



**DRAFT**

**MEMORANDUM**

**TO:** Wes Pringle, Los Angeles Department of Transportation

**FROM:** Sarah M. Drobis, P.E.  
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**DATE:** September 30, 2021

**RE:** Transportation Assessment for the  
Revised 6360 Hollywood Boulevard Project  
Hollywood, California

**Ref:** J1730a

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This memorandum presents an assessment of the 6360 Hollywood Boulevard mixed-use development (Project) located at 6360 Hollywood Boulevard (Project Site) in the Hollywood community of the City of Los Angeles (City). The Project's development program has been refined since the issuance of the Los Angeles Department of Transportation (LADOT) *Inter-Departmental Correspondence: Transportation Impact Assessment for the Proposed Hotel Development Project at 6360 Hollywood Boulevard (CEN19-48795)* (July 16, 2020) (LADOT Assessment Letter) for *Transportation Assessment for the 6360 Hollywood Boulevard Hotel Project* (Gibson Transportation Consulting, Inc., July 2020) (Approved Transportation Assessment).

The Project's potential transportation impacts in the Approved Transportation Assessment were evaluated in accordance with the adopted methodology and guidelines in effect at the time of the approval, *Transportation Assessment Guidelines* (LADOT, July 2019) (TAG). Since the issuance of the LADOT Assessment Letter, an update to the TAG was released in July 2020, which was further refined in *LADOT Transportation Assessment Guidelines Update* (LADOT, August 2021). The analysis presented in this memorandum was prepared in accordance with the latest TAG.

**APPROVED PROJECT**

The Approved Transportation Assessment reflected analysis of the Project land use program with 90 hotel rooms and approximately 11,000 square feet (sf) of restaurant space (Approved Project). The Approved Project would adaptively reuse the existing vacant building with the addition of six new stories. The Approved Transportation Assessment assumed full buildout of the Approved Project in Year 2022.

Parking for the Approved Project would be provided within an off-site parking facility. Operators would be on-site to facilitate valet operations from a loading zone provided along Cosmo Street. Pedestrian access to the Project would be provided along Hollywood Boulevard and Cosmo Street.

The trip generation estimates for the Approved Project were calculated using published rates from *Trip Generation Manual, 10<sup>th</sup> Edition* (Institute of Transportation Engineers, 2017). The application of *Trip Generation Manual, 10<sup>th</sup> Edition* rates is consistent with the study approach outlined in the Project Memorandum of Understanding, which was reviewed and approved by LADOT in November 2019. With the application of *Trip Generation Manual, 10<sup>th</sup> Edition* rates, the Approved Project was anticipated to generate 94 morning peak hour trips (54 inbound, 40 outbound) and 104 afternoon peak hour trips (60 inbound, 44 outbound).

The Approved Project would not result in any significant California Environmental Quality Act (CEQA) impacts, as was found to be consistent with the City's adopted plans, programs, ordinances, and policies, would not exceed the Area Planning Commission (APC) thresholds for vehicle miles traveled (VMT), and would not cause any geometric design hazards.

To further enhance safety adjacent to the Project Site, signage and pedestrian crossing improvements would be provided at the intersection of Cosmo Street & Hollywood Boulevard. The Project would upgrade the right-turn-only signage and pavement markings to reinforce the prohibition of northbound left turns at the intersection. Additionally, new continental crosswalk striping would replace the existing crosswalk striping on the southern leg of the intersection across Cosmo Street.

## **REVISED PROJECT**

The revised Project development program (Revised Project) would only include the adaptive reuse of the existing building for 57 hotel rooms and 11,310 sf of restaurant. No modifications would be made to the existing building height. Full buildout of the Revised Project is anticipated in Year 2023. Consistent with the Approved Project, parking for the Revised Project would continue to be provided within an off-site parking facility with valet attendants facilitating loading operations at the Project Site.

The conceptual site plan for the Revised Project is provided in Figure 1.

### **Trip Generation**

As shown in Table 1, the Revised Project would generate 84 morning peak hour trips (48 inbound, 36 outbound) and 88 afternoon peak hour trips (51 inbound, 37 outbound). Thus, the Revised Project would result in fewer total morning and afternoon peak hour trips than the Approved Project.

As previously detailed, parking at the off-site parking facilities would be fully operated by valet attendants who would facilitate loading operations at the Project Site. Consistent with the Approved Transportation Assessment, the off-site valet parking facility was assumed to be located at 1611 Cosmo Street, as illustrated in Figure 2. Although other parking facilities in the vicinity of the Project Site with similar capacity could also be utilized to meet the parking needs of the Revised Project, it is anticipated that the valet circulation patterns would be generally unchanged. Thus, the trip distribution patterns of the Revised Project would be consistent with the assumptions presented in the Approved Transportation Assessment. Figure 3 illustrates the

Revised Project-only traffic volumes at the five study intersections during typical weekday morning and afternoon peak hours.

Consistent with the evaluation presented in the Approved Transportation Assessment, a supplemental analysis of an alternate trip distribution pattern assuming a percentage of vehicles from the east would access Selma Avenue via Ivar Avenue was also prepared for informational purposes based on discussions with LADOT, as later discussed.

## **CEQA ANALYSIS OF TRANSPORTATION IMPACTS**

The Revised Project was evaluated for potential significant CEQA impacts consistent with the methodologies presented in the Approved Transportation Assessment.

### **Threshold T-1: Conflicting with Plans, Programs, Ordinances, Or Policies Analysis**

Threshold T-1 assesses whether a project would conflict with an adopted program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities.

Consistent with the Approved Project, the Revised Project would be designed to conform with the applicable programs, plans, ordinances, or policies identified in Table 2-1.1 of the TAG related to the circulation system, including transit, roadways, bicycles, and pedestrian facilities. The Revised Project would not preclude the City from implementing future improvements to serve the long-term mobility needs of the City. Therefore, the Revised Project would not result in a significant impact under Threshold T-1.

Further, consistent with the Approved Project, the Revised Project together with the Related Projects within 0.5 miles of the Project Site, included in Table 2 and shown in Figure 4, would not result in a cumulative impact that would preclude the City from serving the transportation needs as defined by the City's adopted programs, plans, ordinances, or policies.

### **Threshold T-2.1: Causing Substantial VMT Analysis**

Since the issuance of the LADOT Assessment Letter, LADOT has released *City of Los Angeles VMT Calculator Version 1.3* (LADOT, July 2020) (VMT Calculator). The VMT analysis presented below reflects estimates of project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits based on the latest VMT Calculator.

Consistent with the Approved Transportation Assessment, the latest TAG identifies a significant impact criteria of 6.0 household VMT per capita and 7.6 work VMT per employee for the Central APC.

**Revised Project VMT.** Based on guidance from the City, the VMT Calculator was modeled with the Revised Project's land use and density as the primary inputs. The Revised Project does not include residential units and, therefore, consistent with the Approved Project, the Revised Project

would not generate household VMT per capita and would not result in a significant household VMT impact.

In addition, the Revised Project's total restaurant use is less than 50,000 sf. Therefore, per the TAG, the total restaurant uses are considered local-serving and, thus, have a negligible impact on regional VMT, and a "no impact" determination can be made. However, for the purposes of providing a more conservative work VMT analysis, the restaurant uses were considered in the Revised Project work VMT analysis below as it is a component of the larger hotel development.

Consistent with the Approved Transportation Assessment, the VMT evaluation for the Revised Project accounted for following transportation demand management (TDM) strategies inherent to the Revised Project design that help reduce the number of single occupancy vehicle trips:

- Bicycle Parking per the Los Angeles Municipal Code (LAMC): Provision of short-term and long-term bicycle parking in accordance with LAMC requirements
- Pedestrian Network Improvements: Pedestrian improvements internal to the Project Site that encourage walking and that connect to off-site pedestrian facilities

As summarized in Table 3, with application of the above TDM strategies above, the VMT Calculator estimates that the Revised Project would generate 502 daily work VMT. Thus, the Revised Project would generate average work VMT per employee of 6.8 and would not exceed the Central Los Angeles APC significant work VMT impact threshold of 7.6. Therefore, the Revised Project would not result in a significant VMT impact, and no mitigation measures are required. The detailed output from the VMT Calculator is provided in Attachment A.

