04	0.12	0.12	0.03	0.11	0.11
Sat Flow, veh/h	1810	1900	1595	3619	1900	1601	1810	1900	2799	1810	1623	232
Grp Volume(v), veh/h	32	207	12	1274	147	66	51	95	65	32	0	24
Grp Sat Flow(s),veh/h/ln	1810	1900	1595	1810	1900	1601	1810	1900	1400	1810	0	1855
Q Serve(g_s), s	1.1	7.6	0.5	22.5	3.5	1.8	2.0	3.4	1.5	1.3	0.0	0.9
Cycle Q Clear(g_c), s	1.1	7.6	0.5	22.5	3.5	1.8	2.0	3.4	1.5	1.3	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	292	307	258	1588	834	702	80	234	344	59	0	207
V/C Ratio(X)	0.11	0.67	0.05	0.80	0.18	0.09	0.64	0.41	0.19	0.54	0.00	0.12
Avail Cap(c_a), veh/h	872	916	769	2702	1418	1195	123	941	1387	123	0	919
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	0.00	1.00
Uniform Delay (d), s/veh	26.4	29.1	26.1	17.9	12.6	12.1	34.6	29.8	29.0	35.1	0.0	29.5
Incr Delay (d2), s/veh	0.2	2.6	0.1	1.0	0.1	0.1	8.3	1.1	0.3	7.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.4	0.2	8.9	1.4	0.6	1.1	1.6	0.5	0.7	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	31.7	26.2	18.9	12.7	12.2	42.9	31.0	29.3	42.6	0.0	29.7
LnGrp LOS	C	C	C	B	B	B	D	C	C	D	A	C
Approach Vol, veh/h		251			1487			211			56	
Approach Delay, s/veh		30.7			18.0			33.3			37.1	
Approach LOS		C			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	13.6		16.4	7.7	12.7		36.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	36.5		35.5	5.0	36.5		55.0				
Max Q Clear Time (g_c+1), s	13.3	5.4		9.6	4.0	2.9		24.5				
Green Ext Time (p_c), s	0.0	0.8		1.1	0.0	0.1		7.9				

Intersection Summary

HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 16: Archibald Ave & Tracy Paseo

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	20	0	30	20	0	20	30	438	20	20	1426	20
Future Volume (veh/h)	20	0	30	20	0	20	30	438	20	20	1426	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.98	0.98		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	0	4	21	0	0	32	461	15	21	1501	15
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	161	0	104	136	0	0	99	2590	1151	76	2544	1131
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.00	0.05	0.72	0.72	0.04	0.70	0.70
Sat Flow, veh/h	1536	0	1581	1163	0	0	1810	3610	1605	1810	3610	1604
Grp Volume(v), veh/h	21	0	4	21	0	0	32	461	15	21	1501	15
Grp Sat Flow(s),veh/h/ln	1536	0	1581	1163	0	0	1810	1805	1605	1810	1805	1604
Q Serve(g_s), s	0.0	0.0	0.3	1.7	0.0	0.0	2.0	5.0	0.3	1.3	25.2	0.3
Cycle Q Clear(g_c), s	1.4	0.0	0.3	3.1	0.0	0.0	2.0	5.0	0.3	1.3	25.2	0.3
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	161	0	104	136	0	0	99	2590	1151	76	2544	1131
V/C Ratio(X)	0.13	0.00	0.04	0.15	0.00	0.00	0.32	0.18	0.01	0.28	0.59	0.01
Avail Cap(c_a), veh/h	453	0	435	430	0	0	196	2590	1151	196	2544	1131
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	0.00	1.00	1.00	0.00	0.00	0.96	0.96	0.96	0.66	0.66	0.66
Uniform Delay (d), s/veh	53.0	0.0	52.5	54.5	0.0	0.0	54.6	5.5	4.8	55.7	9.0	5.3
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.6	0.0	0.0	2.2	0.1	0.0	1.6	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	0.6	0.0	0.0	1.0	1.6	0.1	0.6	8.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	0.0	52.7	55.1	0.0	0.0	56.8	5.6	4.9	57.3	9.6	5.3
LnGrp LOS	D	A	D	E	A	A	E	A	A	E	A	A
Approach Vol, veh/h		25			21			508			1537	
Approach Delay, s/veh		53.3			55.1			8.8			10.2	
Approach LOS		D			E			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	93.1		14.9	13.6	91.6		14.9				
Change Period (Y+Rc), s	7.0	7.0		7.0	7.0	7.0		7.0				
Max Green Setting (Gmax), s	13.0	53.0		33.0	13.0	53.0		33.0				
Max Q Clear Time (g_c+1), s	13.3	7.0		3.4	4.0	27.2		5.1				
Green Ext Time (p_c), s	0.0	6.3		0.1	0.0	19.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

17: Archibald Ave & Mission Blvd

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘	↑↑↑		↘	↑↑↑	↗	↘	↑↑↑	
Traffic Volume (veh/h)	140	1080	310	110	1063	50	230	258	140	80	1046	230
Future Volume (veh/h)	140	1080	310	110	1063	50	230	258	140	80	1046	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	1137	243	116	1119	49	242	272	0	84	1101	242
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	183	1873	579	171	1805	79	106	1585		380	1299	285
Arrive On Green	0.10	0.36	0.36	0.09	0.35	0.35	0.31	0.31	0.00	0.31	0.31	0.31
Sat Flow, veh/h	1810	5187	1603	1810	5094	223	413	5187	1610	1122	4251	934
Grp Volume(v), veh/h	147	1137	243	116	759	409	242	272	0	84	896	447
Grp Sat Flow(s),veh/h/ln	1810	1729	1603	1810	1729	1859	413	1729	1610	1122	1729	1726
Q Serve(g_s), s	7.2	16.1	10.3	5.6	16.4	16.4	5.6	3.5	0.0	5.3	21.8	21.9
Cycle Q Clear(g_c), s	7.2	16.1	10.3	5.6	16.4	16.4	27.5	3.5	0.0	8.8	21.8	21.9
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		0.54
Lane Grp Cap(c), veh/h	183	1873	579	171	1226	659	106	1585		380	1057	528
V/C Ratio(X)	0.80	0.61	0.42	0.68	0.62	0.62	2.29	0.17		0.22	0.85	0.85
Avail Cap(c_a), veh/h	432	1873	579	211	1226	659	106	1585		380	1057	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	0.92	0.92	0.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	39.6	23.5	21.7	39.4	24.0	24.0	44.3	22.9	0.0	26.1	29.3	29.3
Incr Delay (d2), s/veh	5.1	1.2	1.9	3.7	2.4	4.4	605.0	0.1	0.0	0.3	5.4	10.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	6.0	3.7	2.5	6.3	7.2	20.1	1.3	0.0	1.4	9.1	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	24.8	23.5	43.1	26.4	28.4	649.3	23.0	0.0	26.4	34.7	39.6
LnGrp LOS	D	C	C	D	C	C	F	C		C	C	D
Approach Vol, veh/h		1527			1284			514	A		1427	
Approach Delay, s/veh		26.5			28.5			317.9			35.8	
Approach LOS		C			C			F			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	40.0		34.0	16.6	39.4		34.0				
Change Period (Y+Rc), s	7.5	7.5		6.5	7.5	7.5		6.5				
Max Green Setting (Gmax), s	10.5	30.5		27.5	21.5	19.5		27.5				
Max Q Clear Time (g_c+I1), s	7.6	18.1		23.9	9.2	18.4		29.5				
Green Ext Time (p_c), s	0.0	9.1		2.8	0.2	0.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	61.3
HCM 6th LOS	E

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 18: Archibald Ave & Francis St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖	↖	↖↗	↖	↖	↖↗↘	↖
Traffic Volume (veh/h)	190	170	280	30	60	80	130	428	30	60	1006	330
Future Volume (veh/h)	190	170	280	30	60	80	130	428	30	60	1006	330
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	200	179	64	32	63	10	137	451	13	63	1059	231
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	236	510	176	99	427	188	170	1482	659	110	1956	605
Arrive On Green	0.13	0.19	0.19	0.05	0.12	0.12	0.09	0.41	0.41	0.06	0.38	0.38
Sat Flow, veh/h	1810	2627	906	1810	3610	1590	1810	3610	1604	1810	5187	1604
Grp Volume(v), veh/h	200	121	122	32	63	10	137	451	13	63	1059	231
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1810	1805	1590	1810	1805	1604	1810	1729	1604
Q Serve(g_s), s	10.0	5.4	5.7	1.6	1.5	0.5	6.9	7.8	0.4	3.1	14.8	9.7
Cycle Q Clear(g_c), s	10.0	5.4	5.7	1.6	1.5	0.5	6.9	7.8	0.4	3.1	14.8	9.7
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	236	351	336	99	427	188	170	1482	659	110	1956	605
V/C Ratio(X)	0.85	0.35	0.36	0.32	0.15	0.05	0.80	0.30	0.02	0.57	0.54	0.38
Avail Cap(c_a), veh/h	390	486	466	390	972	428	390	1482	659	390	1956	605
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	39.4	32.3	32.4	42.2	36.7	36.3	41.2	18.4	16.3	42.4	22.6	21.0
Incr Delay (d2), s/veh	4.1	0.4	0.5	0.7	0.1	0.1	3.4	0.5	0.1	1.8	1.1	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.3	2.3	0.7	0.6	0.2	3.1	3.1	0.2	1.4	5.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	32.7	32.9	42.9	36.8	36.4	44.6	19.0	16.3	44.2	23.7	22.9
LnGrp LOS	D	C	C	D	D	D	D	B	B	D	C	C
Approach Vol, veh/h		443			105			601			1353	
Approach Delay, s/veh		37.7			38.7			24.7			24.5	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	44.6	11.6	24.5	15.2	41.5	18.6	17.5				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	20.0	35.0	20.0	25.0	20.0	35.0	20.0	25.0				
Max Q Clear Time (g_c+1.5), s	11.5	9.8	3.6	7.7	8.9	16.8	12.0	3.5				
Green Ext Time (p_c), s	0.0	3.3	0.0	0.9	0.1	8.6	0.2	0.2				

Intersection Summary

HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
19: Archibald Ave & Cedar St

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	20	70	50	20	20	70	478	60	40	1296	20
Future Volume (veh/h)	50	20	70	50	20	20	70	478	60	40	1296	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	21	11	53	21	3	74	503	30	42	1364	21
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	136	335	161	136	513	226	122	2219	686	93	2167	33
Arrive On Green	0.08	0.14	0.14	0.08	0.14	0.14	0.07	0.43	0.43	0.05	0.41	0.41
Sat Flow, veh/h	1810	2355	1132	1810	3610	1593	1810	5187	1605	1810	5262	81
Grp Volume(v), veh/h	53	16	16	53	21	3	74	503	30	42	896	489
Grp Sat Flow(s),veh/h/ln	1810	1805	1682	1810	1805	1593	1810	1729	1605	1810	1729	1885
Q Serve(g_s), s	2.4	0.6	0.7	2.4	0.4	0.1	3.4	5.3	0.9	1.9	17.6	17.6
Cycle Q Clear(g_c), s	2.4	0.6	0.7	2.4	0.4	0.1	3.4	5.3	0.9	1.9	17.6	17.6
Prop In Lane	1.00		0.67	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	136	256	239	136	513	226	122	2219	686	93	1424	776
V/C Ratio(X)	0.39	0.06	0.07	0.39	0.04	0.01	0.60	0.23	0.04	0.45	0.63	0.63
Avail Cap(c_a), veh/h	190	884	824	190	1769	781	163	2219	686	148	1424	776
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	37.8	31.8	31.9	37.8	31.7	31.6	38.9	15.5	14.3	39.5	20.0	20.0
Incr Delay (d2), s/veh	0.7	0.1	0.1	0.7	0.0	0.0	1.8	0.2	0.1	1.3	2.1	3.9
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	1.1	0.3	0.3	1.1	0.2	0.1	1.5	1.9	0.4	0.9	6.7	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	31.9	31.9	38.4	31.8	31.6	40.6	15.8	14.4	40.7	22.1	23.9
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	C	C
Approach Vol, veh/h		85			77			607			1427	
Approach Delay, s/veh		36.0			36.3			18.7			23.3	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	43.2	13.0	18.7	12.3	41.8	13.0	18.7				
Change Period (Y+Rc), s	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5				
Max Green Setting (Gmax), s	36.0	9.0	42.0	7.7	35.3	9.0	42.0					
Max Q Clear Time (g_c+1), s	7.3	4.4	2.7	5.4	19.6	4.4	2.4					
Green Ext Time (p_c), s	0.0	4.0	0.0	0.1	0.0	8.8	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 20: Archibald Ave & Philadelphia St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑	↖	↖↗	↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	70	560	430	480	550	50	300	478	230	50	1306	80
Future Volume (veh/h)	70	560	430	480	550	50	300	478	230	50	1306	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	589	209	505	579	17	316	503	87	53	1375	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	281	769	341	568	1064	472	387	1693	523	177	1381	426
Arrive On Green	0.08	0.21	0.21	0.16	0.29	0.29	0.11	0.33	0.33	0.05	0.27	0.27
Sat Flow, veh/h	3510	3610	1599	3510	3610	1602	3510	5187	1603	3510	5187	1601
Grp Volume(v), veh/h	74	589	209	505	579	17	316	503	87	53	1375	24
Grp Sat Flow(s),veh/h/ln	1755	1805	1599	1755	1805	1602	1755	1729	1603	1755	1729	1601
Q Serve(g_s), s	2.2	17.3	13.3	15.9	15.2	0.9	9.9	8.2	4.4	1.6	29.8	1.3
Cycle Q Clear(g_c), s	2.2	17.3	13.3	15.9	15.2	0.9	9.9	8.2	4.4	1.6	29.8	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	769	341	568	1064	472	387	1693	523	177	1381	426
V/C Ratio(X)	0.26	0.77	0.61	0.89	0.54	0.04	0.82	0.30	0.17	0.30	1.00	0.06
Avail Cap(c_a), veh/h	623	961	426	623	1064	472	623	1693	523	623	1381	426
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	48.7	41.7	40.1	46.2	33.4	28.3	49.0	28.3	27.0	51.6	41.3	30.8
Incr Delay (d2), s/veh	0.4	3.2	2.2	13.6	0.7	0.0	3.4	0.4	0.7	0.7	23.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	7.7	5.2	7.7	6.4	0.3	4.4	3.3	1.7	0.7	15.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.1	44.9	42.3	59.9	34.0	28.3	52.4	28.8	27.7	52.3	64.4	31.0
LnGrp LOS	D	D	D	E	C	C	D	C	C	D	E	C
Approach Vol, veh/h		872			1101			906			1452	
Approach Delay, s/veh		44.6			45.8			36.9			63.4	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	42.2	43.3	25.7	31.5	18.9	36.5	16.5	40.7				
Change Period (Y+Rc), s	6.5	6.5	7.5	7.5	6.5	6.5	7.5	7.5				
Max Green Setting (Gmax), s	20.0	30.0	20.0	30.0	20.0	30.0	20.0	30.0				
Max Q Clear Time (g_c+1), s	13.6	10.2	17.9	19.3	11.9	31.8	4.2	17.2				
Green Ext Time (p_c), s	0.1	3.9	0.4	3.7	0.5	0.0	0.1	3.3				

Intersection Summary

HCM 6th Ctrl Delay	49.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↶ ↷	↶ ↷	↶ ↷	↶ ↷	↶ ↷			↑↑↑	↶ ↷
Traffic Volume (veh/h)	0	0	0	400	0	312	480	696	0	0	1846	430
Future Volume (veh/h)	0	0	0	400	0	312	480	696	0	0	1846	430
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No				
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				464	0	92	505	733	0	0	1943	268
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				852	0	379	702	3297	0	0	2484	608
Arrive On Green				0.24	0.00	0.24	0.07	0.21	0.00	0.00	0.38	0.38
Sat Flow, veh/h				3619	0	1610	3510	5358	0	0	6802	1600
Grp Volume(v), veh/h				464	0	92	505	733	0	0	1943	268
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1729	0	0	1634	1600
Q Serve(g_s), s				10.1	0.0	4.2	12.7	10.5	0.0	0.0	23.6	11.2
Cycle Q Clear(g_c), s				10.1	0.0	4.2	12.7	10.5	0.0	0.0	23.6	11.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				852	0	379	702	3297	0	0	2484	608
V/C Ratio(X)				0.54	0.00	0.24	0.72	0.22	0.00	0.00	0.78	0.44
Avail Cap(c_a), veh/h				852	0	379	702	3297	0	0	2484	608
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.90	0.90	0.00	0.00	0.29	0.29
Uniform Delay (d), s/veh				30.2	0.0	27.9	39.6	17.1	0.0	0.0	24.6	20.8
Incr Delay (d2), s/veh				2.5	0.0	1.5	5.7	0.1	0.0	0.0	0.7	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
%ile BackOfQ(50%),veh/ln				4.6	0.0	4.2	6.4	4.3	0.0	0.0	8.4	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.7	0.0	29.4	45.2	17.3	0.0	0.0	25.4	21.5
LnGrp LOS				C	A	C	D	B	A	A	C	C
Approach Vol, veh/h					556			1238			2211	
Approach Delay, s/veh					32.1			28.7			24.9	
Approach LOS					C			C			C	
Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		63.0		27.0	23.0	40.0						
Change Period (Y+Rc), s		5.8		5.8	5.0	5.8						
Max Green Setting (Gmax), s		57.2		21.2	18.0	34.2						
Max Q Clear Time (g_c+I1), s		12.5		12.1	14.7	25.6						
Green Ext Time (p_c), s		5.3		1.5	0.4	7.1						

Intersection Summary

HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	0	410	0	0	0	0	946	480	539	1707	0
Future Volume (veh/h)	160	0	410	0	0	0	0	946	480	539	1707	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	112	0	430				0	996	164	567	1797	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	611	0	1088				0	2106	515	546	2766	0
Arrive On Green	0.34	0.00	0.34				0.00	0.32	0.32	0.16	0.53	0.00
Sat Flow, veh/h	1810	0	3220				0	6802	1598	3510	5358	0
Grp Volume(v), veh/h	112	0	430				0	996	164	567	1797	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1598	1755	1729	0
Q Serve(g_s), s	3.9	0.0	9.2				0.0	11.0	7.0	14.0	22.3	0.0
Cycle Q Clear(g_c), s	3.9	0.0	9.2				0.0	11.0	7.0	14.0	22.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	611	0	1088				0	2106	515	546	2766	0
V/C Ratio(X)	0.18	0.00	0.40				0.00	0.47	0.32	1.04	0.65	0.00
Avail Cap(c_a), veh/h	611	0	1088				0	2106	515	546	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.56	0.56	0.00
Uniform Delay (d), s/veh	21.0	0.0	22.8				0.0	24.4	23.0	38.0	15.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.1				0.0	0.8	1.6	39.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.5				0.0	4.0	2.7	8.6	7.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	0.0	23.9				0.0	25.2	24.7	77.2	15.7	0.0
LnGrp LOS	C	A	C				A	C	C	F	B	A
Approach Vol, veh/h		542						1160			2364	
Approach Delay, s/veh		23.4						25.1			30.4	
Approach LOS		C						C			C	
Timer - Assigned Phs	1	2					6	8				
Phs Duration (G+Y+Rc), s	19.0	34.8					53.8	36.2				
Change Period (Y+Rc), s	5.0	5.8					5.8	5.8				
Max Green Setting (Gmax), s	14.0	29.0					48.0	30.4				
Max Q Clear Time (g_c+110), s	11.0	13.0					24.3	11.2				
Green Ext Time (p_c), s	0.0	6.3					13.8	2.0				

Intersection Summary

HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (veh/h)	242	0	450	0	2937	0	0	2046	970	0	0
Future Volume (veh/h)	242	0	450	0	2937	0	0	2046	970	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	0	0	1900	1900		
Adj Flow Rate, veh/h	255	255	433	0	3092	0	0	2400	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	563	563	1002	0	3791	0	0	4408			
Arrive On Green	0.31	0.31	0.31	0.00	0.58	0.00	0.00	0.58	0.00		
Sat Flow, veh/h	1810	1810	3220	0	7068	0	0	7600	1610		
Grp Volume(v), veh/h	255	255	433	0	3092	0	0	2400	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	0	0	1900	1610		
Q Serve(g_s), s	11.3	11.3	10.7	0.0	37.7	0.0	0.0	19.4	0.0		
Cycle Q Clear(g_c), s	11.3	11.3	10.7	0.0	37.7	0.0	0.0	19.4	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		0.00	0.00		1.00		
Lane Grp Cap(c), veh/h	563	563	1002	0	3791	0	0	4408			
V/C Ratio(X)	0.45	0.45	0.43	0.00	0.82	0.00	0.00	0.54			
Avail Cap(c_a), veh/h	563	563	1002	0	3791	0	0	4408			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	27.6	27.6	27.4	0.0	16.7	0.0	0.0	12.9	0.0		
Incr Delay (d2), s/veh	2.6	2.6	1.4	0.0	2.1	0.0	0.0	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.2	5.2	4.2	0.0	12.4	0.0	0.0	7.4	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	30.3	30.3	28.8	0.0	18.8	0.0	0.0	13.4	0.0		
LnGrp LOS	C	C	C	A	B	A	A	B			
Approach Vol, veh/h	688	688			3092			2400	A		
Approach Delay, s/veh	29.3	29.3			18.8			13.4			
Approach LOS	C	C			B			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	63.8		36.2		63.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	58.0		31.1		58.0						
Max Q Clear Time (g_c+I1), s	39.7		13.3		21.4						
Green Ext Time (p_c), s	15.4		1.3		18.7						

Intersection Summary

HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations											
Traffic Volume (veh/h)	620	0	390	0	3187	850	0	1808	0	0	0
Future Volume (veh/h)	620	0	390	0	3187	850	0	1808	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	0	1900	0		
Adj Flow Rate, veh/h	653	653	391	0	3355	0	0	1903	0		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0		
Cap, veh/h	581	581	1034	0	3726		0	3726	0		
Arrive On Green	0.32	0.32	0.32	0.00	0.57	0.00	0.00	0.57	0.00		
Sat Flow, veh/h	1810	1810	3220	0	6802	1610	0	7068	0		
Grp Volume(v), veh/h	653	653	391	0	3355	0	0	1903	0		
Grp Sat Flow(s),veh/h/ln	1810	1810	1610	0	1634	1610	0	1634	0		
Q Serve(g_s), s	32.1	32.1	9.4	0.0	45.4	0.0	0.0	17.7	0.0		
Cycle Q Clear(g_c), s	32.1	32.1	9.4	0.0	45.4	0.0	0.0	17.7	0.0		
Prop In Lane	1.00	1.00	1.00	0.00		1.00	0.00		0.00		
Lane Grp Cap(c), veh/h	581	581	1034	0	3726		0	3726	0		
V/C Ratio(X)	1.12	1.12	0.38	0.00	0.90		0.00	0.51	0.00		
Avail Cap(c_a), veh/h	581	581	1034	0	3726		0	3726	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.26	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	33.9	33.9	26.2	0.0	19.0	0.0	0.0	13.0	0.0		
Incr Delay (d2), s/veh	76.4	76.4	1.1	0.0	1.1	0.0	0.0	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	26.0	26.0	3.7	0.0	15.9	0.0	0.0	5.9	0.0		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	110.4	110.4	27.3	0.0	20.1	0.0	0.0	13.5	0.0		
LnGrp LOS	F	F	C	A	C		A	B	A		
Approach Vol, veh/h	1044	1044			3355	A		1903			
Approach Delay, s/veh	79.2	79.2			20.1			13.5			
Approach LOS	E	E			C			B			
Timer - Assigned Phs	2		4		6						
Phs Duration (G+Y+Rc), s	62.8		37.2		62.8						
Change Period (Y+Rc), s	5.8		5.1		5.8						
Max Green Setting (Gmax), s	57.0		32.1		57.0						
Max Q Clear Time (g_c+I1), s	47.4		34.1		19.7						
Green Ext Time (p_c), s	9.2		0.0		12.7						

