BURBANK2035 GENERAL PLAN CONSISTENCY ANALYSIS

The following table evaluates the Project's consistency with applicable goals and policies of the Burbank2035 General Plan.

Burbank2035 General Plan Goal/Policy	Project Consistency Analysis
AIR QUALITY AND CLIMATE CHANGE ELEMENT	
Goal 1 – Air Quality. Improve air quality and reduce air pollutant emissions within Burbank and the South Coast Air Basin.	**Consistent.** The Project has been evaluated for construction and operational air quality impacts through the environmental review process. The Project would be required to comply with applicable South Coast Air Quality Management District (SCAQMD) regulations and implement applicable regulatory requirements intended to reduce construction and operational emissions.
Policy 1.1 – Coordinate air quality planning efforts with local, regional, state, and federal agencies, and evaluate the air quality effects of proposed plans and development projects.	**Consistent.** The Project's environmental review evaluates air quality impacts using applicable SCAQMD methodologies and thresholds. The Project also incorporates transportation demand management, transit, bicycle, and pedestrian improvements that support reductions in vehicle-related emissions.
Policy 1.5 – Require projects that generate potentially significant levels of air pollutants, such as landfill operations or large construction projects, to incorporate best available air quality and greenhouse gas mitigation in project design.	**Consistent.** Applicable building efficiency standards, transportation demand management measures, and Project design features would reduce emissions associated with construction and operation of the Project.
Policy 1.6 – Require measures to control air pollutant emissions at construction sites and during soil-disturbing or dust-generating activities (i.e., tilling, landscaping) for projects requiring such activities.	**Consistent.** Construction of the Project would be required to comply with applicable SCAQMD rules governing fugitive dust and construction equipment.
Policy 1.9 – Encourage the use of zero-emission vehicles, low-emission vehicles, bicycles, and other non-	**Consistent.** The Project includes bicycle facilities, pedestrian improvements, shuttle service to the Burbank Airport North and South

Burbank2035 General Plan Goal/Policy	Project Consistency Analysis
motorized vehicles, and car-sharing programs. Consider requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.	Metrolink stations, participation in the Burbank Transportation Management Organization, and implementation of other Transportation Demand Management (TDM) measures.
Goal 2 – Sensitive Receptors. Reduce exposure of sensitive receptors to air pollutants and toxic air contaminants.	**Consistent.** The Project is a commercial hotel use located within an existing Regional Commercial and airport-related district. Potential construction and operational air quality effects have been evaluated through the EIR, and applicable regulatory requirements would reduce emissions.
Policy 2.4 – Reduce the effects of air pollution, poor ambient air quality, and urban heat island effect with increased tree planting in public and private spaces, especially in disadvantaged communities.	**Consistent.** The Project would replace portions of existing surface parking areas with new development containing landscaping and tree planting, thereby increasing landscaped areas and shade compared with existing conditions.
Goal 3 – Burbank seeks a sustainable, energy-efficient future and complies with statewide greenhouse gas reduction goals.	**Consistent.** The Project incorporates several sustainability features and measures that support the City's greenhouse gas reduction objectives, including energy-efficient building design, rooftop solar infrastructure, electric-vehicle charging facilities, water conservation measures, and transportation demand management measures. The Project would also provide bicycle and pedestrian improvements and shuttle service to the Burbank Airport North and South Metrolink stations to encourage alternatives to single-occupancy vehicle travel. Although the EIR identifies significant and unavoidable greenhouse gas emissions impacts, the Project incorporates measures intended to reduce emissions and advance the City's broader sustainability and energy-efficiency objectives. Accordingly, the Project is consistent with the overall intent of this General Plan goal.

Burbank2035 General Plan Goal/Policy	Project Consistency Analysis
Policy 3.4 – Reduce greenhouse gas emissions from new development by promoting water conservation and recycling; promoting development that is compact, mixed-use, pedestrian-friendly, and transit-oriented; promoting energy-efficient building design and site planning; and improving the jobs/housing ratio.	**Consistent.** The Project would include the installation of high efficiency light-emitting diode (LED) lighting, energy efficient appliances, low-flow fixtures, water-efficiency irrigation, and drought tolerant landscaping to contribute to the reduction in GHG emissions. In addition, The Project site is also located near the Hollywood Burbank Airport, the Burbank Airport North and South Metrolink stations, and regional transit services. The Project would provide shuttle service to the Burbank Airport North and South Metrolink stations, bicycle facilities, pedestrian improvements, and transportation demand management measures, which would support alternatives to single-occupancy vehicle trips and reduce vehicle-related emissions.
LAND USE ELEMENT	
Goal 1 – Quality of Life. Burbank maintains a high quality of life by balancing the needs of residents, businesses, and visitors.	**Consistent.** The Project further develops an established hotel and convention center site at a location designated for regional commercial development and provides additional visitor accommodations, employment, amenities, and commercial activity.
Policy 1.1 – Accommodate a mix of residential and non-residential land uses in appropriate locations that support the diverse needs of Burbank residents, businesses, and visitors. Provide opportunities for living, commerce, employment, recreation, education, culture, entertainment, civic engagement, and socializing.	**Consistent.** The Project provides additional hotel accommodations, guest amenities, construction and hospitality employment, meeting and conference opportunities, and other visitor-serving activity within an established Regional Commercial center.
Policy 1.8 – Ensure that development in Burbank is consistent with the land use designations presented in the Land Use Plan and shown on the Land Use Diagram, including individual policies applicable to each land use designation.	**Consistent.** The Project Site is designated Regional Commercial. The General Plan specifically identifies the Airport Marriott hotel and convention center as an example of Regional Commercial development. The proposed dual-brand hotel expands this established visitor-serving and employment

Burbank2035 General Plan Goal/Policy	Project Consistency Analysis
	use and is consistent with the purpose and intent of the designation.
Goal 2 – Sustainability. Development meets current needs while protecting resources and quality of life for future generations.	**Consistent.** The Project represents infill development on an existing developed site and incorporates modern building, infrastructure, transportation, water-efficiency, landscaping, and sustainability requirements.
Policy 2.1 – Consider sustainability when making discretionary land use and transportation decisions, policies, regulations, and projects.	**Consistent.** The Project concentrates development within an established commercial district and provides multimodal transportation improvements, sustainable building features, and transportation demand management measures.
Policy 2.2 – Preserve the undeveloped portion of the Verdugo Mountains as open space. Guide new development to infill locations in other parts of the city.	**Consistent.** The Project would develop portions of existing surface parking areas within an approximately 11.76-acre developed hotel and convention center property rather than extending development into an undeveloped area.
Policy 2.3 – Require that new development pay its fair share for infrastructure improvements. Ensure that needed infrastructure and services are available prior to or at project completion.	**Consistent.** The Project would construct or fund required transportation, pedestrian, bicycle, utility, and other public improvements and would pay applicable fees and financial contributions.
Policy 2.5 – Require the use of sustainable construction practices, building infrastructure, and materials in new construction and substantial remodels of existing buildings. Focus incentives in disadvantaged communities.	**Consistent.** New construction would comply with applicable California Building Code, CALGreen, energy-efficiency, water-efficiency, construction-waste, and electric-vehicle requirements.
Policy 2.6 – Design new buildings to minimize the consumption of energy, water, and other natural resources. Develop incentives to retrofit existing buildings for a net reduction in energy consumption, water consumption, and stormwater runoff.	**Consistent.** The new hotel and parking structure would comply with contemporary building energy and water-efficiency standards applicable to new construction.

Burbank2035 General Plan Goal/Policy	Project Consistency Analysis
Goal 3 – Community Design and Character. Ensure high-quality development that contributes positively to Burbank's character.	**Consistent.** The Project provides coordinated architecture, landscaping, circulation, parking, pedestrian improvements, and site design appropriate for the large-scale commercial and airport setting.
Policy 3.5 – Ensure that architecture and site design are high quality, creative, complementary to Burbank's character, and compatible with surrounding development and public spaces.	**Consistent.** The seven-story hotel and associated parking structure have been evaluated through the Planned Development and Development Review processes for building scale, architecture, landscaping, circulation, setbacks, and compatibility.
Policy 3.7 – Ensure that lots and buildings appropriately interact with and address public streets.	**Consistent.** The Project includes landscaping, sidewalks, pedestrian lighting, bicycle facilities, frontage improvements, and enhanced pedestrian circulation along and through the site.
Goal 4 – Public Spaces and Complete Streets. Create attractive public spaces and streets accommodating multiple transportation modes.	**Consistent.** The Project includes pedestrian, bicycle, landscaping, lighting, and streetscape improvements around and through the site.
Policy 4.1 – Develop complete streets that create functional places meeting the needs of pedestrians, bicyclists, wheelchair users, equestrians, and motorists.	**Consistent.** Project improvements include enhanced pedestrian facilities, bicycle infrastructure, lighting, circulation improvements, and connections to transit.
Policy 4.3 – Use street trees, landscaping, street furniture, public art, and other aesthetic elements to enhance the appearance and identity of neighborhoods and public spaces.	**Consistent.** The Project includes new landscaping, trees, pedestrian improvements, lighting, and other frontage enhancements.
Goal 6 – Economic Vitality and Diversity. Maintain a strong and diverse local economy and range of employment opportunities.	**Consistent.** The Project represents substantial investment in Burbank's hospitality industry, creates construction and permanent jobs, increases visitor accommodations, and supports the City's convention center, airport, tourism, and commercial economy.
Policy 6.1 – Recruit and attract new businesses. Use these businesses to act as catalysts to attract other	**Consistent.** The Project would introduce two additional hotel brands and 420 hotel rooms and would generate economic activity

Burbank2035 General Plan Goal/Policy	Project Consistency Analysis
businesses. Continue to utilize public-private partnerships and other incentives to enhance economic vitality, especially in disadvantaged communities.	associated with hotel operations, visitor spending, property investment, and transient occupancy taxes.
Goal 11 – Regional Commercial Land Use. Maintain successful Regional Commercial centers that provide employment, services, and revenue to the City.	**Consistent.** The Project further develops an existing hotel and convention site expressly identified by the Burbank2035 General Plan as a Regional Commercial use.
Policy 11.1 – Require that regional centers provide access to public transit. Transit facilities should be integrated within or located immediately adjacent to regional centers.	**Consistent.** The Project Site is near the Burbank Airport North and South Metrolink stations and other transit services. Conditions of approval would require shuttle service to both Metrolink stations and implementation of TDM measures.
Policy 11.2 – Ensure that pedestrian circulation is clear, safe, and direct within regional centers. Design regional commercial centers using a “park once” strategy to allow shoppers to visit all stores within the center without needing to move their car.	**Consistent.** The Project includes a coordinated pedestrian circulation system and a lighted pedestrian paseo connecting Thornton Avenue and Avon Street.
Policy 11.3 – Provide clear and direct pedestrian and bicycle access into regional commercial centers. Ensure safe access for pedestrians and bicycles	**Consistent.** The Project provides enhanced sidewalks, bicycle facilities, pedestrian lighting, and improved connections between adjacent streets, the hotel complex, and nearby transportation facilities.
MOBILITY ELEMENT	
Goal 1 – Balance. Maintain a transportation system that supports economic vitality while protecting quality of life and neighborhood character.	**Consistent.** The Project combines economic development with transportation improvements, TDM measures, transit service, and pedestrian and bicycle facilities.
Policy 1.1 – Consider economic growth, transportation demands, and neighborhood character in developing a comprehensive transportation system that meets Burbank’s needs. Ensure that transportation is available and	**Consistent.** The Project further develops a major visitor-serving and employment site while providing transportation improvements and programs intended to accommodate Project trips and encourage alternatives to driving.

Burbank2035 General Plan Goal/Policy	Project Consistency Analysis
connects to the most disadvantaged communities.	
Policy 1.4 – Ensure that future land uses can be adequately served by the planned transportation system.	**Consistent.** The Project's operational analysis, included in this attachment, evaluated 19 study intersections. The Project would not cause an intersection operating at LOS D or better to deteriorate to LOS E or F. All Project driveways are projected to operate at LOS D or better.
Policy 1.7 – Ensure that the transportation system enables Burbank residents, employees, and visitors opportunity to live, work, and play throughout the community.	**Consistent.** The Project would be accessible by vehicle, bicycle, pedestrian, shuttle, transit, and airport transportation.
Goal 2 – Sustainability. Reduce transportation-related environmental effects through land use and multimodal transportation planning.	**Consistent.** The Project places additional development near rail, transit, airport, and employment facilities and provides TDM, pedestrian, bicycle, and shuttle improvements.
Policy 2.1 – Improve Burbank's alternative transportation access to local and regional destinations through land use decisions that support multimodal transportation.	**Consistent.** The Project concentrates development near two Metrolink stations, transit service, and Hollywood Burbank Airport.
Policy 2.4 – Require new projects to contribute to the city's transit and/or non-motorized transportation network in proportion to its expected traffic generation.	**Consistent.** The Project provides or funds pedestrian, bicycle, transit, station, transportation, and neighborhood protection improvements through Project requirements and the Development Agreement.
Goal 3 – Complete Streets. Provide streets that safely accommodate all users.	**Consistent.** The Project provides multimodal improvements along and throughout the site.
Policies 3.2, 3.3 and 3.5 – Complete Streets, Safety and Multimodal Opportunities.	**Consistent.** Proposed sidewalk, bicycle, pedestrian-lighting, and circulation improvements will enhance safety and preserve opportunities for transit, bicycle, and pedestrian travel.
Goal 4 – Transit. Provide a convenient and connected transit system.	**Consistent.** The Project's shuttle and pedestrian improvements strengthen connections between the hotel site and nearby regional rail and transit facilities.

Burbank2035 General Plan Goal/Policy	Project Consistency Analysis
Policies 4.7 and 4.8 – Transit Connections.	**Consistent.** The Project would connect a major employment and visitor destination to nearby Metrolink service through shuttle operations, pedestrian improvements, bicycle facilities, and TDM measures.
Goal 5 – Bicycle and Pedestrian Mobility. Provide safe and convenient bicycle and pedestrian travel.	**Consistent.** The Project provides sidewalks, pedestrian lighting, bicycle facilities, internal pedestrian circulation, and a pedestrian paseo connecting Thornton Avenue and Avon Street.
Policies 5.1 through 5.5 – Bicycle and Pedestrian Safety, Connectivity, and Infrastructure.	**Consistent.** Project improvements increase pedestrian and bicycle access to the site and surrounding transit and employment destinations and integrate the Project into the surrounding multimodal transportation network.
Goal 6 – Neighborhood Protection. Protect residential neighborhoods from transportation impacts.	**Consistent.** Operational analysis demonstrates that the Project would not cause intersections operating within the City's LOS standard to fall below that standard. TDM and transportation improvements further reduce Project travel effects. Additionally, the developer would pay their fair share contribution towards implementation of a neighborhood protection plan in the neighborhood.
Policy 6.1 – Maintain arterial street efficiency to discourage spillover traffic into residential neighborhoods.	**Consistent.** The Project has been designed to use the arterial transportation network serving the airport district, and transportation improvements and traffic-management measures reduce the potential for adverse circulation effects.
Goal 7 – Parking. Provide and efficiently manage parking resources.	**Consistent.** The Project provides up to 1,051 on-site parking spaces within the new parking structure and surface parking areas and includes parking management provisions for large events.
Policy 7.1 – Effectively manage citywide parking to improve convenience while maximizing use at all times of the day.	**Consistent.** The Project's parking program coordinates valet parking, surface parking, and supplemental off-site parking when necessary to accommodate anticipated demand.

Burbank2035 General Plan Goal/Policy	Project Consistency Analysis
Goal 8 – Transportation Demand Management. Reduce single-occupancy vehicle travel and peak-period automobile trips.	**Consistent.** The Project is required to implement TDM measures and participate in the Burbank Transportation Management Organization (TMO).
Policies 8.2 and 8.3 – TDM Partnerships and Commercial Development.	**Consistent.** Project requirements include TMO participation, shuttle service, transit access improvements, pedestrian improvements, bicycle facilities, and other measures that encourage alternatives to single-occupancy vehicles.
Goal 9 – Transportation Safety and Accessibility. Provide a safe and accessible transportation network for all users.	**Consistent.** Project streets, sidewalks, driveways, pedestrian routes, and bicycle facilities are subject to City safety and accessibility requirements.
Policies 9.1 and 9.2 – Multimodal Safety and Accessibility.	**Consistent.** The Project improves the organization of pedestrian, bicycle, and vehicle movements and is required to comply with applicable ADA and accessibility standards.

FEHR PEERS

Final Memorandum

Date: October 2024

To: City of Burbank

From: John Muggridge, Johnny Schmidt, and Dongyang Lin, Fehr & Peers

Subject: Operations Analysis for the 2500 N Hollywood Way Project

LA20-3220.02

This memorandum documents the operational analysis conducted for the proposed development of a seven-story hotel building to be operated by Aloft Hotels and Residence Inn (the Project) at 2500 N Hollywood Way in the City of Burbank (the Project Site). The operational analysis helps to determine if a project's expected traffic generation is compatible with the Burbank2035 General Plan and does not create a roadway operational deficiency. The analysis covers existing conditions, future without project conditions, and future with project conditions using level of service (LOS) methodologies described in this memo. For the purposes of this memo, the terms "traffic" and "trips" generally refer to vehicle trips.

Introduction

Project Description

The Project Site is located at 2500 North Hollywood Way and is bounded by Hollywood Way, Thornton Avenue, Ontario Street, and Empire Avenue. The site contains an existing hotel and convention center, with surface parking lots. The existing hotel and convention center would remain. The Project includes the development of a seven-story hotel building with a total of 420 rooms, to be operated by Aloft Hotels (219 rooms) and Residence Inn (201 rooms). The hotel would also include amenities such as a restaurant, a lounge, cafes, meeting rooms, a fitness center, and a rooftop amenity deck. The Project Site is shown in **Figure 1**.

The Project would include 673 vehicle parking spaces in a new 4-story detached parking structure in the eastern portion of the Project Site, as shown in **Figure 1**. A surface parking area would provide 250 additional vehicular parking spaces. Bike parking will also be provided.

Vehicular access would be provided to the Project Site via four driveways – one on N Hollywood Way, two on Thornton Avenue and one on Avon Street. The N Hollywood Way driveway is the

existing Marriott driveway and the Avon Street driveway is an existing driveway exclusively for delivery vehicles. One of the two Thornton Avenue driveways is replacing an existing driveway and the other Thornton Avenue driveway is new. The Thornton Avenue driveways will connect to a porte cochere along the north side of the proposed hotel. This porte cochere will have valet pickup and drop off for the parking garage, which will be accessible by valets only. The N Hollywood Way driveway connects to an east-west access drive that will connect N Hollywood Way to a porte cochere for pick-up and drop-offs in front of the existing conference center. The east-west access driveway also connects with the north-south access drives from the Thornton Avenue driveways, which will lead to the new valet pickup and drop off.

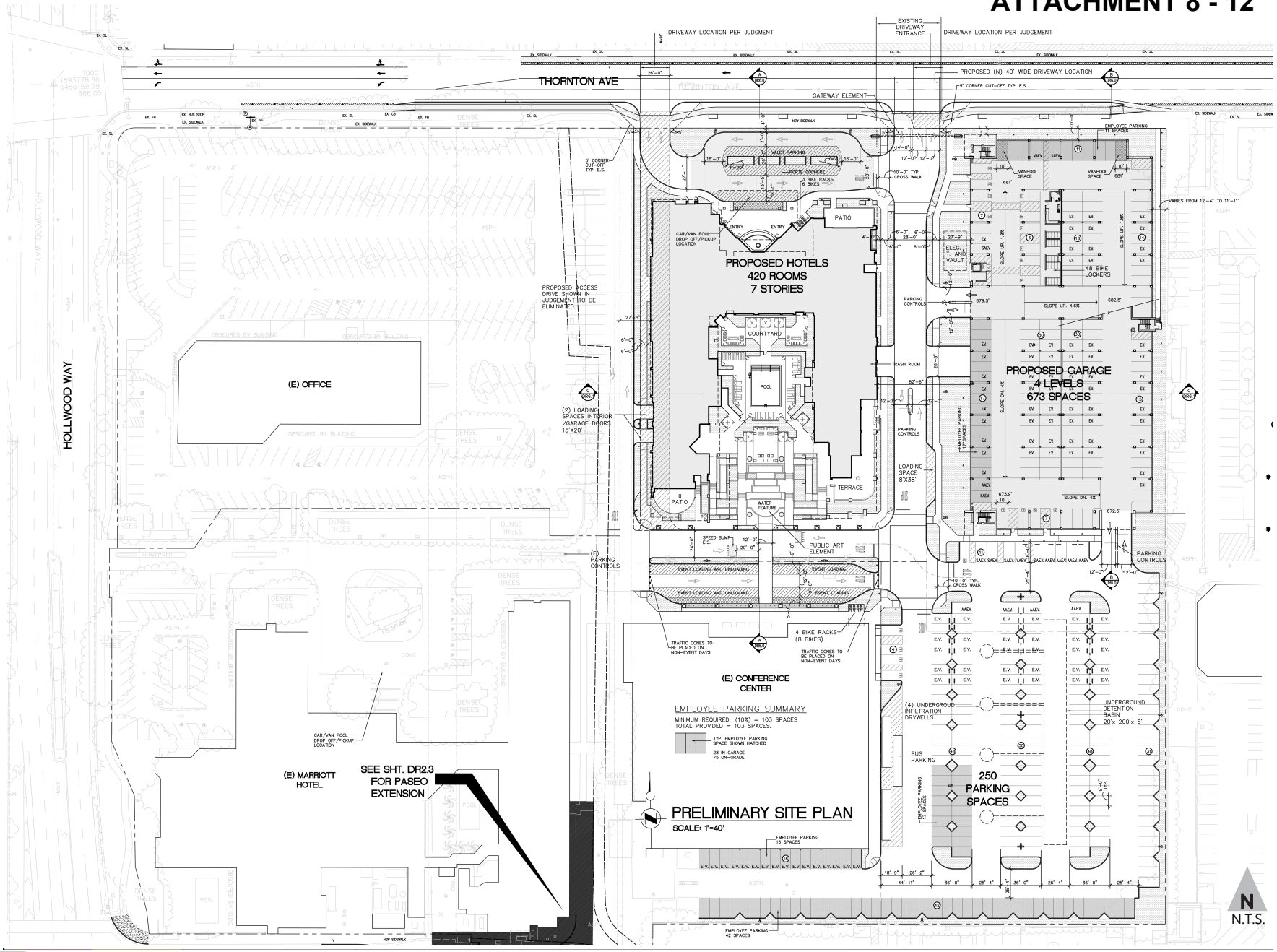


Figure 1

Source: Architectural Dimensions

Overall Project Site Plan

Study Scope

The scope of analysis was developed in conjunction with the City of Burbank. The base assumptions, technical methodologies, and geographic coverage of the study were all identified as part of the study approach. In consultation with City staff, the year 2023 was selected as the updated existing conditions year to reflect the post-pandemic traffic conditions and the opening of the new ramps for Interstate-5 at Empire Avenue. Future year was also updated to 2027 to reflect the Project's schedule. The following traffic scenarios have been developed and analyzed as part of this study:

- Baseline (2023) Conditions – The analysis of baseline traffic conditions is intended to provide a basis for the remainder of the study. The baseline conditions analysis includes traffic volumes and an assessment of the operating conditions at these locations in 2023.
- Future Year (2027) No Project Conditions – Future traffic conditions without the Project were developed for the year 2027. The objective of this analysis is to project future traffic growth and operating conditions that could be expected to result from regional growth and related projects in the vicinity of the Project Site by the year 2027.
- Future Year (2027) plus Project Conditions – This traffic scenario includes the Project, provides projected traffic volumes, and an assessment of operating conditions under future conditions with the addition of Project-generated traffic. The impacts of the Project on future traffic operating conditions were then identified.

The transportation staff of the City of Burbank determined the study area and identified the following 19 intersections and two roadway segments in the vicinity of the proposed development for detailed analysis:

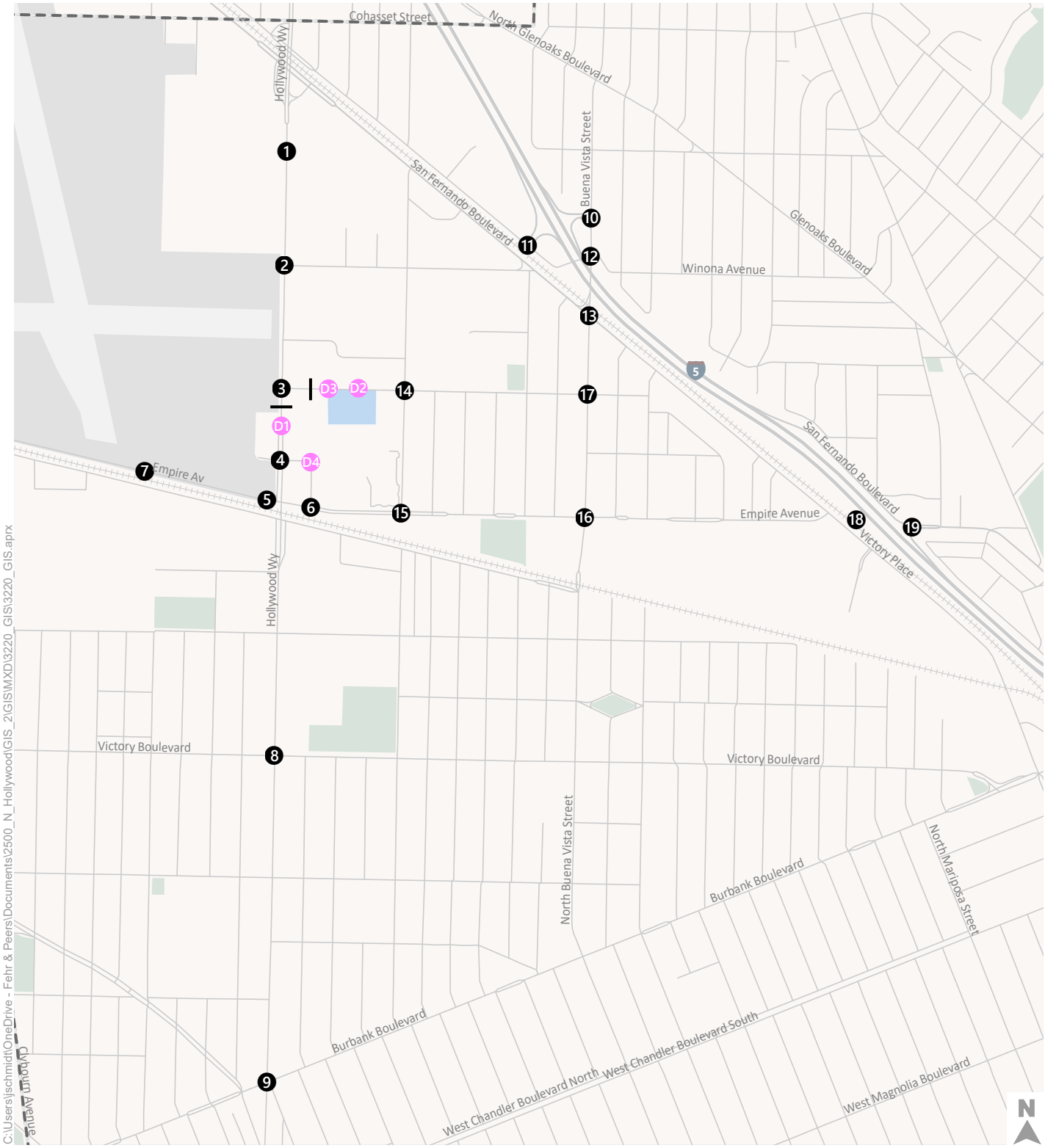
1. North Hollywood Way & Tulare Avenue
2. North Hollywood Way & Winona Avenue
3. North Hollywood Way & Thornton Avenue
4. North Hollywood Way & North Avon Street
5. North Hollywood Way & West Empire Avenue
6. North Avon Street & West Empire Avenue
7. Bob Hope Airport Drive & West Empire Avenue
8. North Hollywood Way & Victory Boulevard
9. North Hollywood Way & Burbank Boulevard
10. North Buena Vista St & Interstate 5 Northbound (NB) Ramps
11. North San Fernando Boulevard & Interstate 5 Southbound (SB) Ramps
12. North Buena Vista Street & Winona Avenue
13. North Buena Vista Street & North San Fernando Boulevard
14. North Ontario Street & Thornton Avenue
15. North Ontario Street & West Empire Avenue
16. North Buena Vista Street & West Empire Avenue
17. North Buena Vista Street & Thornton Avenue

18. Interstate 5 SB Ramps & West Empire Avenue
19. Interstate 5 NB Ramps & North San Fernando Boulevard/Empire Avenue

The following are the two study roadway segments:

1. North Hollywood Way between Thornton Avenue and Marriott Drive
2. Thornton Avenue between N Hollywood Way and N Ontario Street

All study intersections and study roadway segments are located wholly in the City of Burbank. The locations of the study intersections and study roadway segments are illustrated in Figure 2.



Study Intersections
Project Driveways
Study Segments
Project Site

Figure 2
Study Intersections

Baseline Traffic Volumes and Levels of Service

This section presents the baseline intersection peak hour traffic volumes, a description of the methodology used to analyze the intersection traffic conditions, and the resulting level of service conditions at each of the study intersections. Traffic counts are provided in Appendix A.

Baseline Traffic Evaluation

In consultation with City staff, the year 2023 was selected as the updated existing conditions year to reflect the post-pandemic traffic conditions and the opening of the new ramps for Interstate-5 at Empire Avenue. New counts in November 2023 were available for all study intersections, except for Intersection #5 (North Hollywood Way & West Empire Avenue), Intersection #7 (Bob Hope Airport Drive & West Empire Avenue). Fehr & Peers compared traffic counts collected in weekday morning and afternoon peak hour in 2019 and 2023 and observed a reduction in total volumes at 70% of intersections where counts were available in both years. After consulting City staff, the study conservatively analyzes existing conditions using 2019 traffic volumes at Intersection #5 and Intersection #7 without adjustment. The baseline traffic volumes at the study intersections are presented in Figure 3.

Level of Service Methodology

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent, nearly free-flow conditions at LOS A to overloaded, stop-and-go conditions at LOS F. LOS D is typically recognized as the minimum acceptable level of service in urban areas. Level of service definitions for signalized and unsignalized intersections can be found in Table 1.

All study intersections were analyzed using the *Highway Capacity Manual* (HCM) (Transportation Research Board, 2016) calculation methodology, as required by the City of Burbank. For signalized intersections, the HCM method of intersection capacity analysis determines the intersection delay and corresponding LOS for turning movements and intersection characteristics.

For stop-controlled intersections, the HCM method of intersection capacity analysis determines the average stopped delay experienced per vehicle (i.e., delay resulting from initial deceleration, queue move-up time, time actually stopped, and final acceleration). At all-way stop-controlled (AWSC) intersections, the reported delay is the average delay experienced by all vehicles at an intersection across an entire hour. At two-way stop-controlled (TWSC) intersections, delay is evaluated separately for each individual movement, and the reported delay is the worst-case delay experienced at the intersection across an entire hour. LOS worksheets for the study intersections are included in Appendix B.



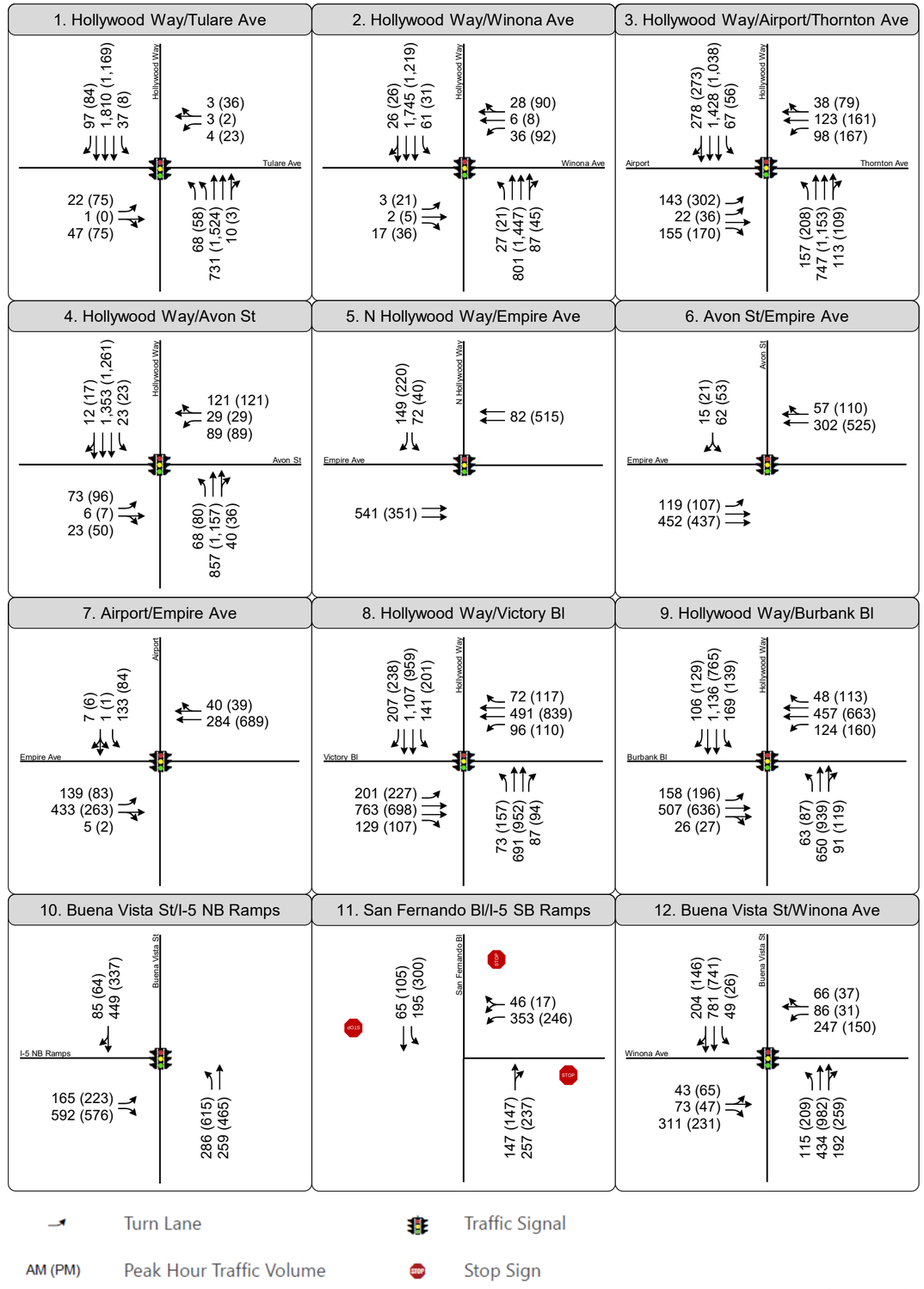
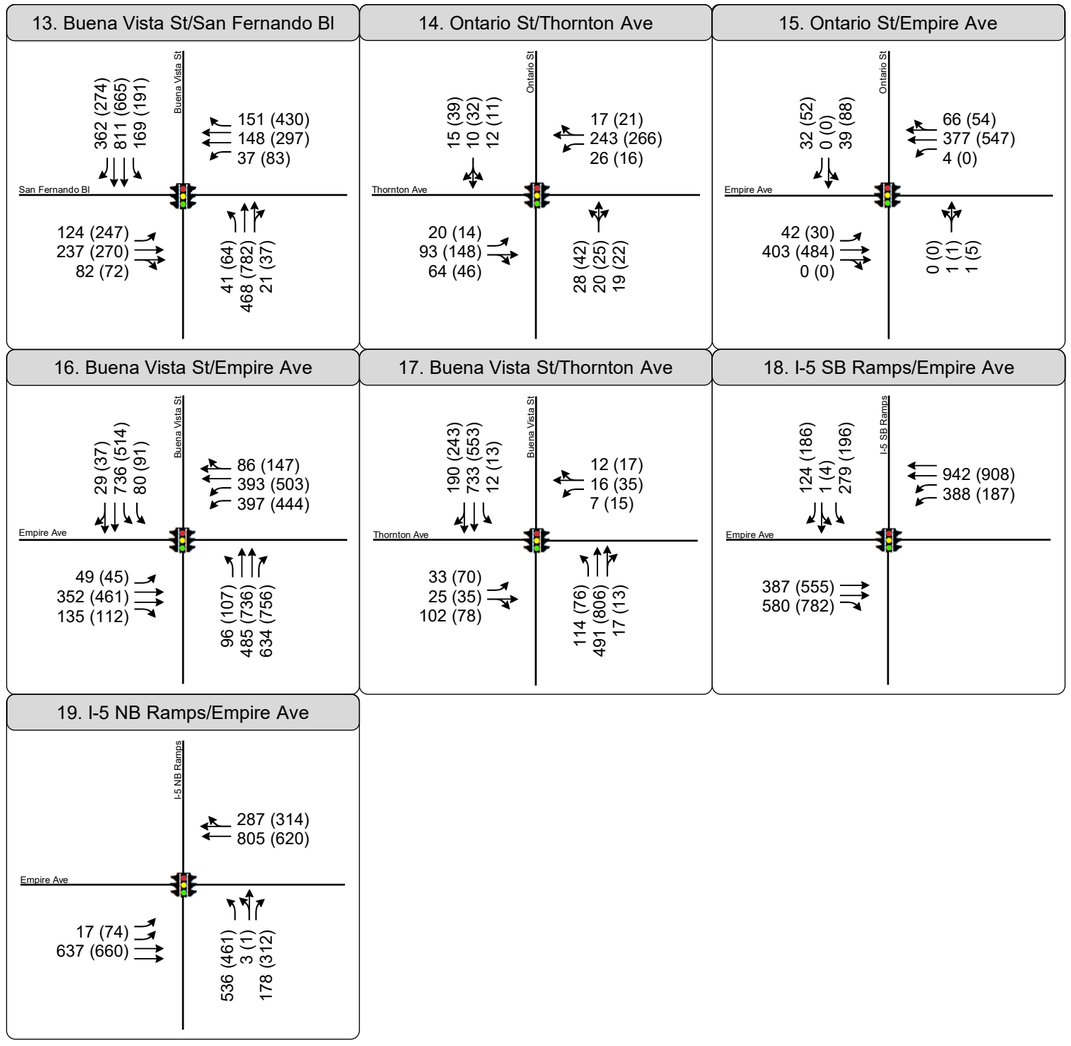


Figure 3
Traffic Volumes & Lane Configurations
Existing (2023) Peak Hour





Turn Lane

AM (PM) Peak Hour Traffic Volume

Traffic Signal

Stop Sign

Figure 3
Traffic Volumes & Lane Configurations
Existing (2023) Peak Hour

TABLE 1
LOS THRESHOLDS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS

Level of Service (LOS)	Signalized Intersection Average Control Delay (sec/veh)	Unsignalized Intersection Control Delay (sec/veh)	Definition
A	≤ 10.0	≤ 10.0	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	> 10.1 to 20.0	> 10.1 to 15.0	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	> 20.1 to 35.0	> 15.1 to 25.0	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	> 35.1 to 55.0	> 25.1 to 35.0	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	> 55.1 to 80.0	> 35.1 to 50.0	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 80.0	> 50.0	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: *Highway Capacity Manual*, 6^{th} *Edition* Transportation Research Board, 2016.

Baseline (2023) Levels of Service

The traffic volumes presented in Figure 3 were analyzed using the methodologies described above to determine the current operating conditions at the analyzed intersections. The calculation is expressed in delay in terms of seconds per vehicle for all study intersections. Table 2 summarizes the baseline (2023) LOS for study intersections. Detailed intersection traffic analysis LOS calculations are provided in Appendix B. As indicated in Table 2, all study intersections operate at LOS D or better under existing peak hour traffic conditions.

TABLE 2
BASELINE (2023) LEVEL OF SERVICE ANALYSIS

#	Study Intersection	Intersection Control	Peak Hour	2023 Baseline Delay (sec)	2023 Baseline LOS
1	Hollywood Way & Tulare Ave	Signalized	AM	7.6	A
			PM	7.4	A
2	Hollywood Way & Winona Ave	Signalized	AM	1.7	A
			PM	3.4	A
3	Hollywood Way & Airport/Thornton Ave	Signalized	AM	9.6	A
			PM	14.6	B
4	Hollywood Way & Avon St	Signalized	AM	20.4	C
			PM	16.2	B
5	Empire Ave & N Hollywood Way	Signalized	AM	4.5	A
			PM	3.5	A
6	Empire Ave & Avon St	Signalized	AM	6.8	A
			PM	6.8	A
7	Empire Ave & Airport	Signalized	AM	9.4	A
			PM	4.2	A
8	Hollywood Way & Victory Bl	Signalized	AM	42.6	D
			PM	42.8	D
9	Hollywood Way & Burbank Bl	Signalized	AM	37.4	D
			PM	43.9	D
10	Buena Vista St & I-5 NB Ramps	Signalized	AM	14.9	B
			PM	16.2	B
11	San Fernando & I-5 SB Ramps	AWSC	AM	23.0	C
			PM	18.8	C
12	Buena Vista St & Winona Ave	Signalized	AM	29.6	C
			PM	21.2	C
13	Buena Vista St & San Fernando Bl	Signalized	AM	22.0	C
			PM	30.6	C
14	Ontario St & Thornton Ave	Signalized	AM	7	A
			PM	5.6	A
15	Empire Ave & Ontario St	Signalized	AM	4.9	A
			PM	6.9	A
16	Buena Vista St & Empire Ave	Signalized	AM	28.7	C
			PM	34.7	C
17	Buena Vista St & Thornton Ave	Signalized	AM	5.1	A
			PM	7.0	A
18	I-5 SB Ramps & Empire Ave	Signalized	AM	19.8	B
			PM	15.3	B
19	I-5 NB Ramps & Empire Ave	Signalized	AM	19.1	B
			PM	21.9	C

Notes:
AWSC = All-way Stop-Controlled Intersection

Traffic Projections

Project Traffic

The development of traffic generation estimates for the Project involves the use of a three-step process: trip generation, trip distribution, and traffic assignment. For the purposes of this report, the terms "traffic" and "trips" generally refer to vehicle trips.

Project Traffic Generation

Trip generation rates were developed from the Institute of Transportation Engineers (ITE) in conjunction with the City of Burbank to estimate trip making characteristics for the hotel.

The total number of Project trips considers the portion of trips to and from the site using transit, bicycling, and walking based on the site's proximity to the Burbank airport, the Metrolink station, and other bus lines. Given that the site is currently a surface parking lot, no existing use trip credits will be considered.

Following the application of the transit/bicycle/walk credit described above, the Project would generate approximately 3,923 net daily external trips, including 193 trips (108 inbound, 85 outbound) and 269 trips (137 inbound, 132 outbound) in the AM and PM peak hours, respectively. Table 3 shows the trip generation for the Project.

Project Traffic Distribution

The geographic distribution of the traffic generated by the Project depends on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees and potential patrons of the proposed development are drawn, and the location of the Project in relation to the surrounding street system.

The City's most recent Travel Demand Model was used to develop the Project trip distribution and represents a localized version of the regional Southern California Association of Governments (SCAG) model. The distribution pattern illustrated in Figure 4 was applied for Project traffic, under both existing and future conditions.

Project Traffic Assignment

The traffic generated by the Project was assigned to the street network using the distribution patterns described in Figure 4. Project assignment in the future year is discussed in the following section. The traffic generated by the Project is shown in Figure 5. Because the valet pickup/drop off zone is near the Thornton Avenue driveways, the majority of trips are projected to use those two driveways.

TABLE 3
PROJECT TRIP GENERATION ESTIMATE

Land Use	ITE LU Code	Units	Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				In	Out	Total	In	Out	Total
PROPOSED PROJECT									
Hotel [a] [b]	310	420 rooms	4,129	114	89	203	144	139	283
Less: Transit/Walk/Bike Credit [c]			*(206)*	*(6)*	*(4)*	*(10)*	*(7)*	*(7)*	*(14)*
Net External (before TNC adjustment)			3,923	108	85	193	137	132	269
Added TNC - vehicles without passengers [d]			392	8	11	19	13	14	27
NET NEW PROJECT DRIVEWAY TRIPS [e]			4,315	116	96	212	150	146	296
NET NEW PROJECT EXTERNAL TRIPS [e]			3,923	108	85	193	137	132	269

Notes:

[a] The ITE Hotel land use (310) includes supporting facilities such as a full-service restaurant, cocktail lounge, meeting rooms, banquet room, and convention facilities. A hotel typically provides a swimming pool or another recreational facility such as a fitness room. Therefore, the trip generation associated with the ancillary uses of the Project are included in the trip generation for this land use and are not added separately.

[b] ITE Hotel trip generation equations used rather than linear trip generation rate from the Institute of Transportation Engineers (ITE), Trip Generation, 11th Edition, 2021:

Daily: T = 10.84(X) - 423.51, where T = trips, X = rooms

AM Peak Hour: T = 0.50(X) - 7.45, where T = trips, X = rooms

PM Peak Hour: T = 0.74(X) - 27.89, where T = trips, X = rooms

[c] A 5% credit was developed to account for transit, biking, and walking access to the project site based on the site's location.

[d] The proliferation of shared mobility transportation network companies (TNCs), such as Lyft and Uber, in recent years is important to consider in a project of this size. In order to account for TNCs, it was assumed that TNCs would account for 10% of the vehicle trips generated by the hotel. Given the hotel land use, it is assumed that TNC trips would likely replace private vehicle trips (e.g., rental cars). The TNC trips attributed to the replacement of private vehicles result in an additional vehicle trips (trips without passengers) added to the opposite movement of the vehicle trips already considered in the basic trip generation rates.

[e] Since the Project site is currently a surface parking lot, no existing use credit was applied. The additional TNC trips (trips without passengers) were added to the Project's driveway trips, but not the net external trips because the additional TNCs would exist in the local network with or without the proposed Project trips.

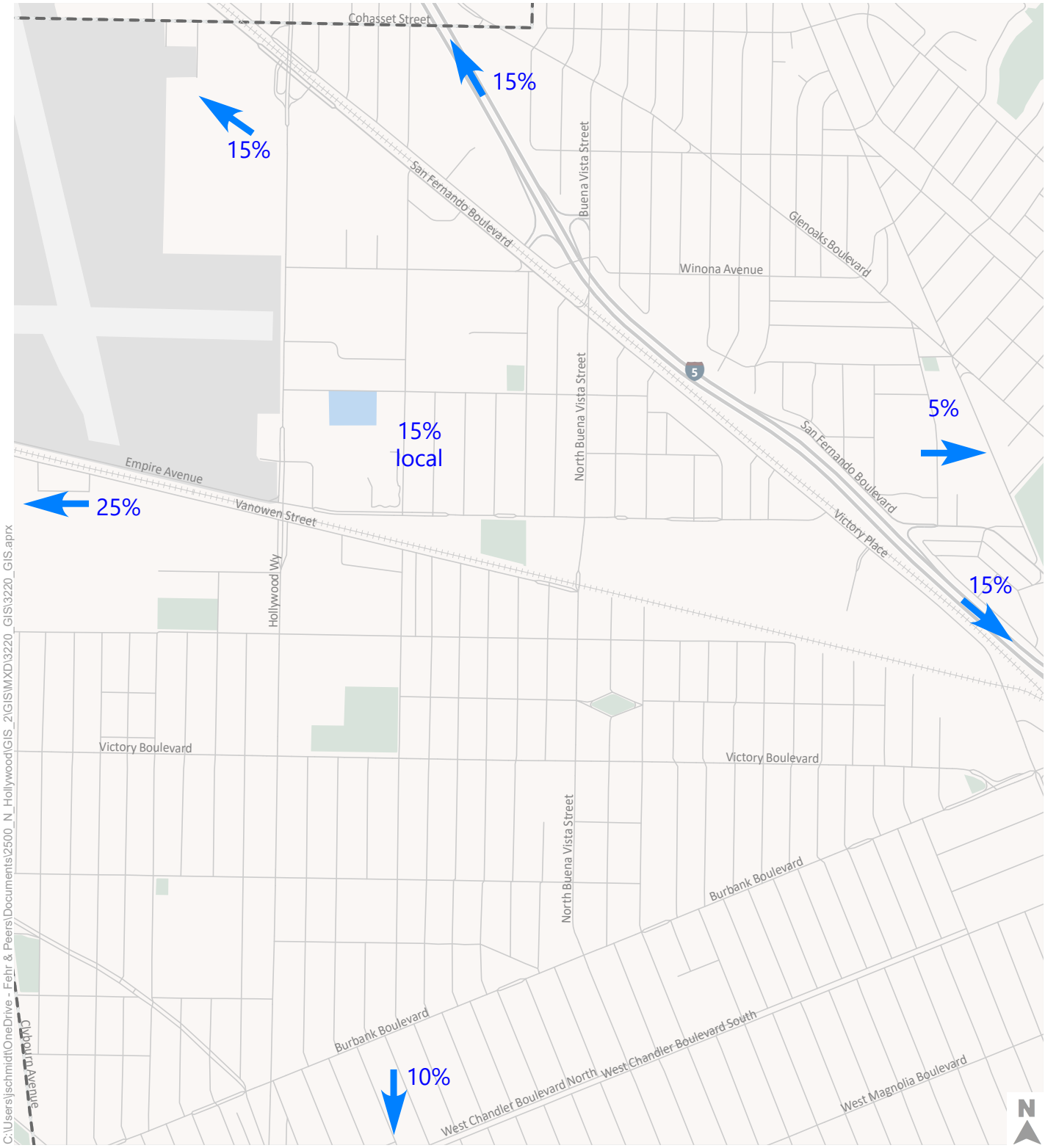
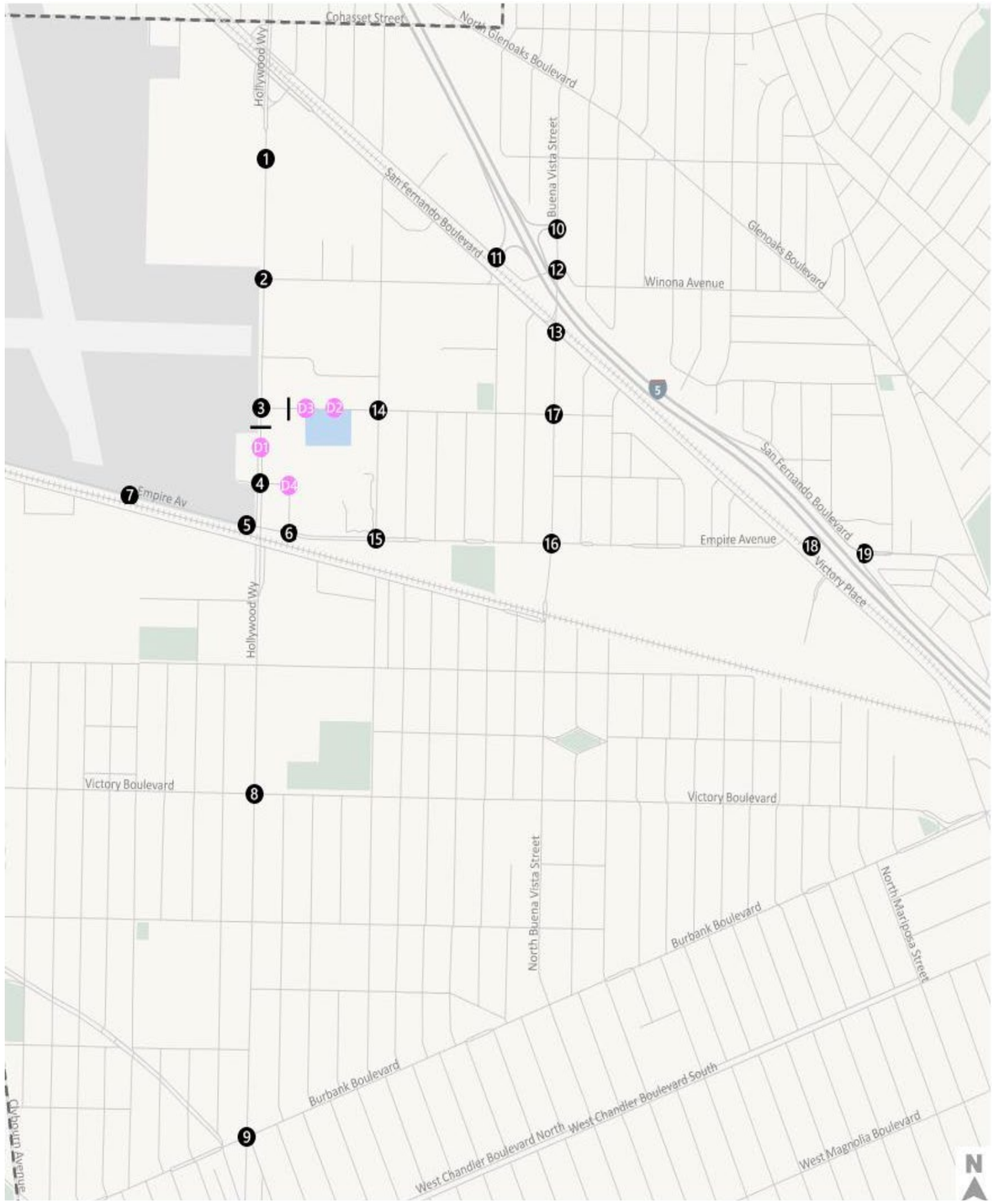
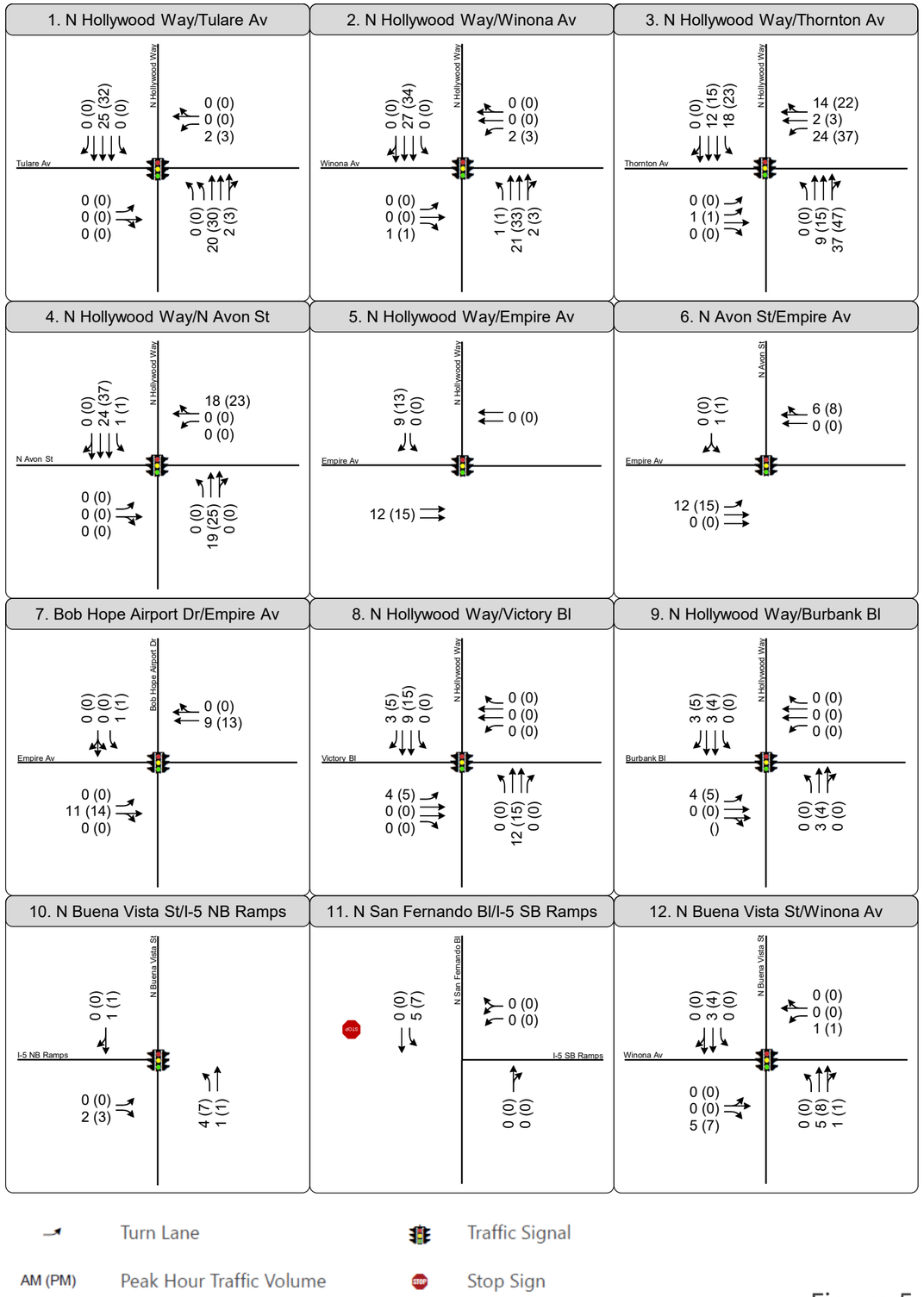


Figure 4

Trip Distribution





Note:

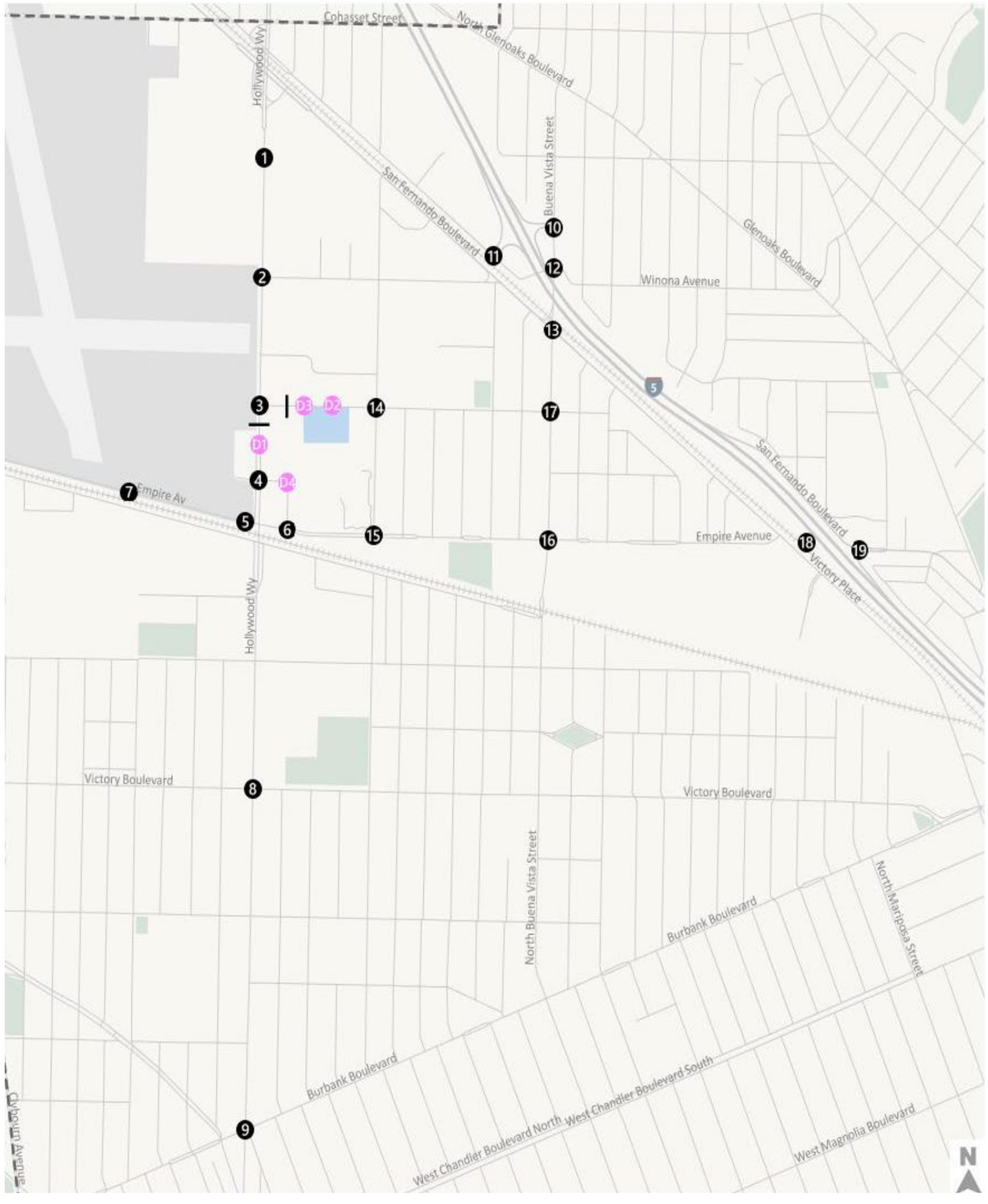
Intersections 1-19 show net incremental external trips.