**Cumulative VMT Analysis.** As detailed in the TAG, for projects that do not demonstrate a project impact by applying an efficiency-based impact threshold (i.e., household VMT per capita, work VMT per employee) in the project impact analysis, a less than significant impact conclusion is sufficient in demonstrating there is no cumulative VMT impact, as those projects are already shown to align with the long-term VMT and greenhouse gas goals of *Connect SoCal – The 2020-2045 Regional Transportation Plan / Sustainable Communities Strategy* (Southern California Association of Governments, Adopted September 2020) (RTP/SCS). The Revised Project would not result in a significant VMT impact, as detailed above. Therefore, consistent with the Approved Project, the Revised Project would result in a less than significant cumulative VMT impact under Threshold 2.1-1. Furthermore, the Revised Project would also be designed to further reduce single occupancy trips to the Project Site through design features that encourage a variety of transportation options. The Revised Project would also contribute to the productivity and use of the regional transportation system by providing employment near transit, consistent with the RTP/SCS goal of maximizing mobility and accessibility in the region.

### **Threshold T-2.2: Substantially Inducing Additional Automobile Travel Analysis**

The intent of Threshold T-2.2 is to assess whether a transportation project would induce substantial VMT by increasing vehicular capacity on the roadway network, such as the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges.

Consistent with the Approved Project, the Revised Project is not a transportation project that would induce automobile travel. Therefore, further evaluation is not required, and the Revised Project would not result in a significant impact under Threshold T-2.2.

### **Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use Analysis**

Threshold T-3 requires that a project undergo further evaluation if it proposes new driveways or new vehicle access points to the property from the public right-of-way (ROW) or modifications along the public ROW (i.e., street dedications) to determine if the geometric design features would substantially increase safety, operational, or capacity hazards.

**Revised Project Consistency.** Consistent with the Approved Project, the Revised Project would provide a valet loading zone along Cosmo Street, with parking provided at an existing off-site surface parking lot. The valet loading zone would not present significant safety issues regarding traffic/pedestrian conflicts and would operate in accordance with LADOT standards. Pedestrian access to the Revised Project would be provided along Hollywood Boulevard and Cosmo Street. No additional access points are proposed as part of the Revised Project, and no unusual or new obstacles are presented in the design that would be considered hazardous to motorized vehicles, non-motorized vehicles, or pedestrians.

Based on the site plan review and design assumptions, the Revised Project does not present any geometric design hazards related to traffic movement, mobility, or pedestrian accessibility, and is considered less than significant.

**Cumulative Analysis.** Consistent with the Approved Transportation Assessment, there are currently no identified Related Projects proposed with access points along the same block of the Revised Project. Therefore, the Revised Project would not result in cumulative impacts that would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts.

## **NON-CEQA TRANSPORTATION ANALYSIS**

This section summarizes the non-CEQA transportation analysis of the Revised Project. The methodology utilized in this section is consistent with the methodology described in the Approved Transportation Assessment.

## **Operational Evaluation**

In accordance with the TAG, the intersection delay and queue analyses for the operational evaluation were conducted using the *Highway Capacity Manual, 6<sup>th</sup> Edition* (Transportation Research Board, 2016) (HCM) methodology, which was implemented using Synchro software and signal timing worksheets from the agency of jurisdiction to analyze intersection operating conditions. The HCM signalized methodology calculates the average delay, in seconds, for each vehicle passing through the intersections, while the HCM unsignalized methodology calculates the control delay, in seconds, for individual approaches of an intersection. Table 4 presents a description of the level of service (LOS) categories, which range from excellent, nearly free-flow traffic at LOS A, to stop-and-go conditions at LOS F, for signalized and unsignalized intersections. Vehicle queue lengths were estimated using Synchro, which reports the 95<sup>th</sup> percentile queue length, in feet, for each approach lane. The reported queues are calculated using the HCM signalized and unsignalized intersection methodology.

LOS and queuing worksheets for each scenario are provided in Attachment B.

As previously noted, a supplemental analysis assuming an alternate trip distribution pattern that accessed Selma Avenue via Vine Street was also prepared for informational purposes based on discussions with LADOT and is provided in Attachment C. As further detailed in Attachment C, the alternate trip distribution would have a nominal effect on the delay and queue length conclusions further detailed below.

## **Existing with Revised Project Conditions**

**Traffic Volumes.** The Revised Project-only morning and afternoon peak hour traffic volumes, described above and shown in Figure 3, were added to the existing morning and afternoon peak hour traffic volumes shown in Figure 5. The resulting volumes are illustrated in Figure 6 and represent Existing with Revised Project Conditions, assuming Revised Project operation under Existing Conditions.

**Intersection LOS.** Table 5 summarizes the weekday morning and afternoon peak hour LOS results for each of the study intersections under Existing and Existing with Revised Project Conditions. As shown in Table 5, all five of the study intersections would operate at LOS B or better during both the morning and afternoon peak hours under Existing and Existing with Revised Project Conditions.

## **Future with Revised Project Conditions**

The Future Conditions analysis was updated to reflect Year 2023 conditions to correspond to the anticipated buildout year of the Revised Project.

To provide a conservative estimate of future background conditions, this analysis used the 1.00% annual growth specified by LADOT, compounded annually to the existing traffic volumes, to simulate Year 2023 traffic volumes. The total adjustment applied over the four-year period was 4.06%. This growth factor accounts for increases in traffic due to potential projects not yet proposed and projects located outside the Study Area.

In accordance with the CEQA Guidelines, the non-CEQA operational analysis considered the effects of the Revised Project in relation to the Related Projects. The list of Related Projects was updated to include information provided by Los Angeles Department of City Planning and LADOT in September 2021. The Related Projects are detailed in Table 2 and their approximate locations are shown in Figure 4. The trip generation estimates for the Related Projects were assigned to the local street system, and Figure 7 shows the peak hour traffic volumes associated with these Related Projects at the study intersections.

**Traffic Volumes.** The Related Projects volumes were added to the Existing Conditions traffic volumes with ambient growth through the projected Revised Project buildout in Year 2023 and represent the Future without Revised Project Conditions. The Future without Revised Project Conditions traffic volumes at the study intersections are shown in Figure 8.

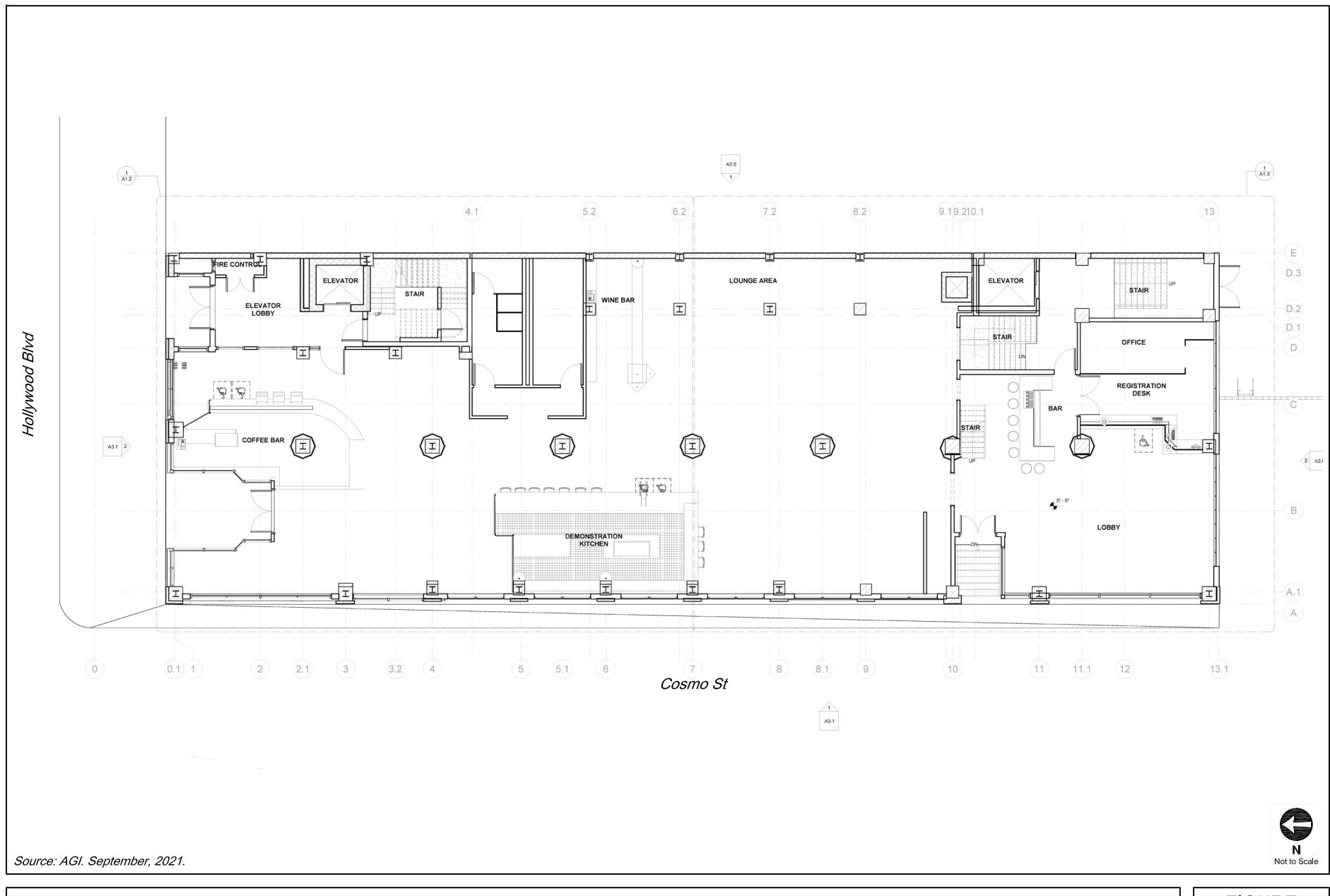
The Project-only morning and afternoon peak hour traffic volumes, described above and shown in Figure 3, were added to the Future without Revised Project morning and afternoon peak hour traffic volumes shown in Figure 8. The resulting volumes are illustrated in Figure 9 and represent Future with Revised Project Conditions after occupancy of the Revised Project in Year 2023.