Intersection Summary

HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 25: Haven Ave & Guasti Rd

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑	↖	↖↗	↑	↖↗	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	400	100	210	70	60	290	80	2977	120	200	1888	120
Future Volume (veh/h)	400	100	210	70	60	290	80	2977	120	200	1888	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	421	105	38	74	63	30	84	3134	63	211	1987	66
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	464	219	183	260	109	162	193	3550	872	263	3679	904
Arrive On Green	0.13	0.12	0.12	0.07	0.06	0.06	0.05	0.54	0.54	0.07	0.56	0.56
Sat Flow, veh/h	3510	1900	1589	3510	1900	2834	3510	6536	1606	3510	6536	1606
Grp Volume(v), veh/h	421	105	38	74	63	30	84	3134	63	211	1987	66
Grp Sat Flow(s),veh/h/ln	1755	1900	1589	1755	1900	1417	1755	1634	1606	1755	1634	1606
Q Serve(g_s), s	16.6	7.2	3.0	2.8	4.5	1.4	3.2	58.9	2.6	8.3	26.7	2.6
Cycle Q Clear(g_c), s	16.6	7.2	3.0	2.8	4.5	1.4	3.2	58.9	2.6	8.3	26.7	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	464	219	183	260	109	162	193	3550	872	263	3679	904
V/C Ratio(X)	0.91	0.48	0.21	0.28	0.58	0.19	0.44	0.88	0.07	0.80	0.54	0.07
Avail Cap(c_a), veh/h	464	387	324	464	387	577	602	3550	872	602	3679	904
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	0.27	0.27	0.27	0.86	0.86	0.86
Uniform Delay (d), s/veh	59.9	58.0	56.2	61.3	64.4	62.9	64.0	28.1	15.2	63.8	19.2	13.9
Incr Delay (d2), s/veh	21.0	0.6	0.2	0.2	1.8	0.2	0.2	1.0	0.0	1.9	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	3.5	1.2	1.2	2.2	0.5	1.4	21.6	0.9	3.7	9.7	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.9	58.6	56.4	61.5	66.2	63.1	64.2	29.1	15.3	65.6	19.7	14.1
LnGrp LOS	F	E	E	E	E	E	E	C	B	E	B	B
Approach Vol, veh/h		564			167			3281			2264	
Approach Delay, s/veh		75.1			63.6			29.7			23.8	
Approach LOS		E			E			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	83.0	16.9	22.6	14.7	85.8	25.0	14.5				
Change Period (Y+Rc), s	7.0	7.0	6.5	6.5	7.0	7.0	6.5	6.5				
Max Green Setting (Gmax), s	24.0	42.0	18.5	28.5	24.0	42.0	18.5	28.5				
Max Q Clear Time (g_c+10), s	11.0	60.9	4.8	9.2	5.2	28.7	18.6	6.5				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.2	0.1	9.1	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↓		↔↔	↑↑	↔	↔↔	↑↑↑	↔	↔↔	↑↑↑	↔
Traffic Volume (veh/h)	430	640	670	70	670	740	720	2277	50	30	1768	170
Future Volume (veh/h)	430	640	670	70	670	740	720	2277	50	30	1768	170
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	434	646	585	71	677	501	727	2300	21	30	1786	85
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	483	638	567	111	893	398	652	2681	658	80	1617	396
Arrive On Green	0.14	0.35	0.35	0.03	0.25	0.25	0.19	0.41	0.41	0.02	0.25	0.25
Sat Flow, veh/h	3510	1805	1603	3510	3610	1610	3510	6536	1604	3510	6536	1600
Grp Volume(v), veh/h	434	646	585	71	677	501	727	2300	21	30	1786	85
Grp Sat Flow(s),veh/h/ln	1755	1805	1603	1755	1805	1610	1755	1634	1604	1755	1634	1600
Q Serve(g_s), s	19.7	57.1	57.1	3.2	28.1	40.0	30.0	51.8	1.3	1.4	40.0	6.8
Cycle Q Clear(g_c), s	19.7	57.1	57.1	3.2	28.1	40.0	30.0	51.8	1.3	1.4	40.0	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	483	638	567	111	893	398	652	2681	658	80	1617	396
V/C Ratio(X)	0.90	1.01	1.03	0.64	0.76	1.26	1.12	0.86	0.03	0.37	1.10	0.21
Avail Cap(c_a), veh/h	652	638	567	652	893	398	652	2681	658	652	1617	396
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	68.6	52.3	52.3	77.4	56.3	60.8	65.8	43.4	28.5	77.8	60.8	48.3
Incr Delay (d2), s/veh	10.4	38.8	46.3	2.3	3.8	134.8	71.5	3.1	0.0	1.1	56.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	32.0	29.6	1.5	13.0	30.8	19.5	20.5	0.5	0.6	22.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.0	91.0	98.6	79.7	60.1	195.6	137.3	46.4	28.5	78.9	117.5	48.7
LnGrp LOS	E	F	F	E	E	F	F	D	C	E	F	D
Approach Vol, veh/h		1665			1249			3048			1901	
Approach Delay, s/veh		90.5			115.6			68.0			113.8	
Approach LOS		F			F			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	73.8	12.1	64.5	37.5	47.5	29.2	47.4				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+1/4), s	13.4	53.8	5.2	59.1	32.0	42.0	21.7	42.0				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0	0.6	0.0				

Intersection Summary

HCM 6th Ctrl Delay	91.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 27: Hofer Ranch Rd & Jurupa St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑↑		↖	↖	↖	↖		↕	
Traffic Volume (veh/h)	160	637	20	30	1450	120	20	0	50	260	0	380
Future Volume (veh/h)	160	637	20	30	1450	120	20	0	50	260	0	380
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	671	19	32	1526	42	21	0	19	274	0	302
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	2046	58	62	1641	509	406	0	603	314	0	291
Arrive On Green	0.11	0.39	0.39	0.03	0.32	0.32	0.37	0.00	0.37	0.37	0.00	0.37
Sat Flow, veh/h	1810	5185	146	1810	5187	1610	1094	0	1610	705	0	777
Grp Volume(v), veh/h	168	447	243	32	1526	42	21	0	19	576	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1874	1810	1729	1610	1094	0	1610	1481	0	0
Q Serve(g_s), s	9.7	9.6	9.6	1.9	30.4	2.0	0.0	0.0	0.8	39.2	0.0	0.0
Cycle Q Clear(g_c), s	9.7	9.6	9.6	1.9	30.4	2.0	1.6	0.0	0.8	40.0	0.0	0.0
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	0.48		0.52
Lane Grp Cap(c), veh/h	204	1365	739	62	1641	509	406	0	603	604	0	0
V/C Ratio(X)	0.82	0.33	0.33	0.51	0.93	0.08	0.05	0.00	0.03	0.95	0.00	0.00
Avail Cap(c_a), veh/h	593	1942	1052	152	1651	512	406	0	603	604	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	46.4	22.5	22.5	50.7	35.4	25.6	21.4	0.0	21.2	34.6	0.0	0.0
Incr Delay (d2), s/veh	8.1	0.2	0.4	6.4	9.9	0.1	0.2	0.0	0.1	26.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	3.7	4.1	0.9	13.6	0.7	0.4	0.0	0.3	19.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	22.7	22.9	57.1	45.3	25.7	21.6	0.0	21.3	61.3	0.0	0.0
LnGrp LOS	D	C	C	E	D	C	C	A	C	E	A	A
Approach Vol, veh/h	858			1600			40			576		
Approach Delay, s/veh	29.0			45.0			21.5			61.3		
Approach LOS	C			D			C			E		
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	47.0		10.7		49.2		47.0		19.0		40.8	
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0		7.0		7.0	
Max Green Setting (Gmax), s	40.0		9.0		60.0		40.0		35.0		34.0	
Max Q Clear Time (g_c+I1), s	3.6		3.9		11.6		42.0		11.7		32.4	
Green Ext Time (p_c), s	0.2		0.0		6.8		0.0		0.4		1.4	

Intersection Summary

HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
28: Jurupa St & Turner Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↗	↖ ↗			↖ ↗	↖ ↗		↖ ↗	
Traffic Volume (veh/h)	0	767	60	80	1230	20	80	0	60	20	0	20
Future Volume (veh/h)	0	767	60	80	1230	20	80	0	60	20	0	20
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	0.99		0.98	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	807	55	84	1295	20	84	0	26	21	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2	3086	210	110	1420	22	221	0	132	133	0	0
Arrive On Green	0.00	0.62	0.62	0.06	0.76	0.76	0.08	0.00	0.08	0.08	0.00	0.00
Sat Flow, veh/h	1810	4959	337	1810	1866	29	1685	0	1581	639	0	0
Grp Volume(v), veh/h	0	562	300	84	0	1315	84	0	26	21	0	0
Grp Sat Flow(s),veh/h/ln	1810	1729	1838	1810	0	1895	1685	0	1581	639	0	0
Q Serve(g_s), s	0.0	6.6	6.6	4.1	0.0	48.8	0.0	0.0	1.4	1.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.6	6.6	4.1	0.0	48.8	4.1	0.0	1.4	5.4	0.0	0.0
Prop In Lane	1.00		0.18	1.00		0.02	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	2	2152	1144	110	0	1442	221	0	132	133	0	0
V/C Ratio(X)	0.00	0.26	0.26	0.77	0.00	0.91	0.38	0.00	0.20	0.16	0.00	0.00
Avail Cap(c_a), veh/h	322	2152	1144	322	0	1442	687	0	650	588	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.96	0.96	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.7	7.7	41.6	0.0	8.4	39.6	0.0	38.4	42.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.5	10.5	0.0	10.3	1.1	0.0	0.7	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	2.3	2.1	0.0	14.6	1.8	0.0	0.5	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.9	8.2	52.2	0.0	18.7	40.7	0.0	39.1	42.8	0.0	0.0
LnGrp LOS	A	A	A	D	A	B	D	A	D	D	A	A
Approach Vol, veh/h	862				1399		110				21	
Approach Delay, s/veh	8.0				20.7		40.3				42.8	
Approach LOS	A				C		D				D	
Timer - Assigned Phs	2		3		4		6		7		8	
Phs Duration (G+Y+Rc), s	14.5		12.5		63.0		14.5		0.0		75.5	
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0		7.0		7.0	
Max Green Setting (Gmax), s	37.0		16.0		16.0		37.0		16.0		16.0	
Max Q Clear Time (g_c+1), s	6.1		6.1		8.6		7.4		0.0		50.8	
Green Ext Time (p_c), s	0.5		0.1		3.0		0.1		0.0		0.0	
Intersection Summary												
HCM 6th Ctrl Delay			17.2									
HCM 6th LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
29: Jurupa St & Haven Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑	↖	↖	↑↑↑	↖	↖	↑↑↑	↖
Traffic Volume (veh/h)	537	821	170	490	642	130	90	2150	360	210	1700	738
Future Volume (veh/h)	537	821	170	490	642	130	90	2150	360	210	1700	738
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	559	855	48	510	669	36	94	2240	181	219	1771	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	618	1025	316	568	662	295	115	2289	562	163	2463	
Arrive On Green	0.18	0.20	0.20	0.16	0.18	0.18	0.06	0.35	0.35	0.09	0.38	0.00
Sat Flow, veh/h	3510	5187	1598	3510	3610	1610	1810	6536	1603	1810	6536	1610
Grp Volume(v), veh/h	559	855	48	510	669	36	94	2240	181	219	1771	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1598	1755	1805	1610	1810	1634	1603	1810	1634	1610
Q Serve(g_s), s	23.4	23.7	3.7	21.4	27.5	2.8	7.7	50.8	12.4	13.5	34.7	0.0
Cycle Q Clear(g_c), s	23.4	23.7	3.7	21.4	27.5	2.8	7.7	50.8	12.4	13.5	34.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	618	1025	316	568	662	295	115	2289	562	163	2463	
V/C Ratio(X)	0.90	0.83	0.15	0.90	1.01	0.12	0.82	0.98	0.32	1.34	0.72	
Avail Cap(c_a), veh/h	1089	1025	316	1089	662	295	163	2289	562	163	2463	
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	0.00
Uniform Delay (d), s/veh	60.5	57.8	49.7	61.6	61.2	51.1	69.3	48.1	35.7	68.2	39.9	0.0
Incr Delay (d2), s/veh	2.7	6.0	0.2	2.1	37.5	0.2	13.3	14.1	0.4	189.8	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	10.8	1.5	9.5	15.8	1.1	3.9	21.9	4.9	14.7	13.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.2	63.8	50.0	63.7	98.7	51.3	82.7	62.2	36.1	258.0	41.0	0.0
LnGrp LOS	E	E	D	E	F	D	F	E	D	F	D	
Approach Vol, veh/h		1462			1215			2515			1990	A
Approach Delay, s/veh		63.1			82.6			61.1			64.9	
Approach LOS		E			F			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	60.0	31.8	37.1	17.0	64.0	33.9	35.0				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	13.5	52.5	46.5	27.5	13.5	52.5	46.5	27.5				
Max Q Clear Time (g_c+1/5), s	13.5	52.8	23.4	25.7	9.7	36.7	25.4	29.5				
Green Ext Time (p_c), s	0.0	0.0	0.9	1.0	0.0	11.1	1.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	66.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
30: Jurupa St & Carnegie Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗			↖ ↗		↖	↖	↖		↖	↖	↖
Traffic Volume (veh/h)	320	1211	20	20	1042	20	20	20	20	30	0	210
Future Volume (veh/h)	320	1211	20	20	1042	20	20	20	20	30	0	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	337	1275	21	21	1097	15	21	21	5	32	0	128
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	426	4170	69	378	2864	1278	192	148	35	186	190	161
Arrive On Green	0.79	0.79	0.79	0.79	0.79	0.79	0.10	0.10	0.10	0.10	0.00	0.10
Sat Flow, veh/h	515	5256	87	432	3610	1610	1282	1483	353	1407	1900	1610
Grp Volume(v), veh/h	337	839	457	21	1097	15	21	0	26	32	0	128
Grp Sat Flow(s),veh/h/ln	515	1729	1884	432	1805	1610	1282	0	1836	1407	1900	1610
Q Serve(g_s), s	63.2	7.4	7.4	1.6	10.1	0.2	1.7	0.0	1.5	2.4	0.0	8.7
Cycle Q Clear(g_c), s	73.4	7.4	7.4	9.0	10.1	0.2	1.7	0.0	1.5	3.8	0.0	8.7
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	426	2744	1495	378	2864	1278	192	0	183	186	190	161
V/C Ratio(X)	0.79	0.31	0.31	0.06	0.38	0.01	0.11	0.00	0.14	0.17	0.00	0.80
Avail Cap(c_a), veh/h	475	3075	1675	420	3210	1432	497	0	620	521	642	544
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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.3	3.2	3.2	4.4	3.4	2.4	46.3	0.0	46.2	48.0	0.0	49.5
Incr Delay (d2), s/veh	8.0	0.1	0.1	0.1	0.1	0.0	0.2	0.0	0.3	0.4	0.0	8.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	1.6	1.8	0.1	2.3	0.0	0.6	0.0	0.7	0.9	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	3.2	3.3	4.5	3.5	2.4	46.6	0.0	46.6	48.4	0.0	58.1
LnGrp LOS	C	A	A	A	A	A	D	A	D	D	A	E
Approach Vol, veh/h	1633				1133				47		160	
Approach Delay, s/veh	7.2				3.5				46.6		56.2	
Approach LOS	A				A				D		E	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	16.2		96.2		16.2		96.2					
Change Period (Y+Rc), s	5.0		7.0		5.0		7.0					
Max Green Setting (Gmax), s	38.0		100.0		38.0		100.0					
Max Q Clear Time (g_c+1), s	3.7		75.4		10.7		12.1					
Green Ext Time (p_c), s	0.2		13.8		0.5		10.1					

Intersection Summary

HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 31: Jurupa St & Commerce Pwky

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑	↗	↖	↖	↗	↖↗	↑	↗
Traffic Volume (veh/h)	280	1071	30	30	1022	650	30	40	80	300	30	80
Future Volume (veh/h)	280	1071	30	30	1022	650	30	40	80	300	30	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	295	1127	10	32	1076	0	32	42	22	316	32	24
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	2355	727	78	1353		89	120	63	312	272	228
Arrive On Green	0.12	0.45	0.45	0.01	0.12	0.00	0.05	0.10	0.10	0.09	0.14	0.14
Sat Flow, veh/h	1810	5187	1601	1810	3610	1610	1810	1168	612	3510	1900	1593
Grp Volume(v), veh/h	295	1127	10	32	1076	0	32	0	64	316	32	24
Grp Sat Flow(s),veh/h/ln	1810	1729	1601	1810	1805	1610	1810	0	1779	1755	1900	1593
Q Serve(g_s), s	11.0	13.6	0.3	1.6	26.1	0.0	1.5	0.0	3.0	8.0	1.3	1.2
Cycle Q Clear(g_c), s	11.0	13.6	0.3	1.6	26.1	0.0	1.5	0.0	3.0	8.0	1.3	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	221	2355	727	78	1353		89	0	183	312	272	228
V/C Ratio(X)	1.33	0.48	0.01	0.41	0.80		0.36	0.00	0.35	1.01	0.12	0.11
Avail Cap(c_a), veh/h	221	2355	727	161	1353		161	0	395	312	422	354
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	0.83	0.83	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	17.1	13.5	43.2	36.1	0.0	41.4	0.0	37.6	41.0	33.6	33.6
Incr Delay (d2), s/veh	176.8	0.7	0.0	3.5	4.1	0.0	0.9	0.0	0.8	54.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	5.0	0.1	0.8	13.1	0.0	0.7	0.0	1.3	5.8	0.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	216.3	17.8	13.5	46.7	40.2	0.0	42.4	0.0	38.4	95.2	33.8	33.7
LnGrp LOS	F	B	B	D	D		D	A	D	F	C	C
Approach Vol, veh/h		1432			1108	A		96			372	
Approach Delay, s/veh		58.7			40.4			39.7			86.0	
Approach LOS		E			D			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	16.3	10.9	47.9	11.4	19.9	18.0	40.7				
Change Period (Y+Rc), s	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0				
Max Green Setting (Gmax), s	30.0	20.0	8.0	26.0	8.0	20.0	11.0	23.0				
Max Q Clear Time (g_c+I1), s	11.0	5.0	3.6	15.6	3.5	3.3	13.0	28.1				
Green Ext Time (p_c), s	0.0	0.1	0.0	5.7	0.0	0.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 32: Jurupa St & Dupont Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑			↖ ↑↑	↖ ↑↑		↖ ↑↑		
Traffic Volume (veh/h)	70	1451	30	50	1392	70	40	40	130	110	30	140
Future Volume (veh/h)	70	1451	30	50	1392	70	40	40	130	110	30	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	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	1527	31	53	1465	69	42	42	48	116	32	50
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	3014	61	74	2864	135	257	290	257	258	290	257
Arrive On Green	0.11	1.00	1.00	0.04	0.56	0.56	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1810	5232	106	1810	5075	239	1327	1805	1595	1317	1805	1595
Grp Volume(v), veh/h	74	1009	549	53	998	536	42	42	48	116	32	50
Grp Sat Flow(s),veh/h/ln	1810	1729	1881	1810	1729	1856	1327	1805	1595	1317	1805	1595
Q Serve(g_s), s	3.6	0.0	0.0	2.6	15.9	15.9	2.5	1.8	2.3	7.5	1.4	2.4
Cycle Q Clear(g_c), s	3.6	0.0	0.0	2.6	15.9	15.9	5.0	1.8	2.3	9.9	1.4	2.4
Prop In Lane	1.00		0.06	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	1992	1083	74	1951	1048	257	290	257	258	290	257
V/C Ratio(X)	0.78	0.51	0.51	0.72	0.51	0.51	0.16	0.14	0.19	0.45	0.11	0.19
Avail Cap(c_a), veh/h	201	1992	1083	281	1951	1048	472	582	514	470	582	514
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	0.0	42.7	12.0	12.0	34.9	32.4	32.7	36.9	32.3	32.7
Incr Delay (d2), s/veh	4.0	0.7	1.3	3.2	0.6	1.2	0.3	0.2	0.3	1.2	0.2	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	1.6	0.2	0.4	1.2	5.3	5.9	0.8	0.8	0.9	2.4	0.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	0.7	1.3	45.9	12.6	13.2	35.2	32.7	33.0	38.2	32.4	33.1
LnGrp LOS	D	A	A	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h	1632			1587			132			198		
Approach Delay, s/veh	2.9			13.9			33.6			35.9		
Approach LOS	A			B			C			D		
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	20.5		10.7	58.8		20.5		11.7	57.8			
Change Period (Y+Rc), s	6.0		7.0	7.0		6.0		7.0	7.0			
Max Green Setting (Gmax), s	29.0		14.0	27.0		29.0		10.0	31.0			
Max Q Clear Time (g_c+1), s	7.0		4.6	2.0		11.9		5.6	17.9			
Green Ext Time (p_c), s	0.5		0.0	15.2		0.7		0.0	9.4			
Intersection Summary												
HCM 6th Ctrl Delay	10.8											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary
 33: Jurupa St & Milliken Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑		↖ ↗	↑ ↑ ↑	↖	↖ ↗	↑ ↑ ↑	↖
Traffic Volume (veh/h)	200	1221	190	560	1052	140	270	1120	550	310	970	110
Future Volume (veh/h)	200	1221	190	560	1052	140	270	1120	550	310	970	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	211	1285	146	589	1107	102	284	1179	499	326	1021	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	264	1365	421	581	1708	157	338	1373	424	380	1435	564
Arrive On Green	0.08	0.26	0.26	0.17	0.35	0.35	0.10	0.26	0.26	0.11	0.28	0.28
Sat Flow, veh/h	3510	5187	1601	3510	4831	445	3510	5187	1601	3510	5187	1601
Grp Volume(v), veh/h	211	1285	146	589	792	417	284	1179	499	326	1021	40
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1818	1755	1729	1601	1755	1729	1601
Q Serve(g_s), s	8.9	36.7	11.2	25.0	29.0	29.1	12.0	32.7	40.0	13.8	26.8	2.5
Cycle Q Clear(g_c), s	8.9	36.7	11.2	25.0	29.0	29.1	12.0	32.7	40.0	13.8	26.8	2.5
Prop In Lane	1.00		1.00	1.00		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	1365	421	581	1223	643	338	1373	424	380	1435	564
V/C Ratio(X)	0.80	0.94	0.35	1.01	0.65	0.65	0.84	0.86	1.18	0.86	0.71	0.07
Avail Cap(c_a), veh/h	581	1373	424	581	1223	643	581	1373	424	581	1435	564
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	68.8	54.5	45.1	63.1	41.0	41.0	67.2	52.9	55.6	66.3	49.2	32.6
Incr Delay (d2), s/veh	4.2	12.8	0.6	41.0	1.3	2.4	4.3	5.8	102.1	6.8	1.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	17.2	4.5	14.3	12.3	13.2	5.5	14.5	27.7	6.4	11.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.0	67.4	45.7	104.1	42.3	43.4	71.4	58.7	157.6	73.1	51.0	32.6
LnGrp LOS	E	E	D	F	D	D	E	E	F	E	D	C
Approach Vol, veh/h		1642			1798			1962			1387	
Approach Delay, s/veh		66.2			62.8			85.7			55.6	
Approach LOS		E			E			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.9	47.5	32.5	47.3	22.0	49.3	18.8	60.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+1/4), s	11.8	42.0	27.0	38.7	14.0	28.8	10.9	31.1				
Green Ext Time (p_c), s	0.6	0.0	0.0	1.1	0.5	5.5	0.4	5.3				

Intersection Summary

HCM 6th Ctrl Delay	68.8
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 34: Jurupa St & Rockefeller Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑ ↗			↖ ↑↑ ↗			↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	140	1961	0	70	1572	50	20	30	100	400	20	140
Future Volume (veh/h)	140	1961	0	70	1572	50	20	30	100	400	20	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		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	147	2064	0	74	1655	51	21	32	27	421	21	60
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	171	2127	0	119	1970	61	60	186	155	428	573	483
Arrive On Green	0.09	0.41	0.00	0.07	0.38	0.38	0.03	0.10	0.10	0.24	0.30	0.30
Sat Flow, veh/h	1810	5358	0	1810	5169	159	1810	1900	1586	1810	1900	1602
Grp Volume(v), veh/h	147	2064	0	74	1107	599	21	32	27	421	21	60
Grp Sat Flow(s),veh/h/ln	1810	1729	0	1810	1729	1871	1810	1900	1586	1810	1900	1602
Q Serve(g_s), s	10.1	49.4	0.0	5.0	36.9	36.9	1.4	2.0	2.0	29.3	1.0	3.4
Cycle Q Clear(g_c), s	10.1	49.4	0.0	5.0	36.9	36.9	1.4	2.0	2.0	29.3	1.0	3.4
Prop In Lane	1.00		0.00	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	2127	0	119	1318	713	60	186	155	428	573	483
V/C Ratio(X)	0.86	0.97	0.00	0.62	0.84	0.84	0.35	0.17	0.17	0.98	0.04	0.12
Avail Cap(c_a), veh/h	171	2129	0	129	1337	723	114	525	438	428	855	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	36.6	0.0	57.7	35.7	35.7	59.9	52.4	52.4	48.1	31.2	32.1
Incr Delay (d2), s/veh	31.4	13.3	0.0	5.3	5.0	8.8	1.3	0.3	0.4	38.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	22.3	0.0	2.4	15.7	17.8	0.7	1.0	0.8	17.9	0.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.9	49.9	0.0	62.9	40.7	44.5	61.2	52.8	52.8	86.9	31.3	32.2
LnGrp LOS	F	D	A	E	D	D	E	D	D	F	C	C
Approach Vol, veh/h	2211				1780		80				502	
Approach Delay, s/veh	52.4				42.9		55.0				78.0	
Approach LOS	D				D		E				E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	35.0	17.4	15.3	59.0	9.2	43.2	19.0	55.3				
Change Period (Y+Rc), s	5.0	5.0	7.0	7.0	5.0	5.0	7.0	7.0				
Max Green Setting (Gmax), s	30.0	35.0	9.0	52.0	8.0	57.0	12.0	49.0				
Max Q Clear Time (g_c+D1), s	11.3	4.0	7.0	51.4	3.4	5.4	12.1	38.9				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.6	0.0	0.2	0.0	7.5				