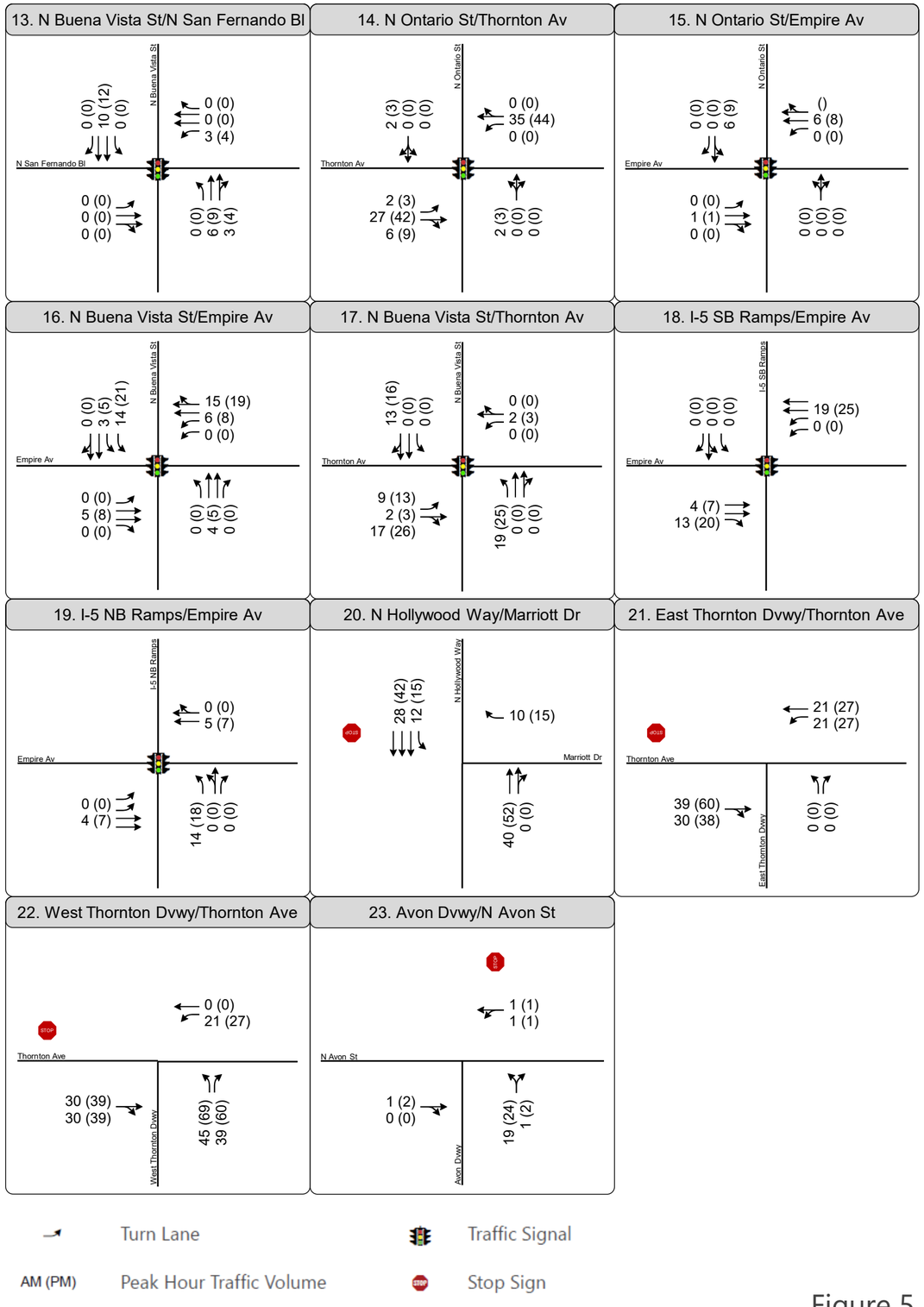
Driveways (D1-D4) show total driveway trips.

Figure 5

Traffic Volumes & Lane Configurations

Project Only





Note:

Intersections 1-19 show net incremental external trips.

Driveways (D1-D4) show total driveway trips.

Figure 5

Traffic Volumes & Lane Configurations

Project Only

Future Traffic Conditions

To evaluate the Project for Future Base (Year 2027) conditions, it was necessary to develop estimates of future traffic conditions in the area both without and with Project traffic. First, estimates of traffic growth were developed for the study area to forecast future conditions without the Project. These forecasts included traffic increases as a result of both regional ambient traffic growth and traffic generated by specific developments in the vicinity of the Project (related projects). These projected traffic volumes, identified herein as the Future Base conditions, represent the future study year conditions without the Project. The traffic generated by the Project was then estimated and assigned to the surrounding street system. The Project traffic was added to the Future Base to form the Future plus Project traffic conditions, which were analyzed to determine the incremental change in traffic delay attributable to the Project.

Future Base Traffic Projections

The Future Base traffic projections reflect growth in traffic from two primary sources: background or ambient growth in the existing traffic volumes to reflect the effects of overall regional growth both in and outside of the study area, and traffic generated by specific projects in, or in the vicinity of the study area.

Areawide Traffic Growth

The most recent City of Burbank Transportation Demand Model forecasts growth of traffic volumes of 1.0% per year in the vicinity of the study area. Future increases in background traffic volumes due to regional growth and development are expected to continue at this rate at least through the year 2027. With the assumed completion date of 2027, per the direction of City of Burbank staff, the existing 2023 traffic volumes were adjusted upward by approximately 4.1% to reflect areawide regional growth.

Future Project Traffic Generation and Assignment

The second part of background traffic growth is the traffic generated by related projects. Related projects or cumulative projects are planned developments to be completed in the same timeframe as the Project. Future projects are taken into account in terms of the extent of growth, the location of growth, and the origins/destinations of trips.

Information on future projects was provided by the City of Burbank. A total of 22 related projects that affect the study area were identified. The projects are summarized in Table 4 and their locations illustrated in Figure 6.

Trip generation estimates for each of the related Projects listed in Table 4 were provided by the City or developed using trip generation rates from *Trip Generation, 10th Edition*, (ITE, 2017), unless otherwise noted. Combined, the future Projects are estimated to generate approximately 53,904

daily weekday trips, of which 7,159 will occur during the morning peak hour and 7,434 will occur during the evening peak hour.

The geographic distribution of the traffic generated by the related projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees and potential patrons of the proposed developments are drawn, and the location of the Projects in relation to the surrounding street system. The trip generation estimates were assigned to the local street system using the trip distribution pattern described above, or taken from other traffic studies when available. Figure 7 illustrates weekday AM and PM peak hour related project traffic volumes for the analyzed intersections.

Background Shifts Due to Burbank Airport Terminal Replacement

Burbank Airport's terminal is planned to be relocated from its current location between Empire Avenue and Hollywood Way to a new location on North Hollywood Way at the current location of Airport Lot A and the employee parking lot. Background traffic shifts for this project were developed during a traffic impact study for the project EIR, dated 2020, and these shifts were incorporated into the Future Base analysis as part of this study.[1] Vehicle shifts are localized near the airport, reflecting the changing locations of the terminal, and these changes were incorporated into the related project traffic volumes in Figure 7.

Future Base Traffic Volumes

Figure 8 illustrates the Future Base year 2027 weekday AM and PM peak hour traffic volumes for the analyzed intersections. The Future Base traffic conditions represent an estimate of future conditions without the Project.

Future Base Traffic Conditions

The year 2027 Future Base peak hour traffic volumes, illustrated in Figure 8, were analyzed to determine the projected delay and LOS for each of the analyzed intersections. Table 5 summarizes the Future Base LOS for the study intersections. As indicated, one intersection is projected to operate at LOS D during the AM peak hour and LOS E during the PM peak hour. The remaining study intersections are projected to operate at LOS D or better during the morning and afternoon peak hours. The study intersection that are projected to operate at LOS E is:

8. Hollywood Way & Victory Boulevard (PM peak hour)

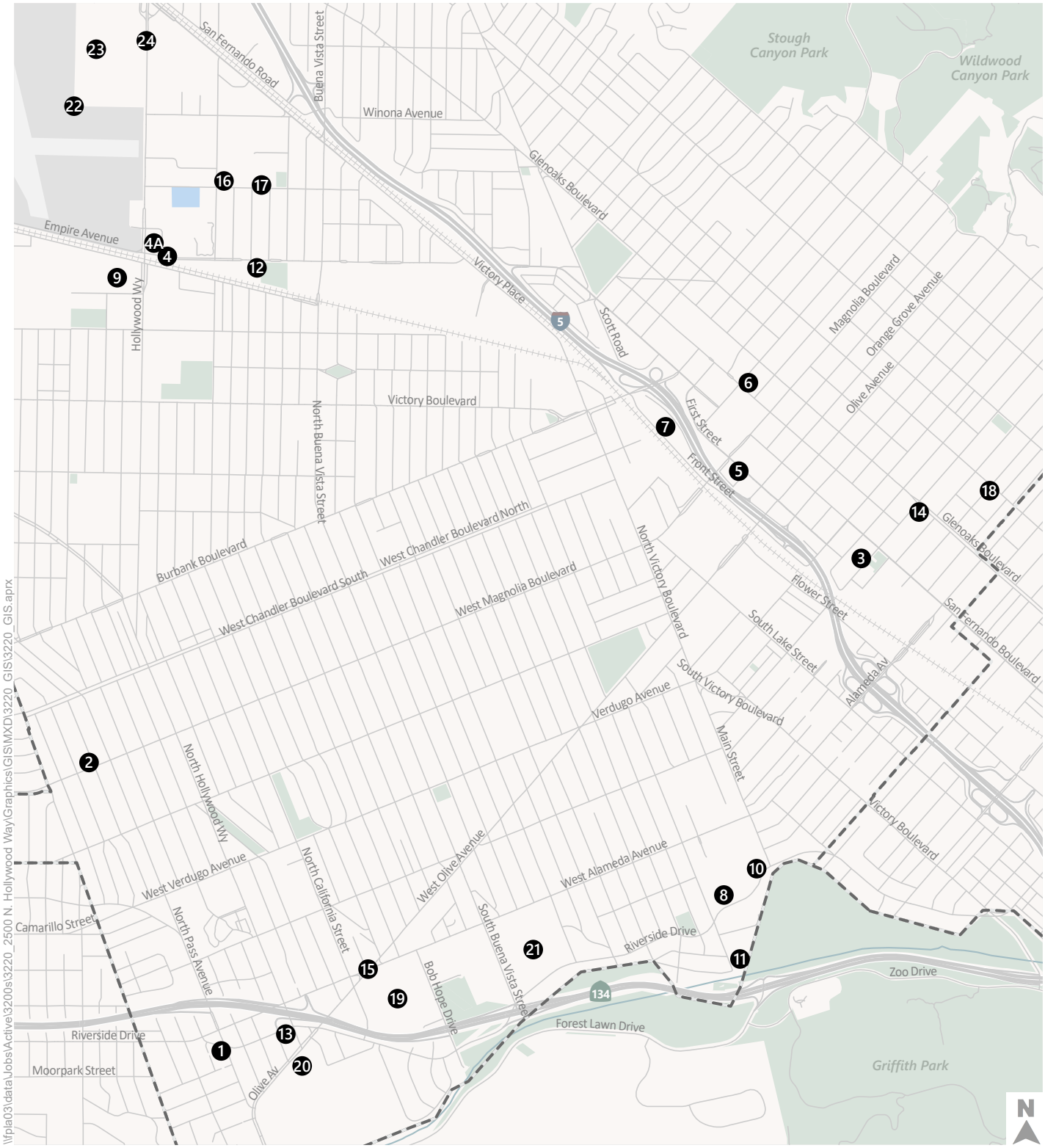
[1] Environmental Impact Report for the Proposed Replacement Passenger Terminal Project at the Bob Hope "Hollywood Burbank" Airport. August 2020. https://bobhopeairporteis.com/documents-resources-and-reports/

TABLE 4
RELATED PROJECTS [a]

#	Project Name/Address	Description/Land Use	ITE Land Use Code/Source	Size	Units	Net New Daily Trips	Net A.M. Peak Hour In	Net A.M. Peak Hour Out	Net A.M. Peak Hour Total	Net P.M. Peak Hour In	Net P.M. Peak Hour Out	Net P.M. Peak Hour Total
1	4100, 4108, 4110 W Riverside Dr.[c]	Apartments	ITE 231: Mid-Ride Res. With 1st Floor Commercial	72	DU	1,274	18	38	56	57	37	94
		Retail		17,144	SF							
		Day Care Center	ITE 565 Day Care Center	7,447	SF							
2	4201 W. Magnolia Blvd.	Day Care Center	ITE 565 Day Care Center	2,300	SF	98	20	7	27	8	7	15
3	129 E. Providencia	Hotel	ITE 312: Business Hotel	83	Rooms	214	26	18	44	22	18	40
4A	Media Studios North Original Remaining Entitlement 3401 W. Empire Avenue	General Office	ITE 710: General Office Building	73,000	SF	724	89	13	102	17	81	98
4	Media Studios North Expanded Entitlement 3377 W. Empire Avenue	General Office	ITE 710: General Office Building	87,447	SF	903	132	17	149	27	135	162
5	First Street Village	Apartments	ITE 220: Apartment	275	DU	2,079	(33)	104	71	139	24	163
	315 N. First Street (Mixed-Use)	Restaurant	ITE 932: High-Turnover (Sit-Down) Restaurant	9,265	SF							
		Retail	ITE 820: Shopping Center	12,000	SF							
6	AC Hotel 550 N. Third Street	Hotel	ITE 310: Hotel	196	Rooms	1,518	56	39	95	56	51	107
7	LaTerra	Apartments	ITE 221: Multifamily Housing (Mid-Rise)	573	DU	5,261	129	185	314	225	173	398
	777 N. Front Street (Mixed-Use)	Retail/Gallery Space	ITE 820: Shopping Center	1,067	SF							
		Hotel	ITE 310: Hotel	307	Rooms							
		Restaurant	ITE 932: High-Turnover (Sit-Down) Restaurant	1,800	SF							
8	Lycee International de Los Angeles (LILA) [d] 1105 Riverside Drive	Increase of School Enrollment from 350 to 450 Students	Custom Rate	100	Students	244	61	61	122	40	39	79
9	Fry's - Mixed Use	Retail	ITE 820: Shopping Center	9,000	SF	3,254	228	247	475	118	129	247
	2311 North Hollywood Way	General Office	ITE 710: General Office Building	151,800	SF							
10	921 to 1001 Riverside	Condominiums	ITE 220: Low Rise Residential	92	DU	(865)	-25	44	19	-4	18	14
11	910 S Mariposa	Condominiums	ITE 221: Mid Rise Residential	30	DU	(40)	5	33	38	2	4	6
12	2814 Empire	Apartments	ITE 221: Mid Rise Residential	148	DU	157	-5	6	1	9	2	11
13	3700 Riverside	Apartments	ITE 221: Mid Rise Residential	49	DU	55	2	1	3	3	5	8
14	601-607 Glenoaks	Adult Day Care	ITE 720: Medical Dental Office Bulding			217	8	5	13	8	12	20
15	Bob Hope Site 3201 W. Olive Avenue	Apartments	*ITE 221: Mid Rise Residential*	144	DU	531	11	32	43	32	21	53
16	3031 Thornton Ave	Industrial	ITE150: Warehousing	72,080	SF	159	25	13	38	16	17	33
17	2801 Thornton Ave*	Industrial	ITE151: Mini Warehouse	72,080	SF	142	9	5	14	9	5	14
18	801 S 6th St	Apartments	ITE 220: Low Rise Residential	39	DU	297	8	25	33	30	18	48
	STUDIO MASTER PLANS											
19	The Burbank Studios (formerly NBC) 3000 W. Alameda Avenue					4,005	548	75	623	99	481	579
	Second Century Project	General Office [b]	*Traffic Study Trip Generation*	563,091	OE-GSF							
	Main Studio Lot Remaining Entitlement	General Office [b]	*Traffic Study Trip Generation*	620,938	OE-GSF							
20	Warner Brothers - 4000 Warner Boulevard					19,150	2,736	373	3,110	560	2,734	3,293
	Main Campus	General Office [b]	*Traffic Study Trip Generation*	1,934,509	OE-GSF							
	Ranch	General Office [b]	*Traffic Study Trip Generation*	738,685	OE-GSF							
21	Disney - 500 S. Buena Vista Street					5,543	767	105	872	140	684	824
	Remaining Entitlement	General Office [b]	*Traffic Study Trip Generation*	681,130	OE-GSF							
	OTHER PROJECTS											
22	Burbank Bob Hope Airport Terminal Relocation	*Refer to Airport Terminal Relocation EIR for Trip Generation & Traffic Shifts*										
23	California High Speed Rail Project	*No Trip Generation Available*										
	COMPLETE PROJECTS											
24	Avion [e]	Creative Office	ITE 710: General Office Building	142,250	SF	8,984	723	174	897	286	842	1,128
	3001 N. Hollywood Way	Restaurant	ITE 932: High-Turnover (Sit-Down) Restaurant	7,740	SF							
		Retail	ITE 820: Shopping Center	7,740	SF							
		Industrial Park	ITE 130: Industrial Park	1,014,890	SF							
		Hotel	ITE 310: Hotel	166	Rooms							

Notes:

[a] Project list and trip generation were provided by City of Burbank as of 8/2/2024. Project Trip Generation was derived from preliminary trip generation or the traffic study. Trip numbers account for any/all credits (i.e, transit/bike/walk/pass-by) that have been attributed to the project.
[b] OE-GSF.
[c] Trip Generation not yet finalized.
[d] Open, but not fully occupied. Factor down by occupancy rate.
[e] This project is included because it was completed in 2024, after the baseline year of 2023.



Project Site

Related Projects

Figure 6

Related Projects



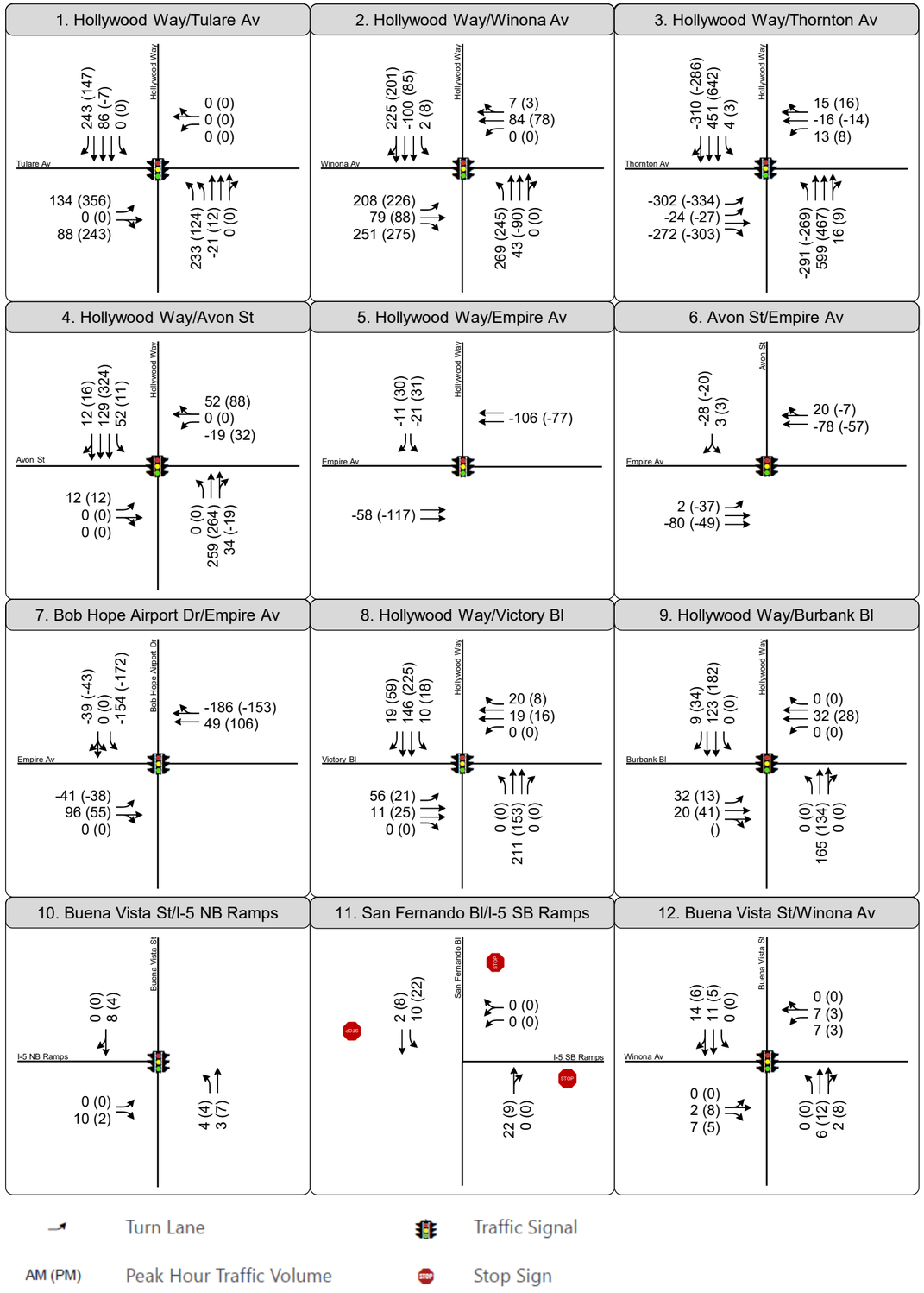
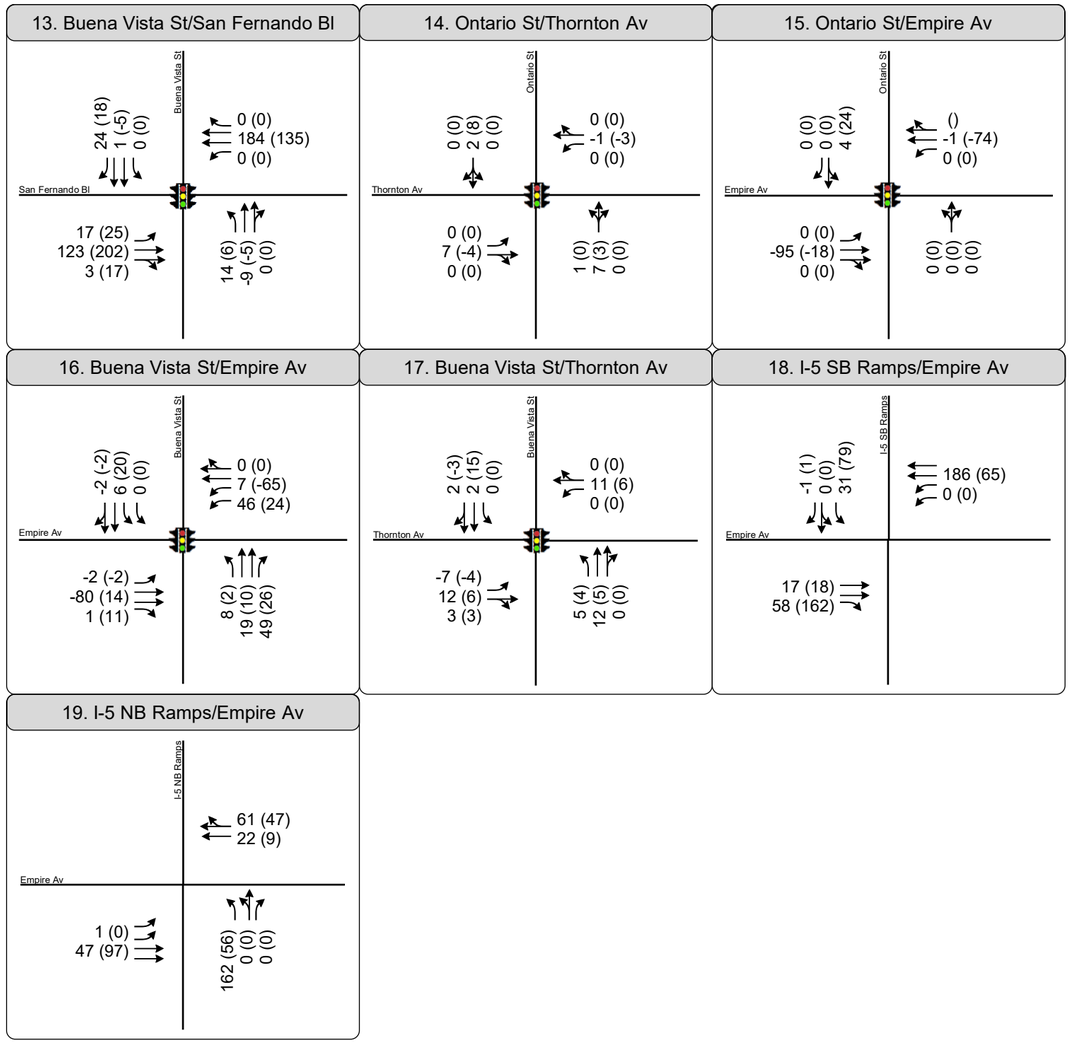


Figure 7
Traffic Volumes & Lane Configurations
Related Projects





Turn Lane

AM (PM) Peak Hour Traffic Volume

Traffic Signal

Stop Sign

Figure 7
Traffic Volumes & Lane Configurations
Related Projects



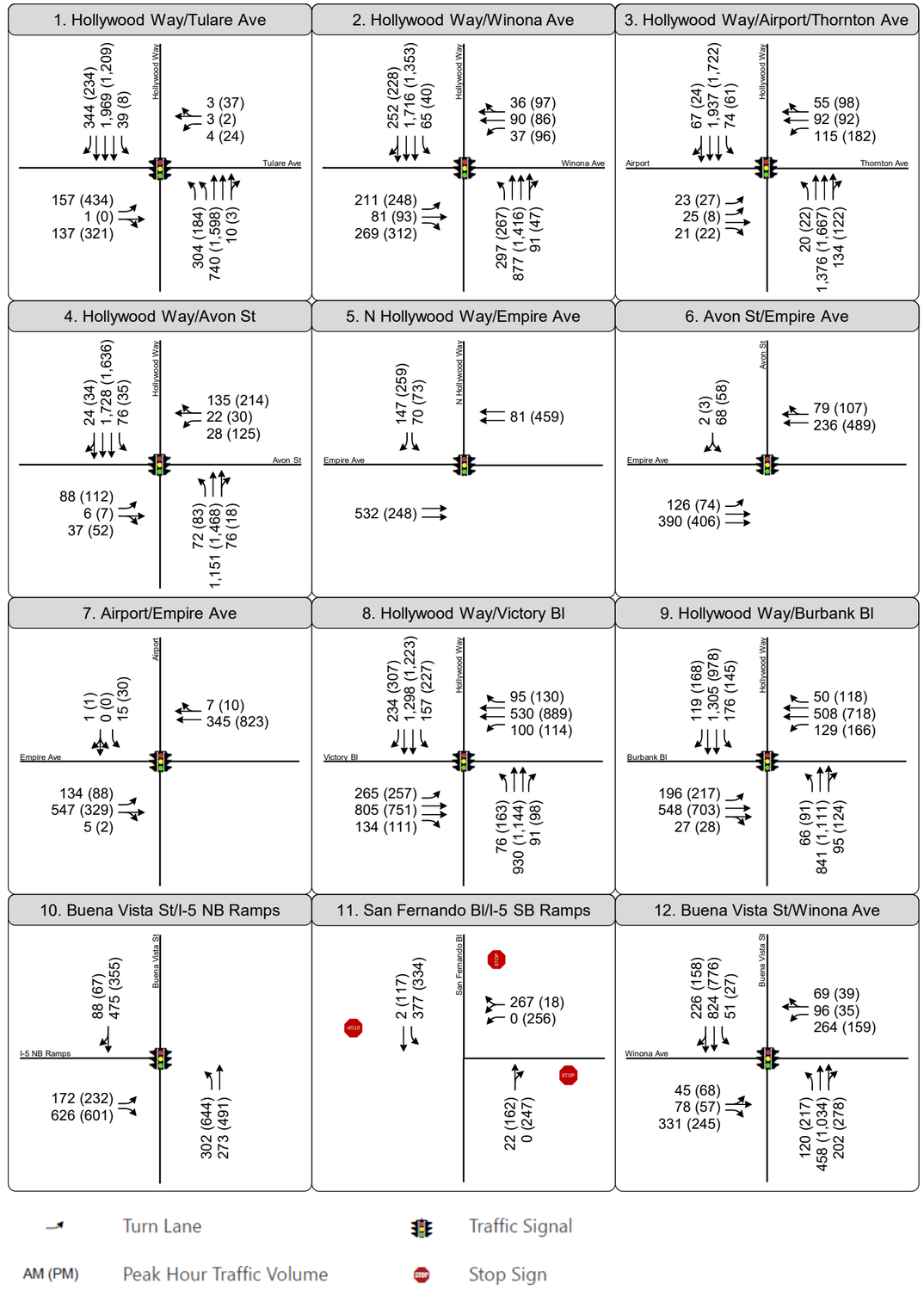
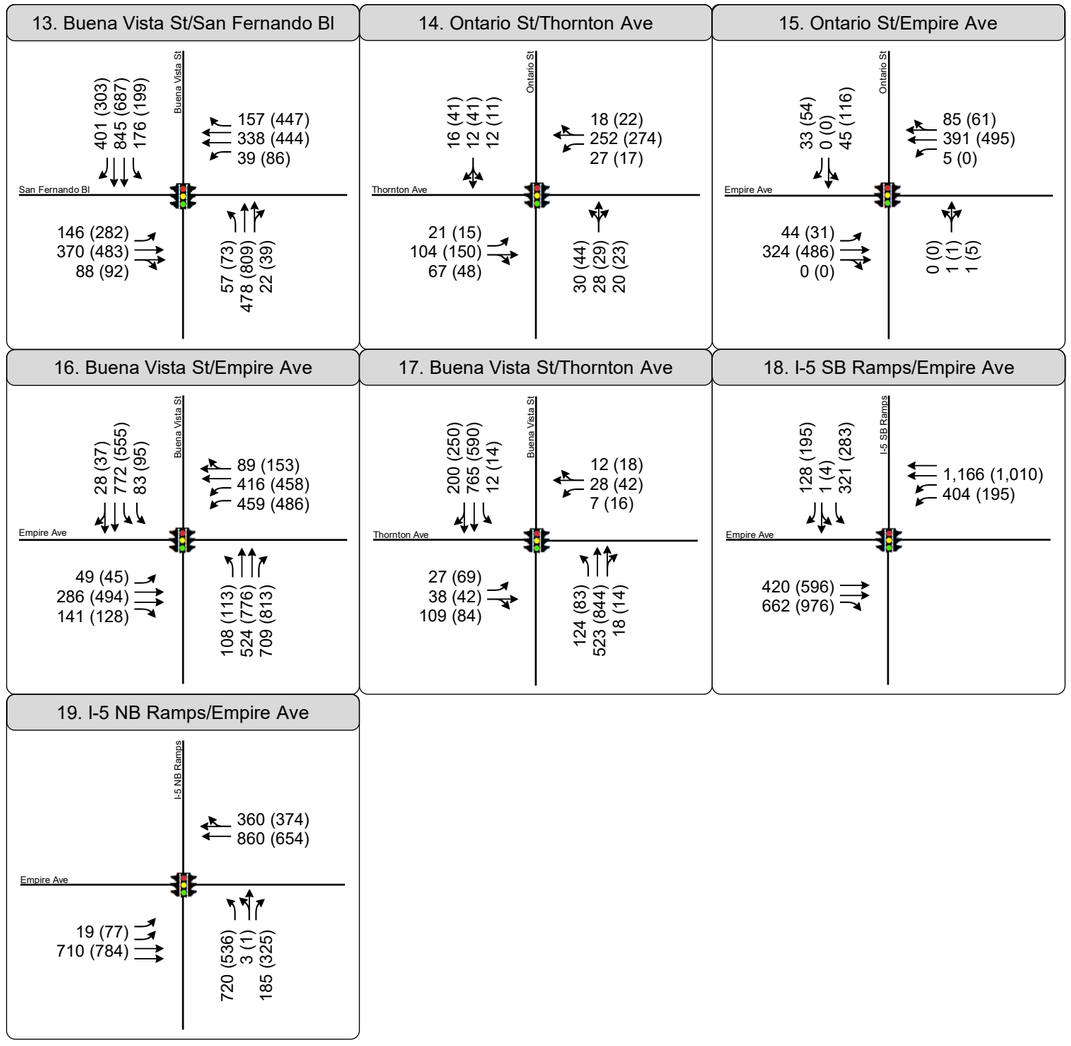


Figure 8
Traffic Volumes & Lane Configurations
Future Base (2027) Peak Hour





Turn Lane

Traffic Signal

AM (PM) Peak Hour Traffic Volume

Stop Sign

Figure 8
Traffic Volumes & Lane Configurations
Future Base (2027) Peak Hour

TABLE 5
FUTURE (2027) LEVEL OF SERVICE ANALYSIS

#	Study Intersection	Intersection Control	Peak Hour	2025 Baseline Delay (sec)	2025 Baseline LOS
1	Hollywood Way & Tulare Ave	Signalized	AM	20.2	C
			PM	27.6	C
2	Hollywood Way & Winona Ave	Signalized	AM	13.3	B
			PM	12.4	B
3	Hollywood Way & Airport/Thornton Ave	Signalized	AM	5.3	A
			PM	7.9	A
4	Hollywood Way & Avon St	Signalized	AM	18.5	B
			PM	21.8	C
5	Empire Ave & N Hollywood Way	Signalized	AM	4.4	A
			PM	5.5	A
6	Empire Ave & Avon St	Signalized	AM	1.1	A
			PM	1.5	A
7	Empire Ave & Airport	Signalized	AM	4.7	A
			PM	2.3	A
8	Hollywood Way & Victory Bl	Signalized	AM	54.0	D
			PM	59.1	E
9	Hollywood Way & Burbank Bl	Signalized	AM	41.5	D
			PM	51.7	D
10	Buena Vista St & I-5 NB Ramps	Signalized	AM	15.2	B
			PM	20.1	C
11	San Fernando & I-5 SB Ramps	AWSC	AM	20.2	C
			PM	22.7	C
12	Buena Vista St & Winona Ave	Signalized	AM	34.3	C
			PM	22.3	C
13	Buena Vista St & San Fernando Bl	Signalized	AM	24.0	C
			PM	37.1	D
14	Ontario St & Thornton Ave	Signalized	AM	7.4	A
			PM	6.1	A
15	Empire Ave & Ontario St	Signalized	AM	5.4	A
			PM	8.0	A
16	Buena Vista St & Empire Ave	Signalized	AM	28.6	C
			PM	36.3	D
17	Buena Vista St & Thornton Ave	Signalized	AM	5.9	A
			PM	7.5	A
18	I-5 SB Ramps & Empire Ave	Signalized	AM	17.2	B
			PM	16.4	B
19	I-5 NB Ramps & Empire Ave	Signalized	AM	24.1	C
			PM	22.6	C

Notes:
AWSC = All-way Stop-Controlled Intersection

Future plus Project Traffic Conditions

The project-generated traffic volumes from Figure 5 were added to the year 2027 Future Base traffic volumes, illustrated in Figure 8, to develop Future plus Project peak hour traffic volumes. Future plus Project traffic volumes during the weekday AM and PM peak hours are shown in Figure 9.

The resulting Future plus Project peak hour traffic volumes, illustrated in Figure 9, were analyzed to determine the projected future operating conditions with the addition of the Project traffic. Table 6 summarizes the Future plus Project LOS for the study intersections. As indicated, one intersection is projected to operate at LOS D during the AM peak hour and LOS E during the PM peak hour. The remaining study intersections are projected to operate at LOS D or better during the morning and afternoon peak hours. The study intersection that are projected to operate at LOS E is:

8. Hollywood Way & Victory Boulevard (PM peak hour)

Table 6 shows the future LOS without and with the project, and also shows the increase in delay caused by the project at each location.

Roadway Segments

Two roadway segments along the Project frontage were studied to assess the increase in ADT with the Project. New roadway segment counts collected in October 2024 were used for this analysis. The Project adds 1,648 and 1,942 daily trips on N Hollywood Way and on Thornton Avenue, respectively.

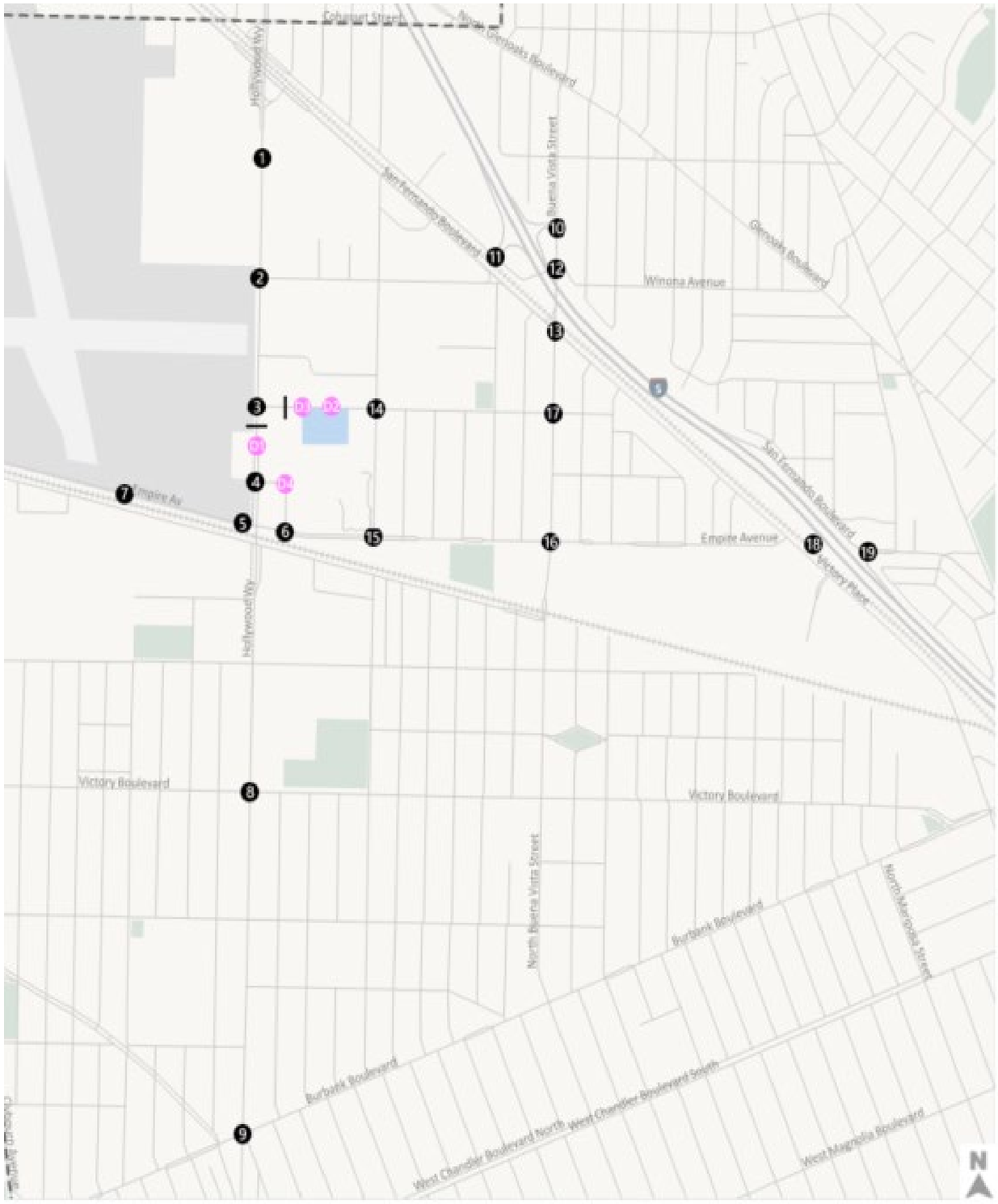
Table 7 provides the baseline (2024), Future Base (2027), and Future with Project volumes on the study roadway segments.

Driveway Analysis

Vehicular access to the Project Site would occur from the existing Marriott Driveway on N Hollywood Way (D1), one replaced driveway on Thornton Avenue (D2), one new driveway on Thornton Avenue (D3), and one existing driveway on Avon Street which would only serve delivery vehicles (D4).

Table 8 provides the anticipated levels of service at the proposed driveways that serve the Project. All driveways are projected to operate at LOS D or better. Table 9 provides the anticipated 95th percentile queue lengths at the proposed driveways. The queue lengths would not exceed the available queue storage and would not back up onto City streets.

LOS worksheets for driveways are provided in Appendix B.



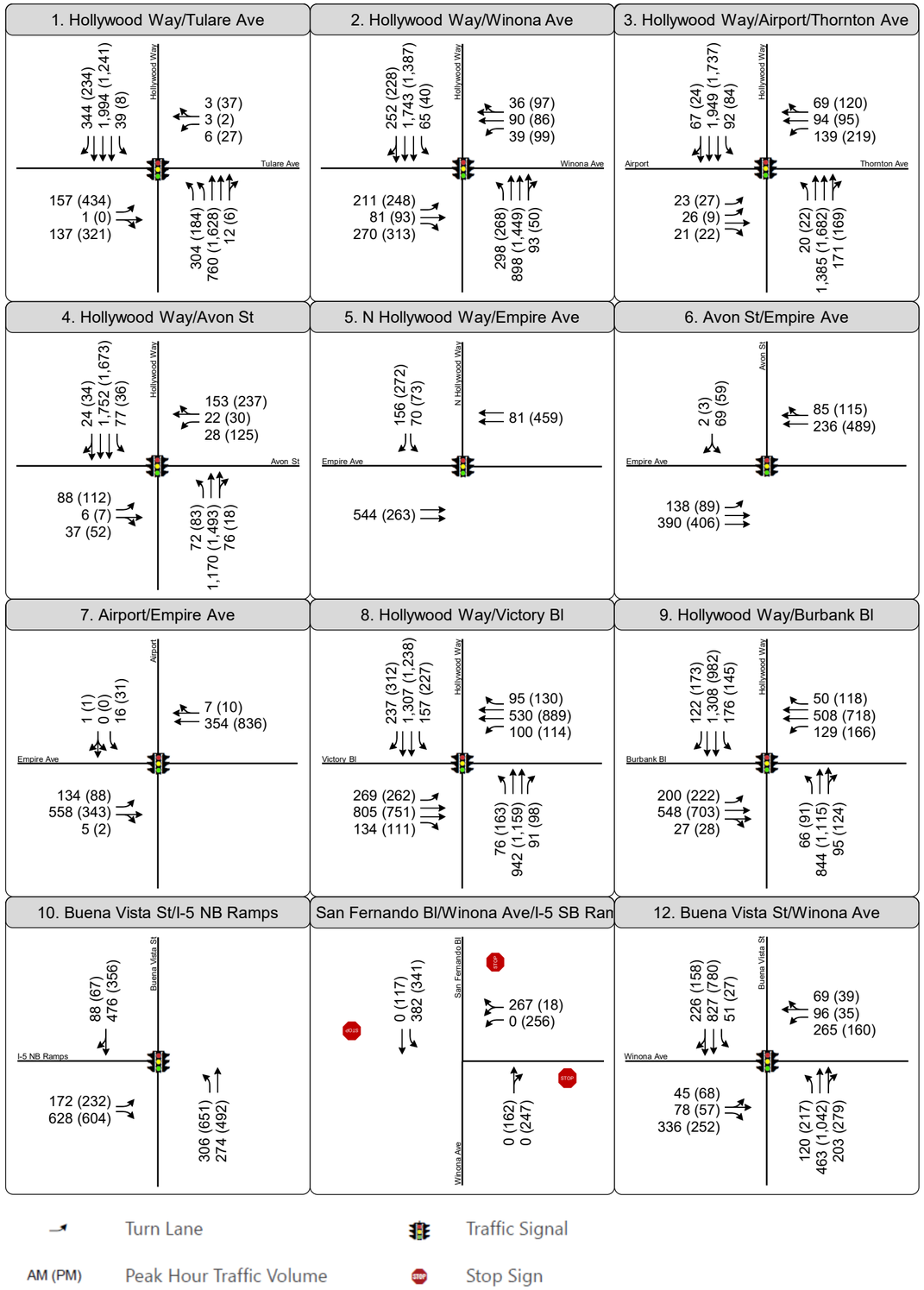
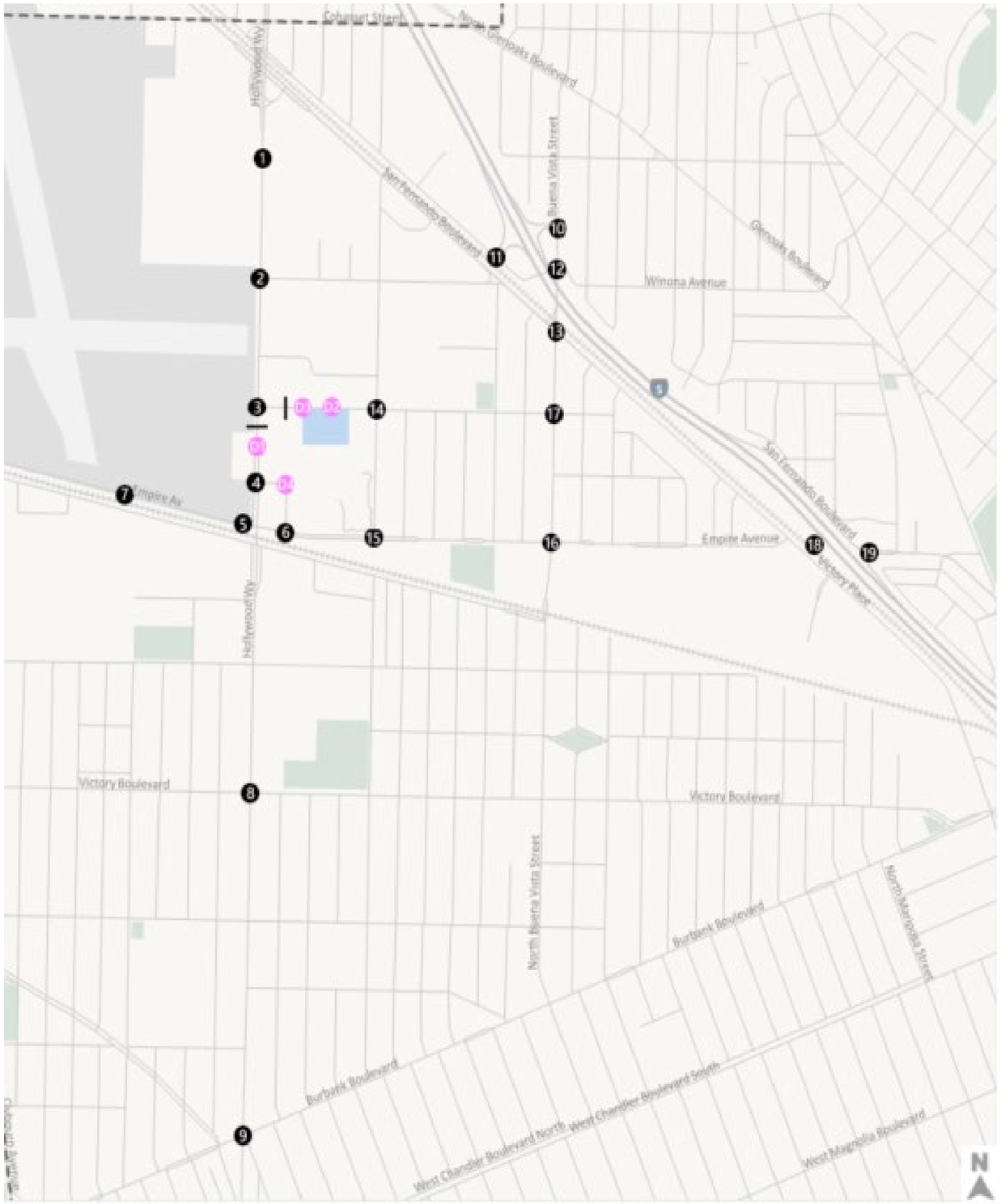


Figure 9
Traffic Volumes & Lane Configurations
Future (2027) Plus Project



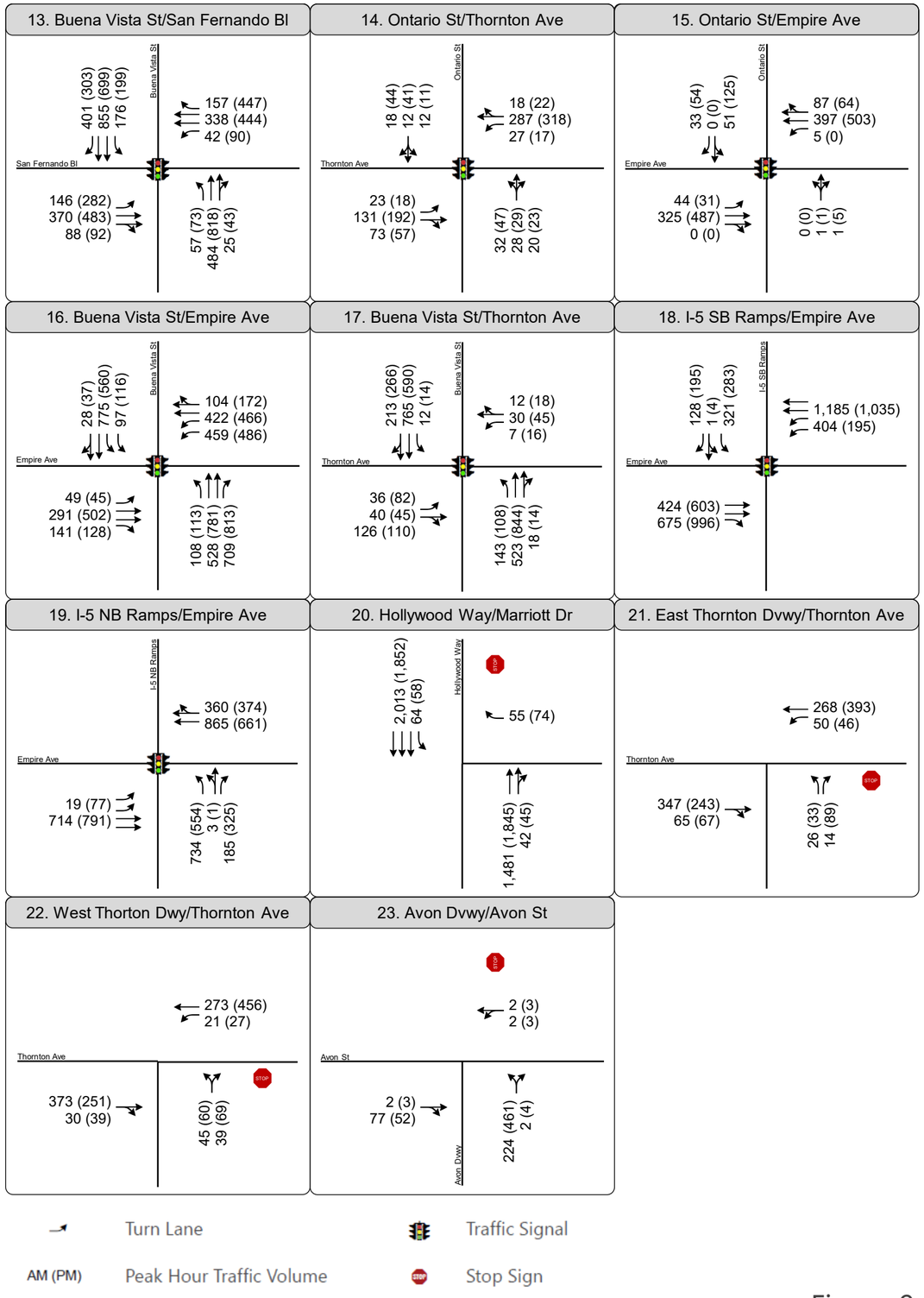


Figure 9
Traffic Volumes & Lane Configurations
Future (2027) Plus Project

TABLE 6
FUTURE PLUS PROJECT LEVEL OF SERVICE ANALYSIS

#	Study Intersection	Intersection Control	Peak Hour	2027 Baseline		2027 with Project		Change in Delay (sec)
				Delay (sec)	LOS	Delay (sec)	LOS	
1	Hollywood Way & Tulare Ave	Signalized	AM	20.2	C	20.1	C	-0.1
			PM	27.6	C	27.5	C	-0.1
2	Hollywood Way & Winona Ave	Signalized	AM	13.3	B	13.4	B	0.1
			PM	12.4	B	12.3	B	-0.1
3	Hollywood Way & Airport/Thornton Ave	Signalized	AM	5.3	A	6.1	A	0.8
			PM	7.9	A	10.4	B	2.5
4	Hollywood Way & Avon St	Signalized	AM	18.5	B	19.6	B	1.1
			PM	21.8	C	23.3	C	1.5
5	Empire Ave & N Hollywood Way	Signalized	AM	4.4	A	4.4	A	0.0
			PM	5.5	A	5.4	A	-0.1
6	Empire Ave & Avon St	Signalized	AM	1.1	A	1.1	A	0.0
			PM	1.5	A	1.6	A	0.1
7	Empire Ave & Airport	Signalized	AM	4.7	A	4.8	A	0.1
			PM	2.3	A	2.3	A	0.0
8	Hollywood Way & Victory Bl	Signalized	AM	54.0	D	54.8	D	0.8
			PM	59.1	E	62.1	E	3.0
9	Hollywood Way & Burbank Bl	Signalized	AM	41.5	D	41.6	D	0.1
			PM	51.7	D	52.3	D	0.6
10	Buena Vista St & I-5 NB Ramps	Signalized	AM	15.2	B	15.2	B	0.0
			PM	20.1	C	20.7	C	0.6
11	San Fernando & I-5 SB Ramps	AWSC	AM	20.2	C	20.4	C	0.2
			PM	22.7	C	23.5	C	0.8
12	Buena Vista St & Winona Ave	Signalized	AM	34.3	C	35.0	C	0.7
			PM	22.3	C	22.4	C	0.1
13	Buena Vista St & San Fernando Bl	Signalized	AM	24.0	C	24.2	C	0.2
			PM	37.1	D	37.6	D	0.5
14	Ontario St & Thornton Ave	Signalized	AM	7.4	A	6.3	A	-1.1
			PM	6.1	A	5.6	A	-0.5
15	Empire Ave & Ontario St	Signalized	AM	5.4	A	5.8	A	0.4
			PM	8.0	A	8.4	A	0.4
16	Buena Vista St & Empire Ave	Signalized	AM	28.6	C	29.0	C	0.4
			PM	36.3	D	37.2	D	0.9
17	Buena Vista St & Thornton Ave	Signalized	AM	5.9	A	7.0	A	1.1
			PM	7.5	A	8.7	A	1.2
18	I-5 SB Ramps & Empire Ave	Signalized	AM	17.2	B	17.1	B	-0.1
			PM	16.4	B	16.5	B	0.1
19	I-5 NB Ramps & Empire Ave	Signalized	AM	24.1	C	24.5	C	0.4
			PM	22.6	C	22.9	C	0.3

Notes:
AWSC = All-way Stop-Controlled Intersection

TABLE 7
STUDY ROADWAY SEGMENT VOLUMES

Street Segment	Weekday Two-Way Daily Volume		With Project Analysis	
	Baseline (2024)	Future (2027) Base [a]	Project Trips	Future plus Project
N Hollywood Way between Thornton Ave and Marriott Dr	33,011	48,183	1,648	49,831
Thornton Avenue between N Hollywood Way and N Ontario St	7,335	9,617	1,942	11,559

Notes:

[a] The future base volumes were developed by applying a growth rate of 1.0% per year to the baseline volumes, which is derived from the most recent City of Burbank transportation demand model, and taking into account trips generated by related projects.

TABLE 8
DRIVEWAY LEVEL OF SERVICE

#	Driveway	Intersection Control	Peak Hour	Future (2027) + Project	
				Delay (sec)	LOS
D1	Hollywood Way & Marriott Dr	TWSC	AM	19.3	C
			PM	28.9	D
D2	East Thornton Dvwy & Thornton Ave	TWSC	AM	17.0	C
			PM	17.5	C
D3	West Thornton Dvwy & Thornton Ave	TWSC	AM	15.0	C
			PM	16.2	C
D4	Avon Dvwy & N Avon St	TWSC	AM	10.1	B
			PM	12.2	B

Notes:

TWSC = Two-way Stop-Controlled Intersection

TABLE 9
DRIVEWAY QUEUEING

#	Driveway	Movement	Peak Hour	Future (2027) + Project 95th Percentile Queue Length (ft)
D1	Hollywood Way & Marriott Dr	WBR (Outbound)	AM	25
			PM	50
		SBL (Inbound)	AM	25
			PM	25
D2	East Thornton Dvwy & Thornton Ave	NBL/NBR (Outbound)	AM	25
			PM	25
		WBL (Inbound)	AM	25
			PM	25
D3	West Thornton Dvwy & Thornton Ave	NBL/NBR (Outbound)	AM	25
			PM	50
		WBL (Inbound)	AM	25
			PM	25
D4	Avon Dvwy & N Avon St	EBT (Inbound)	AM	0
			PM	0
		WBT/WBL (Outbound)	AM	0
			PM	0

Notes:
TWSC = Two-way Stop-Controlled Intersection

Operational Analysis Findings

The purpose of the operational analysis is to determine if the vehicle trips generated by the Project would substantially increase delay that would result in an operational deficiency on the City road network or be incompatible with the City's Burbank2035 General Plan.

The results of the intersection analysis conclude that the project would result in minor increases in delay at some study locations, which would not be perceptible to most drivers. Additionally, the Project would not worsen any location operating at LOS D or better (for example, increasing LOS D to LOS E or F). Given that the vehicle trips generated by the Project would not appreciably increase delay at the study intersections, the Project would not result in an operational deficiency or be incompatible with the Burbank2035 General Plan.

The results of the driveway analysis show that the project would not increase delay at any project driveway that would exceed the City's LOS D standard. In addition, the configuration and access control of these driveways would not result in vehicle queuing that would interfere with the flow of traffic on the City's roadway network.