**Intersection LOS.** Table 6 summarizes the results of the Future without Revised Project and Future with Revised Project Conditions during the weekday morning and afternoon peak hours for the study intersections. As shown in Table 6, all five of the study intersections would operate at LOS D or better during both the morning and afternoon peak hours under Future without Revised Project and Future with Revised Project Conditions.

## CONCLUSIONS

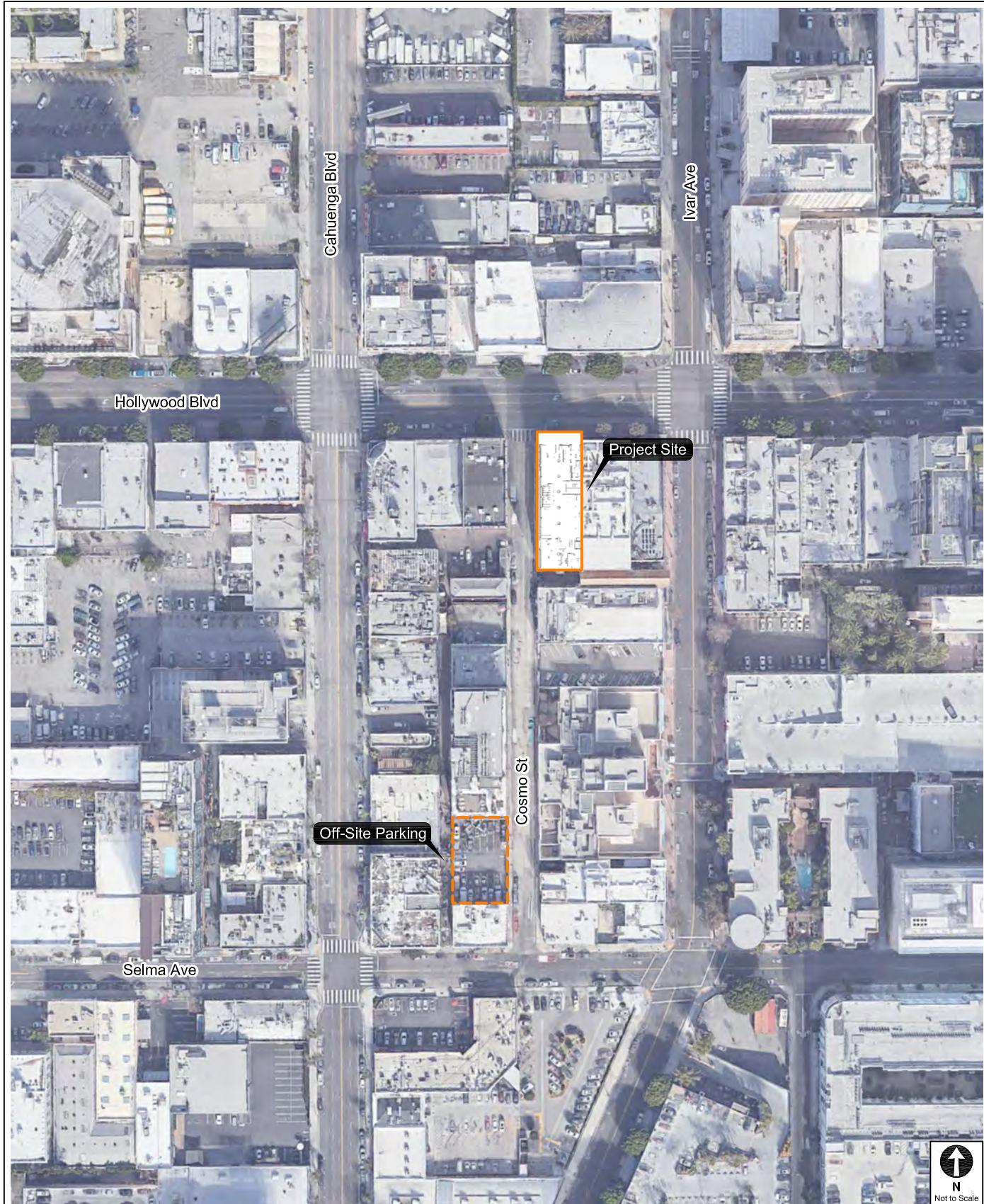
The Revised Project is consistent with the City's plans, programs, ordinances, and policies and would not generate significant VMT impacts nor geometric design hazard impacts. Therefore, no mitigation measures would be required. Furthermore, the Revised Project would generate fewer trips than the Approved Project. Although the anticipated buildout has been extended to Year 2023, the Revised Project would not result in any adverse operational conditions that would require further improvements.

Therefore, the conclusions and findings of this analysis are consistent with the Approved Transportation Assessment.