Intersection Summary

HCM 6th Ctrl Delay	51.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑	↑↓	↑
Traffic Volume (veh/h)	0	2011	610	540	1221	0	0	0	0	260	0	492
Future Volume (veh/h)	0	2011	610	540	1221	0	0	0	0	260	0	492
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2117	287	568	1285	0				414	0	241
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2578	726	585	3498	0				655	0	292
Arrive On Green	0.00	0.45	0.45	0.06	0.22	0.00				0.18	0.00	0.18
Sat Flow, veh/h	0	5700	1605	3510	5358	0				3619	0	1610
Grp Volume(v), veh/h	0	2117	287	568	1285	0				414	0	241
Grp Sat Flow(s),veh/h/ln	0	1900	1605	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	29.1	10.7	14.5	18.9	0.0				9.5	0.0	13.0
Cycle Q Clear(g_c), s	0.0	29.1	10.7	14.5	18.9	0.0				9.5	0.0	13.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2578	726	585	3498	0				655	0	292
V/C Ratio(X)	0.00	0.82	0.40	0.97	0.37	0.00				0.63	0.00	0.83
Avail Cap(c_a), veh/h	0	2578	726	585	3498	0				655	0	292
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.20	0.20	0.58	0.58	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.5	16.4	42.3	18.7	0.0				34.1	0.0	35.5
Incr Delay (d2), s/veh	0.0	0.6	0.3	22.1	0.2	0.0				4.6	0.0	22.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.5	3.6	8.5	8.6	0.0				4.5	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.1	16.8	64.4	18.9	0.0				38.7	0.0	58.2
LnGrp LOS		A	C	B	E	B	A			D	A	E
Approach Vol, veh/h		2404		1853						655		
Approach Delay, s/veh		21.5		32.9						45.9		
Approach LOS		C		C						D		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	30.0	47.2	22.8		67.2							
Change Period (Y+Rc), s	5.0	6.5	6.5		6.5							
Max Green Setting (Gmax), s	15.0	40.7	16.3		60.7							
Max Q Clear Time (g_c+1/5), s	10.5	31.1	15.0		20.9							
Green Ext Time (p_c), s	0.0	8.2	0.4		8.6							

Intersection Summary

HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
 36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑			↑↑↑	↔	↔	↔	↔			
Traffic Volume (veh/h)	614	1657	0	0	1536	540	225	0	370	0	0	0
Future Volume (veh/h)	614	1657	0	0	1536	540	225	0	370	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	646	1744	0	0	1617	293	332	0	180			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	702	3458	0	0	2132	662	684	0	304			
Arrive On Green	0.20	0.67	0.00	0.00	0.41	0.41	0.19	0.00	0.19			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	3619	0	1610			
Grp Volume(v), veh/h	646	1744	0	0	1617	293	332	0	180			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1610			
Q Serve(g_s), s	16.2	15.2	0.0	0.0	24.0	11.8	7.4	0.0	9.2			
Cycle Q Clear(g_c), s	16.2	15.2	0.0	0.0	24.0	11.8	7.4	0.0	9.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	702	3458	0	0	2132	662	684	0	304			
V/C Ratio(X)	0.92	0.50	0.00	0.00	0.76	0.44	0.49	0.00	0.59			
Avail Cap(c_a), veh/h	702	3458	0	0	2132	662	684	0	304			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.17	0.17	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.3	7.5	0.0	0.0	22.7	19.1	32.6	0.0	33.3			
Incr Delay (d2), s/veh	4.5	0.1	0.0	0.0	2.6	2.1	2.5	0.0	8.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.9	4.2	0.0	0.0	9.3	4.4	3.4	0.0	4.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	7.6	0.0	0.0	25.3	21.2	35.1	0.0	41.5			
LnGrp LOS	D	A	A	A	C	C	D	A	D			
Approach Vol, veh/h		2390			1910			512				
Approach Delay, s/veh		16.3			24.6			37.3				
Approach LOS		B			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		66.5			23.0	43.5		23.5				
Change Period (Y+Rc), s		6.5			5.0	6.5		6.5				
Max Green Setting (Gmax), s		60.0			18.0	37.0		17.0				
Max Q Clear Time (g_c+1), s		17.2			18.2	26.0		11.2				
Green Ext Time (p_c), s		14.1			0.0	7.9		0.8				

Intersection Summary

HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

























Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
































5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 with Improvements - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	715	175	50	688	431	122	687	30	565	1025	245
Future Volume (veh/h)	293	715	175	50	688	431	122	687	30	565	1025	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	322	786	78	55	756	415	134	755	32	621	1126	216
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	381	992	440	192	797	835	158	886	37	542	2002	794
Arrive On Green	0.11	0.27	0.27	0.05	0.22	0.22	0.09	0.17	0.17	0.30	0.39	0.39
Sat Flow, veh/h	3510	3610	1601	3510	3610	1599	1810	5101	216	1810	5187	1604
Grp Volume(v), veh/h	322	786	78	55	756	415	134	511	276	621	1126	216
Grp Sat Flow(s),veh/h/ln	1755	1805	1601	1755	1805	1599	1810	1729	1859	1810	1729	1604
Q Serve(g_s), s	13.2	29.7	5.5	2.2	30.3	24.7	10.7	21.1	21.2	44.0	25.0	11.6
Cycle Q Clear(g_c), s	13.2	29.7	5.5	2.2	30.3	24.7	10.7	21.1	21.2	44.0	25.0	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	381	992	440	192	797	835	158	601	323	542	2002	794
V/C Ratio(X)	0.84	0.79	0.18	0.29	0.95	0.50	0.85	0.85	0.85	1.15	0.56	0.27
Avail Cap(c_a), veh/h	896	1167	518	537	798	836	271	635	342	542	2002	794
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	64.3	49.4	40.6	66.7	56.4	22.8	66.1	58.9	58.9	51.5	35.4	21.7
Incr Delay (d2), s/veh	3.9	3.5	0.2	0.6	20.3	0.6	9.1	10.7	18.7	85.8	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	13.3	2.2	1.0	15.7	9.1	5.3	9.9	11.5	32.3	10.4	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	52.9	40.9	67.3	76.7	23.4	75.2	69.6	77.6	137.2	35.8	22.0
LnGrp LOS	E	D	D	E	E	C	E	E	E	F	D	C
Approach Vol, veh/h		1186			1226			921			1963	
Approach Delay, s/veh		56.2			58.3			72.8			66.4	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	51.0	32.5	15.5	47.9	19.8	63.7	23.5	40.0				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	44.0	27.0	22.5	47.5	22.0	49.0	37.5	32.5				
Max Q Clear Time (g_c+I1), s	46.0	23.2	4.2	31.7	12.7	27.0	15.2	32.3				
Green Ext Time (p_c), s	0.0	2.0	0.1	5.2	0.1	11.5	0.7	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			63.4									
HCM 6th LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
 Opening Year (2024) Plus Phase 1 with Improvements - PM Peak Hour

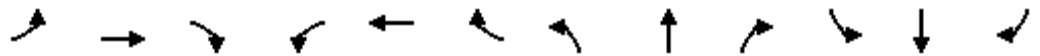
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			  			  	
Traffic Volume (veh/h)	266	768	124	30	832	596	215	1053	60	457	900	223
Future Volume (veh/h)	266	768	124	30	832	596	215	1053	60	457	900	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	269	776	40	30	840	539	217	1064	58	462	909	180
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	324	1047	465	149	867	777	240	1172	64	441	1782	699
Arrive On Green	0.09	0.29	0.29	0.04	0.24	0.24	0.13	0.23	0.23	0.24	0.34	0.34
Sat Flow, veh/h	3510	3610	1602	3510	3610	1600	1810	5033	274	1810	5187	1603
Grp Volume(v), veh/h	269	776	40	30	840	539	217	731	391	462	909	180
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1600	1810	1729	1849	1810	1729	1603
Q Serve(g_s), s	11.4	29.5	2.8	1.3	35.0	36.5	17.9	31.2	31.3	37.0	21.2	10.8
Cycle Q Clear(g_c), s	11.4	29.5	2.8	1.3	35.0	36.5	17.9	31.2	31.3	37.0	21.2	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	324	1047	465	149	867	777	240	805	431	441	1782	699
V/C Ratio(X)	0.83	0.74	0.09	0.20	0.97	0.69	0.90	0.91	0.91	1.05	0.51	0.26
Avail Cap(c_a), veh/h	728	1105	490	497	867	777	322	820	438	441	1782	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	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	67.8	48.8	39.3	70.2	57.1	30.5	64.9	56.7	56.7	57.4	39.7	27.2
Incr Delay (d2), s/veh	4.1	2.7	0.1	0.5	23.1	2.8	21.2	14.0	22.8	56.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	13.2	1.1	0.6	18.4	15.4	9.6	14.9	17.0	23.4	8.9	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.9	51.5	39.4	70.7	80.2	33.3	86.1	70.6	79.5	113.5	40.0	27.5
LnGrp LOS	E	D	D	E	F	C	F	E	E	F	D	C
Approach Vol, veh/h		1085			1409			1339			1551	
Approach Delay, s/veh		56.1			62.1			75.7			60.4	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	44.0	42.4	14.0	51.6	27.2	59.2	21.5	44.0				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	37.0	36.0	21.5	46.5	27.0	46.0	31.5	36.5				
Max Q Clear Time (g_c+I1), s	39.0	33.3	3.3	31.5	19.9	23.2	13.4	38.5				
Green Ext Time (p_c), s	0.0	1.9	0.0	4.9	0.2	9.4	0.6	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			63.8									
HCM 6th LOS			E									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

1: Mission Blvd & Euclid Ave/SR-83

Opening Year (2029) Plus Phase 1 and 2 with Improvements - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↑↑		↘	↑↑	↗
Traffic Volume (veh/h)	301	825	91	132	636	231	161	831	74	263	866	188
Future Volume (veh/h)	301	825	91	132	636	231	161	831	74	263	866	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	342	938	27	150	723	97	183	944	77	299	984	53
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	328	933	414	216	710	314	319	863	70	321	928	411
Arrive On Green	0.18	0.26	0.26	0.12	0.20	0.20	0.13	0.26	0.26	0.13	0.26	0.26
Sat Flow, veh/h	1810	3610	1601	1810	3610	1598	1810	3378	276	1810	3610	1601
Grp Volume(v), veh/h	342	938	27	150	723	97	183	504	517	299	984	53
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1598	1810	1805	1848	1810	1805	1601
Q Serve(g_s), s	16.3	23.3	1.1	7.2	17.7	4.7	6.2	23.0	23.0	10.9	23.1	2.3
Cycle Q Clear(g_c), s	16.3	23.3	1.1	7.2	17.7	4.7	6.2	23.0	23.0	10.9	23.1	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	328	933	414	216	710	314	319	461	472	321	928	411
V/C Ratio(X)	1.04	1.01	0.07	0.69	1.02	0.31	0.57	1.09	1.09	0.93	1.06	0.13
Avail Cap(c_a), veh/h	328	933	414	221	710	314	321	461	472	321	928	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.76	0.76	0.76	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	33.4	25.2	38.1	36.2	30.9	21.7	33.5	33.5	23.1	33.4	25.7
Incr Delay (d2), s/veh	61.5	30.8	0.1	7.6	34.1	0.6	3.0	69.6	69.2	33.0	47.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	13.3	0.4	3.4	10.6	1.7	2.7	18.4	18.8	7.2	15.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.4	64.2	25.3	45.6	70.3	31.5	24.7	103.1	102.7	56.1	80.5	26.3
LnGrp LOS	F	F	C	D	F	C	C	F	F	E	F	C
Approach Vol, veh/h		1307			970			1204			1336	
Approach Delay, s/veh		72.3			62.6			91.0			72.9	
Approach LOS		E			E			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	28.8	15.4	29.1	16.6	28.9	21.0	23.5				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	23.0	* 11	23.0	* 12	23.0	* 16	17.7				
Max Q Clear Time (g_c+I1), s	12.9	25.0	9.2	25.3	8.2	25.1	18.3	19.7				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	75.2
HCM 6th LOS	E

Notes






























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

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

5: Mission Blvd & Grove Ave

Opening Year (2029) Plus Phase 1 and 2 with Improvements - AM Peak Hour

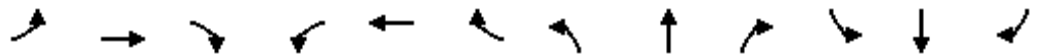
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 	 	 	 	 	 	  				
Traffic Volume (veh/h)	303	745	175	50	718	451	122	717	30	585	1075	255
Future Volume (veh/h)	303	745	175	50	718	451	122	717	30	585	1075	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	333	819	87	55	789	441	134	788	32	643	1181	206
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	383	1071	475	174	857	862	156	922	37	542	2043	807
Arrive On Green	0.11	0.30	0.30	0.05	0.24	0.24	0.09	0.18	0.18	0.30	0.39	0.39
Sat Flow, veh/h	3510	3610	1602	3510	3610	1600	1810	5112	207	1810	5187	1604
Grp Volume(v), veh/h	333	819	87	55	789	441	134	532	288	643	1181	206
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1600	1810	1729	1861	1810	1729	1604
Q Serve(g_s), s	15.6	34.5	6.7	2.5	35.6	29.4	12.2	24.9	25.0	50.0	29.8	12.2
Cycle Q Clear(g_c), s	15.6	34.5	6.7	2.5	35.6	29.4	12.2	24.9	25.0	50.0	29.8	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	383	1071	475	174	857	862	156	624	336	542	2043	807
V/C Ratio(X)	0.87	0.76	0.18	0.32	0.92	0.51	0.86	0.85	0.86	1.19	0.58	0.26
Avail Cap(c_a), veh/h	599	1113	494	368	876	870	314	663	357	542	2043	807
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	73.2	53.4	43.7	76.6	62.1	24.7	75.3	66.3	66.3	58.5	39.7	23.7
Incr Delay (d2), s/veh	7.1	3.2	0.2	0.8	14.7	0.6	9.9	10.5	18.3	101.5	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	15.6	2.7	1.2	17.8	11.0	6.0	11.8	13.4	37.7	12.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.3	56.6	43.9	77.4	76.9	25.3	85.2	76.8	84.6	160.0	40.2	23.9
LnGrp LOS	F	E	D	E	E	C	F	E	F	F	D	C
Approach Vol, veh/h		1239			1285			954			2030	
Approach Delay, s/veh		62.1			59.2			80.3			76.5	
Approach LOS		E			E			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	57.0	37.1	15.8	57.1	21.4	72.8	25.7	47.1				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	50.0	32.0	17.5	51.5	29.0	53.0	28.5	40.5				
Max Q Clear Time (g_c+I1), s	52.0	27.0	4.5	36.5	14.2	31.8	17.6	37.6				
Green Ext Time (p_c), s	0.0	2.6	0.1	5.4	0.2	11.7	0.6	1.9				
Intersection Summary												
HCM 6th Ctrl Delay				69.9								
HCM 6th LOS				E								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

1: Mission Blvd & Euclid Ave/SR-83

Opening Year (2029) Plus Phase 1 and 2 with Improvements - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↗	↗	↗	↗↗	↗	↗	↗↗		↗	↗↗	↗
Traffic Volume (veh/h)	228	888	182	174	885	312	111	1008	72	195	998	152
Future Volume (veh/h)	228	888	182	174	885	312	111	1008	72	195	998	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	245	955	86	187	952	225	119	1084	72	210	1073	47
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	221	923	409	221	923	411	309	880	58	320	947	420
Arrive On Green	0.12	0.26	0.26	0.12	0.26	0.26	0.13	0.26	0.26	0.13	0.26	0.26
Sat Flow, veh/h	1810	3610	1601	1810	3610	1610	1810	3434	228	1810	3610	1601
Grp Volume(v), veh/h	245	955	86	187	952	225	119	570	586	210	1073	47
Grp Sat Flow(s),veh/h/ln	1810	1805	1601	1810	1805	1610	1810	1805	1857	1810	1805	1601
Q Serve(g_s), s	11.0	23.0	3.8	9.1	23.0	10.9	3.9	23.1	23.1	7.2	23.6	2.0
Cycle Q Clear(g_c), s	11.0	23.0	3.8	9.1	23.0	10.9	3.9	23.1	23.1	7.2	23.6	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	221	923	409	221	923	411	309	463	476	320	947	420
V/C Ratio(X)	1.11	1.04	0.21	0.85	1.03	0.55	0.39	1.23	1.23	0.66	1.13	0.11
Avail Cap(c_a), veh/h	221	923	409	221	923	411	321	463	476	321	947	420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.5	33.5	26.4	38.7	33.5	29.0	21.3	33.5	33.5	22.0	33.2	25.2
Incr Delay (d2), s/veh	92.4	39.1	0.4	17.8	32.3	1.3	1.1	121.8	121.7	5.4	73.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	14.2	1.4	4.9	13.3	4.0	1.6	25.1	25.9	3.3	19.3	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	131.9	72.6	26.7	56.5	65.8	30.2	22.4	155.2	155.2	27.4	106.3	25.8
LnGrp LOS	F	F	C	E	F	C	C	F	F	C	F	C
Approach Vol, veh/h		1286			1364			1275			1330	
Approach Delay, s/veh		80.8			58.7			142.8			91.0	
Approach LOS		F			E			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.6	28.9	15.7	28.8	16.1	29.4	15.7	28.8				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	23.0	* 11	23.0	* 12	23.0	* 11	23.0				
Max Q Clear Time (g_c+I1), s	9.2	25.1	11.1	25.0	5.9	25.6	13.0	25.0				
Green Ext Time (p_c), s	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	92.7
HCM 6th LOS	F

Notes































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

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

5: Mission Blvd & Grove Ave

Opening Year (2029) Plus Phase 1 and 2 with Improvements - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 			  			  	
Traffic Volume (veh/h)	276	808	124	40	872	616	225	1103	60	477	940	233
Future Volume (veh/h)	276	808	124	40	872	616	225	1103	60	477	940	233
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	279	816	37	40	881	583	227	1114	58	482	949	171
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	258	1018	452	166	923	760	250	1351	70	393	1799	674
Arrive On Green	0.07	0.28	0.28	0.05	0.26	0.26	0.14	0.27	0.27	0.22	0.35	0.35
Sat Flow, veh/h	3510	3610	1602	3510	3610	1601	1810	5046	263	1810	5187	1603
Grp Volume(v), veh/h	279	816	37	40	881	583	227	763	409	482	949	171
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1601	1810	1729	1851	1810	1729	1603
Q Serve(g_s), s	11.5	32.8	2.7	1.7	37.6	40.0	19.3	32.4	32.5	34.0	22.9	10.8
Cycle Q Clear(g_c), s	11.5	32.8	2.7	1.7	37.6	40.0	19.3	32.4	32.5	34.0	22.9	10.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	258	1018	452	166	923	760	250	926	496	393	1799	674
V/C Ratio(X)	1.08	0.80	0.08	0.24	0.95	0.77	0.91	0.82	0.83	1.22	0.53	0.25
Avail Cap(c_a), veh/h	258	1018	452	202	923	760	359	1006	539	393	1799	674
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	72.4	52.1	41.3	71.8	57.3	34.1	66.4	53.8	53.8	61.2	40.8	29.4
Incr Delay (d2), s/veh	79.1	4.8	0.1	0.5	19.4	4.9	18.6	5.7	10.1	121.9	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	15.0	1.1	0.8	19.2	18.7	10.1	14.6	16.2	28.6	9.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	151.6	56.9	41.4	72.3	76.7	39.0	85.0	59.5	63.9	183.1	41.2	29.7
LnGrp LOS	F	E	D	E	E	D	F	E	E	F	D	C
Approach Vol, veh/h		1132			1504			1399			1602	
Approach Delay, s/veh		79.7			62.0			64.9			82.7	
Approach LOS		E			E			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	41.0	48.9	14.9	51.6	28.6	61.2	19.0	47.5				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	34.0	45.5	9.0	42.5	31.0	48.5	11.5	40.0				
Max Q Clear Time (g_c+I1), s	36.0	34.5	3.7	34.8	21.3	24.9	13.5	42.0				
Green Ext Time (p_c), s	0.0	6.6	0.0	3.4	0.3	9.9	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				72.1								
HCM 6th LOS				E								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary
 26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
 Opening Year (2029) Plus Phase 1 and 2 with Improvements - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	400	504	590	154	519	524	465	2332	40	119	1694	160
Future Volume (veh/h)	400	504	590	154	519	524	465	2332	40	119	1694	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	404	509	288	156	524	299	470	2356	16	120	1711	45
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	463	1043	463	211	784	350	532	2516	618	172	1847	453
Arrive On Green	0.13	0.29	0.29	0.06	0.22	0.22	0.15	0.39	0.39	0.05	0.28	0.28
Sat Flow, veh/h	3510	3610	1602	3510	3610	1610	3510	6536	1604	3510	6536	1602
Grp Volume(v), veh/h	404	509	288	156	524	299	470	2356	16	120	1711	45
Grp Sat Flow(s),veh/h/ln	1755	1805	1602	1755	1805	1610	1755	1634	1604	1755	1634	1602
Q Serve(g_s), s	15.3	15.8	21.1	5.9	18.0	24.2	17.8	47.0	0.8	4.6	34.5	2.8
Cycle Q Clear(g_c), s	15.3	15.8	21.1	5.9	18.0	24.2	17.8	47.0	0.8	4.6	34.5	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	463	1043	463	211	784	350	532	2516	618	172	1847	453
V/C Ratio(X)	0.87	0.49	0.62	0.74	0.67	0.85	0.88	0.94	0.03	0.70	0.93	0.10
Avail Cap(c_a), veh/h	699	1043	463	751	1012	451	945	2516	618	635	1857	455
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	57.7	39.9	41.8	62.7	48.6	51.0	56.3	40.1	25.9	63.4	47.2	35.9
Incr Delay (d2), s/veh	5.5	0.4	2.6	1.9	1.1	12.0	2.0	7.5	0.0	1.9	8.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	6.9	8.4	2.6	8.0	10.6	7.7	18.9	0.3	2.0	14.7	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.2	40.2	44.3	64.6	49.7	63.0	58.3	47.6	25.9	65.4	55.8	36.0
LnGrp LOS	E	D	D	E	D	E	E	D	C	E	E	D
Approach Vol, veh/h		1201			979			2842			1876	
Approach Delay, s/veh		48.9			56.1			49.3			56.0	
Approach LOS		D			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.1	59.7	15.1	46.6	28.0	45.8	24.9	36.8				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	24.5	50.5	29.0	36.0	36.5	38.5	27.0	38.0				
Max Q Clear Time (g_c+I1), s	6.6	49.0	7.9	17.8	19.8	36.5	17.3	26.2				
Green Ext Time (p_c), s	0.2	1.5	0.2	1.7	0.8	1.8	0.6	3.2				

Intersection Summary												
HCM 6th Ctrl Delay			52.0									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

1: Mission Blvd & Euclid Ave/SR-83 Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1 - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	430	1288	90	320	897	204	190	1300	160	384	960	220
Future Volume (veh/h)	430	1288	90	320	897	204	190	1300	160	384	960	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	453	1356	26	337	944	107	200	1368	151	404	1011	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	441	1326	409	429	1308	404	240	1326	409	468	1330	411
Arrive On Green	0.13	0.26	0.26	0.12	0.25	0.25	0.13	0.26	0.26	0.13	0.26	0.26
Sat Flow, veh/h	3510	5187	1601	3510	5187	1601	1810	5187	1601	3510	5187	1601
Grp Volume(v), veh/h	453	1356	26	337	944	107	200	1368	151	404	1011	72
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1601	1810	1729	1601	1755	1729	1601
Q Serve(g_s), s	11.3	23.0	1.1	8.4	15.0	4.8	9.7	23.0	7.0	10.1	16.2	3.2
Cycle Q Clear(g_c), s	11.3	23.0	1.1	8.4	15.0	4.8	9.7	23.0	7.0	10.1	16.2	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	441	1326	409	429	1308	404	240	1326	409	468	1330	411
V/C Ratio(X)	1.03	1.02	0.06	0.79	0.72	0.27	0.83	1.03	0.37	0.86	0.76	0.18
Avail Cap(c_a), veh/h	441	1326	409	441	1326	409	241	1326	409	468	1330	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	33.5	25.4	38.4	30.8	27.0	38.1	33.5	27.5	38.2	30.9	26.0
Incr Delay (d2), s/veh	50.2	30.7	0.1	8.4	1.9	0.4	22.3	33.3	2.6	15.7	4.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	12.6	0.4	3.9	6.0	1.8	5.6	13.1	2.8	5.2	6.9	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.5	64.2	25.4	46.7	32.6	27.4	60.3	66.8	30.1	53.9	35.0	27.0
LnGrp LOS	F	F	C	D	C	C	E	F	C	D	D	C
Approach Vol, veh/h		1835			1388			1719			1487	
Approach Delay, s/veh		69.9			35.7			62.8			39.8	
Approach LOS		E			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	28.8	15.7	28.8	16.6	28.9	16.0	28.5				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	22.7	* 11	23.0	* 12	22.7	* 11	23.0				
Max Q Clear Time (g_c+I1), s	12.1	25.0	10.4	25.0	11.7	18.2	13.3	17.0				
Green Ext Time (p_c), s	0.0	0.0	0.2	0.0	0.0	3.7	0.0	3.7				