Summary and Conclusions

The following summarizes the results of this analysis:

- The Project as analyzed in this study involves the following land uses:
    - A seven-story hotel building with a total of 420 rooms, to be operated by Aloft Hotels (219 rooms) and Residence Inn (201 rooms). The hotel would also include amenities such as a restaurant, a lounge, cafes, meeting rooms, a fitness center, and a rooftop amenity deck.
    - The Project would include 673 vehicle parking spaces in a new 4-story detached parking structure in the eastern portion of the Project Site. A surface parking area would provide 250 additional vehicular parking spaces.
- This Project proposes four vehicle access driveways, as summarized below:
    - The existing Marriott driveway on N Hollywood Way connects to an east-west access drive that leads to the porte cochere in front of the hotel for pick-up and drop-off activity.
    - Two new driveways on Thornton Avenue (one of which would replace an existing driveway) connect to a porte cochere along the north side of the proposed hotel, which will have valet pickup and drop off that serves as the only access to the parking garage for guests.
    - The existing driveway on Avon Street will serve delivery vehicles only.

- The operations analysis included analysis of 19 intersections, of which one intersection an all-way stop-controlled intersection and the rest are signalized intersections. The HCM methodology was used for signalized and unsignalized intersections.
- The Project is projected to generate an estimated net increase of 193 external vehicle trips (108 inbound/85 outbound) during the AM peak hour and 269 external vehicle trips (137 inbound/132 outbound) during the PM peak hour.
- In Baseline (2023) conditions, all study intersections operate at LOS D or better.
- In Future (2027) Base conditions, one intersection is projected to operate at LOS D in the AM peak hour and LOS E in the PM peak hour. The remaining 18 intersections are projected to operate at LOS D or better.
- In Future plus Project conditions, the same intersection is projected to operate at LOS D in the AM peak hour and LOS E in the PM peak hour. The remaining 18 intersections are projected to operate at LOS D or better.
- The Project would not add additional delay at any study intersection that would be perceptible to most drivers. The Project would not worsen any location operating at LOS D or better (e.g., increasing LOS D to LOS E or F).
- The driveway analysis shows that the project would not cause delay at any project driveway that would exceed the City's LOS D standard, showing that the addition of project traffic into and out of the site would not affect the City's roadway network. Also, the configuration and access control of these driveways would not cause vehicle queuing that would affect the flow of traffic on the City's roadway network.

Appendix A: Traffic Counts

Prepared by National Data & Surveying Services

N Hollywood Way & Tulare Ave

Peak Hour Turning Movement Count

ID: 23-020436-003
City: Burbank

Day: Thursday
Date: 11/9/2023

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 4:30 PM - 07:30 PM

SOUTHBOUND (N Hollywood Way)

AM	97	1810	36	1	756	AM
NOON	0	0	0	0	0	NOON
PM	84	1169	5	3	1638	PM
	1	3	1	0		

EASTBOUND (Tulare Ave)

AM	NOON	PM	
169	0	144	
1	0	0	0
21	0	75	1
1	0	0	1
47	0	75	0
AM	NOON	PM	

WESTBOUND (Tulare Ave)

PM	NOON	AM	
36	0	3	0
2	0	3	1
23	0	4	1
0	0	0	0
8	0	47	
PM	NOON	AM	

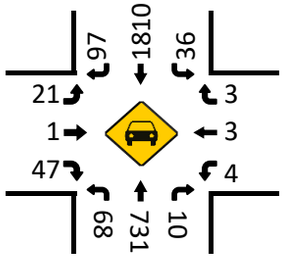
CONTROL: Signalized

TEV	2833	0	3057
	AM	NOON	PM
PHF	0.99		0.89

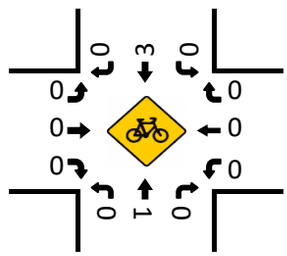
NORTHBOUND (N Hollywood Way)

	0	2	3	0	
PM	1267	0	58	1524	3	PM
NOON	0	0	0	0	0	NOON
AM	1861	0	68	731	10	AM

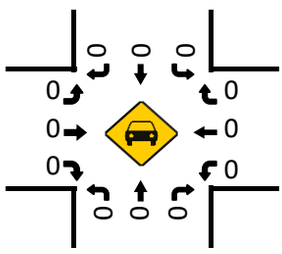
Totals (AM)



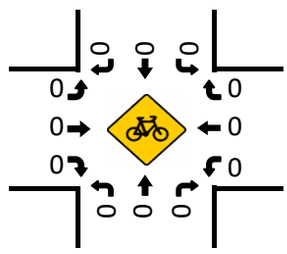
Total Bikes (AM)



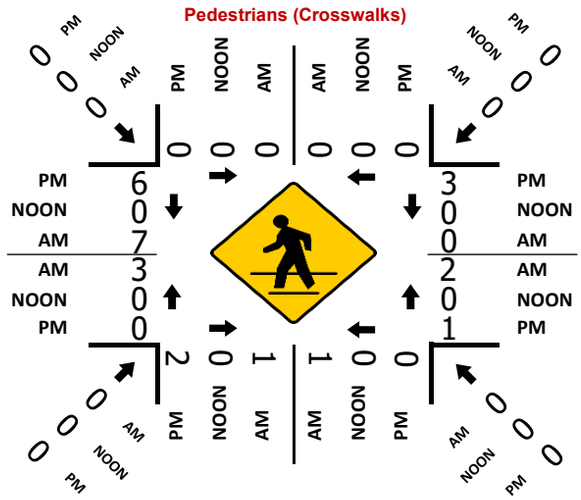
Totals (NOON)



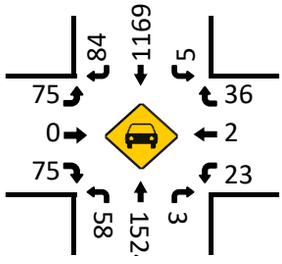
Total Bikes (NOON)



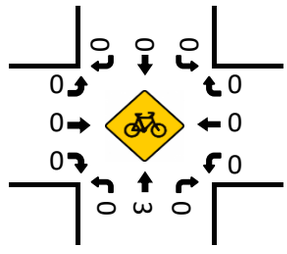
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Hollywood Way & Winona Ave

Peak Hour Turning Movement Count

ID: 23-020436-004
City: Burbank

Day: Thursday
Date: 11/9/2023

PEAK HOURS

AM: 08:00 AM - 09:00 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 4:30 PM - 07:30 PM

SOUTHBOUND (N Hollywood Way)

AM	26	1745	61	0	832	AM
NOON	0	0	0	0	0	NOON
PM	26	1219	31	0	1558	PM
	0	3	1	0		

EASTBOUND (Winona Ave)

AM	NOON	PM	
57	0	54	
0	0	0	0
3	0	21	1
2	0	5	1
17	0	36	1
AM	NOON	PM	

WESTBOUND (Winona Ave)

PM	NOON	AM	
90	0	28	0
8	0	6	2
92	0	36	1
0	0	0	0
81	0	150	
PM	NOON	AM	

CONTROL

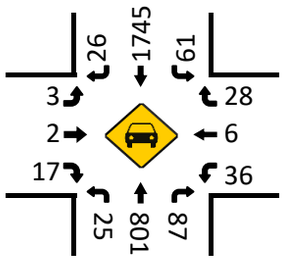
Signalized

TEV	2839	0	3041
	AM	NOON	PM
PHF	0.97		0.94

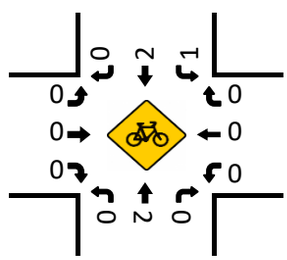
NORTHBOUND (N Hollywood Way)

	0	1	3	0	
PM	1348	1	20	1447	45	PM
NOON	0	0	0	0	0	NOON
AM	1800	2	25	801	87	AM

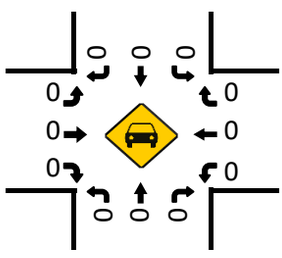
Totals (AM)



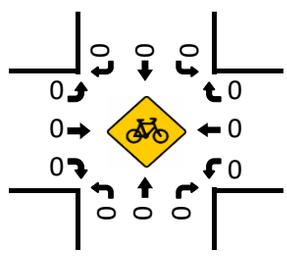
Total Bikes (AM)



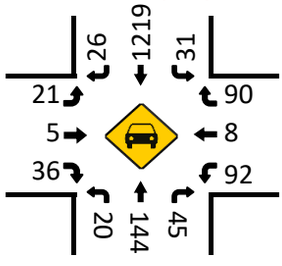
Totals (NOON)



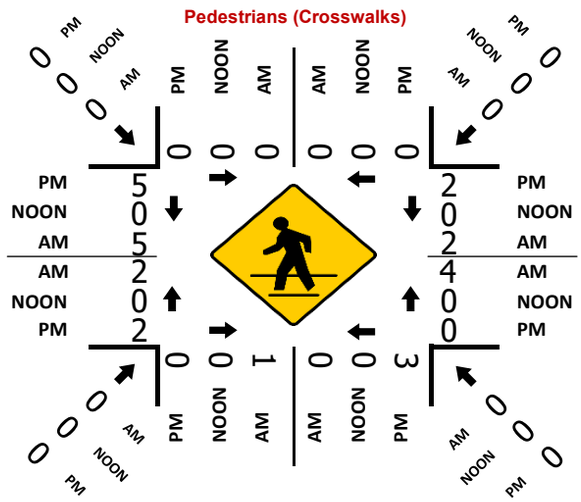
Total Bikes (NOON)



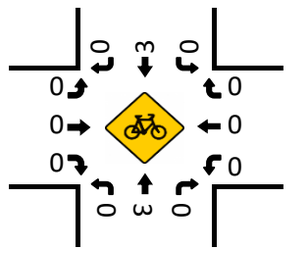
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Hollywood Way & Airport/Thornton Ave

Peak Hour Turning Movement Count

ID: 23-020436-005
City: Burbank

Day: Thursday
Date: 11/9/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	4:30 PM - 07:30 PM

SOUTHBOUND (N Hollywood Way)

AM	278	1428	67	0	928	AM
NOON	0	0	0	0	0	NOON
PM	273	1038	56	0	1534	PM
	0	3	1	0		

EASTBOUND (Airport/Thornton Ave)

AM	NOON	PM		
551	0	631		
0	0	0	0	
143	0	302	2	
22	0	36	1	
155	0	170	1	
AM	NOON	PM		

WESTBOUND (Airport/Thornton Ave)

	PM	NOON	AM
0.5	79	0	38
1.5	161	0	123
1	167	0	98
0	0	0	0
	201	0	202
	PM	NOON	AM

CONTROL

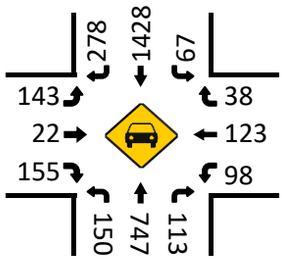
Signalized

TEV	3369 AM	0 NOON	3752 PM
PHF	0.94		0.95

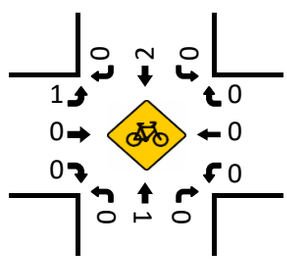
NORTHBOUND (N Hollywood Way)

	0	1	3	0	
PM	1386	11	197	1153	109	PM
NOON	0	0	0	0	0	NOON
AM	1688	7	150	747	113	AM

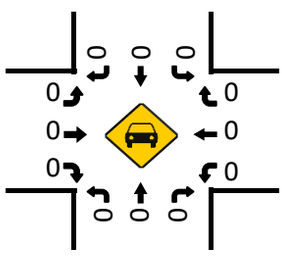
Totals (AM)



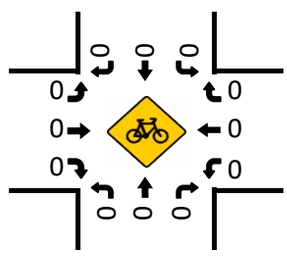
Total Bikes (AM)



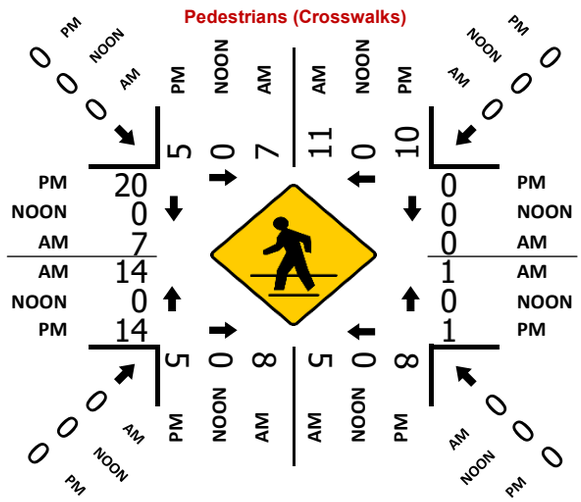
Totals (NOON)



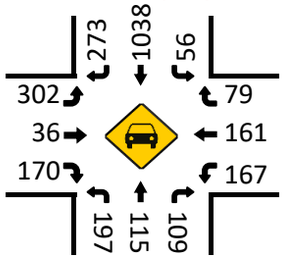
Total Bikes (NOON)



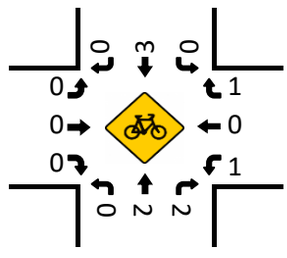
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Hollywood Way & N Avon St

Peak Hour Turning Movement Count

ID: 23-020436-006
City: Burbank

Day: Thursday
Date: 11/9/2023

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	4:30 PM - 07:30 PM

SOUTHBOUND (N Hollywood Way)

AM	12	1353	23	0	1010	AM
NOON	0	0	0	0	0	NOON
PM	17	1048	23	0	1374	PM
	0.5	2.5	1	0		

EASTBOUND (N Avon St)

AM	NOON	PM	
101	0	121	
0	0	0	0
73	0	96	1
6	0	7	0.5
23	0	27	0.5
AM	NOON	PM	

WESTBOUND (N Avon St)

	PM	NOON	AM
0.5	121	0	80
0.5	29	0	21
1	89	0	45
0	0	0	0
	66	0	69
	PM	NOON	AM

CONTROL

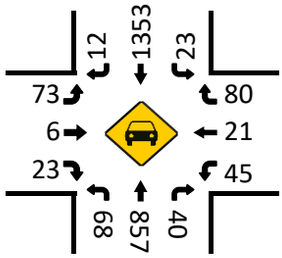
Signalized

TEV	2601 AM	0 NOON	2725 PM
PHF	0.96		0.96

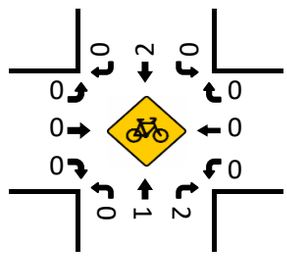
NORTHBOUND (N Hollywood Way)

PM	1164	0	75	1157	36	PM
NOON	0	0	0	0	0	NOON
AM	1421	0	68	857	40	AM
		0	1	2	0	

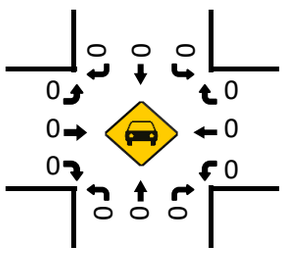
Totals (AM)



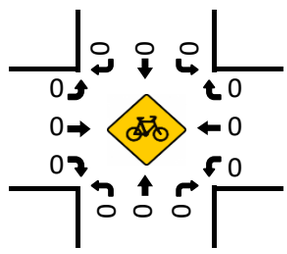
Total Bikes (AM)



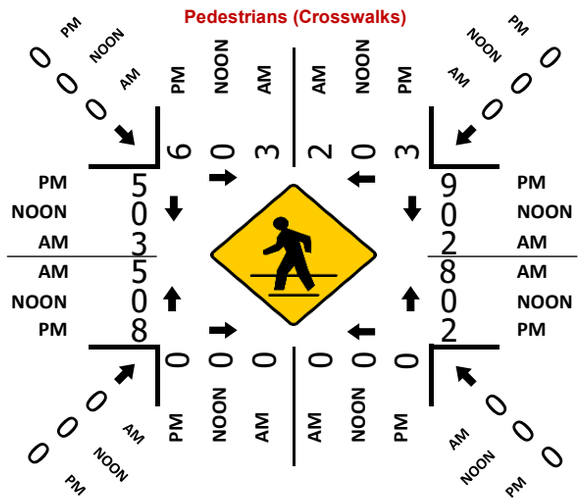
Totals (NOON)



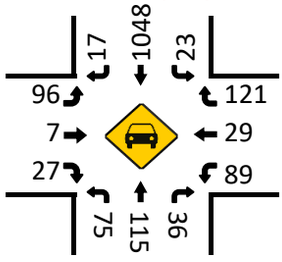
Total Bikes (NOON)



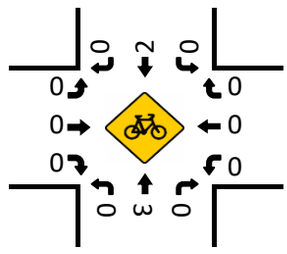
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Hollywood Way & W Empire Ave

Peak Hour Turning Movement Count

ID: 19-05223-005
City: Burbank

Day: Tuesday
Date: 04/23/2019

PEAK HOURS

AM	08:30 AM - 09:30 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 10:00 AM
NOON	NONE
PM	04:30 PM - 07:30 PM

N Hollywood Way — SOUTHBOUND

AM	132	0	78	0	0	AM
NOON	0	0	0	0	0	NOON
PM	216	0	37	0	0	PM

W Empire Ave — EASTBOUND

AM	NOON	PM	
302	0	751	
0	0	0	0
0	0	0	0
605	0	325	2
0	0	0	0
AM	NOON	PM	

W Empire Ave — WESTBOUND

PM	NOON	AM	
0	0	0	0
535	0	170	2
0	0	0	0
0	0	0	0
362	0	683	
PM	NOON	AM	

N Hollywood Way — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

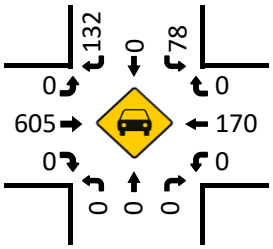
CONTROL: Signalized

TEV	985	0	1113
	AM	NOON	PM
PHF	0.84		0.89

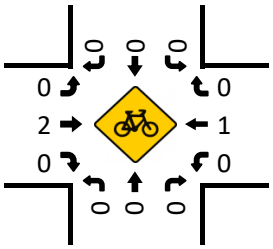
1 1 0 0

0 0 0 0

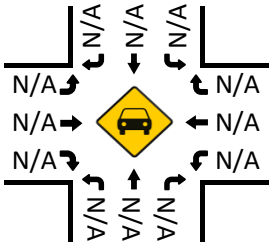
Total Vehicles (AM)



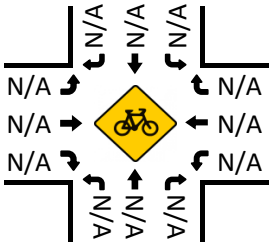
Bikes (AM)



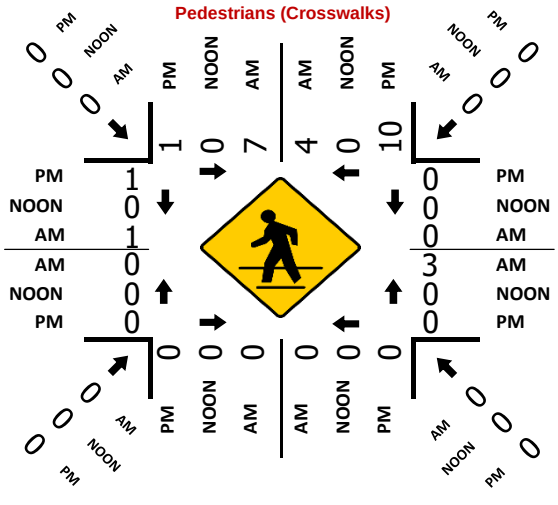
Total Vehicles (Noon)



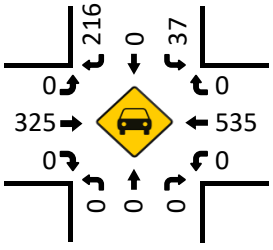
Bikes (NOON)



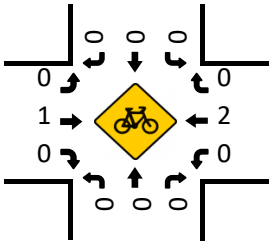
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

N Hollywood Way & W Empire Ave

Peak Hour Turning Movement Count

ID: 19-05223-005
City: Burbank

Day: Wednesday
Date: 04/24/2019

PEAK HOURS

AM	08:30 AM - 09:30 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 10:00 AM
NOON	NONE
PM	04:30 PM - 07:30 PM

N Hollywood Way — SOUTHBOUND

AM	154	0	100	0	0	AM
NOON	0	0	0	0	0	NOON
PM	224	0	41	0	0	PM

W Empire Ave — EASTBOUND

AM	NOON	PM		
335	0	733	⇦	
1	0	0	↶	0
0	0	0	↱	0
559	0	346	→	2
0	0	0	↷	0
AM	NOON	PM		

W Empire Ave — WESTBOUND

PM	NOON	AM		
0	0	0	↶	0
509	0	180	←	2
0	0	0	↰	0
0	0	0	↩	0
387	0	659	⇨	
PM	NOON	AM		

N Hollywood Way — NORTHBOUND

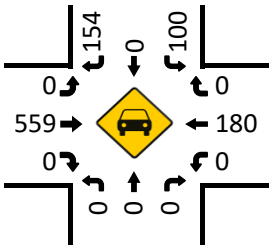
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

	1	1	0	0
	0	0	0	0

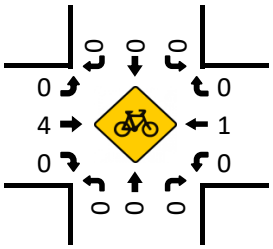
CONTROL: Signalized

TEV	994	0	1120
	AM	NOON	PM
PHF	0.90		0.93

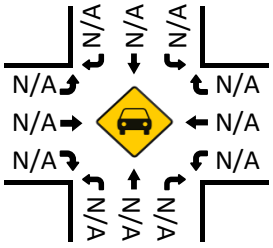
Total Vehicles (AM)



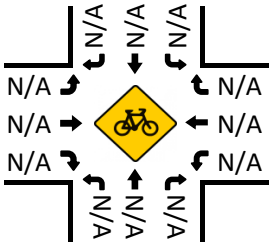
Bikes (AM)



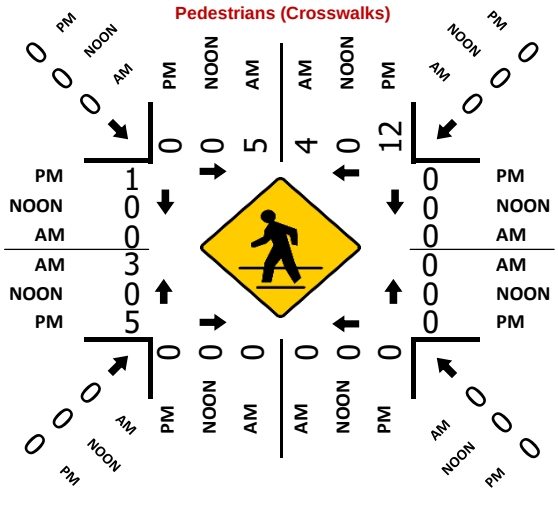
Total Vehicles (NOON)



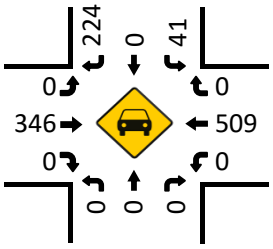
Bikes (NOON)



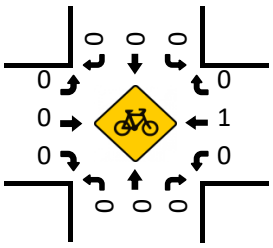
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

N Hollywood Way & W Empire Ave

Peak Hour Turning Movement Count

ID: 19-05223-005
City: Burbank

Day: Thursday
Date: 04/25/2019

PEAK HOURS	COUNT PERIODS
08:45 AM - 09:45 AM	07:00 AM - 10:00 AM
NONE	NONE
05:00 PM - 06:00 PM	04:30 PM - 07:30 PM

N Hollywood Way — SOUTHBOUND

AM	171	0	83	0	0	AM
NOON	0	0	0	0	0	NOON
PM	219	0	41	0	0	PM

W Empire Ave — EASTBOUND

AM	NOON	PM	
361	0	721	
0	0	1	0
0	0	0	0
536	0	382	2
0	0	0	0

W Empire Ave — WESTBOUND

PM	NOON	AM	
0	0	0	0
501	0	190	2
0	0	0	0
0	0	1	0
423	0	620	

N Hollywood Way — NORTHBOUND

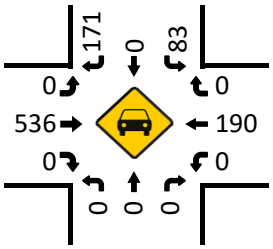
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

	1	1	0	0
	0	0	0	0

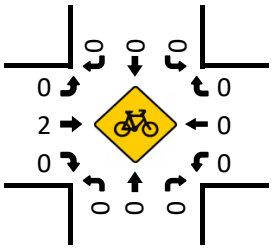
CONTROL: Signalized

TEV	981	0	1144
PHF	AM 0.87	NOON	PM 0.87

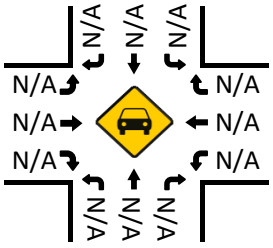
Total Vehicles (AM)



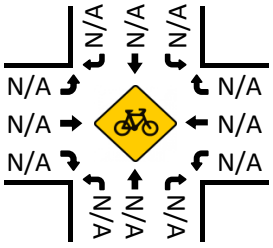
Bikes (AM)



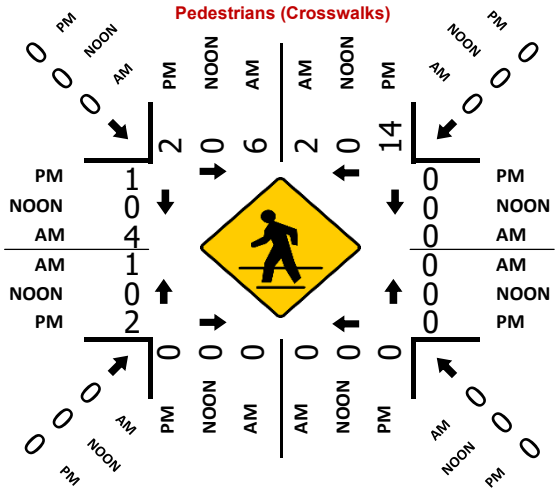
Total Vehicles (Noon)



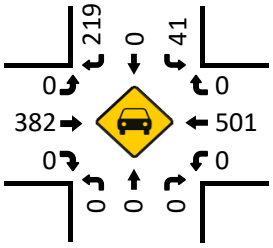
Bikes (NOON)



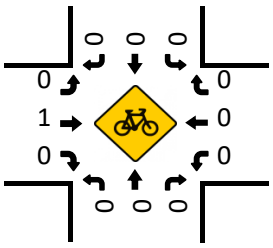
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



Prepared by National Data & Surveying Services

N Avon St & Empire Ave

Peak Hour Turning Movement Count

ID: 23-020436-007
City: Burbank

Day: Thursday
Date: 11/9/2023

	PEAK HOURS	COUNT PERIODS
AM	08:45 AM - 09:45 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	4:30 PM - 07:30 PM

N Avon St — SOUTHBOUND

	Right	Through	Left	U-turn	Departure (NB)
AM	15	0	62	0	175
NOON	0	0	0	0	0
PM	21	0	53	0	217
Bikes	0	1	0	0	

Empire Ave — EASTBOUND

	AM	NOON	PM	Bikes
Departure (WB)	318	0	546	
U-turn	1	0	0	0
Left	118	0	107	1
Through	452	0	437	2
Right	0	0	0	0

Empire Ave — WESTBOUND

	PM	NOON	AM	Bikes
Right	110	0	57	0
Through	525	0	302	2
Left	0	0	0	0
U-turn	0	0	0	0
Departure (EB)	490	0	514	

N Avon St — NORTHBOUND

	Departure (SB)	U-turn	Left	Through	Right
Bikes		0	0	0	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	0	0	0	0	0

CONTROL

Signalized

	AM	NOON	PM
TEV	1007	0	1253
PHF	0.91		0.94

Totals (AM / NOON / PM) and Total Bikes (AM / NOON / PM)

Movement	Totals (AM)	Totals (NOON)	Totals (PM)	Total Bikes (AM)	Total Bikes (NOON)	Total Bikes (PM)
SB Right	15	0	21	0	0	0
SB Through	0	0	0	0	0	0
SB Left	62	0	53	0	0	1
EB Left	118	0	107	0	0	0
EB Through	452	0	437	1	0	2
EB Right	0	0	0	0	0	0
WB Right	57	0	110	0	0	1
WB Through	302	0	525	1	0	3
WB Left	0	0	0	0	0	0
NB Left	0	0	0	0	0	0
NB Through	0	0	0	0	0	0
NB Right	0	0	0	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North leg	Eastbound (→)	1	0	0
North leg	Westbound (←)	1	0	6
West leg	Southbound (↓)	0	0	3
West leg	Northbound (↑)	0	0	0
East leg	Southbound (↓)	0	0	0
East leg	Northbound (↑)	0	0	0
South leg	Eastbound (→)	0	0	0
South leg	Westbound (←)	0	0	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

Prepared by National Data & Surveying Services

Bob Hope Airport Dr & W Empire Ave

Peak Hour Turning Movement Count

ID: 19-05223-007
City: Burbank

Day: Tuesday
Date: 04/23/2019

PEAK HOURS		COUNT PERIODS
AM	08:30 AM - 09:30 AM	07:00 AM - 10:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	04:30 PM - 07:30 PM

Bob Hope Airport Dr — SOUTHBOUND

	Right	Thru	Left	U-Turn	Exit (NB)
AM	5	1	135	1	190
NOON	0	0	0	0	0
PM	5	0	74	0	125
%	0.3	0.3	1.3	0	

W Empire Ave — WESTBOUND

	%	PM	NOON	AM
Right	0	43	0	40
Thru	2	707	0	256
Left	0	1	0	0
U-Turn	0	0	0	0
Exit (EB)		332	0	609

W Empire Ave — EASTBOUND

	AM	NOON	PM	%
Exit (WB)	262	0	712	
U-Turn	0	0	0	0
Left	149	0	82	1
Thru	473	0	258	1
Right	1	0	3	0

Bob Hope Airport Dr — NORTHBOUND

	Exit (SB)	U-Turn	Left	Thru	Right
PM	4	0	0	0	0
NOON	0	0	0	0	0
AM	2	0	1	0	1
%		0	0	0	0

CONTROL

Signalized

	AM	NOON	PM
TEV	1063	0	1173
PHF	0.89		0.93

Total Vehicles (AM)

Approach	U-Turn	Left	Thru	Right
Southbound	1	135	1	5
Eastbound		149	473	1
Westbound		0	256	40
Northbound		1	0	1

Total Vehicles (Noon)

Approach	Left	Thru	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Total Vehicles (PM)

Approach	Left	Thru	Right
Southbound	74	0	5
Eastbound	82	258	3
Westbound	1	707	43
Northbound	0	0	0

Bikes (AM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	1	1	0
Westbound	0	1	0
Northbound	0	0	0

Bikes (NOON)

Approach	Left	Thru	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Bikes (PM)

Approach	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	1	0
Westbound	0	2	0
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	Eastward	3	0	1
North	Westward	1	0	1
West	Southward	4	0	8
West	Northward	27	0	4
East	Southward	0	0	0
East	Northward	0	0	0
South	Eastward	5	0	7
South	Westward	22	0	3
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

Prepared by National Data & Surveying Services

Bob Hope Airport Dr & W Empire Ave

Peak Hour Turning Movement Count

ID: 19-05223-007
City: Burbank

Day: Wednesday
Date: 04/24/2019

PEAK HOURS

AM	08:30 AM - 09:30 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 10:00 AM
NOON	NONE
PM	04:30 PM - 07:30 PM

Bob Hope Airport Dr — SOUTHBOUND

AM	10	1	136	0	178	AM
NOON	0	0	0	0	0	NOON
PM	4	2	78	0	100	PM
	0.3	0.3	1.3	0		

W Empire Ave — EASTBOUND

AM	NOON	PM	
302	0	698	
0	0	0	0
143	0	68	1
419	0	251	1
6	0	1	0

W Empire Ave — WESTBOUND

	PM	NOON	AM
0	32	0	35
2	694	0	292
0	0	0	2
0	0	0	0
	329	0	555

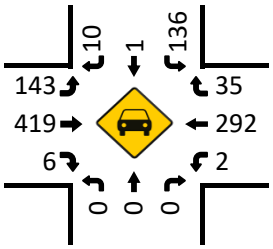
Bob Hope Airport Dr — NORTHBOUND

	0	0	0	0		
PM	3	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	9	0	0	0	0	AM

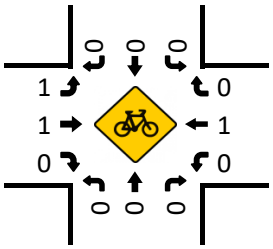
CONTROL: Signalized

	AM	NOON	PM
TEV	1044	0	1130
PHF	0.94		0.98

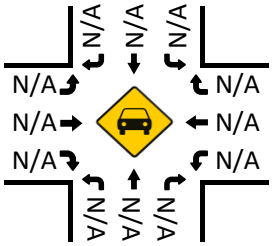
Total Vehicles (AM)



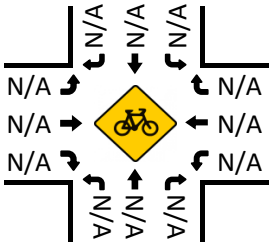
Bikes (AM)



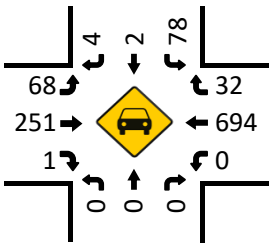
Total Vehicles (Noon)



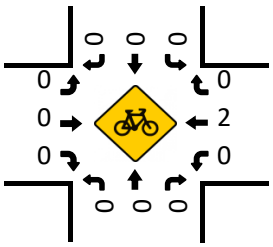
Bikes (NOON)



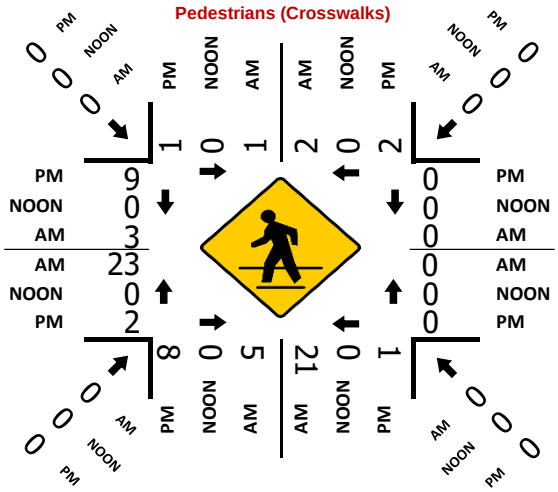
Total Vehicles (PM)



Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

Bob Hope Airport Dr & W Empire Ave

Peak Hour Turning Movement Count

ID: 19-05223-007
City: Burbank

Day: Thursday
Date: 04/25/2019

PEAK HOURS

AM	08:15 AM - 09:15 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 10:00 AM
NOON	NONE
PM	04:30 PM - 07:30 PM

Bob Hope Airport Dr — SOUTHBOUND

AM	6	1	125	2	172	AM
NOON	0	0	0	0	0	NOON
PM	8	0	97	2	144	PM

0.3 0.3 1.3 0

W Empire Ave — EASTBOUND

AM	NOON	PM		
310	0	675	⇦	
0	0	0	↶	0
124	0	100	↱	1
406	0	281	→	1
8	0	2	↷	0
AM	NOON	PM		

CONTROL

Signalized

TEV	1022	0	1200
	AM	NOON	PM
PHF	0.91		0.88

W Empire Ave — WESTBOUND

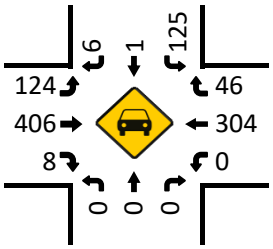
PM	NOON	AM		
42	0	46	↶	0
667	0	304	←	2
1	0	0	↰	0
0	0	0	↩	0
378	0	531	⇨	
PM	NOON	AM		

0 0 0 0

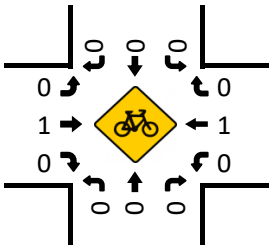
Bob Hope Airport Dr — NORTHBOUND

PM	3	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	9	0	0	0	0	AM

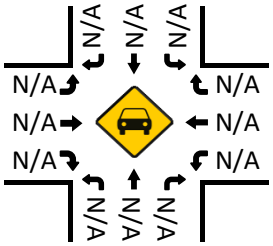
Total Vehicles (AM)



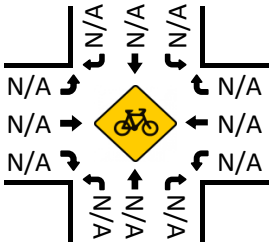
Bikes (AM)



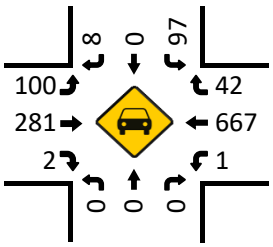
Total Vehicles (Noon)



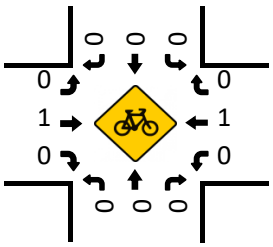
Bikes (NOON)



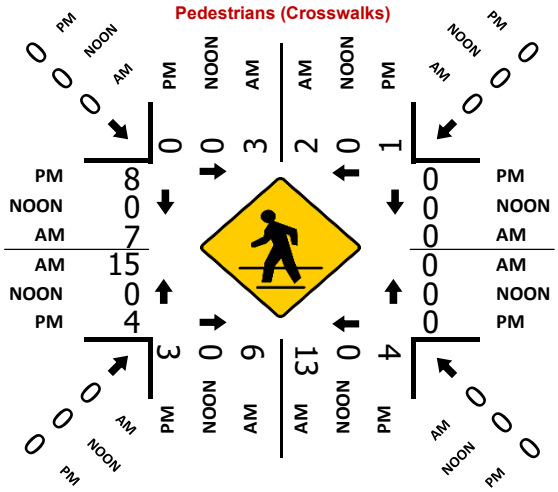
Total Vehicles (PM)



Bikes (PM)



Pedestrians (Crosswalks)



Prepared by National Data & Surveying Services

N Hollywood Way & Victory Blvd

Peak Hour Turning Movement Count

ID: 23-020436-046
City: Burbank

Day: Tuesday
Date: 11/28/2023

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	4:30 PM - 07:30 PM

SOUTHBOUND (N Hollywood Way)

AM	207	1107	141	0	964	AM
NOON	0	0	0	0	0	NOON
PM	238	959	201	0	1296	PM

EASTBOUND (Victory Blvd)

AM	NOON	PM		
771	0	1234		
0	0	0	0	
201	0	227	1	
763	0	698	2	
129	0	107	1	
AM	NOON	PM		

WESTBOUND (Victory Blvd)

	PM	NOON	AM
1	117	0	72
2	839	0	491
1	110	0	96
0	0	0	0
	993	0	991
	PM	NOON	AM

NORTHBOUND (N Hollywood Way)

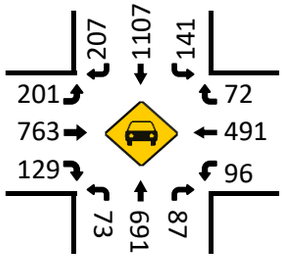
PM	1176	0	157	952	94	PM
NOON	0	0	0	0	0	NOON
AM	1332	0	73	691	87	AM

CONTROL

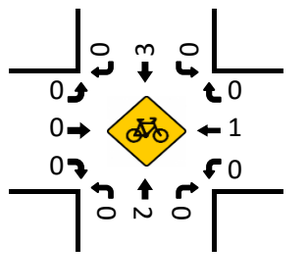
Signalized

TEV	4058 AM	0 NOON	4699 PM
PHF	0.85		0.97

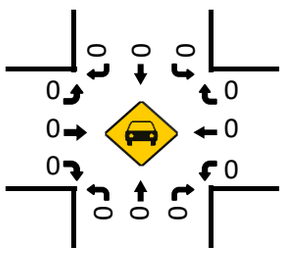
Totals (AM)



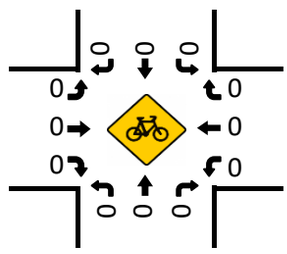
Total Bikes (AM)



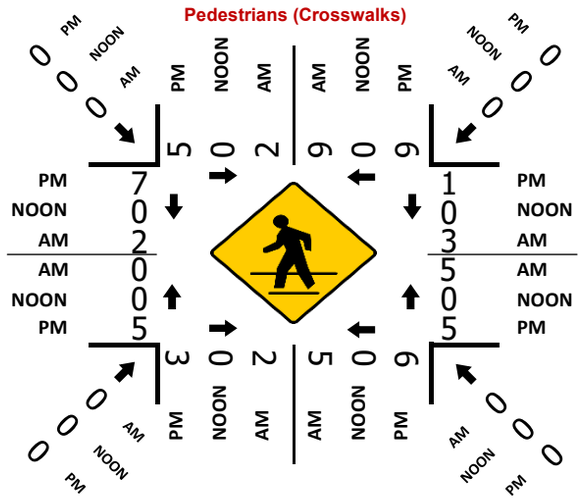
Totals (NOON)



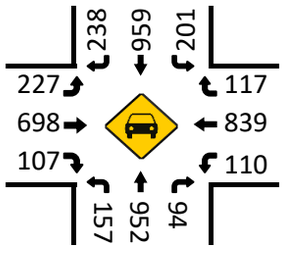
Total Bikes (NOON)



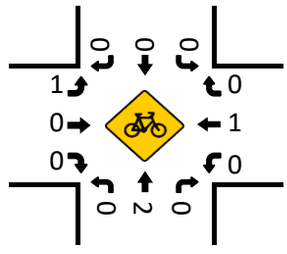
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Hollywood Way & W Burbank Blvd

Peak Hour Turning Movement Count

ID: 23-020436-047
City: Burbank

Day: Thursday
Date: 11/16/2023

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	NONE
PM	04:45 PM - 05:45 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	4:30 PM - 07:30 PM

SOUTHBOUND (N Hollywood Way)

AM	106	1136	169	0	856	AM
NOON	0	0	0	0	0	NOON
PM	129	765	139	0	1248	PM
	0	2	1	0		

EASTBOUND (W Burbank Blvd)

AM	NOON	PM		
626	0	879		
0	0	0	0	
158	0	196	1	
507	0	636	2	
26	0	27	0	
AM	NOON	PM		

WESTBOUND (W Burbank Blvd)

	PM	NOON	AM
1	113	0	48
2	663	0	457
1	159	0	124
0	0	0	0
	880	0	756
	PM	NOON	AM

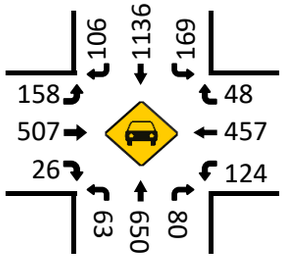
NORTHBOUND (N Hollywood Way)

	0	1	2	0		
PM	951	0	87	939	105	PM
NOON	0	0	0	0	0	NOON
AM	1286	0	63	650	80	AM

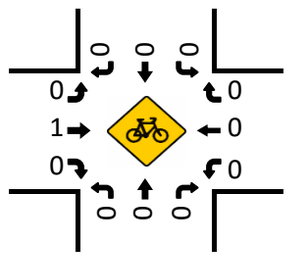
CONTROL: Signalized

TEV	3524 AM	0 NOON	3958 PM
PHF	0.93		0.98

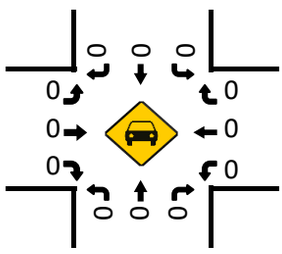
Totals (AM)



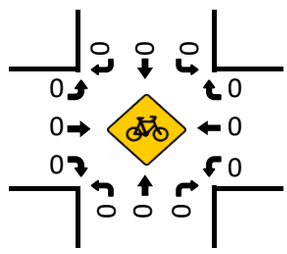
Total Bikes (AM)



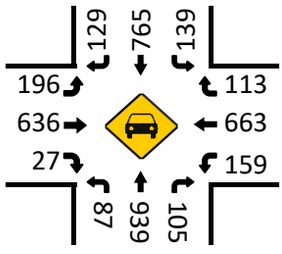
Totals (NOON)



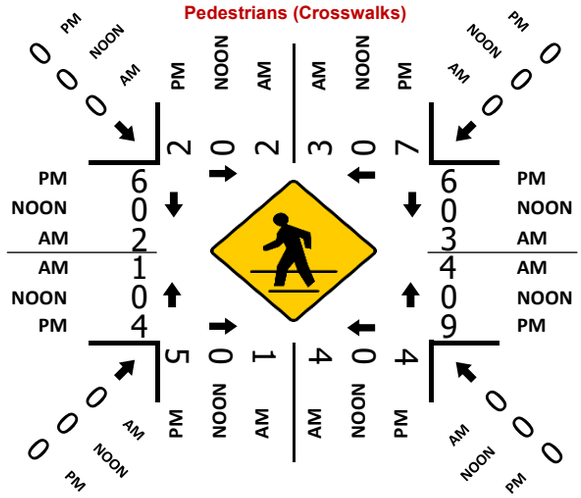
Total Bikes (NOON)



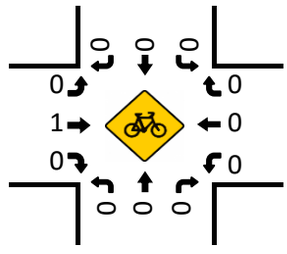
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Buena Vista St & I-5 NB Ramps

Peak Hour Turning Movement Count

ID: 23-020436-013
City: Burbank

Day: Thursday
Date: 11/16/2023

PEAK HOURS

AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 4:30 PM - 07:30 PM

SOUTHBOUND (N Buena Vista St)

AM	85	449	0	0	424	AM
NOON	0	0	0	0	0	NOON
PM	64	337	0	0	688	PM

EASTBOUND (I-5 NB Ramps)

AM	NOON	PM		
371	0	679	⇦	
0	0	0	↰	0
165	0	223	↱	1
0	0	0	→	0
592	0	576	↱	1

WESTBOUND (I-5 NB Ramps)

PM	NOON	AM		
0	0	0	↱	0
0	0	0	←	0
0	0	0	↰	0
0	0	0	↰	0
0	0	0	⇨	

NORTHBOUND (N Buena Vista St)

PM	913	0	615	465	0	PM
NOON	0	0	0	0	0	NOON
AM	1041	0	286	259	0	AM

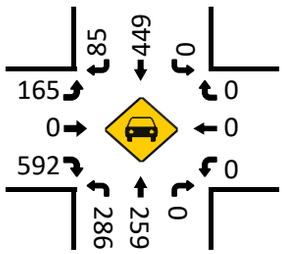
⇩	↶	↰	↑	↱
	0	1	1	0

CONTROL

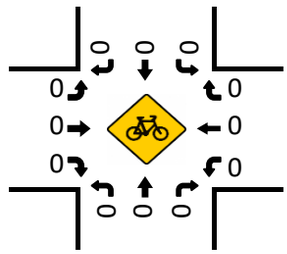
Signalized

TEV	1836 AM	0 NOON	2280 PM
PHF	0.97		0.95

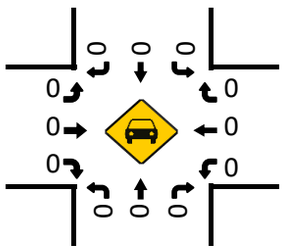
Totals (AM)



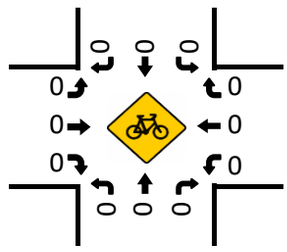
Total Bikes (AM)



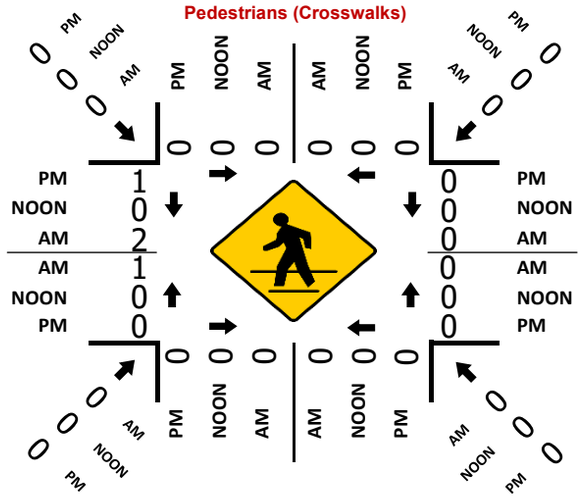
Totals (NOON)



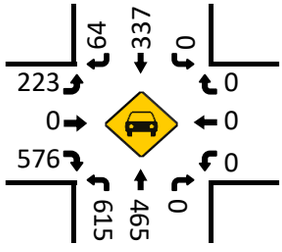
Total Bikes (NOON)



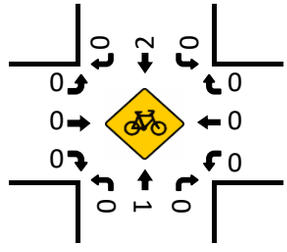
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

I-5 SB Ramps & N San Fernando Blvd

Peak Hour Turning Movement Count

ID: 23-020436-011
City: Burbank

Day: Thursday
Date: 11/16/2023

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	4:30 PM - 07:30 PM

SOUTHBOUND (I-5 SB Ramps)

AM	46	0	353	0	452	AM
NOON	0	0	0	0	0	NOON
PM	17	0	245	1	538	PM

EASTBOUND (N San Fernando Blvd)

AM	NOON	PM		
193	0	164		
0	0	0	0	
195	0	300	1	
65	0	105	1	
0	0	0	0	
AM	NOON	PM		

WESTBOUND (N San Fernando Blvd)

PM	NOON	AM	
237	0	257	0
147	0	147	1
0	0	0	0
0	0	0	0
350	0	418	
PM	NOON	AM	

NORTHBOUND (I-5 SB Ramps)

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

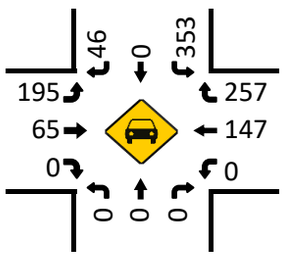
	0.5	0	1.5	0
	0	0	0	0

CONTROL

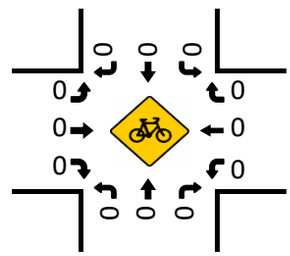
3-Way Stop(SB/EB/WB)

TEV	1063 AM	0 NOON	1052 PM
PHF	0.90		0.92

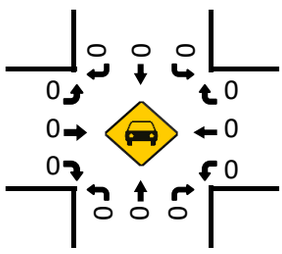
Totals (AM)



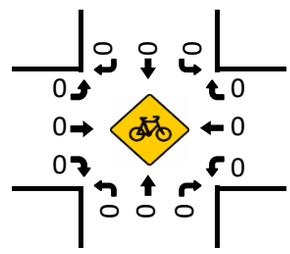
Total Bikes (AM)



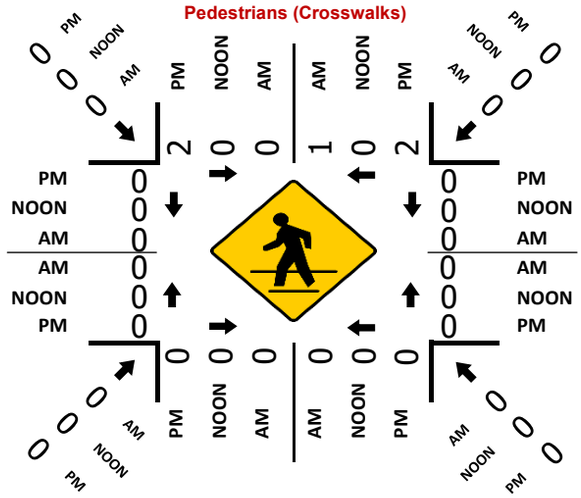
Totals (NOON)



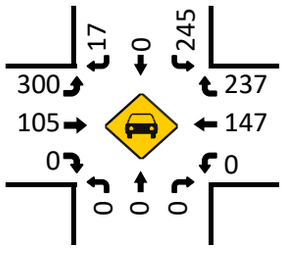
Total Bikes (NOON)



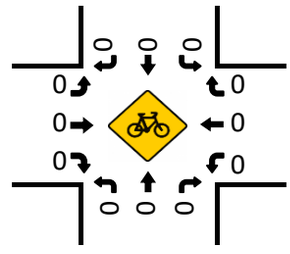
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Buena Vista St & Winona Ave

Peak Hour Turning Movement Count

ID: 23-020436-014
City: Burbank

Day: Thursday
Date: 11/16/2023

PEAK HOURS		COUNT PERIODS
AM	07:45 AM - 08:45 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	4:30 PM - 07:30 PM

N Buena Vista St — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing (NB)
AM	204	781	49	0	543
NOON	0	0	0	0	0
PM	146	741	26	0	1084
Lanes	0	2	1	0	

Winona Ave — EASTBOUND

	AM	NOON	PM	Lanes
Departing (WB)	405	0	386	
U-Turn	0	0	0	0
Left	43	0	65	0.5
Thru	73	0	47	0.5
Right	311	0	231	1

Winona Ave — WESTBOUND

	PM	NOON	AM	Lanes
Right	37	0	66	0.5
Thru	31	0	86	0.5
Left	150	0	247	1
U-Turn	0	0	0	0
Departing (EB)	332	0	314	

N Buena Vista St — NORTHBOUND

	Departing (SB)	U-Turn	Left	Thru	Right
Lanes		0	1	2	0
PM	1122	0	209	982	259
NOON	0	0	0	0	0
AM	1339	0	115	434	192

CONTROL: Signalized

	AM	NOON	PM
TEV	2601	0	2924
PHF	0.95		0.93

Totals (AM)

Approach	Left	Thru	Right
SB	49	781	204
EB	43	73	311
WB	247	86	66
NB	115	434	192

Totals (NOON)

Approach	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

Totals (PM)

Approach	Left	Thru	Right
SB	26	741	146
EB	65	47	231
WB	150	31	37
NB	209	982	259

Total Bikes (AM)

Approach	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

Total Bikes (NOON)

Approach	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	0	0	0
NB	0	0	0

Total Bikes (PM)

Approach	Left	Thru	Right
SB	0	0	0
EB	0	0	0
WB	4	0	0
NB	0	2	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	Eastbound	0	0	3
North	Westbound	0	0	2
West	Southbound	1	0	0
West	Northbound	1	0	1
East	Southbound	5	0	0
East	Northbound	3	0	3
South	Eastbound	0	0	0
South	Westbound	0	0	3
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

Prepared by National Data & Surveying Services

N Buena Vista St & N San Fernando Blvd

Peak Hour Turning Movement Count

ID: 23-020436-050
City: Burbank

Day: Thursday
Date: 11/16/2023

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	4:30 PM - 07:30 PM

SOUTHBOUND (N Buena Vista St)

AM	362	811	169	0	743	AM
NOON	0	0	0	0	0	NOON
PM	274	665	191	0	1459	PM
	1	2	1	0		

EASTBOUND (N San Fernando Blvd)

AM	NOON	PM		
551	0	635		
0	0	0	0	
124	0	247	1	
237	0	270	2	
82	0	72	0	
AM	NOON	PM		

WESTBOUND (N San Fernando Blvd)

PM	NOON	AM	
430	0	151	1
297	0	148	2
83	0	37	1
0	0	0	0
498	0	427	
PM	NOON	AM	

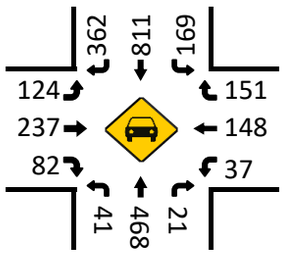
CONTROL: Signalized

TEV	2651 AM	0 NOON	3412 PM
PHF	0.98		0.94

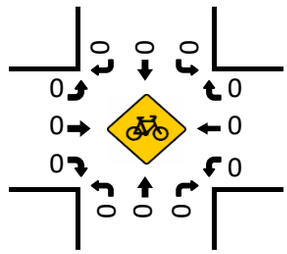
NORTHBOUND (N Buena Vista St)

	0	1	2	0	
PM	820	0	64	782	37	PM
NOON	0	0	0	0	0	NOON
AM	930	0	41	468	21	AM

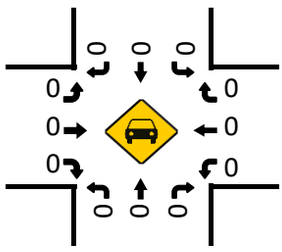
Totals (AM)



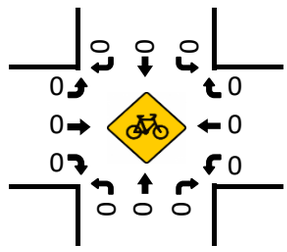
Total Bikes (AM)



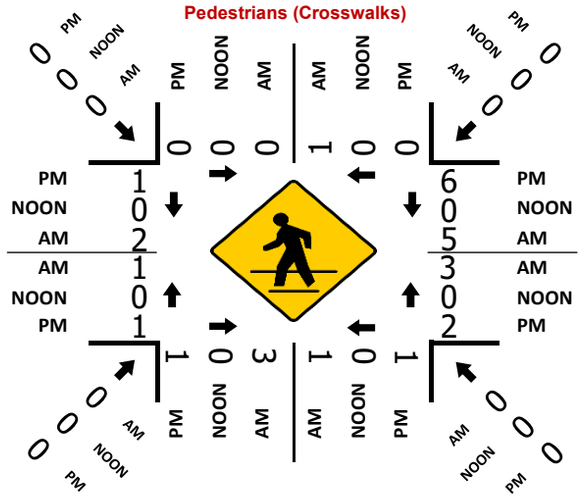
Totals (NOON)



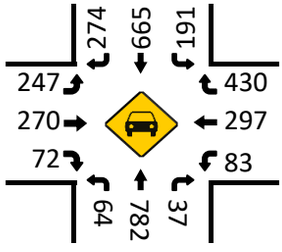
Total Bikes (NOON)



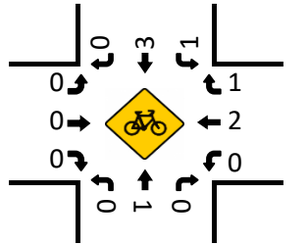
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Ontario St & Thornton Ave