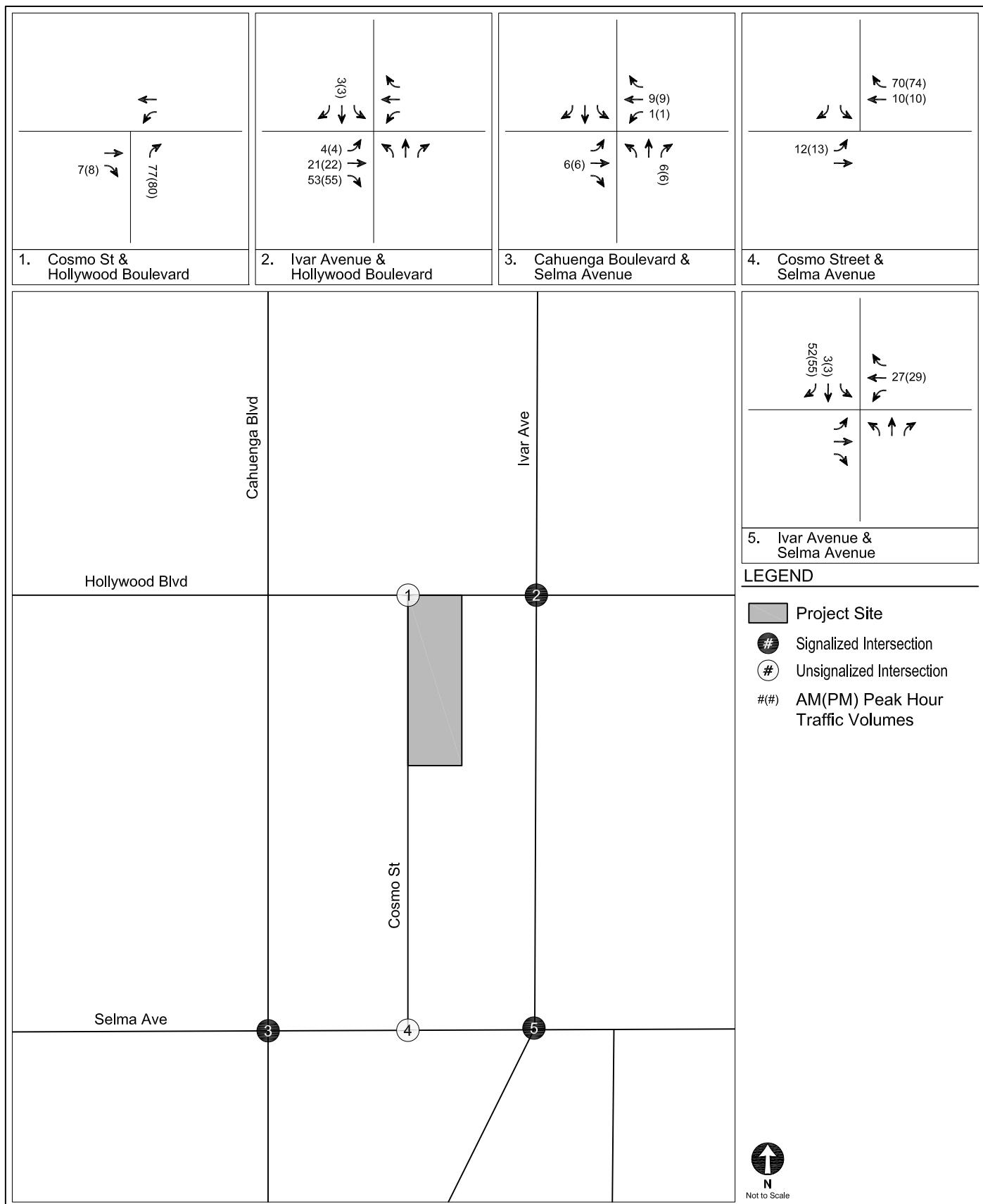
REVISED PROJECT SITE PLAN

FIGURE  
1



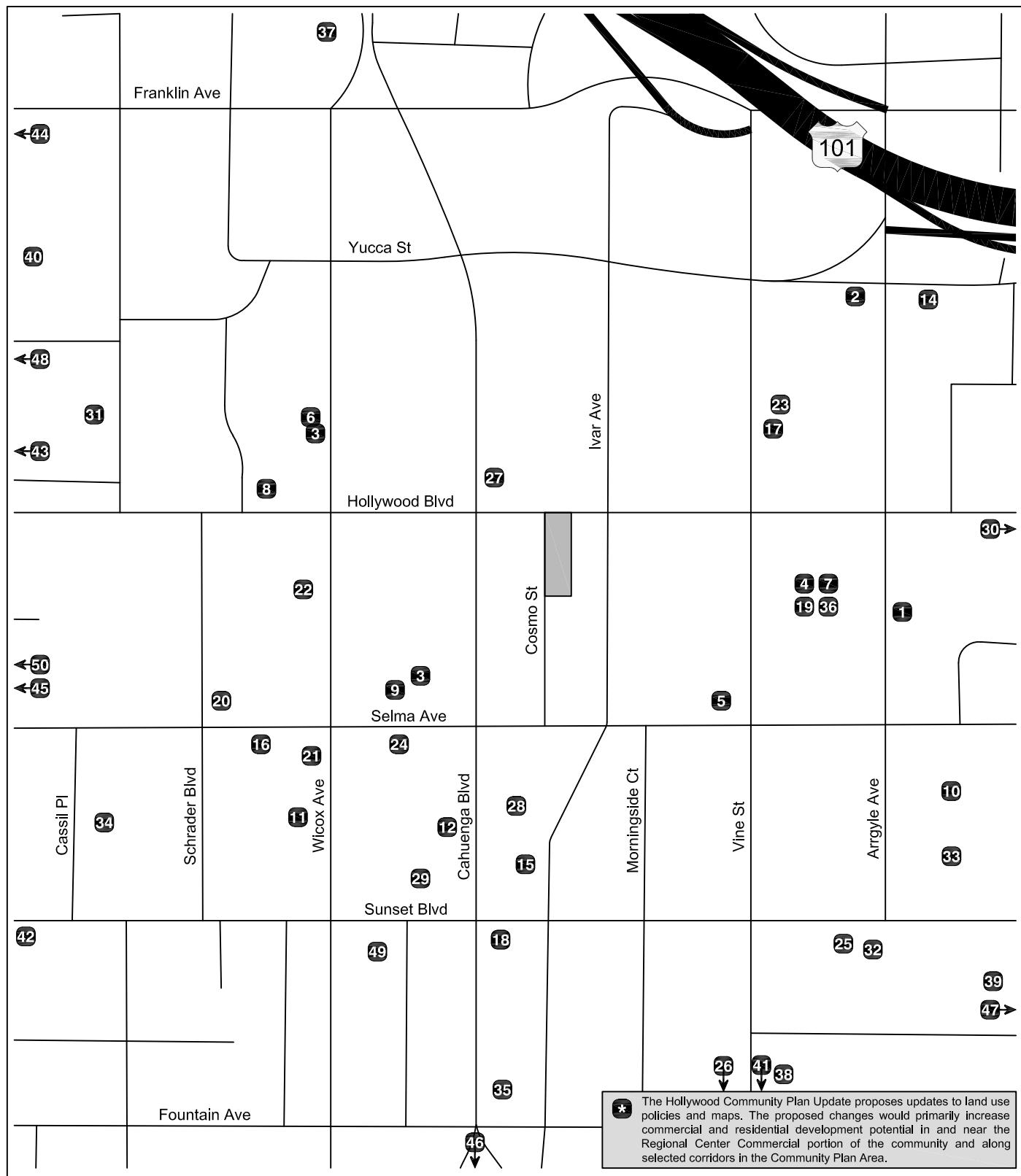
PROJECT SITE LOCATION

FIGURE  
2



REVISED PROJECT-ONLY  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
3

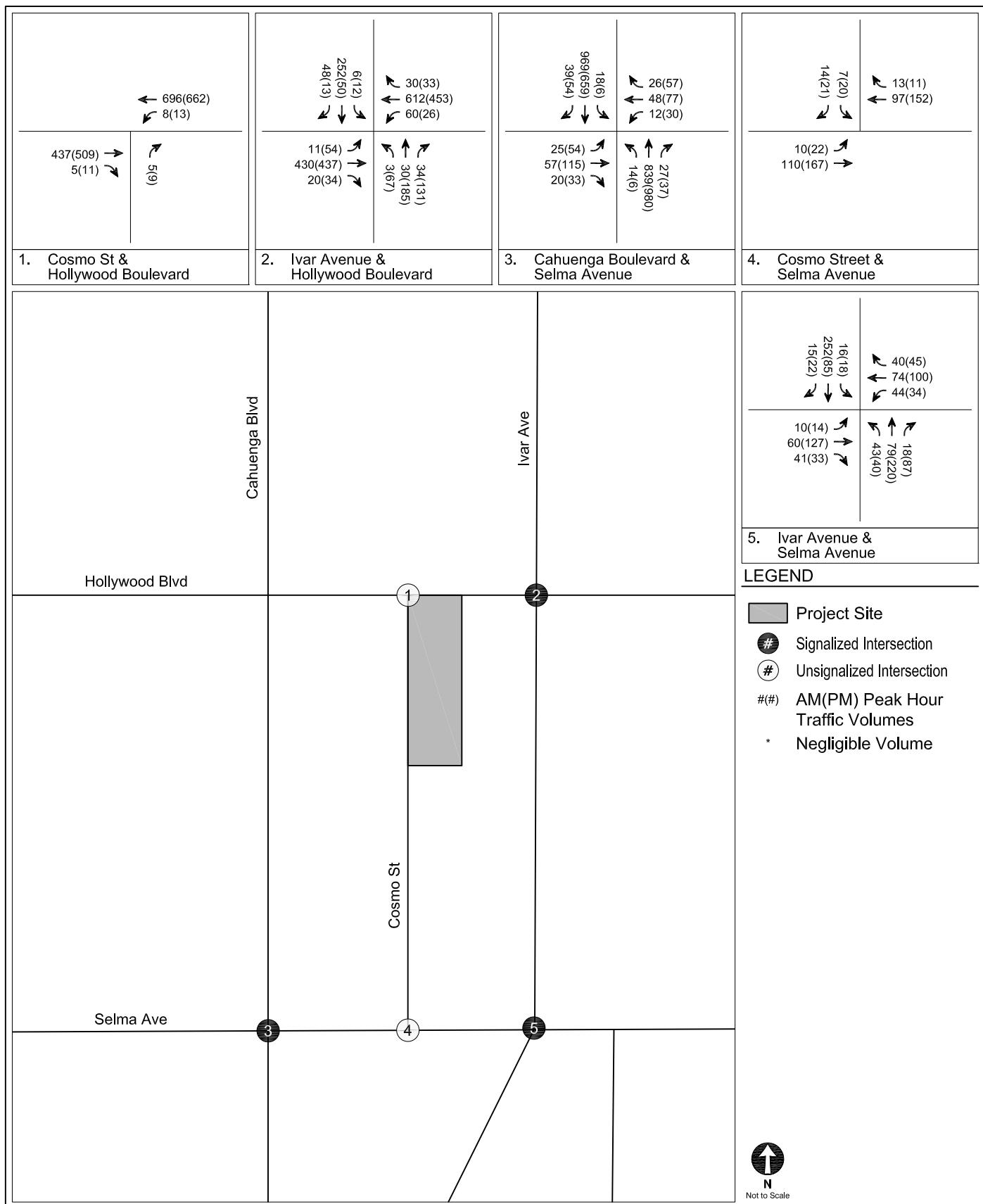