Intersection Summary

HCM 6th Ctrl Delay	53.6
HCM 6th LOS	D

Notes

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

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

5: Mission Blvd & Grove Ave

Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1 - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	1052	240	60	701	807	150	890	50	808	1020	260
Future Volume (veh/h)	280	1052	240	60	701	807	150	890	50	808	1020	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	295	1107	120	63	738	433	158	937	51	851	1074	243
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	357	1416	437	211	1201	652	184	1301	71	992	1485	336
Arrive On Green	0.10	0.27	0.27	0.06	0.23	0.23	0.10	0.26	0.26	0.19	0.35	0.35
Sat Flow, veh/h	3510	5187	1601	3510	5187	2816	1810	5033	273	5103	4226	955
Grp Volume(v), veh/h	295	1107	120	63	738	433	158	643	345	851	879	438
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1408	1810	1729	1849	1701	1729	1723
Q Serve(g_s), s	11.2	26.7	8.0	2.3	17.3	18.9	11.7	23.0	23.0	21.9	30.0	30.0
Cycle Q Clear(g_c), s	11.2	26.7	8.0	2.3	17.3	18.9	11.7	23.0	23.0	21.9	30.0	30.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.55
Lane Grp Cap(c), veh/h	357	1416	437	211	1201	652	184	894	478	992	1215	605
V/C Ratio(X)	0.83	0.78	0.27	0.30	0.61	0.66	0.86	0.72	0.72	0.86	0.72	0.72
Avail Cap(c_a), veh/h	777	1722	532	518	1339	727	267	894	478	2071	1786	890
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	59.7	45.5	38.7	61.0	46.7	47.3	59.9	45.8	45.8	52.8	38.2	38.2
Incr Delay (d2), s/veh	3.6	2.1	0.4	0.6	0.8	2.2	15.3	3.1	5.7	1.7	1.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	11.2	3.1	1.0	7.4	6.7	6.0	10.0	11.1	9.3	12.5	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	47.6	39.1	61.5	47.5	49.5	75.2	48.9	51.5	54.5	39.4	40.6
LnGrp LOS	E	D	D	E	D	D	E	D	D	D	D	D
Approach Vol, veh/h		1522			1234			1146			2168	
Approach Delay, s/veh		50.0			48.9			53.3			45.6	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.3	42.0	15.7	44.5	20.8	54.6	21.3	38.9				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+I1), s	23.9	25.0	4.3	28.7	13.7	32.0	13.2	20.9				
Green Ext Time (p_c), s	2.5	5.3	0.1	7.6	0.1	15.6	0.6	6.4				

Intersection Summary

HCM 6th Ctrl Delay	48.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

11: Vineyard Ave & Philadelphia St Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1 - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	380	180	90	260	70	240	916	180	90	305	30
Future Volume (veh/h)	150	380	180	90	260	70	240	916	180	90	305	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	396	118	94	271	43	250	954	60	94	318	22
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	242	539	238	209	466	73	204	1379	615	113	1137	78
Arrive On Green	0.04	0.15	0.15	0.04	0.15	0.15	0.22	0.76	0.76	0.06	0.33	0.33
Sat Flow, veh/h	1810	3610	1594	1810	3122	489	1810	3610	1610	1810	3426	236
Grp Volume(v), veh/h	156	396	118	94	155	159	250	954	60	94	167	173
Grp Sat Flow(s),veh/h/ln	1810	1805	1594	1810	1805	1806	1810	1805	1610	1810	1805	1856
Q Serve(g_s), s	3.5	8.4	5.4	3.5	6.4	6.6	9.0	10.6	0.8	4.1	5.4	5.5
Cycle Q Clear(g_c), s	3.5	8.4	5.4	3.5	6.4	6.6	9.0	10.6	0.8	4.1	5.4	5.5
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	242	539	238	209	269	270	204	1379	615	113	599	616
V/C Ratio(X)	0.65	0.73	0.50	0.45	0.58	0.59	1.23	0.69	0.10	0.83	0.28	0.28
Avail Cap(c_a), veh/h	242	790	349	209	395	395	204	1379	615	113	599	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.56	0.56	0.56	0.99	0.99	0.99
Uniform Delay (d), s/veh	31.8	32.5	31.3	28.0	31.7	31.7	31.0	7.1	5.9	37.1	19.7	19.7
Incr Delay (d2), s/veh	4.6	1.5	1.2	0.6	1.4	1.5	124.6	1.6	0.2	36.2	1.1	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	1.3	3.5	2.0	1.4	2.7	2.7	10.2	2.4	0.3	2.9	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.4	34.0	32.5	28.6	33.1	33.3	155.6	8.7	6.1	73.3	20.8	20.8
LnGrp LOS	D	C	C	C	C	C	F	A	A	E	C	C
Approach Vol, veh/h		670			408			1264			434	
Approach Delay, s/veh		34.3			32.1			37.6			32.2	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	37.6	11.0	19.4	16.0	33.6	11.0	19.4				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	25.0	3.5	17.5	9.0	21.0	3.5	17.5				
Max Q Clear Time (g_c+I1), s	6.1	12.6	5.5	10.4	11.0	7.5	5.5	8.6				
Green Ext Time (p_c), s	0.0	4.3	0.0	0.9	0.0	1.1	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	35.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

26: Haven Ave & Airport Dr

Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1- AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	430	530	160	220	290	280	1790	110	730	1772	40
Future Volume (veh/h)	140	430	530	160	220	290	280	1790	110	730	1772	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	448	434	167	229	96	292	1865	30	760	1846	15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	621	769	226	643	1154	354	2374	38	809	3431	28
Arrive On Green	0.06	0.17	0.17	0.06	0.18	0.18	0.10	0.30	0.30	0.23	0.43	0.43
Sat Flow, veh/h	3510	3610	2809	3510	3610	2810	3510	7905	127	3510	7979	65
Grp Volume(v), veh/h	146	448	434	167	229	96	292	1452	443	760	1424	437
Grp Sat Flow(s),veh/h/ln	1755	1805	1405	1755	1805	1405	1755	1539	1876	1755	1539	1888
Q Serve(g_s), s	5.2	14.8	16.8	5.9	7.0	2.6	10.3	27.3	27.3	26.9	21.7	21.7
Cycle Q Clear(g_c), s	5.2	14.8	16.8	5.9	7.0	2.6	10.3	27.3	27.3	26.9	21.7	21.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.07	1.00		0.03
Lane Grp Cap(c), veh/h	204	621	769	226	643	1154	354	1849	563	809	2647	812
V/C Ratio(X)	0.72	0.72	0.56	0.74	0.36	0.08	0.82	0.79	0.79	0.94	0.54	0.54
Avail Cap(c_a), veh/h	834	1143	1176	834	1143	1543	834	1950	594	834	2647	812
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	58.5	49.4	39.5	58.0	45.5	22.9	55.7	40.5	40.5	47.7	26.7	26.7
Incr Delay (d2), s/veh	1.8	1.6	0.7	1.8	0.3	0.0	1.9	2.2	6.8	17.5	0.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	6.7	5.6	2.6	3.1	0.8	4.5	10.0	13.0	13.3	7.7	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	51.0	40.1	59.8	45.9	22.9	57.6	42.6	47.3	65.2	26.9	27.5
LnGrp LOS	E	D	D	E	D	C	E	D	D	E	C	C
Approach Vol, veh/h		1028			492			2187			2621	
Approach Delay, s/veh		47.7			46.1			45.6			38.1	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.6	45.4	15.1	29.1	20.2	61.8	14.3	29.9				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	28.9	29.3	7.9	16.8	12.3	23.7	7.2	9.0				
Green Ext Time (p_c), s	0.3	8.2	0.2	1.3	0.4	11.7	0.2	1.7				

Intersection Summary

HCM 6th Ctrl Delay	42.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

29: Jurupa St & Haven Ave

Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1 - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	520	681	110	270	761	160	250	1850	360	20	1750	852
Future Volume (veh/h)	520	681	110	270	761	160	250	1850	360	20	1750	852
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	547	717	31	284	801	46	263	1947	130	21	1842	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	606	1239	382	334	838	260	285	2804	688	123	2002	
Arrive On Green	0.17	0.24	0.24	0.10	0.16	0.16	0.16	0.43	0.43	0.04	0.31	0.00
Sat Flow, veh/h	3510	5187	1600	3510	5187	1610	1810	6536	1605	3510	6536	1610
Grp Volume(v), veh/h	547	717	31	284	801	46	263	1947	130	21	1842	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1600	1755	1729	1610	1810	1634	1605	1755	1634	1610
Q Serve(g_s), s	22.7	18.1	2.2	11.8	22.8	3.7	21.3	36.0	7.5	0.9	40.4	0.0
Cycle Q Clear(g_c), s	22.7	18.1	2.2	11.8	22.8	3.7	21.3	36.0	7.5	0.9	40.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	606	1239	382	334	838	260	285	2804	688	123	2002	
V/C Ratio(X)	0.90	0.58	0.08	0.85	0.96	0.18	0.92	0.69	0.19	0.17	0.92	
Avail Cap(c_a), veh/h	1004	1571	485	508	838	260	335	2804	688	295	2023	
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	0.00
Uniform Delay (d), s/veh	60.3	50.0	43.9	66.2	61.8	53.8	61.7	34.5	26.4	69.6	49.8	0.0
Incr Delay (d2), s/veh	4.1	0.4	0.1	5.3	21.1	0.3	25.9	0.8	0.2	0.2	7.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	7.8	0.9	5.5	11.4	1.5	11.5	13.7	2.9	0.4	16.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.4	50.4	44.0	71.5	82.9	54.1	87.6	35.3	26.5	69.8	57.2	0.0
LnGrp LOS	E	D	D	E	F	D	F	D	C	E	E	
Approach Vol, veh/h		1295			1131			2340			1863	A
Approach Delay, s/veh		56.1			78.8			40.7			57.3	
Approach LOS		E			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.7	71.2	21.7	43.0	30.9	53.0	33.1	31.5				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	12.5	61.0	21.5	45.0	27.5	46.0	42.5	24.0				
Max Q Clear Time (g_c+I1), s	2.9	38.0	13.8	20.1	23.3	42.4	24.7	24.8				
Green Ext Time (p_c), s	0.0	16.5	0.3	4.8	0.1	3.1	0.9	0.0				

Intersection Summary

HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes

























- User approved pedestrian interval to be less than phase max green.
- Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

33: Jurupa St & Milliken Ave

Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1 - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	761	110	590	891	190	200	850	530	180	810	160
Future Volume (veh/h)	130	761	110	590	891	190	200	850	530	180	810	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	801	23	621	938	180	211	895	303	189	853	62
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	314	1176	363	678	1715	530	288	1305	709	288	1305	403
Arrive On Green	0.09	0.23	0.23	0.19	0.33	0.33	0.08	0.25	0.25	0.08	0.25	0.25
Sat Flow, veh/h	3510	5187	1600	3510	5187	1603	3510	5187	2817	3510	5187	1601
Grp Volume(v), veh/h	137	801	23	621	938	180	211	895	303	189	853	62
Grp Sat Flow(s),veh/h/ln	1755	1729	1600	1755	1729	1603	1755	1729	1409	1755	1729	1601
Q Serve(g_s), s	4.5	17.2	1.4	21.1	18.0	10.3	7.1	19.0	11.0	6.4	17.9	3.7
Cycle Q Clear(g_c), s	4.5	17.2	1.4	21.1	18.0	10.3	7.1	19.0	11.0	6.4	17.9	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	1176	363	678	1715	530	288	1305	709	288	1305	403
V/C Ratio(X)	0.44	0.68	0.06	0.92	0.55	0.34	0.73	0.69	0.43	0.66	0.65	0.15
Avail Cap(c_a), veh/h	721	1704	525	721	1715	530	721	1704	925	721	1704	526
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	52.5	43.0	36.9	48.1	33.3	30.7	54.6	41.2	38.2	54.2	40.8	35.5
Incr Delay (d2), s/veh	0.7	0.8	0.1	15.6	0.4	0.5	2.7	0.9	0.5	1.9	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	7.2	0.5	10.4	7.3	3.9	3.2	7.9	3.7	2.8	7.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	43.9	37.0	63.8	33.7	31.2	57.3	42.1	38.7	56.1	41.5	35.7
LnGrp LOS	D	D	D	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		961			1739			1409			1104	
Approach Delay, s/veh		45.1			44.2			43.6			43.7	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.5	38.1	18.4	47.7	17.5	38.1	31.0	35.1				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.0	40.0	25.0	40.0	25.0	40.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	9.1	19.9	6.5	20.0	8.4	21.0	23.1	19.2				
Green Ext Time (p_c), s	0.4	6.4	0.3	6.1	0.4	7.9	0.4	6.1				

Intersection Summary

HCM 6th Ctrl Delay	44.1
HCM 6th LOS	D




































Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

1: Mission Blvd & Euclid Ave/SR-83 Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1- PM Peak Hour

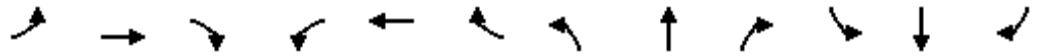
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			  		 	  	
Traffic Volume (veh/h)	270	1041	170	260	1213	277	110	1190	220	176	1440	150
Future Volume (veh/h)	270	1041	170	260	1213	277	110	1190	220	176	1440	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	284	1096	71	274	1277	184	116	1253	204	185	1516	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	429	1337	413	429	1337	415	133	1626	502	257	1626	502
Arrive On Green	0.12	0.26	0.26	0.12	0.26	0.26	0.07	0.31	0.31	0.07	0.31	0.31
Sat Flow, veh/h	3510	5187	1601	3510	5187	1610	1810	5187	1602	3510	5187	1602
Grp Volume(v), veh/h	284	1096	71	274	1277	184	116	1253	204	185	1516	51
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1610	1810	1729	1602	1755	1729	1602
Q Serve(g_s), s	7.0	17.9	3.1	6.7	21.8	8.6	5.7	19.7	9.0	4.6	25.5	2.0
Cycle Q Clear(g_c), s	7.0	17.9	3.1	6.7	21.8	8.6	5.7	19.7	9.0	4.6	25.5	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	1337	413	429	1337	415	133	1626	502	257	1626	502
V/C Ratio(X)	0.66	0.82	0.17	0.64	0.96	0.44	0.87	0.77	0.41	0.72	0.93	0.10
Avail Cap(c_a), veh/h	429	1337	413	429	1337	415	133	1626	502	269	1626	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	31.4	25.9	37.6	32.9	28.0	41.3	28.0	24.3	40.8	30.0	21.9
Incr Delay (d2), s/veh	4.3	4.4	0.3	2.7	12.3	0.8	43.9	3.6	2.4	9.4	11.2	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	3.1	7.4	1.1	2.9	9.9	0.1	4.1	8.1	3.5	2.3	11.6	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	35.8	26.2	40.3	45.2	28.8	85.1	31.6	26.7	50.2	41.1	22.3
LnGrp LOS	D	D	C	D	D	C	F	C	C	D	D	C
Approach Vol, veh/h		1451			1735			1573			1752	
Approach Delay, s/veh		36.5			42.7			34.9			41.6	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.3	34.0	15.7	29.0	11.3	34.0	15.7	29.0				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 6.9	27.9	* 11	23.2	* 6.6	28.2	* 11	23.2				
Max Q Clear Time (g_c+I1), s	6.6	21.7	8.7	19.9	7.7	27.5	9.0	23.8				
Green Ext Time (p_c), s	0.0	5.3	0.3	2.4	0.0	0.7	0.3	0.0				
Intersection Summary												
HCM 6th Ctrl Delay				39.1								
HCM 6th LOS				D								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

5: Mission Blvd & Grove Ave

Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	897	140	40	1150	964	240	980	70	812	930	210
Future Volume (veh/h)	280	897	140	40	1150	964	240	980	70	812	930	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	283	906	39	40	1162	577	242	990	68	820	939	183
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	342	1582	489	180	1342	1260	270	1219	84	956	1237	240
Arrive On Green	0.10	0.30	0.30	0.05	0.26	0.26	0.15	0.25	0.25	0.19	0.28	0.28
Sat Flow, veh/h	3510	5187	1602	3510	5187	2817	1810	4955	340	5103	4355	846
Grp Volume(v), veh/h	283	906	39	40	1162	577	242	690	368	820	745	377
Grp Sat Flow(s),veh/h/ln	1755	1729	1602	1755	1729	1409	1810	1729	1836	1701	1729	1742
Q Serve(g_s), s	10.9	20.3	2.4	1.5	29.5	10.5	18.1	25.9	26.0	21.4	27.1	27.2
Cycle Q Clear(g_c), s	10.9	20.3	2.4	1.5	29.5	10.5	18.1	25.9	26.0	21.4	27.1	27.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.49
Lane Grp Cap(c), veh/h	342	1582	489	180	1342	1260	270	850	452	956	982	495
V/C Ratio(X)	0.83	0.57	0.08	0.22	0.87	0.46	0.90	0.81	0.81	0.86	0.76	0.76
Avail Cap(c_a), veh/h	624	1826	564	319	1374	1278	749	929	493	2111	982	495
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	61.0	40.3	34.1	62.7	48.8	9.6	57.5	48.9	49.0	54.2	45.0	45.1
Incr Delay (d2), s/veh	3.9	0.4	0.1	0.5	6.1	0.3	7.9	5.5	10.1	1.8	3.7	7.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	8.3	0.9	0.7	13.1	2.9	8.7	11.6	12.9	9.1	11.8	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.9	40.7	34.2	63.2	54.9	9.9	65.4	54.5	59.0	56.0	48.7	52.4
LnGrp LOS	E	D	C	E	D	A	E	D	E	E	D	D
Approach Vol, veh/h		1228			1779			1300			1942	
Approach Delay, s/veh		46.1			40.5			57.8			52.5	
Approach LOS		D			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.8	40.9	14.6	49.5	27.6	46.1	20.9	43.1				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	57.0	37.0	12.5	48.5	57.0	37.0	24.5	36.5				
Max Q Clear Time (g_c+I1), s	23.4	28.0	3.5	22.3	20.1	29.2	12.9	31.5				
Green Ext Time (p_c), s	2.4	5.2	0.0	7.2	0.5	4.9	0.5	4.0				

Intersection Summary

HCM 6th Ctrl Delay	48.9
HCM 6th LOS	D

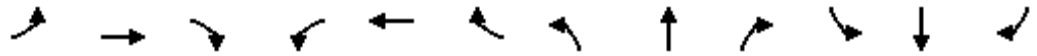
Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

11: Vineyard Ave & Philadelphia St Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1 - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	480	360	240	670	100	120	252	100	70	869	120
Future Volume (veh/h)	30	480	360	240	670	100	120	252	100	70	869	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	505	239	253	705	93	126	265	27	74	915	113
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	149	669	296	275	790	104	157	1149	512	95	919	114
Arrive On Green	0.02	0.19	0.19	0.08	0.25	0.25	0.17	0.64	0.64	0.05	0.28	0.28
Sat Flow, veh/h	1810	3610	1597	1810	3204	422	1810	3610	1610	1810	3232	399
Grp Volume(v), veh/h	32	505	239	253	397	401	126	265	27	74	511	517
Grp Sat Flow(s),veh/h/ln	1810	1805	1597	1810	1805	1821	1810	1805	1610	1810	1805	1826
Q Serve(g_s), s	1.1	10.6	11.5	6.5	17.0	17.0	5.4	2.5	0.5	3.2	22.6	22.6
Cycle Q Clear(g_c), s	1.1	10.6	11.5	6.5	17.0	17.0	5.4	2.5	0.5	3.2	22.6	22.6
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	149	669	296	275	445	449	157	1149	512	95	513	519
V/C Ratio(X)	0.21	0.76	0.81	0.92	0.89	0.89	0.80	0.23	0.05	0.78	1.00	1.00
Avail Cap(c_a), veh/h	170	745	329	275	463	467	204	1149	512	113	513	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	0.86	0.86	0.86
Uniform Delay (d), s/veh	26.7	30.9	31.2	29.2	29.1	29.1	32.4	10.4	10.0	37.4	28.6	28.6
Incr Delay (d2), s/veh	0.3	3.7	12.1	33.1	18.5	18.5	12.1	0.5	0.2	17.4	35.7	35.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.5	5.0	3.9	8.9	9.0	2.6	0.9	0.2	1.8	13.9	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	34.6	43.3	62.2	47.6	47.6	44.5	10.8	10.2	54.8	64.3	64.1
LnGrp LOS	C	C	D	E	D	D	D	B	B	D	E	E
Approach Vol, veh/h		776			1051			418			1102	
Approach Delay, s/veh		36.9			51.1			20.9			63.6	
Approach LOS		D			D			C			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	32.5	14.0	22.3	13.9	29.8	9.1	27.2				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	23.0	6.5	16.5	9.0	19.0	2.5	20.5				
Max Q Clear Time (g_c+I1), s	5.2	4.5	8.5	12.6	7.4	24.6	3.1	19.0				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.7	0.0	0.0	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Notes

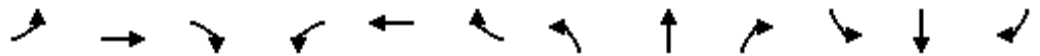
User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

26: Haven Ave & Airport Dr

Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↔↔	↔↔	↑↑	↔↔	↔↔	↑↑↑↑		↔↔	↑↑↑↑	
Traffic Volume (veh/h)	430	640	670	70	670	740	720	2277	50	30	1768	170
Future Volume (veh/h)	430	640	670	70	670	740	720	2277	50	30	1768	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	434	646	585	71	677	501	727	2300	21	30	1786	85
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	489	1071	1449	112	684	604	759	3633	33	83	2007	95
Arrive On Green	0.14	0.30	0.30	0.03	0.19	0.19	0.22	0.46	0.46	0.02	0.26	0.26
Sat Flow, veh/h	3510	3610	2820	3510	3610	2834	3510	7970	73	3510	7626	362
Grp Volume(v), veh/h	434	646	585	71	677	501	727	1777	544	30	1441	430
Grp Sat Flow(s),veh/h/ln	1755	1805	1410	1755	1805	1417	1755	1539	1887	1755	1539	1832
Q Serve(g_s), s	18.6	23.5	19.5	3.1	28.6	25.9	31.3	33.8	33.8	1.3	34.5	34.6
Cycle Q Clear(g_c), s	18.6	23.5	19.5	3.1	28.6	25.9	31.3	33.8	33.8	1.3	34.5	34.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.20
Lane Grp Cap(c), veh/h	489	1071	1449	112	684	604	759	2806	860	83	1620	482
V/C Ratio(X)	0.89	0.60	0.40	0.63	0.99	0.83	0.96	0.63	0.63	0.36	0.89	0.89
Avail Cap(c_a), veh/h	848	1071	1449	688	684	604	759	2806	860	745	1645	490
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	64.7	46.1	22.9	73.2	61.9	57.6	59.3	31.9	31.9	73.6	54.3	54.3
Incr Delay (d2), s/veh	2.8	1.0	0.2	2.2	31.8	9.5	22.7	0.5	1.6	1.0	6.5	18.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	10.5	6.3	1.4	15.8	9.8	15.8	12.1	15.0	0.6	13.8	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	47.1	23.1	75.4	93.7	67.1	82.0	32.4	33.5	74.6	60.7	72.6
LnGrp LOS	E	D	C	E	F	E	F	C	C	E	E	E
Approach Vol, veh/h		1665			1249			3048			1901	
Approach Delay, s/veh		44.0			82.0			44.4			63.6	
Approach LOS		D			F			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	77.3	11.9	52.8	40.6	47.8	28.3	36.4				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	32.5	41.5	30.0	36.0	33.1	40.9	37.0	29.0				
Max Q Clear Time (g_c+I1), s	3.3	35.8	5.1	25.5	33.3	36.6	20.6	30.6				
Green Ext Time (p_c), s	0.0	5.2	0.1	1.9	0.0	3.7	0.7	0.0				

Intersection Summary

HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes

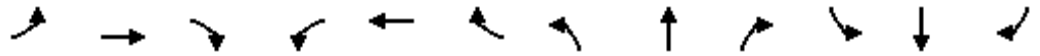
User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

29: Jurupa St & Haven Ave

Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↗	↖↗	↑↑↑	↗	↖	↑↑↑	↗	↖↗	↑↑↑	↗
Traffic Volume (veh/h)	537	821	170	490	642	130	90	2150	360	210	1700	738
Future Volume (veh/h)	537	821	170	490	642	130	90	2150	360	210	1700	738
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	559	855	48	510	669	36	94	2240	181	219	1771	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	621	959	295	571	886	275	116	2393	587	267	2473	
Arrive On Green	0.18	0.18	0.18	0.16	0.17	0.17	0.06	0.37	0.37	0.08	0.38	0.00
Sat Flow, veh/h	3510	5187	1597	3510	5187	1610	1810	6536	1604	3510	6536	1610
Grp Volume(v), veh/h	559	855	48	510	669	36	94	2240	181	219	1771	0
Grp Sat Flow(s),veh/h/ln	1755	1729	1597	1755	1729	1610	1810	1634	1604	1755	1634	1610
Q Serve(g_s), s	22.3	23.0	3.6	20.3	17.5	2.7	7.3	47.2	11.5	8.8	33.0	0.0
Cycle Q Clear(g_c), s	22.3	23.0	3.6	20.3	17.5	2.7	7.3	47.2	11.5	8.8	33.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	621	959	295	571	886	275	116	2393	587	267	2473	
V/C Ratio(X)	0.90	0.89	0.16	0.89	0.76	0.13	0.81	0.94	0.31	0.82	0.72	
Avail Cap(c_a), veh/h	1143	999	307	1143	999	310	171	2402	589	332	2473	
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	0.00
Uniform Delay (d), s/veh	57.6	56.8	48.9	58.6	56.4	50.2	66.0	43.6	32.3	65.0	37.8	0.0
Incr Delay (d2), s/veh	2.0	9.9	0.3	2.0	2.9	0.2	10.3	7.8	0.4	10.2	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	10.7	1.4	9.0	7.7	1.1	3.6	19.3	4.5	4.2	12.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.6	66.7	49.2	60.6	59.3	50.4	76.3	51.4	32.7	75.2	38.9	0.0
LnGrp LOS	E	E	D	E	E	D	E	D	C	E	D	
Approach Vol, veh/h		1462			1215			2515			1990	A
Approach Delay, s/veh		63.4			59.6			51.0			42.9	
Approach LOS		E			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.4	59.8	30.7	33.9	16.6	61.6	32.8	31.9				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	13.5	52.5	46.5	27.5	13.5	52.5	46.5	27.5				
Max Q Clear Time (g_c+I1), s	10.8	49.2	22.3	25.0	9.3	35.0	24.3	19.5				
Green Ext Time (p_c), s	0.1	3.1	0.9	1.3	0.0	12.0	1.0	2.6				