Peak Hour Turning Movement Count

ID: 23-020436-009
City: Burbank

Day: Thursday
Date: 11/9/2023

PEAK HOURS

AM: 08:15 AM - 09:15 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 4:30 PM - 07:30 PM

SOUTHBOUND (N Ontario St)

AM	15	10	12	0	56	AM
NOON	0	0	0	0	0	NOON
PM	39	32	11	0	60	PM

EASTBOUND (Thornton Ave)

AM	NOON	PM		
287	0	347	⇦	
1	0	0	↶	0
19	0	14	↱	1
93	0	148	→	1
64	0	46	↴	0

WESTBOUND (Thornton Ave)

PM	NOON	AM		
21	0	17	↰	0
266	0	243	←	1
16	0	26	↰	1
0	0	0	↶	0
181	0	124	⇨	

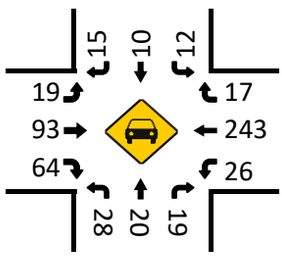
NORTHBOUND (N Ontario St)

PM	94	0	42	25	22	PM
NOON	0	0	0	0	0	NOON
AM	100	0	28	20	19	AM

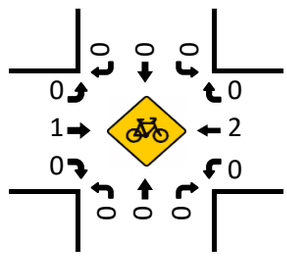
CONTROL: Signalized

TEV	567 AM	0 NOON	682 PM
PHF	0.90		0.93

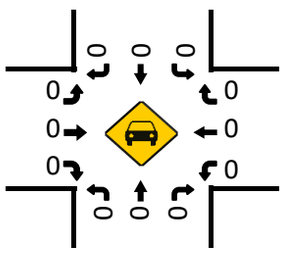
Totals (AM)



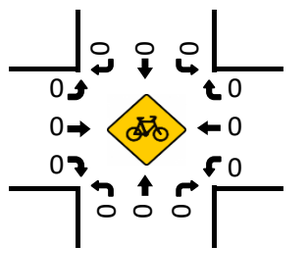
Total Bikes (AM)



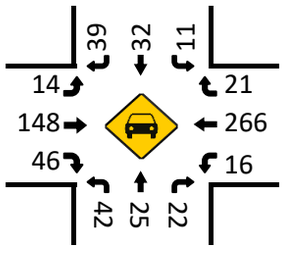
Totals (NOON)



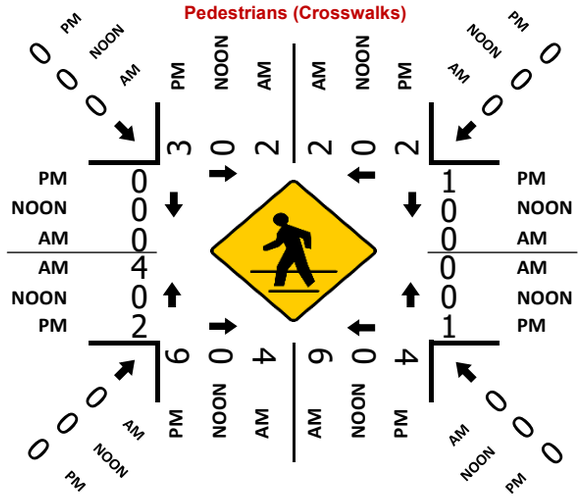
Total Bikes (NOON)



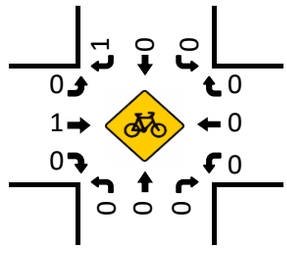
Totals (PM)



Pedestrians (Crosswalks)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Ontario St & Empire Ave

Peak Hour Turning Movement Count

ID: 23-020436-010
City: Burbank

Day: Thursday
Date: 11/9/2023

PEAK HOURS

AM: 08:15 AM - 09:15 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 4:30 PM - 07:30 PM

SOUTHBOUND (N Ontario St)

AM	32	0	39	0	108	AM
NOON	0	0	0	0	0	NOON
PM	52	0	88	0	82	PM

EASTBOUND (Empire Ave)

AM	NOON	PM		
410	0	602	⇦	
1	0	3	↰	0
41	0	27	↑	1
403	0	484	→	2
0	0	0	↱	0
AM	NOON	PM		

WESTBOUND (Empire Ave)

PM	NOON	AM		
54	0	66	↰	0
547	0	377	←	2
0	0	4	↑	1
0	0	1	↱	0
577	0	444	⇨	
PM	NOON	AM		

NORTHBOUND (N Ontario St)

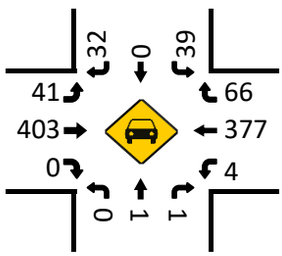
PM	0	0	0	1	5	PM
NOON	0	0	0	0	0	NOON
AM	4	0	0	1	1	AM

CONTROL

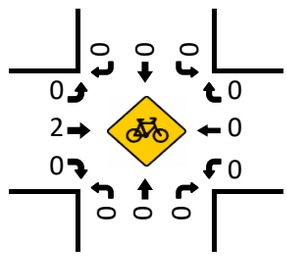
Signalized

TEV	966 AM	0 NOON	1261 PM
PHF	0.93		0.96

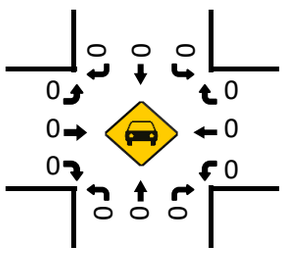
Totals (AM)



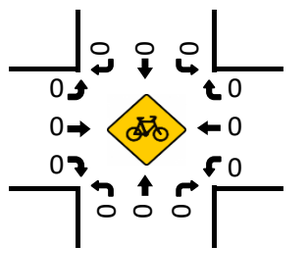
Total Bikes (AM)



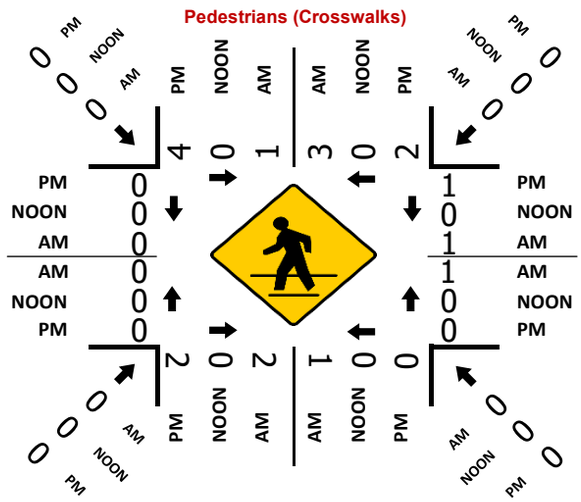
Totals (NOON)



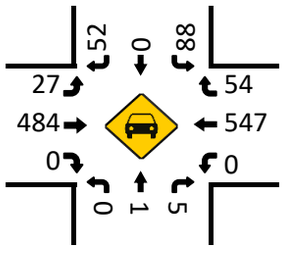
Total Bikes (NOON)



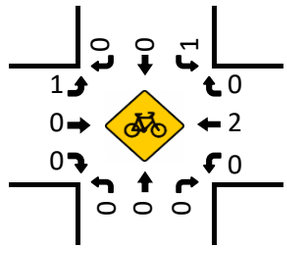
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Buena Vista St & Empire Ave

Peak Hour Turning Movement Count

ID: 23-020436-051
City: Burbank

Day: Thursday
Date: 11/16/2023

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	NONE
PM	04:45 PM - 05:45 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	4:30 PM - 07:30 PM

SOUTHBOUND (N Buena Vista St)

AM	29	736	80	0	620	AM
NOON	0	0	0	0	0	NOON
PM	37	514	91	0	928	PM

EASTBOUND (Empire Ave)

AM	NOON	PM		
518	0	647		
0	0	0	0	
49	0	45	1	
352	0	461	2	
135	0	112	1	
AM	NOON	PM		

WESTBOUND (Empire Ave)

PM	NOON	AM	
147	0	86	0
503	0	393	2
444	0	397	2
0	0	0	0
1308	0	1066	
PM	NOON	AM	

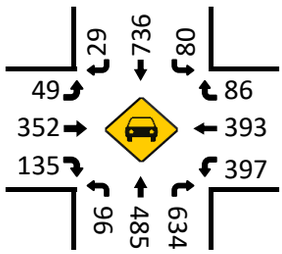
NORTHBOUND (N Buena Vista St)

PM	1070	0	107	736	756	PM
NOON	0	0	0	0	0	NOON
AM	1268	0	96	485	634	AM

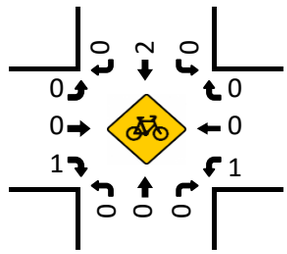
CONTROL: Signalized

TEV	3472	0	3953
	AM	NOON	PM
PHF	0.96		0.92

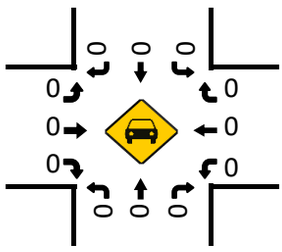
Totals (AM)



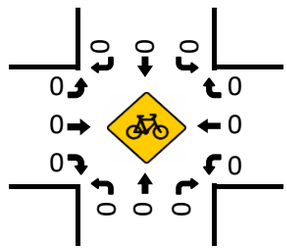
Total Bikes (AM)



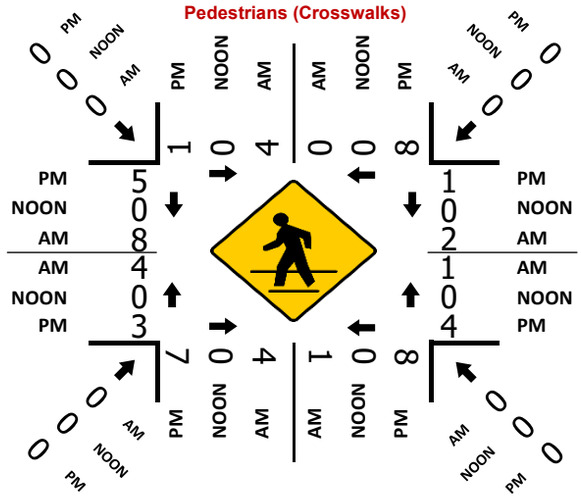
Totals (NOON)



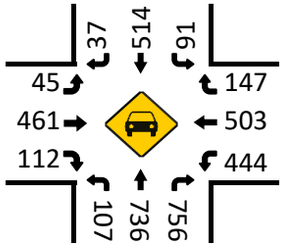
Total Bikes (NOON)



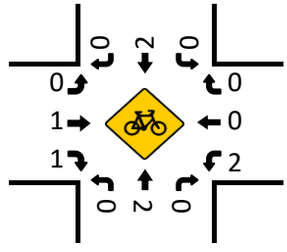
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

N Buena Vista St & Thornton Ave

Peak Hour Turning Movement Count

ID: 23-020436-015
City: Burbank

Day: Thursday
Date: 11/16/2023

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	7:00 AM - 10:00 AM
NOON	NONE
PM	4:30 PM - 07:30 PM

SOUTHBOUND (N Buena Vista St)

AM	190	733	12	0	536	AM
NOON	0	0	0	0	0	NOON
PM	243	553	11	2	895	PM

EASTBOUND (Thornton Ave)

AM	NOON	PM		
320	0	354	⇦	
0	0	0	↶	0
33	0	70	↱	1
25	0	35	→	1
102	0	78	↳	0
AM	NOON	PM		

WESTBOUND (Thornton Ave)

PM	NOON	AM		
17	0	12	↰	0
35	0	16	←	1
15	0	7	↰	1
0	0	0	↶	0
59	0	54	⇨	
PM	NOON	AM		

NORTHBOUND (N Buena Vista St)

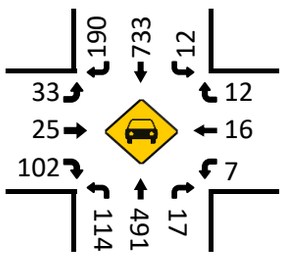
PM	646	0	76	806	13	PM
NOON	0	0	0	0	0	NOON
AM	842	0	114	491	17	AM

CONTROL

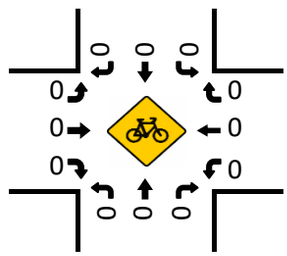
Signalized

TEV	1752 AM	0 NOON	1954 PM
PHF	0.98		0.96

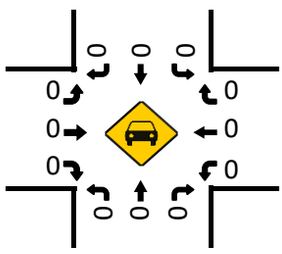
Totals (AM)



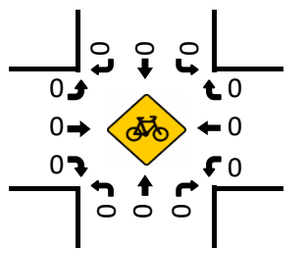
Total Bikes (AM)



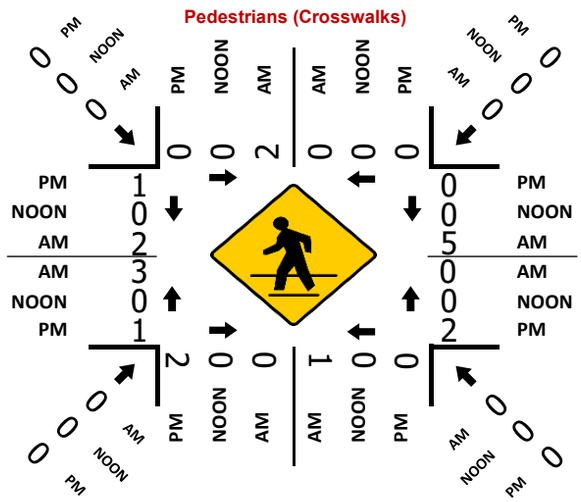
Totals (NOON)



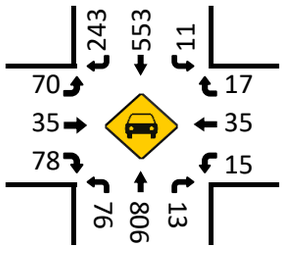
Total Bikes (NOON)



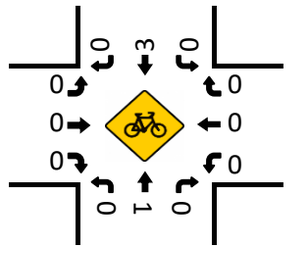
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

I-5/Golden State Fwy SB Ramps & Empire Ave/N San Fernando Blvd

Peak Hour Turning Movement Count

ID: 23-020436-057
City: Burbank

Day: Thursday
Date: 11/16/2023

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS

7:00 AM - 10:00 AM
NONE
4:30 PM - 07:30 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	2701	0	2818
PHF	0.92		0.97

SOUTHBOUND — I-5/Golden State Fwy SB Ramps

	Left	Thru	Right	Other	Total
AM	124	1	279	0	0
NOON	0	0	0	0	0
PM	186	4	196	0	0

EASTBOUND — Empire Ave/N San Fernando Blvd

	Left	Thru	Right	Other	Total
AM	1066	0	1094		
NOON	0	0	0		
PM	0	0	0		

	Left	Thru	Right	Other	Total
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	387	0	555	2	2

	Left	Thru	Right	Other	Total
AM	580	0	782	1	1
NOON	0	0	0	0	0
PM	973	0	0	0	0

WESTBOUND — Empire Ave/N San Fernando Blvd

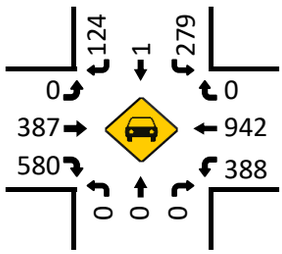
	Left	Thru	Right	Other	Total
PM	0	0	0	0	0
NOON	908	0	942	2	2
AM	187	0	388	0	0

	Left	Thru	Right	Other	Total
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	751	0	666		

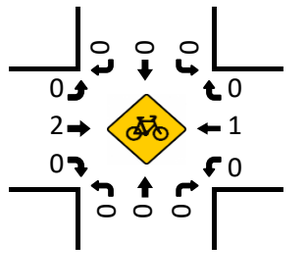
NORTHBOUND — I-5/Golden State Fwy SB Ramps

	Left	Thru	Right	Other	Total
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	0	0	0	0	0

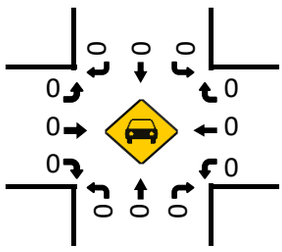
Totals (AM)



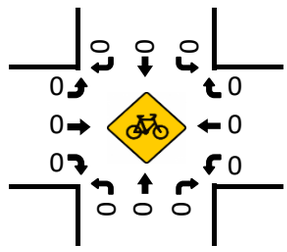
Total Bikes (AM)



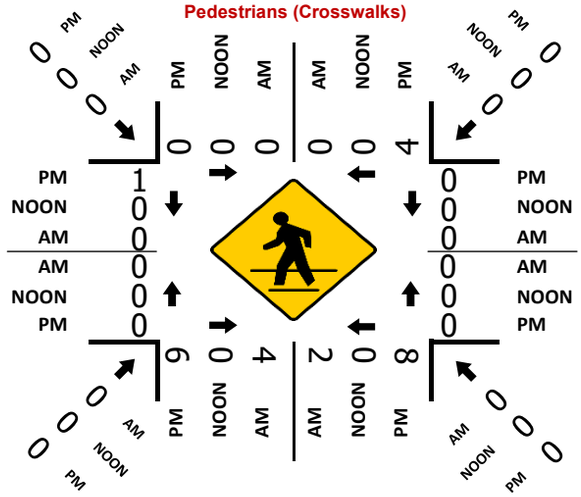
Totals (NOON)



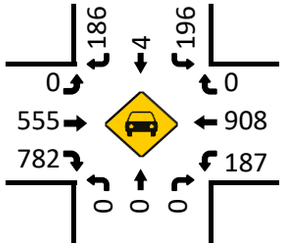
Total Bikes (NOON)



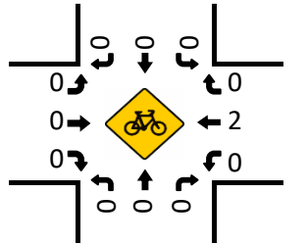
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

I-5/Golden State Fwy NB Ramps & N San Fernando Blvd

Peak Hour Turning Movement Count

ID: 23-020436-056
City: Burbank

Day: Thursday
Date: 11/16/2023

PEAK HOURS
AM: 07:45 AM - 08:45 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS
AM: 7:00 AM - 10:00 AM
NOON: NONE
PM: 4:30 PM - 07:30 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	2463	0	2442
PHF	0.92		0.96

SOUTHBOUND (I-5/Golden State Fwy NB Ramps)

AM	0	0	0	0	307	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	389	PM

EASTBOUND (N San Fernando Blvd)

AM	NOON	PM	
1341	0	1081	
0	0	0	0
17	0	74	2
637	0	660	2
0	0	0	0

WESTBOUND (N San Fernando Blvd)

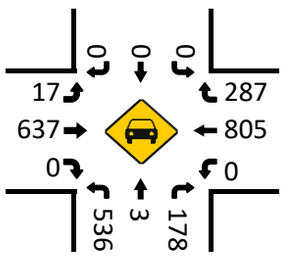
PM	NOON	AM	
314	0	287	0
620	0	805	2
0	0	0	0
0	0	0	0
972	0	815	

NORTHBOUND (I-5/Golden State Fwy NB Ramps)

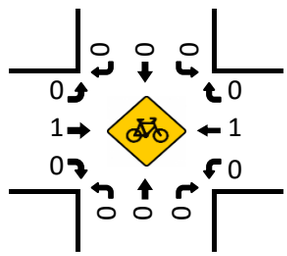
PM	0	0	461	1	312	PM
NOON	0	0	0	0	0	NOON
AM	0	0	536	3	178	AM

0 0 0 0 | 0 0 0 0 | 0 1.5 0.5 1

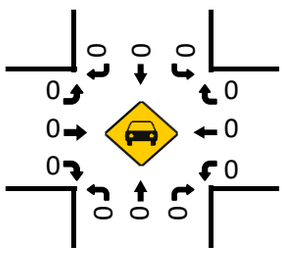
Totals (AM)



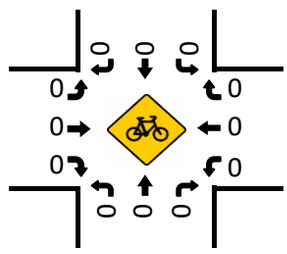
Total Bikes (AM)



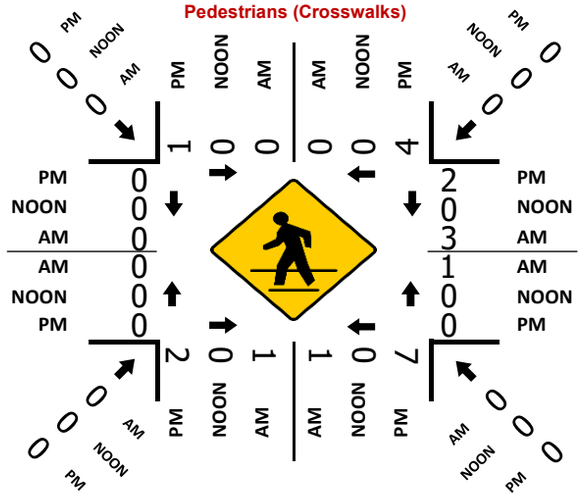
Totals (NOON)



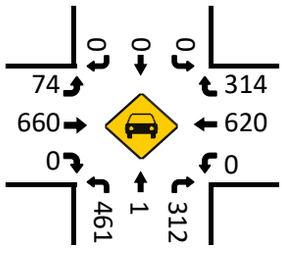
Total Bikes (NOON)



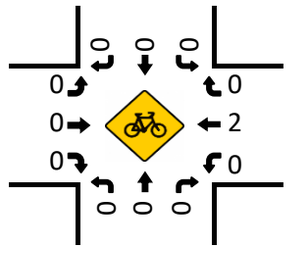
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



Prepared by National Data & Surveying Services

VOLUME

N Hollywood Way Bet Thornton Ave & N Avon St

Day: Tuesday
Date: 10/1/2024

City: Burbank
Project #: CA24_020340_001

DAILY TOTALS	NB	SB	EB	WB	Total
	15,964	17,047	0	0	33,011

15-Minutes Interval

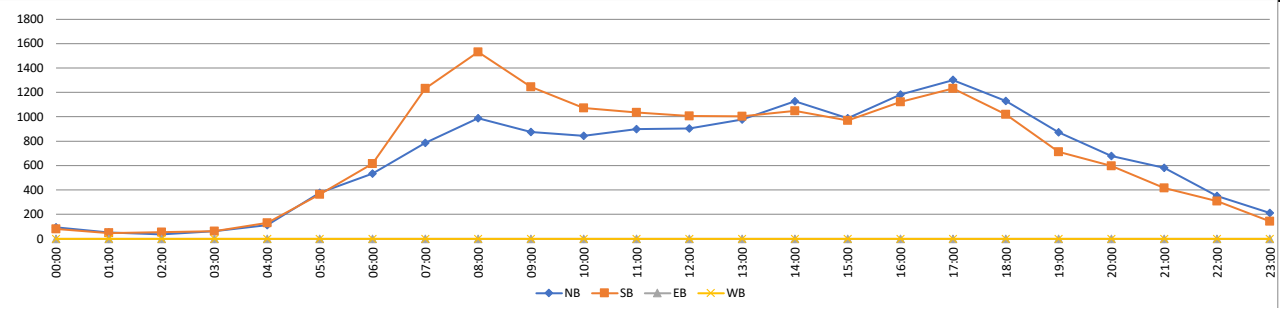
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL
0:00	31	20			51	12:00	234	282			516
0:15	18	24			42	12:15	240	249			489
0:30	30	19			49	12:30	206	221			427
0:45	15	18			33	12:45	223	255			478
1:00	13	16			29	13:00	247	252			499
1:15	10	13			23	13:15	244	245			489
1:30	9	8			17	13:30	238	245			483
1:45	19	11			30	13:45	248	261			509
2:00	10	18			28	14:00	266	285			551
2:15	6	22			28	14:15	297	241			538
2:30	14	8			22	14:30	285	260			545
2:45	8	7			15	14:45	279	261			540
3:00	10	10			20	15:00	238	263			501
3:15	21	14			35	15:15	245	222			467
3:30	12	12			24	15:30	250	246			496
3:45	19	26			45	15:45	255	239			494
4:00	12	20			32	16:00	278	228			506
4:15	19	21			40	16:15	312	273			585
4:30	32	31			63	16:30	316	325			641
4:45	48	58			106	16:45	276	296			572
5:00	53	53			106	17:00	329	359			688
5:15	85	79			164	17:15	333	314			647
5:30	102	81			183	17:30	319	277			596
5:45	136	151			287	17:45	321	281			602
6:00	133	127			260	18:00	340	289			629
6:15	124	118			242	18:15	280	267			547
6:30	122	158			280	18:30	249	226			475
6:45	155	212			367	18:45	261	238			499
7:00	173	209			382	19:00	235	216			451
7:15	199	245			444	19:15	212	183			395
7:30	203	380			583	19:30	219	160			379
7:45	210	398			608	19:45	207	154			361
8:00	274	395			669	20:00	206	147			353
8:15	216	407			623	20:15	166	168			334
8:30	260	364			624	20:30	145	158			303
8:45	239	365			604	20:45	162	125			287
9:00	207	355			562	21:00	200	112			312
9:15	241	297			538	21:15	173	118			291
9:30	226	305			531	21:30	99	104			203
9:45	202	287			489	21:45	109	81			190
10:00	204	281			485	22:00	120	108			228
10:15	234	279			513	22:15	92	68			160
10:30	213	240			453	22:30	78	72			150
10:45	193	271			464	22:45	61	60			121
11:00	215	261			476	23:00	67	58			125
11:15	235	246			481	23:15	52	33			85
11:30	228	276			504	23:30	47	34			81
11:45	222	253			475	23:45	45	19			64
TOTALS	5660	7469	0	0	13129	TOTALS	10304	9578	0	0	19882
SPLIT %	43%	57%	0%	0%	40%	SPLIT %	52%	48%	0%	0%	60%

Hourly Intervals

TIME		NB	SB	EB	WB	TOTAL
00:00	01:00	94	81			175
01:00	02:00	51	48			99
02:00	03:00	38	55			93
03:00	04:00	62	62			124
04:00	05:00	111	130			241
05:00	06:00	376	364			740
06:00	07:00	534	615			1149
07:00	08:00	785	1232			2017
08:00	09:00	989	1531			2520
09:00	10:00	876	1244			2120
10:00	11:00	844	1071			1915
11:00	12:00	900	1036			1936
12:00	13:00	903	1007			1910
13:00	14:00	977	1003			1980
14:00	15:00	1127	1047			2174
15:00	16:00	988	970			1958
16:00	17:00	1182	1122			2304
17:00	18:00	1302	1231			2533
18:00	19:00	1130	1020			2150
19:00	20:00	873	713			1586
20:00	21:00	679	598			1277
21:00	22:00	581	415			996
22:00	23:00	351	308			659
23:00	00:00	211	144			355

STATISTICS

	NB	SB	EB	WB	TOTAL
Peak Period	00:00	to	12:00		
Volume	5660	7469			13129
Peak Hour	8:00	7:30			7:45
Peak Volume	989	1580			2524
Peak Hour Factor	0.902	0.971			0.943
Peak Period	12:00	to	00:00		
Volume	10304	9578			19882
Peak Hour	17:15	16:30			16:30
Peak Volume	1313	1294			2548
Peak Hour Factor	0.965	0.901			0.926
Peak Period	07:00	to	09:00		
Volume	1774	2763			4537
Peak Hour	8:00	7:30			7:45
Peak Volume	989	1580			2524
Peak Hour Factor	0.902	0.971			0.943
Peak Period	16:00	to	18:00		
Volume	2484	2353			4837
Peak Hour	17:00	16:30			16:30
Peak Volume	1302	1294			2548
Peak Hour Factor	0.977	0.901			0.926



Prepared by National Data & Surveying Services

VOLUME

Thornton Ave Bet N Hollywood Way & N Ontario St

Day: Tuesday
Date: 10/1/2024

City: Burbank
Project #: CA24_020340_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,665	4,670	7,335

DAILY TOTALS

15-Minutes Interval

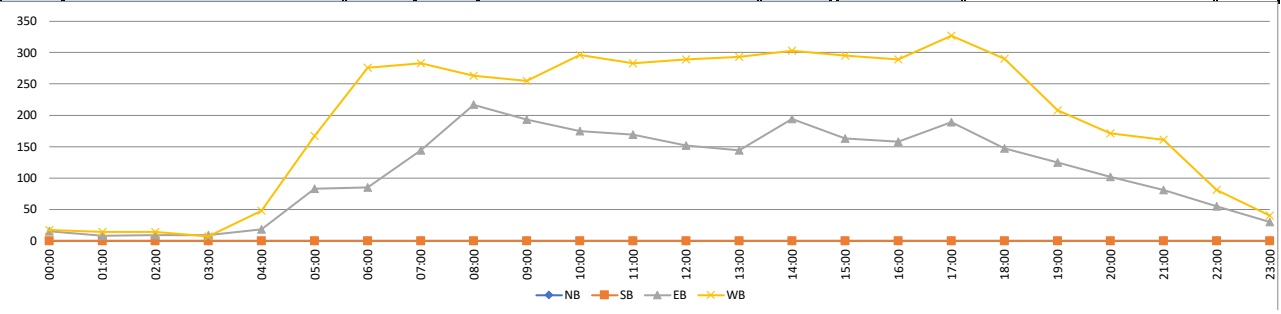
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL
0:00			3	6	9	12:00			35	76	111
0:15			5	5	10	12:15			41	76	117
0:30			6	2	8	12:30			43	70	113
0:45			1	4	5	12:45			33	67	100
1:00			4	3	7	13:00			38	73	111
1:15			2	4	6	13:15			36	58	94
1:30			0	3	3	13:30			32	72	104
1:45			2	4	6	13:45			38	90	128
2:00			0	3	3	14:00			32	71	103
2:15			3	2	5	14:15			60	78	138
2:30			4	7	11	14:30			54	66	120
2:45			2	2	4	14:45			48	88	136
3:00			1	1	2	15:00			43	85	128
3:15			3	0	3	15:15			33	59	92
3:30			1	5	6	15:30			45	80	125
3:45			4	1	5	15:45			42	71	113
4:00			2	3	5	16:00			31	54	85
4:15			2	12	14	16:15			43	80	123
4:30			6	16	22	16:30			44	71	115
4:45			8	17	25	16:45			40	84	124
5:00			9	20	29	17:00			46	81	127
5:15			25	37	62	17:15			49	82	131
5:30			21	46	67	17:30			54	72	126
5:45			28	64	92	17:45			40	92	132
6:00			20	83	103	18:00			44	85	129
6:15			19	72	91	18:15			37	88	125
6:30			16	53	69	18:30			34	66	100
6:45			30	68	98	18:45			32	51	83
7:00			28	54	82	19:00			36	63	99
7:15			26	69	95	19:15			31	53	84
7:30			36	83	119	19:30			30	47	77
7:45			54	77	131	19:45			28	45	73
8:00			51	61	112	20:00			28	54	82
8:15			66	64	130	20:15			25	39	64
8:30			52	72	124	20:30			25	44	69
8:45			48	66	114	20:45			24	34	58
9:00			42	58	100	21:00			20	55	75
9:15			56	67	123	21:15			29	34	63
9:30			47	60	107	21:30			20	36	56
9:45			48	70	118	21:45			12	36	48
10:00			51	80	131	22:00			22	28	50
10:15			46	67	113	22:15			7	19	26
10:30			34	72	106	22:30			16	22	38
10:45			44	77	121	22:45			10	12	22
11:00			51	75	126	23:00			8	14	22
11:15			45	74	119	23:15			7	11	18
11:30			30	72	102	23:30			12	9	21
11:45			43	62	105	23:45			3	6	9
TOTALS	0	0	1125	1923	3048	TOTALS	0	0	1540	2747	4287
SPLIT %	0%	0%	37%	63%	42%	SPLIT %	0%	0%	36%	64%	58%

Hourly Intervals

TIME		NB	SB	EB	WB	TOTAL
00:00	01:00			15	17	32
01:00	02:00			8	14	22
02:00	03:00			9	14	23
03:00	04:00			9	7	16
04:00	05:00			18	48	66
05:00	06:00			83	167	250
06:00	07:00			85	276	361
07:00	08:00			144	283	427
08:00	09:00			217	263	480
09:00	10:00			193	255	448
10:00	11:00			175	296	471
11:00	12:00			169	283	452
12:00	13:00			152	289	441
13:00	14:00			144	293	437
14:00	15:00			194	303	497
15:00	16:00			163	295	458
16:00	17:00			158	289	447
17:00	18:00			189	327	516
18:00	19:00			147	290	437
19:00	20:00			125	208	333
20:00	21:00			102	171	273
21:00	22:00			81	161	242
22:00	23:00			55	81	136
23:00	00:00			30	40	70

STATISTICS

	NB	SB	EB	WB	TOTAL
Peak Period	00:00	to	12:00		
Volume			1125	1923	3048
Peak Hour			7:45	10:30	7:45
Peak Volume			223	298	497
Peak Hour Factor			0.845	0.968	0.948
Peak Period	12:00	to	00:00		
Volume			1540	2747	4287
Peak Hour			14:15	17:30	14:15
Peak Volume			205	337	522
Peak Hour Factor			0.854	0.916	0.946
Peak Period	07:00	to	09:00		
Volume			361	546	907
Peak Hour			7:45	7:15	7:45
Peak Volume			223	290	497
Peak Hour Factor			0.845	0.873	0.948
Peak Period	16:00	to	18:00		
Volume			347	616	963
Peak Hour			16:45	17:00	17:00
Peak Volume			189	327	516
Peak Hour Factor			0.875	0.889	0.977



Appendix B: LOS Worksheets

HCM 6th Signalized Intersection Summary
1: Hollywood Way & Tulare Ave

10/02/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1	47	4	3	3	68	731	10	37	1810	97
Future Volume (veh/h)	22	1	47	4	3	3	68	731	10	37	1810	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	22	1	4	4	3	0	69	738	10	37	1828	80
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	140	21	83	138	121	0	228	4354	59	575	3747	1155
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.00	0.13	1.00	1.00	0.74	0.74	0.74
Sat Flow, veh/h	1390	316	1266	1387	1856	0	3428	5150	70	708	5066	1562
Grp Volume(v), veh/h	22	0	5	4	3	0	69	484	264	37	1828	80
Grp Sat Flow(s),veh/h/ln	1390	0	1582	1387	1856	0	1714	1689	1843	708	1689	1562
Q Serve(g_s), s	2.1	0.0	0.4	0.4	0.2	0.0	2.5	0.0	0.0	2.0	20.6	2.0
Cycle Q Clear(g_c), s	2.3	0.0	0.4	0.8	0.2	0.0	2.5	0.0	0.0	2.0	20.6	2.0
Prop In Lane	1.00		0.80	1.00		0.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	140	0	103	138	121	0	228	2855	1558	575	3747	1155
V/C Ratio(X)	0.16	0.00	0.05	0.03	0.02	0.00	0.30	0.17	0.17	0.06	0.49	0.07
Avail Cap(c_a), veh/h	481	0	492	478	577	0	465	2855	1558	575	3747	1155
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	0.00	1.00	1.00	1.00	0.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	0.0	61.4	61.7	61.3	0.0	57.7	0.0	0.0	5.0	7.4	5.0
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.1	0.1	0.0	0.5	0.1	0.2	0.2	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	0.8	0.0	0.2	0.1	0.1	0.0	1.1	0.0	0.1	0.3	6.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.9	0.0	61.5	61.8	61.3	0.0	58.3	0.1	0.2	5.2	7.9	5.1
LnGrp LOS	E	A	E	E	E	A	E	A	A	A	A	A
Approach Vol, veh/h		27			7			817			1945	
Approach Delay, s/veh		62.6			61.6			5.1			7.7	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	14.8	110.0		15.1		124.9		15.1				
Change Period (Y+Rc), s	5.5	6.5		6.0		6.5		6.0				
Max Green Setting (Gmax), s	19.0	59.5		43.5		84.0		43.5				
Max Q Clear Time (g_c+I1), s	4.5	22.6		2.8		2.0		4.3				
Green Ext Time (p_c), s	0.1	19.6		0.0		5.2		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		7.6	
HCM 6th LOS		A	

HCM 6th Signalized Intersection Summary
2: Hollywood Way & Winona Ave

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	2	17	36	6	28	27	801	87	61	1745	26
Future Volume (veh/h)	3	2	17	36	6	28	27	801	87	61	1745	26
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		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	3	2	2	37	6	1	28	826	85	63	1799	26
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	142	124	103	143	203	33	324	3465	355	618	3916	57
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.07	0.09	1.00	1.00	0.13	1.00	1.00
Sat Flow, veh/h	1391	1856	1537	1395	3028	489	1767	4661	477	1767	5144	74
Grp Volume(v), veh/h	3	2	2	37	3	4	28	597	314	63	1181	644
Grp Sat Flow(s),veh/h/ln	1391	1856	1537	1395	1763	1754	1767	1689	1761	1767	1689	1841
Q Serve(g_s), s	0.3	0.1	0.2	3.6	0.3	0.3	0.5	0.0	0.0	1.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.1	0.2	3.7	0.3	0.3	0.5	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.27	1.00		0.04
Lane Grp Cap(c), veh/h	142	124	103	143	118	118	324	2511	1309	618	2571	1402
V/C Ratio(X)	0.02	0.02	0.02	0.26	0.03	0.03	0.09	0.24	0.24	0.10	0.46	0.46
Avail Cap(c_a), veh/h	481	577	478	483	548	545	417	2511	1309	680	2571	1402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.87	0.87	0.87
Uniform Delay (d), s/veh	61.3	61.0	61.0	62.7	61.1	61.1	3.0	0.0	0.0	2.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.1	0.1	0.9	0.1	0.1	0.1	0.2	0.4	0.0	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	0.1	0.1	0.1	1.3	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.4	61.1	61.1	63.7	61.2	61.2	3.0	0.2	0.4	2.5	0.5	0.9
LnGrp LOS	E	E	E	E	E	E	A	A	A	A	A	A
Approach Vol, veh/h		7			44			939			1888	
Approach Delay, s/veh		61.2			63.3			0.4			0.7	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	113.1		15.4	14.0	110.6		15.4				
Change Period (Y+Rc), s	4.9	6.5		6.0	4.9	6.5		6.0				
Max Green Setting (Gmax), s	14.6	65.1		43.5	14.0	65.1		43.5				
Max Q Clear Time (g_c+I1), s	2.5	2.0		5.7	3.0	2.0		2.6				
Green Ext Time (p_c), s	0.0	20.9		0.1	0.1	6.8		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	1.7
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
3: Hollywood Way & Airport/Thornton Ave

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	22	155	98	123	38	157	747	113	67	1428	278
Future Volume (veh/h)	143	22	155	98	123	38	157	747	113	67	1428	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.48		0.94	1.00		0.96	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	152	23	5	104	131	16	167	795	110	71	1519	281
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	244	224	181	184	390	47	324	2552	350	514	2421	446
Arrive On Green	0.07	0.12	0.12	0.07	0.12	0.12	0.14	1.00	1.00	0.13	1.00	1.00
Sat Flow, veh/h	3428	1856	1498	1767	3146	376	1767	4477	614	1767	4279	789
Grp Volume(v), veh/h	152	23	5	104	72	75	167	598	307	71	1197	603
Grp Sat Flow(s),veh/h/ln	1714	1856	1498	1767	1763	1760	1767	1689	1715	1767	1689	1691
Q Serve(g_s), s	6.0	1.5	0.3	3.7	5.2	5.4	5.5	0.0	0.0	2.1	0.0	0.0
Cycle Q Clear(g_c), s	6.0	1.5	0.3	3.7	5.2	5.4	5.5	0.0	0.0	2.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.21	1.00		0.36	1.00		0.47
Lane Grp Cap(c), veh/h	244	224	181	184	218	218	324	1925	978	514	1910	957
V/C Ratio(X)	0.62	0.10	0.03	0.57	0.33	0.34	0.52	0.31	0.31	0.14	0.63	0.63
Avail Cap(c_a), veh/h	575	524	423	229	378	377	501	1925	978	635	1910	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	63.2	54.8	37.4	60.8	56.0	56.1	9.4	0.0	0.0	9.1	0.0	0.0
Incr Delay (d2), s/veh	2.6	0.2	0.1	1.0	0.9	0.9	0.9	0.4	0.8	0.1	1.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.7	0.2	3.6	2.4	2.5	1.9	0.1	0.2	0.8	0.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.8	55.0	37.4	61.8	56.9	57.0	10.4	0.4	0.8	9.2	1.4	2.8
LnGrp LOS	E	E	D	E	E	E	B	A	A	A	A	A
Approach Vol, veh/h		180			251			1072			1871	
Approach Delay, s/veh		63.6			59.0			2.1			2.1	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	85.7	16.0	23.3	14.4	86.3	16.4	22.9
Change Period (Y+Rc), s	5.0	6.5	6.0	6.0	5.0	6.5	6.0	6.0
Max Green Setting (Gmax), s	24.0	39.0	23.5	30.0	19.0	44.0	14.0	39.5
Max Q Clear Time (g_c+I1), s	7.5	2.0	8.0	7.4	4.1	2.0	5.7	3.5
Green Ext Time (p_c), s	0.3	17.5	0.4	0.7	0.1	6.7	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
4: Hollywood Way & Avon St

10/02/2024



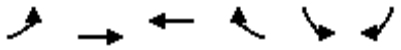
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	6	23	89	29	121	68	857	40	23	1353	12
Future Volume (veh/h)	73	6	23	89	29	121	68	857	40	23	1353	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	76	6	24	93	30	126	71	893	41	24	1409	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	147	54	215	259	52	217	118	2283	105	77	2951	25
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.07	0.67	0.67	0.04	0.64	0.64
Sat Flow, veh/h	1215	318	1273	1358	306	1284	1767	3427	157	1767	4593	39
Grp Volume(v), veh/h	76	0	30	93	0	156	71	459	475	24	854	567
Grp Sat Flow(s),veh/h/ln	1215	0	1591	1358	0	1590	1767	1763	1822	1767	1392	1848
Q Serve(g_s), s	8.6	0.0	2.2	8.7	0.0	12.7	5.5	16.5	16.5	1.8	22.1	22.1
Cycle Q Clear(g_c), s	21.3	0.0	2.2	11.0	0.0	12.7	5.5	16.5	16.5	1.8	22.1	22.1
Prop In Lane	1.00		0.80	1.00		0.81	1.00		0.09	1.00		0.02
Lane Grp Cap(c), veh/h	147	0	269	259	0	269	118	1174	1214	77	1789	1188
V/C Ratio(X)	0.52	0.00	0.11	0.36	0.00	0.58	0.60	0.39	0.39	0.31	0.48	0.48
Avail Cap(c_a), veh/h	371	0	562	510	0	562	252	1174	1214	252	1789	1188
HCM Platoon Ratio	1.00	1.00	1.00	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	0.99	0.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.4	0.0	49.3	53.9	0.0	53.6	63.5	10.5	10.5	64.9	12.9	12.9
Incr Delay (d2), s/veh	2.8	0.0	0.2	0.8	0.0	2.0	3.6	1.0	0.9	1.7	0.9	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	2.8	0.0	0.9	3.1	0.0	5.3	2.6	6.3	6.5	0.9	6.7	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.2	0.0	49.4	54.7	0.0	55.6	67.1	11.5	11.5	66.7	13.8	14.3
LnGrp LOS	E	A	D	D	A	E	E	B	B	E	B	B
Approach Vol, veh/h		106			249			1005			1445	
Approach Delay, s/veh		61.5			55.2			15.4			14.9	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.9	96.5		28.7	11.6	99.8		28.7
Change Period (Y+Rc), s	5.5	6.5		5.0	5.5	6.5		5.0
Max Green Setting (Gmax), s	20.0	53.5		49.5	20.0	53.5		49.5
Max Q Clear Time (g_c+I1), s	17.5	24.1		14.7	3.8	18.5		23.3
Green Ext Time (p_c), s	0.1	11.1		1.4	0.0	6.5		0.4

Intersection Summary		
HCM 6th Ctrl Delay	20.4	
HCM 6th LOS	C	

HCM 6th Signalized Intersection Summary
5: Empire Ave & N Hollywood Way

10/02/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	541	82	0	72	149
Future Volume (veh/h)	0	541	82	0	72	149
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	0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	0	622	94	0	83	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	3	3	0	3	3
Cap, veh/h	0	2707	2707	0	196	
Arrive On Green	0.00	1.00	0.77	0.00	0.11	0.00
Sat Flow, veh/h	0	3711	3711	0	1767	1572
Grp Volume(v), veh/h	0	622	94	0	83	0
Grp Sat Flow(s),veh/h/ln	0	1763	1763	0	1767	1572
Q Serve(g_s), s	0.0	0.0	0.6	0.0	3.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.6	0.0	3.9	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2707	2707	0	196	
V/C Ratio(X)	0.00	0.23	0.03	0.00	0.42	
Avail Cap(c_a), veh/h	0	2707	2707	0	465	
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.95	0.99	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	2.5	0.0	37.3	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.2	2.5	0.0	39.4	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h		622	94		83	
Approach Delay, s/veh		0.2	2.5		39.4	
Approach LOS		A	A		D	

Timer - Assigned Phs	2		4		6
Phs Duration (G+Y+Rc), s	75.4		14.6		75.4
Change Period (Y+Rc), s	6.3		4.6		6.3
Max Green Setting (Gmax), s	55.4		23.7		55.4
Max Q Clear Time (g_c+I1), s	2.0		5.9		2.6
Green Ext Time (p_c), s	4.5		0.3		0.6

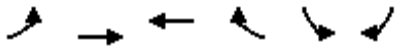
Intersection Summary	
HCM 6th Ctrl Delay	4.5
HCM 6th LOS	A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
6: Empire Ave & Avon St

10/02/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	119	452	302	57	62	15
Future Volume (veh/h)	119	452	302	57	62	15
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	0.98
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	131	497	332	53	68	4
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	831	2802	2022	319	152	9
Arrive On Green	0.08	0.79	0.66	0.66	0.09	0.09
Sat Flow, veh/h	1767	3618	3142	482	1634	96
Grp Volume(v), veh/h	131	497	191	194	73	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1763	1768	1754	0
Q Serve(g_s), s	1.8	3.3	4.0	4.0	3.8	0.0
Cycle Q Clear(g_c), s	1.8	3.3	4.0	4.0	3.8	0.0
Prop In Lane	1.00			0.27	0.93	0.05
Lane Grp Cap(c), veh/h	831	2802	1169	1172	163	0
V/C Ratio(X)	0.16	0.18	0.16	0.17	0.45	0.00
Avail Cap(c_a), veh/h	1054	2802	1169	1172	465	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.99	0.99	0.99	0.00
Uniform Delay (d), s/veh	3.1	2.4	6.2	6.2	41.6	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.3	0.3	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.7	1.4	1.4	1.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.2	2.5	6.5	6.5	43.5	0.0
LnGrp LOS	A	A	A	A	D	A
Approach Vol, veh/h		628	385		73	
Approach Delay, s/veh		2.7	6.5		43.5	
Approach LOS		A	A		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		83.4		13.6	12.8	70.6
Change Period (Y+Rc), s		6.3		4.6	5.0	6.3
Max Green Setting (Gmax), s		53.4		25.7	20.0	35.0
Max Q Clear Time (g_c+I1), s		5.3		5.8	3.8	6.0
Green Ext Time (p_c), s		3.4		0.1	0.1	2.3

Intersection Summary		
HCM 6th Ctrl Delay		6.8
HCM 6th LOS		A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
7: Empire Ave & Airport

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	433	5	1	284	40	0	0	0	133	1	7
Future Volume (veh/h)	139	433	5	1	284	40	0	0	0	133	1	7
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.96				1.00		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	1856	1856	1856	1856	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	153	476	5	1	312	43				153	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3				3	3	3
Cap, veh/h	811	1399	15	41	1922	261				408	214	0
Arrive On Green	0.08	0.76	0.76	0.63	0.63	0.63				0.12	0.00	0.00
Sat Flow, veh/h	1767	1832	19	1	3037	412				3534	1856	0
Grp Volume(v), veh/h	153	0	481	189	0	167				153	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1851	1855	0	1595				1767	1856	0
Q Serve(g_s), s	2.3	0.0	7.5	0.0	0.0	3.9				3.6	0.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	7.5	3.8	0.0	3.9				3.6	0.0	0.0
Prop In Lane	1.00		0.01	0.01		0.26				1.00		0.00
Lane Grp Cap(c), veh/h	811	0	1413	1214	0	1009				408	214	0
V/C Ratio(X)	0.19	0.00	0.34	0.16	0.00	0.17				0.38	0.00	0.00
Avail Cap(c_a), veh/h	821	0	1413	1214	0	1009				931	489	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	0.96	0.00	0.96				1.00	0.00	0.00
Uniform Delay (d), s/veh	3.8	0.0	3.4	6.8	0.0	6.8				36.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.3	0.0	0.3				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
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.9	1.3	0.0	1.2				1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.8	0.0	4.1	7.0	0.0	7.1				37.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				D	A	A
Approach Vol, veh/h		634			356						153	
Approach Delay, s/veh		4.0			7.1						37.4	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6			
Phs Duration (G+Y+Rc), s		75.0		15.0	11.7	63.3			
Change Period (Y+Rc), s		6.3		4.6	4.9	6.3			
Max Green Setting (Gmax), s		55.4		23.7	7.4	43.1			
Max Q Clear Time (g_c+I1), s		9.5		5.6	4.3	5.9			
Green Ext Time (p_c), s		3.1		0.4	0.1	2.1			

Intersection Summary		
HCM 6th Ctrl Delay	9.4	
HCM 6th LOS	A	

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
8: Hollywood Way & Victory Bl

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	763	129	96	491	72	73	691	87	141	1107	207
Future Volume (veh/h)	201	763	129	96	491	72	73	691	87	141	1107	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	236	898	83	113	578	34	86	813	67	166	1302	200
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	317	964	527	190	811	464	210	1527	788	342	1536	852
Arrive On Green	0.11	0.27	0.27	0.07	0.23	0.23	0.07	0.43	0.43	0.07	0.44	0.44
Sat Flow, veh/h	1767	3526	1531	1767	3526	1529	1767	3526	1564	1767	3526	1544
Grp Volume(v), veh/h	236	898	83	113	578	34	86	813	67	166	1302	200
Grp Sat Flow(s),veh/h/ln	1767	1763	1531	1767	1763	1529	1767	1763	1564	1767	1763	1544
Q Serve(g_s), s	13.8	34.8	5.3	6.7	21.1	2.2	3.6	23.8	3.1	7.2	46.3	9.4
Cycle Q Clear(g_c), s	13.8	34.8	5.3	6.7	21.1	2.2	3.6	23.8	3.1	7.2	46.3	9.4
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	317	964	527	190	811	464	210	1527	788	342	1536	852
V/C Ratio(X)	0.75	0.93	0.16	0.59	0.71	0.07	0.41	0.53	0.08	0.49	0.85	0.23
Avail Cap(c_a), veh/h	367	992	539	318	992	542	340	1527	788	469	1536	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	36.0	49.6	32.0	40.1	49.6	35.0	28.3	29.2	18.0	21.7	35.4	16.3
Incr Delay (d2), s/veh	5.4	14.6	0.1	1.1	1.9	0.1	0.5	1.3	0.2	0.4	6.0	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	6.4	17.1	2.0	3.0	9.5	0.8	1.5	10.3	1.2	3.0	20.7	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	64.2	32.1	41.2	51.5	35.0	28.7	30.6	18.2	22.1	41.4	17.0
LnGrp LOS	D	E	C	D	D	D	C	C	B	C	D	B
Approach Vol, veh/h		1217			725			966			1668	
Approach Delay, s/veh		57.6			49.1			29.5			36.5	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	44.3	14.2	67.0	20.6	38.2	14.6	66.6
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	9.7	36.8	5.6	48.3	15.8	23.1	9.2	25.8
Green Ext Time (p_c), s	0.1	1.5	0.1	0.0	0.1	3.5	0.2	4.8

Intersection Summary	
HCM 6th Ctrl Delay	42.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
9: Hollywood Way & Burbank Bl

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	507	26	124	457	48	63	650	91	169	1136	106
Future Volume (veh/h)	158	507	26	124	457	48	63	650	91	169	1136	106
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		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	176	563	23	138	508	-16	70	722	97	188	1262	56
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	254	667	27	219	619	276	268	1576	212	414	1800	799
Arrive On Green	0.10	0.19	0.19	0.08	0.18	0.00	0.07	0.51	0.51	0.07	0.51	0.51
Sat Flow, veh/h	1767	3451	141	1767	3526	1572	1767	3116	418	1767	3526	1566
Grp Volume(v), veh/h	176	287	299	138	508	-16	70	408	411	188	1262	56
Grp Sat Flow(s),veh/h/ln	1767	1763	1829	1767	1763	1572	1767	1763	1772	1767	1763	1566
Q Serve(g_s), s	11.3	22.0	22.0	8.9	19.4	0.0	2.5	20.8	20.9	7.0	38.2	2.5
Cycle Q Clear(g_c), s	11.3	22.0	22.0	8.9	19.4	0.0	2.5	20.8	20.9	7.0	38.2	2.5
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	254	341	354	219	619	276	268	892	896	414	1800	799
V/C Ratio(X)	0.69	0.84	0.84	0.63	0.82	-0.06	0.26	0.46	0.46	0.45	0.70	0.07
Avail Cap(c_a), veh/h	337	496	515	333	992	443	402	892	896	540	1800	799
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	43.0	54.4	54.4	43.9	55.6	0.0	19.4	22.2	22.3	16.2	26.1	17.4
Incr Delay (d2), s/veh	1.9	8.6	8.4	1.1	3.0	0.0	0.2	1.7	1.7	0.3	2.3	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	5.1	10.5	10.9	3.9	8.9	0.0	1.0	9.0	9.0	2.8	16.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	63.0	62.9	45.1	58.6	0.0	19.6	23.9	23.9	16.5	28.4	17.6
LnGrp LOS	D	E	E	D	E	A	B	C	C	B	C	B
Approach Vol, veh/h		762			630			889			1506	
Approach Delay, s/veh		58.8			57.1			23.6			26.5	
Approach LOS		E			E			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	33.1	13.9	77.5	18.0	30.6	14.6	76.8
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	10.9	24.0	4.5	40.2	13.3	21.4	9.0	22.9
Green Ext Time (p_c), s	0.1	3.0	0.1	0.0	0.1	3.1	0.2	4.7

Intersection Summary	
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
10: Buena Vista St & I-5 NB Ramps

10/02/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	165	592	286	259	449	85
Future Volume (veh/h)	165	592	286	259	449	85
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	170	0	295	267	463	84
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	278		502	1191	574	104
Arrive On Green	0.16	0.00	0.17	0.64	0.38	0.38
Sat Flow, veh/h	1767	1572	1767	1856	1527	277
Grp Volume(v), veh/h	170	0	295	267	0	547
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1856	0	1804
Q Serve(g_s), s	5.4	0.0	5.1	3.6	0.0	16.2
Cycle Q Clear(g_c), s	5.4	0.0	5.1	3.6	0.0	16.2
Prop In Lane	1.00	1.00	1.00			0.15
Lane Grp Cap(c), veh/h	278		502	1191	0	678
V/C Ratio(X)	0.61		0.59	0.22	0.00	0.81
Avail Cap(c_a), veh/h	1478		1539	1862	0	1811
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	23.5	0.0	10.5	4.5	0.0	16.7
Incr Delay (d2), s/veh	0.8	0.0	0.4	0.1	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.5	1.0	0.0	6.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.3	0.0	11.0	4.6	0.0	19.1
LnGrp LOS	C		B	A	A	B
Approach Vol, veh/h	170			562	547	
Approach Delay, s/veh	24.3			7.9	19.1	
Approach LOS	C			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.4		15.4	15.9	28.5
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		60.0		50.0	45.0	60.0
Max Q Clear Time (g_c+I1), s		5.6		7.4	7.1	18.2
Green Ext Time (p_c), s		1.7		0.2	0.4	4.2

Intersection Summary		
HCM 6th Ctrl Delay		14.9
HCM 6th LOS		B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	18.1
Intersection LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	353	46	147	257	195	65
Future Vol, veh/h	353	46	147	257	195	65
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	392	51	163	286	217	72
Number of Lanes	2	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	15.8	23	14.1
HCM LOS	C	C	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	72%	100%	0%
Vol Thru, %	36%	0%	0%	0%	100%
Vol Right, %	64%	0%	28%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	404	235	164	195	65
LT Vol	0	235	118	195	0
Through Vol	147	0	0	0	65
RT Vol	257	0	46	0	0
Lane Flow Rate	449	261	182	217	72
Geometry Grp	3b	5	5	5	5
Degree of Util (X)	0.728	0.522	0.345	0.432	0.134
Departure Headway (Hd)	5.84	7.182	6.839	7.173	6.663
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	619	502	524	501	536
Service Time	3.896	4.941	4.598	4.943	4.433
HCM Lane V/C Ratio	0.725	0.52	0.347	0.433	0.134
HCM Control Delay	23	17.6	13.2	15.3	10.5
HCM Lane LOS	C	C	B	C	B
HCM 95th-tile Q	6.2	3	1.5	2.2	0.5