**LEGEND**

 Project Site     Related Project

  
N  
Not to Scale

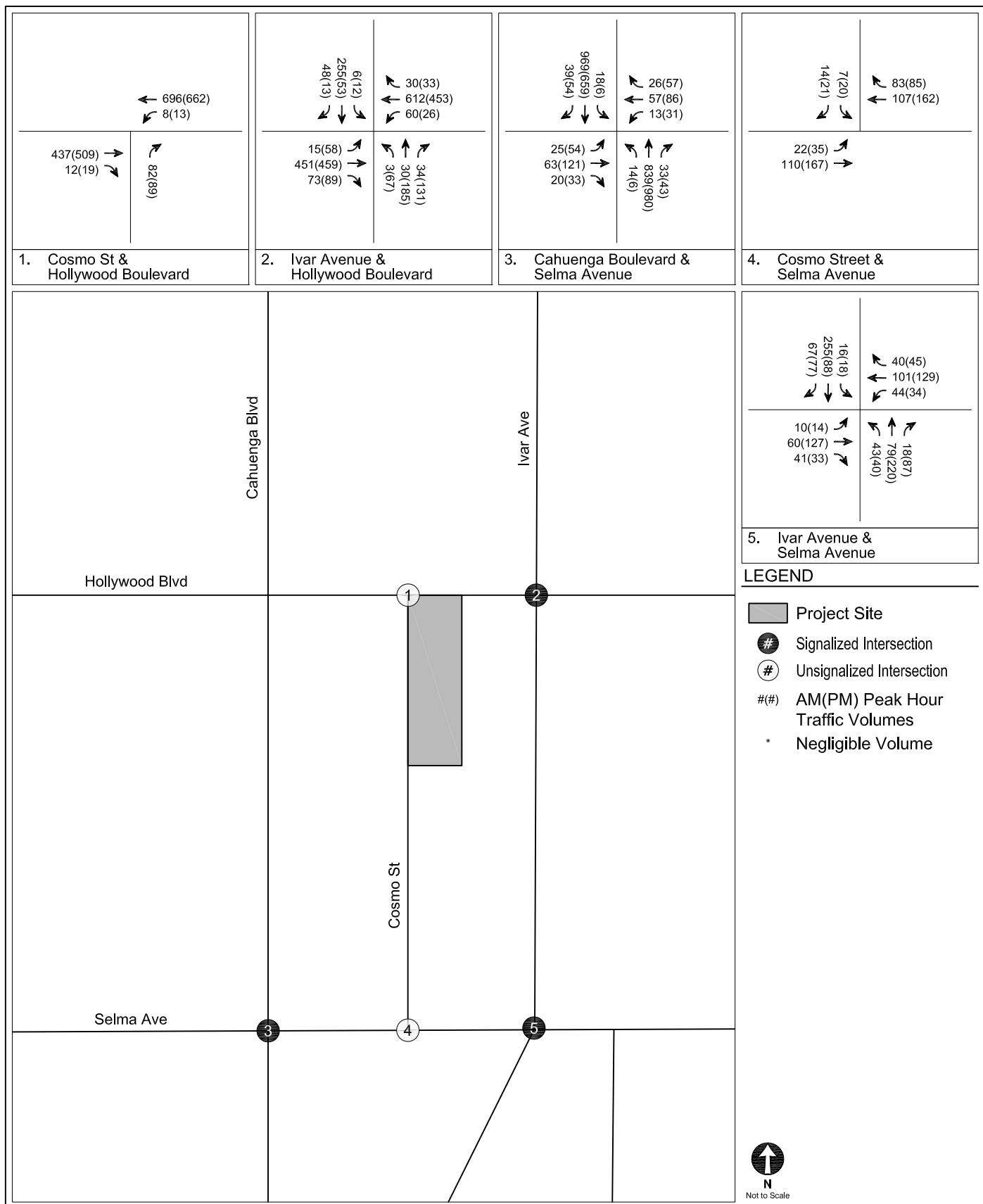
LOCATIONS OF RELATED PROJECTS

FIGURE  
4



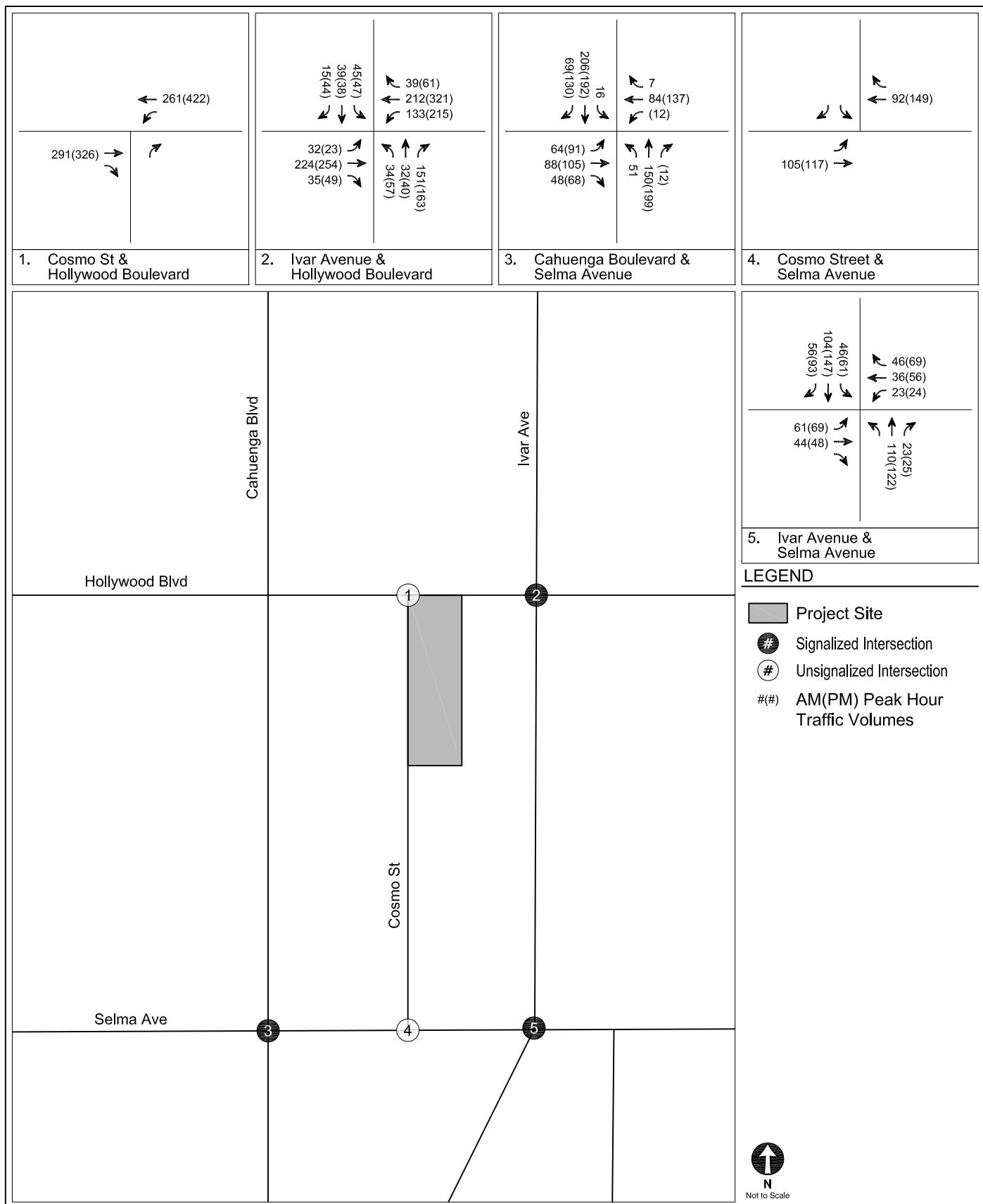
EXISTING CONDITIONS (YEAR 2019)  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
5