Intersection Summary

HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center

33: Jurupa St & Milliken Ave

Cumulative Year (2040) Plus Phase 1 and 2 with Improvements Alt 1- PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗	↔↔	↑↑↑	↗↗	↔↔	↑↑↑	↗
Traffic Volume (veh/h)	200	1221	190	560	1052	140	270	1120	550	310	970	110
Future Volume (veh/h)	200	1221	190	560	1052	140	270	1120	550	310	970	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	211	1285	146	589	1107	102	284	1179	499	326	1021	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	273	1341	570	640	1882	758	341	1231	1184	385	1296	525
Arrive On Green	0.08	0.26	0.26	0.18	0.36	0.36	0.10	0.24	0.24	0.11	0.25	0.25
Sat Flow, veh/h	3510	5187	1601	3510	5187	1604	3510	5187	2816	3510	5187	1601
Grp Volume(v), veh/h	211	1285	146	589	1107	102	284	1179	499	326	1021	40
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1604	1755	1729	1408	1755	1729	1601
Q Serve(g_s), s	8.3	34.5	4.3	23.3	24.4	5.1	11.2	31.7	4.9	12.9	26.0	2.4
Cycle Q Clear(g_c), s	8.3	34.5	4.3	23.3	24.4	5.1	11.2	31.7	4.9	12.9	26.0	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	1341	570	640	1882	758	341	1231	1184	385	1296	525
V/C Ratio(X)	0.77	0.96	0.26	0.92	0.59	0.13	0.83	0.96	0.42	0.85	0.79	0.08
Avail Cap(c_a), veh/h	559	1341	570	684	1882	758	559	1231	1184	634	1341	539
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	63.9	51.6	11.4	56.7	36.4	21.0	62.6	53.2	10.6	61.7	49.5	32.7
Incr Delay (d2), s/veh	3.5	15.8	0.3	17.0	0.5	0.1	4.3	16.7	0.3	4.5	3.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	16.5	2.0	11.6	10.1	1.9	5.1	15.2	2.7	5.8	11.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	67.4	11.7	73.7	37.0	21.1	67.0	69.8	10.9	66.2	52.7	32.8
LnGrp LOS	E	E	B	E	D	C	E	E	B	E	D	C
Approach Vol, veh/h		1642			1798			1962			1387	
Approach Delay, s/veh		62.4			48.1			54.4			55.3	
Approach LOS		E			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.0	41.0	33.2	44.0	21.2	42.8	18.5	58.7				
Change Period (Y+Rc), s	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5				
Max Green Setting (Gmax), s	25.5	33.5	27.5	36.5	22.5	36.5	22.5	41.5				
Max Q Clear Time (g_c+I1), s	14.9	33.7	25.3	36.5	13.2	28.0	10.3	26.4				
Green Ext Time (p_c), s	0.6	0.0	0.5	0.0	0.5	4.6	0.4	6.8				

Intersection Summary

HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes



































User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

1: Mission Blvd & Euclid Ave/SR-83

Ontario Airport South Cargo Center

Cumulative Year (2040) Plus Phase 1 and 2 Project Alt 2 - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			  			  	
Traffic Volume (veh/h)	430	1288	90	320	897	204	190	1300	160	384	960	220
Future Volume (veh/h)	430	1288	90	320	897	204	190	1300	160	384	960	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	453	1356	26	337	944	107	200	1368	151	404	1011	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	537	1415	437	329	1108	341	354	1377	425	387	1732	535
Arrive On Green	0.15	0.27	0.27	0.09	0.21	0.21	0.11	0.27	0.27	0.18	0.33	0.33
Sat Flow, veh/h	3510	5187	1601	3510	5187	1599	1810	5187	1601	1810	5187	1603
Grp Volume(v), veh/h	453	1356	26	337	944	107	200	1368	151	404	1011	72
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1599	1810	1729	1601	1810	1729	1603
Q Serve(g_s), s	13.8	28.3	1.3	10.3	19.2	6.2	8.6	28.9	8.4	19.5	17.7	3.4
Cycle Q Clear(g_c), s	13.8	28.3	1.3	10.3	19.2	6.2	8.6	28.9	8.4	19.5	17.7	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	537	1415	437	329	1108	341	354	1377	425	387	1732	535
V/C Ratio(X)	0.84	0.96	0.06	1.03	0.85	0.31	0.57	0.99	0.36	1.04	0.58	0.13
Avail Cap(c_a), veh/h	648	1415	437	329	1108	341	418	1377	425	387	1732	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	39.4	29.6	49.8	41.6	36.5	25.0	40.3	32.8	33.4	30.3	25.6
Incr Delay (d2), s/veh	9.4	15.3	0.1	53.2	6.0	0.7	2.0	22.8	2.3	57.6	1.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	13.3	0.5	6.8	8.4	2.4	3.7	14.7	3.4	12.6	7.4	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.7	54.6	29.7	103.0	47.6	37.1	27.0	63.1	35.1	91.0	31.8	26.1
LnGrp LOS	D	D	C	F	D	D	C	E	D	F	C	C
Approach Vol, veh/h		1835			1388			1719			1487	
Approach Delay, s/veh		54.3			60.3			56.4			47.6	
Approach LOS		D			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.2	35.0	15.0	35.8	16.7	42.5	21.5	29.3				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 20	29.2	* 10	30.0	* 16	32.8	* 20	20.0				
Max Q Clear Time (g_c+I1), s	21.5	30.9	12.3	30.3	10.6	19.7	15.8	21.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.4	9.5	1.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

























Notes

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

HCM 6th Signalized Intersection Summary

5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project Alt 2 - AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	1052	240	60	701	807	150	890	50	808	1020	260
Future Volume (veh/h)	280	1052	240	60	701	807	150	890	50	808	1020	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	295	1107	120	63	738	0	158	937	51	851	1074	243
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	357	1416	437	211	1201		184	1301	71	992	1485	336
Arrive On Green	0.10	0.27	0.27	0.06	0.23	0.00	0.10	0.26	0.26	0.19	0.35	0.35
Sat Flow, veh/h	3510	5187	1601	3510	5187	1610	1810	5033	273	5103	4226	955
Grp Volume(v), veh/h	295	1107	120	63	738	0	158	643	345	851	879	438
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1610	1810	1729	1849	1701	1729	1723
Q Serve(g_s), s	11.2	26.7	8.0	2.3	17.3	0.0	11.7	23.0	23.0	21.9	30.0	30.0
Cycle Q Clear(g_c), s	11.2	26.7	8.0	2.3	17.3	0.0	11.7	23.0	23.0	21.9	30.0	30.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.55
Lane Grp Cap(c), veh/h	357	1416	437	211	1201		184	894	478	992	1215	605
V/C Ratio(X)	0.83	0.78	0.27	0.30	0.61		0.86	0.72	0.72	0.86	0.72	0.72
Avail Cap(c_a), veh/h	777	1722	532	518	1339		267	894	478	2071	1786	890
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.7	45.5	38.7	61.0	46.7	0.0	59.9	45.8	45.8	52.8	38.2	38.2
Incr Delay (d2), s/veh	3.6	2.1	0.4	0.6	0.8	0.0	15.3	3.1	5.7	1.7	1.2	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	11.2	3.1	1.0	7.4	0.0	6.0	10.0	11.1	9.3	12.5	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	47.6	39.1	61.5	47.5	0.0	75.2	48.9	51.5	54.5	39.4	40.6
LnGrp LOS	E	D	D	E	D		E	D	D	D	D	D
Approach Vol, veh/h		1522			801	A		1146			2168	
Approach Delay, s/veh		50.0			48.6			53.3			45.6	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.3	42.0	15.7	44.5	20.8	54.6	21.3	38.9				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+I1), s	23.9	25.0	4.3	28.7	13.7	32.0	13.2	19.3				
Green Ext Time (p_c), s	2.5	5.3	0.1	7.6	0.1	15.6	0.6	4.8				

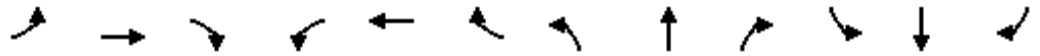
Intersection Summary												
HCM 6th Ctrl Delay			48.8									
HCM 6th LOS			D									

Notes
 User approved pedestrian interval to be less than phase max green.
 Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project Alt 2 - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	150	380	180	90	260	70	240	916	180	90	305	30
Future Volume (veh/h)	150	380	180	90	260	70	240	916	180	90	305	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	156	396	118	94	271	43	250	954	60	94	318	22
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	497	146	206	565	89	204	1264	564	113	1028	71
Arrive On Green	0.04	0.18	0.18	0.04	0.18	0.18	0.22	0.70	0.70	0.06	0.30	0.30
Sat Flow, veh/h	1810	2744	808	1810	3123	489	1810	3610	1610	1810	3425	236
Grp Volume(v), veh/h	156	259	255	94	155	159	250	954	60	94	167	173
Grp Sat Flow(s),veh/h/ln	1810	1805	1747	1810	1805	1807	1810	1805	1610	1810	1805	1856
Q Serve(g_s), s	3.5	11.0	11.2	3.4	6.2	6.3	9.0	13.4	1.0	4.1	5.7	5.8
Cycle Q Clear(g_c), s	3.5	11.0	11.2	3.4	6.2	6.3	9.0	13.4	1.0	4.1	5.7	5.8
Prop In Lane	1.00		0.46	1.00		0.27	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	279	327	316	206	327	327	204	1264	564	113	542	557
V/C Ratio(X)	0.56	0.79	0.81	0.46	0.47	0.49	1.23	0.75	0.11	0.83	0.31	0.31
Avail Cap(c_a), veh/h	279	395	382	206	395	395	204	1264	564	113	542	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.56	0.56	0.56	0.99	0.99	0.99
Uniform Delay (d), s/veh	29.2	31.3	31.4	26.2	29.3	29.4	31.0	9.8	7.9	37.1	21.6	21.6
Incr Delay (d2), s/veh	1.5	8.1	9.5	0.6	0.8	0.8	124.6	2.4	0.2	36.2	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.1	5.1	1.4	2.5	2.6	10.2	3.1	0.3	2.9	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	39.5	40.9	26.8	30.1	30.2	155.6	12.2	8.1	73.3	23.0	23.0
LnGrp LOS	C	D	D	C	C	C	F	B	A	E	C	C
Approach Vol, veh/h		670			408			1264			434	
Approach Delay, s/veh		38.0			29.4			40.4			33.9	
Approach LOS		D			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	35.0	11.0	22.0	16.0	31.0	11.0	22.0				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	5.0	25.0	3.5	17.5	9.0	21.0	3.5	17.5				
Max Q Clear Time (g_c+I1), s	6.1	15.4	5.4	13.2	11.0	7.8	5.5	8.3				
Green Ext Time (p_c), s	0.0	3.7	0.0	0.9	0.0	1.1	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project Alt 2 - AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑↑	↖↗	↖↗	↑↑↑	↖↗	↖↗↖	↑↑↑	↖	↖↗	↑↑↑	↖
Traffic Volume (veh/h)	140	430	530	160	220	290	280	1790	110	730	1772	40
Future Volume (veh/h)	140	430	530	160	220	290	280	1790	110	730	1772	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	448	434	167	229	96	292	1865	30	760	1846	15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	742	401	227	775	419	390	2098	514	814	3114	765
Arrive On Green	0.06	0.14	0.14	0.06	0.15	0.15	0.08	0.32	0.32	0.23	0.48	0.48
Sat Flow, veh/h	3510	5187	2804	3510	5187	2805	5103	6536	1603	3510	6536	1605
Grp Volume(v), veh/h	146	448	434	167	229	96	292	1865	30	760	1846	15
Grp Sat Flow(s),veh/h/ln	1755	1729	1402	1755	1729	1403	1701	1634	1603	1755	1634	1605
Q Serve(g_s), s	5.0	10.0	17.6	5.7	4.8	3.7	6.9	33.3	1.6	26.1	25.3	0.6
Cycle Q Clear(g_c), s	5.0	10.0	17.6	5.7	4.8	3.7	6.9	33.3	1.6	26.1	25.3	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	742	401	227	775	419	390	2098	514	814	3114	765
V/C Ratio(X)	0.71	0.60	1.08	0.73	0.30	0.23	0.75	0.89	0.06	0.93	0.59	0.02
Avail Cap(c_a), veh/h	857	1688	913	857	1688	913	1245	2127	522	857	3114	765
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	56.8	49.4	52.7	56.4	46.5	46.0	55.6	39.7	28.9	46.3	23.5	17.0
Incr Delay (d2), s/veh	1.7	0.8	46.7	1.7	0.2	0.3	1.1	5.1	0.1	16.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.3	8.6	2.5	2.0	1.3	2.9	13.2	0.6	12.8	9.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	50.2	99.4	58.2	46.7	46.3	56.7	44.8	28.9	62.3	23.8	17.0
LnGrp LOS	E	D	F	E	D	D	E	D	C	E	C	B
Approach Vol, veh/h		1028			492			2187			2621	
Approach Delay, s/veh		72.2			50.5			46.1			34.9	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	36.0	47.0	15.0	25.0	16.9	66.1	14.2	25.8				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	28.1	35.3	7.7	12.0	8.9	27.3	7.0	6.8				
Green Ext Time (p_c), s	0.4	4.0	0.2	1.4	0.5	9.9	0.2	1.7				

Intersection Summary

HCM 6th Ctrl Delay	46.1
HCM 6th LOS	D

Notes



































User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary

Ontario Airport South Cargo Center



































1: Mission Blvd & Euclid Ave/SR-83

Cumulative Year (2040) Plus Phase 1 and 2 Project Alt 2 - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			  		 	  	
Traffic Volume (veh/h)	270	1041	170	260	1213	277	110	1190	220	176	1440	150
Future Volume (veh/h)	270	1041	170	260	1213	277	110	1190	220	176	1440	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	284	1096	71	274	1277	184	116	1253	204	185	1516	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	351	1371	423	351	1371	426	279	1743	539	308	1757	543
Arrive On Green	0.10	0.26	0.26	0.10	0.26	0.26	0.11	0.34	0.34	0.11	0.34	0.34
Sat Flow, veh/h	3510	5187	1601	3510	5187	1610	1810	5187	1603	1810	5187	1603
Grp Volume(v), veh/h	284	1096	71	274	1277	184	116	1253	204	185	1516	51
Grp Sat Flow(s),veh/h/ln	1755	1729	1601	1755	1729	1610	1810	1729	1603	1810	1729	1603
Q Serve(g_s), s	8.7	21.7	3.8	8.4	26.4	10.4	4.2	23.3	10.7	7.0	30.0	2.4
Cycle Q Clear(g_c), s	8.7	21.7	3.8	8.4	26.4	10.4	4.2	23.3	10.7	7.0	30.0	2.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	351	1371	423	351	1371	426	279	1743	539	308	1757	543
V/C Ratio(X)	0.81	0.80	0.17	0.78	0.93	0.43	0.42	0.72	0.38	0.60	0.86	0.09
Avail Cap(c_a), veh/h	361	1377	425	361	1377	427	285	1743	539	309	1757	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	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	37.7	31.1	48.3	39.5	33.6	23.8	32.0	27.8	23.4	34.0	24.8
Incr Delay (d2), s/veh	13.3	3.6	0.3	8.3	9.1	0.7	1.4	2.6	2.0	3.8	5.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	9.1	1.4	3.9	11.7	4.0	1.8	9.7	4.2	3.1	13.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	41.3	31.4	56.6	48.6	34.3	25.2	34.6	29.8	27.2	39.9	25.2
LnGrp LOS	E	D	C	E	D	C	C	C	C	C	D	C
Approach Vol, veh/h		1451			1735			1573			1752	
Approach Delay, s/veh		44.9			48.4			33.3			38.1	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.7	42.8	15.7	34.9	16.4	43.1	15.7	34.9				
Change Period (Y+Rc), s	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8	* 4.7	5.8				
Max Green Setting (Gmax), s	* 12	36.5	* 11	29.2	* 12	36.5	* 11	29.2				
Max Q Clear Time (g_c+I1), s	9.0	25.3	10.4	23.7	6.2	32.0	10.7	28.4				
Green Ext Time (p_c), s	0.2	9.0	0.1	3.7	0.2	4.2	0.1	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			41.2									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

HCM 6th Signalized Intersection Summary
5: Mission Blvd & Grove Ave

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project Alt 2 - PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  			  		  	  	
Traffic Volume (veh/h)	280	897	140	40	1150	964	240	980	70	812	930	210
Future Volume (veh/h)	280	897	140	40	1150	964	240	980	70	812	930	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	283	906	39	40	1162	0	242	990	68	820	939	183
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	343	1523	470	179	1280		260	1288	88	955	1321	257
Arrive On Green	0.10	0.29	0.29	0.05	0.25	0.00	0.14	0.26	0.26	0.19	0.30	0.30
Sat Flow, veh/h	3510	5187	1602	3510	5187	1610	1810	4955	340	5103	4355	846
Grp Volume(v), veh/h	283	906	39	40	1162	0	242	690	368	820	745	377
Grp Sat Flow(s),veh/h/ln	1755	1729	1602	1755	1729	1610	1810	1729	1837	1701	1729	1743
Q Serve(g_s), s	11.0	20.8	2.5	1.5	30.3	0.0	18.4	25.7	25.8	21.7	26.6	26.8
Cycle Q Clear(g_c), s	11.0	20.8	2.5	1.5	30.3	0.0	18.4	25.7	25.8	21.7	26.6	26.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.49
Lane Grp Cap(c), veh/h	343	1523	470	179	1280		260	899	477	955	1049	529
V/C Ratio(X)	0.82	0.59	0.08	0.22	0.91		0.93	0.77	0.77	0.86	0.71	0.71
Avail Cap(c_a), veh/h	757	1678	518	505	1305		260	899	477	2017	1740	877
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.6	42.1	35.6	63.4	50.9	0.0	58.9	47.6	47.6	54.8	43.0	43.1
Incr Delay (d2), s/veh	3.8	0.6	0.1	0.5	9.5	0.0	37.3	4.3	8.0	1.8	1.3	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	8.6	1.0	0.7	13.9	0.0	10.9	11.3	12.6	9.2	11.3	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	42.6	35.7	63.8	60.3	0.0	96.1	51.9	55.6	56.6	44.3	45.7
LnGrp LOS	E	D	D	E	E		F	D	E	E	D	D
Approach Vol, veh/h		1228			1202	A		1300			1942	
Approach Delay, s/veh		47.6			60.5			61.2			49.7	
Approach LOS		D			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.0	43.2	14.6	48.3	27.0	49.2	21.1	41.8				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	55.0	35.0	20.0	45.0	20.0	70.0	30.0	35.0				
Max Q Clear Time (g_c+I1), s	23.7	27.8	3.5	22.8	20.4	28.8	13.0	32.3				
Green Ext Time (p_c), s	2.4	4.4	0.0	6.8	0.0	12.8	0.6	1.9				

Intersection Summary

HCM 6th Ctrl Delay	54.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
 11: Vineyard Ave & Philadelphia St

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project Alt 2 - PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	30	480	360	240	670	100	120	252	100	70	869	120
Future Volume (veh/h)	30	480	360	240	670	100	120	252	100	70	869	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	505	239	253	705	93	126	265	27	74	915	113
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	193	575	271	270	1016	134	145	1157	516	96	947	117
Arrive On Green	0.02	0.24	0.24	0.09	0.32	0.32	0.08	0.32	0.32	0.05	0.29	0.29
Sat Flow, veh/h	1810	2376	1119	1810	3204	422	1810	3610	1610	1810	3232	399
Grp Volume(v), veh/h	32	383	361	253	397	401	126	265	27	74	511	517
Grp Sat Flow(s),veh/h/ln	1810	1805	1690	1810	1805	1822	1810	1805	1610	1810	1805	1826
Q Serve(g_s), s	1.3	20.4	20.6	9.5	19.2	19.3	6.9	5.4	1.2	4.0	27.9	27.9
Cycle Q Clear(g_c), s	1.3	20.4	20.6	9.5	19.2	19.3	6.9	5.4	1.2	4.0	27.9	27.9
Prop In Lane	1.00		0.66	1.00		0.23	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	193	437	409	270	573	578	145	1157	516	96	529	535
V/C Ratio(X)	0.17	0.88	0.88	0.94	0.69	0.69	0.87	0.23	0.05	0.77	0.97	0.97
Avail Cap(c_a), veh/h	276	478	448	270	573	578	145	1157	516	163	529	535
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	0.97	0.97	0.97	0.86	0.86	0.86
Uniform Delay (d), s/veh	28.5	36.5	36.5	28.8	29.9	29.9	45.5	24.9	23.5	46.8	34.8	34.8
Incr Delay (d2), s/veh	0.1	15.4	16.9	37.6	3.4	3.4	37.5	0.4	0.2	4.3	28.8	28.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	10.3	9.9	7.0	8.3	8.3	4.5	2.3	0.4	1.9	15.7	15.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	51.9	53.5	66.4	33.2	33.2	83.0	25.4	23.7	51.1	63.6	63.4
LnGrp LOS	C	D	D	E	C	C	F	C	C	D	E	E
Approach Vol, veh/h		776			1051			418			1102	
Approach Delay, s/veh		51.7			41.2			42.6			62.7	
Approach LOS		D			D			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	39.0	17.0	31.7	15.0	36.3	9.5	39.2				
Change Period (Y+Rc), s	7.0	7.0	7.5	7.5	7.0	7.0	7.5	7.5				
Max Green Setting (Gmax), s	9.0	26.0	9.5	26.5	8.0	27.0	6.5	29.5				
Max Q Clear Time (g_c+I1), s	6.0	7.4	11.5	22.6	8.9	29.9	3.3	21.3				
Green Ext Time (p_c), s	0.0	1.2	0.0	1.3	0.0	0.0	0.0	2.3				

Intersection Summary

HCM 6th Ctrl Delay	50.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary
 26: Haven Ave & Airport Dr

Ontario Airport South Cargo Center
 Cumulative Year (2040) Plus Phase 1 and 2 Project Alt 2 - PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	430	640	670	70	670	740	720	2277	50	30	1768	170
Future Volume (veh/h)	430	640	670	70	670	740	720	2277	50	30	1768	170
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	434	646	585	71	677	501	727	2300	21	30	1786	85
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	490	1687	917	115	1132	618	820	2706	664	85	1814	444
Arrive On Green	0.14	0.33	0.33	0.03	0.22	0.22	0.16	0.41	0.41	0.02	0.28	0.28
Sat Flow, veh/h	3510	5187	2821	3510	5187	2834	5103	6536	1604	3510	6536	1601
Grp Volume(v), veh/h	434	646	585	71	677	501	727	2300	21	30	1786	85
Grp Sat Flow(s),veh/h/ln	1755	1729	1410	1755	1729	1417	1701	1634	1604	1755	1634	1601
Q Serve(g_s), s	17.5	13.8	25.4	2.9	16.9	24.2	20.1	45.9	1.1	1.2	39.2	5.8
Cycle Q Clear(g_c), s	17.5	13.8	25.4	2.9	16.9	24.2	20.1	45.9	1.1	1.2	39.2	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	490	1687	917	115	1132	618	820	2706	664	85	1814	444
V/C Ratio(X)	0.89	0.38	0.64	0.62	0.60	0.81	0.89	0.85	0.03	0.35	0.98	0.19
Avail Cap(c_a), veh/h	731	1687	917	731	1440	786	1062	2706	664	731	1814	444
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	60.9	37.5	41.4	68.8	50.7	53.5	59.2	38.2	25.1	69.2	51.8	39.7
Incr Delay (d2), s/veh	6.4	0.1	1.5	2.0	0.5	5.1	6.4	2.8	0.0	0.9	17.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	5.8	8.8	1.3	7.2	8.8	8.8	17.8	0.4	0.5	17.8	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	37.6	42.9	70.8	51.2	58.6	65.6	41.0	25.1	70.1	69.3	40.0
LnGrp LOS	E	D	D	E	D	E	E	D	C	E	E	D
Approach Vol, veh/h		1665			1249			3048			1901	
Approach Delay, s/veh		47.2			55.3			46.8			68.0	
Approach LOS		D			E			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	67.2	11.7	54.3	30.7	47.5	27.1	38.8				
Change Period (Y+Rc), s	7.5	7.5	7.0	7.4	7.5	7.5	7.0	7.4				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	3.2	47.9	4.9	15.8	22.1	41.2	19.5	26.2				
Green Ext Time (p_c), s	0.0	0.0	0.1	2.1	1.1	0.0	0.6	5.3				
Intersection Summary												
HCM 6th Ctrl Delay			53.3									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												

Queues
13: Vineyard Ave & SR-60 WB Ramps



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	183	394	212	860	379	140
v/c Ratio	0.45	0.80	0.51	0.38	0.31	0.23
Control Delay	29.7	30.2	30.8	9.0	22.8	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	30.2	30.8	9.0	22.8	11.3
Queue Length 50th (ft)	76	105	96	120	71	0
Queue Length 95th (ft)	133	#234	m122	m142	149	76
Internal Link Dist (ft)	1289			425	387	
Turn Bay Length (ft)		360	145			110
Base Capacity (vph)	460	533	414	2272	1218	622
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.74	0.51	0.38	0.31	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
14: Vineyard Ave & SR-60 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	534	172	893	149	395
v/c Ratio	0.93	0.27	0.71	0.64	0.20
Control Delay	52.7	4.8	23.2	31.6	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	52.7	4.8	23.2	31.6	1.9
Queue Length 50th (ft)	256	0	173	31	3
Queue Length 95th (ft)	#447	41	247	52	5
Internal Link Dist (ft)	756		1783		425
Turn Bay Length (ft)		430		145	
Base Capacity (vph)	573	630	1255	270	1940
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.93	0.27	0.71	0.55	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	246	233	227	710	1052	420	128
v/c Ratio	0.55	0.49	0.47	0.61	0.33	0.29	0.28
Control Delay	34.3	18.7	18.1	24.5	21.3	29.7	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	18.7	18.1	24.5	21.3	29.7	7.4
Queue Length 50th (ft)	127	62	56	202	206	58	0
Queue Length 95th (ft)	207	140	129	259	249	80	44
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	445	476	479	1167	3169	1452	452
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.49	0.47	0.61	0.33	0.29	0.28
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	263	250	243	1423	522	108	626
v/c Ratio	0.45	0.41	0.36	0.68	0.60	0.20	0.23
Control Delay	26.4	12.0	5.4	28.4	5.5	27.5	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	12.0	5.4	28.4	5.5	27.5	2.3
Queue Length 50th (ft)	122	46	5	202	0	17	6
Queue Length 95th (ft)	196	115	57	241	71	31	13
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	609	670	2106	864	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.41	0.36	0.68	0.60	0.20	0.23
Intersection Summary							