HCM 6th Signalized Intersection Summary
12: Buena Vista St & Winona Ave

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	73	311	247	86	66	115	434	192	49	781	204
Future Volume (veh/h)	43	73	311	247	86	66	115	434	192	49	781	204
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		0.97	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	45	77	239	260	91	51	121	457	173	52	822	202
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	116	198	385	321	202	113	250	1178	442	354	985	242
Arrive On Green	0.17	0.17	0.17	0.18	0.18	0.18	0.07	0.47	0.47	0.35	0.35	0.35
Sat Flow, veh/h	672	1150	1572	1767	1115	625	1767	2486	932	786	2798	687
Grp Volume(v), veh/h	122	0	239	260	0	142	121	323	307	52	518	506
Grp Sat Flow(s),veh/h/ln	1822	0	1572	1767	0	1741	1767	1763	1655	786	1763	1722
Q Serve(g_s), s	5.5	0.0	12.6	13.1	0.0	6.8	3.8	11.0	11.1	4.3	25.0	25.0
Cycle Q Clear(g_c), s	5.5	0.0	12.6	13.1	0.0	6.8	3.8	11.0	11.1	4.3	25.0	25.0
Prop In Lane	0.37		1.00	1.00		0.36	1.00		0.56	1.00		0.40
Lane Grp Cap(c), veh/h	314	0	385	321	0	316	250	835	784	354	621	607
V/C Ratio(X)	0.39	0.00	0.62	0.81	0.00	0.45	0.48	0.39	0.39	0.15	0.83	0.83
Avail Cap(c_a), veh/h	687	0	706	666	0	656	789	835	784	416	759	742
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	0.0	31.2	36.5	0.0	33.9	20.4	15.7	15.8	20.9	27.6	27.6
Incr Delay (d2), s/veh	0.8	0.0	1.6	4.9	0.0	1.0	0.5	0.3	0.3	0.2	6.7	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	2.5	0.0	4.9	6.1	0.0	2.9	1.5	4.2	4.0	0.8	11.1	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	0.0	32.9	41.4	0.0	34.9	20.9	16.0	16.1	21.1	34.3	34.4
LnGrp LOS	C	A	C	D	A	C	C	B	B	C	C	C
Approach Vol, veh/h		361			402			751			1076	
Approach Delay, s/veh		33.6			39.1			16.8			33.7	
Approach LOS		C			D			B			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.3	38.7		21.8		50.0		21.0				
Change Period (Y+Rc), s	4.6	6.0		* 5		6.0		5.0				
Max Green Setting (Gmax), s	35.0	40.0		* 35		40.0		35.0				
Max Q Clear Time (g_c+I1), s	15.8	27.0		15.1		13.1		14.6				
Green Ext Time (p_c), s	0.2	5.7		1.6		4.1		1.4				

Intersection Summary		
HCM 6th Ctrl Delay		29.6
HCM 6th LOS		C

Notes

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

HCM 6th Signalized Intersection Summary
13: Buena Vista St & San Fernando Bl

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	237	82	37	148	151	41	468	21	169	811	362
Future Volume (veh/h)	124	237	82	37	148	151	41	468	21	169	811	362
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	127	242	68	38	151	26	42	478	19	172	828	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	429	620	170	340	678	301	84	964	38	251	1336	
Arrive On Green	0.08	0.23	0.23	0.04	0.19	0.19	0.05	0.28	0.28	0.14	0.38	0.00
Sat Flow, veh/h	1767	2729	750	1767	3526	1563	1767	3455	137	1767	3526	1572
Grp Volume(v), veh/h	127	154	156	38	151	26	42	243	254	172	828	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1716	1767	1763	1563	1767	1763	1829	1767	1763	1572
Q Serve(g_s), s	4.0	5.2	5.4	1.2	2.5	1.0	1.6	8.1	8.2	6.5	13.4	0.0
Cycle Q Clear(g_c), s	4.0	5.2	5.4	1.2	2.5	1.0	1.6	8.1	8.2	6.5	13.4	0.0
Prop In Lane	1.00		0.44	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	429	400	390	340	678	301	84	492	510	251	1336	
V/C Ratio(X)	0.30	0.39	0.40	0.11	0.22	0.09	0.50	0.50	0.50	0.68	0.62	
Avail Cap(c_a), veh/h	791	1003	976	763	2005	889	628	1880	1951	1005	4512	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	20.1	23.0	23.1	21.0	24.0	23.3	32.7	21.2	21.2	28.7	17.7	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.7	0.1	0.2	0.1	1.7	1.1	1.1	3.3	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	1.5	2.1	2.1	0.5	1.0	0.3	0.7	3.3	3.4	2.8	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	23.6	23.8	21.0	24.1	23.4	34.3	22.3	22.3	31.9	18.4	0.0
LnGrp LOS	C	C	C	C	C	C	C	C	C	C	B	
Approach Vol, veh/h		437			215			539			1000	
Approach Delay, s/veh		22.7			23.5			23.2			20.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	22.0	8.0	32.7	10.2	19.5	15.0	25.6
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	5.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	25.0	90.0	20.0	40.0	40.0	75.0
Max Q Clear Time (g_c+I1), s	3.2	7.4	3.6	15.4	6.0	4.5	8.5	10.2
Green Ext Time (p_c), s	0.0	1.8	0.0	10.5	0.1	1.0	0.5	4.8

Intersection Summary	
HCM 6th Ctrl Delay	22.0
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
14: Ontario St & Thornton Ave

10/02/2024



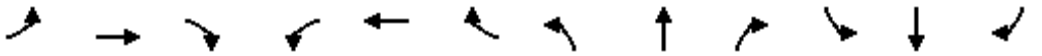
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	93	64	26	243	17	28	20	19	12	10	15
Future Volume (veh/h)	20	93	64	26	243	17	28	20	19	12	10	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.98		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	22	103	51	29	270	17	31	22	0	13	11	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	866	827	409	880	1222	77	172	101	0	162	113	0
Arrive On Green	0.23	0.23	0.23	1.00	1.00	1.00	0.12	0.12	0.00	0.12	0.12	0.00
Sat Flow, veh/h	1078	1168	578	1218	1726	109	752	837	0	682	934	0
Grp Volume(v), veh/h	22	0	154	29	0	287	53	0	0	24	0	0
Grp Sat Flow(s),veh/h/ln	1078	0	1747	1218	0	1835	1590	0	0	1616	0	0
Q Serve(g_s), s	1.1	0.0	4.9	0.2	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.0	4.9	5.0	0.0	0.0	1.9	0.0	0.0	0.8	0.0	0.0
Prop In Lane	1.00		0.33	1.00		0.06	0.58		0.00	0.54		0.00
Lane Grp Cap(c), veh/h	866	0	1236	880	0	1299	274	0	0	275	0	0
V/C Ratio(X)	0.03	0.00	0.12	0.03	0.00	0.22	0.19	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	866	0	1236	880	0	1299	725	0	0	729	0	0
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.98	0.00	0.98	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.3	0.0	9.7	0.2	0.0	0.0	27.8	0.0	0.0	27.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.1	0.0	0.4	0.3	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	0.0	1.5	0.0	0.0	0.1	0.8	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.3	0.0	9.9	0.3	0.0	0.4	28.2	0.0	0.0	27.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		176			316			53			24	
Approach Delay, s/veh		9.7			0.4			28.2			27.5	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	55.5	14.5	55.5	14.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	29.0	29.0	29.0	29.0
Max Q Clear Time (g_c+I1), s	6.9	3.9	7.0	2.8
Green Ext Time (p_c), s	0.9	0.2	1.8	0.1

Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
15: Empire Ave & Ontario St

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	403	0	4	377	66	0	1	1	39	0	32
Future Volume (veh/h)	42	403	0	4	377	66	0	1	1	39	0	32
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	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	45	433	0	4	405	60	0	1	0	42	0	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	742	2668	0	764	2326	342	0	144	0	187	0	121
Arrive On Green	0.76	0.76	0.00	0.76	0.76	0.76	0.00	0.08	0.00	0.08	0.00	0.08
Sat Flow, veh/h	919	3618	0	947	3073	452	0	1856	0	1385	0	1564
Grp Volume(v), veh/h	45	433	0	4	231	234	0	1	0	42	0	2
Grp Sat Flow(s),veh/h/ln	919	1763	0	947	1763	1762	0	1856	0	1385	0	1564
Q Serve(g_s), s	1.3	3.1	0.0	0.1	3.3	3.4	0.0	0.0	0.0	2.6	0.0	0.1
Cycle Q Clear(g_c), s	4.7	3.1	0.0	3.2	3.3	3.4	0.0	0.0	0.0	2.6	0.0	0.1
Prop In Lane	1.00		0.00	1.00		0.26	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	742	2668	0	764	1334	1334	0	144	0	187	0	121
V/C Ratio(X)	0.06	0.16	0.00	0.01	0.17	0.18	0.00	0.01	0.00	0.22	0.00	0.02
Avail Cap(c_a), veh/h	742	2668	0	764	1334	1334	0	200	0	411	0	372
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.00	0.87	0.87	0.87	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.7	3.0	0.0	3.5	3.1	3.1	0.0	38.3	0.0	39.5	0.0	38.3
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.6	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	0.2	0.8	0.0	0.0	0.9	0.9	0.0	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.9	3.2	0.0	3.5	3.3	3.3	0.0	38.3	0.0	40.1	0.0	38.4
LnGrp LOS	A	A	A	A	A	A	A	D	A	D	A	D
Approach Vol, veh/h		478			469			1			44	
Approach Delay, s/veh		3.2			3.3			38.3			40.0	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		74.4		15.6		74.4		15.6				
Change Period (Y+Rc), s		6.3		* 8.6		6.3		* 8.6				
Max Green Setting (Gmax), s		39.4		* 9.7		39.4		* 21				
Max Q Clear Time (g_c+I1), s		6.7		2.0		5.4		4.6				
Green Ext Time (p_c), s		3.9		0.0		3.6		0.1				

Intersection Summary		
HCM 6th Ctrl Delay	4.9	
HCM 6th LOS	A	

Notes

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

HCM 6th Signalized Intersection Summary
16: Buena Vista St & Empire Ave

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	352	135	397	393	86	96	485	634	80	736	29
Future Volume (veh/h)	49	352	135	397	393	86	96	485	634	80	736	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	51	367	18	414	409	75	100	505	575	83	767	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	117	497	216	476	742	135	473	1815	1012	141	1782	65
Arrive On Green	0.04	0.14	0.14	0.14	0.25	0.25	0.04	0.51	0.51	0.08	1.00	1.00
Sat Flow, veh/h	1767	3526	1530	3428	2969	540	1767	3526	1542	3428	3466	127
Grp Volume(v), veh/h	51	367	18	414	241	243	100	505	575	83	390	405
Grp Sat Flow(s),veh/h/ln	1767	1763	1530	1714	1763	1746	1767	1763	1542	1714	1763	1830
Q Serve(g_s), s	3.7	14.0	1.2	16.6	16.7	16.9	3.7	11.4	6.4	3.3	0.0	0.0
Cycle Q Clear(g_c), s	3.7	14.0	1.2	16.6	16.7	16.9	3.7	11.4	6.4	3.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	117	497	216	476	441	436	473	1815	1012	141	906	941
V/C Ratio(X)	0.44	0.74	0.08	0.87	0.55	0.56	0.21	0.28	0.57	0.59	0.43	0.43
Avail Cap(c_a), veh/h	228	755	328	710	567	561	563	1815	1012	416	906	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	56.4	57.7	38.6	59.1	45.6	45.7	14.6	19.2	4.4	63.1	0.0	0.0
Incr Delay (d2), s/veh	1.9	2.1	0.2	6.8	1.1	1.1	0.2	0.4	2.3	2.7	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.4	0.6	7.6	7.4	7.5	1.5	4.7	4.3	1.4	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	59.8	38.8	65.9	46.7	46.9	14.8	19.6	6.7	65.8	1.4	1.4
LnGrp LOS	E	E	D	E	D	D	B	B	A	E	A	A
Approach Vol, veh/h		436			898			1180			878	
Approach Delay, s/veh		58.7			55.6			12.9			7.5	
Approach LOS		E			E			B			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.4	25.7	10.9	78.0	10.2	41.0	10.8	78.1
Change Period (Y+Rc), s	6.0	* 6	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	29.0	* 30	13.0	46.0	14.0	45.0	17.0	42.0
Max Q Clear Time (g_c+I1), s	18.6	16.0	5.7	2.0	5.7	18.9	5.3	13.4
Green Ext Time (p_c), s	0.9	2.0	0.1	5.6	0.0	2.9	0.1	7.8

Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

HCM 6th Signalized Intersection Summary
17: Buena Vista St & Thornton Ave

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	25	102	7	16	12	114	491	17	12	733	190
Future Volume (veh/h)	33	25	102	7	16	12	114	491	17	12	733	190
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	34	26	8	7	16	1	116	501	16	12	748	188
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	105	32	132	133	8	518	2773	88	776	2354	592
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	1.00	1.00	1.00	0.02	0.84	0.84
Sat Flow, veh/h	1375	1358	418	1355	1727	108	593	3487	111	1767	2789	701
Grp Volume(v), veh/h	34	0	34	7	0	17	116	253	264	12	473	463
Grp Sat Flow(s),veh/h/ln	1375	0	1776	1355	0	1835	593	1763	1835	1767	1763	1727
Q Serve(g_s), s	3.3	0.0	2.5	0.7	0.0	1.2	0.4	0.0	0.0	0.2	8.0	8.0
Cycle Q Clear(g_c), s	4.5	0.0	2.5	3.2	0.0	1.2	1.5	0.0	0.0	0.2	8.0	8.0
Prop In Lane	1.00		0.24	1.00		0.06	1.00		0.06	1.00		0.41
Lane Grp Cap(c), veh/h	146	0	137	132	0	142	518	1402	1460	776	1488	1458
V/C Ratio(X)	0.23	0.00	0.25	0.05	0.00	0.12	0.22	0.18	0.18	0.02	0.32	0.32
Avail Cap(c_a), veh/h	570	0	685	550	0	708	518	1402	1460	938	1488	1458
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	0.00	1.00	1.00	0.00	1.00	0.96	0.96	0.96	0.84	0.84	0.84
Uniform Delay (d), s/veh	62.3	0.0	60.8	62.3	0.0	60.2	0.0	0.0	0.0	2.2	2.3	2.3
Incr Delay (d2), s/veh	0.8	0.0	0.9	0.2	0.0	0.4	1.0	0.3	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.2	0.2	0.0	0.6	0.1	0.1	0.1	0.0	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.1	0.0	61.7	62.4	0.0	60.5	1.0	0.3	0.3	2.2	2.8	2.8
LnGrp LOS	E	A	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		68			24			633			948	
Approach Delay, s/veh		62.4			61.1			0.4			2.8	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	6.8	117.4		15.8		124.2		15.8				
Change Period (Y+Rc), s	4.6	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	15.0	55.4		54.0		75.0		54.0				
Max Q Clear Time (g_c+I1), s	2.2	3.5		6.5		10.0		5.2				
Green Ext Time (p_c), s	0.0	4.8		0.3		7.4		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		5.1	
HCM 6th LOS		A	

HCM 6th Signalized Intersection Summary
18: I-5 SB Ramps & Empire Ave

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	387	580	388	942	0	0	0	0	279	1	124
Future Volume (veh/h)	0	387	580	388	942	0	0	0	0	279	1	124
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	1856	1856	1856	1856	0				1856	1856	1856
Adj Flow Rate, veh/h	0	421	301	422	1024	0				304	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0				3	3	3
Cap, veh/h	0	2034	904	494	2718	0				392	0	
Arrive On Green	0.00	0.58	0.58	0.14	0.77	0.00				0.11	0.00	0.00
Sat Flow, veh/h	0	3618	1568	3428	3618	0				3534	0	1572
Grp Volume(v), veh/h	0	421	301	422	1024	0				304	0	0
Grp Sat Flow(s),veh/h/ln	0	1763	1568	1714	1763	0				1767	0	1572
Q Serve(g_s), s	0.0	6.3	11.1	13.2	10.3	0.0				9.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.3	11.1	13.2	10.3	0.0				9.2	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2034	904	494	2718	0				392	0	
V/C Ratio(X)	0.00	0.21	0.33	0.85	0.38	0.00				0.78	0.00	
Avail Cap(c_a), veh/h	0	2034	904	795	2718	0				1012	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)	0.00	1.00	1.00	0.74	0.74	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	11.2	12.2	45.9	4.1	0.0				47.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	1.0	2.1	0.3	0.0				3.3	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
%ile BackOfQ(50%),veh/ln	0.0	2.4	3.9	5.7	2.9	0.0				4.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.4	13.2	48.0	4.4	0.0				50.9	0.0	0.0
LnGrp LOS	A	B	B	D	A	A				D	A	
Approach Vol, veh/h		722			1446						304	
Approach Delay, s/veh		12.1			17.1						50.9	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	21.4	70.0		18.7		91.3
Change Period (Y+Rc), s	5.5	6.5		6.5		6.5
Max Green Setting (Gmax), s	15.5	34.5		31.5		65.5
Max Q Clear Time (g_c+I1), s	15.2	13.1		11.2		12.3
Green Ext Time (p_c), s	0.6	5.5		1.0		14.0

Intersection Summary	
HCM 6th Ctrl Delay	19.8
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
19: I-5 NB Ramps & Empire Ave

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	637	0	0	805	287	536	3	178	0	0	0
Future Volume (veh/h)	17	637	0	0	805	287	536	3	178	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		0.98	1.00		0.98			
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	1856	1856	0	0	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	18	692	0	0	875	289	585	0	33			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	132	2416	0	0	1548	510	695	0	304			
Arrive On Green	0.08	1.00	0.00	0.00	0.60	0.60	0.20	0.00	0.20			
Sat Flow, veh/h	3428	3618	0	0	2687	855	3534	0	1548			
Grp Volume(v), veh/h	18	692	0	0	594	570	585	0	33			
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	1686	1767	0	1548			
Q Serve(g_s), s	0.5	0.0	0.0	0.0	22.5	22.7	17.5	0.0	1.9			
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.0	22.5	22.7	17.5	0.0	1.9			
Prop In Lane	1.00		0.00	0.00		0.51	1.00		1.00			
Lane Grp Cap(c), veh/h	132	2416	0	0	1052	1006	695	0	304			
V/C Ratio(X)	0.14	0.29	0.00	0.00	0.56	0.57	0.84	0.00	0.11			
Avail Cap(c_a), veh/h	732	2416	0	0	1052	1006	1076	0	472			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	49.1	0.0	0.0	0.0	13.5	13.5	42.5	0.0	36.3			
Incr Delay (d2), s/veh	0.2	0.3	0.0	0.0	2.2	2.3	3.7	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			
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.0	0.0	8.9	8.6	7.9	0.0	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	0.3	0.0	0.0	15.7	15.8	46.3	0.0	36.4			
LnGrp LOS	D	A	A	A	B	B	D	A	D			
Approach Vol, veh/h		710			1164			618				
Approach Delay, s/veh		1.5			15.8			45.7				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		81.9			9.7	72.1		28.1				
Change Period (Y+Rc), s		6.5			5.5	6.5		6.5				
Max Green Setting (Gmax), s		63.5			23.5	34.5		33.5				
Max Q Clear Time (g_c+I1), s		2.0			2.5	24.7		19.5				
Green Ext Time (p_c), s		8.1			0.0	6.4		2.0				

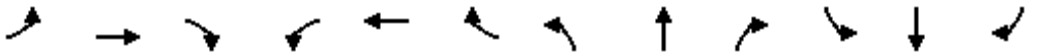
Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Hollywood Way & Tulare Ave

10/02/2024



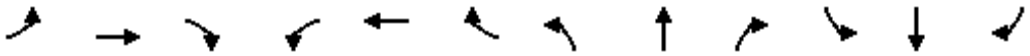
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	0	75	23	2	36	58	1524	3	8	1169	84
Future Volume (veh/h)	75	0	75	23	2	36	58	1524	3	8	1169	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.98	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	84	0	1	26	2	19	65	1712	3	9	1313	72
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	168	0	152	187	14	138	225	4246	7	251	3587	1109
Arrive On Green	0.10	0.00	0.10	0.10	0.10	0.10	0.13	1.00	1.00	0.71	0.71	0.71
Sat Flow, veh/h	1372	0	1563	1396	149	1411	3428	5222	9	282	5066	1566
Grp Volume(v), veh/h	84	0	1	26	0	21	65	1107	608	9	1313	72
Grp Sat Flow(s),veh/h/ln	1372	0	1563	1396	0	1559	1714	1689	1854	282	1689	1566
Q Serve(g_s), s	8.4	0.0	0.1	2.4	0.0	1.7	2.4	0.0	0.0	1.3	14.3	2.0
Cycle Q Clear(g_c), s	10.1	0.0	0.1	2.5	0.0	1.7	2.4	0.0	0.0	1.3	14.3	2.0
Prop In Lane	1.00		1.00	1.00		0.90	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	168	0	152	187	0	152	225	2746	1507	251	3587	1109
V/C Ratio(X)	0.50	0.00	0.01	0.14	0.00	0.14	0.29	0.40	0.40	0.04	0.37	0.06
Avail Cap(c_a), veh/h	461	0	486	485	0	484	465	2746	1507	251	3587	1109
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	0.00	1.00	1.00	0.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.4	0.0	57.0	58.2	0.0	57.8	57.8	0.0	0.0	6.2	8.0	6.3
Incr Delay (d2), s/veh	2.3	0.0	0.0	0.3	0.0	0.4	0.5	0.4	0.7	0.3	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	3.1	0.0	0.0	0.9	0.0	0.7	1.0	0.2	0.3	0.1	4.8	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	0.0	57.1	58.5	0.0	58.2	58.3	0.4	0.7	6.4	8.3	6.4
LnGrp LOS	E	A	E	E	A	E	E	A	A	A	A	A
Approach Vol, veh/h		85			47			1780			1394	
Approach Delay, s/veh		64.6			58.4			2.6			8.2	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	14.7	105.6		19.7		120.3		19.7				
Change Period (Y+Rc), s	5.5	6.5		6.0		6.5		6.0				
Max Green Setting (Gmax), s	19.0	59.5		43.5		84.0		43.5				
Max Q Clear Time (g_c+I1), s	4.4	16.3		4.5		2.0		12.1				
Green Ext Time (p_c), s	0.1	12.8		0.2		19.2		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		7.4	
HCM 6th LOS		A	

HCM 6th Signalized Intersection Summary
2: Hollywood Way & Winona Ave

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	36	92	8	90	21	1447	45	31	1219	26
Future Volume (veh/h)	21	5	36	92	8	90	21	1447	45	31	1219	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	22	5	3	98	9	7	22	1539	47	33	1297	27
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	186	153	187	199	134	421	3656	112	374	3751	78
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.08	1.00	1.00	0.10	1.00	1.00
Sat Flow, veh/h	1374	1856	1529	1384	1989	1343	1767	5050	154	1767	5107	106
Grp Volume(v), veh/h	22	5	3	98	8	8	22	1029	557	33	858	466
Grp Sat Flow(s),veh/h/ln	1374	1856	1529	1384	1763	1569	1767	1689	1827	1767	1689	1836
Q Serve(g_s), s	2.1	0.3	0.2	9.6	0.6	0.7	0.4	0.0	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.3	0.2	10.0	0.6	0.7	0.4	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.86	1.00		0.08	1.00		0.06
Lane Grp Cap(c), veh/h	183	186	153	187	177	157	421	2445	1323	374	2480	1349
V/C Ratio(X)	0.12	0.03	0.02	0.52	0.04	0.05	0.05	0.42	0.42	0.09	0.35	0.35
Avail Cap(c_a), veh/h	472	577	475	478	548	488	526	2445	1323	459	2480	1349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82	0.94	0.94	0.94
Uniform Delay (d), s/veh	58.2	56.8	56.8	61.3	56.9	57.0	3.7	0.0	0.0	3.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.1	0.1	2.3	0.1	0.1	0.0	0.4	0.8	0.1	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	0.2	0.1	3.5	0.3	0.3	0.1	0.1	0.3	0.2	0.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	56.9	56.8	63.6	57.0	57.1	3.8	0.4	0.8	3.5	0.4	0.7
LnGrp LOS	E	E	E	E	E	E	A	A	A	A	A	A
Approach Vol, veh/h		30			114			1608			1357	
Approach Delay, s/veh		58.1			62.7			0.6			0.5	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	109.3		20.0	12.1	107.8		20.0				
Change Period (Y+Rc), s	4.9	6.5		6.0	4.9	6.5		6.0				
Max Green Setting (Gmax), s	14.0	65.1		43.5	14.0	65.1		43.5				
Max Q Clear Time (g_c+I1), s	2.4	2.0		12.0	2.6	2.0		4.7				
Green Ext Time (p_c), s	0.0	11.7		0.3	0.0	16.1		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			3.4									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
3: Hollywood Way & Airport/Thornton Ave

10/02/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	302	36	170	167	161	79	208	1153	109	56	1038	273
Future Volume (veh/h)	302	36	170	167	161	79	208	1153	109	56	1038	273
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	1.00		0.95	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	318	38	8	176	169	34	219	1214	109	59	1093	260
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	379	217	175	259	360	70	396	2511	225	378	2111	502
Arrive On Green	0.11	0.12	0.12	0.12	0.12	0.12	0.15	1.00	1.00	0.13	1.00	1.00
Sat Flow, veh/h	3428	1856	1497	1767	2910	569	1767	4706	422	1767	4057	965
Grp Volume(v), veh/h	318	38	8	176	100	103	219	871	452	59	910	443
Grp Sat Flow(s),veh/h/ln	1714	1856	1497	1767	1763	1716	1767	1689	1751	1767	1689	1644
Q Serve(g_s), s	12.7	2.6	0.5	9.1	7.4	7.8	8.5	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	12.7	2.6	0.5	9.1	7.4	7.8	8.5	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.24	1.00		0.59
Lane Grp Cap(c), veh/h	379	217	175	259	218	212	396	1802	935	378	1757	856
V/C Ratio(X)	0.84	0.17	0.05	0.68	0.46	0.48	0.55	0.48	0.48	0.16	0.52	0.52
Avail Cap(c_a), veh/h	575	524	422	259	378	368	562	1802	935	504	1757	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	61.0	55.7	37.2	57.3	57.0	57.2	11.9	0.0	0.0	11.6	0.0	0.0
Incr Delay (d2), s/veh	6.7	0.4	0.1	5.9	1.5	1.7	0.9	0.9	1.8	0.1	1.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	1.3	0.3	6.3	3.4	3.5	2.9	0.2	0.5	0.7	0.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	56.1	37.3	63.1	58.5	58.9	12.8	0.9	1.8	11.8	1.0	2.1
LnGrp LOS	E	E	D	E	E	E	B	A	A	B	A	A
Approach Vol, veh/h		364			379			1542			1412	
Approach Delay, s/veh		65.9			60.8			2.9			1.8	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	79.4	21.5	23.3	14.0	81.2	22.4	22.4
Change Period (Y+Rc), s	5.0	6.5	6.0	6.0	5.0	6.5	6.0	6.0
Max Green Setting (Gmax), s	24.0	39.0	23.5	30.0	19.0	44.0	14.0	39.5
Max Q Clear Time (g_c+I1), s	10.5	2.0	14.7	9.8	3.9	2.0	11.1	4.6
Green Ext Time (p_c), s	0.4	11.6	0.8	1.0	0.1	11.3	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
4: Hollywood Way & Avon St

10/02/2024

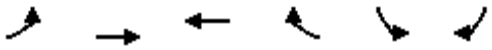
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	7	50	89	29	121	80	1157	36	23	1261	17
Future Volume (veh/h)	96	7	50	89	29	121	80	1157	36	23	1261	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.97	1.00		0.97	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	100	7	52	93	30	126	83	1205	37	24	1314	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	173	35	260	258	57	241	121	2254	69	77	2835	39
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.07	0.65	0.65	0.09	1.00	1.00
Sat Flow, veh/h	1210	185	1376	1317	304	1276	1767	3488	107	1767	4565	63
Grp Volume(v), veh/h	100	0	59	93	0	156	83	609	633	24	801	531
Grp Sat Flow(s),veh/h/ln	1210	0	1561	1317	0	1580	1767	1763	1832	1767	1392	1844
Q Serve(g_s), s	11.3	0.0	4.5	9.0	0.0	12.4	6.4	26.1	26.2	1.8	0.0	0.0
Cycle Q Clear(g_c), s	23.8	0.0	4.5	13.4	0.0	12.4	6.4	26.1	26.2	1.8	0.0	0.0
Prop In Lane	1.00		0.88	1.00		0.81	1.00		0.06	1.00		0.03
Lane Grp Cap(c), veh/h	173	0	295	258	0	299	121	1139	1184	77	1728	1145
V/C Ratio(X)	0.58	0.00	0.20	0.36	0.00	0.52	0.68	0.53	0.53	0.31	0.46	0.46
Avail Cap(c_a), veh/h	372	0	552	475	0	559	252	1139	1184	252	1728	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.8	0.0	47.9	53.5	0.0	51.1	63.7	13.4	13.4	62.0	0.0	0.0
Incr Delay (d2), s/veh	3.1	0.0	0.3	0.8	0.0	1.4	5.0	1.8	1.7	1.7	0.9	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	1.8	3.1	0.0	5.1	3.0	10.3	10.7	0.8	0.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.8	0.0	48.2	54.3	0.0	52.5	68.7	15.2	15.1	63.7	0.9	1.4
LnGrp LOS	E	A	D	D	A	D	E	B	B	E	A	A
Approach Vol, veh/h		159			249			1325			1356	
Approach Delay, s/veh		58.7			53.2			18.5			2.2	
Approach LOS		E			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.1	93.4		31.5	11.6	97.0		31.5				
Change Period (Y+Rc), s	5.5	6.5		5.0	5.5	6.5		5.0				
Max Green Setting (Gmax), s	20.0	53.5		49.5	20.0	53.5		49.5				
Max Q Clear Time (g_c+I1), s	8.4	2.0		15.4	3.8	28.2		25.8				
Green Ext Time (p_c), s	0.1	11.6		1.4	0.0	8.9		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
5: Empire Ave & N Hollywood Way

10/02/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	351	515	0	40	220
Future Volume (veh/h)	0	351	515	0	40	220
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	0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	0	403	592	0	46	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	3	3	0	3	3
Cap, veh/h	0	2707	2707	0	196	
Arrive On Green	0.00	1.00	0.77	0.00	0.11	0.00
Sat Flow, veh/h	0	3711	3711	0	1767	1572
Grp Volume(v), veh/h	0	403	592	0	46	0
Grp Sat Flow(s),veh/h/ln	0	1763	1763	0	1767	1572
Q Serve(g_s), s	0.0	0.0	4.2	0.0	2.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	4.2	0.0	2.1	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2707	2707	0	196	
V/C Ratio(X)	0.00	0.15	0.22	0.00	0.23	
Avail Cap(c_a), veh/h	0	2707	2707	0	465	
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.96	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	2.9	0.0	36.5	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.0	0.0	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.1	3.1	0.0	37.4	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h		403	592		46	
Approach Delay, s/veh		0.1	3.1		37.4	
Approach LOS		A	A		D	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		75.4		14.6		75.4
Change Period (Y+Rc), s		6.3		4.6		6.3
Max Green Setting (Gmax), s		55.4		23.7		55.4
Max Q Clear Time (g_c+I1), s		2.0		4.1		6.2
Green Ext Time (p_c), s		2.7		0.1		4.5

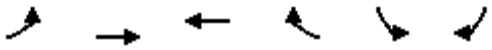
Intersection Summary	
HCM 6th Ctrl Delay	3.5
HCM 6th LOS	A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
6: Empire Ave & Avon St

10/02/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	107	437	525	110	53	21
Future Volume (veh/h)	107	437	525	110	53	21
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	0.97
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	114	465	559	106	56	3
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	664	2815	1975	373	146	8
Arrive On Green	0.08	0.80	0.67	0.67	0.09	0.09
Sat Flow, veh/h	1767	3618	3049	559	1638	88
Grp Volume(v), veh/h	114	465	333	332	60	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1763	1752	1755	0
Q Serve(g_s), s	1.6	3.0	7.5	7.5	3.1	0.0
Cycle Q Clear(g_c), s	1.6	3.0	7.5	7.5	3.1	0.0
Prop In Lane	1.00			0.32	0.93	0.05
Lane Grp Cap(c), veh/h	664	2815	1178	1171	157	0
V/C Ratio(X)	0.17	0.17	0.28	0.28	0.38	0.00
Avail Cap(c_a), veh/h	890	2815	1178	1171	465	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.98	0.98	0.98	0.00
Uniform Delay (d), s/veh	3.4	2.3	6.6	6.6	41.7	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.6	0.6	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.6	2.6	2.6	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	3.4	2.4	7.2	7.2	43.2	0.0
LnGrp LOS	A	A	A	A	D	A
Approach Vol, veh/h		579	665		60	
Approach Delay, s/veh		2.6	7.2		43.2	
Approach LOS		A	A		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		83.7		13.3	12.6	71.1
Change Period (Y+Rc), s		6.3		4.6	5.0	6.3
Max Green Setting (Gmax), s		53.4		25.7	20.0	35.0
Max Q Clear Time (g_c+I1), s		5.0		5.1	3.6	9.5
Green Ext Time (p_c), s		3.2		0.1	0.1	4.2

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
7: Empire Ave & Airport

10/02/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	263	2	1	689	39	0	0	0	84	1	6
Future Volume (veh/h)	83	263	2	1	689	39	0	0	0	84	1	6
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.96				1.00		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	1856	1856	1856	1856	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	91	289	2	1	757	40				93	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3				3	3	3
Cap, veh/h	636	1412	10	40	2141	113				393	206	0
Arrive On Green	0.07	0.77	0.77	1.00	1.00	1.00				0.11	0.00	0.00
Sat Flow, veh/h	1767	1840	13	0	3328	176				3534	1856	0
Grp Volume(v), veh/h	91	0	291	422	0	376				93	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1853	1855	0	1649				1767	1856	0
Q Serve(g_s), s	1.3	0.0	3.9	0.0	0.0	0.0				2.2	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	3.9	0.0	0.0	0.0				2.2	0.0	0.0
Prop In Lane	1.00		0.01	0.00		0.11				1.00		0.00
Lane Grp Cap(c), veh/h	636	0	1422	1234	0	1061				393	206	0
V/C Ratio(X)	0.14	0.00	0.20	0.34	0.00	0.35				0.24	0.00	0.00
Avail Cap(c_a), veh/h	658	0	1422	1234	0	1061				931	489	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.95	0.00	0.95				1.00	0.00	0.00
Uniform Delay (d), s/veh	3.3	0.0	2.9	0.0	0.0	0.0				36.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.7	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
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.0	0.2	0.0	0.3				0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.4	0.0	3.2	0.7	0.0	0.9				36.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				D	A	A
Approach Vol, veh/h		382			798						93	
Approach Delay, s/veh		3.2			0.8						36.8	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		75.4		14.6	11.2	64.2						
Change Period (Y+Rc), s		6.3		4.6	4.9	6.3						
Max Green Setting (Gmax), s		55.4		23.7	7.4	43.1						
Max Q Clear Time (g_c+I1), s		5.9		4.2	3.3	2.0						
Green Ext Time (p_c), s		1.7		0.2	0.0	5.3						

Intersection Summary												
HCM 6th Ctrl Delay			4.2									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
8: Hollywood Way & Victory Bl

10/02/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	227	698	107	110	839	117	157	952	94	201	959	238
Future Volume (veh/h)	227	698	107	110	839	117	157	952	94	201	959	238
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	234	720	61	113	865	83	162	981	62	207	989	187
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	261	1078	580	264	944	543	257	1363	713	283	1414	788
Arrive On Green	0.11	0.31	0.31	0.07	0.27	0.27	0.07	0.39	0.39	0.09	0.40	0.40
Sat Flow, veh/h	1767	3526	1529	1767	3526	1526	1767	3526	1558	1767	3526	1539
Grp Volume(v), veh/h	234	720	61	113	865	83	162	981	62	207	989	187
Grp Sat Flow(s),veh/h/ln	1767	1763	1529	1767	1763	1526	1767	1763	1558	1767	1763	1539
Q Serve(g_s), s	13.0	24.9	3.6	6.3	33.3	5.2	7.7	33.1	3.1	9.8	32.7	9.5
Cycle Q Clear(g_c), s	13.0	24.9	3.6	6.3	33.3	5.2	7.7	33.1	3.1	9.8	32.7	9.5
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	261	1078	580	264	944	543	257	1363	713	283	1414	788
V/C Ratio(X)	0.90	0.67	0.11	0.43	0.92	0.15	0.63	0.72	0.09	0.73	0.70	0.24
Avail Cap(c_a), veh/h	321	1078	580	391	992	564	383	1363	713	385	1414	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	35.4	42.4	28.3	34.4	49.7	30.9	27.8	36.5	21.5	28.4	34.9	19.2
Incr Delay (d2), s/veh	20.9	1.6	0.1	0.4	12.5	0.1	1.0	3.3	0.2	2.5	2.9	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	7.1	11.0	1.4	2.8	16.2	2.0	3.3	14.7	1.2	4.3	14.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.3	44.0	28.4	34.8	62.2	31.1	28.7	39.8	21.7	31.0	37.8	19.9
LnGrp LOS	E	D	C	C	E	C	C	D	C	C	D	B
Approach Vol, veh/h		1015			1061			1205			1383	
Approach Delay, s/veh		45.9			56.8			37.4			34.4	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	48.8	14.6	62.1	19.8	43.5	16.6	60.1
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	8.3	26.9	9.7	34.7	15.0	35.3	11.8	35.1
Green Ext Time (p_c), s	0.1	4.0	0.1	2.9	0.2	2.2	0.2	2.5

Intersection Summary	
HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
9: Hollywood Way & Burbank Bl

10/03/2024

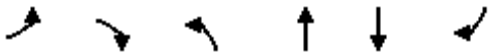
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	636	27	160	663	113	87	939	119	139	765	129
Future Volume (veh/h)	196	636	27	160	663	113	87	939	119	139	765	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	218	707	28	178	737	47	97	1043	125	154	850	81
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	267	887	35	258	845	373	325	1361	163	249	1523	672
Arrive On Green	0.11	0.26	0.26	0.09	0.24	0.24	0.07	0.43	0.43	0.07	0.43	0.43
Sat Flow, veh/h	1767	3455	137	1767	3526	1555	1767	3161	379	1767	3526	1556
Grp Volume(v), veh/h	218	361	374	178	737	47	97	581	587	154	850	81
Grp Sat Flow(s),veh/h/ln	1767	1763	1829	1767	1763	1555	1767	1763	1777	1767	1763	1556
Q Serve(g_s), s	12.9	26.8	26.8	10.5	28.1	3.3	4.1	39.2	39.3	6.7	25.3	4.4
Cycle Q Clear(g_c), s	12.9	26.8	26.8	10.5	28.1	3.3	4.1	39.2	39.3	6.7	25.3	4.4
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	267	452	469	258	845	373	325	759	765	249	1523	672
V/C Ratio(X)	0.82	0.80	0.80	0.69	0.87	0.13	0.30	0.77	0.77	0.62	0.56	0.12
Avail Cap(c_a), veh/h	330	496	515	351	992	438	454	759	765	375	1523	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	48.6	48.6	37.8	51.2	41.7	21.2	33.9	33.9	27.2	29.8	23.8
Incr Delay (d2), s/veh	9.9	8.2	8.0	1.5	7.7	0.2	0.2	7.3	7.3	0.9	1.5	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	6.3	12.7	13.2	4.6	13.2	1.3	1.7	18.0	18.2	2.8	11.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	56.8	56.6	39.2	58.8	41.9	21.4	41.1	41.1	28.1	31.2	24.2
LnGrp LOS	D	E	E	D	E	D	C	D	D	C	C	C
Approach Vol, veh/h		953			962			1265			1085	
Approach Delay, s/veh		54.7			54.4			39.6			30.3	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	41.9	14.4	66.5	19.6	39.5	14.6	66.3
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	12.5	28.8	6.1	27.3	14.9	30.1	8.7	41.3
Green Ext Time (p_c), s	0.1	3.3	0.1	4.8	0.1	3.4	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.9
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
10: Buena Vista St & I-5 NB Ramps

10/02/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	223	576	615	465	337	64
Future Volume (veh/h)	223	576	615	465	337	64
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	230	0	634	479	347	62
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	280		685	1231	455	81
Arrive On Green	0.16	0.00	0.28	0.66	0.30	0.30
Sat Flow, veh/h	1767	1572	1767	1856	1532	274
Grp Volume(v), veh/h	230	0	634	479	0	409
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1856	0	1806
Q Serve(g_s), s	8.5	0.0	15.6	7.9	0.0	13.9
Cycle Q Clear(g_c), s	8.5	0.0	15.6	7.9	0.0	13.9
Prop In Lane	1.00	1.00	1.00			0.15
Lane Grp Cap(c), veh/h	280		685	1231	0	536
V/C Ratio(X)	0.82		0.93	0.39	0.00	0.76
Avail Cap(c_a), veh/h	1312		1375	1653	0	1608
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	27.4	0.0	12.2	5.1	0.0	21.5
Incr Delay (d2), s/veh	2.3	0.0	2.4	0.2	0.0	2.3
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	0.0	5.2	2.3	0.0	5.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.7	0.0	14.6	5.3	0.0	23.8
LnGrp LOS	C		B	A	A	C
Approach Vol, veh/h	230			1113	409	
Approach Delay, s/veh	29.7			10.6	23.8	
Approach LOS	C			B	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		50.7		16.7	24.7	26.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		60.0		50.0	45.0	60.0
Max Q Clear Time (g_c+I1), s		9.9		10.5	17.6	15.9
Green Ext Time (p_c), s		3.5		0.3	1.0	2.9

Intersection Summary		
HCM 6th Ctrl Delay		16.2
HCM 6th LOS		B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	16.6
Intersection LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	246	17	147	237	300	105
Future Vol, veh/h	246	17	147	237	300	105
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	267	18	160	258	326	114
Number of Lanes	2	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	13.4	18.7	16.6
HCM LOS	B	C	C

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	83%	100%	0%
Vol Thru, %	38%	0%	0%	0%	100%
Vol Right, %	62%	0%	17%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	384	164	99	300	105
LT Vol	0	164	82	300	0
Through Vol	147	0	0	0	105
RT Vol	237	0	17	0	0
Lane Flow Rate	417	178	108	326	114
Geometry Grp	3b	5	5	5	5
Degree of Util (X)	0.653	0.364	0.213	0.599	0.194
Departure Headway (Hd)	5.628	7.351	7.141	6.618	6.11
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	643	488	501	545	587
Service Time	3.673	5.105	4.895	4.368	3.859
HCM Lane V/C Ratio	0.649	0.365	0.216	0.598	0.194
HCM Control Delay	18.7	14.3	11.8	18.8	10.3
HCM Lane LOS	C	B	B	C	B
HCM 95th-tile Q	4.8	1.6	0.8	3.9	0.7

HCM 6th Signalized Intersection Summary
12: Buena Vista St & Winona Ave

10/02/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	47	231	150	31	37	209	982	259	26	741	146
Future Volume (veh/h)	65	47	231	150	31	37	209	982	259	26	741	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	70	51	91	161	33	10	225	1056	265	28	797	148
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	137	100	365	246	189	57	348	1438	359	186	1041	193
Arrive On Green	0.13	0.13	0.13	0.14	0.14	0.14	0.11	0.52	0.52	0.35	0.35	0.35
Sat Flow, veh/h	1043	760	1526	1767	1357	411	1767	2780	693	412	2966	551
Grp Volume(v), veh/h	121	0	91	161	0	43	225	667	654	28	474	471
Grp Sat Flow(s),veh/h/ln	1803	0	1526	1767	0	1769	1767	1763	1711	412	1763	1754
Q Serve(g_s), s	4.7	0.0	3.6	6.5	0.0	1.6	5.7	22.1	22.5	4.3	18.0	18.0
Cycle Q Clear(g_c), s	4.7	0.0	3.6	6.5	0.0	1.6	5.7	22.1	22.5	14.3	18.0	18.0
Prop In Lane	0.58		1.00	1.00		0.23	1.00		0.41	1.00		0.31
Lane Grp Cap(c), veh/h	237	0	365	246	0	246	348	912	885	186	619	616
V/C Ratio(X)	0.51	0.00	0.25	0.65	0.00	0.17	0.65	0.73	0.74	0.15	0.77	0.77
Avail Cap(c_a), veh/h	838	0	874	821	0	822	983	936	908	260	936	931
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	23.4	30.7	0.0	28.6	15.7	14.1	14.2	24.7	21.7	21.7
Incr Delay (d2), s/veh	1.7	0.0	0.4	2.9	0.0	0.3	0.8	2.9	3.1	0.4	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	1.3	2.9	0.0	0.7	2.1	8.2	8.2	0.4	7.1	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	0.0	23.7	33.6	0.0	28.9	16.4	17.0	17.4	25.1	23.8	23.8
LnGrp LOS	C	A	C	C	A	C	B	B	B	C	C	C
Approach Vol, veh/h		212			204			1546			973	
Approach Delay, s/veh		28.6			32.7			17.1			23.8	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.5	32.5		15.5		45.0		14.9				
Change Period (Y+Rc), s	4.6	6.0		* 5		6.0		5.0				
Max Green Setting (Gmax), s	35.0	40.0		* 35		40.0		35.0				
Max Q Clear Time (g_c+I1), s	7.7	20.0		8.5		24.5		6.7				
Green Ext Time (p_c), s	0.3	6.5		0.7		8.0		1.0				

Intersection Summary			
HCM 6th Ctrl Delay		21.2	
HCM 6th LOS		C	

Notes

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

HCM 6th Signalized Intersection Summary
13: Buena Vista St & San Fernando Bl

10/02/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	270	72	83	297	430	64	782	37	191	665	274
Future Volume (veh/h)	247	270	72	83	297	430	64	782	37	191	665	274
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		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	263	287	65	88	316	157	68	832	37	203	707	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	392	685	152	332	544	238	93	1160	52	245	1510	
Arrive On Green	0.14	0.24	0.24	0.06	0.15	0.15	0.05	0.34	0.34	0.14	0.43	0.00
Sat Flow, veh/h	1767	2855	635	1767	3526	1543	1767	3434	153	1767	3526	1572
Grp Volume(v), veh/h	263	175	177	88	316	157	68	427	442	203	707	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1728	1767	1763	1543	1767	1763	1824	1767	1763	1572
Q Serve(g_s), s	11.4	8.0	8.3	3.9	7.9	9.1	3.6	20.2	20.2	10.6	13.7	0.0
Cycle Q Clear(g_c), s	11.4	8.0	8.3	3.9	7.9	9.1	3.6	20.2	20.2	10.6	13.7	0.0
Prop In Lane	1.00		0.37	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	392	423	414	332	544	238	93	596	616	245	1510	
V/C Ratio(X)	0.67	0.41	0.43	0.26	0.58	0.66	0.73	0.72	0.72	0.83	0.47	
Avail Cap(c_a), veh/h	511	740	726	603	1480	648	464	1388	1436	742	3331	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	26.8	30.6	30.7	31.2	37.4	37.9	44.5	27.6	27.6	39.9	19.5	0.0
Incr Delay (d2), s/veh	1.0	0.7	0.7	0.2	1.0	3.1	4.1	2.3	2.2	7.0	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	4.7	3.4	3.4	1.7	3.4	3.6	1.7	8.5	8.8	5.0	5.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	31.2	31.4	31.3	38.4	41.0	48.6	29.9	29.8	46.9	19.8	0.0
LnGrp LOS	C	C	C	C	D	D	D	C	C	D	B	
Approach Vol, veh/h		615			561			937			910	
Approach Delay, s/veh		29.8			38.0			31.2			25.9	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	28.8	9.6	46.8	18.2	20.7	18.2	38.2
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	5.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	25.0	90.0	20.0	40.0	40.0	75.0
Max Q Clear Time (g_c+I1), s	5.9	10.3	5.6	15.7	13.4	11.1	12.6	22.2
Green Ext Time (p_c), s	0.1	2.1	0.1	8.4	0.2	2.6	0.6	9.9

Intersection Summary	
HCM 6th Ctrl Delay	30.6
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
14: Ontario St & Thornton Ave

10/02/2024

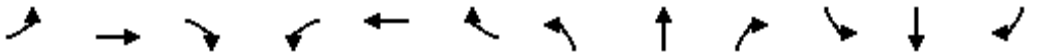
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	148	46	16	266	21	42	25	22	11	32	39
Future Volume (veh/h)	14	148	46	16	266	21	42	25	22	11	32	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	0.99		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	15	159	40	17	286	21	45	27	1	12	34	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	816	987	248	909	1179	87	195	99	3	95	201	10
Arrive On Green	1.00	1.00	1.00	0.92	0.92	0.92	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1059	1428	359	1168	1707	125	813	721	21	225	1458	73
Grp Volume(v), veh/h	15	0	199	17	0	307	73	0	0	48	0	0
Grp Sat Flow(s),veh/h/ln	1059	0	1788	1168	0	1832	1555	0	0	1756	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	1.2	1.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.1	0.0	1.2	2.7	0.0	0.0	1.6	0.0	0.0
Prop In Lane	1.00		0.20	1.00		0.07	0.62		0.01	0.25		0.04
Lane Grp Cap(c), veh/h	816	0	1235	909	0	1265	298	0	0	306	0	0
V/C Ratio(X)	0.02	0.00	0.16	0.02	0.00	0.24	0.25	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	816	0	1235	909	0	1265	712	0	0	772	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.00	0.99	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.9	0.0	0.9	27.1	0.0	0.0	26.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.0	0.0	0.1	0.4	0.0	0.0	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	0.0	0.1	0.0	0.0	0.3	1.1	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.1	0.0	0.3	0.9	0.0	1.0	27.5	0.0	0.0	26.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		214			324			73			48	
Approach Delay, s/veh		0.3			1.0			27.5			26.9	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.3		15.7		54.3		15.7				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		29.0		29.0		29.0		29.0				
Max Q Clear Time (g_c+I1), s		3.3		4.7		3.2		3.6				
Green Ext Time (p_c), s		1.2		0.3		1.9		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			5.6									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
15: Empire Ave & Ontario St

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	484	0	0	547	54	0	1	5	88	0	52
Future Volume (veh/h)	30	484	0	0	547	54	0	1	5	88	0	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	31	504	0	0	570	51	0	1	0	92	0	4
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	618	2581	0	80	2391	213	0	190	0	222	0	161
Arrive On Green	0.73	0.73	0.00	0.00	0.73	0.73	0.00	0.10	0.00	0.10	0.00	0.10
Sat Flow, veh/h	796	3618	0	888	3267	292	0	1856	0	1390	0	1568
Grp Volume(v), veh/h	31	504	0	0	307	314	0	1	0	92	0	4
Grp Sat Flow(s),veh/h/ln	796	1763	0	888	1763	1795	0	1856	0	1390	0	1568
Q Serve(g_s), s	1.2	4.0	0.0	0.0	5.1	5.1	0.0	0.0	0.0	5.7	0.0	0.2
Cycle Q Clear(g_c), s	6.3	4.0	0.0	0.0	5.1	5.1	0.0	0.0	0.0	5.7	0.0	0.2
Prop In Lane	1.00		0.00	1.00		0.16	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	618	2581	0	80	1290	1314	0	190	0	222	0	161
V/C Ratio(X)	0.05	0.20	0.00	0.00	0.24	0.24	0.00	0.01	0.00	0.41	0.00	0.02
Avail Cap(c_a), veh/h	618	2581	0	80	1290	1314	0	200	0	411	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.81	0.81	0.00	1.00	0.00	0.97	0.00	0.97
Uniform Delay (d), s/veh	4.9	3.8	0.0	0.0	3.9	3.9	0.0	36.3	0.0	38.9	0.0	36.3
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.0	0.4	0.3	0.0	0.0	0.0	1.2	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	0.0	1.5	1.5	0.0	0.0	0.0	2.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.1	3.9	0.0	0.0	4.3	4.3	0.0	36.3	0.0	40.0	0.0	36.4
LnGrp LOS	A	A	A	A	A	A	A	D	A	D	A	D
Approach Vol, veh/h		535			621			1			96	
Approach Delay, s/veh		4.0			4.3			36.3			39.9	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		72.2		17.8		72.2		17.8				
Change Period (Y+Rc), s		6.3		* 8.6		6.3		* 8.6				
Max Green Setting (Gmax), s		39.4		* 9.7		39.4		* 21				
Max Q Clear Time (g_c+I1), s		8.3		2.0		7.1		7.7				
Green Ext Time (p_c), s		4.5		0.0		4.9		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Summary
16: Buena Vista St & Empire Ave

10/02/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	461	112	444	503	147	107	736	756	91	514	37
Future Volume (veh/h)	45	461	112	444	503	147	107	736	756	91	514	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	49	501	25	483	547	139	116	800	755	99	559	36
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	116	649	278	544	867	219	477	1589	946	145	1488	96
Arrive On Green	0.04	0.18	0.18	0.16	0.31	0.31	0.05	0.45	0.45	0.08	0.89	0.89
Sat Flow, veh/h	1767	3526	1510	3428	2769	700	1767	3526	1545	3428	3359	216
Grp Volume(v), veh/h	49	501	25	483	347	339	116	800	755	99	293	302
Grp Sat Flow(s),veh/h/ln	1767	1763	1510	1714	1763	1706	1767	1763	1545	1714	1763	1812
Q Serve(g_s), s	3.3	18.9	1.6	19.3	23.6	23.8	5.0	22.6	17.8	3.9	4.0	4.0
Cycle Q Clear(g_c), s	3.3	18.9	1.6	19.3	23.6	23.8	5.0	22.6	17.8	3.9	4.0	4.0
Prop In Lane	1.00		1.00	1.00		0.41	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	116	649	278	544	552	534	477	1589	946	145	781	803
V/C Ratio(X)	0.42	0.77	0.09	0.89	0.63	0.63	0.24	0.50	0.80	0.68	0.37	0.38
Avail Cap(c_a), veh/h	228	755	324	710	567	548	553	1589	946	416	781	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	51.6	54.3	33.6	57.7	41.1	41.2	19.3	27.3	9.0	63.1	4.7	4.7
Incr Delay (d2), s/veh	1.8	4.2	0.1	10.1	2.1	2.3	0.2	1.1	7.0	4.0	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	1.5	8.7	0.7	9.1	10.5	10.3	2.1	9.7	10.1	1.7	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	58.6	33.8	67.8	43.3	43.5	19.5	28.5	16.0	67.1	6.0	6.0
LnGrp LOS	D	E	C	E	D	D	B	C	B	E	A	A
Approach Vol, veh/h		575			1169			1671			694	
Approach Delay, s/veh		57.0			53.5			22.2			14.7	
Approach LOS		E			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.2	31.8	12.0	68.0	10.1	49.9	10.9	69.1
Change Period (Y+Rc), s	6.0	* 6	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	29.0	* 30	13.0	46.0	14.0	45.0	17.0	42.0
Max Q Clear Time (g_c+I1), s	21.3	20.9	7.0	6.0	5.3	25.8	5.9	24.6
Green Ext Time (p_c), s	0.9	2.2	0.1	3.9	0.0	4.1	0.1	9.9

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

HCM 6th Signalized Intersection Summary
17: Buena Vista St & Thornton Ave

10/02/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	35	78	15	35	17	76	806	13	13	553	243
Future Volume (veh/h)	70	35	78	15	35	17	76	806	13	13	553	243
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	73	36	6	16	36	1	79	840	14	14	576	238
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	155	147	24	150	170	5	565	2753	46	580	2011	829
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	1.00	1.00	1.00	0.02	0.83	0.83
Sat Flow, veh/h	1353	1549	258	1347	1796	50	665	3548	59	1767	2433	1003
Grp Volume(v), veh/h	73	0	42	16	0	37	79	417	437	14	417	397
Grp Sat Flow(s),veh/h/ln	1353	0	1807	1347	0	1846	665	1763	1845	1767	1763	1674
Q Serve(g_s), s	7.4	0.0	3.0	1.6	0.0	2.6	0.1	0.0	0.0	0.2	7.5	7.5
Cycle Q Clear(g_c), s	10.0	0.0	3.0	4.6	0.0	2.6	0.5	0.0	0.0	0.2	7.5	7.5
Prop In Lane	1.00		0.14	1.00		0.03	1.00		0.03	1.00		0.60
Lane Grp Cap(c), veh/h	155	0	171	150	0	175	565	1367	1431	580	1457	1383
V/C Ratio(X)	0.47	0.00	0.25	0.11	0.00	0.21	0.14	0.31	0.31	0.02	0.29	0.29
Avail Cap(c_a), veh/h	548	0	697	542	0	712	565	1367	1431	738	1457	1383
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)	0.99	0.00	0.99	1.00	0.00	1.00	0.80	0.80	0.80	0.89	0.89	0.89
Uniform Delay (d), s/veh	63.1	0.0	58.7	60.8	0.0	58.5	0.0	0.0	0.0	2.6	2.8	2.8
Incr Delay (d2), s/veh	2.2	0.0	0.7	0.3	0.0	0.6	0.4	0.5	0.4	0.0	0.4	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	2.6	0.0	1.4	0.5	0.0	1.2	0.1	0.2	0.2	0.1	2.2	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	0.0	59.4	61.1	0.0	59.1	0.4	0.5	0.4	2.6	3.2	3.2
LnGrp LOS	E	A	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		115			53			933			828	
Approach Delay, s/veh		63.2			59.7			0.4			3.2	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.1	114.6		18.3		121.7		18.3				
Change Period (Y+Rc), s	4.6	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	15.0	55.4		54.0		75.0		54.0				
Max Q Clear Time (g_c+I1), s	2.2	2.5		12.0		9.5		6.6				
Green Ext Time (p_c), s	0.0	7.2		0.4		6.1		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		7.0	
HCM 6th LOS		A	

HCM 6th Signalized Intersection Summary
18: I-5 SB Ramps & Empire Ave

10/02/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	555	782	187	908	0	0	0	0	196	4	186
Future Volume (veh/h)	0	555	782	187	908	0	0	0	0	196	4	186
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	1856	1856	1856	1856	0				1856	1856	1856
Adj Flow Rate, veh/h	0	572	533	193	936	0				205	0	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	3	3	3	3	0				3	3	3
Cap, veh/h	0	2428	1076	263	2848	0				326	0	
Arrive On Green	0.00	0.69	0.69	0.08	0.81	0.00				0.09	0.00	0.00
Sat Flow, veh/h	0	3618	1563	3428	3618	0				3534	0	1572
Grp Volume(v), veh/h	0	572	533	193	936	0				205	0	0
Grp Sat Flow(s),veh/h/ln	0	1763	1563	1714	1763	0				1767	0	1572
Q Serve(g_s), s	0.0	7.8	21.0	7.2	9.0	0.0				7.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.8	21.0	7.2	9.0	0.0				7.3	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2428	1076	263	2848	0				326	0	
V/C Ratio(X)	0.00	0.24	0.50	0.73	0.33	0.00				0.63	0.00	
Avail Cap(c_a), veh/h	0	2428	1076	752	2848	0				1047	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)	0.00	1.00	1.00	0.84	0.84	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.5	9.6	58.7	3.3	0.0				56.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	1.6	1.2	0.3	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
%ile BackOfQ(50%),veh/ln	0.0	2.8	7.1	3.1	2.5	0.0				3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.8	11.2	59.9	3.5	0.0				58.9	0.0	0.0
LnGrp LOS	A	A	B	E	A	A				E	A	
Approach Vol, veh/h		1105			1129						205	
Approach Delay, s/veh		9.4			13.2						58.9	
Approach LOS		A			B						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.5	96.0		18.5		111.5
Change Period (Y+Rc), s	5.5	6.5		6.5		6.5
Max Green Setting (Gmax), s	28.5	44.5		38.5		78.5
Max Q Clear Time (g_c+I1), s	9.2	23.0		9.3		11.0
Green Ext Time (p_c), s	0.3	8.7		0.7		12.6

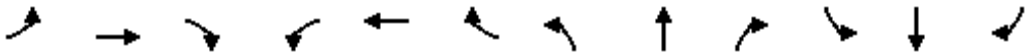
Intersection Summary		
HCM 6th Ctrl Delay		15.3
HCM 6th LOS		B

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
19: I-5 NB Ramps & Empire Ave