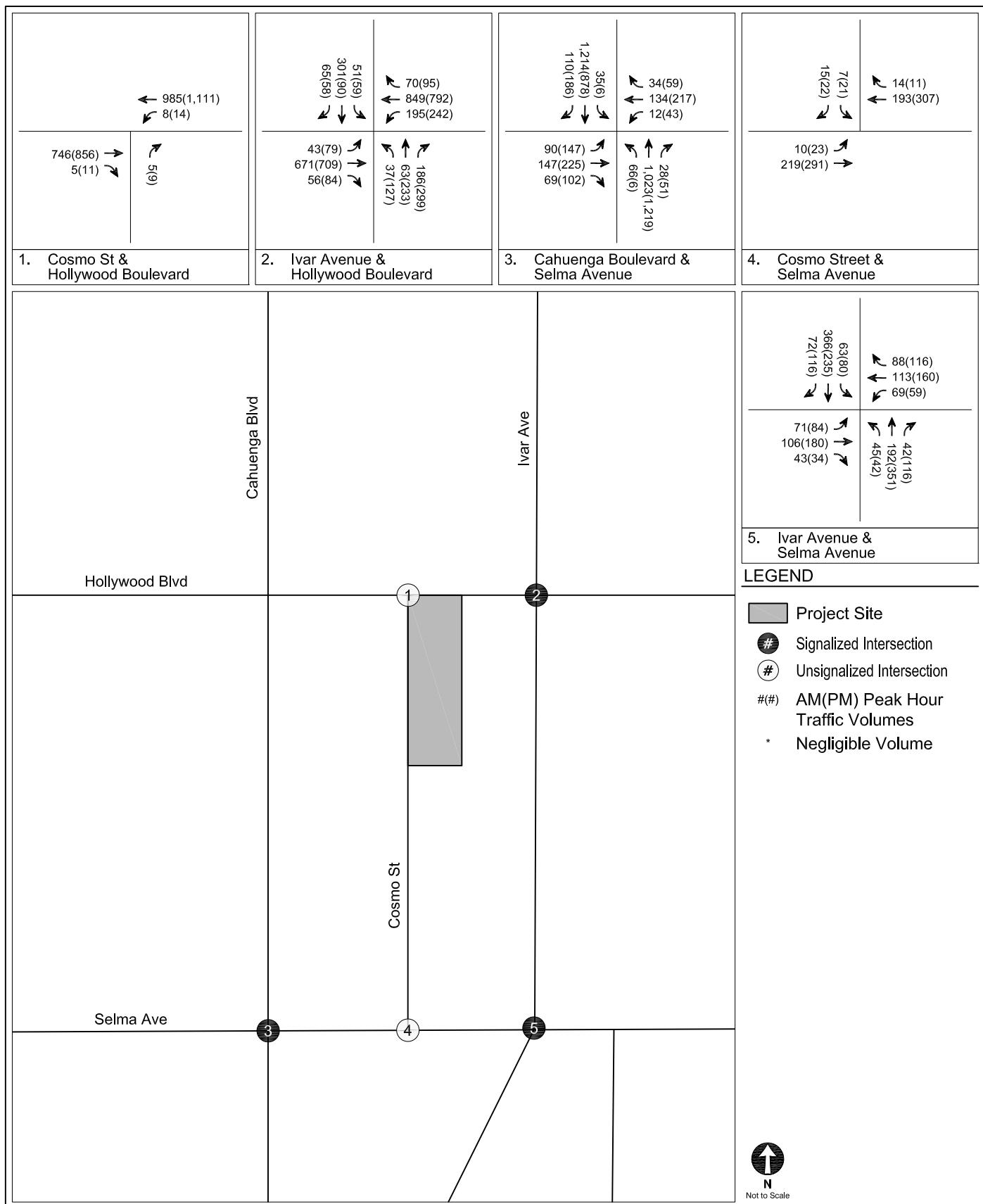
EXISTING WITH REVISED PROJECT CONDITIONS (YEAR 2019)  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
6



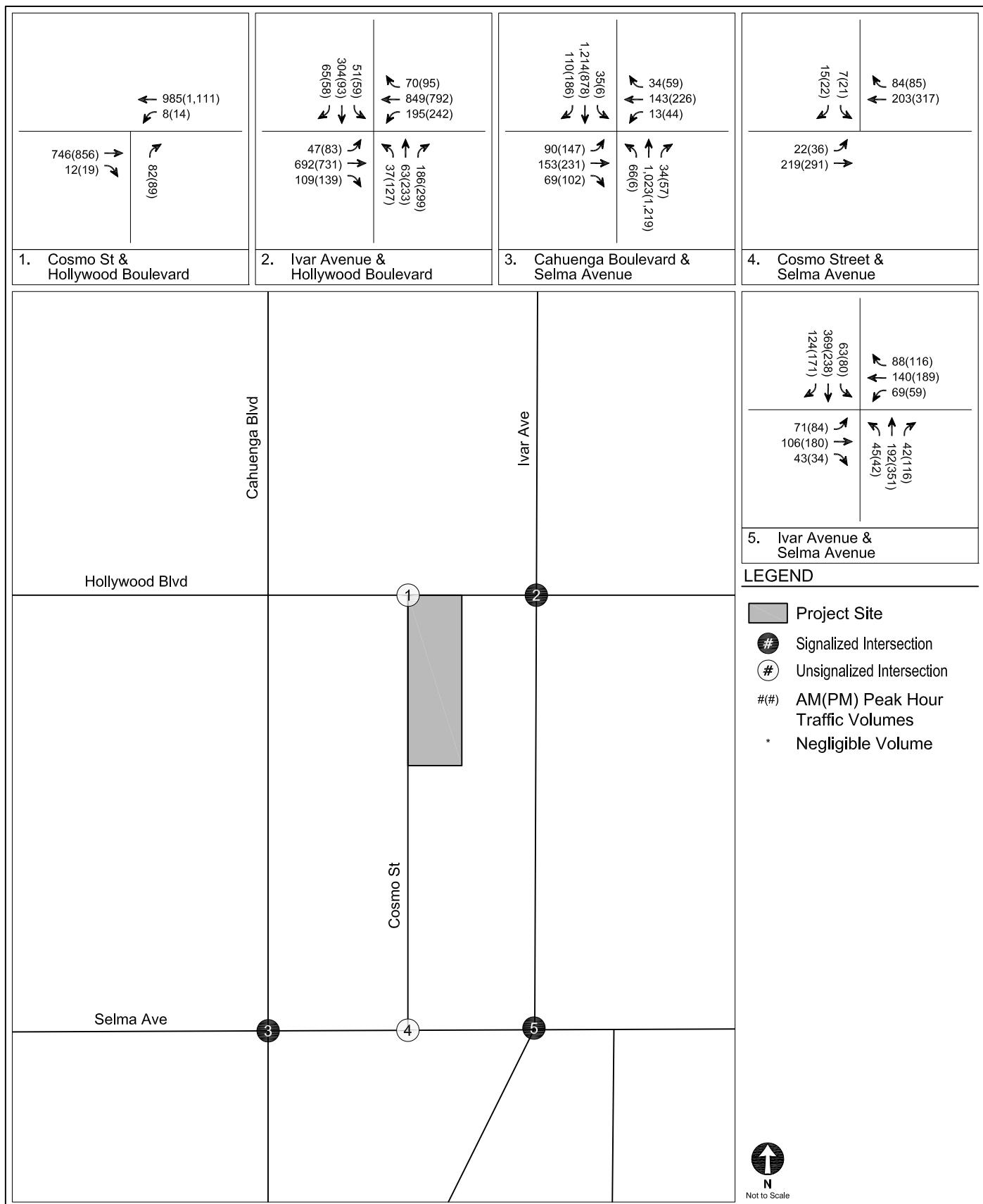
RELATED PROJECT-ONLY  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
7