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	449	308	308	2132	1516	328
v/c Ratio	0.49	0.37	0.39	0.86	0.65	0.47
Control Delay	18.2	14.7	15.1	30.6	26.8	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	14.7	15.1	30.6	26.8	4.9
Queue Length 50th (ft)	178	101	107	285	239	0
Queue Length 95th (ft)	263	163	174	m341	282	69
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	922	828	787	2483	2322	692
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.37	0.39	0.86	0.65	0.47

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	882	276	275	1619	307	1449
v/c Ratio	0.92	0.32	0.33	0.69	0.44	0.62
Control Delay	38.1	12.8	13.1	29.1	11.2	33.5
Queue Delay	0.0	0.0	0.0	20.3	1.1	0.0
Total Delay	38.1	12.8	13.1	49.4	12.2	33.5
Queue Length 50th (ft)	491	82	87	251	50	194
Queue Length 95th (ft)	#772	136	145	293	122	240
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	958	872	829	2352	703	2352
Starvation Cap Reductn	0	0	0	779	201	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.32	0.33	1.03	0.61	0.62

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	656	145	266	651	566	564	566
v/c Ratio	0.55	0.33	0.46	0.27	0.85	0.82	0.81
Control Delay	31.5	7.2	33.8	29.4	39.3	28.6	27.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	7.2	33.8	29.4	39.3	28.6	27.2
Queue Length 50th (ft)	125	0	72	131	303	221	210
Queue Length 95th (ft)	165	53	107	160	#503	#436	#410
Internal Link Dist (ft)	1085			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1195	442	583	2420	666	686	703
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.33	0.46	0.27	0.85	0.82	0.81

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Existing (2021) - AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	361	896	579	440	233	257	251
v/c Ratio	0.93	0.32	0.30	0.50	0.44	0.47	0.45
Control Delay	78.3	12.9	20.1	4.2	27.9	16.1	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.3	12.9	20.1	4.2	27.9	16.1	15.4
Queue Length 50th (ft)	116	84	83	0	110	63	57
Queue Length 95th (ft)	m#174	m104	110	58	182	142	130
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	389	2824	1959	883	533	546	560
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.32	0.30	0.50	0.44	0.47	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	270	131	230	342	855	542
v/c Ratio	0.67	0.28	0.55	0.15	0.70	0.66
Control Delay	36.6	6.5	23.9	6.0	28.2	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5
Total Delay	36.6	6.5	23.9	6.0	28.2	15.6
Queue Length 50th (ft)	120	0	113	58	183	85
Queue Length 95th (ft)	195	40	m161	m45	283	206
Internal Link Dist (ft)	1289			425	387	
Turn Bay Length (ft)		360	145			110
Base Capacity (vph)	460	509	417	2279	1218	823
Starvation Cap Reductn	0	0	0	0	0	66
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.26	0.55	0.15	0.70	0.72

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Ontario Airport South Cargo Center

14: Vineyard Ave & SR-60 EB Ramps

Existing (2021) - PM Peak Hour



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	82	187	846	381	743
v/c Ratio	0.21	0.38	0.70	0.81	0.32
Control Delay	27.8	7.0	22.7	26.0	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.8	7.0	22.7	26.0	0.5
Queue Length 50th (ft)	34	0	144	84	0
Queue Length 95th (ft)	71	50	#266	129	0
Internal Link Dist (ft)	756		1783		425
Turn Bay Length (ft)		430		145	
Base Capacity (vph)	383	490	1209	609	2319
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.21	0.38	0.70	0.63	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	192	189	173	495	496	1247	395
v/c Ratio	0.45	0.40	0.34	0.49	0.15	0.69	0.57
Control Delay	32.6	17.0	6.5	12.6	7.3	31.3	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	17.0	6.5	12.6	7.3	31.3	8.3
Queue Length 50th (ft)	97	47	0	129	84	183	19
Queue Length 95th (ft)	165	112	51	186	116	222	97
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	426	477	511	1011	3227	1815	693
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.40	0.34	0.49	0.15	0.69	0.57
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	63	214	216	913	470	464	1132
v/c Ratio	0.11	0.38	0.37	0.43	0.57	0.85	0.41
Control Delay	21.2	14.6	14.4	24.8	5.3	37.8	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	14.6	14.4	24.8	5.3	37.8	12.0
Queue Length 50th (ft)	25	52	51	117	0	143	208
Queue Length 95th (ft)	55	117	113	147	66	#223	242
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	561	581	2106	829	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.38	0.37	0.43	0.57	0.85	0.41

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	254	202	202	2327	2262	492
v/c Ratio	0.45	0.39	0.41	0.61	0.64	0.51
Control Delay	30.8	25.2	25.7	9.1	14.4	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	25.2	25.7	9.1	14.4	3.0
Queue Length 50th (ft)	129	84	89	149	265	0
Queue Length 95th (ft)	203	148	157	156	306	51
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	561	523	498	3790	3508	965
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.39	0.41	0.61	0.64	0.51
Intersection Summary						

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	476	98	97	2460	845	1567
v/c Ratio	0.82	0.18	0.19	0.66	0.74	0.42
Control Delay	44.8	18.1	18.2	15.9	10.2	9.4
Queue Delay	0.0	0.0	0.0	42.9	7.5	0.0
Total Delay	44.8	18.1	18.2	58.8	17.7	9.4
Queue Length 50th (ft)	278	30	31	294	133	110
Queue Length 95th (ft)	#443	69	71	334	294	118
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	579	539	513	3725	1142	3725
Starvation Cap Reductn	0	0	0	1468	256	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.18	0.19	1.09	0.95	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1560	444	508	641	212	206	206
v/c Ratio	0.93	0.58	0.69	0.20	0.51	0.41	0.39
Control Delay	39.5	5.8	21.7	6.1	34.3	8.9	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	5.8	21.7	6.1	34.3	8.9	6.6
Queue Length 50th (ft)	325	0	140	92	109	12	0
Queue Length 95th (ft)	#432	79	193	95	183	72	55
Internal Link Dist (ft)	1085			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1679	760	739	3169	419	501	530
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.58	0.69	0.20	0.51	0.41	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Existing (2021) - PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	526	1153	1052	517	76	142	139
v/c Ratio	0.75	0.33	0.49	0.53	0.24	0.39	0.37
Control Delay	23.8	1.9	20.6	3.9	33.3	13.8	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	1.9	20.6	3.9	33.3	13.8	13.2
Queue Length 50th (ft)	80	10	157	0	38	17	15
Queue Length 95th (ft)	m108	m10	197	59	80	73	68
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	700	3458	2132	968	323	367	377
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.33	0.49	0.53	0.24	0.39	0.37

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	197	411	221	896	401	147
v/c Ratio	0.43	0.79	0.61	0.29	0.23	0.23
Control Delay	28.4	29.9	35.6	9.3	24.9	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	29.9	35.6	9.3	24.9	13.3
Queue Length 50th (ft)	82	122	100	80	52	0
Queue Length 95th (ft)	143	#267	m133	m96	89	78
Internal Link Dist (ft)	989			425	387	
Turn Bay Length (ft)		360	145			110
Base Capacity (vph)	460	523	361	3112	1750	627
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.79	0.61	0.29	0.23	0.23

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - AM Peak Hour



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	558	179	983	158	419
v/c Ratio	0.97	0.28	0.55	0.67	0.15
Control Delay	61.0	4.7	17.9	33.2	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	61.0	4.7	17.9	33.2	2.2
Queue Length 50th (ft)	273	0	112	33	2
Queue Length 95th (ft)	#476	42	155	94	4
Internal Link Dist (ft)	756		1783		425
Turn Bay Length (ft)		430		145	
Base Capacity (vph)	573	634	1796	270	2788
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.97	0.28	0.55	0.59	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - AM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	257	248	237	735	1093	440	133
v/c Ratio	0.58	0.53	0.50	0.63	0.34	0.30	0.29
Control Delay	35.1	21.3	20.2	29.5	27.0	29.9	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	21.3	20.2	29.5	27.0	29.9	7.3
Queue Length 50th (ft)	133	76	66	227	238	61	0
Queue Length 95th (ft)	217	159	143	281	277	84	45
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	445	471	472	1167	3169	1452	456
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.53	0.50	0.63	0.34	0.30	0.29
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - AM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	271	260	255	1470	595	112	661
v/c Ratio	0.47	0.43	0.39	0.70	0.65	0.21	0.24
Control Delay	26.7	12.4	7.1	28.8	5.9	49.1	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.7	12.4	7.1	28.8	5.9	49.1	5.2
Queue Length 50th (ft)	126	50	17	210	0	28	16
Queue Length 95th (ft)	203	121	75	251	77	m55	39
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	611	657	2106	914	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.43	0.39	0.70	0.65	0.21	0.24

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - AM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	509	337	336	2346	1751	377
v/c Ratio	0.55	0.41	0.43	0.94	0.76	0.52
Control Delay	19.5	15.4	15.8	35.9	29.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	15.4	15.8	35.9	29.0	5.2
Queue Length 50th (ft)	212	114	121	330	290	0
Queue Length 95th (ft)	310	182	194	m372	339	76
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	922	828	787	2483	2316	722
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.41	0.43	0.94	0.76	0.52

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - AM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	987	392	392	1741	330	1613
v/c Ratio	1.03	0.45	0.47	0.74	0.47	0.69
Control Delay	61.9	15.2	15.7	30.3	12.4	36.5
Queue Delay	0.0	0.0	0.0	44.5	1.3	0.0
Total Delay	61.9	15.2	15.7	74.8	13.7	36.5
Queue Length 50th (ft)	~677	134	143	278	61	232
Queue Length 95th (ft)	#918	208	224	322	139	278
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	958	872	829	2352	703	2352
Starvation Cap Reductn	0	0	0	758	197	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.45	0.47	1.09	0.65	0.69

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	702	162	278	764	590	616	620
v/c Ratio	0.59	0.36	0.48	0.32	0.89	0.94	0.92
Control Delay	32.2	7.1	32.7	28.5	43.1	46.1	42.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.2	7.1	32.7	28.5	43.1	46.1	42.7
Queue Length 50th (ft)	136	0	71	151	322	303	288
Queue Length 95th (ft)	178	55	106	179	#535	#554	#525
Internal Link Dist (ft)	1043			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1195	455	583	2420	666	655	672
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.36	0.48	0.32	0.89	0.94	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	386	929	624	457	293	278	270
v/c Ratio	0.99	0.33	0.32	0.51	0.55	0.51	0.49
Control Delay	89.5	12.8	20.4	4.2	30.5	18.7	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.5	12.8	20.4	4.2	30.5	18.7	17.9
Queue Length 50th (ft)	124	87	90	0	144	81	72
Queue Length 95th (ft)	m#186	m104	119	59	230	165	151
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	389	2824	1959	894	533	543	553
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.33	0.32	0.51	0.55	0.51	0.49

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	329	140	247	356	884	559
v/c Ratio	0.72	0.27	0.78	0.11	0.47	0.60
Control Delay	37.4	6.1	40.2	7.1	20.9	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4
Total Delay	37.4	6.1	40.2	7.1	20.9	11.9
Queue Length 50th (ft)	150	0	127	44	119	83
Queue Length 95th (ft)	#260	41	#216	33	164	195
Internal Link Dist (ft)	989			425	387	
Turn Bay Length (ft)		360	145			110
Base Capacity (vph)	460	516	361	3112	1880	925
Starvation Cap Reductn	0	0	0	0	0	87
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.27	0.68	0.11	0.47	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - PM Peak Hour

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	86	194	891	398	825
v/c Ratio	0.22	0.39	0.54	0.82	0.25
Control Delay	27.9	7.0	19.0	31.8	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.9	7.0	19.0	31.8	1.2
Queue Length 50th (ft)	36	0	99	210	0
Queue Length 95th (ft)	74	51	152	304	0
Internal Link Dist (ft)	756		1783		425
Turn Bay Length (ft)		430		145	
Base Capacity (vph)	383	495	1644	609	3332
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.22	0.39	0.54	0.65	0.25
Intersection Summary					

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - PM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	226	221	180	516	517	1297	411
v/c Ratio	0.53	0.46	0.35	0.51	0.16	0.71	0.59
Control Delay	34.6	19.6	6.5	12.9	7.2	31.9	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.6	19.6	6.5	12.9	7.2	31.9	9.2
Queue Length 50th (ft)	116	63	0	136	88	192	26
Queue Length 95th (ft)	193	138	52	194	120	232	111
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	426	477	516	1011	3227	1815	693
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.46	0.35	0.51	0.16	0.71	0.59
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - PM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	222	223	949	498	479	1216
v/c Ratio	0.11	0.40	0.38	0.45	0.59	0.88	0.44
Control Delay	21.3	15.1	14.9	25.0	5.4	41.1	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.3	15.1	14.9	25.0	5.4	41.1	11.7
Queue Length 50th (ft)	27	57	54	123	0	148	217
Queue Length 95th (ft)	57	124	117	153	69	#233	251
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	561	581	2106	848	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.40	0.38	0.45	0.59	0.88	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - PM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	282	248	247	2648	2529	563
v/c Ratio	0.50	0.47	0.50	0.70	0.72	0.43
Control Delay	31.9	27.8	28.4	10.4	15.8	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	27.8	28.4	10.4	15.8	1.0
Queue Length 50th (ft)	146	111	116	163	320	0
Queue Length 95th (ft)	227	185	197	m228	367	0
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	561	523	498	3790	3505	1308
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.47	0.50	0.70	0.72	0.43

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - PM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	647	145	144	2816	914	1697
v/c Ratio	1.12	0.27	0.28	0.76	0.57	0.46
Control Delay	107.3	21.3	21.4	17.9	1.4	10.4
Queue Delay	0.0	0.0	0.0	46.9	0.0	0.0
Total Delay	107.3	21.3	21.4	64.8	1.4	10.4
Queue Length 50th (ft)	~477	53	54	369	0	119
Queue Length 95th (ft)	#691	103	108	416	0	153
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	579	539	513	3725	1615	3725
Starvation Cap Reductn	0	0	0	1333	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.27	0.28	1.18	0.57	0.46

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1707	490	526	691	228	230	231
v/c Ratio	1.02	0.62	0.71	0.22	0.54	0.44	0.42
Control Delay	56.8	6.0	22.8	5.9	35.3	8.8	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.8	6.0	22.8	5.9	35.3	8.8	6.5
Queue Length 50th (ft)	~384	0	146	94	118	12	0
Queue Length 95th (ft)	#502	84	202	97	196	76	58
Internal Link Dist (ft)	1043			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1676	790	739	3169	419	519	549
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.62	0.71	0.22	0.54	0.44	0.42

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Without Project - PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	596	1213	1099	542	103	147	146
v/c Ratio	0.85	0.35	0.52	0.55	0.32	0.40	0.39
Control Delay	27.7	1.8	20.9	4.1	34.7	15.3	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	1.8	20.9	4.1	34.7	15.3	14.9
Queue Length 50th (ft)	111	10	166	1	53	23	22
Queue Length 95th (ft)	m115	m9	207	61	103	82	77
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	700	3458	2132	981	323	363	373
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.35	0.52	0.55	0.32	0.40	0.39

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	197	411	221	940	404	180
v/c Ratio	0.43	0.80	0.61	0.30	0.23	0.28
Control Delay	28.4	32.4	35.6	9.0	25.3	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	32.4	35.6	9.0	25.3	13.4
Queue Length 50th (ft)	82	130	100	82	53	0
Queue Length 95th (ft)	143	#279	m128	m94	92	93
Internal Link Dist (ft)	989			425	387	
Turn Bay Length (ft)		360	145			110
Base Capacity (vph)	460	512	361	3112	1750	649
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.80	0.61	0.30	0.23	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - AM Peak Hour



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	598	179	987	158	422
v/c Ratio	1.04	0.28	0.55	0.67	0.15
Control Delay	78.8	4.7	18.0	33.0	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	78.8	4.7	18.0	33.0	2.2
Queue Length 50th (ft)	~329	0	113	32	2
Queue Length 95th (ft)	#522	42	156	90	4
Internal Link Dist (ft)	756		1783		425
Turn Bay Length (ft)		430		145	
Base Capacity (vph)	573	634	1795	270	2788
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.04	0.28	0.55	0.59	0.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - AM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	261	248	241	735	1097	463	133
v/c Ratio	0.59	0.53	0.51	0.63	0.35	0.32	0.29
Control Delay	35.3	21.5	20.7	29.5	27.0	30.0	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	21.5	20.7	29.5	27.0	30.0	7.3
Queue Length 50th (ft)	136	76	69	227	238	64	0
Queue Length 95th (ft)	221	160	147	281	278	88	45
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	445	469	472	1167	3169	1452	456
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.53	0.51	0.63	0.35	0.32	0.29
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - AM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	271	260	255	1474	595	133	664
v/c Ratio	0.47	0.43	0.39	0.70	0.65	0.24	0.24
Control Delay	26.7	12.4	7.2	28.9	5.9	50.1	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.7	12.4	7.2	28.9	5.9	50.1	5.1
Queue Length 50th (ft)	126	50	18	211	0	34	16
Queue Length 95th (ft)	203	121	76	252	77	m63	39
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	611	656	2106	914	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.43	0.39	0.70	0.65	0.24	0.24

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - AM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	518	337	336	2306	1755	377
v/c Ratio	0.56	0.41	0.43	0.93	0.76	0.52
Control Delay	19.7	15.4	15.8	34.5	29.1	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	15.4	15.8	34.5	29.1	5.2
Queue Length 50th (ft)	216	114	121	322	291	0
Queue Length 95th (ft)	317	182	194	m365	339	76
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	922	828	787	2483	2316	722
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.41	0.43	0.93	0.76	0.52

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - AM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	987	392	392	1744	337	1626
v/c Ratio	1.03	0.45	0.47	0.74	0.48	0.69
Control Delay	61.9	15.2	15.7	30.3	12.5	36.6
Queue Delay	0.0	0.0	0.0	45.3	1.3	0.0
Total Delay	61.9	15.2	15.7	75.6	13.9	36.6
Queue Length 50th (ft)	~677	134	143	278	63	235
Queue Length 95th (ft)	#918	208	224	323	143	281
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	958	872	829	2352	705	2352
Starvation Cap Reductn	0	0	0	758	195	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.45	0.47	1.09	0.66	0.69

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	715	173	278	780	590	632	613
v/c Ratio	0.60	0.37	0.48	0.32	0.89	0.97	0.92
Control Delay	32.4	7.1	32.6	28.5	43.1	52.2	42.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	7.1	32.6	28.5	43.1	52.2	42.0
Queue Length 50th (ft)	139	0	71	154	322	323	286
Queue Length 95th (ft)	181	58	106	183	#535	#582	#520
Internal Link Dist (ft)	1043			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1195	463	583	2420	666	652	669
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.37	0.48	0.32	0.89	0.97	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	394	932	629	457	296	281	275
v/c Ratio	1.01	0.33	0.32	0.51	0.56	0.52	0.50
Control Delay	93.9	12.7	20.4	4.2	30.6	18.9	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.9	12.7	20.4	4.2	30.6	18.9	18.2
Queue Length 50th (ft)	~128	87	91	0	146	83	75
Queue Length 95th (ft)	m#192	m103	120	59	233	169	155
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	389	2824	1959	894	533	545	553
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.33	0.32	0.51	0.56	0.52	0.50

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	329	140	247	390	891	586
v/c Ratio	0.72	0.27	0.78	0.13	0.47	0.62
Control Delay	37.4	6.1	41.7	6.9	21.1	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5
Total Delay	37.4	6.1	41.7	6.9	21.1	12.3
Queue Length 50th (ft)	150	0	128	46	121	88
Queue Length 95th (ft)	#260	41	#216	35	168	205
Internal Link Dist (ft)	989			425	387	
Turn Bay Length (ft)		360	145			110
Base Capacity (vph)	460	516	361	3112	1880	943
Starvation Cap Reductn	0	0	0	0	0	92
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.27	0.68	0.13	0.47	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - PM Peak Hour

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	114	194	898	398	832
v/c Ratio	0.30	0.39	0.55	0.82	0.25
Control Delay	29.0	7.0	19.2	31.6	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	7.0	19.2	31.6	1.2
Queue Length 50th (ft)	48	0	100	211	0
Queue Length 95th (ft)	94	51	154	305	0
Internal Link Dist (ft)	756		1783		425
Turn Bay Length (ft)		430		145	
Base Capacity (vph)	383	495	1644	609	3332
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.30	0.39	0.55	0.65	0.25
Intersection Summary					

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - PM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	226	222	192	516	523	1324	411
v/c Ratio	0.53	0.47	0.37	0.51	0.16	0.73	0.60
Control Delay	34.6	19.7	6.4	12.9	7.3	32.3	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.6	19.7	6.4	12.9	7.3	32.3	9.6
Queue Length 50th (ft)	116	64	0	136	89	197	29
Queue Length 95th (ft)	193	139	53	194	121	238	116
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	426	477	526	1011	3227	1815	688
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.47	0.37	0.51	0.16	0.73	0.60
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - PM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	66	222	223	955	498	499	1223
v/c Ratio	0.11	0.40	0.38	0.45	0.59	0.92	0.44
Control Delay	21.3	15.1	14.9	25.1	5.4	45.2	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.3	15.1	14.9	25.1	5.4	45.2	11.7
Queue Length 50th (ft)	27	57	54	124	0	155	219
Queue Length 95th (ft)	57	124	117	154	69	#249	253
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	561	581	2106	848	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.40	0.38	0.45	0.59	0.92	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - PM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	295	248	247	2656	2536	563
v/c Ratio	0.53	0.47	0.50	0.70	0.72	0.57
Control Delay	32.5	27.8	28.4	10.4	15.9	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	27.8	28.4	10.4	15.9	3.3
Queue Length 50th (ft)	154	111	116	164	322	0
Queue Length 95th (ft)	238	185	197	m230	370	54
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	561	523	498	3790	3504	995
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.47	0.50	0.70	0.72	0.57

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - PM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	647	145	144	2823	931	1716
v/c Ratio	1.12	0.27	0.28	0.76	0.82	0.46
Control Delay	107.3	21.3	21.4	18.0	15.1	10.4
Queue Delay	0.0	0.0	0.0	46.9	21.1	0.0
Total Delay	107.3	21.3	21.4	64.9	36.1	10.4
Queue Length 50th (ft)	~477	53	54	371	218	122
Queue Length 95th (ft)	#691	103	108	418	440	155
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	579	539	513	3725	1132	3725
Starvation Cap Reductn	0	0	0	1330	224	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.27	0.28	1.18	1.03	0.46

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1740	500	526	713	228	240	233
v/c Ratio	1.04	0.63	0.71	0.22	0.54	0.46	0.42
Control Delay	62.3	6.1	23.3	5.9	35.3	8.8	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	6.1	23.3	5.9	35.3	8.8	6.6
Queue Length 50th (ft)	~415	0	146	97	118	12	0
Queue Length 95th (ft)	#518	86	202	98	196	78	58
Internal Link Dist (ft)	1043			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1677	797	739	3169	419	526	551
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.63	0.71	0.22	0.54	0.46	0.42

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Opening Year (2024) Plus Phase 1 Project - PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	610	1220	1105	542	117	148	146
v/c Ratio	0.87	0.35	0.52	0.55	0.36	0.41	0.39
Control Delay	28.1	1.8	20.9	4.1	35.6	15.5	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	1.8	20.9	4.1	35.6	15.5	14.9
Queue Length 50th (ft)	115	10	168	1	61	24	22
Queue Length 95th (ft)	m117	m9	208	61	115	83	77
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	700	3458	2132	981	323	364	373
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.35	0.52	0.55	0.36	0.41	0.39

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	207	432	232	938	412	158
v/c Ratio	0.45	0.84	0.64	0.30	0.24	0.25
Control Delay	28.8	36.2	35.9	9.3	24.7	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	36.2	35.9	9.3	24.7	13.1
Queue Length 50th (ft)	87	143	106	86	53	0
Queue Length 95th (ft)	150	#303	m137	m100	91	83
Internal Link Dist (ft)	989			425	387	
Turn Bay Length (ft)		360	145			110
Base Capacity (vph)	460	513	361	3112	1750	634
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.84	0.64	0.30	0.24	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	579	189	1036	168	440
v/c Ratio	1.01	0.29	0.58	0.70	0.16
Control Delay	69.9	4.7	18.7	35.0	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	69.9	4.7	18.7	35.0	2.4
Queue Length 50th (ft)	~292	0	123	34	2
Queue Length 95th (ft)	#501	43	166	#160	5
Internal Link Dist (ft)	756		1783		425
Turn Bay Length (ft)		430		145	
Base Capacity (vph)	573	641	1787	270	2788
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.01	0.29	0.58	0.62	0.16