10/02/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	660	0	0	620	314	461	1	312	0	0	0
Future Volume (veh/h)	74	660	0	0	620	314	461	1	312	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		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	1856	1856	0	0	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	77	688	0	0	646	294	481	0	117			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	247	2597	0	0	1457	663	577	0	256			
Arrive On Green	0.14	1.00	0.00	0.00	0.62	0.62	0.16	0.00	0.16			
Sat Flow, veh/h	3428	3618	0	0	2435	1066	3534	0	1567			
Grp Volume(v), veh/h	77	688	0	0	486	454	481	0	117			
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	1645	1767	0	1567			
Q Serve(g_s), s	2.6	0.0	0.0	0.0	18.7	18.7	17.1	0.0	8.8			
Cycle Q Clear(g_c), s	2.6	0.0	0.0	0.0	18.7	18.7	17.1	0.0	8.8			
Prop In Lane	1.00		0.00	0.00		0.65	1.00		1.00			
Lane Grp Cap(c), veh/h	247	2597	0	0	1097	1023	577	0	256			
V/C Ratio(X)	0.31	0.26	0.00	0.00	0.44	0.44	0.83	0.00	0.46			
Avail Cap(c_a), veh/h	699	2597	0	0	1097	1023	1020	0	452			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.96	0.96	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	52.7	0.0	0.0	0.0	12.8	12.8	52.7	0.0	49.2			
Incr Delay (d2), s/veh	0.3	0.2	0.0	0.0	1.3	1.4	3.2	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	1.1	0.1	0.0	0.0	7.5	7.0	7.9	0.0	3.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.0	0.2	0.0	0.0	14.1	14.2	55.9	0.0	50.4			
LnGrp LOS	D	A	A	A	B	B	E	A	D			
Approach Vol, veh/h		765			940			598				
Approach Delay, s/veh		5.5			14.2			54.8				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		102.3			14.9	87.4		27.7				
Change Period (Y+Rc), s		6.5			5.5	6.5		6.5				
Max Green Setting (Gmax), s		79.5			26.5	47.5		37.5				
Max Q Clear Time (g_c+I1), s		2.0			4.6	20.7		19.1				
Green Ext Time (p_c), s		8.1			0.1	9.6		2.1				

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
1: Hollywood Way & Tulare Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	1	137	4	3	3	304	740	10	39	1969	344
Future Volume (veh/h)	157	1	137	4	3	3	304	740	10	39	1969	344
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		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	159	1	95	4	3	0	307	747	10	39	1989	329
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	246	2	215	159	261	0	355	3967	53	492	3178	979
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.00	0.21	1.00	1.00	0.63	0.63	0.63
Sat Flow, veh/h	1397	16	1526	1285	1856	0	3428	5151	69	702	5066	1560
Grp Volume(v), veh/h	159	0	96	4	3	0	307	489	268	39	1989	329
Grp Sat Flow(s),veh/h/ln	1397	0	1542	1285	1856	0	1714	1689	1843	702	1689	1560
Q Serve(g_s), s	15.5	0.0	8.0	0.4	0.2	0.0	12.1	0.0	0.0	3.1	33.7	13.9
Cycle Q Clear(g_c), s	15.7	0.0	8.0	8.4	0.2	0.0	12.1	0.0	0.0	3.1	33.7	13.9
Prop In Lane	1.00		0.99	1.00		0.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	246	0	217	159	261	0	355	2601	1419	492	3178	979
V/C Ratio(X)	0.65	0.00	0.44	0.03	0.01	0.00	0.87	0.19	0.19	0.08	0.63	0.34
Avail Cap(c_a), veh/h	483	0	479	378	577	0	465	2601	1419	492	3178	979
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	0.00	1.00	1.00	1.00	0.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	0.0	55.1	59.0	51.8	0.0	54.6	0.0	0.0	10.3	16.0	12.3
Incr Delay (d2), s/veh	2.8	0.0	1.4	0.1	0.0	0.0	10.8	0.1	0.3	0.3	0.9	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	5.7	0.0	3.2	0.1	0.1	0.0	5.2	0.1	0.1	0.5	12.5	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.4	0.0	56.5	59.0	51.8	0.0	65.4	0.1	0.3	10.6	16.9	13.2
LnGrp LOS	E	A	E	E	D	A	E	A	A	B	B	B
Approach Vol, veh/h		255			7			1064			2357	
Approach Delay, s/veh		59.6			55.9			19.0			16.3	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	20.0	94.3		25.7		114.3		25.7				
Change Period (Y+Rc), s	5.5	6.5		6.0		6.5		6.0				
Max Green Setting (Gmax), s	19.0	59.5		43.5		84.0		43.5				
Max Q Clear Time (g_c+I1), s	14.1	35.7		10.4		2.0		17.7				
Green Ext Time (p_c), s	0.4	17.4		0.0		5.3		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		20.2	
HCM 6th LOS		C	

HCM 6th Signalized Intersection Summary
2: Hollywood Way & Winona Ave

10/03/2024

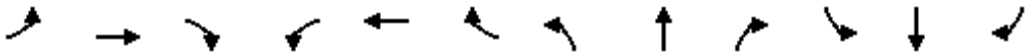
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	81	269	37	90	36	297	877	91	65	1716	252
Future Volume (veh/h)	211	81	269	37	90	36	297	877	91	65	1716	252
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	218	84	261	38	93	9	306	904	89	67	1769	259
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	300	403	336	236	705	67	335	2773	272	486	2515	365
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.19	1.00	1.00	0.13	1.00	1.00
Sat Flow, veh/h	1281	1856	1548	1027	3247	310	1767	4682	459	1767	4456	647
Grp Volume(v), veh/h	218	84	261	38	50	52	306	651	342	67	1337	691
Grp Sat Flow(s),veh/h/ln	1281	1856	1548	1027	1763	1794	1767	1689	1764	1767	1689	1727
Q Serve(g_s), s	23.1	5.2	22.2	4.4	3.2	3.3	11.1	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	26.4	5.2	22.2	9.6	3.2	3.3	11.1	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.26	1.00		0.37
Lane Grp Cap(c), veh/h	300	403	336	236	383	390	335	2000	1045	486	1906	974
V/C Ratio(X)	0.73	0.21	0.78	0.16	0.13	0.13	0.91	0.33	0.33	0.14	0.70	0.71
Avail Cap(c_a), veh/h	419	577	481	332	548	557	345	2000	1045	545	1906	974
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82	0.70	0.70	0.70
Uniform Delay (d), s/veh	54.8	44.9	51.6	48.9	44.1	44.2	14.0	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	3.8	0.3	5.0	0.3	0.2	0.2	23.4	0.4	0.7	0.1	1.5	3.1
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	7.9	2.5	9.2	1.2	1.4	1.5	5.3	0.1	0.2	0.7	0.4	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.7	45.2	56.6	49.2	44.3	44.3	37.5	0.4	0.7	9.3	1.5	3.1
LnGrp LOS	E	D	E	D	D	D	D	A	A	A	A	A
Approach Vol, veh/h		563			140			1299			2095	
Approach Delay, s/veh		55.7			45.6			9.2			2.3	
Approach LOS		E			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.1	85.5		36.4	14.2	89.4		36.4				
Change Period (Y+Rc), s	4.9	6.5		6.0	4.9	6.5		6.0				
Max Green Setting (Gmax), s	14.0	65.1		43.5	14.0	65.1		43.5				
Max Q Clear Time (g_c+I1), s	13.1	2.0		11.6	4.0	2.0		28.4				
Green Ext Time (p_c), s	0.1	26.3		0.7	0.1	7.7		2.0				

Intersection Summary												
HCM 6th Ctrl Delay			13.3									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
3: Hollywood Way & Airport/Thornton Ave

10/03/2024



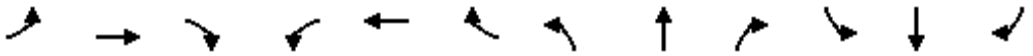
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	25	21	115	92	55	20	1376	134	74	1937	67
Future Volume (veh/h)	23	25	21	115	92	55	20	1376	134	74	1937	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.67		0.95	1.00		0.96	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	24	27	-138	122	98	35	21	1464	133	79	2061	56
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	149	212	180	189	361	121	232	2726	248	355	3077	83
Arrive On Green	0.04	0.11	0.00	0.07	0.14	0.14	0.08	1.00	1.00	0.14	1.00	1.00
Sat Flow, veh/h	3428	1856	1572	1767	2550	857	1767	4707	428	1767	5067	137
Grp Volume(v), veh/h	24	27	-138	122	66	67	21	1050	547	79	1372	745
Grp Sat Flow(s),veh/h/ln	1714	1856	1572	1767	1763	1644	1767	1689	1758	1767	1689	1827
Q Serve(g_s), s	0.9	1.8	0.0	4.2	4.7	5.1	0.6	0.0	0.0	2.2	0.0	0.0
Cycle Q Clear(g_c), s	0.9	1.8	0.0	4.2	4.7	5.1	0.6	0.0	0.0	2.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.52	1.00		0.24	1.00		0.08
Lane Grp Cap(c), veh/h	149	212	180	189	250	233	232	1955	1018	355	2051	1110
V/C Ratio(X)	0.16	0.13	-0.77	0.64	0.26	0.29	0.09	0.54	0.54	0.22	0.67	0.67
Avail Cap(c_a), veh/h	575	524	444	241	378	352	465	1955	1018	474	2051	1110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.63	0.63	0.63
Uniform Delay (d), s/veh	64.5	55.7	0.0	61.2	53.6	53.8	9.9	0.0	0.0	8.1	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.3	0.0	1.6	0.6	0.7	0.1	1.1	2.0	0.1	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.9	0.0	4.3	2.1	2.2	0.2	0.3	0.6	0.8	0.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.0	56.0	0.0	62.7	54.1	54.4	10.0	1.1	2.0	8.3	1.1	2.1
LnGrp LOS	E	E	A	E	D	D	A	A	A	A	A	A
Approach Vol, veh/h		-87			255			1618			2196	
Approach Delay, s/veh		0.0			58.3			1.5			1.7	
Approach LOS		A			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	91.5	12.1	25.8	14.5	87.6	15.9	22.0
Change Period (Y+Rc), s	5.0	6.5	6.0	6.0	5.0	6.5	6.0	6.0
Max Green Setting (Gmax), s	24.0	39.0	23.5	30.0	19.0	44.0	14.0	39.5
Max Q Clear Time (g_c+I1), s	2.6	2.0	2.9	7.1	4.2	2.0	6.2	3.8
Green Ext Time (p_c), s	0.0	21.7	0.0	0.7	0.1	15.1	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	5.3
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
4: Hollywood Way & Avon St

10/03/2024



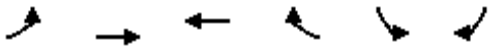
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	6	37	28	22	135	72	1151	76	76	1728	24
Future Volume (veh/h)	88	6	37	28	22	135	72	1151	76	76	1728	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	92	6	39	29	23	141	75	1199	78	79	1800	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	164	39	256	271	41	254	119	2089	136	120	2846	40
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.07	0.62	0.62	0.09	0.83	0.83
Sat Flow, veh/h	1206	210	1364	1341	221	1356	1767	3354	218	1767	4564	63
Grp Volume(v), veh/h	92	0	45	29	0	164	75	630	647	79	1098	727
Grp Sat Flow(s),veh/h/ln	1206	0	1574	1341	0	1577	1767	1763	1809	1767	1392	1844
Q Serve(g_s), s	10.5	0.0	3.3	2.6	0.0	13.2	5.8	29.3	29.4	6.1	19.8	19.8
Cycle Q Clear(g_c), s	23.7	0.0	3.3	5.9	0.0	13.2	5.8	29.3	29.4	6.1	19.8	19.8
Prop In Lane	1.00		0.87	1.00		0.86	1.00		0.12	1.00		0.03
Lane Grp Cap(c), veh/h	164	0	295	271	0	296	119	1098	1127	120	1736	1150
V/C Ratio(X)	0.56	0.00	0.15	0.11	0.00	0.55	0.63	0.57	0.57	0.66	0.63	0.63
Avail Cap(c_a), veh/h	364	0	556	493	0	558	252	1098	1127	252	1736	1150
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	0.0	47.6	50.1	0.0	51.6	63.6	15.5	15.5	62.1	6.2	6.2
Incr Delay (d2), s/veh	3.0	0.0	0.2	0.2	0.0	1.6	4.0	2.2	2.1	4.4	1.8	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	1.4	0.9	0.0	5.4	2.7	11.8	12.1	2.8	3.8	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	0.0	47.8	50.2	0.0	53.2	67.5	17.6	17.6	66.5	7.9	8.8
LnGrp LOS	E	A	D	D	A	D	E	B	B	E	A	A
Approach Vol, veh/h		137			193			1352			1904	
Approach Delay, s/veh		59.6			52.8			20.4			10.7	
Approach LOS		E			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	93.8		31.2	15.0	93.7		31.2				
Change Period (Y+Rc), s	5.5	6.5		5.0	5.5	6.5		5.0				
Max Green Setting (Gmax), s	20.0	53.5		49.5	20.0	53.5		49.5				
Max Q Clear Time (g_c+I1), s	7.8	21.8		15.2	8.1	31.4		25.7				
Green Ext Time (p_c), s	0.1	16.3		1.2	0.1	8.8		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			18.5									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
5: Empire Ave & N Hollywood Way

10/03/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	532	81	0	70	147
Future Volume (veh/h)	0	532	81	0	70	147
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	0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	0	611	93	0	80	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	3	3	0	3	3
Cap, veh/h	0	2707	2707	0	196	
Arrive On Green	0.00	1.00	0.77	0.00	0.11	0.00
Sat Flow, veh/h	0	3711	3711	0	1767	1572
Grp Volume(v), veh/h	0	611	93	0	80	0
Grp Sat Flow(s),veh/h/ln	0	1763	1763	0	1767	1572
Q Serve(g_s), s	0.0	0.0	0.6	0.0	3.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.6	0.0	3.8	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2707	2707	0	196	
V/C Ratio(X)	0.00	0.23	0.03	0.00	0.41	
Avail Cap(c_a), veh/h	0	2707	2707	0	465	
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.93	0.99	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	2.5	0.0	37.2	0.0
Incr Delay (d2), s/veh	0.0	0.2	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
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	1.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.2	2.5	0.0	39.2	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h		611	93		80	
Approach Delay, s/veh		0.2	2.5		39.2	
Approach LOS		A	A		D	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		75.4		14.6		75.4
Change Period (Y+Rc), s		6.3		4.6		6.3
Max Green Setting (Gmax), s		55.4		23.7		55.4
Max Q Clear Time (g_c+I1), s		2.0		5.8		2.6
Green Ext Time (p_c), s		4.4		0.2		0.6

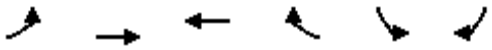
Intersection Summary	
HCM 6th Ctrl Delay	4.4
HCM 6th LOS	A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
6: Empire Ave & Avon St

10/03/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	126	390	236	79	68	2
Future Volume (veh/h)	126	390	236	79	68	2
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	138	429	259	77	75	-10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	1026	3297	2162	629	518	0
Arrive On Green	0.08	0.94	0.80	0.80	0.00	0.00
Sat Flow, veh/h	1767	3618	2786	783	2048	-273
Grp Volume(v), veh/h	138	429	168	168	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1763	1713	0	0
Q Serve(g_s), s	0.8	0.9	2.0	2.1	0.0	0.0
Cycle Q Clear(g_c), s	0.8	0.9	2.0	2.1	0.0	0.0
Prop In Lane	1.00			0.46	1.14	-0.15
Lane Grp Cap(c), veh/h	1026	3297	1416	1376	0	0
V/C Ratio(X)	0.13	0.13	0.12	0.12	0.00	0.00
Avail Cap(c_a), veh/h	1248	3297	1416	1376	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.99	0.99	0.00	0.00
Uniform Delay (d), s/veh	0.6	0.2	2.1	2.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.5	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.6	0.3	2.2	2.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		567	336		0	
Approach Delay, s/veh		0.4	2.3		0.0	
Approach LOS		A	A			

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.0		0.0	12.8	84.2
Change Period (Y+Rc), s		6.3		4.6	5.0	6.3
Max Green Setting (Gmax), s		53.4		25.7	20.0	35.0
Max Q Clear Time (g_c+I1), s		2.9		0.0	2.8	4.1
Green Ext Time (p_c), s		2.9		0.0	0.1	2.0

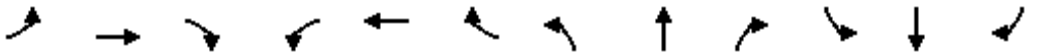
Intersection Summary	
HCM 6th Ctrl Delay	1.1
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
7: Empire Ave & Airport

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	547	5	1	345	7	0	0	0	15	0	1
Future Volume (veh/h)	134	547	5	1	345	7	0	0	0	15	0	1
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.96				1.00		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	1856	1856	1856	1856	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	147	601	5	1	379	7				16	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3				3	3	3
Cap, veh/h	831	1468	12	41	2317	43				282	148	0
Arrive On Green	0.08	0.80	0.80	0.67	0.67	0.67				0.08	0.00	0.00
Sat Flow, veh/h	1767	1837	15	1	3464	64				3534	1856	0
Grp Volume(v), veh/h	147	0	606	203	0	184				16	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1852	1854	0	1674				1767	1856	0
Q Serve(g_s), s	1.9	0.0	8.8	0.0	0.0	3.7				0.4	0.0	0.0
Cycle Q Clear(g_c), s	1.9	0.0	8.8	3.7	0.0	3.7				0.4	0.0	0.0
Prop In Lane	1.00		0.01	0.00		0.04				1.00		0.00
Lane Grp Cap(c), veh/h	831	0	1480	1281	0	1120				282	148	0
V/C Ratio(X)	0.18	0.00	0.41	0.16	0.00	0.16				0.06	0.00	0.00
Avail Cap(c_a), veh/h	842	0	1480	1281	0	1120				931	489	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	0.96	0.00	0.96				1.00	0.00	0.00
Uniform Delay (d), s/veh	2.9	0.0	2.7	5.5	0.0	5.5				38.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.8	0.3	0.0	0.3				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
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.9	1.2	0.0	1.1				0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.9	0.0	3.5	5.8	0.0	5.8				38.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				D	A	A
Approach Vol, veh/h		753			387						16	
Approach Delay, s/veh		3.4			5.8						38.4	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		78.2		11.8	11.7	66.5						
Change Period (Y+Rc), s		6.3		4.6	4.9	6.3						
Max Green Setting (Gmax), s		55.4		23.7	7.4	43.1						
Max Q Clear Time (g_c+I1), s		10.8		2.4	3.9	5.7						
Green Ext Time (p_c), s		4.3		0.0	0.1	2.2						

Intersection Summary												
HCM 6th Ctrl Delay			4.7									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
8: Hollywood Way & Victory Bl

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	805	134	100	530	95	76	930	91	157	1298	234
Future Volume (veh/h)	265	805	134	100	530	95	76	930	91	157	1298	234
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	312	947	89	118	624	61	89	1094	72	185	1527	231
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	334	995	541	186	741	438	174	1485	770	260	1504	883
Arrive On Green	0.14	0.28	0.28	0.07	0.21	0.21	0.07	0.42	0.42	0.07	0.43	0.43
Sat Flow, veh/h	1767	3526	1532	1767	3526	1526	1767	3526	1564	1767	3526	1544
Grp Volume(v), veh/h	312	947	89	118	624	61	89	1094	72	185	1527	231
Grp Sat Flow(s),veh/h/ln	1767	1763	1532	1767	1763	1526	1767	1763	1564	1767	1763	1544
Q Serve(g_s), s	19.0	36.9	5.6	7.2	23.8	4.2	3.8	36.5	3.4	8.3	59.7	10.6
Cycle Q Clear(g_c), s	19.0	36.9	5.6	7.2	23.8	4.2	3.8	36.5	3.4	8.3	59.7	10.6
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	334	995	541	186	741	438	174	1485	770	260	1504	883
V/C Ratio(X)	0.93	0.95	0.16	0.63	0.84	0.14	0.51	0.74	0.09	0.71	1.02	0.26
Avail Cap(c_a), veh/h	334	995	541	314	992	547	304	1485	770	381	1504	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	37.3	49.3	31.3	41.8	53.1	37.3	31.6	34.0	18.9	27.6	40.1	15.3
Incr Delay (d2), s/veh	32.2	18.0	0.1	1.3	5.1	0.1	0.9	3.3	0.2	1.4	27.2	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	11.1	18.5	2.1	3.2	11.0	1.6	1.6	16.1	1.3	3.5	30.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.5	67.3	31.4	43.1	58.2	37.5	32.4	37.3	19.2	29.0	67.3	16.0
LnGrp LOS	E	E	C	D	E	D	C	D	B	C	F	B
Approach Vol, veh/h		1348			803			1255			1943	
Approach Delay, s/veh		65.5			54.4			35.9			57.6	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	45.5	14.3	65.7	24.6	35.4	15.0	65.0
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	9.2	38.9	5.8	61.7	21.0	25.8	10.3	38.5
Green Ext Time (p_c), s	0.1	0.3	0.1	0.0	0.0	3.6	0.2	0.7

Intersection Summary	
HCM 6th Ctrl Delay	54.0
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
9: Hollywood Way & Burbank Bl

10/03/2024

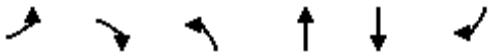
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	548	27	129	508	50	66	841	95	176	1305	119
Future Volume (veh/h)	196	548	27	129	508	50	66	841	95	176	1305	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	218	609	24	143	564	-13	73	934	102	196	1450	70
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	280	774	30	237	676	301	209	1514	165	317	1686	749
Arrive On Green	0.11	0.22	0.22	0.08	0.19	0.00	0.07	0.47	0.47	0.07	0.48	0.48
Sat Flow, veh/h	1767	3457	136	1767	3526	1572	1767	3199	349	1767	3526	1566
Grp Volume(v), veh/h	218	310	323	143	564	-13	73	515	521	196	1450	70
Grp Sat Flow(s),veh/h/ln	1767	1763	1830	1767	1763	1572	1767	1763	1786	1767	1763	1566
Q Serve(g_s), s	13.5	23.2	23.3	9.0	21.6	0.0	2.8	30.4	30.4	7.9	51.0	3.4
Cycle Q Clear(g_c), s	13.5	23.2	23.3	9.0	21.6	0.0	2.8	30.4	30.4	7.9	51.0	3.4
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	280	395	410	237	676	301	209	834	845	317	1686	749
V/C Ratio(X)	0.78	0.79	0.79	0.60	0.83	-0.04	0.35	0.62	0.62	0.62	0.86	0.09
Avail Cap(c_a), veh/h	336	496	515	349	992	443	343	834	845	442	1686	749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	39.8	51.2	51.2	42.0	54.4	0.0	26.9	27.4	27.4	21.4	32.4	19.9
Incr Delay (d2), s/veh	7.4	6.5	6.3	0.9	4.1	0.0	0.4	3.4	3.4	0.7	6.0	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	6.4	10.9	11.3	4.0	9.9	0.0	1.1	13.4	13.6	3.3	22.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	57.6	57.5	43.0	58.6	0.0	27.3	30.8	30.8	22.2	38.3	20.2
LnGrp LOS	D	E	E	D	E	A	C	C	C	C	D	C
Approach Vol, veh/h		851			694			1109			1716	
Approach Delay, s/veh		54.9			56.4			30.6			35.8	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	37.4	14.0	73.0	20.2	32.8	14.7	72.3
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	11.0	25.3	4.8	53.0	15.5	23.6	9.9	32.4
Green Ext Time (p_c), s	0.1	3.2	0.1	0.0	0.1	3.3	0.2	3.6

Intersection Summary	
HCM 6th Ctrl Delay	41.5
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
10: Buena Vista St & I-5 NB Ramps

10/03/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	172	626	302	273	475	88
Future Volume (veh/h)	172	626	302	273	475	88
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	177	0	311	281	490	87
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	273		490	1207	600	107
Arrive On Green	0.15	0.00	0.16	0.65	0.39	0.39
Sat Flow, veh/h	1767	1572	1767	1856	1533	272
Grp Volume(v), veh/h	177	0	311	281	0	577
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1856	0	1805
Q Serve(g_s), s	5.8	0.0	5.4	3.8	0.0	17.6
Cycle Q Clear(g_c), s	5.8	0.0	5.4	3.8	0.0	17.6
Prop In Lane	1.00	1.00	1.00			0.15
Lane Grp Cap(c), veh/h	273		490	1207	0	707
V/C Ratio(X)	0.65		0.63	0.23	0.00	0.82
Avail Cap(c_a), veh/h	1435		1496	1808	0	1759
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	24.5	0.0	11.0	4.4	0.0	16.7
Incr Delay (d2), s/veh	1.0	0.0	0.5	0.1	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	1.6	1.1	0.0	6.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.4	0.0	11.5	4.5	0.0	19.1
LnGrp LOS	C		B	A	A	B
Approach Vol, veh/h	177			592	577	
Approach Delay, s/veh	25.4			8.2	19.1	
Approach LOS	C			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.1		15.5	16.0	30.1
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		60.0		50.0	45.0	60.0
Max Q Clear Time (g_c+I1), s		5.8		7.8	7.4	19.6
Green Ext Time (p_c), s		1.8		0.2	0.5	4.5

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	267	22	0	377	2
Future Vol, veh/h	0	267	22	0	377	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	297	24	0	419	2
Number of Lanes	2	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	11.7	9.1	20.1
HCM LOS	B	A	C

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	0%
Vol Thru, %	100%	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	0	267	377	2
LT Vol	0	0	0	377	0
Through Vol	22	0	0	0	2
RT Vol	0	0	267	0	0
Lane Flow Rate	24	0	297	419	2
Geometry Grp	3b	5	5	5	5
Degree of Util (X)	0.04	0	0.425	0.679	0.003
Departure Headway (Hd)	5.889	5.869	5.163	5.838	5.334
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	612	0	694	612	663
Service Time	3.889	3.628	2.922	3.633	3.128
HCM Lane V/C Ratio	0.039	0	0.428	0.685	0.003
HCM Control Delay	9.1	8.6	11.7	20.2	8.1
HCM Lane LOS	A	N	B	C	A
HCM 95th-tile Q	0.1	0	2.1	5.2	0

HCM 6th Signalized Intersection Summary
12: Buena Vista St & Winona Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	78	331	264	96	69	120	458	202	51	824	226
Future Volume (veh/h)	45	78	331	264	96	69	120	458	202	51	824	226
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		0.97	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	47	82	260	278	101	55	126	482	184	54	867	225
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	122	212	394	333	213	116	222	1165	441	331	989	256
Arrive On Green	0.18	0.18	0.18	0.19	0.19	0.19	0.07	0.47	0.47	0.36	0.36	0.36
Sat Flow, veh/h	664	1158	1572	1767	1128	614	1767	2478	939	761	2763	717
Grp Volume(v), veh/h	129	0	260	278	0	156	126	342	324	54	553	539
Grp Sat Flow(s),veh/h/ln	1822	0	1572	1767	0	1743	1767	1763	1653	761	1763	1717
Q Serve(g_s), s	6.3	0.0	15.1	15.3	0.0	8.1	4.3	12.9	13.1	5.1	29.7	29.8
Cycle Q Clear(g_c), s	6.3	0.0	15.1	15.3	0.0	8.1	4.3	12.9	13.1	6.8	29.7	29.8
Prop In Lane	0.36		1.00	1.00		0.35	1.00		0.57	1.00		0.42
Lane Grp Cap(c), veh/h	334	0	394	333	0	329	222	829	778	331	631	614
V/C Ratio(X)	0.39	0.00	0.66	0.83	0.00	0.47	0.57	0.41	0.42	0.16	0.88	0.88
Avail Cap(c_a), veh/h	629	0	649	610	0	602	714	829	778	359	696	678
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	34.1	39.6	0.0	36.6	23.2	17.6	17.7	23.7	30.5	30.5
Incr Delay (d2), s/veh	0.7	0.0	1.9	5.4	0.0	1.1	0.8	0.3	0.4	0.2	11.4	11.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	5.9	7.2	0.0	3.6	1.7	5.1	4.8	0.9	14.1	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	0.0	36.0	45.0	0.0	37.7	24.1	18.0	18.0	23.9	41.9	42.2
LnGrp LOS	D	A	D	D	A	D	C	B	B	C	D	D
Approach Vol, veh/h		389			434			792			1146	
Approach Delay, s/veh		36.4			42.4			19.0			41.2	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.4	42.3		24.1		53.7		23.6				
Change Period (Y+Rc), s	4.6	6.0		* 5		6.0		5.0				
Max Green Setting (Gmax), s	35.0	40.0		* 35		40.0		35.0				
Max Q Clear Time (g_c+I1), s	6.3	31.8		17.3		15.1		17.1				
Green Ext Time (p_c), s	0.2	4.5		1.7		4.3		1.5				

Intersection Summary			
HCM 6th Ctrl Delay		34.3	
HCM 6th LOS		C	

Notes

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

HCM 6th Signalized Intersection Summary
13: Buena Vista St & San Fernando Bl

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	370	88	39	338	157	57	478	22	176	845	401
Future Volume (veh/h)	146	370	88	39	338	157	57	478	22	176	845	401
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	149	378	74	40	345	32	58	488	20	180	862	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	351	672	130	283	647	287	100	1036	42	238	1354	
Arrive On Green	0.09	0.23	0.23	0.05	0.18	0.18	0.06	0.30	0.30	0.13	0.38	0.00
Sat Flow, veh/h	1767	2942	570	1767	3526	1562	1767	3450	141	1767	3526	1572
Grp Volume(v), veh/h	149	225	227	40	345	32	58	249	259	180	862	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1749	1767	1763	1562	1767	1763	1829	1767	1763	1572
Q Serve(g_s), s	4.9	8.4	8.5	1.3	6.6	1.3	2.4	8.5	8.6	7.3	14.8	0.0
Cycle Q Clear(g_c), s	4.9	8.4	8.5	1.3	6.6	1.3	2.4	8.5	8.6	7.3	14.8	0.0
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	351	403	400	283	647	287	100	529	549	238	1354	
V/C Ratio(X)	0.42	0.56	0.57	0.14	0.53	0.11	0.58	0.47	0.47	0.76	0.64	
Avail Cap(c_a), veh/h	668	950	943	679	1900	842	595	1782	1848	953	4276	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	21.2	25.3	25.4	22.8	27.4	25.3	34.2	21.2	21.2	30.9	18.6	0.0
Incr Delay (d2), s/veh	0.3	1.2	1.3	0.1	0.7	0.2	2.0	0.9	0.9	4.8	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	1.9	3.4	3.5	0.5	2.7	0.5	1.0	3.4	3.6	3.3	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.5	26.5	26.6	22.9	28.1	25.4	36.2	22.1	22.1	35.8	19.4	0.0
LnGrp LOS	C	C	C	C	C	C	D	C	C	D	B	
Approach Vol, veh/h		601			417			566			1042	
Approach Delay, s/veh		25.3			27.4			23.5			22.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	23.0	8.8	34.5	11.3	19.6	15.0	28.3
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	5.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	25.0	90.0	20.0	40.0	40.0	75.0
Max Q Clear Time (g_c+I1), s	3.3	10.5	4.4	16.8	6.9	8.6	9.3	10.6
Green Ext Time (p_c), s	0.0	2.8	0.1	11.2	0.1	2.4	0.5	4.9

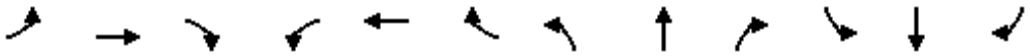
Intersection Summary	
HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
14: Ontario St & Thornton Ave

10/03/2024



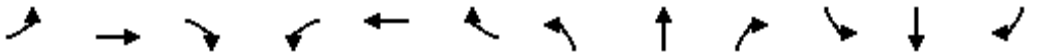
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	104	67	27	252	18	30	28	20	12	12	16
Future Volume (veh/h)	21	104	67	27	252	18	30	28	20	12	12	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	23	116	54	30	280	18	33	31	1	13	13	1
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	850	836	389	851	1207	78	159	124	3	151	127	8
Arrive On Green	0.23	0.23	0.23	1.00	1.00	1.00	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1068	1195	556	1201	1724	111	631	969	25	584	986	60
Grp Volume(v), veh/h	23	0	170	30	0	298	65	0	0	27	0	0
Grp Sat Flow(s),veh/h/ln	1068	0	1751	1201	0	1835	1625	0	0	1630	0	0
Q Serve(g_s), s	1.2	0.0	5.4	0.2	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	5.4	5.6	0.0	0.0	2.3	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		0.32	1.00		0.06	0.51		0.02	0.48		0.04
Lane Grp Cap(c), veh/h	850	0	1226	851	0	1285	286	0	0	286	0	0
V/C Ratio(X)	0.03	0.00	0.14	0.04	0.00	0.23	0.23	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	850	0	1226	851	0	1285	734	0	0	731	0	0
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.97	0.00	0.97	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	10.1	0.3	0.0	0.0	27.6	0.0	0.0	27.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.0	0.0	0.1	0.4	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	0.0	1.8	0.0	0.0	0.0	1.0	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.6	0.0	10.4	0.3	0.0	0.1	28.0	0.0	0.0	27.1	0.0	0.0
LnGrp LOS	A	A	B	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		193			328			65			27	
Approach Delay, s/veh		10.2			0.1			28.0			27.1	
Approach LOS		B			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.0		15.0		55.0		15.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		29.0		29.0		29.0		29.0				
Max Q Clear Time (g_c+I1), s		7.4		4.3		7.6		2.9				
Green Ext Time (p_c), s		1.0		0.3		1.8		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		7.4
HCM 6th LOS		A

HCM 6th Signalized Intersection Summary
15: Empire Ave & Ontario St

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	324	0	5	391	85	0	1	1	45	0	33
Future Volume (veh/h)	44	324	0	5	391	85	0	1	1	45	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		1.00	1.00		0.98	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	47	348	0	5	420	80	0	1	0	48	0	3
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	711	2648	0	821	2213	418	0	155	0	196	0	130
Arrive On Green	0.75	0.75	0.00	0.75	0.75	0.75	0.00	0.08	0.00	0.08	0.00	0.08
Sat Flow, veh/h	890	3618	0	1024	2947	556	0	1856	0	1387	0	1564
Grp Volume(v), veh/h	47	348	0	5	250	250	0	1	0	48	0	3
Grp Sat Flow(s),veh/h/ln	890	1763	0	1024	1763	1740	0	1856	0	1387	0	1564
Q Serve(g_s), s	1.5	2.5	0.0	0.1	3.7	3.8	0.0	0.0	0.0	2.9	0.0	0.2
Cycle Q Clear(g_c), s	5.2	2.5	0.0	2.6	3.7	3.8	0.0	0.0	0.0	3.0	0.0	0.2
Prop In Lane	1.00		0.00	1.00		0.32	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	711	2648	0	821	1324	1307	0	155	0	196	0	130
V/C Ratio(X)	0.07	0.13	0.00	0.01	0.19	0.19	0.00	0.01	0.00	0.25	0.00	0.02
Avail Cap(c_a), veh/h	711	2648	0	821	1324	1307	0	200	0	411	0	372
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.00	0.85	0.85	0.85	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.0	3.1	0.0	3.4	3.2	3.3	0.0	37.8	0.0	39.2	0.0	37.9
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.6	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	0.2	0.6	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.2	3.2	0.0	3.5	3.5	3.5	0.0	37.8	0.0	39.8	0.0	38.0
LnGrp LOS	A	A	A	A	A	A	A	D	A	D	A	D
Approach Vol, veh/h		395			505			1			51	
Approach Delay, s/veh		3.3			3.5			37.8			39.7	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		73.9		16.1		73.9		16.1				
Change Period (Y+Rc), s		6.3		* 8.6		6.3		* 8.6				
Max Green Setting (Gmax), s		39.4		* 9.7		39.4		* 21				
Max Q Clear Time (g_c+I1), s		7.2		2.0		5.8		5.0				
Green Ext Time (p_c), s		3.2		0.0		3.9		0.2				

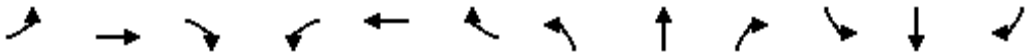
Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Summary
16: Buena Vista St & Empire Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	286	141	459	416	89	108	524	709	83	772	28
Future Volume (veh/h)	49	286	141	459	416	89	108	524	709	83	772	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	51	298	24	478	433	78	112	546	654	86	804	27
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	117	436	189	539	748	134	464	1811	1039	142	1775	60
Arrive On Green	0.04	0.12	0.12	0.16	0.25	0.25	0.04	0.51	0.51	0.08	1.00	1.00
Sat Flow, veh/h	1767	3526	1527	3428	2978	532	1767	3526	1542	3428	3478	117
Grp Volume(v), veh/h	51	298	24	478	255	256	112	546	654	86	407	424
Grp Sat Flow(s),veh/h/ln	1767	1763	1527	1714	1763	1748	1767	1763	1542	1714	1763	1832
Q Serve(g_s), s	3.7	11.3	1.7	19.1	17.7	18.0	4.2	12.5	7.9	3.4	0.0	0.0
Cycle Q Clear(g_c), s	3.7	11.3	1.7	19.1	17.7	18.0	4.2	12.5	7.9	3.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.30	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	117	436	189	539	442	439	464	1811	1039	142	900	935
V/C Ratio(X)	0.44	0.68	0.13	0.89	0.58	0.58	0.24	0.30	0.63	0.61	0.45	0.45
Avail Cap(c_a), veh/h	228	755	327	710	567	562	549	1811	1039	416	900	935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	58.4	58.7	40.4	57.8	45.9	46.0	14.8	19.6	4.0	63.1	0.0	0.0
Incr Delay (d2), s/veh	1.9	1.9	0.3	9.9	1.2	1.2	0.2	0.4	2.9	2.9	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	1.7	5.2	0.8	9.0	7.9	8.0	1.7	5.2	4.6	1.5	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	60.6	40.7	67.7	47.1	47.2	15.0	20.0	6.9	66.0	1.5	1.5
LnGrp LOS	E	E	D	E	D	D	B	C	A	E	A	A
Approach Vol, veh/h		373			989			1312			917	
Approach Delay, s/veh		59.3			57.1			13.1			7.6	
Approach LOS		E			E			B			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	23.3	11.2	77.5	10.2	41.1	10.8	77.9
Change Period (Y+Rc), s	6.0	* 6	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	29.0	* 30	13.0	46.0	14.0	45.0	17.0	42.0
Max Q Clear Time (g_c+I1), s	21.1	13.3	6.2	2.0	5.7	20.0	5.4	14.5
Green Ext Time (p_c), s	0.9	1.7	0.1	5.9	0.0	3.1	0.1	8.8

Intersection Summary	
HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

HCM 6th Signalized Intersection Summary
17: Buena Vista St & Thornton Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	38	109	7	28	12	124	523	18	12	765	200
Future Volume (veh/h)	27	38	109	7	28	12	124	523	18	12	765	200
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	28	39	15	7	29	1	127	534	17	12	781	198
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	137	100	38	117	140	5	497	2769	88	754	2346	595
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	1.00	1.00	1.00	0.02	0.84	0.84
Sat Flow, veh/h	1360	1273	490	1332	1782	61	570	3487	111	1767	2783	706
Grp Volume(v), veh/h	28	0	54	7	0	30	127	270	281	12	495	484
Grp Sat Flow(s),veh/h/ln	1360	0	1763	1332	0	1844	570	1763	1835	1767	1763	1726
Q Serve(g_s), s	2.8	0.0	4.1	0.7	0.0	2.1	0.7	0.0	0.0	0.2	8.6	8.6
Cycle Q Clear(g_c), s	4.9	0.0	4.1	4.8	0.0	2.1	2.4	0.0	0.0	0.2	8.6	8.6
Prop In Lane	1.00		0.28	1.00		0.03	1.00		0.06	1.00		0.41
Lane Grp Cap(c), veh/h	137	0	138	117	0	145	497	1400	1457	754	1486	1455
V/C Ratio(X)	0.20	0.00	0.39	0.06	0.00	0.21	0.26	0.19	0.19	0.02	0.33	0.33
Avail Cap(c_a), veh/h	555	0	680	526	0	711	497	1400	1457	915	1486	1455
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)	0.99	0.00	0.99	1.00	0.00	1.00	0.95	0.95	0.95	0.80	0.80	0.80
Uniform Delay (d), s/veh	62.7	0.0	61.3	63.6	0.0	60.4	0.0	0.0	0.0	2.2	2.4	2.4
Incr Delay (d2), s/veh	0.7	0.0	1.8	0.2	0.0	0.7	1.2	0.3	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.9	0.2	0.0	1.0	0.2	0.1	0.1	0.0	2.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.4	0.0	63.1	63.8	0.0	61.1	1.2	0.3	0.3	2.2	2.9	2.9
LnGrp LOS	E	A	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		82			37			678			991	
Approach Delay, s/veh		63.2			61.6			0.5			2.9	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	6.8	117.2		16.0		124.0		16.0				
Change Period (Y+Rc), s	4.6	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	15.0	55.4		54.0		75.0		54.0				
Max Q Clear Time (g_c+I1), s	2.2	4.4		6.9		10.6		6.8				
Green Ext Time (p_c), s	0.0	5.4		0.4		7.9		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		5.9	
HCM 6th LOS		A	

HCM 6th Signalized Intersection Summary
18: I-5 SB Ramps & Empire Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	420	662	404	1166	0	0	0	0	321	1	128
Future Volume (veh/h)	0	420	662	404	1166	0	0	0	0	321	1	128
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	1856	1856	1856	1856	0				1856	1856	1856
Adj Flow Rate, veh/h	0	457	391	439	1267	0				350	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0				3	3	3
Cap, veh/h	0	1971	876	508	2669	0				441	0	
Arrive On Green	0.00	0.56	0.56	0.20	1.00	0.00				0.12	0.00	0.00
Sat Flow, veh/h	0	3618	1567	3428	3618	0				3534	0	1572
Grp Volume(v), veh/h	0	457	391	439	1267	0				350	0	0
Grp Sat Flow(s),veh/h/ln	0	1763	1567	1714	1763	0				1767	0	1572
Q Serve(g_s), s	0.0	7.2	16.1	13.6	0.0	0.0				10.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.2	16.1	13.6	0.0	0.0				10.6	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1971	876	508	2669	0				441	0	
V/C Ratio(X)	0.00	0.23	0.45	0.86	0.47	0.00				0.79	0.00	
Avail Cap(c_a), veh/h	0	1971	876	795	2669	0				1012	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.59	0.59	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	12.3	14.3	43.1	0.0	0.0				46.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	1.6	2.3	0.4	0.0				3.3	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
%ile BackOfQ(50%),veh/ln	0.0	2.8	5.8	5.6	0.1	0.0				4.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.6	15.9	45.4	0.4	0.0				50.0	0.0	0.0
LnGrp LOS	A	B	B	D	A	A				D	A	
Approach Vol, veh/h		848			1706						350	
Approach Delay, s/veh		14.1			11.9						50.0	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.8	68.0		20.2		89.8						
Change Period (Y+Rc), s	5.5	6.5		6.5		6.5						
Max Green Setting (Gmax), s	25.5	34.5		31.5		65.5						
Max Q Clear Time (g_c+I1), s	15.6	18.1		12.6		2.0						
Green Ext Time (p_c), s	0.7	5.7		1.1		20.5						

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
19: I-5 NB Ramps & Empire Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	710	0	0	860	360	720	3	185	0	0	0
Future Volume (veh/h)	19	710	0	0	860	360	720	3	185	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		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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1856	1856	0	0	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	21	772	0	0	935	368	785	0	41			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	148	2221	0	0	1324	517	890	0	391			
Arrive On Green	0.09	1.00	0.00	0.00	0.54	0.54	0.25	0.00	0.25			
Sat Flow, veh/h	3428	3618	0	0	2558	962	3534	0	1554			
Grp Volume(v), veh/h	21	772	0	0	666	637	785	0	41			
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	1664	1767	0	1554			
Q Serve(g_s), s	0.6	0.0	0.0	0.0	30.9	31.5	23.5	0.0	2.2			
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.0	30.9	31.5	23.5	0.0	2.2			
Prop In Lane	1.00		0.00	0.00		0.58	1.00		1.00			
Lane Grp Cap(c), veh/h	148	2221	0	0	947	894	890	0	391			
V/C Ratio(X)	0.14	0.35	0.00	0.00	0.70	0.71	0.88	0.00	0.10			
Avail Cap(c_a), veh/h	732	2221	0	0	947	894	1076	0	473			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	48.4	0.0	0.0	0.0	19.0	19.1	39.6	0.0	31.6			
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.0	4.4	4.8	7.6	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			
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.0	0.0	13.0	12.6	11.0	0.0	0.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.5	0.4	0.0	0.0	23.3	23.9	47.2	0.0	31.7			
LnGrp LOS	D	A	A	A	C	C	D	A	C			
Approach Vol, veh/h		793			1303			826				
Approach Delay, s/veh		1.7			23.6			46.5				
Approach LOS		A			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.8			10.2	65.6		34.2				
Change Period (Y+Rc), s		6.5			5.5	6.5		6.5				
Max Green Setting (Gmax), s		63.5			23.5	34.5		33.5				
Max Q Clear Time (g_c+I1), s		2.0			2.6	33.5		25.5				
Green Ext Time (p_c), s		9.4			0.0	0.8		2.2				

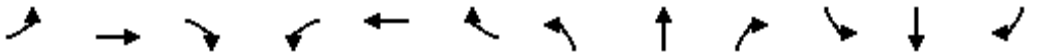
Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Hollywood Way & Tulare Ave

10/03/2024



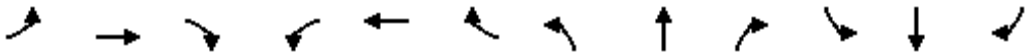
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	434	0	321	24	2	37	184	1598	3	8	1209	234
Future Volume (veh/h)	434	0	321	24	2	37	184	1598	3	8	1209	234
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	488	0	278	27	2	21	207	1796	3	9	1358	241
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	465	0	488	229	42	445	257	3133	5	178	2461	759
Arrive On Green	0.31	0.00	0.31	0.31	0.31	0.31	0.15	1.00	1.00	0.49	0.49	0.49
Sat Flow, veh/h	1375	0	1569	1092	137	1433	3428	5222	9	260	5066	1563
Grp Volume(v), veh/h	488	0	278	27	0	23	207	1161	638	9	1358	241
Grp Sat Flow(s),veh/h/ln	1375	0	1569	1092	0	1570	1714	1689	1854	260	1689	1563
Q Serve(g_s), s	42.1	0.0	20.8	3.0	0.0	1.4	8.2	0.0	0.0	2.6	26.4	13.1
Cycle Q Clear(g_c), s	43.5	0.0	20.8	23.7	0.0	1.4	8.2	0.0	0.0	2.6	26.4	13.1
Prop In Lane	1.00		1.00	1.00		0.91	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	465	0	488	229	0	488	257	2026	1112	178	2461	759
V/C Ratio(X)	1.05	0.00	0.57	0.12	0.00	0.05	0.81	0.57	0.57	0.05	0.55	0.32
Avail Cap(c_a), veh/h	465	0	488	229	0	488	465	2026	1112	178	2461	759
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	0.00	1.00	1.00	0.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	0.0	40.4	50.4	0.0	33.8	58.5	0.0	0.0	19.2	25.3	21.9
Incr Delay (d2), s/veh	55.7	0.0	1.6	0.2	0.0	0.0	3.5	0.9	1.7	0.5	0.9	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	24.0	0.0	8.4	0.8	0.0	0.6	3.4	0.3	0.5	0.2	10.5	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.0	0.0	42.0	50.6	0.0	33.8	62.0	0.9	1.7	19.7	26.2	23.0
LnGrp LOS	F	A	D	D	A	C	E	A	A	B	C	C
Approach Vol, veh/h		766			50			2006			1608	
Approach Delay, s/veh		83.4			42.9			7.5			25.7	
Approach LOS		F			D			A			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	16.0	74.5		49.5		90.5		49.5				
Change Period (Y+Rc), s	5.5	6.5		6.0		6.5		6.0				
Max Green Setting (Gmax), s	19.0	59.5		43.5		84.0		43.5				
Max Q Clear Time (g_c+I1), s	10.2	28.4		25.7		2.0		45.5				
Green Ext Time (p_c), s	0.3	13.1		0.1		21.2		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			27.6									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
2: Hollywood Way & Winona Ave

10/03/2024



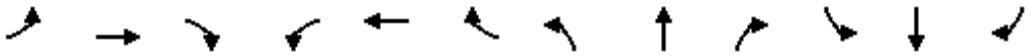
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	93	312	96	86	97	267	1416	47	40	1353	228
Future Volume (veh/h)	248	93	312	96	86	97	267	1416	47	40	1353	228
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	264	99	297	102	91	14	284	1506	49	43	1439	242
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	344	470	391	258	776	117	369	2844	93	328	2314	389
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.18	1.00	1.00	0.12	1.00	1.00
Sat Flow, veh/h	1275	1856	1544	979	3065	461	1767	5038	164	1767	4364	733
Grp Volume(v), veh/h	264	99	297	102	51	54	284	1009	546	43	1113	568
Grp Sat Flow(s),veh/h/ln	1275	1856	1544	979	1763	1763	1767	1689	1825	1767	1689	1720
Q Serve(g_s), s	28.2	5.9	24.9	12.8	3.1	3.3	10.8	0.0	0.0	1.4	0.0	0.0
Cycle Q Clear(g_c), s	31.4	5.9	24.9	18.7	3.1	3.3	10.8	0.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.09	1.00		0.43
Lane Grp Cap(c), veh/h	344	470	391	258	446	446	369	1906	1030	328	1791	912
V/C Ratio(X)	0.77	0.21	0.76	0.40	0.12	0.12	0.77	0.53	0.53	0.13	0.62	0.62
Avail Cap(c_a), veh/h	418	577	480	314	548	548	383	1906	1030	403	1791	912
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77	0.80	0.80	0.80
Uniform Delay (d), s/veh	52.4	41.2	48.3	48.6	40.2	40.3	10.2	0.0	0.0	11.4	0.0	0.0
Incr Delay (d2), s/veh	6.8	0.2	5.6	1.0	0.1	0.1	6.7	0.8	1.5	0.1	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	9.7	2.8	10.3	3.2	1.4	1.4	3.9	0.2	0.4	0.5	0.3	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	41.5	53.9	49.6	40.3	40.4	16.9	0.8	1.5	11.5	1.3	2.6
LnGrp LOS	E	D	D	D	D	D	B	A	A	B	A	A
Approach Vol, veh/h		660			207			1839			1724	
Approach Delay, s/veh		54.2			44.9			3.5			2.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.8	80.7		41.4	13.0	85.5		41.4				
Change Period (Y+Rc), s	4.9	6.5		6.0	4.9	6.5		6.0				
Max Green Setting (Gmax), s	14.0	65.1		43.5	14.0	65.1		43.5				
Max Q Clear Time (g_c+I1), s	12.8	2.0		20.7	3.4	2.0		33.4				
Green Ext Time (p_c), s	0.1	18.3		1.0	0.0	15.5		2.0				

Intersection Summary												
HCM 6th Ctrl Delay			12.4									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
3: Hollywood Way & Airport/Thornton Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	8	22	182	92	98	22	1667	122	61	1722	24
Future Volume (veh/h)	27	8	22	182	92	98	22	1667	122	61	1722	24
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	0.44		0.95	1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	28	8	-148	192	97	54	23	1755	122	64	1813	-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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	162	201	170	215	337	172	272	2733	190	304	2992	0
Arrive On Green	0.05	0.11	0.00	0.09	0.15	0.15	0.08	1.00	1.00	0.13	1.00	0.00
Sat Flow, veh/h	3428	1856	1572	1767	2217	1134	1767	4817	334	1767	5233	0
Grp Volume(v), veh/h	28	8	-148	192	75	76	23	1229	648	64	1811	0
Grp Sat Flow(s),veh/h/ln	1714	1856	1572	1767	1763	1588	1767	1689	1774	1767	1689	0
Q Serve(g_s), s	1.1	0.5	0.0	10.7	5.3	5.9	0.7	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.5	0.0	10.7	5.3	5.9	0.7	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.71	1.00		0.19	1.00		0.00
Lane Grp Cap(c), veh/h	162	201	170	215	268	241	272	1916	1007	304	2992	0
V/C Ratio(X)	0.17	0.04	-0.87	0.89	0.28	0.31	0.08	0.64	0.64	0.21	0.61	0.00
Avail Cap(c_a), veh/h	575	524	444	230	378	340	500	1916	1007	428	2992	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.73	0.73	0.00
Uniform Delay (d), s/veh	64.0	55.9	0.0	61.2	52.6	52.9	10.3	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.1	0.0	30.0	0.6	0.7	0.1	1.7	3.2	0.2	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	0.5	0.3	0.0	8.5	2.4	2.4	0.3	0.4	0.9	0.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	56.0	0.0	91.2	53.2	53.6	10.4	1.7	3.2	9.2	0.7	0.0
LnGrp LOS	E	E	A	F	D	D	B	A	A	A	A	A
Approach Vol, veh/h		-112			343			1900			1875	
Approach Delay, s/veh		0.0			74.6			2.3			1.0	
Approach LOS		A			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	89.2	12.6	27.3	14.2	85.9	18.8	21.1
Change Period (Y+Rc), s	5.0	6.5	6.0	6.0	5.0	6.5	6.0	6.0
Max Green Setting (Gmax), s	24.0	39.0	23.5	30.0	19.0	44.0	14.0	39.5
Max Q Clear Time (g_c+I1), s	2.7	2.0	3.1	7.9	3.9	2.0	12.7	2.5
Green Ext Time (p_c), s	0.0	18.4	0.0	0.8	0.1	19.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
4: Hollywood Way & Avon St

10/03/2024

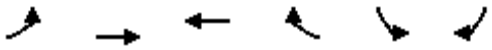
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	7	52	125	30	214	83	1468	18	35	1636	34
Future Volume (veh/h)	112	7	52	125	30	214	83	1468	18	35	1636	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	1.00		0.97	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	117	7	54	130	31	223	86	1529	18	36	1704	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	187	47	366	361	51	364	122	2000	24	95	2470	51
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.07	0.56	0.56	0.11	1.00	1.00
Sat Flow, veh/h	1113	180	1387	1319	191	1376	1767	3567	42	1767	4528	93
Grp Volume(v), veh/h	117	0	61	130	0	254	86	755	792	36	1047	692
Grp Sat Flow(s),veh/h/ln	1113	0	1566	1319	0	1567	1767	1763	1846	1767	1392	1838
Q Serve(g_s), s	14.4	0.0	4.2	11.7	0.0	19.9	6.7	46.1	46.2	2.7	0.0	0.0
Cycle Q Clear(g_c), s	34.4	0.0	4.2	15.9	0.0	19.9	6.7	46.1	46.2	2.7	0.0	0.0
Prop In Lane	1.00		0.89	1.00		0.88	1.00		0.02	1.00		0.05
Lane Grp Cap(c), veh/h	187	0	414	361	0	414	122	988	1035	95	1518	1003
V/C Ratio(X)	0.63	0.00	0.15	0.36	0.00	0.61	0.71	0.76	0.77	0.38	0.69	0.69
Avail Cap(c_a), veh/h	287	0	554	478	0	554	252	988	1035	252	1518	1003
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.3	0.0	39.4	45.5	0.0	45.2	63.8	23.6	23.7	60.3	0.0	0.0
Incr Delay (d2), s/veh	3.4	0.0	0.2	0.6	0.0	1.5	5.5	5.6	5.4	1.8	2.6	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	4.3	0.0	1.7	4.0	0.0	8.0	3.2	19.7	20.6	1.2	0.5	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.7	0.0	39.6	46.1	0.0	46.7	69.3	29.2	29.1	62.1	2.6	3.9
LnGrp LOS	E	A	D	D	A	D	E	C	C	E	A	A
Approach Vol, veh/h		178			384			1633			1775	
Approach Delay, s/veh		55.4			46.5			31.3			4.3	
Approach LOS		E			D			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.1	82.9		42.0	13.0	85.0		42.0				
Change Period (Y+Rc), s	5.5	6.5		5.0	5.5	6.5		5.0				
Max Green Setting (Gmax), s	20.0	53.5		49.5	20.0	53.5		49.5				
Max Q Clear Time (g_c+I1), s	8.7	2.0		21.9	4.7	48.2		36.4				
Green Ext Time (p_c), s	0.1	18.3		2.3	0.0	3.9		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			21.8									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
5: Empire Ave & N Hollywood Way

10/03/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	248	459	0	73	259
Future Volume (veh/h)	0	248	459	0	73	259
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	0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	0	285	528	0	84	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	3	3	0	3	3
Cap, veh/h	0	2707	2707	0	196	
Arrive On Green	0.00	1.00	0.77	0.00	0.11	0.00
Sat Flow, veh/h	0	3711	3711	0	1767	1572
Grp Volume(v), veh/h	0	285	528	0	84	0
Grp Sat Flow(s),veh/h/ln	0	1763	1763	0	1767	1572
Q Serve(g_s), s	0.0	0.0	3.7	0.0	4.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	3.7	0.0	4.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2707	2707	0	196	
V/C Ratio(X)	0.00	0.11	0.20	0.00	0.43	
Avail Cap(c_a), veh/h	0	2707	2707	0	465	
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.97	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	2.9	0.0	37.3	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.9	0.0	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.1	3.0	0.0	39.4	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h		285	528		84	
Approach Delay, s/veh		0.1	3.0		39.4	
Approach LOS		A	A		D	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		75.4		14.6		75.4
Change Period (Y+Rc), s		6.3		4.6		6.3
Max Green Setting (Gmax), s		55.4		23.7		55.4
Max Q Clear Time (g_c+I1), s		2.0		6.0		5.7
Green Ext Time (p_c), s		1.9		0.3		3.9

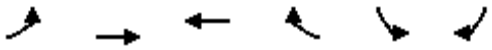
Intersection Summary	
HCM 6th Ctrl Delay	5.5
HCM 6th LOS	A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
6: Empire Ave & Avon St

10/03/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	406	489	107	58	3
Future Volume (veh/h)	74	406	489	107	58	3
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	79	432	520	103	62	-16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	814	3297	2378	469	536	0
Arrive On Green	0.07	0.94	0.81	0.81	0.00	0.00
Sat Flow, veh/h	1767	3618	3026	578	2436	-629
Grp Volume(v), veh/h	79	432	312	311	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1763	1749	0	0
Q Serve(g_s), s	0.4	0.9	3.9	4.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.9	3.9	4.0	0.0	0.0
Prop In Lane	1.00			0.33	1.32	-0.34
Lane Grp Cap(c), veh/h	814	3297	1429	1418	0	0
V/C Ratio(X)	0.10	0.13	0.22	0.22	0.00	0.00
Avail Cap(c_a), veh/h	1050	3297	1429	1418	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.98	0.98	0.00	0.00
Uniform Delay (d), s/veh	0.7	0.2	2.1	2.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	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
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.9	0.9	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.7	0.3	2.5	2.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		511	623		0	
Approach Delay, s/veh		0.4	2.5		0.0	
Approach LOS		A	A			

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.0		0.0	12.0	85.0
Change Period (Y+Rc), s		6.3		4.6	5.0	6.3
Max Green Setting (Gmax), s		53.4		25.7	20.0	35.0
Max Q Clear Time (g_c+I1), s		2.9		0.0	2.4	6.0
Green Ext Time (p_c), s		2.9		0.0	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	1.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
7: Empire Ave & Airport