FUTURE WITHOUT REVISED PROJECT CONDITIONS (YEAR 2023)  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
8



FUTURE WITH REVISED PROJECT CONDITIONS (YEAR 2023)  
PEAK HOUR TRAFFIC VOLUMES

FIGURE  
9

**TABLE 1**  
**TRIP GENERATION ESTIMATES**  
**REVISED PROJECT**

| Land Use                                     | Size         | Morning Peak Hour                     |                                       |  | Afternoon Peak Hour                   |                                      |  |
|--|--------------|---------------------------------------|---------------------------------------|--|---------------------------------------|--------------------------------------|--|
|  |              | In                                    | Out                                   | Total                                    | In                                    | Out                                  | Total                                    |
| <b>Trip Generation Rates [a]</b>             |              |                                       |                                       |  |                                       |                                      |  |
| Hotel (ITE 310)                              | per room     | 59%                                   | 41%                                   | 0.47                                     | 51%                                   | 49%                                  | 0.60                                     |
| High-Turnover Restaurant (ITE 932)           | per 1,000 sf | 55%                                   | 45%                                   | 9.94                                     | 62%                                   | 38%                                  | 9.77                                     |
| <b>Proposed Revised Project [b]</b>          |              |                                       |                                       |  |                                       |                                      |  |
| Hotel  | 57 rooms     | 16<br>(2)<br><b>14</b>                | 11<br>(2)<br><b>9</b>                 | 27<br>(4)<br><b>23</b>                   | 17<br>(3)<br><b>14</b>                | 17<br>(3)<br><b>14</b>               | 34<br>(6)<br><b>28</b>                   |
| Less 15% Transit/Walk Reduction [c]          |              |                                       |                                       |  |                                       |                                      |  |
| <b>Subtotal - Hotel</b>                      |              |                                       |                                       |  |                                       |                                      |  |
| Restaurant [d]                               | 11,310 sf    | 62<br>(12)<br>(8)<br>(8)<br><b>34</b> | 50<br>(10)<br>(6)<br>(7)<br><b>27</b> | 112<br>(22)<br>(14)<br>(15)<br><b>61</b> | 68<br>(14)<br>(8)<br>(9)<br><b>37</b> | 42<br>(8)<br>(5)<br>(6)<br><b>23</b> | 110<br>(22)<br>(13)<br>(15)<br><b>60</b> |
| Less 20% Internal Capture Reduction [e]      |              |                                       |                                       |  |                                       |                                      |  |
| Less 15% Transit/Walk Reduction [b]          |              |                                       |                                       |  |                                       |                                      |  |
| Less 20% Pass-By Reduction [f]               |              |                                       |                                       |  |                                       |                                      |  |
| <b>Subtotal - Restaurant</b>                 |              |                                       |                                       |  |                                       |                                      |  |
| <b>Total - Net New Revised Project Trips</b> |              | <b>48</b>                             | <b>36</b>                             | <b>84</b>                                | <b>51</b>                             | <b>37</b>                            | <b>88</b>                                |

Notes

[a] Source: *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017.

[b] The site plan and land use program could be further refined through the entitlement process. However, the Project reflects the maximum building envelope to provide a conservative analysis.

[c] Per LADOT's *Transportation Assessment Guidelines* (LADOT, July 2020), the Project Site is located within a 0.25 miles walking distance from a transit station (Metro B Line Hollywood / Vine Station), therefore a 15% transit reduction was applied to account for transit usage and walking visitor arrivals from the surrounding neighborhoods and adjacent commercial developments, and for arrivals via taxi, tour bus, and carpool services.

[d] Hotel trip rates includes ancillary conference/meeting rooms, a lobby lounge and bar, rooftop bar and lounge, guest amenities, as well as retail and restaurant space. However, the restaurant/lounge area within the hotel was conservatively analyzed separately.

[e] Internal capture reductions account for person trips made between distinct land uses within a mixed-use development (e.g., hotel guests visiting the restaurant use).

[f] Pass-by reductions account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

TABLE 2  
RELATED PROJECTS

| ID    | Name                                      | Address                    | Description   | Trip Generation [a] |                         |     |       |                           |     |       |
|-------|---|----------------------------|---|---------------------|-------------------------|-----|-------|---------------------------|-----|-------|
|       |   |                            |   | Daily Trips         | Morning Peak Hour Trips |     |       | Afternoon Peak Hour Trips |     |       |
|       |   |                            |   |                     | In                      | Out | Total | In                        | Out | Total |
| 1 [b] | BLVD 6200 Mixed-Use                       | 6200 W Hollywood Blvd      | 28 JLWQ Units, 1,014 apartment units and 175,000 sf retail (Phase 1 Complete)           | 2,816               | 41                      | 103 | 143   | 133                       | 109 | 242   |
| 2     | Yucca Street Condos                       | 6230 W Yucca St            | 114 apartment units and 2,697 sf commercial   | 473                 | 5                       | 27  | 32    | 26                        | 12  | 38    |
| 3     | Selma Hotel                               | 6417 W Selma Ave           | 180 hotel rooms and 12,840 sf restaurant  | 1,849               | 6                       | 4   | 10    | 61                        | 59  | 120   |
| 4     | Pantages Theater Office                   | 6225 W Hollywood Blvd      | 210,000 sf office   | 1,918               | 243                     | 33  | 276   | 43                        | 411 | 254   |
| 5 [b] | Selma & Vine Office Project               | 1601 N Vine St             | 100,386 sf office and 2,012 sf commercial   | 1,239               | 155                     | 27  | 182   | 39                        | 145 | 184   |
| 6     | 1723 N Wilcox Residential                 | 1723 N Wilcox Ave          | 81-room hotel and 2,236 sf restaurant   | 634                 | 25                      | 15  | 40    | 25                        | 24  | 49    |
| 7     | Hotel & Restaurant Project                | 6381 W Hollywood Blvd      | 80 hotel rooms and 15,290 sf restaurant   | 1,020               | -19                     | 11  | -8    | 62                        | 4   | 66    |
| 8     | Hudson Building                           | 6523 W Hollywood Blvd      | 10,402 sf restaurant, 4,074 sf of office and 890 sf of storage                          | 547                 | -16                     | -11 | -27   | 32                        | 4   | 36    |
| 9     | Selma - Wilcox Hotel                      | 6421 W Selma Ave           | 114 hotel rooms and 1,993 sf restaurant   | 1,227               | 43                      | 27  | 70    | 56                        | 44  | 100   |
| 10    | Modera Argyle                             | 1546 N Argyle Ave          | 276 apartment units, 9,000 sf retail and 15,000 sf restaurant                           | 2,013               | 43                      | 127 | 170   | 128                       | 51  | 179   |
| 11    | Sunset + Wilcox                           | 1541 N Wilcox Ave          | 200 hotel rooms and 9,000 sf restaurant   | 3,359               | 103                     | 80  | 183   | 147                       | 114 | 261   |
| 12    | Cahuenga Boulevard Hotel                  | 1525 N Cahuenga Blvd       | 64 hotel rooms, 700 sf rooftop restaurant/lounge and 3,300 sf restaurant                | 469                 | 13                      | 9   | 22    | 17                        | 17  | 34    |
| 13    | Wilcox Hotel                              | 1717 N Wilcox Ave          | 133 hotel rooms and 3,580 sf retail   | 1,244               | 54                      | 35  | 89    | 49                        | 43  | 92    |
| 14    | Mixed-Use                                 | 6220 W Yucca St            | 210 hotel rooms, 136 apartment units, 3,450 sf retail and 9,120 sf restaurant           | 2,652               | 88                      | 111 | 199   | 130                       | 85  | 215   |
| 15    | Ivar Gardens Hotel                        | 6409 W Sunset Blvd         | 275 hotel rooms and 1,900 sf retail   | 1,285               | 51                      | 26  | 77    | 53                        | 60  | 113   |
| 16    | Selma Hotel                               | 6516 W Selma Ave           | 212 rooms, 3,855 sf bar/lounge and 8,500 sf rooftop bar/event space                     | 2,241               | 71                      | 50  | 121   | 105                       | 84  | 189   |
| 17    | citizenM Hotel                            | 1718 Vine St               | 240 hotel rooms and 5,373 sf restaurant   | 1,101               | 58                      | 41  | 99    | 35                        | 42  | 77    |
| 18    | 6400 Sunset Mixed-Use                     | 6400 Sunset Blvd           | 200 apartment units and 7,000 sf restaurant   | 11                  | 14                      | 77  | 91    | 57                        | -6  | 51    |
| 19    | Hollywood & Wilcox                        | 6430-6440 W Hollywood Blvd | 260 apartment units, 3,580 sf office, 11,020 sf retail and 3,200 sf restaurant          | 1,625               | 23                      | 98  | 121   | 99                        | 44  | 143   |
| 20    | 1600 Schrader                             | 1600 Schrader Blvd         | 168-room hotel and 5,979 sf restaurant  | 1,666               | 58                      | 40  | 98    | 80                        | 63  | 143   |
| 21    | Citizen News                              | 1545 Wilcox Ave            | 16,100 sf flexible event space, 14,800 sf restaurant                                    | 2,341               | 36                      | 50  | 86    | 128                       | 47  | 175   |
| 22    | 1637 N Wilcox MU                          | 1637 Wilcox Ave            | 93 apartments, 61 affordable; 6,586 sf commercial                                       | 831                 | 20                      | 44  | 64    | 40                        | 27  | 67    |
| 23    | Hollywood Center MU (Formerly Millennium) | 1720 N Vine St             | 1005 Units (872 apartments, 133 affordable senior), 30,176 sf retail                    | 6,346               | 171                     | 290 | 461   | 368                       | 264 | 632   |
| 24    | Wilcox & Selma Residential Project        | 6422 W Selma Avenue        | 40 apartment units and 5 affordable housing units                                       | 126                 | -3                      | 10  | 7     | 9                         | -1  | 8     |
| 25    | Sunset Vine 2                             | 6262 W Sunset Boulevard    | 150 multi-family units and 13,130 sf restaurant   | 603                 | 11                      | 35  | 46    | 33                        | 22  | 55    |
| 26    | Academy Square                            | 1341 Vine St               | 285,719 sf office, 200 apartment units and 16,135 sf restaurant                         | 6,218               | 330                     | 164 | 494   | 152                       | 220 | 372   |
| 27    | 1708 Cahuenga                             | 1708 N Cahuenga Blvd       | 217,269 sf office/commercial  | 1,904               | 195                     | 31  | 226   | 36                        | 189 | 225   |
| 28    | Artisan Hollywood                         | 1520 N Cahuenga Blvd       | 243 residential units, 27 affordable housing units and 6,805 sf restaurant              | 1,143               | 34                      | 75  | 109   | 82                        | 40  | 122   |
| 29    | 6445 Sunset                               | 6445 Sunset Blvd           | 175 hotel rooms and 11,400 sf restaurant  | 1,409               | 77                      | 58  | 135   | 80                        | 61  | 141   |
| 30    | 6140 Hollywood                            | 6140 Hollywood Blvd        | 102 hotel rooms, 27 condominium units and 11,460 sf restaurant                          | 1,782               | 76                      | 62  | 138   | 78                        | 58  | 136   |
| 31    | 1719 Whitley Hotel                        | 1719 N Whitley Ave         | 156 hotel rooms   | 1,275               | 49                      | 34  | 83    | 48                        | 46  | 94    |
| 32    | 6250 Sunset (Nickelodeon)                 | 6250 W Sunset Blvd         | 200 apartment units and 4,700 sf retail   | 1,473               | 52                      | 80  | 132   | 71                        | 50  | 121   |
| 33    | Palladium Residences                      | 6201 W Sunset Blvd         | 731 apartment units (37 affordable), 24,000 sf of retail and restaurant uses            | 4,913               | 128                     | 228 | 356   | 234                       | 169 | 403   |
| 34    | Mixed-Use                                 | 1524-1538 N Cassil Pl      | 200 apartment units and 1,400 sf restaurant   | 1,081               | 22                      | 51  | 73    | 55                        | 34  | 89    |
| 35    | Godfrey Hotel                             | 1400 N Cahuenga Blvd       | 220 hotel rooms and 2,723 sf restaurant, 1,440 sf bar                                   | 1,875               | 55                      | 47  | 102   | 78                        | 60  | 138   |
| 36    | Hollywood Gower Mixed-Use                 | 6100 W Hollywood Blvd      | 220 apartment units and 3,270 sf restaurant   | 1,439               | 24                      | 76  | 100   | 86                        | 46  | 132   |
| 37    | Hotel                                     | 1921 Wilcox Ave            | 122 hotel rooms and 4,225 sf restaurant   | 1,233               | 34                      | 26  | 60    | 51                        | 40  | 91    |
| 38    | 1400 Vine                                 | 1400 Vine St               | 179 residential units, 19 affordable housing units and 16,000 sf restaurant             | 1,446               | 70                      | 93  | 163   | 97                        | 56  | 153   |
| 39    | 6200 W Sunset Boulevard                   | 6200 W Sunset Blvd         | 270 apartment units, 1,750 sf quality restaurant, 2,300 sf pharmacy and 8,070 sf retail | 1,778               | 26                      | 97  | 123   | 100                       | 35  | 135   |
| 40    | Residential                               | 1818 N Cherokee Ave        | 65 apartment units and 21 affordable housing units                                      | 397                 | 9                       | 21  | 30    | 20                        | 12  | 32    |