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	273	261	249	776	1144	460	143
v/c Ratio	0.61	0.56	0.53	0.66	0.36	0.32	0.31
Control Delay	36.2	23.3	22.1	25.0	21.4	30.0	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	23.3	22.1	25.0	21.4	30.0	7.2
Queue Length 50th (ft)	144	87	76	225	228	63	0
Queue Length 95th (ft)	231	174	156	282	271	87	46
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	445	467	469	1167	3169	1452	463
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.56	0.53	0.66	0.36	0.32	0.31
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	286	274	266	1542	626	122	692
v/c Ratio	0.49	0.45	0.41	0.73	0.67	0.22	0.25
Control Delay	27.3	13.4	8.9	29.5	6.1	27.7	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	13.4	8.9	29.5	6.1	27.7	2.5
Queue Length 50th (ft)	134	58	29	224	0	19	7
Queue Length 95th (ft)	214	134	92	266	79	m34	20
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	609	647	2106	935	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.45	0.41	0.73	0.67	0.22	0.25

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	540	352	352	2406	1824	396
v/c Ratio	0.59	0.43	0.45	0.97	0.79	0.31
Control Delay	20.3	15.7	16.2	38.8	30.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	15.7	16.2	38.8	30.0	0.6
Queue Length 50th (ft)	230	121	129	348	308	0
Queue Length 95th (ft)	335	192	206	m380	358	0
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	922	828	787	2483	2318	1291
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.43	0.45	0.97	0.79	0.31

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	1028	407	407	1824	351	1686
v/c Ratio	1.07	0.47	0.49	0.78	0.22	0.72
Control Delay	75.6	15.5	16.1	31.2	0.3	37.4
Queue Delay	0.0	0.0	0.0	47.6	0.0	0.0
Total Delay	75.6	15.5	16.1	78.8	0.3	37.4
Queue Length 50th (ft)	~732	141	151	296	0	247
Queue Length 95th (ft)	#975	219	235	342	0	295
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	958	872	829	2352	1615	2352
Starvation Cap Reductn	0	0	0	745	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.47	0.49	1.14	0.22	0.72

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	737	172	289	798	620	645	650
v/c Ratio	0.62	0.37	0.50	0.33	0.93	0.99	0.98
Control Delay	32.7	7.1	33.1	28.6	49.6	58.4	53.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	7.1	33.1	28.6	49.6	58.4	53.7
Queue Length 50th (ft)	144	0	74	158	348	340	324
Queue Length 95th (ft)	187	56	111	186	#575	#605	#576
Internal Link Dist (ft)	1043			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1195	463	583	2420	666	649	666
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.37	0.50	0.33	0.93	0.99	0.98

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	407	971	646	479	303	289	281
v/c Ratio	1.05	0.34	0.33	0.53	0.57	0.54	0.51
Control Delay	100.2	12.9	20.5	4.3	31.0	20.4	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.2	12.9	20.5	4.3	31.0	20.4	19.5
Queue Length 50th (ft)	~137	92	93	0	150	92	84
Queue Length 95th (ft)	m#194	m106	123	60	240	181	165
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	389	2824	1959	908	533	537	548
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.34	0.33	0.53	0.57	0.54	0.51

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	351	151	258	377	927	591
v/c Ratio	0.76	0.29	0.80	0.12	0.50	0.63
Control Delay	40.3	6.0	40.2	6.6	20.9	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5
Total Delay	40.3	6.0	40.2	6.6	20.9	12.2
Queue Length 50th (ft)	162	0	131	47	128	90
Queue Length 95th (ft)	#287	43	#231	34	173	201
Internal Link Dist (ft)	989			425	387	
Turn Bay Length (ft)		360	145			110
Base Capacity (vph)	460	524	361	3112	1858	942
Starvation Cap Reductn	0	0	0	0	0	93
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.29	0.71	0.12	0.50	0.70

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	97	204	935	419	857
v/c Ratio	0.25	0.42	0.58	0.84	0.26
Control Delay	28.3	8.6	20.3	32.0	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.3	8.6	20.3	32.0	1.0
Queue Length 50th (ft)	41	7	110	226	0
Queue Length 95th (ft)	82	61	164	m313	0
Internal Link Dist (ft)	756		1783		425
Turn Bay Length (ft)		430		145	
Base Capacity (vph)	383	489	1603	609	3332
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.42	0.58	0.69	0.26

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	237	232	190	537	538	1360	432
v/c Ratio	0.56	0.49	0.36	0.53	0.17	0.75	0.62
Control Delay	35.3	20.6	6.5	13.3	7.1	32.7	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	20.6	6.5	13.3	7.1	32.7	10.5
Queue Length 50th (ft)	124	70	0	143	92	204	35
Queue Length 95th (ft)	203	148	53	202	124	246	127
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	426	477	524	1011	3227	1815	694
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.49	0.36	0.53	0.17	0.75	0.62
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	75	232	234	991	519	510	1278
v/c Ratio	0.13	0.41	0.40	0.47	0.60	0.94	0.46
Control Delay	21.5	15.8	15.6	25.3	5.5	48.0	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	15.8	15.6	25.3	5.5	48.0	11.8
Queue Length 50th (ft)	30	61	60	129	0	159	228
Queue Length 95th (ft)	64	131	126	161	70	#256	262
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	561	581	2106	862	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.41	0.40	0.47	0.60	0.94	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	303	258	258	2764	2650	590
v/c Ratio	0.54	0.49	0.52	0.73	0.76	0.45
Control Delay	32.8	28.3	29.1	11.3	16.7	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	28.3	29.1	11.3	16.7	1.1
Queue Length 50th (ft)	159	117	124	191	349	0
Queue Length 95th (ft)	245	194	207	m256	399	0
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	561	523	498	3790	3505	1308
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.49	0.52	0.73	0.76	0.45

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	668	150	149	2941	955	1780
v/c Ratio	1.15	0.29	0.30	0.79	0.59	0.48
Control Delay	120.4	21.7	21.9	18.8	1.6	11.1
Queue Delay	0.0	0.0	0.0	46.8	0.0	0.0
Total Delay	120.4	21.7	21.9	65.6	1.6	11.1
Queue Length 50th (ft)	~505	55	57	399	0	130
Queue Length 95th (ft)	#722	107	112	448	0	170
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	579	525	500	3725	1615	3725
Starvation Cap Reductn	0	0	0	1285	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.29	0.30	1.21	0.59	0.48

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1788	514	558	722	237	236	236
v/c Ratio	1.07	0.64	0.76	0.23	0.57	0.45	0.43
Control Delay	72.0	6.2	24.1	5.9	36.0	8.9	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.0	6.2	24.1	5.9	36.0	8.9	6.8
Queue Length 50th (ft)	~438	0	156	94	124	12	1
Queue Length 95th (ft)	#541	88	214	97	204	78	61
Internal Link Dist (ft)	1043			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1676	806	739	3169	419	523	551
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.64	0.76	0.23	0.57	0.45	0.43

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Without Project - PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	627	1265	1151	563	103	157	157
v/c Ratio	0.90	0.37	0.54	0.57	0.32	0.43	0.42
Control Delay	29.0	1.8	21.2	4.7	34.7	16.8	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	1.8	21.2	4.7	34.7	16.8	16.5
Queue Length 50th (ft)	122	10	176	8	53	28	27
Queue Length 95th (ft)	m119	m9	219	73	103	90	86
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	700	3458	2132	980	323	363	373
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.37	0.54	0.57	0.32	0.43	0.42

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	207	432	232	976	415	181
v/c Ratio	0.45	0.86	0.64	0.31	0.24	0.28
Control Delay	28.8	38.7	35.9	9.1	25.0	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	38.7	35.9	9.1	25.0	13.3
Queue Length 50th (ft)	87	149	106	87	54	0
Queue Length 95th (ft)	150	#313	m132	m98	94	92
Internal Link Dist (ft)	989			425	387	
Turn Bay Length (ft)		360	145			110
Base Capacity (vph)	460	504	361	3112	1750	650
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.86	0.64	0.31	0.24	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	613	189	1040	168	443
v/c Ratio	1.07	0.29	0.58	0.70	0.16
Control Delay	86.8	4.7	18.7	34.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	86.8	4.7	18.7	34.8	2.4
Queue Length 50th (ft)	~345	0	124	34	2
Queue Length 95th (ft)	#539	43	167	#159	5
Internal Link Dist (ft)	756		1783		425
Turn Bay Length (ft)		430		145	
Base Capacity (vph)	573	641	1786	270	2788
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.07	0.29	0.58	0.62	0.16

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	276	265	259	776	1148	502	143
v/c Ratio	0.62	0.57	0.55	0.66	0.36	0.33	0.30
Control Delay	36.5	23.7	23.0	25.0	21.4	29.5	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	23.7	23.0	25.0	21.4	29.5	7.0
Queue Length 50th (ft)	146	90	82	225	230	69	0
Queue Length 95th (ft)	234	179	164	282	272	93	45
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	445	466	469	1167	3169	1510	476
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.57	0.55	0.66	0.36	0.33	0.30
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	286	274	266	1546	626	161	695
v/c Ratio	0.49	0.45	0.41	0.73	0.67	0.30	0.25
Control Delay	27.3	13.4	9.0	29.6	6.1	27.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	13.4	9.0	29.6	6.1	27.8	2.4
Queue Length 50th (ft)	134	58	30	225	0	25	6
Queue Length 95th (ft)	214	134	93	267	79	m41	19
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	609	645	2106	935	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.45	0.41	0.73	0.67	0.30	0.25

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	548	352	352	2409	1828	396
v/c Ratio	0.59	0.43	0.45	0.97	0.79	0.54
Control Delay	20.5	15.7	16.2	39.0	30.0	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	15.7	16.2	39.0	30.0	5.3
Queue Length 50th (ft)	235	121	129	349	308	0
Queue Length 95th (ft)	342	192	206	m381	359	77
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	922	828	787	2483	2318	734
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.43	0.45	0.97	0.79	0.54

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	1028	407	407	1827	358	1698
v/c Ratio	1.07	0.47	0.49	0.78	0.51	0.72
Control Delay	75.6	15.5	16.1	31.2	13.5	37.5
Queue Delay	0.0	0.0	0.0	47.6	1.6	0.0
Total Delay	75.6	15.5	16.1	78.9	15.1	37.5
Queue Length 50th (ft)	~732	141	151	297	73	250
Queue Length 95th (ft)	#975	219	235	343	159	297
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	958	872	829	2352	707	2352
Starvation Cap Reductn	0	0	0	745	191	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.47	0.49	1.14	0.69	0.72

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	749	183	289	813	620	661	642
v/c Ratio	0.63	0.39	0.50	0.34	0.93	1.02	0.97
Control Delay	32.9	7.1	33.0	28.5	49.6	66.3	52.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	7.1	33.0	28.5	49.6	66.3	52.2
Queue Length 50th (ft)	146	0	74	161	348	~381	320
Queue Length 95th (ft)	191	59	111	189	#575	#631	#568
Internal Link Dist (ft)	1043			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1195	471	583	2420	666	646	663
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.39	0.50	0.34	0.93	1.02	0.97

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	415	974	650	479	309	288	287
v/c Ratio	1.07	0.34	0.33	0.53	0.58	0.54	0.52
Control Delay	105.7	12.8	20.5	4.3	31.3	20.3	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.7	12.8	20.5	4.3	31.3	20.3	19.9
Queue Length 50th (ft)	~142	92	94	0	154	92	87
Queue Length 95th (ft)	m#200	m105	124	60	244	180	170
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	389	2824	1959	908	533	538	548
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.34	0.33	0.53	0.58	0.54	0.52

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	351	151	258	412	934	615
v/c Ratio	0.76	0.29	0.80	0.13	0.50	0.64
Control Delay	40.3	6.0	41.5	6.4	21.0	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.6
Total Delay	40.3	6.0	41.5	6.4	21.0	12.6
Queue Length 50th (ft)	162	0	131	50	130	94
Queue Length 95th (ft)	#287	43	#231	34	176	211
Internal Link Dist (ft)	989			425	387	
Turn Bay Length (ft)		360	145			110
Base Capacity (vph)	460	524	361	3112	1858	957
Starvation Cap Reductn	0	0	0	0	0	98
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.29	0.71	0.13	0.50	0.72

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	125	204	941	419	865
v/c Ratio	0.33	0.42	0.59	0.84	0.26
Control Delay	29.5	8.9	20.5	31.8	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.5	8.9	20.5	31.8	1.0
Queue Length 50th (ft)	53	8	112	226	0
Queue Length 95th (ft)	101	62	166	m313	0
Internal Link Dist (ft)	756		1783		425
Turn Bay Length (ft)		430		145	
Base Capacity (vph)	383	487	1602	609	3332
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.33	0.42	0.59	0.69	0.26

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center

Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	237	233	201	537	544	1387	432
v/c Ratio	0.56	0.49	0.38	0.53	0.17	0.76	0.63
Control Delay	35.3	20.7	6.4	13.2	7.1	33.1	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	20.7	6.4	13.2	7.1	33.1	11.0
Queue Length 50th (ft)	124	70	0	143	93	209	38
Queue Length 95th (ft)	203	149	54	203	126	252	132
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	426	477	532	1011	3227	1815	689
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.49	0.38	0.53	0.17	0.76	0.63

Intersection Summary

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	75	232	234	997	519	530	1285
v/c Ratio	0.13	0.41	0.40	0.47	0.60	0.97	0.46
Control Delay	21.5	15.8	15.6	25.3	5.5	54.4	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	15.8	15.6	25.3	5.5	54.4	11.8
Queue Length 50th (ft)	30	61	60	130	0	166	230
Queue Length 95th (ft)	64	131	126	162	70	#271	264
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	561	581	2106	862	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.41	0.40	0.47	0.60	0.97	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center

Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	316	258	258	2772	2657	590
v/c Ratio	0.56	0.49	0.52	0.73	0.76	0.59
Control Delay	33.5	28.3	29.1	11.4	16.7	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	28.3	29.1	11.4	16.7	3.5
Queue Length 50th (ft)	167	117	124	193	351	0
Queue Length 95th (ft)	256	194	207	m257	402	55
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	561	523	498	3790	3504	1006
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.49	0.52	0.73	0.76	0.59

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	668	150	149	2948	976	1799
v/c Ratio	1.15	0.28	0.29	0.79	0.86	0.48
Control Delay	120.4	21.6	21.8	18.9	18.0	11.2
Queue Delay	0.0	0.0	0.0	46.8	29.5	0.0
Total Delay	120.4	21.6	21.8	65.6	47.5	11.2
Queue Length 50th (ft)	~505	55	57	401	261	132
Queue Length 95th (ft)	#722	106	111	451	#580	172
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	579	539	513	3725	1133	3725
Starvation Cap Reductn	0	0	0	1283	206	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.28	0.29	1.21	1.05	0.48

Intersection Summary

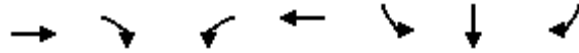
- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center

Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1820	525	558	744	237	242	243
v/c Ratio	1.09	0.65	0.76	0.23	0.57	0.46	0.45
Control Delay	78.6	6.3	24.5	5.9	36.0	8.9	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.6	6.3	24.5	5.9	36.0	8.9	8.3
Queue Length 50th (ft)	~453	0	157	97	124	12	9
Queue Length 95th (ft)	#556	89	214	99	204	80	72
Internal Link Dist (ft)	1043			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1677	813	739	3169	419	527	542
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.65	0.76	0.23	0.57	0.46	0.45

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center

Opening Year (2029) Plus Phase 1 and 2 Project- PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	642	1272	1157	563	117	158	157
v/c Ratio	0.92	0.37	0.54	0.57	0.36	0.44	0.42
Control Delay	27.3	1.8	21.3	4.8	35.6	16.9	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	1.8	21.3	4.8	35.6	16.9	16.5
Queue Length 50th (ft)	127	10	178	9	61	29	27
Queue Length 95th (ft)	m120	m9	220	74	115	92	86
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	700	3458	2132	980	323	363	373
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.37	0.54	0.57	0.36	0.44	0.42

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	100	100	411	326	1411	484	158
v/c Ratio	0.27	0.27	0.59	0.75	0.43	0.28	0.25
Control Delay	26.9	26.9	23.8	29.0	12.8	22.0	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	26.9	23.8	29.0	12.8	22.0	12.9
Queue Length 50th (ft)	43	43	75	142	190	35	0
Queue Length 95th (ft)	83	83	120	m#202	m223	106	84
Internal Link Dist (ft)		989			425	387	
Turn Bay Length (ft)			360	145			110
Base Capacity (vph)	437	437	803	432	3318	1750	634
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.23	0.51	0.75	0.43	0.28	0.25

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues
14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	547	90	89	1737	158	505
v/c Ratio	0.49	0.13	0.13	0.98	0.67	0.18
Control Delay	23.9	0.4	0.4	42.3	35.7	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	0.4	0.4	42.3	35.7	1.8
Queue Length 50th (ft)	112	0	0	~296	0	2
Queue Length 95th (ft)	158	0	0	#421	45	4
Internal Link Dist (ft)		756		1783		425
Turn Bay Length (ft)			430		145	
Base Capacity (vph)	1111	702	702	1777	270	2788
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.13	0.13	0.98	0.59	0.18

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	293	276	273	747	1916	747	189
v/c Ratio	0.66	0.60	0.58	0.64	0.60	0.51	0.38
Control Delay	37.9	25.1	24.3	27.2	28.8	32.2	7.0
Queue Delay	0.0	0.0	0.0	0.0	10.2	0.0	0.0
Total Delay	37.9	25.1	24.3	27.2	38.9	32.2	7.0
Queue Length 50th (ft)	156	97	90	209	409	109	0
Queue Length 95th (ft)	249	190	177	267	461	139	53
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	445	460	469	1167	3169	1452	499
Starvation Cap Reductn	0	0	0	0	1246	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.60	0.58	0.64	1.00	0.51	0.38
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	322	311	294	2084	558	263	821
v/c Ratio	0.65	0.60	0.52	0.77	0.57	0.68	0.27
Control Delay	34.9	24.2	15.1	25.2	4.2	76.2	1.7
Queue Delay	41.0	9.9	0.0	0.0	0.0	0.0	0.0
Total Delay	75.9	34.1	15.1	25.2	4.2	76.2	1.7
Queue Length 50th (ft)	167	113	58	289	0	0	5
Queue Length 95th (ft)	264	209	141	336	60	#125	20
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	499	520	564	2701	982	389	3008
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	193	175	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.90	0.52	0.77	0.57	0.68	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	526	474	473	2737	1866	397
v/c Ratio	0.57	0.57	0.60	1.10	0.80	0.54
Control Delay	19.9	19.0	20.0	82.1	30.7	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.9	19.0	20.0	82.1	30.7	5.3
Queue Length 50th (ft)	222	186	200	~555	320	0
Queue Length 95th (ft)	323	286	310	m#633	372	79
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	922	828	787	2483	2327	735
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.57	0.60	1.10	0.80	0.54

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
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- m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	905	500	500	1874	400	1853
v/c Ratio	0.94	0.57	0.60	0.80	0.56	0.79
Control Delay	41.9	17.9	18.9	31.8	14.6	39.8
Queue Delay	0.0	0.0	0.0	47.5	2.0	0.0
Total Delay	41.9	17.9	18.9	79.4	16.6	39.8
Queue Length 50th (ft)	516	191	206	307	87	273
Queue Length 95th (ft)	#804	292	317	355	181	322
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	958	872	829	2352	719	2352
Starvation Cap Reductn	0	0	0	737	185	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.57	0.60	1.16	0.75	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1117	293	305	789	616	750	739
v/c Ratio	0.94	0.53	0.98	0.39	0.77	1.00	0.96
Control Delay	49.1	7.5	86.1	40.2	27.8	55.8	45.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	7.5	86.1	40.2	27.8	55.8	45.1
Queue Length 50th (ft)	241	0	96	174	294	~408	367
Queue Length 95th (ft)	#336	75	#178	217	446	#698	#640
Internal Link Dist (ft)	1085			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1190	553	311	2011	802	749	772
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.53	0.98	0.39	0.77	1.00	0.96

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	442	1368	800	463	237	314	312
v/c Ratio	1.14	0.48	0.41	0.52	0.44	0.59	0.57
Control Delay	125.1	9.9	21.4	4.2	28.0	22.5	21.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	125.1	9.9	21.4	4.2	28.0	22.5	21.7
Queue Length 50th (ft)	~159	104	120	0	112	108	102
Queue Length 95th (ft)	m#202	m118	154	60	184	204	191
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	389	2824	1959	898	533	532	548
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.48	0.41	0.52	0.44	0.59	0.57

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	273	274	147	232	400	1400	547
v/c Ratio	0.68	0.69	0.19	0.76	0.12	0.69	0.64
Control Delay	37.1	37.2	5.1	37.8	6.3	25.8	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Total Delay	37.1	37.2	5.1	37.8	6.3	25.8	17.9
Queue Length 50th (ft)	127	128	0	119	49	269	160
Queue Length 95th (ft)	211	211	23	193	35	m301	m205
Internal Link Dist (ft)		989			425	387	
Turn Bay Length (ft)			360	145			110
Base Capacity (vph)	437	437	834	361	3226	2025	851
Starvation Cap Reductn	0	0	0	0	0	0	74
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.63	0.18	0.64	0.12	0.69	0.70

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	95	127	126	958	400	1558
v/c Ratio	0.13	0.31	0.31	0.58	0.82	0.47
Control Delay	26.1	10.3	10.2	19.5	29.1	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	10.3	10.2	19.5	29.1	2.3
Queue Length 50th (ft)	20	8	8	108	108	0
Queue Length 95th (ft)	39	54	53	165	163	0
Internal Link Dist (ft)		756		1783		425
Turn Bay Length (ft)			430		145	
Base Capacity (vph)	744	409	409	1647	609	3332
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.31	0.31	0.58	0.66	0.47
Intersection Summary						

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	257	249	231	505	726	1916	453
v/c Ratio	0.64	0.56	0.43	0.72	0.22	0.77	0.57
Control Delay	39.2	23.9	6.8	24.2	6.5	27.1	10.2
Queue Delay	4.7	1.6	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	25.5	6.8	24.2	6.5	27.1	10.2
Queue Length 50th (ft)	138	82	0	142	113	272	57
Queue Length 95th (ft)	225	168	58	197	145	318	150
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	403	446	537	700	3296	2483	791
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	88	81	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.68	0.43	0.72	0.22	0.77	0.57
Intersection Summary							

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	151	224	225	989	505	547	1789
v/c Ratio	0.26	0.40	0.39	0.47	0.59	1.01	0.65
Control Delay	23.2	15.2	15.0	25.3	5.5	61.7	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	2.9
Total Delay	23.2	15.2	15.0	25.3	5.5	61.7	24.4
Queue Length 50th (ft)	65	58	55	129	0	~177	380
Queue Length 95th (ft)	115	125	120	160	69	m#281	423
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	563	581	2106	853	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	836
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.40	0.39	0.47	0.59	1.01	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	242	237	237	3084	2596	572
v/c Ratio	0.43	0.45	0.48	0.81	0.74	0.57
Control Delay	30.4	27.2	27.8	14.9	16.4	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	27.2	27.8	14.9	16.4	3.4
Queue Length 50th (ft)	122	104	110	274	339	0
Queue Length 95th (ft)	194	176	188	m332	387	54
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	561	523	498	3790	3515	998
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.45	0.48	0.81	0.74	0.57

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	653	206	205	3347	874	1884
v/c Ratio	1.13	0.38	0.40	0.90	0.80	0.51
Control Delay	111.0	24.6	25.0	23.3	15.8	11.0
Queue Delay	0.0	0.0	0.0	45.9	25.9	0.0
Total Delay	111.0	24.6	25.0	69.2	41.7	11.0
Queue Length 50th (ft)	~485	85	89	513	235	126
Queue Length 95th (ft)	#701	149	156	572	437	176
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	579	539	513	3725	1088	3725
Starvation Cap Reductn	0	0	0	1131	246	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.38	0.40	1.29	1.04	0.51

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	2157	559	568	1263	247	269	263
v/c Ratio	0.98	0.61	0.97	0.36	0.80	0.76	0.73
Control Delay	39.2	4.6	53.7	1.8	55.6	37.0	33.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.2	4.6	53.7	1.8	55.6	37.0	33.9
Queue Length 50th (ft)	449	0	114	0	143	98	90
Queue Length 95th (ft)	#589	67	#260	0	#270	#230	#207
Internal Link Dist (ft)	1085			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	2210	922	583	3498	310	353	362
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.61	0.97	0.36	0.80	0.76	0.73

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) No Project - PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	632	1737	1611	568	199	205	206
v/c Ratio	0.90	0.50	0.76	0.60	0.62	0.56	0.55
Control Delay	29.8	9.3	25.5	6.4	42.8	23.3	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.8	9.3	25.5	6.4	42.8	23.3	22.9
Queue Length 50th (ft)	148	273	279	29	110	56	53
Queue Length 95th (ft)	m163	m281	336	113	186	135	128
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	700	3458	2132	948	323	364	373
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.50	0.76	0.60	0.62	0.56	0.55