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	329	2	1	823	10	0	0	0	30	0	1
Future Volume (veh/h)	88	329	2	1	823	10	0	0	0	30	0	1
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.96				1.00		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	1856	1856	1856	1856	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	97	362	2	1	904	8				28	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3				3	3	3
Cap, veh/h	607	1455	8	40	2329	21				315	166	0
Arrive On Green	0.07	0.79	0.79	1.00	1.00	1.00				0.09	0.00	0.00
Sat Flow, veh/h	1767	1843	10	0	3505	31				3534	1856	0
Grp Volume(v), veh/h	97	0	364	479	0	434				28	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1853	1855	0	1682				1767	1856	0
Q Serve(g_s), s	1.3	0.0	4.6	0.0	0.0	0.0				0.7	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	4.6	0.0	0.0	0.0				0.7	0.0	0.0
Prop In Lane	1.00		0.01	0.00		0.02				1.00		0.00
Lane Grp Cap(c), veh/h	607	0	1463	1273	0	1117				315	166	0
V/C Ratio(X)	0.16	0.00	0.25	0.38	0.00	0.39				0.09	0.00	0.00
Avail Cap(c_a), veh/h	627	0	1463	1273	0	1117				931	489	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.94	0.00	0.94				1.00	0.00	0.00
Uniform Delay (d), s/veh	2.8	0.0	2.5	0.0	0.0	0.0				37.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.8	0.0	1.0				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
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.0	0.3	0.0	0.3				0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.9	0.0	2.9	0.8	0.0	1.0				37.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				D	A	A
Approach Vol, veh/h		461			913						28	
Approach Delay, s/veh		2.9			0.9						37.7	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		77.4		12.6	11.3	66.1						
Change Period (Y+Rc), s		6.3		4.6	4.9	6.3						
Max Green Setting (Gmax), s		55.4		23.7	7.4	43.1						
Max Q Clear Time (g_c+I1), s		6.6		2.7	3.3	2.0						
Green Ext Time (p_c), s		2.2		0.0	0.0	6.3						

Intersection Summary												
HCM 6th Ctrl Delay			2.3									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
8: Hollywood Way & Victory Bl

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	751	111	114	889	130	163	1144	98	227	1223	307
Future Volume (veh/h)	257	751	111	114	889	130	163	1144	98	227	1223	307
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	265	774	65	118	916	96	168	1179	66	234	1261	258
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	288	1172	631	270	974	605	194	1160	623	257	1298	765
Arrive On Green	0.13	0.33	0.33	0.07	0.28	0.28	0.08	0.33	0.33	0.12	0.37	0.37
Sat Flow, veh/h	1767	3526	1531	1767	3526	1527	1767	3526	1555	1767	3526	1538
Grp Volume(v), veh/h	265	774	65	118	916	96	168	1179	66	234	1261	258
Grp Sat Flow(s),veh/h/ln	1767	1763	1531	1767	1763	1527	1767	1763	1555	1767	1763	1538
Q Serve(g_s), s	15.6	26.3	3.7	6.5	35.6	5.7	8.7	46.1	3.7	14.2	49.3	14.3
Cycle Q Clear(g_c), s	15.6	26.3	3.7	6.5	35.6	5.7	8.7	46.1	3.7	14.2	49.3	14.3
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	288	1172	631	270	974	605	194	1160	623	257	1298	765
V/C Ratio(X)	0.92	0.66	0.10	0.44	0.94	0.16	0.87	1.02	0.11	0.91	0.97	0.34
Avail Cap(c_a), veh/h	316	1172	631	398	992	613	309	1160	623	304	1298	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	38.6	40.0	25.5	33.5	49.5	27.5	34.8	47.0	26.3	42.7	43.5	21.5
Incr Delay (d2), s/veh	28.5	1.4	0.1	0.4	16.0	0.1	8.4	30.5	0.3	25.1	19.1	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	9.0	11.6	1.4	2.8	17.7	2.1	4.2	24.8	1.5	9.9	24.5	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.2	41.4	25.5	33.9	65.5	27.7	43.2	77.5	26.7	67.8	62.6	22.7
LnGrp LOS	E	D	C	C	E	C	D	F	C	E	E	C
Approach Vol, veh/h		1104			1130			1413			1753	
Approach Delay, s/veh		46.6			59.0			71.0			57.4	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	52.5	15.5	57.5	22.3	44.7	20.9	52.1
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	8.5	28.3	10.7	51.3	17.6	37.6	16.2	48.1
Green Ext Time (p_c), s	0.1	4.1	0.1	0.0	0.1	1.1	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	59.1
HCM 6th LOS	E

HCM 6th Signalized Intersection Summary
9: Hollywood Way & Burbank Bl

10/03/2024

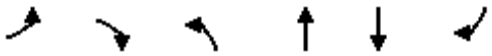
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	703	28	166	718	118	91	1111	124	145	978	168
Future Volume (veh/h)	217	703	28	166	718	118	91	1111	124	145	978	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	241	781	29	184	798	52	101	1234	131	161	1087	125
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	276	960	36	257	895	395	243	1312	139	192	1446	638
Arrive On Green	0.11	0.28	0.28	0.09	0.25	0.25	0.07	0.41	0.41	0.07	0.41	0.41
Sat Flow, veh/h	1767	3465	129	1767	3526	1556	1767	3208	339	1767	3526	1555
Grp Volume(v), veh/h	241	397	413	184	798	52	101	676	689	161	1087	125
Grp Sat Flow(s),veh/h/ln	1767	1763	1831	1767	1763	1556	1767	1763	1785	1767	1763	1555
Q Serve(g_s), s	13.9	29.4	29.5	10.7	30.6	3.6	4.4	51.5	52.0	7.3	36.8	7.2
Cycle Q Clear(g_c), s	13.9	29.4	29.5	10.7	30.6	3.6	4.4	51.5	52.0	7.3	36.8	7.2
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	276	488	507	257	895	395	243	721	730	192	1446	638
V/C Ratio(X)	0.87	0.81	0.81	0.72	0.89	0.13	0.42	0.94	0.94	0.84	0.75	0.20
Avail Cap(c_a), veh/h	327	496	515	348	992	438	371	721	730	319	1446	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	36.3	47.2	47.2	36.9	50.4	40.3	26.3	39.7	39.8	32.3	35.2	26.5
Incr Delay (d2), s/veh	17.5	9.9	9.6	2.3	9.5	0.1	0.4	21.4	22.1	4.1	3.6	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	7.3	14.2	14.7	4.7	14.5	1.4	1.9	26.1	26.8	3.2	16.3	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	57.1	56.8	39.2	59.9	40.5	26.7	61.0	61.9	36.4	38.8	27.2
LnGrp LOS	D	E	E	D	E	D	C	E	E	D	D	C
Approach Vol, veh/h		1051			1034			1466			1373	
Approach Delay, s/veh		56.3			55.2			59.1			37.5	
Approach LOS		E			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	44.8	14.4	63.4	20.6	41.6	14.6	63.3
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	12.7	31.5	6.4	38.8	15.9	32.6	9.3	54.0
Green Ext Time (p_c), s	0.1	3.0	0.1	0.4	0.1	3.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.7
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
10: Buena Vista St & I-5 NB Ramps

10/03/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	232	601	644	491	355	67
Future Volume (veh/h)	232	601	644	491	355	67
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	239	0	664	506	366	65
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	285		709	1263	445	79
Arrive On Green	0.16	0.00	0.31	0.68	0.29	0.29
Sat Flow, veh/h	1767	1572	1767	1856	1534	272
Grp Volume(v), veh/h	239	0	664	506	0	431
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1856	0	1806
Q Serve(g_s), s	9.9	0.0	20.5	9.1	0.0	16.9
Cycle Q Clear(g_c), s	9.9	0.0	20.5	9.1	0.0	16.9
Prop In Lane	1.00	1.00	1.00			0.15
Lane Grp Cap(c), veh/h	285		709	1263	0	523
V/C Ratio(X)	0.84		0.94	0.40	0.00	0.82
Avail Cap(c_a), veh/h	1167		1209	1470	0	1431
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	30.8	0.0	15.6	5.3	0.0	25.1
Incr Delay (d2), s/veh	2.6	0.0	5.4	0.2	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	8.0	2.8	0.0	7.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.4	0.0	20.9	5.5	0.0	28.4
LnGrp LOS	C		C	A	A	C
Approach Vol, veh/h	239			1170	431	
Approach Delay, s/veh	33.4			14.3	28.4	
Approach LOS	C			B	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.5		18.2	29.6	28.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		60.0		50.0	45.0	60.0
Max Q Clear Time (g_c+I1), s		11.1		11.9	22.5	18.9
Green Ext Time (p_c), s		3.7		0.3	1.1	3.1

Intersection Summary		
HCM 6th Ctrl Delay		20.1
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	19.1
Intersection LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	256	18	162	247	334	117
Future Vol, veh/h	256	18	162	247	334	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	278	20	176	268	363	127
Number of Lanes	2	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	14	22	19.6
HCM LOS	B	C	C

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	83%	100%	0%
Vol Thru, %	40%	0%	0%	0%	100%
Vol Right, %	60%	0%	17%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	409	171	103	334	117
LT Vol	0	171	85	334	0
Through Vol	162	0	0	0	117
RT Vol	247	0	18	0	0
Lane Flow Rate	445	186	112	363	127
Geometry Grp	3b	5	5	5	5
Degree of Util (X)	0.713	0.389	0.229	0.68	0.22
Departure Headway (Hd)	5.773	7.552	7.339	6.741	6.233
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	622	475	489	534	575
Service Time	3.826	5.315	5.101	4.499	3.99
HCM Lane V/C Ratio	0.715	0.392	0.229	0.68	0.221
HCM Control Delay	22	15.1	12.3	22.7	10.8
HCM Lane LOS	C	C	B	C	B
HCM 95th-tile Q	5.9	1.8	0.9	5.1	0.8

HCM 6th Signalized Intersection Summary
12: Buena Vista St & Winona Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	57	245	159	35	39	217	1034	278	27	776	158
Future Volume (veh/h)	68	57	245	159	35	39	217	1034	278	27	776	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	73	61	106	171	38	12	233	1112	286	29	834	161
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	126	106	362	241	183	58	343	1463	373	172	1071	207
Arrive On Green	0.13	0.13	0.13	0.14	0.14	0.14	0.11	0.53	0.53	0.36	0.36	0.36
Sat Flow, veh/h	984	822	1525	1767	1342	424	1767	2767	705	383	2945	568
Grp Volume(v), veh/h	134	0	106	171	0	50	233	705	693	29	499	496
Grp Sat Flow(s),veh/h/ln	1806	0	1525	1767	0	1766	1767	1763	1709	383	1763	1750
Q Serve(g_s), s	5.4	0.0	4.4	7.2	0.0	2.0	5.9	24.3	24.9	5.0	19.5	19.5
Cycle Q Clear(g_c), s	5.4	0.0	4.4	7.2	0.0	2.0	5.9	24.3	24.9	17.2	19.5	19.5
Prop In Lane	0.54		1.00	1.00		0.24	1.00		0.41	1.00		0.32
Lane Grp Cap(c), veh/h	232	0	362	241	0	241	343	932	904	172	641	637
V/C Ratio(X)	0.58	0.00	0.29	0.71	0.00	0.21	0.68	0.76	0.77	0.17	0.78	0.78
Avail Cap(c_a), veh/h	816	0	855	798	0	798	954	932	904	231	910	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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.8	0.0	24.4	32.0	0.0	29.7	16.1	14.3	14.5	26.3	21.9	21.9
Incr Delay (d2), s/veh	2.3	0.0	0.4	3.8	0.0	0.4	0.9	3.6	4.0	0.5	2.8	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	1.6	3.3	0.0	0.8	2.2	9.2	9.2	0.5	7.9	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	24.9	35.8	0.0	30.2	17.0	17.9	18.5	26.8	24.7	24.7
LnGrp LOS	C	A	C	D	A	C	B	B	B	C	C	C
Approach Vol, veh/h		240			221			1631			1024	
Approach Delay, s/veh		30.0			34.6			18.0			24.8	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.8	34.2		15.6		47.0		14.9				
Change Period (Y+Rc), s	4.6	6.0		* 5		6.0		5.0				
Max Green Setting (Gmax), s	35.0	40.0		* 35		40.0		35.0				
Max Q Clear Time (g_c+I1), s	7.9	21.5		9.2		26.9		7.4				
Green Ext Time (p_c), s	0.3	6.7		0.8		7.6		1.1				

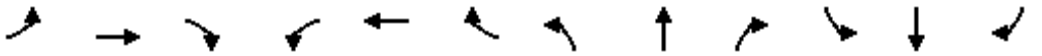
Intersection Summary			
HCM 6th Ctrl Delay		22.3	
HCM 6th LOS		C	

Notes

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

HCM 6th Signalized Intersection Summary
13: Buena Vista St & San Fernando Bl

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	483	92	86	444	447	73	809	39	199	687	303
Future Volume (veh/h)	282	483	92	86	444	447	73	809	39	199	687	303
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		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	300	514	86	91	472	176	78	861	39	212	731	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	376	841	140	269	648	284	100	1142	52	248	1480	
Arrive On Green	0.15	0.28	0.28	0.06	0.18	0.18	0.06	0.33	0.33	0.14	0.42	0.00
Sat Flow, veh/h	1767	3016	502	1767	3526	1545	1767	3431	155	1767	3526	1572
Grp Volume(v), veh/h	300	299	301	91	472	176	78	442	458	212	731	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1755	1767	1763	1545	1767	1763	1824	1767	1763	1572
Q Serve(g_s), s	14.9	16.6	16.8	4.6	14.2	11.8	4.9	25.2	25.2	13.2	17.1	0.0
Cycle Q Clear(g_c), s	14.9	16.6	16.8	4.6	14.2	11.8	4.9	25.2	25.2	13.2	17.1	0.0
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	376	492	490	269	648	284	100	587	607	248	1480	
V/C Ratio(X)	0.80	0.61	0.61	0.34	0.73	0.62	0.78	0.75	0.75	0.86	0.49	
Avail Cap(c_a), veh/h	423	627	624	483	1253	549	393	1175	1216	628	2820	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	30.2	35.2	35.3	34.4	43.3	42.3	52.4	33.4	33.4	47.3	23.9	0.0
Incr Delay (d2), s/veh	8.1	1.2	1.3	0.3	1.6	2.2	4.9	2.8	2.7	8.3	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	7.0	7.2	7.2	2.0	6.2	4.6	2.3	10.9	11.3	6.3	7.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	36.5	36.6	34.7	44.9	44.5	57.3	36.3	36.2	55.5	24.3	0.0
LnGrp LOS	D	D	D	C	D	D	E	D	D	E	C	
Approach Vol, veh/h		900			739			978			943	
Approach Delay, s/veh		37.1			43.5			37.9			31.3	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	37.4	11.0	53.2	21.6	26.7	20.8	43.4
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	5.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	25.0	90.0	20.0	40.0	40.0	75.0
Max Q Clear Time (g_c+I1), s	6.6	18.8	6.9	19.1	16.9	16.2	15.2	27.2
Green Ext Time (p_c), s	0.1	3.6	0.1	8.8	0.2	3.7	0.6	10.3

Intersection Summary	
HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
14: Ontario St & Thornton Ave

10/03/2024

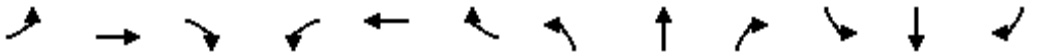
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	150	48	17	274	22	44	29	23	11	41	41
Future Volume (veh/h)	15	150	48	17	274	22	44	29	23	11	41	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	0.99		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	16	161	43	18	295	22	47	31	2	12	44	4
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	803	967	258	901	1171	87	191	108	6	86	210	17
Arrive On Green	1.00	1.00	1.00	0.91	0.91	0.91	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1050	1408	376	1162	1704	127	769	759	39	168	1480	118
Grp Volume(v), veh/h	16	0	204	18	0	317	80	0	0	60	0	0
Grp Sat Flow(s),veh/h/ln	1050	0	1785	1162	0	1832	1567	0	0	1766	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	1.4	0.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.1	0.0	1.4	2.9	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.21	1.00		0.07	0.59		0.02	0.20		0.07
Lane Grp Cap(c), veh/h	803	0	1226	901	0	1258	304	0	0	312	0	0
V/C Ratio(X)	0.02	0.00	0.17	0.02	0.00	0.25	0.26	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	803	0	1226	901	0	1258	712	0	0	776	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.98	0.00	0.98	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	1.0	0.0	1.0	27.0	0.0	0.0	26.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.0	0.0	0.1	0.5	0.0	0.0	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	0.0	0.1	0.0	0.0	0.3	1.2	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.1	0.0	0.3	1.0	0.0	1.1	27.4	0.0	0.0	26.9	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		220			335			80			60	
Approach Delay, s/veh		0.3			1.1			27.4			26.9	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.1		15.9		54.1		15.9				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		29.0		29.0		29.0		29.0				
Max Q Clear Time (g_c+I1), s		3.4		4.9		3.4		4.0				
Green Ext Time (p_c), s		1.3		0.4		2.0		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
15: Empire Ave & Ontario St

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	486	0	0	495	61	0	1	5	116	0	54
Future Volume (veh/h)	31	486	0	0	495	61	0	1	5	116	0	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	32	506	0	0	516	59	0	1	0	121	0	6
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	639	2558	0	80	2308	263	0	202	0	231	0	171
Arrive On Green	0.73	0.73	0.00	0.00	0.73	0.73	0.00	0.11	0.00	0.11	0.00	0.11
Sat Flow, veh/h	831	3618	0	886	3181	362	0	1856	0	1391	0	1568
Grp Volume(v), veh/h	32	506	0	0	285	290	0	1	0	121	0	6
Grp Sat Flow(s),veh/h/ln	831	1763	0	886	1763	1781	0	1856	0	1391	0	1568
Q Serve(g_s), s	1.2	4.1	0.0	0.0	4.8	4.8	0.0	0.0	0.0	7.6	0.0	0.3
Cycle Q Clear(g_c), s	6.0	4.1	0.0	0.0	4.8	4.8	0.0	0.0	0.0	7.7	0.0	0.3
Prop In Lane	1.00		0.00	1.00		0.20	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	639	2558	0	80	1279	1292	0	202	0	231	0	171
V/C Ratio(X)	0.05	0.20	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.52	0.00	0.04
Avail Cap(c_a), veh/h	639	2558	0	80	1279	1292	0	202	0	412	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.84	0.84	0.00	1.00	0.00	0.97	0.00	0.97
Uniform Delay (d), s/veh	5.0	4.0	0.0	0.0	4.0	4.0	0.0	35.8	0.0	39.2	0.0	35.9
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	0.3	0.3	0.0	0.0	0.0	1.8	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	0.2	1.2	0.0	0.0	1.4	1.4	0.0	0.0	0.0	2.7	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.2	4.1	0.0	0.0	4.4	4.4	0.0	35.8	0.0	40.9	0.0	36.0
LnGrp LOS	A	A	A	A	A	A	A	D	A	D	A	D
Approach Vol, veh/h		538			575			1			127	
Approach Delay, s/veh		4.2			4.4			35.8			40.7	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		71.6		18.4		71.6		18.4				
Change Period (Y+Rc), s		6.3		* 8.6		6.3		* 8.6				
Max Green Setting (Gmax), s		39.4		* 9.7		39.4		* 21				
Max Q Clear Time (g_c+I1), s		8.0		2.0		6.8		9.7				
Green Ext Time (p_c), s		4.6		0.0		4.5		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Summary
16: Buena Vista St & Empire Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	494	128	486	458	153	113	776	813	95	555	37
Future Volume (veh/h)	45	494	128	486	458	153	113	776	813	95	555	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	49	537	42	528	498	145	123	843	817	103	603	36
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	116	668	287	587	888	257	441	1520	935	150	1422	85
Arrive On Green	0.04	0.19	0.19	0.17	0.33	0.33	0.05	0.43	0.43	0.09	0.84	0.84
Sat Flow, veh/h	1767	3526	1512	3428	2679	775	1767	3526	1544	3428	3376	201
Grp Volume(v), veh/h	49	537	42	528	327	316	123	843	817	103	314	325
Grp Sat Flow(s),veh/h/ln	1767	1763	1512	1714	1763	1691	1767	1763	1544	1714	1763	1815
Q Serve(g_s), s	3.3	20.4	2.7	21.1	21.3	21.5	5.5	25.0	24.1	4.1	6.1	6.1
Cycle Q Clear(g_c), s	3.3	20.4	2.7	21.1	21.3	21.5	5.5	25.0	24.1	4.1	6.1	6.1
Prop In Lane	1.00		1.00	1.00		0.46	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	116	668	287	587	584	561	441	1520	935	150	742	764
V/C Ratio(X)	0.42	0.80	0.15	0.90	0.56	0.56	0.28	0.55	0.87	0.69	0.42	0.42
Avail Cap(c_a), veh/h	228	755	324	710	584	561	511	1520	935	416	742	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	51.0	54.2	33.1	56.8	38.4	38.5	20.9	29.8	10.6	63.0	6.9	6.9
Incr Delay (d2), s/veh	1.8	5.5	0.2	12.3	1.2	1.3	0.3	1.5	11.1	4.0	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	9.5	1.2	10.1	9.4	9.1	2.3	10.8	13.0	1.8	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	59.8	33.3	69.1	39.6	39.8	21.2	31.2	21.7	66.9	8.6	8.5
LnGrp LOS	D	E	C	E	D	D	C	C	C	E	A	A
Approach Vol, veh/h		628			1171			1783			742	
Approach Delay, s/veh		57.5			53.0			26.2			16.7	
Approach LOS		E			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	32.5	12.5	65.0	10.1	52.4	11.1	66.4
Change Period (Y+Rc), s	6.0	* 6	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	29.0	* 30	13.0	46.0	14.0	45.0	17.0	42.0
Max Q Clear Time (g_c+I1), s	23.1	22.4	7.5	8.1	5.3	23.5	6.1	27.0
Green Ext Time (p_c), s	0.8	2.2	0.1	4.2	0.0	3.9	0.1	9.5

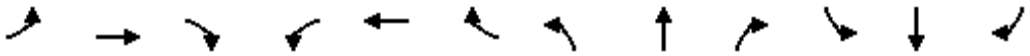
Intersection Summary	
HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

HCM 6th Signalized Intersection Summary
17: Buena Vista St & Thornton Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	42	84	16	42	18	83	844	14	14	590	250
Future Volume (veh/h)	69	42	84	16	42	18	83	844	14	14	590	250
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	72	44	13	17	44	2	86	879	15	15	615	245
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	154	137	40	144	175	8	537	2732	47	560	2023	805
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	1.00	1.00	1.00	0.02	0.82	0.82
Sat Flow, veh/h	1342	1374	406	1329	1761	80	637	3547	61	1767	2461	980
Grp Volume(v), veh/h	72	0	57	17	0	46	86	437	457	15	440	420
Grp Sat Flow(s),veh/h/ln	1342	0	1780	1329	0	1841	637	1763	1845	1767	1763	1678
Q Serve(g_s), s	7.3	0.0	4.2	1.7	0.0	3.2	0.2	0.0	0.0	0.2	8.3	8.3
Cycle Q Clear(g_c), s	10.6	0.0	4.2	5.9	0.0	3.2	1.3	0.0	0.0	0.2	8.3	8.3
Prop In Lane	1.00		0.23	1.00		0.04	1.00		0.03	1.00		0.58
Lane Grp Cap(c), veh/h	154	0	177	144	0	183	537	1358	1421	560	1449	1379
V/C Ratio(X)	0.47	0.00	0.32	0.12	0.00	0.25	0.16	0.32	0.32	0.03	0.30	0.30
Avail Cap(c_a), veh/h	538	0	686	525	0	710	537	1358	1421	716	1449	1379
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)	0.99	0.00	0.99	1.00	0.00	1.00	0.75	0.75	0.75	0.87	0.87	0.87
Uniform Delay (d), s/veh	63.1	0.0	58.6	61.4	0.0	58.2	0.0	0.0	0.0	2.7	3.0	3.0
Incr Delay (d2), s/veh	2.2	0.0	1.0	0.4	0.0	0.7	0.5	0.5	0.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	1.9	0.6	0.0	1.6	0.1	0.2	0.2	0.1	2.4	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	0.0	59.7	61.7	0.0	58.9	0.5	0.5	0.5	2.8	3.4	3.5
LnGrp LOS	E	A	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		129			63			980			875	
Approach Delay, s/veh		62.8			59.7			0.5			3.4	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.3	113.8		18.9		121.1		18.9				
Change Period (Y+Rc), s	4.6	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	15.0	55.4		54.0		75.0		54.0				
Max Q Clear Time (g_c+I1), s	2.2	3.3		12.6		10.3		7.9				
Green Ext Time (p_c), s	0.0	7.8		0.5		6.6		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		7.5	
HCM 6th LOS		A	

HCM 6th Signalized Intersection Summary
18: I-5 SB Ramps & Empire Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	596	976	195	1010	0	0	0	0	283	4	195
Future Volume (veh/h)	0	596	976	195	1010	0	0	0	0	283	4	195
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	1856	1856	1856	1856	0				1856	1856	1856
Adj Flow Rate, veh/h	0	614	733	201	1041	0				295	0	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	3	3	3	3	0				3	3	3
Cap, veh/h	0	2384	1057	264	2804	0				370	0	
Arrive On Green	0.00	0.68	0.68	0.10	1.00	0.00				0.10	0.00	0.00
Sat Flow, veh/h	0	3618	1563	3428	3618	0				3534	0	1572
Grp Volume(v), veh/h	0	614	733	201	1041	0				295	0	0
Grp Sat Flow(s),veh/h/ln	0	1763	1563	1714	1763	0				1767	0	1572
Q Serve(g_s), s	0.0	8.9	37.2	7.4	0.0	0.0				10.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	8.9	37.2	7.4	0.0	0.0				10.6	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2384	1057	264	2804	0				370	0	
V/C Ratio(X)	0.00	0.26	0.69	0.76	0.37	0.00				0.80	0.00	
Avail Cap(c_a), veh/h	0	2384	1057	752	2804	0				1047	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.78	0.78	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	8.3	12.8	57.2	0.0	0.0				56.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	3.8	1.4	0.3	0.0				4.0	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
%ile BackOfQ(50%),veh/ln	0.0	3.3	12.9	3.2	0.1	0.0				4.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.5	16.6	58.6	0.3	0.0				60.8	0.0	0.0
LnGrp LOS	A	A	B	E	A	A				E	A	
Approach Vol, veh/h		1347			1242						295	
Approach Delay, s/veh		12.9			9.7						60.8	
Approach LOS		B			A						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.5	94.4		20.1		109.9
Change Period (Y+Rc), s	5.5	6.5		6.5		6.5
Max Green Setting (Gmax), s	28.5	44.5		38.5		78.5
Max Q Clear Time (g_c+I1), s	9.4	39.2		12.6		2.0
Green Ext Time (p_c), s	0.3	3.8		1.0		15.1

Intersection Summary		
HCM 6th Ctrl Delay		16.4
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
19: I-5 NB Ramps & Empire Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	784	0	0	654	374	536	1	325	0	0	0
Future Volume (veh/h)	77	784	0	0	654	374	536	1	325	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		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	1856	1856	0	0	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	80	817	0	0	681	357	559	0	131			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	249	2516	0	0	1331	697	658	0	292			
Arrive On Green	0.15	1.00	0.00	0.00	0.60	0.60	0.19	0.00	0.19			
Sat Flow, veh/h	3428	3618	0	0	2316	1165	3534	0	1567			
Grp Volume(v), veh/h	80	817	0	0	540	498	559	0	131			
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	1625	1767	0	1567			
Q Serve(g_s), s	2.7	0.0	0.0	0.0	23.0	23.0	19.9	0.0	9.6			
Cycle Q Clear(g_c), s	2.7	0.0	0.0	0.0	23.0	23.0	19.9	0.0	9.6			
Prop In Lane	1.00		0.00	0.00		0.72	1.00		1.00			
Lane Grp Cap(c), veh/h	249	2516	0	0	1055	973	658	0	292			
V/C Ratio(X)	0.32	0.32	0.00	0.00	0.51	0.51	0.85	0.00	0.45			
Avail Cap(c_a), veh/h	699	2516	0	0	1055	973	1020	0	452			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	52.7	0.0	0.0	0.0	15.1	15.1	51.1	0.0	47.0			
Incr Delay (d2), s/veh	0.3	0.3	0.0	0.0	1.8	1.9	4.2	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	1.2	0.1	0.0	0.0	9.4	8.7	9.2	0.0	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	0.3	0.0	0.0	16.9	17.0	55.3	0.0	48.0			
LnGrp LOS	D	A	A	A	B	B	E	A	D			
Approach Vol, veh/h		897			1038			690				
Approach Delay, s/veh		5.0			16.9			54.0				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		99.3			14.9	84.3		30.7				
Change Period (Y+Rc), s		6.5			5.5	6.5		6.5				
Max Green Setting (Gmax), s		79.5			26.5	47.5		37.5				
Max Q Clear Time (g_c+I1), s		2.0			4.7	25.0		21.9				
Green Ext Time (p_c), s		10.3			0.1	10.0		2.3				

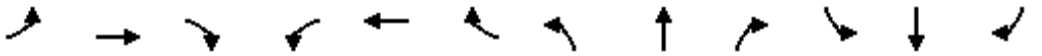
Intersection Summary	
HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
1: Hollywood Way & Tulare Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	1	137	6	3	3	304	760	12	39	1994	344
Future Volume (veh/h)	157	1	137	6	3	3	304	760	12	39	1994	344
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		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	159	1	95	6	3	0	307	768	12	39	2014	329
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	246	2	215	159	261	0	355	3957	62	482	3178	979
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.00	0.21	1.00	1.00	0.63	0.63	0.63
Sat Flow, veh/h	1397	16	1526	1285	1856	0	3428	5138	80	687	5066	1560
Grp Volume(v), veh/h	159	0	96	6	3	0	307	505	275	39	2014	329
Grp Sat Flow(s),veh/h/ln	1397	0	1542	1285	1856	0	1714	1689	1841	687	1689	1560
Q Serve(g_s), s	15.5	0.0	8.0	0.6	0.2	0.0	12.1	0.0	0.0	3.1	34.4	13.9
Cycle Q Clear(g_c), s	15.7	0.0	8.0	8.6	0.2	0.0	12.1	0.0	0.0	3.1	34.4	13.9
Prop In Lane	1.00		0.99	1.00		0.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	246	0	217	159	261	0	355	2601	1418	482	3178	979
V/C Ratio(X)	0.65	0.00	0.44	0.04	0.01	0.00	0.87	0.19	0.19	0.08	0.63	0.34
Avail Cap(c_a), veh/h	483	0	479	378	577	0	465	2601	1418	482	3178	979
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	0.00	1.00	1.00	1.00	0.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	0.0	55.1	59.1	51.8	0.0	54.6	0.0	0.0	10.3	16.1	12.3
Incr Delay (d2), s/veh	2.8	0.0	1.4	0.1	0.0	0.0	10.8	0.2	0.3	0.3	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	5.7	0.0	3.2	0.2	0.1	0.0	5.2	0.1	0.1	0.5	12.7	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.4	0.0	56.5	59.2	51.8	0.0	65.4	0.2	0.3	10.6	17.1	13.2
LnGrp LOS	E	A	E	E	D	A	E	A	A	B	B	B
Approach Vol, veh/h		255			9			1087			2382	
Approach Delay, s/veh		59.6			56.7			18.6			16.5	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	20.0	94.3		25.7		114.3		25.7				
Change Period (Y+Rc), s	5.5	6.5		6.0		6.5		6.0				
Max Green Setting (Gmax), s	19.0	59.5		43.5		84.0		43.5				
Max Q Clear Time (g_c+I1), s	14.1	36.4		10.6		2.0		17.7				
Green Ext Time (p_c), s	0.4	17.2		0.0		5.5		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		20.1	
HCM 6th LOS		C	

HCM 6th Signalized Intersection Summary
2: Hollywood Way & Winona Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	81	270	39	90	36	298	898	93	65	1743	252
Future Volume (veh/h)	211	81	270	39	90	36	298	898	93	65	1743	252
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		0.98	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	218	84	262	40	93	9	307	926	91	67	1797	259
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	300	403	336	236	706	67	332	2773	272	478	2520	360
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.19	1.00	1.00	0.13	1.00	1.00
Sat Flow, veh/h	1281	1856	1548	1026	3247	310	1767	4682	459	1767	4467	638
Grp Volume(v), veh/h	218	84	262	40	50	52	307	667	350	67	1355	701
Grp Sat Flow(s),veh/h/ln	1281	1856	1548	1026	1763	1794	1767	1689	1764	1767	1689	1728
Q Serve(g_s), s	23.1	5.2	22.3	4.7	3.2	3.3	11.2	0.0	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	26.4	5.2	22.3	9.9	3.2	3.3	11.2	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.26	1.00		0.37
Lane Grp Cap(c), veh/h	300	403	336	236	383	390	332	2000	1045	478	1905	975
V/C Ratio(X)	0.73	0.21	0.78	0.17	0.13	0.13	0.92	0.33	0.33	0.14	0.71	0.72
Avail Cap(c_a), veh/h	419	577	481	332	548	557	342	2000	1045	538	1905	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81	0.69	0.69	0.69
Uniform Delay (d), s/veh	54.8	44.9	51.6	49.0	44.1	44.2	14.5	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	3.8	0.3	5.1	0.3	0.2	0.2	25.3	0.4	0.7	0.1	1.6	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	2.5	9.2	1.2	1.4	1.5	5.5	0.1	0.2	0.7	0.4	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.7	45.2	56.7	49.3	44.3	44.3	39.8	0.4	0.7	9.3	1.6	3.2
LnGrp LOS	E	D	E	D	D	D	D	A	A	A	A	A
Approach Vol, veh/h		564			142			1324			2123	
Approach Delay, s/veh		55.8			45.7			9.6			2.4	
Approach LOS		E			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.1	85.5		36.4	14.2	89.4		36.4
Change Period (Y+Rc), s	4.9	6.5		6.0	4.9	6.5		6.0
Max Green Setting (Gmax), s	14.0	65.1		43.5	14.0	65.1		43.5
Max Q Clear Time (g_c+I1), s	13.2	2.0		11.9	4.0	2.0		28.4
Green Ext Time (p_c), s	0.1	27.0		0.7	0.1	7.9		2.0

Intersection Summary	
HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
3: Hollywood Way & Airport/Thornton Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	26	21	139	94	69	20	1385	171	92	1949	67
Future Volume (veh/h)	23	26	21	139	94	69	20	1385	171	92	1949	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	0.73		0.95	1.00		0.96	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	24	28	-138	148	100	49	21	1473	172	98	2073	56
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	149	218	184	195	336	152	230	2626	306	348	3060	82
Arrive On Green	0.04	0.12	0.00	0.07	0.15	0.15	0.08	1.00	1.00	0.14	1.00	1.00
Sat Flow, veh/h	3428	1856	1572	1767	2313	1048	1767	4576	534	1767	5068	137
Grp Volume(v), veh/h	24	28	-138	148	74	75	21	1087	558	98	1380	749
Grp Sat Flow(s),veh/h/ln	1714	1856	1572	1767	1763	1598	1767	1689	1733	1767	1689	1827
Q Serve(g_s), s	0.9	1.9	0.0	5.9	5.3	5.9	0.6	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	0.9	1.9	0.0	5.9	5.3	5.9	0.6	0.0	0.0	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.66	1.00		0.31	1.00		0.07
Lane Grp Cap(c), veh/h	149	218	184	195	256	232	230	1938	995	348	2039	1103
V/C Ratio(X)	0.16	0.13	-0.75	0.76	0.29	0.32	0.09	0.56	0.56	0.28	0.68	0.68
Avail Cap(c_a), veh/h	575	524	444	245	378	342	462	1938	995	464	2039	1103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.62	0.62	0.62
Uniform Delay (d), s/veh	64.5	55.4	0.0	61.6	53.4	53.7	10.1	0.0	0.0	8.3	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.3	0.0	7.4	0.6	0.8	0.1	1.2	2.3	0.2	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.9	0.0	5.5	2.4	2.4	0.2	0.3	0.6	1.0	0.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.0	55.6	0.0	69.1	54.0	54.5	10.3	1.2	2.3	8.5	1.1	2.1
LnGrp LOS	E	E	A	E	D	D	B	A	A	A	A	A
Approach Vol, veh/h		-86			297			1666			2227	
Approach Delay, s/veh		0.0			61.6			1.7			1.8	
Approach LOS		A			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	91.0	12.1	26.3	14.8	86.8	16.0	22.4
Change Period (Y+Rc), s	5.0	6.5	6.0	6.0	5.0	6.5	6.0	6.0
Max Green Setting (Gmax), s	24.6	39.0	23.5	30.0	19.0	44.0	14.0	39.5
Max Q Clear Time (g_c+I1), s	2.6	2.0	2.9	7.9	4.8	2.0	7.9	3.9
Green Ext Time (p_c), s	0.0	21.9	0.0	0.8	0.1	15.9	0.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
4: Hollywood Way & Avon St

10/03/2024



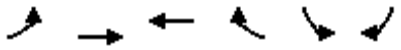
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	6	37	28	22	153	72	1170	76	77	1752	24
Future Volume (veh/h)	88	6	37	28	22	153	72	1170	76	77	1752	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	92	6	39	29	23	159	75	1219	78	80	1825	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	163	42	271	287	40	274	119	2053	131	121	2794	38
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.07	0.61	0.61	0.09	0.81	0.81
Sat Flow, veh/h	1187	210	1364	1341	199	1375	1767	3358	215	1767	4565	63
Grp Volume(v), veh/h	92	0	45	29	0	182	75	639	658	80	1113	737
Grp Sat Flow(s),veh/h/ln	1187	0	1574	1341	0	1574	1767	1763	1809	1767	1392	1844
Q Serve(g_s), s	10.7	0.0	3.3	2.6	0.0	14.7	5.8	30.9	31.1	6.1	22.2	22.2
Cycle Q Clear(g_c), s	25.3	0.0	3.3	5.9	0.0	14.7	5.8	30.9	31.1	6.1	22.2	22.2
Prop In Lane	1.00		0.87	1.00		0.87	1.00		0.12	1.00		0.03
Lane Grp Cap(c), veh/h	163	0	313	287	0	313	119	1078	1106	121	1704	1129
V/C Ratio(X)	0.56	0.00	0.14	0.10	0.00	0.58	0.63	0.59	0.59	0.66	0.65	0.65
Avail Cap(c_a), veh/h	347	0	557	494	0	557	252	1078	1106	252	1704	1129
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	0.0	46.2	48.7	0.0	50.8	63.6	16.6	16.6	62.1	7.1	7.1
Incr Delay (d2), s/veh	3.0	0.0	0.2	0.2	0.0	1.7	4.0	2.4	2.4	4.6	2.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	1.3	0.9	0.0	6.0	2.7	12.5	12.9	2.8	4.3	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	0.0	46.4	48.8	0.0	52.5	67.5	19.0	19.0	66.7	9.1	10.1
LnGrp LOS	E	A	D	D	A	D	E	B	B	E	A	B
Approach Vol, veh/h		137			211			1372			1930	
Approach Delay, s/veh		59.1			52.0			21.6			11.8	
Approach LOS		E			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	92.2		32.9	15.1	92.1		32.9
Change Period (Y+Rc), s	5.5	6.5		5.0	5.5	6.5		5.0
Max Green Setting (Gmax), s	20.0	53.5		49.5	20.0	53.5		49.5
Max Q Clear Time (g_c+I1), s	17.3	24.2		16.7	8.1	33.1		27.3
Green Ext Time (p_c), s	0.1	15.9		1.4	0.1	8.7		0.5

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
5: Empire Ave & N Hollywood Way

10/03/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	544	81	0	70	156
Future Volume (veh/h)	0	544	81	0	70	156
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	0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	0	625	93	0	80	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	3	3	0	3	3
Cap, veh/h	0	2707	2707	0	196	
Arrive On Green	0.00	1.00	0.77	0.00	0.11	0.00
Sat Flow, veh/h	0	3711	3711	0	1767	1572
Grp Volume(v), veh/h	0	625	93	0	80	0
Grp Sat Flow(s),veh/h/ln	0	1763	1763	0	1767	1572
Q Serve(g_s), s	0.0	0.0	0.6	0.0	3.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.6	0.0	3.8	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2707	2707	0	196	
V/C Ratio(X)	0.00	0.23	0.03	0.00	0.41	
Avail Cap(c_a), veh/h	0	2707	2707	0	465	
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.92	0.99	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	2.5	0.0	37.2	0.0
Incr Delay (d2), s/veh	0.0	0.2	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
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	1.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.2	2.5	0.0	39.2	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h		625	93		80	
Approach Delay, s/veh		0.2	2.5		39.2	
Approach LOS		A	A		D	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	75.4	14.6	75.4
Change Period (Y+Rc), s	6.3	4.6	6.3
Max Green Setting (Gmax), s	55.4	23.7	55.4
Max Q Clear Time (g_c+I1), s	2.0	5.8	2.6
Green Ext Time (p_c), s	4.5	0.2	0.6

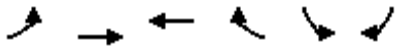
Intersection Summary	
HCM 6th Ctrl Delay	4.4
HCM 6th LOS	A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
6: Empire Ave & Avon St

10/03/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	138	390	236	85	69	2
Future Volume (veh/h)	138	390	236	85	69	2
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	152	429	259	83	76	-10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	1021	3297	2119	664	518	0
Arrive On Green	0.08	0.94	0.80	0.80	0.00	0.00
Sat Flow, veh/h	1767	3618	2734	827	2044	-269
Grp Volume(v), veh/h	152	429	171	171	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1763	1705	0	0
Q Serve(g_s), s	0.9	0.9	2.1	2.1	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.9	2.1	2.1	0.0	0.0
Prop In Lane	1.00			0.49	1.13	-0.15
Lane Grp Cap(c), veh/h	1021	3297	1414	1368	0	0
V/C Ratio(X)	0.15	0.13	0.12	0.13	0.00	0.00
Avail Cap(c_a), veh/h	1242	3297	1414	1368	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.99	0.99	0.00	0.00
Uniform Delay (d), s/veh	0.6	0.2	2.1	2.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.5	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.6	0.3	2.3	2.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		581	342		0	
Approach Delay, s/veh		0.4	2.3		0.0	
Approach LOS		A	A			

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	97.0		0.0	12.9	84.1
Change Period (Y+Rc), s	6.3		4.6	5.0	6.3
Max Green Setting (Gmax), s	53.4		25.7	20.0	35.0
Max Q Clear Time (g_c+I1), s	2.9		0.0	2.9	4.1
Green Ext Time (p_c), s	2.9		0.0	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	1.1
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
7: Empire Ave & Airport

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	558	5	1	354	7	0	0	0	16	0	1
Future Volume (veh/h)	134	558	5	1	354	7	0	0	0	16	0	1
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.96				1.00		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	1856	1856	1856	1856	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	147	613	5	1	389	7				18	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3				3	3	3
Cap, veh/h	822	1465	12	41	2312	41				288	151	0
Arrive On Green	0.08	0.80	0.80	0.67	0.67	0.67				0.08	0.00	0.00
Sat Flow, veh/h	1767	1837	15	1	3466	62				3534	1856	0
Grp Volume(v), veh/h	147	0	618	208	0	189				18	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1852	1854	0	1674				1767	1856	0
Q Serve(g_s), s	1.9	0.0	9.1	0.0	0.0	3.8				0.4	0.0	0.0
Cycle Q Clear(g_c), s	1.9	0.0	9.1	3.8	0.0	3.8				0.4	0.0	0.0
Prop In Lane	1.00		0.01	0.00		0.04				1.00		0.00
Lane Grp Cap(c), veh/h	822	0	1477	1277	0	1117				288	151	0
V/C Ratio(X)	0.18	0.00	0.42	0.16	0.00	0.17				0.06	0.00	0.00
Avail Cap(c_a), veh/h	834	0	1477	1277	0	1117				931	489	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	0.96	0.00	0.96				1.00	0.00	0.00
Uniform Delay (d), s/veh	2.9	0.0	2.8	5.6	0.0	5.6				38.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.9	0.3	0.0	0.3				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
%ile BackOfQ(50%),veh/ln	0.4	0.0	2.0	1.3	0.0	1.2				0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.0	0.0	3.6	5.9	0.0	5.9				38.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				D	A	A
Approach Vol, veh/h		765			397						18	
Approach Delay, s/veh		3.5			5.9						38.3	
Approach LOS		A			A						D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	78.1	11.9	11.7	66.3
Change Period (Y+Rc), s	6.3	4.6	4.9	6.3
Max Green Setting (Gmax), s	55.4	23.7	7.4	43.1
Max Q Clear Time (g_c+I1), s	11.1	2.4	3.9	5.8
Green Ext Time (p_c), s	4.4	0.0	0.1	2.3

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
8: Hollywood Way & Victory Bl

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	805	134	100	530	95	76	942	91	157	1307	237
Future Volume (veh/h)	269	805	134	100	530	95	76	942	91	157	1307	237
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	316	947	89	118	624	61	89	1108	72	185	1538	235
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	334	995	541	186	741	438	174	1485	770	256	1504	883
Arrive On Green	0.14	0.28	0.28	0.07	0.21	0.21	0.07	0.42	0.42	0.07	0.43	0.43
Sat Flow, veh/h	1767	3526	1532	1767	3526	1526	1767	3526	1564	1767	3526	1544
Grp Volume(v), veh/h	316	947	89	118	624	61	89	1108	72	185	1538	235
Grp Sat Flow(s),veh/h/ln	1767	1763	1532	1767	1763	1526	1767	1763	1564	1767	1763	1544
Q Serve(g_s), s	19.3	36.9	5.6	7.2	23.8	4.2	3.8	37.1	3.4	8.3	59.7	10.8
Cycle Q Clear(g_c), s	19.3	36.9	5.6	7.2	23.8	4.2	3.8	37.1	3.4	8.3	59.7	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	334	995	541	186	741	438	174	1485	770	256	1504	883
V/C Ratio(X)	0.95	0.95	0.16	0.63	0.84	0.14	0.51	0.75	0.09	0.72	1.02	0.27
Avail Cap(c_a), veh/h	334	995	541	314	992	547	304	1485	770	377	1504	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	37.4	49.3	31.3	41.8	53.1	37.3	31.6	34.2	18.9	28.0	40.1	15.3
Incr Delay (d2), s/veh	34.9	18.0	0.1	1.3	5.1	0.1	0.9	3.5	0.2	1.4	29.2	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	11.5	18.5	2.1	3.2	11.0	1.6	1.6	16.4	1.3	3.5	31.2	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.3	67.3	31.4	43.1	58.2	37.5	32.4	37.7	19.2	29.4	69.3	16.1
LnGrp LOS	E	E	C	D	E	D	C	D	B	C	F	B
Approach Vol, veh/h		1352			803			1269			1958	
Approach Delay, s/veh		66.1			54.4			36.2			59.2	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	45.5	14.3	65.7	24.6	35.4	15.0	65.0
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	9.2	38.9	5.8	61.7	21.3	25.8	10.3	39.1
Green Ext Time (p_c), s	0.1	0.3	0.1	0.0	0.0	3.6	0.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	54.8
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
9: Hollywood Way & Burbank Bl

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	548	27	129	508	50	66	844	95	176	1308	122
Future Volume (veh/h)	200	548	27	129	508	50	66	844	95	176	1308	122
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		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	222	609	24	143	564	-13	73	938	102	196	1453	74
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	283	780	31	238	676	301	207	1509	164	315	1680	746
Arrive On Green	0.11	0.23	0.23	0.08	0.19	0.00	0.07	0.47	0.47	0.07	0.48	0.48
Sat Flow, veh/h	1767	3457	136	1767	3526	1572	1767	3201	348	1767	3526	1566
Grp Volume(v), veh/h	222	310	323	143	564	-13	73	517	523	196	1453	74
Grp Sat Flow(s),veh/h/ln	1767	1763	1830	1767	1763	1572	1767	1763	1786	1767	1763	1566
Q Serve(g_s), s	13.7	23.2	23.2	9.0	21.6	0.0	2.8	30.7	30.7	8.0	51.4	3.6
Cycle Q Clear(g_c), s	13.7	23.2	23.2	9.0	21.6	0.0	2.8	30.7	30.7	8.0	51.4	3.6
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	283	398	413	238	676	301	207	831	842	315	1680	746
V/C Ratio(X)	0.78	0.78	0.78	0.60	0.83	-0.04	0.35	0.62	0.62	0.62	0.86	0.10
Avail Cap(c_a), veh/h	336	496	515	351	992	443	341	831	842	440	1680	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	39.7	50.9	50.9	42.0	54.4	0.0	27.2	27.7	27.7	21.7	32.6	20.1
Incr Delay (d2), s/veh	8.0	6.2	6.1	0.9	4.1	0.0	0.4	3.5	3.4	0.7	6.2	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	6.5	10.9	11.3	4.0	9.9	0.0	1.1	13.6	13.7	3.3	22.8	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	57.2	57.0	42.9	58.6	0.0	27.6	31.2	31.1	22.4	38.8	20.4
LnGrp LOS	D	E	E	D	E	A	C	C	C	C	D	C
Approach Vol, veh/h		855			694			1113			1723	
Approach Delay, s/veh		54.7			56.4			30.9			36.2	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	37.6	14.0	72.7	20.4	32.8	14.7	72.0
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	11.0	25.2	4.8	53.4	15.7	23.6	10.0	32.7
Green Ext Time (p_c), s	0.1	3.2	0.1	0.0	0.1	3.3	0.2	3.5

Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
10: Buena Vista St & I-5 NB Ramps

10/03/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	172	628	306	274	476	88
Future Volume (veh/h)	172	628	306	274	476	88
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	177	0	315	282	491	87
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	273		490	1208	601	107
Arrive On Green	0.15	0.00	0.16	0.65	0.39	0.39
Sat Flow, veh/h	1767	1572	1767	1856	1534	272
Grp Volume(v), veh/h	177	0	315	282	0	578
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1856	0	1805
Q Serve(g_s), s	5.8	0.0	5.5	3.9	0.0	17.6
Cycle Q Clear(g_c), s	5.8	0.0	5.5	3.9	0.0	17.6
Prop In Lane	1.00	1.00	1.00			0.15
Lane Grp Cap(c), veh/h	273		490	1208	0	708
V/C Ratio(X)	0.65		0.64	0.23	0.00	0.82
Avail Cap(c_a), veh/h	1433		1494	1806	0	1757
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	24.5	0.0	11.1	4.4	0.0	16.8
Incr Delay (d2), s/veh	1.0	0.0	0.5	0.1	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	1.7	1.1	0.0	6.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.5	0.0	11.6	4.5	0.0	19.1
LnGrp LOS	C		B	A	A	B
Approach Vol, veh/h	177			597	578	
Approach Delay, s/veh	25.5			8.3	19.1	
Approach LOS	C			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.1		15.5	16.0	30.2
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		60.0		50.0	45.0	60.0
Max Q Clear Time (g_c+I1), s		5.9		7.8	7.5	19.6
Green Ext Time (p_c), s		1.9		0.2	0.5	4.5

Intersection Summary		
HCM 6th Ctrl Delay	15.2	
HCM 6th LOS	B	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	267	0	0	382	0
Future Vol, veh/h	0	267	0	0	382	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	297	0	0	424	0
Number of Lanes	2	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	11.7	0	20.4
HCM LOS	B	-	C

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	100%	0%
Vol Thru, %	100%	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	0	267	382	0
LT Vol	0	0	0	382	0
Through Vol	0	0	0	0	0
RT Vol	0	0	267	0	0
Lane Flow Rate	0	0	297	424	0
Geometry Grp	3b	5	5	5	5
Degree of Util (X)	0	0	0.424	0.684	0
Departure Headway (Hd)	5.887	5.85	5.142	5.802	5.298
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	0	0	697	615	0
Service Time	3.887	3.603	2.895	3.593	3.089
HCM Lane V/C Ratio	0	0	0.426	0.689	0
HCM Control Delay	8.9	8.6	11.7	20.4	8.1
HCM Lane LOS	N	N	B	C	N
HCM 95th-tile Q	0	0	2.1	5.3	0

HCM 6th Signalized Intersection Summary
12: Buena Vista St & Winona Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	78	336	265	96	69	120	463	203	51	827	226
Future Volume (veh/h)	45	78	336	265	96	69	120	463	203	51	827	226
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		0.97	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	47	82	266	279	101	55	126	487	185	54	871	225
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	124	216	398	334	213	116	219	1162	438	326	988	255
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.07	0.47	0.47	0.36	0.36	0.36
Sat Flow, veh/h	664	1158	1572	1767	1128	614	1767	2481	936	757	2766	714
Grp Volume(v), veh/h	129	0	266	279	0	156	126	345	327	54	555	541
Grp Sat Flow(s),veh/h/ln	1822	0	1572	1767	0	1743	1767	1763	1654	757	1763	1717
Q Serve(g_s), s	6.3	0.0	15.6	15.6	0.0	8.2	4.4	13.2	13.4	5.2	30.2	30.3
Cycle Q Clear(g_c), s	6.3	0.0	15.6	15.6	0.0	8.2	4.4	13.2	13.4	7.2	30.2	30.3
Prop In Lane	0.36		1.00	1.00		0.35	1.00		0.57	1.00		0.42
Lane Grp Cap(c), veh/h	340	0	398	334	0	329	219	826	775	326	629	613
V/C Ratio(X)	0.38	0.00	0.67	0.84	0.00	0.47	0.58	0.42	0.42	0.17	0.88	0.88
Avail Cap(c_a), veh/h	623	0	642	604	0	596	705	826	775	351	688	671
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.5	0.0	34.4	40.0	0.0	37.0	23.6	18.0	18.0	24.2	30.9	30.9
Incr Delay (d2), s/veh	0.7	0.0	1.9	5.5	0.0	1.1	0.9	0.3	0.4	0.2	12.1	12.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	6.1	7.3	0.0	3.6	1.8	5.2	5.0	0.9	14.4	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	0.0	36.4	45.5	0.0	38.1	24.5	18.3	18.4	24.4	42.9	43.3
LnGrp LOS	D	A	D	D	A	D	C	B	B	C	D	D
Approach Vol, veh/h		395			435			798			1150	
Approach Delay, s/veh		36.6			42.9			19.3			42.3	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.4	42.6		24.3		54.0		24.1				
Change Period (Y+Rc), s	4.6	6.0		* 5		6.0		5.0				
Max Green Setting (Gmax), s	35.0	40.0		* 35		40.0		35.0				
Max Q Clear Time (g_c+I1), s	10.4	32.3		17.6		15.4		17.6				
Green Ext Time (p_c), s	0.2	4.3		1.7		4.3		1.5				

Intersection Summary	
HCM 6th Ctrl Delay	35.0
HCM 6th LOS	C

Notes

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

HCM 6th Signalized Intersection Summary
13: Buena Vista St & San Fernando Bl

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	370	88	42	338	157	57	484	25	176	855	401
Future Volume (veh/h)	146	370	88	42	338	157	57	484	25	176	855	401
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	149	378	74	43	345	32	58	494	24	180	872	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	350	664	129	282	643	285	99	1040	50	237	1364	
Arrive On Green	0.09	0.23	0.23	0.05	0.18	0.18	0.06	0.30	0.30	0.13	0.39	0.00
Sat Flow, veh/h	1767	2942	570	1767	3526	1562	1767	3421	166	1767	3526	1572
Grp Volume(v), veh/h	149	225	227	43	345	32	58	254	264	180	872	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1749	1767	1763	1562	1767	1763	1824	1767	1763	1572
Q Serve(g_s), s	4.9	8.5	8.6	1.4	6.6	1.3	2.4	8.8	8.8	7.3	15.0	0.0
Cycle Q Clear(g_c), s	4.9	8.5	8.6	1.4	6.6	1.3	2.4	8.8	8.8	7.3	15.0	0.0
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	350	398	395	282	643	285	99	536	554	237	1364	
V/C Ratio(X)	0.43	0.57	0.58	0.15	0.54	0.11	0.58	0.47	0.48	0.76	0.64	
Avail Cap(c_a), veh/h	663	944	937	672	1888	837	592	1770	1832	946	4248	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	21.5	25.7	25.7	22.9	27.7	25.5	34.4	21.1	21.2	31.2	18.6	0.0
Incr Delay (d2), s/veh	0.3	1.3	1.3	0.1	0.7	0.2	2.0	0.9	0.9	5.0	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	1.9	3.5	3.5	0.6	2.7	0.5	1.0	3.5	3.6	3.3	5.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	26.9	27.1	23.0	28.4	25.7	36.4	22.1	22.1	36.2	19.4	0.0
LnGrp LOS	C	C	C	C	C	C	D	C	C	D	B	
Approach Vol, veh/h		601			420			576			1052	
Approach Delay, s/veh		25.7			27.6			23.5			22.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	22.8	8.8	34.9	11.4	19.6	15.0	28.7
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	5.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	25.0	90.0	20.0	40.0	40.0	75.0
Max Q Clear Time (g_c+I1), s	3.4	10.6	4.4	17.0	6.9	8.6	9.3	10.8
Green Ext Time (p_c), s	0.0	2.7	0.1	11.3	0.1	2.4	0.5	5.0

Intersection Summary	
HCM 6th Ctrl Delay	24.2
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
14: Ontario St & Thornton Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	131	73	27	287	18	32	28	20	12	12	18
Future Volume (veh/h)	23	131	73	27	287	18	32	28	20	12	12	18
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		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	26	146	61	30	319	18	36	31	1	13	13	3
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	822	866	362	835	1214	68	166	120	3	143	122	22
Arrive On Green	0.47	0.47	0.47	1.00	1.00	1.00	0.13	0.13	0.13	0.13	0.13	0.13
Sat Flow, veh/h	1030	1240	518	1161	1739	98	668	919	24	524	933	168
Grp Volume(v), veh/h	26	0	207	30	0	337	68	0	0	29	0	0
Grp Sat Flow(s),veh/h/ln	1030	0	1758	1161	0	1837	1611	0	0	1625	0	0
Q Serve(g_s), s	1.0	0.0	4.8	0.2	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	0.0	4.8	4.9	0.0	0.0	2.4	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.29	1.00		0.05	0.53		0.01	0.45		0.10
Lane Grp Cap(c), veh/h	822	0	1227	835	0	1282	289	0	0	287	0	0
V/C Ratio(X)	0.03	0.00	0.17	0.04	0.00	0.26	0.24	0.00	0.00	0.10	0.00	0.00
Avail Cap(c_a), veh/h	822	0	1227	835	0	1282	730	0	0	728	0	0
HCM Platoon Ratio	0.67	0.67	0.67	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.96	0.00	0.96	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.9	0.0	6.9	0.2	0.0	0.0	27.5	0.0	0.0	26.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.3	0.0	0.0	0.1	0.4	0.0	0.0	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	0.2	0.0	1.5	0.0	0.0	0.0	1.0	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.0	0.0	7.2	0.3	0.0	0.1	27.9	0.0	0.0	27.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		233			367			68			29	
Approach Delay, s/veh		7.1			0.1			27.9			27.0	
Approach LOS		A			A			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	54.9	15.1	54.9	15.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	29.0	29.0	29.0	29.0
Max Q Clear Time (g_c+I1), s	6.8	4.4	6.9	3.0
Green Ext Time (p_c), s	1.3	0.3	2.1	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
15: Empire Ave & Ontario St