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	100	100	411	326	1448	487	181
v/c Ratio	0.27	0.27	0.59	0.75	0.44	0.28	0.28
Control Delay	26.9	26.9	23.8	29.5	12.7	22.2	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	26.9	23.8	29.5	12.7	22.2	13.0
Queue Length 50th (ft)	43	43	75	142	192	37	1
Queue Length 95th (ft)	83	83	120	m#203	m226	109	93
Internal Link Dist (ft)		989			425	387	
Turn Bay Length (ft)			360	145			110
Base Capacity (vph)	437	437	803	432	3318	1750	650
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.23	0.51	0.75	0.44	0.28	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	581	90	89	1741	158	508
v/c Ratio	0.52	0.13	0.13	0.98	0.67	0.18
Control Delay	24.4	0.4	0.4	42.9	35.4	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	0.4	0.4	42.9	35.4	1.8
Queue Length 50th (ft)	121	0	0	~298	0	2
Queue Length 95th (ft)	169	0	0	#423	44	4
Internal Link Dist (ft)		756		1783		425
Turn Bay Length (ft)			430		145	
Base Capacity (vph)	1111	700	700	1776	270	2788
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.13	0.13	0.98	0.59	0.18

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	300	283	277	747	1920	791	189
v/c Ratio	0.67	0.62	0.59	0.64	0.61	0.54	0.38
Control Delay	38.6	25.8	24.7	32.3	23.3	32.6	7.0
Queue Delay	0.0	0.0	0.0	0.0	1.3	0.0	0.0
Total Delay	38.6	25.8	24.7	32.3	24.7	32.6	7.0
Queue Length 50th (ft)	161	102	93	226	338	116	0
Queue Length 95th (ft)	255	196	181	279	395	148	53
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	445	459	469	1167	3169	1452	499
Starvation Cap Reductn	0	0	0	0	964	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.62	0.59	0.64	0.87	0.54	0.38

Intersection Summary

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	322	311	294	2088	558	303	824
v/c Ratio	0.67	0.62	0.53	0.77	0.57	0.71	0.27
Control Delay	36.8	25.4	15.3	25.2	4.2	70.2	3.7
Queue Delay	0.7	0.4	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	25.8	15.3	25.2	4.2	70.2	3.7
Queue Length 50th (ft)	170	115	57	289	0	97	19
Queue Length 95th (ft)	268	213	141	337	60	#142	38
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	480	504	552	2701	982	428	3066
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	30	29	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.65	0.53	0.77	0.57	0.71	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	535	474	473	2740	1865	402
v/c Ratio	0.74	0.73	0.76	0.85	0.62	0.48
Control Delay	33.3	31.4	33.7	27.2	19.5	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	31.4	33.7	27.2	19.5	3.6
Queue Length 50th (ft)	286	235	252	366	255	0
Queue Length 95th (ft)	417	361	391	m423	297	59
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	720	653	621	3215	3011	838
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.73	0.76	0.85	0.62	0.48

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



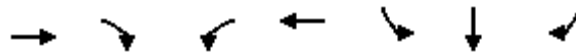
Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	905	500	500	1877	407	1865
v/c Ratio	0.94	0.57	0.60	0.80	0.57	0.79
Control Delay	41.9	17.9	18.9	31.9	14.8	22.1
Queue Delay	0.0	0.0	0.0	47.5	2.1	0.0
Total Delay	41.9	17.9	18.9	79.4	16.9	22.1
Queue Length 50th (ft)	516	191	206	308	90	171
Queue Length 95th (ft)	#804	292	317	356	185	226
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	958	872	829	2352	720	2352
Starvation Cap Reductn	0	0	0	736	184	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.57	0.60	1.16	0.76	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1129	304	305	804	616	754	743
v/c Ratio	0.95	0.54	0.98	0.40	0.77	1.01	0.96
Control Delay	50.8	7.5	85.8	40.0	27.8	56.8	46.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	7.5	85.8	40.0	27.8	56.8	46.2
Queue Length 50th (ft)	244	0	96	178	294	~417	371
Queue Length 95th (ft)	#341	76	#178	221	446	#704	#645
Internal Link Dist (ft)	1085			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	1189	561	311	2011	802	750	772
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.54	0.98	0.40	0.77	1.01	0.96

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center

Cumulative Year (2040) Plus Phase 1 and 2 Project - AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	449	1372	804	463	247	315	312
v/c Ratio	1.15	0.49	0.41	0.52	0.46	0.59	0.57
Control Delay	131.3	9.9	21.4	4.2	28.4	22.5	21.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	131.3	9.9	21.4	4.2	28.4	22.5	21.7
Queue Length 50th (ft)	~163	104	120	0	117	108	102
Queue Length 95th (ft)	m#205	m117	155	60	193	205	191
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	389	2824	1959	898	533	533	548
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.49	0.41	0.52	0.46	0.59	0.57

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
13: Vineyard Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	273	274	147	232	434	1407	571
v/c Ratio	0.68	0.69	0.19	0.76	0.13	0.69	0.66
Control Delay	37.1	37.2	5.1	39.3	6.1	25.9	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Total Delay	37.1	37.2	5.1	39.3	6.1	25.9	18.5
Queue Length 50th (ft)	127	128	0	120	52	272	169
Queue Length 95th (ft)	211	211	23	193	36	m298	m211
Internal Link Dist (ft)		989			425	387	
Turn Bay Length (ft)			360	145			110
Base Capacity (vph)	437	437	834	361	3226	2025	861
Starvation Cap Reductn	0	0	0	0	0	0	77
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.63	0.18	0.64	0.13	0.69	0.73

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

14: Vineyard Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center

Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	122	127	126	965	400	1565
v/c Ratio	0.16	0.31	0.31	0.59	0.82	0.47
Control Delay	26.4	10.3	10.2	19.6	29.0	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	10.3	10.2	19.6	29.0	2.3
Queue Length 50th (ft)	25	8	8	110	108	0
Queue Length 95th (ft)	47	54	53	167	162	0
Internal Link Dist (ft)		756		1783		425
Turn Bay Length (ft)			430		145	
Base Capacity (vph)	744	409	409	1648	609	3332
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.31	0.31	0.59	0.66	0.47
Intersection Summary						

Queues

21: Archibald Ave & SR-60 WB Ramps

Ontario Airport South Cargo Center

Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	257	256	236	505	733	1943	453
v/c Ratio	0.64	0.58	0.44	0.72	0.22	0.78	0.57
Control Delay	39.2	24.6	6.8	24.1	6.5	27.4	10.4
Queue Delay	5.2	2.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	26.6	6.8	24.1	6.5	27.4	10.4
Queue Length 50th (ft)	138	86	0	142	114	278	59
Queue Length 95th (ft)	225	173	60	197	147	325	152
Internal Link Dist (ft)		1489			385	828	
Turn Bay Length (ft)	330		400	835			120
Base Capacity (vph)	403	445	541	700	3296	2483	789
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	92	85	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.71	0.44	0.72	0.22	0.78	0.57

Intersection Summary

Queues
22: Archibald Ave & SR-60 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	151	224	225	996	505	567	1797
v/c Ratio	0.26	0.40	0.39	0.47	0.59	1.04	0.65
Control Delay	23.2	15.2	15.0	25.3	5.5	71.1	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	3.1
Total Delay	23.2	15.2	15.0	25.3	5.5	71.1	24.6
Queue Length 50th (ft)	65	58	55	130	0	~190	383
Queue Length 95th (ft)	115	125	120	162	69	m#292	425
Internal Link Dist (ft)		1341		3230			385
Turn Bay Length (ft)	360		360			465	
Base Capacity (vph)	579	563	581	2106	853	544	2766
Starvation Cap Reductn	0	0	0	0	0	0	838
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.40	0.39	0.47	0.59	1.04	0.93

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues

23: Haven Ave & I-10 WB Ramps

Ontario Airport South Cargo Center

Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Lane Group	WBL2	WBL	WBR	NBT	SBT	SBR
Lane Group Flow (vph)	255	237	237	3092	2603	572
v/c Ratio	0.45	0.45	0.48	0.82	0.74	0.57
Control Delay	30.9	27.2	27.8	15.0	16.5	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.9	27.2	27.8	15.0	16.5	3.4
Queue Length 50th (ft)	130	104	110	276	340	0
Queue Length 95th (ft)	205	176	188	m333	389	54
Internal Link Dist (ft)		1399		351	448	
Turn Bay Length (ft)			325			
Base Capacity (vph)	561	523	498	3790	3515	998
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.45	0.48	0.82	0.74	0.57

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
24: Haven Ave & I-10 EB Ramps

Ontario Airport South Cargo Center
Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Lane Group	EBL2	EBL	EBR	NBT	NBR	SBT
Lane Group Flow (vph)	653	206	205	3355	895	1903
v/c Ratio	1.13	0.38	0.40	0.90	0.82	0.51
Control Delay	111.0	24.6	25.0	23.4	16.7	11.0
Queue Delay	0.0	0.0	0.0	45.9	28.1	0.0
Total Delay	111.0	24.6	25.0	69.3	44.8	11.0
Queue Length 50th (ft)	~485	85	89	515	248	128
Queue Length 95th (ft)	#701	149	156	575	464	179
Internal Link Dist (ft)		1081		229		285
Turn Bay Length (ft)			325		105	
Base Capacity (vph)	579	539	513	3725	1092	3725
Starvation Cap Reductn	0	0	0	1128	236	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.38	0.40	1.29	1.05	0.51

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

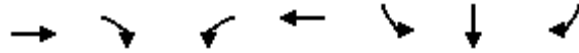
Queue shown is maximum after two cycles.

Queues

35: Jurupa St & I-15 SB Ramps

Ontario Airport South Cargo Center

Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	2181	578	568	1285	247	276	269
v/c Ratio	0.99	0.62	0.97	0.37	0.80	0.78	0.74
Control Delay	41.5	4.8	53.9	1.8	55.6	38.9	35.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	4.8	53.9	1.8	55.6	38.9	35.3
Queue Length 50th (ft)	458	2	115	0	143	104	93
Queue Length 95th (ft)	#601	72	#260	0	#270	#241	#215
Internal Link Dist (ft)	1085			760		1381	
Turn Bay Length (ft)		415	210		500		
Base Capacity (vph)	2210	930	583	3498	310	353	362
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.62	0.97	0.37	0.80	0.78	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

36: Jurupa St & I-15 NB Ramps

Ontario Airport South Cargo Center

Cumulative Year (2040) Plus Phase 1 and 2 Project - PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	646	1744	1617	568	213	207	206
v/c Ratio	0.92	0.50	0.76	0.60	0.66	0.57	0.55
Control Delay	31.3	9.2	25.5	6.4	44.8	23.6	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	9.2	25.5	6.4	44.8	23.6	22.9
Queue Length 50th (ft)	155	267	281	30	118	57	53
Queue Length 95th (ft)	m165	m278	339	114	#203	136	128
Internal Link Dist (ft)		760	597			1239	
Turn Bay Length (ft)	240			160	475		475
Base Capacity (vph)	700	3458	2132	947	323	364	373
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.50	0.76	0.60	0.66	0.57	0.55

Intersection Summary

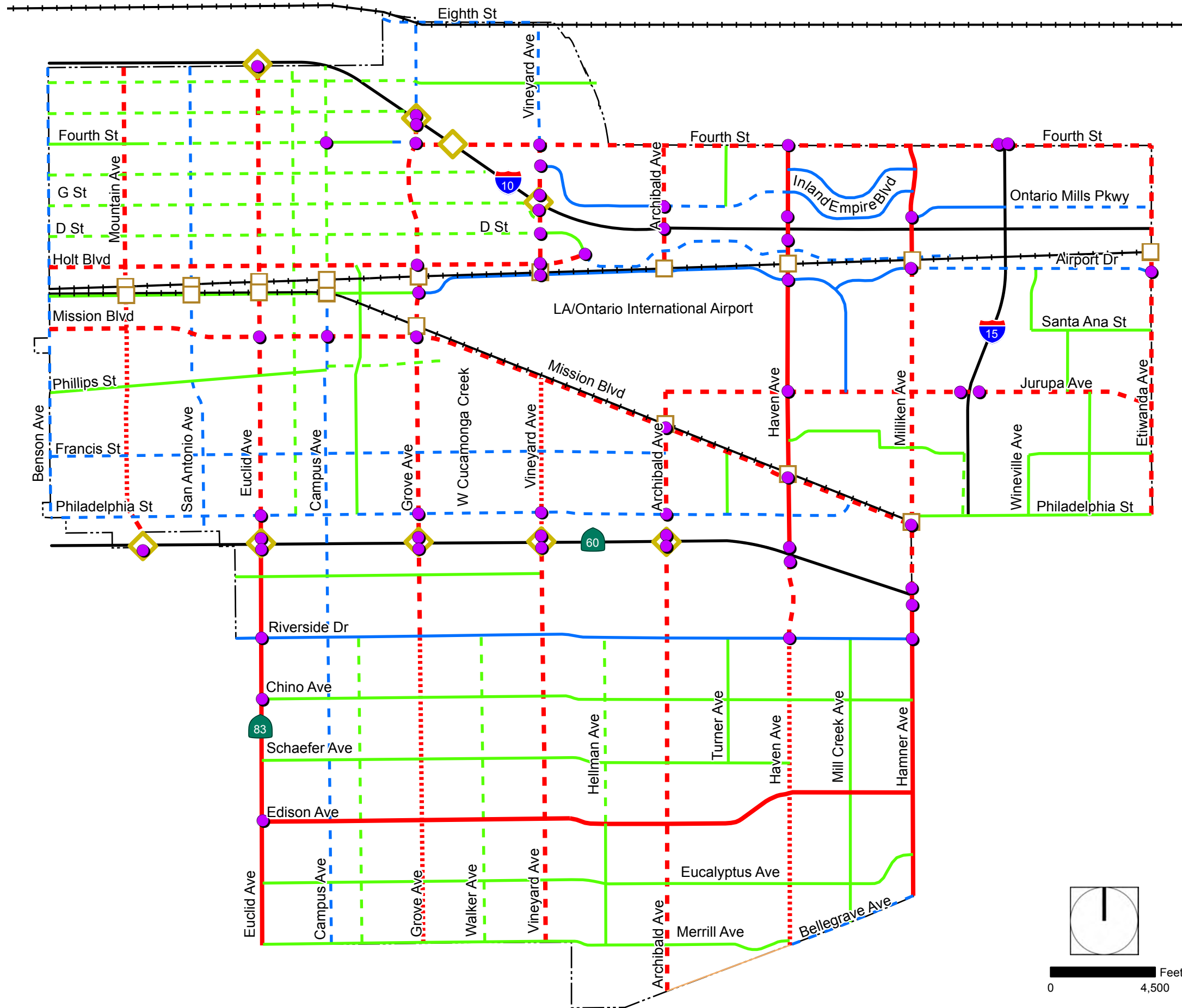
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

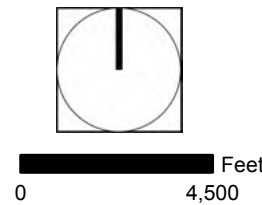
Appendix G
General Plan Circulation Elements

City of Ontario General Plan Functional Roadway Classification Plan



- Freeways
- +— Railroads
- Other Principal Arterial
 - 8 Lanes
 - - - 6 Lanes
 - · · · 4 Lanes
- Minor Arterial
 - 6 Lanes
 - - - 4 Lanes
- Collector Street
 - 4 Lanes
 - - - 2 Lanes
- ◆ Freeway Interchange
- Grade-Separated Rail Crossings
- Enhanced Intersections

- 1) All streets not shown on the map and legend are classified as local streets.
- 2) Enhanced Intersections allow flexibility from the standard intersection configuration to increase capacity, improve operation, and respond to local conditions. Enhancements may include additional lanes, reduced median width, increased right-of-way width, removal of on-street bike lanes, or reduction of parkway width. Detailed engineering studies are necessary to identify the most effective types of improvements.
- 3) The Functional Roadway Classification Plan depicts the maximum number of lanes and does not preclude the use of fewer lanes. The goal is to use the minimum number of lanes necessary to achieve the LOS standard while minimizing pavement and right-of-way width. Detailed traffic studies are necessary to identify the necessary number of lanes.
- 4) The Functional Roadway Classification Plan is a generalized representation of the roadway system. See the Master Plan of Streets and Highways to determine the exact right-of-way, number of lanes, and roadway configuration.
- 5) State Street and Holt Boulevard, which are parallel roadways, are related and improvements to one roadway enhance conditions on the other. Due to this fact and physical constraints, the actual classification of each roadway may vary depending upon the results of further, more detailed analysis.



Appendix H
LEHD Work-To-Home Data

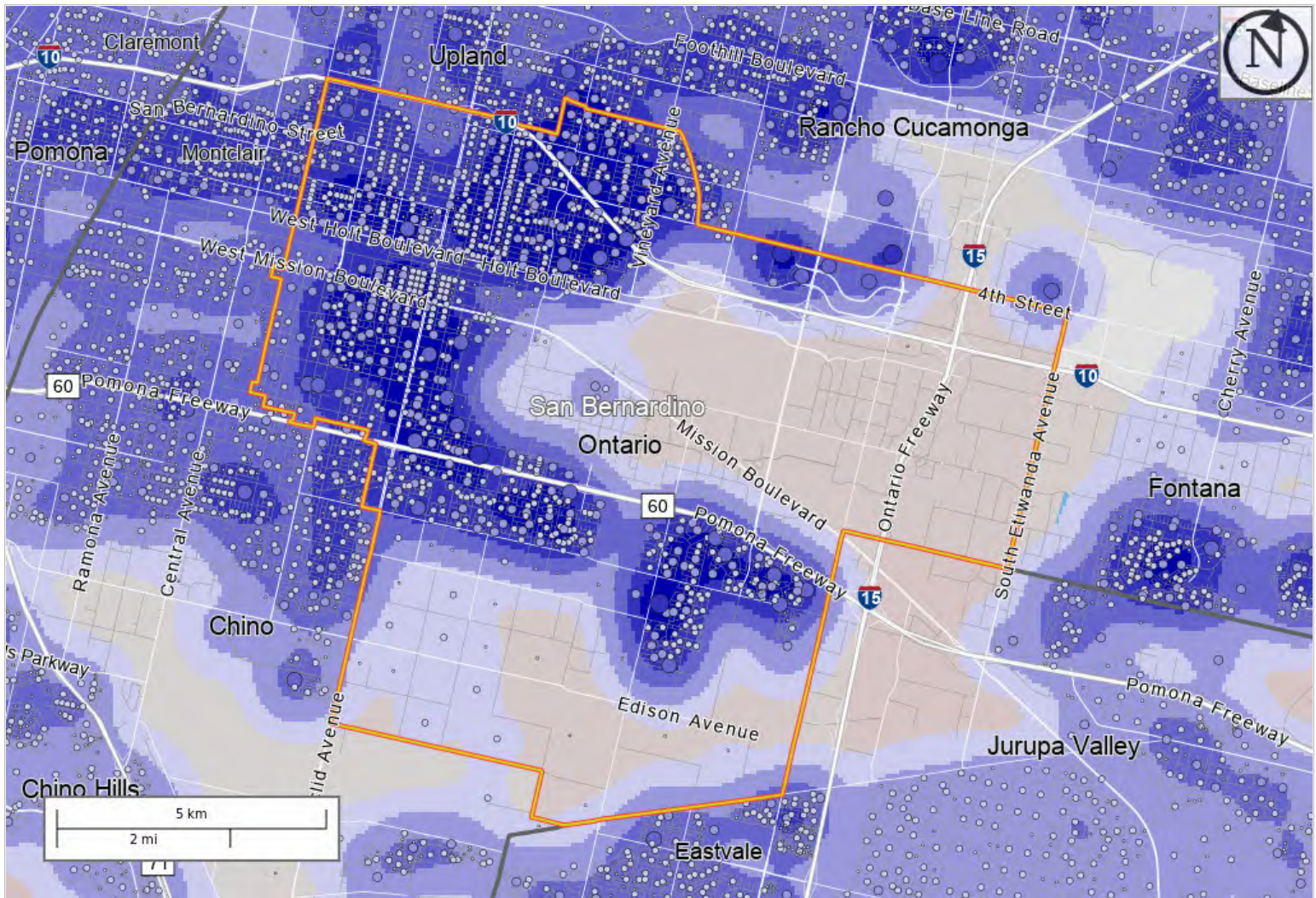
Distance/Direction Report - Work to Home

All Jobs for All Workers in 2018

Created by the U.S. Census Bureau's OnTheMap <https://onthemap.ces.census.gov> on 10/14/2021

Counts and Density of Home Locations for All Jobs in Work Selection Area in 2018

All Workers



Map Legend

Job Density [Jobs/Sq. Mile]

- 5 - 39
- 40 - 141
- 142 - 311
- 312 - 549
- 550 - 855

Job Count [Jobs/Census Block]

- 1 - 2
- 3 - 13
- 14 - 42
- 43 - 98
- 99 - 192

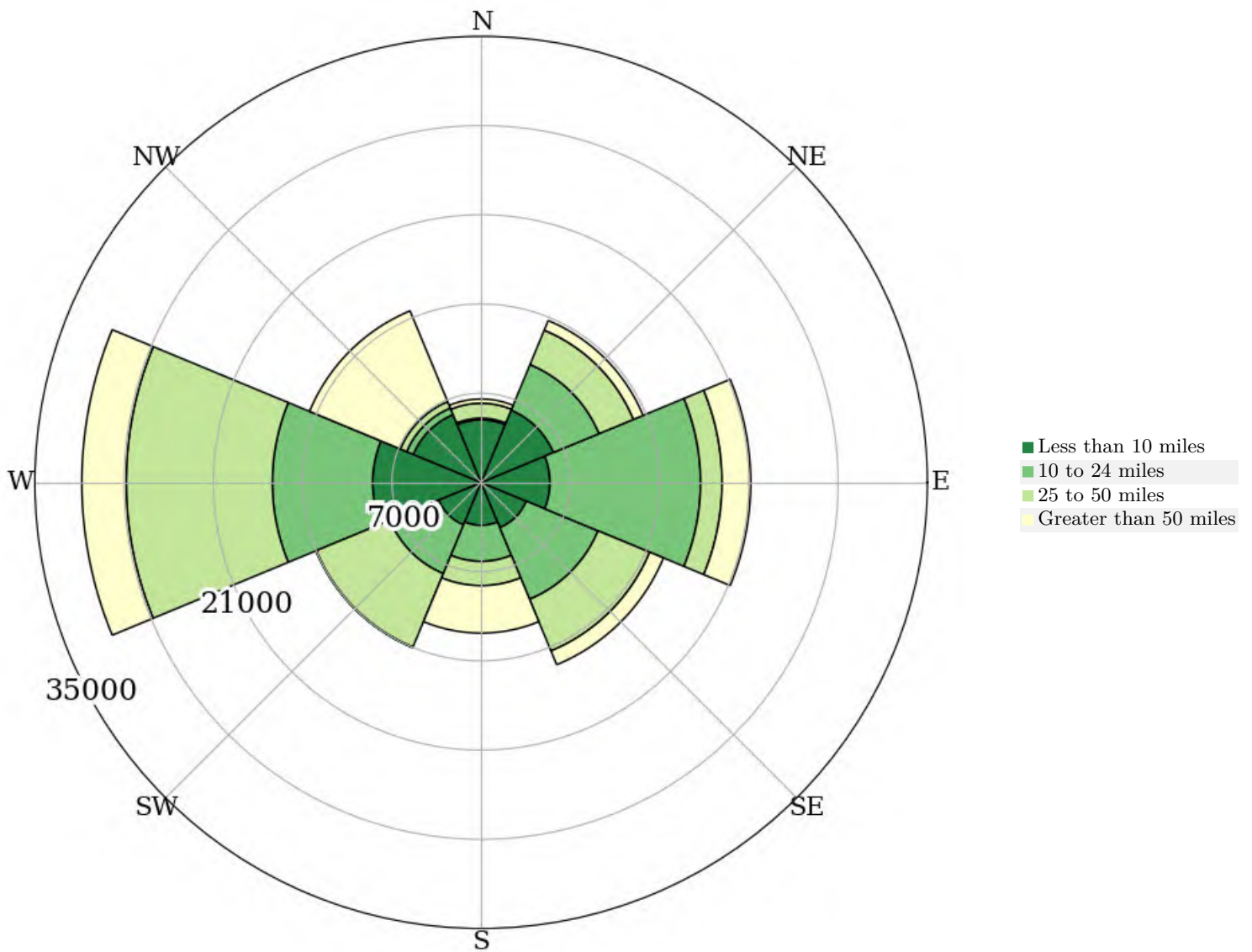
Selection Areas

- 🔴 Analysis Selection



All Jobs for All Workers in 2018

Distance and Direction from Work Census Block to Home Census Block, Employed in Selection Area



All Jobs for All Workers in 2018

Distance from Work Census Block to Home Census Block, Employed in Selection Area

Distance	2018	
	Count	Share
Total All Jobs	128,637	100.0
Less than 10 miles	41,528	32.3
10 to 24 miles	37,284	29.0
25 to 50 miles	30,324	23.6
Greater than 50 miles	19,501	15.2

Additional Information

Analysis Settings

Analysis Type	Distance/Direction
Selection area as	Work
Year(s)	2018
Job Type	All Jobs
Selection Area	Ontario city, CA from Places (Cities, CDPs, etc.)
Selected Census Blocks	1,478
Analysis Generation Date	10/14/2021 11:25 - OnTheMap 6.8
Code Revision	5dc8e60ec2609d78ebfa7d4b188db13aacbb1ba6
LODES Data Version	20201117_1559

Data Sources

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2018).

Notes

1. Race, Ethnicity, Educational Attainment, and Sex statistics are beta release results and are not available before 2009.
2. Educational Attainment is only produced for workers aged 30 and over.
3. Firm Age and Firm Size statistics are beta release results for All Private jobs and are not available before 2011 and in 2018.

Appendix I
Ontario Active Transportation Master Plan
Planned Pedestrian Facilities