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	325	0	5	397	87	0	1	1	51	0	33
Future Volume (veh/h)	44	325	0	5	397	87	0	1	1	51	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		1.00	1.00		0.98	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	47	349	0	5	427	83	0	1	0	55	0	3
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	700	2631	0	815	2190	422	0	164	0	202	0	138
Arrive On Green	0.75	0.75	0.00	0.75	0.75	0.75	0.00	0.09	0.00	0.09	0.00	0.09
Sat Flow, veh/h	882	3618	0	1023	2935	566	0	1856	0	1388	0	1564
Grp Volume(v), veh/h	47	349	0	5	255	255	0	1	0	55	0	3
Grp Sat Flow(s),veh/h/ln	882	1763	0	1023	1763	1738	0	1856	0	1388	0	1564
Q Serve(g_s), s	1.5	2.5	0.0	0.1	3.9	3.9	0.0	0.0	0.0	3.4	0.0	0.2
Cycle Q Clear(g_c), s	5.4	2.5	0.0	2.6	3.9	3.9	0.0	0.0	0.0	3.4	0.0	0.2
Prop In Lane	1.00		0.00	1.00		0.33	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	700	2631	0	815	1315	1297	0	164	0	202	0	138
V/C Ratio(X)	0.07	0.13	0.00	0.01	0.19	0.20	0.00	0.01	0.00	0.27	0.00	0.02
Avail Cap(c_a), veh/h	700	2631	0	815	1315	1297	0	200	0	411	0	372
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.00	0.84	0.84	0.84	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.2	3.2	0.0	3.6	3.4	3.4	0.0	37.4	0.0	39.0	0.0	37.5
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.7	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	0.2	0.7	0.0	0.0	1.1	1.1	0.0	0.0	0.0	1.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.4	3.3	0.0	3.6	3.7	3.7	0.0	37.4	0.0	39.7	0.0	37.5
LnGrp LOS	A	A	A	A	A	A	A	D	A	D	A	D
Approach Vol, veh/h		396			515			1			58	
Approach Delay, s/veh		3.4			3.7			37.4			39.6	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	73.5	16.5	73.5	16.5
Change Period (Y+Rc), s	6.3	* 8.6	6.3	* 8.6
Max Green Setting (Gmax), s	39.4	* 9.7	39.4	* 21
Max Q Clear Time (g_c+I1), s	7.4	2.0	5.9	5.4
Green Ext Time (p_c), s	3.2	0.0	4.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Summary
16: Buena Vista St & Empire Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	291	141	459	422	104	108	528	709	97	775	28
Future Volume (veh/h)	49	291	141	459	422	104	108	528	709	97	775	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.98	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	51	303	24	478	440	93	112	550	654	101	807	27
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	117	440	191	539	729	153	462	1800	1035	148	1771	59
Arrive On Green	0.04	0.12	0.12	0.16	0.25	0.25	0.04	0.51	0.51	0.09	1.00	1.00
Sat Flow, veh/h	1767	3526	1527	3428	2890	606	1767	3526	1542	3428	3478	116
Grp Volume(v), veh/h	51	303	24	478	267	266	112	550	654	101	409	425
Grp Sat Flow(s),veh/h/ln	1767	1763	1527	1714	1763	1733	1767	1763	1542	1714	1763	1832
Q Serve(g_s), s	3.7	11.5	1.7	19.1	18.7	19.0	4.2	12.7	8.1	4.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	11.5	1.7	19.1	18.7	19.0	4.2	12.7	8.1	4.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.35	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	117	440	191	539	445	437	462	1800	1035	148	897	933
V/C Ratio(X)	0.44	0.69	0.13	0.89	0.60	0.61	0.24	0.31	0.63	0.68	0.46	0.46
Avail Cap(c_a), veh/h	228	755	327	710	567	557	547	1800	1035	416	897	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	58.2	58.6	40.2	57.8	46.1	46.2	14.9	19.9	4.1	63.1	0.0	0.0
Incr Delay (d2), s/veh	1.9	1.9	0.3	9.9	1.3	1.4	0.2	0.4	2.9	3.9	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	1.7	5.2	0.8	9.0	8.3	8.3	1.7	5.3	4.7	1.8	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.1	60.6	40.5	67.7	47.4	47.6	15.1	20.3	7.1	66.9	1.6	1.5
LnGrp LOS	E	E	D	E	D	D	B	C	A	E	A	A
Approach Vol, veh/h		378			1011			1316			935	
Approach Delay, s/veh		59.2			57.0			13.3			8.6	
Approach LOS		E			E			B			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	23.5	11.2	77.3	10.2	41.3	11.0	77.5
Change Period (Y+Rc), s	6.0	* 6	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	29.0	* 30	13.0	46.0	14.0	45.0	17.0	42.0
Max Q Clear Time (g_c+I1), s	21.1	13.5	6.2	2.0	5.7	21.0	6.0	14.7
Green Ext Time (p_c), s	0.9	1.7	0.1	6.0	0.0	3.2	0.1	8.9

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

HCM 6th Signalized Intersection Summary
17: Buena Vista St & Thornton Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	40	126	7	30	12	143	523	18	12	765	213
Future Volume (veh/h)	36	40	126	7	30	12	143	523	18	12	765	213
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	37	41	33	7	31	1	146	534	17	12	781	211
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	136	75	60	100	141	5	490	2768	88	753	2310	624
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	1.00	1.00	1.00	0.02	0.84	0.84
Sat Flow, veh/h	1357	948	763	1309	1787	58	563	3487	111	1767	2742	741
Grp Volume(v), veh/h	37	0	74	7	0	32	146	270	281	12	502	490
Grp Sat Flow(s),veh/h/ln	1357	0	1711	1309	0	1845	563	1763	1835	1767	1763	1720
Q Serve(g_s), s	3.7	0.0	5.8	0.7	0.0	2.3	0.9	0.0	0.0	0.2	8.8	8.8
Cycle Q Clear(g_c), s	6.0	0.0	5.8	6.6	0.0	2.3	2.9	0.0	0.0	0.2	8.8	8.8
Prop In Lane	1.00		0.45	1.00		0.03	1.00		0.06	1.00		0.43
Lane Grp Cap(c), veh/h	136	0	135	100	0	145	490	1399	1457	753	1485	1449
V/C Ratio(X)	0.27	0.00	0.55	0.07	0.00	0.22	0.30	0.19	0.19	0.02	0.34	0.34
Avail Cap(c_a), veh/h	553	0	660	502	0	712	490	1399	1457	915	1485	1449
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)	0.99	0.00	0.99	1.00	0.00	1.00	0.94	0.94	0.94	0.80	0.80	0.80
Uniform Delay (d), s/veh	63.2	0.0	62.1	65.2	0.0	60.4	0.0	0.0	0.0	2.2	2.4	2.4
Incr Delay (d2), s/veh	1.0	0.0	3.4	0.3	0.0	0.8	1.5	0.3	0.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.7	0.3	0.0	1.1	0.2	0.1	0.1	0.0	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	0.0	65.5	65.5	0.0	61.2	1.5	0.3	0.3	2.2	2.9	2.9
LnGrp LOS	E	A	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		111			39			697			1004	
Approach Delay, s/veh		65.1			62.0			0.5			2.9	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	6.8	117.1		16.0		124.0		16.0				
Change Period (Y+Rc), s	4.6	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	15.0	55.4		54.0		75.0		54.0				
Max Q Clear Time (g_c+I1), s	2.2	4.9		8.0		10.8		8.6				
Green Ext Time (p_c), s	0.0	5.7		0.5		8.0		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		7.0
HCM 6th LOS		A

HCM 6th Signalized Intersection Summary
18: I-5 SB Ramps & Empire Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	424	675	404	1185	0	0	0	0	321	1	128
Future Volume (veh/h)	0	424	675	404	1185	0	0	0	0	321	1	128
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	1856	1856	1856	1856	0				1856	1856	1856
Adj Flow Rate, veh/h	0	461	405	439	1288	0				350	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	3	3	3	3	0				3	3	3
Cap, veh/h	0	1971	876	508	2669	0				441	0	
Arrive On Green	0.00	0.56	0.56	0.20	1.00	0.00				0.12	0.00	0.00
Sat Flow, veh/h	0	3618	1567	3428	3618	0				3534	0	1572
Grp Volume(v), veh/h	0	461	405	439	1288	0				350	0	0
Grp Sat Flow(s),veh/h/ln	0	1763	1567	1714	1763	0				1767	0	1572
Q Serve(g_s), s	0.0	7.3	16.9	13.6	0.0	0.0				10.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.3	16.9	13.6	0.0	0.0				10.6	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1971	876	508	2669	0				441	0	
V/C Ratio(X)	0.00	0.23	0.46	0.86	0.48	0.00				0.79	0.00	
Avail Cap(c_a), veh/h	0	1971	876	795	2669	0				1012	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.57	0.57	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	12.3	14.4	43.1	0.0	0.0				46.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	1.8	2.2	0.4	0.0				3.3	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
%ile BackOfQ(50%),veh/ln	0.0	2.8	6.1	5.6	0.1	0.0				4.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.6	16.2	45.3	0.4	0.0				50.0	0.0	0.0
LnGrp LOS	A	B	B	D	A	A				D	A	
Approach Vol, veh/h		866			1727						350	
Approach Delay, s/veh		14.3			11.8						50.0	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	21.8	68.0		20.2		89.8
Change Period (Y+Rc), s	5.5	6.5		6.5		6.5
Max Green Setting (Gmax), s	25.5	34.5		31.5		65.5
Max Q Clear Time (g_c+I1), s	15.6	18.9		12.6		2.0
Green Ext Time (p_c), s	0.7	5.7		1.1		21.1

Intersection Summary	
HCM 6th Ctrl Delay	17.1
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
19: I-5 NB Ramps & Empire Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	714	0	0	865	360	734	3	185	0	0	0
Future Volume (veh/h)	19	714	0	0	865	360	734	3	185	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		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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1856	1856	0	0	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	21	776	0	0	940	368	800	0	41			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	148	2208	0	0	1317	511	903	0	397			
Arrive On Green	0.09	1.00	0.00	0.00	0.53	0.53	0.26	0.00	0.26			
Sat Flow, veh/h	3428	3618	0	0	2562	958	3534	0	1554			
Grp Volume(v), veh/h	21	776	0	0	669	639	800	0	41			
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	1665	1767	0	1554			
Q Serve(g_s), s	0.6	0.0	0.0	0.0	31.4	32.0	24.0	0.0	2.2			
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.0	31.4	32.0	24.0	0.0	2.2			
Prop In Lane	1.00		0.00	0.00		0.58	1.00		1.00			
Lane Grp Cap(c), veh/h	148	2208	0	0	940	888	903	0	397			
V/C Ratio(X)	0.14	0.35	0.00	0.00	0.71	0.72	0.89	0.00	0.10			
Avail Cap(c_a), veh/h	732	2208	0	0	940	888	1076	0	473			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	48.4	0.0	0.0	0.0	19.3	19.5	39.4	0.0	31.3			
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.0	4.6	5.0	8.0	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			
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.0	0.0	13.2	12.8	11.3	0.0	0.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.5	0.4	0.0	0.0	23.9	24.5	47.4	0.0	31.4			
LnGrp LOS	D	A	A	A	C	C	D	A	C			
Approach Vol, veh/h		797			1308			841				
Approach Delay, s/veh		1.7			24.2			46.6				
Approach LOS		A			C			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.4			10.2	65.2		34.6				
Change Period (Y+Rc), s		6.5			5.5	6.5		6.5				
Max Green Setting (Gmax), s		63.5			23.5	34.5		33.5				
Max Q Clear Time (g_c+I1), s		2.0			2.6	34.0		26.0				
Green Ext Time (p_c), s		9.5			0.0	0.4		2.2				

Intersection Summary	
HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	55	1481	42	64	2013
Future Vol, veh/h	0	55	1481	42	64	2013
Conflicting Peds, #/hr	0	0	0	7	7	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	59	1592	45	69	2165

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	826	0	0	1644	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	4.16	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	2.23	-
Pot Cap-1 Maneuver	0	313	-	-	385	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	311	-	-	382	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.3	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	311	382	-
HCM Lane V/C Ratio	-	-	0.19	0.18	-
HCM Control Delay (s)	-	-	19.3	16.5	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	0.7	0.6	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	347	65	50	268	26	14
Future Vol, veh/h	347	65	50	268	26	14
Conflicting Peds, #/hr	0	14	14	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	350	-	0	60
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	369	69	53	285	28	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	452	0	809	418
Stage 1	-	-	-	-	418	-
Stage 2	-	-	-	-	391	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1103	-	348	633
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1088	-	327	625
Mov Cap-2 Maneuver	-	-	-	-	327	-
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	648	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	327	625	-	-	1088	-
HCM Lane V/C Ratio	0.085	0.024	-	-	0.049	-
HCM Control Delay (s)	17	10.9	-	-	8.5	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	373	30	21	273	45	39
Future Vol, veh/h	373	30	21	273	45	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	405	33	23	297	49	42

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	438	0	765	422
Stage 1	-	-	-	-	422	-
Stage 2	-	-	-	-	343	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1117	-	370	630
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1117	-	362	630
Mov Cap-2 Maneuver	-	-	-	-	362	-
Stage 1	-	-	-	-	659	-
Stage 2	-	-	-	-	701	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	15
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	451	-	-	1117	-
HCM Lane V/C Ratio	0.202	-	-	0.02	-
HCM Control Delay (s)	15	-	-	8.3	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	2	77	224	2	2	2
Future Vol, veh/h	2	77	224	2	2	2
Conflicting Peds, #/hr	0	0	0	7	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	84	243	2	2	2

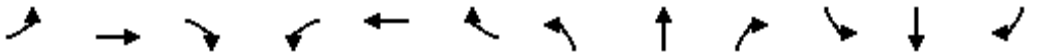
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	252	0	-	0	339	251
Stage 1	-	-	-	-	251	-
Stage 2	-	-	-	-	88	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1307	-	-	-	655	785
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	933	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1298	-	-	-	645	780
Mov Cap-2 Maneuver	-	-	-	-	645	-
Stage 1	-	-	-	-	781	-
Stage 2	-	-	-	-	926	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1298	-	-	-	706
HCM Lane V/C Ratio	0.002	-	-	-	0.006
HCM Control Delay (s)	7.8	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th Signalized Intersection Summary
1: Hollywood Way & Tulare Ave

10/03/2024



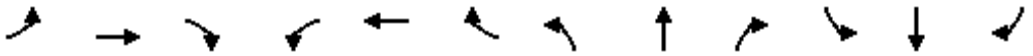
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	434	0	321	27	2	37	184	1628	6	8	1241	234
Future Volume (veh/h)	434	0	321	27	2	37	184	1628	6	8	1241	234
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	488	0	278	30	2	21	207	1829	7	9	1394	241
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	465	0	488	229	42	445	257	3125	12	173	2461	759
Arrive On Green	0.31	0.00	0.31	0.31	0.31	0.31	0.15	1.00	1.00	0.49	0.49	0.49
Sat Flow, veh/h	1375	0	1569	1092	137	1433	3428	5209	20	251	5066	1563
Grp Volume(v), veh/h	488	0	278	30	0	23	207	1186	650	9	1394	241
Grp Sat Flow(s),veh/h/ln	1375	0	1569	1092	0	1570	1714	1689	1852	251	1689	1563
Q Serve(g_s), s	42.1	0.0	20.8	3.3	0.0	1.4	8.2	0.0	0.0	2.7	27.3	13.1
Cycle Q Clear(g_c), s	43.5	0.0	20.8	24.1	0.0	1.4	8.2	0.0	0.0	2.7	27.3	13.1
Prop In Lane	1.00		1.00	1.00		0.91	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	465	0	488	229	0	488	257	2026	1111	173	2461	759
V/C Ratio(X)	1.05	0.00	0.57	0.13	0.00	0.05	0.81	0.59	0.59	0.05	0.57	0.32
Avail Cap(c_a), veh/h	465	0	488	229	0	488	465	2026	1111	173	2461	759
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	0.00	1.00	1.00	0.00	1.00	0.76	0.76	0.76	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	0.0	40.4	50.5	0.0	33.8	58.5	0.0	0.0	19.2	25.5	21.9
Incr Delay (d2), s/veh	55.7	0.0	1.6	0.3	0.0	0.0	3.4	0.9	1.7	0.6	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.0	0.0	8.4	0.9	0.0	0.6	3.4	0.3	0.5	0.2	10.9	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.0	0.0	42.0	50.8	0.0	33.8	61.9	0.9	1.7	19.8	26.5	23.0
LnGrp LOS	F	A	D	D	A	C	E	A	A	B	C	C
Approach Vol, veh/h		766			53			2043			1644	
Approach Delay, s/veh		83.4			43.4			7.4			25.9	
Approach LOS		F			D			A			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	16.0	74.5		49.5		90.5		49.5				
Change Period (Y+Rc), s	5.5	6.5		6.0		6.5		6.0				
Max Green Setting (Gmax), s	19.0	59.5		43.5		84.0		43.5				
Max Q Clear Time (g_c+I1), s	10.2	29.3		26.1		2.0		45.5				
Green Ext Time (p_c), s	0.3	13.4		0.1		22.2		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			27.5									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
2: Hollywood Way & Winona Ave

10/03/2024



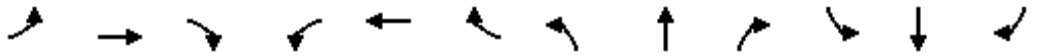
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	93	313	99	86	97	268	1449	50	40	1387	228
Future Volume (veh/h)	248	93	313	99	86	97	268	1449	50	40	1387	228
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	264	99	298	105	91	14	285	1541	52	43	1476	242
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	344	470	391	258	776	117	364	2840	96	322	2322	380
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.19	1.00	1.00	0.12	1.00	1.00
Sat Flow, veh/h	1275	1856	1544	978	3065	461	1767	5032	170	1767	4383	717
Grp Volume(v), veh/h	264	99	298	105	51	54	285	1034	559	43	1137	581
Grp Sat Flow(s),veh/h/ln	1275	1856	1544	978	1763	1763	1767	1689	1824	1767	1689	1723
Q Serve(g_s), s	28.1	5.9	25.0	13.3	3.1	3.3	10.9	0.0	0.0	1.4	0.0	0.0
Cycle Q Clear(g_c), s	31.4	5.9	25.0	19.2	3.1	3.3	10.9	0.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.09	1.00		0.42
Lane Grp Cap(c), veh/h	344	470	391	258	446	446	364	1906	1030	322	1790	913
V/C Ratio(X)	0.77	0.21	0.76	0.41	0.12	0.12	0.78	0.54	0.54	0.13	0.64	0.64
Avail Cap(c_a), veh/h	418	577	480	314	548	548	377	1906	1030	396	1790	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.71	0.71	0.78	0.78	0.78
Uniform Delay (d), s/veh	52.4	41.2	48.4	48.8	40.2	40.3	10.2	0.0	0.0	11.4	0.0	0.0
Incr Delay (d2), s/veh	6.8	0.2	5.7	1.0	0.1	0.1	7.0	0.8	1.5	0.1	1.4	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	2.8	10.4	3.3	1.4	1.4	3.9	0.2	0.4	0.5	0.3	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.2	41.5	54.1	49.8	40.3	40.4	17.2	0.8	1.5	11.5	1.4	2.7
LnGrp LOS	E	D	D	D	D	D	B	A	A	B	A	A
Approach Vol, veh/h		661			210			1878			1761	
Approach Delay, s/veh		54.2			45.1			3.5			2.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.9	80.7		41.4	13.0	85.5		41.4				
Change Period (Y+Rc), s	4.9	6.5		6.0	4.9	6.5		6.0				
Max Green Setting (Gmax), s	14.0	65.1		43.5	14.0	65.1		43.5				
Max Q Clear Time (g_c+I1), s	12.9	2.0		21.2	3.4	2.0		33.4				
Green Ext Time (p_c), s	0.1	19.1		1.0	0.0	16.2		2.0				

Intersection Summary												
HCM 6th Ctrl Delay			12.3									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
3: Hollywood Way & Airport/Thornton Ave

10/03/2024



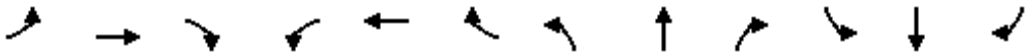
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	9	22	219	95	120	22	1682	169	84	1737	24
Future Volume (veh/h)	27	9	22	219	95	120	22	1682	169	84	1737	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.61		0.96	1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	28	9	-148	231	100	77	23	1771	172	88	1828	-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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	162	211	179	236	325	225	265	2565	248	297	2918	0
Arrive On Green	0.05	0.11	0.00	0.10	0.17	0.17	0.08	1.00	1.00	0.14	1.00	0.00
Sat Flow, veh/h	3428	1856	1572	1767	1954	1351	1767	4671	451	1767	5233	0
Grp Volume(v), veh/h	28	9	-148	231	89	88	23	1278	665	88	1826	0
Grp Sat Flow(s),veh/h/ln	1714	1856	1572	1767	1763	1542	1767	1689	1745	1767	1689	0
Q Serve(g_s), s	1.1	0.6	0.0	13.5	6.2	7.1	0.7	0.0	0.0	2.7	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.6	0.0	13.5	6.2	7.1	0.7	0.0	0.0	2.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.88	1.00		0.26	1.00		0.00
Lane Grp Cap(c), veh/h	162	211	179	236	294	257	265	1854	958	297	2918	0
V/C Ratio(X)	0.17	0.04	-0.83	0.98	0.30	0.34	0.09	0.69	0.69	0.30	0.63	0.00
Avail Cap(c_a), veh/h	575	524	444	236	378	330	493	1854	958	415	2918	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.71	0.00
Uniform Delay (d), s/veh	64.0	55.2	0.0	61.0	51.2	51.6	11.3	0.0	0.0	9.7	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.1	0.0	52.0	0.6	0.8	0.1	2.1	4.1	0.3	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	0.5	0.3	0.0	11.3	2.8	2.8	0.3	0.5	1.1	1.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	55.3	0.0	113.0	51.8	52.3	11.4	2.1	4.1	9.9	0.7	0.0
LnGrp LOS	E	E	A	F	D	D	B	A	A	A	A	A
Approach Vol, veh/h		-111			408			1966			1914	
Approach Delay, s/veh		0.0			86.6			2.9			1.2	
Approach LOS		A			F			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	87.1	12.6	29.3	14.7	83.4	20.0	22.0
Change Period (Y+Rc), s	5.0	6.5	6.0	6.0	5.0	6.5	6.0	6.0
Max Green Setting (Gmax), s	24.0	39.0	23.5	30.0	19.0	44.0	14.0	39.5
Max Q Clear Time (g_c+I1), s	2.7	2.0	3.1	9.1	4.7	2.0	15.5	2.6
Green Ext Time (p_c), s	0.0	18.6	0.0	0.9	0.1	20.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	10.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
4: Hollywood Way & Avon St

10/03/2024



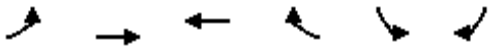
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	7	52	125	30	237	83	1493	18	36	1673	34
Future Volume (veh/h)	112	7	52	125	30	237	83	1493	18	36	1673	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.99		0.98	1.00		0.97	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	117	7	54	130	31	247	86	1555	18	38	1743	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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	186	50	388	382	49	389	122	1941	22	97	2403	48
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.07	0.54	0.54	0.11	1.00	1.00
Sat Flow, veh/h	1090	180	1387	1320	175	1391	1767	3568	41	1767	4531	91
Grp Volume(v), veh/h	117	0	61	130	0	278	86	768	805	38	1071	707
Grp Sat Flow(s),veh/h/ln	1090	0	1567	1320	0	1565	1767	1763	1847	1767	1392	1838
Q Serve(g_s), s	14.8	0.0	4.1	11.5	0.0	21.8	6.7	49.2	49.4	2.8	0.0	0.0
Cycle Q Clear(g_c), s	36.5	0.0	4.1	15.6	0.0	21.8	6.7	49.2	49.4	2.8	0.0	0.0
Prop In Lane	1.00		0.89	1.00		0.89	1.00		0.02	1.00		0.05
Lane Grp Cap(c), veh/h	186	0	438	382	0	437	122	959	1005	97	1476	975
V/C Ratio(X)	0.63	0.00	0.14	0.34	0.00	0.64	0.71	0.80	0.80	0.39	0.73	0.73
Avail Cap(c_a), veh/h	267	0	554	480	0	553	252	959	1005	252	1476	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.2	0.0	37.8	43.7	0.0	44.2	63.8	25.8	25.8	60.1	0.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.1	0.5	0.0	1.5	5.5	7.0	6.7	1.9	3.1	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	1.6	3.9	0.0	8.8	3.2	21.5	22.5	1.3	0.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.7	0.0	38.0	44.2	0.0	45.7	69.3	32.8	32.5	62.0	3.1	4.7
LnGrp LOS	E	A	D	D	A	D	E	C	C	E	A	A
Approach Vol, veh/h		178			408			1659			1816	
Approach Delay, s/veh		54.9			45.2			34.5			5.0	
Approach LOS		D			D			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.1	80.7		44.1	13.2	82.7		44.1				
Change Period (Y+Rc), s	5.5	6.5		5.0	5.5	6.5		5.0				
Max Green Setting (Gmax), s	20.0	53.5		49.5	20.0	53.5		49.5				
Max Q Clear Time (g_c+I1), s	8.7	2.0		23.8	4.8	51.4		38.5				
Green Ext Time (p_c), s	0.1	19.0		2.4	0.0	1.7		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			23.3									
HCM 6th LOS			C									

HCM 6th Signalized Intersection Summary
5: Empire Ave & N Hollywood Way

10/03/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↰	↱
Traffic Volume (veh/h)	0	263	459	0	73	272
Future Volume (veh/h)	0	263	459	0	73	272
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	0	1856	1856	0	1856	1856
Adj Flow Rate, veh/h	0	302	528	0	84	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	3	3	0	3	3
Cap, veh/h	0	2707	2707	0	196	
Arrive On Green	0.00	1.00	0.77	0.00	0.11	0.00
Sat Flow, veh/h	0	3711	3711	0	1767	1572
Grp Volume(v), veh/h	0	302	528	0	84	0
Grp Sat Flow(s),veh/h/ln	0	1763	1763	0	1767	1572
Q Serve(g_s), s	0.0	0.0	3.7	0.0	4.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	3.7	0.0	4.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2707	2707	0	196	
V/C Ratio(X)	0.00	0.11	0.20	0.00	0.43	
Avail Cap(c_a), veh/h	0	2707	2707	0	465	
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.97	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	2.9	0.0	37.3	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.9	0.0	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.1	3.0	0.0	39.4	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h		302	528		84	
Approach Delay, s/veh		0.1	3.0		39.4	
Approach LOS		A	A		D	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		75.4		14.6		75.4
Change Period (Y+Rc), s		6.3		4.6		6.3
Max Green Setting (Gmax), s		55.4		23.7		55.4
Max Q Clear Time (g_c+I1), s		2.0		6.0		5.7
Green Ext Time (p_c), s		2.0		0.3		3.9

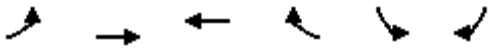
Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
6: Empire Ave & Avon St

10/03/2024



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	89	406	489	115	59	3
Future Volume (veh/h)	89	406	489	115	59	3
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	95	432	520	111	63	-16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	812	3297	2334	496	535	0
Arrive On Green	0.08	0.94	0.81	0.81	0.00	0.00
Sat Flow, veh/h	1767	3618	2984	614	2422	-615
Grp Volume(v), veh/h	95	432	316	315	0	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1763	1742	0	0
Q Serve(g_s), s	0.5	0.9	4.1	4.1	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.9	4.1	4.1	0.0	0.0
Prop In Lane	1.00			0.35	1.31	-0.33
Lane Grp Cap(c), veh/h	812	3297	1423	1407	0	0
V/C Ratio(X)	0.12	0.13	0.22	0.22	0.00	0.00
Avail Cap(c_a), veh/h	1042	3297	1423	1407	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.98	0.98	0.00	0.00
Uniform Delay (d), s/veh	0.7	0.2	2.2	2.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.4	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.9	0.9	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.7	0.3	2.5	2.6	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		527	631		0	
Approach Delay, s/veh		0.4	2.6		0.0	
Approach LOS		A	A			

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.0		0.0	12.4	84.6
Change Period (Y+Rc), s		6.3		4.6	5.0	6.3
Max Green Setting (Gmax), s		53.4		25.7	20.0	35.0
Max Q Clear Time (g_c+I1), s		2.9		0.0	2.5	6.1
Green Ext Time (p_c), s		2.9		0.0	0.1	4.1

Intersection Summary	
HCM 6th Ctrl Delay	1.6
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
7: Empire Ave & Airport

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	343	2	1	836	10	0	0	0	31	0	1
Future Volume (veh/h)	88	343	2	1	836	10	0	0	0	31	0	1
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.96				1.00		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	1856	1856	1856	1856	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	97	377	2	1	919	8				29	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3				3	3	3
Cap, veh/h	601	1455	8	40	2327	20				318	167	0
Arrive On Green	0.07	0.79	0.79	1.00	1.00	1.00				0.09	0.00	0.00
Sat Flow, veh/h	1767	1844	10	0	3506	30				3534	1856	0
Grp Volume(v), veh/h	97	0	379	487	0	441				29	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1853	1855	0	1682				1767	1856	0
Q Serve(g_s), s	1.3	0.0	4.9	0.0	0.0	0.0				0.7	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	4.9	0.0	0.0	0.0				0.7	0.0	0.0
Prop In Lane	1.00		0.01	0.00		0.02				1.00		0.00
Lane Grp Cap(c), veh/h	601	0	1462	1271	0	1116				318	167	0
V/C Ratio(X)	0.16	0.00	0.26	0.38	0.00	0.40				0.09	0.00	0.00
Avail Cap(c_a), veh/h	621	0	1462	1271	0	1116				931	489	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.94	0.00	0.94				1.00	0.00	0.00
Uniform Delay (d), s/veh	2.8	0.0	2.5	0.0	0.0	0.0				37.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.8	0.0	1.0				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
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.1	0.3	0.0	0.3				0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.9	0.0	2.9	0.8	0.0	1.0				37.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				D	A	A
Approach Vol, veh/h		476			928						29	
Approach Delay, s/veh		2.9			0.9						37.7	
Approach LOS		A			A						D	

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		77.3		12.7	11.3	66.0						
Change Period (Y+Rc), s		6.3		4.6	4.9	6.3						
Max Green Setting (Gmax), s		55.4		23.7	7.4	43.1						
Max Q Clear Time (g_c+I1), s		6.9		2.7	3.3	2.0						
Green Ext Time (p_c), s		2.3		0.0	0.0	6.5						

Intersection Summary												
HCM 6th Ctrl Delay			2.3									
HCM 6th LOS			A									

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary
8: Hollywood Way & Victory Bl

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	751	111	114	889	130	163	1159	98	227	1238	312
Future Volume (veh/h)	262	751	111	114	889	130	163	1159	98	227	1238	312
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	270	774	65	118	916	96	168	1195	66	234	1276	264
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	292	1181	638	272	974	605	192	1151	619	257	1282	763
Arrive On Green	0.13	0.34	0.34	0.07	0.28	0.28	0.08	0.33	0.33	0.12	0.36	0.36
Sat Flow, veh/h	1767	3526	1531	1767	3526	1527	1767	3526	1555	1767	3526	1537
Grp Volume(v), veh/h	270	774	65	118	916	96	168	1195	66	234	1276	264
Grp Sat Flow(s),veh/h/ln	1767	1763	1531	1767	1763	1527	1767	1763	1555	1767	1763	1537
Q Serve(g_s), s	16.0	26.2	3.6	6.5	35.6	5.7	9.0	45.7	3.7	14.2	50.5	14.7
Cycle Q Clear(g_c), s	16.0	26.2	3.6	6.5	35.6	5.7	9.0	45.7	3.7	14.2	50.5	14.7
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	292	1181	638	272	974	605	192	1151	619	257	1282	763
V/C Ratio(X)	0.92	0.66	0.10	0.43	0.94	0.16	0.87	1.04	0.11	0.91	1.00	0.35
Avail Cap(c_a), veh/h	316	1181	638	400	992	613	305	1151	619	304	1282	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	39.7	25.1	33.4	49.5	27.5	36.2	47.2	26.6	42.6	44.4	21.7
Incr Delay (d2), s/veh	29.3	1.3	0.1	0.4	16.0	0.1	9.7	37.1	0.3	25.1	24.0	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	9.3	11.5	1.3	2.8	17.7	2.1	4.3	25.7	1.5	9.9	25.9	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	41.0	25.2	33.8	65.5	27.7	45.8	84.2	26.9	67.8	68.4	23.0
LnGrp LOS	E	D	C	C	E	C	D	F	C	E	E	C
Approach Vol, veh/h		1109			1130			1429			1774	
Approach Delay, s/veh		46.7			59.0			77.1			61.6	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	52.9	15.7	56.9	22.7	44.7	20.9	51.7
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	8.5	28.2	11.0	52.5	18.0	37.6	16.2	47.7
Green Ext Time (p_c), s	0.1	4.1	0.1	0.0	0.1	1.1	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	62.1
HCM 6th LOS	E

HCM 6th Signalized Intersection Summary
9: Hollywood Way & Burbank Bl

10/03/2024

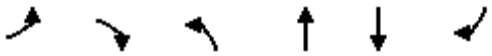
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	703	28	166	718	118	91	1115	124	145	982	173
Future Volume (veh/h)	222	703	28	166	718	118	91	1115	124	145	982	173
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	247	781	29	184	798	52	101	1239	131	161	1091	130
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	280	967	36	259	895	395	240	1306	138	190	1439	635
Arrive On Green	0.12	0.28	0.28	0.09	0.25	0.25	0.07	0.41	0.41	0.07	0.41	0.41
Sat Flow, veh/h	1767	3465	129	1767	3526	1556	1767	3210	338	1767	3526	1555
Grp Volume(v), veh/h	247	397	413	184	798	52	101	679	691	161	1091	130
Grp Sat Flow(s),veh/h/ln	1767	1763	1831	1767	1763	1556	1767	1763	1785	1767	1763	1555
Q Serve(g_s), s	14.2	29.4	29.4	10.7	30.6	3.6	4.4	52.0	52.5	7.5	37.1	7.6
Cycle Q Clear(g_c), s	14.2	29.4	29.4	10.7	30.6	3.6	4.4	52.0	52.5	7.5	37.1	7.6
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	280	492	511	259	895	395	240	717	726	190	1439	635
V/C Ratio(X)	0.88	0.81	0.81	0.71	0.89	0.13	0.42	0.95	0.95	0.85	0.76	0.20
Avail Cap(c_a), veh/h	327	496	515	350	992	438	369	717	726	316	1439	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	36.1	47.0	47.0	36.8	50.4	40.3	26.6	40.0	40.2	33.2	35.5	26.8
Incr Delay (d2), s/veh	19.3	9.5	9.2	2.1	9.5	0.1	0.4	22.8	23.6	4.8	3.8	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	7.6	14.1	14.6	4.7	14.5	1.4	1.9	26.5	27.3	3.4	16.5	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	56.5	56.2	38.9	59.9	40.5	27.0	62.8	63.8	38.0	39.3	27.5
LnGrp LOS	E	E	E	D	E	D	C	E	E	D	D	C
Approach Vol, veh/h		1057			1034			1471			1382	
Approach Delay, s/veh		56.1			55.2			60.8			38.0	
Approach LOS		E			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	45.1	14.4	63.1	20.9	41.6	14.6	63.0
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	4.6	6.0
Max Green Setting (Gmax), s	20.0	39.4	20.0	39.4	20.0	39.4	20.0	39.4
Max Q Clear Time (g_c+I1), s	12.7	31.4	6.4	39.1	16.2	32.6	9.5	54.5
Green Ext Time (p_c), s	0.1	3.0	0.1	0.2	0.1	3.0	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.3
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary
10: Buena Vista St & I-5 NB Ramps

10/03/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	232	604	651	492	356	67
Future Volume (veh/h)	232	604	651	492	356	67
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	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	239	0	671	507	367	65
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	284		715	1269	444	79
Arrive On Green	0.16	0.00	0.32	0.68	0.29	0.29
Sat Flow, veh/h	1767	1572	1767	1856	1534	272
Grp Volume(v), veh/h	239	0	671	507	0	432
Grp Sat Flow(s),veh/h/ln	1767	1572	1767	1856	0	1806
Q Serve(g_s), s	10.1	0.0	21.3	9.2	0.0	17.2
Cycle Q Clear(g_c), s	10.1	0.0	21.3	9.2	0.0	17.2
Prop In Lane	1.00	1.00	1.00			0.15
Lane Grp Cap(c), veh/h	284		715	1269	0	523
V/C Ratio(X)	0.84		0.94	0.40	0.00	0.83
Avail Cap(c_a), veh/h	1145		1187	1443	0	1405
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	31.4	0.0	16.0	5.3	0.0	25.6
Incr Delay (d2), s/veh	2.6	0.0	6.2	0.2	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	8.6	2.8	0.0	7.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.0	0.0	22.2	5.5	0.0	29.0
LnGrp LOS	C		C	A	A	C
Approach Vol, veh/h	239			1178	432	
Approach Delay, s/veh	34.0			15.0	29.0	
Approach LOS	C			B	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		58.7		18.4	30.4	28.3
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		60.0		50.0	45.0	60.0
Max Q Clear Time (g_c+I1), s		11.2		12.1	23.3	19.2
Green Ext Time (p_c), s		3.8		0.3	1.1	3.1

Intersection Summary		
HCM 6th Ctrl Delay		20.7
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	19.4
Intersection LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	256	18	162	247	341	117
Future Vol, veh/h	256	18	162	247	341	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	278	20	176	268	371	127
Number of Lanes	2	0	1	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	14	22.1	20.3
HCM LOS	B	C	C

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	83%	100%	0%
Vol Thru, %	40%	0%	0%	0%	100%
Vol Right, %	60%	0%	17%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	409	171	103	341	117
LT Vol	0	171	85	341	0
Through Vol	162	0	0	0	117
RT Vol	247	0	18	0	0
Lane Flow Rate	445	186	112	371	127
Geometry Grp	3b	5	5	5	5
Degree of Util (X)	0.715	0.39	0.23	0.694	0.22
Departure Headway (Hd)	5.787	7.572	7.358	6.744	6.235
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	622	475	486	534	574
Service Time	3.841	5.335	5.122	4.504	3.995
HCM Lane V/C Ratio	0.715	0.392	0.23	0.695	0.221
HCM Control Delay	22.1	15.1	12.3	23.5	10.8
HCM Lane LOS	C	C	B	C	B
HCM 95th-tile Q	5.9	1.8	0.9	5.4	0.8

HCM 6th Signalized Intersection Summary
12: Buena Vista St & Winona Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	57	252	160	35	39	217	1042	279	27	780	158
Future Volume (veh/h)	68	57	252	160	35	39	217	1042	279	27	780	158
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	73	61	114	172	38	12	233	1120	287	29	839	161
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	126	105	361	241	183	58	342	1467	372	171	1076	206
Arrive On Green	0.13	0.13	0.13	0.14	0.14	0.14	0.11	0.53	0.53	0.37	0.37	0.37
Sat Flow, veh/h	984	822	1525	1767	1342	424	1767	2769	703	380	2948	566
Grp Volume(v), veh/h	134	0	114	172	0	50	233	709	698	29	502	498
Grp Sat Flow(s),veh/h/ln	1806	0	1525	1767	0	1766	1767	1763	1709	380	1763	1751
Q Serve(g_s), s	5.4	0.0	4.8	7.2	0.0	2.0	5.9	24.6	25.2	5.1	19.6	19.6
Cycle Q Clear(g_c), s	5.4	0.0	4.8	7.2	0.0	2.0	5.9	24.6	25.2	17.5	19.6	19.6
Prop In Lane	0.54		1.00	1.00		0.24	1.00		0.41	1.00		0.32
Lane Grp Cap(c), veh/h	231	0	361	241	0	240	342	934	906	171	643	639
V/C Ratio(X)	0.58	0.00	0.32	0.71	0.00	0.21	0.68	0.76	0.77	0.17	0.78	0.78
Avail Cap(c_a), veh/h	814	0	853	796	0	796	952	934	906	227	908	902
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	0.0	24.7	32.1	0.0	29.8	16.1	14.4	14.5	26.6	21.9	21.9
Incr Delay (d2), s/veh	2.3	0.0	0.5	3.9	0.0	0.4	0.9	3.7	4.1	0.5	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	1.7	3.3	0.0	0.9	2.2	9.3	9.4	0.5	7.9	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	0.0	25.1	36.0	0.0	30.3	17.0	18.0	18.6	27.0	24.8	24.8
LnGrp LOS	C	A	C	D	A	C	B	B	B	C	C	C
Approach Vol, veh/h		248			222			1640			1029	
Approach Delay, s/veh		30.0			34.7			18.1			24.8	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.8	34.4		15.6		47.2		15.0				
Change Period (Y+Rc), s	4.6	6.0		* 5		6.0		5.0				
Max Green Setting (Gmax), s	35.0	40.0		* 35		40.0		35.0				
Max Q Clear Time (g_c+I1), s	7.9	21.6		9.2		27.2		7.4				
Green Ext Time (p_c), s	0.3	6.7		0.8		7.6		1.2				

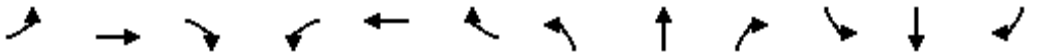
Intersection Summary			
HCM 6th Ctrl Delay		22.4	
HCM 6th LOS		C	

Notes

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

HCM 6th Signalized Intersection Summary
13: Buena Vista St & San Fernando Bl

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	483	92	90	444	447	73	818	43	199	699	303
Future Volume (veh/h)	282	483	92	90	444	447	73	818	43	199	699	303
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		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	300	514	86	96	472	176	78	870	44	212	744	0
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	374	831	138	269	645	283	100	1148	58	247	1493	
Arrive On Green	0.15	0.28	0.28	0.06	0.18	0.18	0.06	0.34	0.34	0.14	0.42	0.00
Sat Flow, veh/h	1767	3016	502	1767	3526	1545	1767	3411	172	1767	3526	1572
Grp Volume(v), veh/h	300	299	301	96	472	176	78	450	464	212	744	0
Grp Sat Flow(s),veh/h/ln	1767	1763	1755	1767	1763	1545	1767	1763	1820	1767	1763	1572
Q Serve(g_s), s	15.1	16.9	17.1	5.0	14.4	12.0	5.0	25.9	25.9	13.4	17.6	0.0
Cycle Q Clear(g_c), s	15.1	16.9	17.1	5.0	14.4	12.0	5.0	25.9	25.9	13.4	17.6	0.0
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	374	486	483	269	645	283	100	593	613	247	1493	
V/C Ratio(X)	0.80	0.62	0.62	0.36	0.73	0.62	0.78	0.76	0.76	0.86	0.50	
Avail Cap(c_a), veh/h	417	618	615	475	1235	541	387	1158	1196	619	2779	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	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	30.7	36.1	36.2	34.9	44.0	43.0	53.2	33.7	33.7	48.0	24.0	0.0
Incr Delay (d2), s/veh	8.6	1.3	1.3	0.3	1.6	2.2	4.9	2.8	2.8	8.4	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	7.2	7.3	7.4	2.1	6.4	4.7	2.3	11.3	11.7	6.4	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	37.4	37.5	35.2	45.6	45.2	58.1	36.6	36.5	56.4	24.4	0.0
LnGrp LOS	D	D	D	D	D	D	E	D	D	E	C	
Approach Vol, veh/h		900			744			992			956	
Approach Delay, s/veh		38.0			44.2			38.2			31.5	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	37.4	11.1	54.3	21.9	26.9	21.0	44.4
Change Period (Y+Rc), s	4.6	6.0	4.6	6.0	4.6	6.0	5.0	6.0
Max Green Setting (Gmax), s	20.0	40.0	25.0	90.0	20.0	40.0	40.0	75.0
Max Q Clear Time (g_c+I1), s	7.0	19.1	7.0	19.6	17.1	16.4	15.4	27.9
Green Ext Time (p_c), s	0.1	3.5	0.1	9.0	0.1	3.7	0.6	10.5

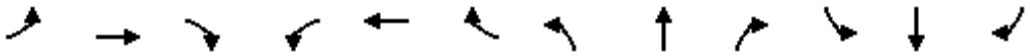
Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
14: Ontario St & Thornton Ave

10/03/2024



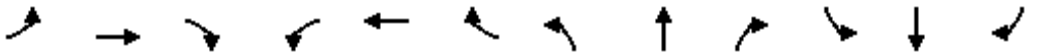
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	192	57	17	318	22	47	29	23	11	41	44
Future Volume (veh/h)	18	192	57	17	318	22	47	29	23	11	41	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	0.99		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	19	206	52	18	342	22	51	31	2	12	44	7
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	769	979	247	862	1182	76	198	103	5	84	200	28
Arrive On Green	1.00	1.00	1.00	0.91	0.91	0.91	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	1006	1427	360	1107	1724	111	804	719	37	158	1399	195
Grp Volume(v), veh/h	19	0	258	18	0	364	84	0	0	63	0	0
Grp Sat Flow(s),veh/h/ln	1006	0	1788	1107	0	1835	1560	0	0	1752	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	1.7	0.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	0.1	0.0	1.7	3.1	0.0	0.0	2.2	0.0	0.0
Prop In Lane	1.00		0.20	1.00		0.06	0.61		0.02	0.19		0.11
Lane Grp Cap(c), veh/h	769	0	1226	862	0	1258	306	0	0	312	0	0
V/C Ratio(X)	0.02	0.00	0.21	0.02	0.00	0.29	0.27	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	769	0	1226	862	0	1258	709	0	0	771	0	0
HCM Platoon Ratio	2.00	2.00	2.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.97	0.00	0.97	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	1.0	0.0	1.0	27.0	0.0	0.0	26.6	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.4	0.0	0.0	0.1	0.5	0.0	0.0	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	0.0	0.1	0.0	0.0	0.4	1.3	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.1	0.0	0.4	1.0	0.0	1.2	27.4	0.0	0.0	27.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	C	A	A	C	A	A
Approach Vol, veh/h		277			382			84			63	
Approach Delay, s/veh		0.4			1.2			27.4			27.0	
Approach LOS		A			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.0		16.0		54.0		16.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		29.0		29.0		29.0		29.0				
Max Q Clear Time (g_c+I1), s		3.7		5.1		3.7		4.2				
Green Ext Time (p_c), s		1.6		0.4		2.4		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			5.6									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
15: Empire Ave & Ontario St

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	487	0	0	503	64	0	1	5	125	0	54
Future Volume (veh/h)	31	487	0	0	503	64	0	1	5	125	0	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	32	507	0	0	524	62	0	1	0	130	0	6
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	625	2533	0	80	2276	268	0	215	0	241	0	182
Arrive On Green	0.72	0.72	0.00	0.00	0.72	0.72	0.00	0.12	0.00	0.12	0.00	0.12
Sat Flow, veh/h	823	3618	0	885	3168	373	0	1856	0	1392	0	1568
Grp Volume(v), veh/h	32	507	0	0	291	295	0	1	0	130	0	6
Grp Sat Flow(s),veh/h/ln	823	1763	0	885	1763	1778	0	1856	0	1392	0	1568
Q Serve(g_s), s	1.2	4.3	0.0	0.0	5.0	5.0	0.0	0.0	0.0	8.2	0.0	0.3
Cycle Q Clear(g_c), s	6.3	4.3	0.0	0.0	5.0	5.0	0.0	0.0	0.0	8.2	0.0	0.3
Prop In Lane	1.00		0.00	1.00		0.21	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	625	2533	0	80	1267	1278	0	215	0	241	0	182
V/C Ratio(X)	0.05	0.20	0.00	0.00	0.23	0.23	0.00	0.00	0.00	0.54	0.00	0.03
Avail Cap(c_a), veh/h	625	2533	0	80	1267	1278	0	215	0	412	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.00	0.00	0.82	0.82	0.00	1.00	0.00	0.96	0.00	0.96
Uniform Delay (d), s/veh	5.3	4.2	0.0	0.0	4.3	4.3	0.0	35.2	0.0	38.8	0.0	35.3
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.0	0.3	0.3	0.0	0.0	0.0	1.8	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	0.2	1.2	0.0	0.0	1.5	1.5	0.0	0.0	0.0	2.9	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.5	4.3	0.0	0.0	4.6	4.6	0.0	35.2	0.0	40.6	0.0	35.4
LnGrp LOS	A	A	A	A	A	A	A	D	A	D	A	D
Approach Vol, veh/h		539			586			1			136	
Approach Delay, s/veh		4.4			4.6			35.2			40.4	
Approach LOS		A			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		71.0		19.0		71.0		19.0				
Change Period (Y+Rc), s		6.3		* 8.6		6.3		* 8.6				
Max Green Setting (Gmax), s		39.4		* 9.7		39.4		* 21				
Max Q Clear Time (g_c+I1), s		8.3		2.0		7.0		10.2				
Green Ext Time (p_c), s		4.6		0.0		4.6		0.5				

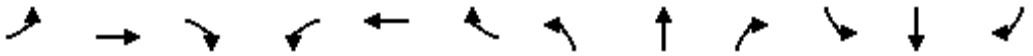
Intersection Summary	
HCM 6th Ctrl Delay	8.4
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Summary
16: Buena Vista St & Empire Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	502	128	486	466	172	113	781	813	116	560	37
Future Volume (veh/h)	45	502	128	486	466	172	113	781	813	116	560	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	49	546	42	528	507	166	123	849	817	126	609	36
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	116	673	289	587	864	281	438	1490	922	174	1418	84
Arrive On Green	0.04	0.19	0.19	0.17	0.33	0.33	0.05	0.42	0.42	0.10	0.84	0.84
Sat Flow, veh/h	1767	3526	1512	3428	2595	844	1767	3526	1544	3428	3379	199
Grp Volume(v), veh/h	49	546	42	528	343	330	123	849	817	126	317	328
Grp Sat Flow(s),veh/h/ln	1767	1763	1512	1714	1763	1676	1767	1763	1544	1714	1763	1815
Q Serve(g_s), s	3.3	20.8	2.7	21.1	22.6	22.9	5.5	25.6	25.5	5.0	6.3	6.3
Cycle Q Clear(g_c), s	3.3	20.8	2.7	21.1	22.6	22.9	5.5	25.6	25.5	5.0	6.3	6.3
Prop In Lane	1.00		1.00	1.00		0.50	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	116	673	289	587	587	558	438	1490	922	174	740	762
V/C Ratio(X)	0.42	0.81	0.15	0.90	0.59	0.59	0.28	0.57	0.89	0.72	0.43	0.43
Avail Cap(c_a), veh/h	228	755	324	710	587	558	507	1490	922	416	740	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	50.9	54.2	33.0	56.8	38.7	38.8	21.0	30.7	11.0	61.9	7.0	7.0
Incr Delay (d2), s/veh	1.8	5.9	0.2	12.3	1.5	1.7	0.3	1.6	12.3	4.0	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	9.7	1.2	10.1	10.0	9.6	2.3	11.2	13.3	2.2	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.7	60.2	33.2	69.1	40.2	40.4	21.3	32.3	23.3	65.9	8.8	8.7
LnGrp LOS	D	E	C	E	D	D	C	C	C	E	A	A
Approach Vol, veh/h		637			1201			1789			771	
Approach Delay, s/veh		57.8			53.0			27.4			18.1	
Approach LOS		E			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	32.7	12.5	64.8	10.1	52.6	12.1	65.2
Change Period (Y+Rc), s	6.0	* 6	5.0	6.0	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	29.0	* 30	13.0	46.0	14.0	45.0	17.0	42.0
Max Q Clear Time (g_c+I1), s	23.1	22.8	7.5	8.3	5.3	24.9	7.0	27.6
Green Ext Time (p_c), s	0.8	2.1	0.1	4.2	0.0	4.1	0.2	9.3

Intersection Summary	
HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

HCM 6th Signalized Intersection Summary
17: Buena Vista St & Thornton Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	45	110	16	45	18	108	844	14	14	590	266
Future Volume (veh/h)	82	45	110	16	45	18	108	844	14	14	590	266
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	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	85	47	40	17	47	2	112	879	15	15	615	262
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	168	103	87	133	196	8	519	2691	46	553	1951	831
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	1.00	1.00	1.00	0.02	0.81	0.81
Sat Flow, veh/h	1339	923	786	1295	1766	75	627	3547	61	1767	2407	1025
Grp Volume(v), veh/h	85	0	87	17	0	49	112	437	457	15	450	427
Grp Sat Flow(s),veh/h/ln	1339	0	1709	1295	0	1842	627	1763	1845	1767	1763	1670
Q Serve(g_s), s	8.7	0.0	6.7	1.7	0.0	3.4	0.6	0.0	0.0	0.2	9.1	9.1
Cycle Q Clear(g_c), s	12.1	0.0	6.7	8.4	0.0	3.4	2.4	0.0	0.0	0.2	9.1	9.1
Prop In Lane	1.00		0.46	1.00		0.04	1.00		0.03	1.00		0.61
Lane Grp Cap(c), veh/h	168	0	190	133	0	204	519	1337	1399	553	1429	1353
V/C Ratio(X)	0.51	0.00	0.46	0.13	0.00	0.24	0.22	0.33	0.33	0.03	0.32	0.32
Avail Cap(c_a), veh/h	535	0	659	489	0	710	519	1337	1399	709	1429	1353
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)	0.99	0.00	0.99	1.00	0.00	1.00	0.73	0.73	0.73	0.86	0.86	0.86
Uniform Delay (d), s/veh	62.3	0.0	58.3	62.2	0.0	56.8	0.0	0.0	0.0	3.1	3.4	3.4
Incr Delay (d2), s/veh	2.3	0.0	1.7	0.4	0.0	0.6	0.7	0.5	0.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	3.0	0.6	0.0	1.6	0.1	0.2	0.2	0.1	2.8	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.7	0.0	60.0	62.7	0.0	57.4	0.7	0.5	0.5	3.1	3.9	3.9
LnGrp LOS	E	A	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h		172			66			1006			892	
Approach Delay, s/veh		62.3			58.8			0.5			3.9	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	7.3	112.2		20.5		119.5		20.5				
Change Period (Y+Rc), s	4.6	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	15.0	55.4		54.0		75.0		54.0				
Max Q Clear Time (g_c+I1), s	2.2	4.4		14.1		11.1		10.4				
Green Ext Time (p_c), s	0.0	8.3		0.8		6.8		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			8.7									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
18: I-5 SB Ramps & Empire Ave

10/03/2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	603	996	195	1035	0	0	0	0	283	4	195
Future Volume (veh/h)	0	603	996	195	1035	0	0	0	0	283	4	195
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	1856	1856	1856	1856	0				1856	1856	1856
Adj Flow Rate, veh/h	0	622	754	201	1067	0				295	0	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	3	3	3	3	0				3	3	3
Cap, veh/h	0	2384	1057	264	2804	0				370	0	
Arrive On Green	0.00	0.68	0.68	0.10	1.00	0.00				0.10	0.00	0.00
Sat Flow, veh/h	0	3618	1563	3428	3618	0				3534	0	1572
Grp Volume(v), veh/h	0	622	754	201	1067	0				295	0	0
Grp Sat Flow(s),veh/h/ln	0	1763	1563	1714	1763	0				1767	0	1572
Q Serve(g_s), s	0.0	9.0	39.3	7.4	0.0	0.0				10.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	9.0	39.3	7.4	0.0	0.0				10.6	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2384	1057	264	2804	0				370	0	
V/C Ratio(X)	0.00	0.26	0.71	0.76	0.38	0.00				0.80	0.00	
Avail Cap(c_a), veh/h	0	2384	1057	752	2804	0				1047	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.77	0.77	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	8.3	13.2	57.2	0.0	0.0				56.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	4.1	1.3	0.3	0.0				4.0	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
%ile BackOfQ(50%),veh/ln	0.0	3.3	13.7	3.2	0.1	0.0				4.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.5	17.3	58.5	0.3	0.0				60.8	0.0	0.0
LnGrp LOS	A	A	B	E	A	A				E	A	
Approach Vol, veh/h		1376			1268						295	
Approach Delay, s/veh		13.3			9.5						60.8	
Approach LOS		B			A						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.5	94.4		20.1		109.9
Change Period (Y+Rc), s	5.5	6.5		6.5		6.5
Max Green Setting (Gmax), s	28.5	44.5		38.5		78.5
Max Q Clear Time (g_c+I1), s	9.4	41.3		12.6		2.0
Green Ext Time (p_c), s	0.3	2.5		1.0		15.7

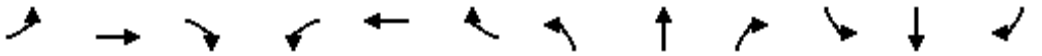
Intersection Summary		
HCM 6th Ctrl Delay		16.5
HCM 6th LOS		B

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
19: I-5 NB Ramps & Empire Ave

10/03/2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	791	0	0	661	374	554	1	325	0	0	0
Future Volume (veh/h)	77	791	0	0	661	374	554	1	325	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		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	1856	1856	0	0	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	80	824	0	0	689	357	578	0	131			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	249	2497	0	0	1325	686	678	0	301			
Arrive On Green	0.15	1.00	0.00	0.00	0.59	0.59	0.19	0.00	0.19			
Sat Flow, veh/h	3428	3618	0	0	2326	1156	3534	0	1568			
Grp Volume(v), veh/h	80	824	0	0	544	502	578	0	131			
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	1627	1767	0	1568			
Q Serve(g_s), s	2.7	0.0	0.0	0.0	23.6	23.6	20.5	0.0	9.6			
Cycle Q Clear(g_c), s	2.7	0.0	0.0	0.0	23.6	23.6	20.5	0.0	9.6			
Prop In Lane	1.00		0.00	0.00		0.71	1.00		1.00			
Lane Grp Cap(c), veh/h	249	2497	0	0	1046	965	678	0	301			
V/C Ratio(X)	0.32	0.33	0.00	0.00	0.52	0.52	0.85	0.00	0.44			
Avail Cap(c_a), veh/h	699	2497	0	0	1046	965	1020	0	452			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	52.7	0.0	0.0	0.0	15.5	15.6	50.8	0.0	46.3			
Incr Delay (d2), s/veh	0.3	0.3	0.0	0.0	1.8	2.0	4.6	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	1.2	0.1	0.0	0.0	9.6	8.9	9.5	0.0	3.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	0.3	0.0	0.0	17.4	17.6	55.4	0.0	47.3			
LnGrp LOS	D	A	A	A	B	B	E	A	D			
Approach Vol, veh/h		904			1046			709				
Approach Delay, s/veh		5.0			17.5			53.9				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		98.6			14.9	83.6		31.4				
Change Period (Y+Rc), s		6.5			5.5	6.5		6.5				
Max Green Setting (Gmax), s		79.5			26.5	47.5		37.5				
Max Q Clear Time (g_c+I1), s		2.0			4.7	25.6		22.5				
Green Ext Time (p_c), s		10.5			0.1	10.0		2.4				

Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	74	1845	45	58	1852
Future Vol, veh/h	0	74	1845	45	58	1852
Conflicting Peds, #/hr	0	0	0	7	7	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	80	1984	48	62	1991

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1023	0	0	2039	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	4.16	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	2.23	-
Pot Cap-1 Maneuver	0	231	-	-	269	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	229	-	-	267	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.9	0	0.7
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	229	267	-
HCM Lane V/C Ratio	-	-	0.347	0.234	-
HCM Control Delay (s)	-	-	28.9	22.5	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	1.5	0.9	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	243	67	46	393	33	89
Future Vol, veh/h	243	67	46	393	33	89
Conflicting Peds, #/hr	0	14	14	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	350	-	0	60
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	259	71	49	418	35	95

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	344	0	825	309
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	516	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1209	-	341	729
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	597	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1193	-	323	719
Mov Cap-2 Maneuver	-	-	-	-	323	-
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	573	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	323	719	-	-	1193	-
HCM Lane V/C Ratio	0.109	0.132	-	-	0.041	-
HCM Control Delay (s)	17.5	10.8	-	-	8.1	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	251	39	27	456	60	69
Future Vol, veh/h	251	39	27	456	60	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	273	42	29	496	65	75

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	315	0	848	294
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	554	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1240	-	330	743
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	574	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1240	-	322	743
Mov Cap-2 Maneuver	-	-	-	-	322	-
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	561	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	462	-	-	1240	-
HCM Lane V/C Ratio	0.304	-	-	0.024	-
HCM Control Delay (s)	16.2	-	-	8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	3	52	461	4	3	3
Future Vol, veh/h	3	52	461	4	3	3
Conflicting Peds, #/hr	0	0	0	7	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	57	501	4	3	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	512	0	-	0	573	510
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	63	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1048	-	-	-	479	561
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1041	-	-	-	471	557
Mov Cap-2 Maneuver	-	-	-	-	471	-
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	950	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1041	-	-	-	510
HCM Lane V/C Ratio	0.003	-	-	-	0.013
HCM Control Delay (s)	8.5	-	-	-	12.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0