Notes

[a] Source: Related project information based on available information provided by LADOT and Department of City Planning on September 20, 2021, and recent studies in the area. The list includes developments within 0.5 miles of the Project Site, as suggested in the Transportation Assessment Guidelines, (LADOT, July 2020) .

[b] Although construction of the related project may be partially complete/entirely complete, the project was not fully occupied at the time traffic counts were conducted. Therefore, the related project was considered and listed to provide a more conservative analysis

TABLE 2  
RELATED PROJECTS

| ID                              | Name   | Address   | Description   | Trip Generation [a] |                         |     |       |                           |     |       |
|---------------------------------|--|---|---|---------------------|-------------------------|-----|-------|---------------------------|-----|-------|
|                                 |  |   |   | Daily Trips         | Morning Peak Hour Trips |     |       | Afternoon Peak Hour Trips |     |       |
|                                 |  |   |   |                     | In                      | Out | Total | In                        | Out | Total |
| 41                              | Onni Group Mixed-Use Development   | 1360 N Vine St  | 429 condominium units, 55,000 sf grocery, 5,000 sf retail and 8,988 sf of restaurant            | 3,533               | 278                     | 40  | 318   | 135                       | 337 | 472   |
| 42                              | 6630 W Sunset Boulevard  | 6630 W Sunset Blvd  | 40 apartment units  | 266                 | 4                       | 16  | 20    | 16                        | 9   | 25    |
| 43                              | Las Palmas Residential (Hollywood Cherokee)  | 1718 N Las Palmas Ave   | 224 residential units and 985 sf retail   | 1,333               | 21                      | 84  | 105   | 81                        | 43  | 124   |
| 44                              | Montecito Senior Housing   | 6650 W Franklin Ave   | 68 senior apartment units   | 234                 | 5                       | 9   | 14    | 9                         | 8   | 17    |
| 45                              | Apartments   | 1601 N Las Palmas Ave   | 202 apartment units (69 affordable)   | 562                 | 17                      | 48  | 65    | 41                        | 23  | 64    |
| 46                              | Mixed-Use  | 1310 N Cole Ave   | 369 apartment units and 2,570 sf office   | 2,226               | 20                      | 139 | 159   | 139                       | 58  | 197   |
| 47                              | Sunset Gower Studios   | 1438 N Gower St   | 169,400 sf sound stage, 52,800 sf production support, 852,830 sf office and 6,516 sf restaurant | 4,108               | 424                     | 67  | 491   | 77                        | 410 | 487   |
| 48                              | Apartments   | 1749 Las Palmas Ave   | 70 apartment units and 3,117 sf retail  | 147                 | 2                       | 9   | 11    | 9.1                       | 4.9 | 14    |
| 49                              | Sunset + Wilcox MU   | 6450 W Sunset Blvd  | 431,032 sf office, 12,386 sf restaurant   | 2,836               | 311                     | 50  | 361   | 93                        | 319 | 412   |
| 50                              | 6753 Selma MU  | 6753 Selma Ave  | 51 apartment units and 438 sf ground floor retail   | 286                 | 5                       | 13  | 18    | 14                        | 10  | 24    |
| <b>OTHER AREA-WIDE PROJECTS</b> |  |   |   |                     |                         |     |       |                           |     |       |
| Project                         | Description  | Extents   |   |                     |                         |     |       |                           |     |       |
| Hollywood Community Plan Update | The Hollywood Community Plan Update proposes updates to land use policies and the land use diagram. The proposed changes would primarily increase commercial and residential development potential in and near the Regional Center Commercial portion of the community and along selected corridors in the Community Plan Area. The decreases in development potential would be primarily focused on low to medium scale multi-family residential neighborhoods to conserve existing density and intensity of those neighborhoods. The projected population growth has been captured in the conservative ambient growth rate assumed in the Future analysis. | South of City of Burbank, City of Glendale, and SR 134; west of Interstate 5; north of Melrose Avenue; south of Mulholland Drive, City of West Hollywood, Beverly Hills, including land south of the City of West Hollywood and north of Rosewood Avenue between La Cienega Boulevard and La Brea Avenue. |   |                     |                         |     |       |                           |     |       |

Notes

[a] Source: Related project information based on available information provided by LADOT and Department of City Planning on September 20, 2021, and recent studies in the area. The list includes developments within 0.5 miles of the Project Site, as suggested in the Transportation Assessment Guidelines, (LADOT, July 2020) .

[b] Although construction of the related project may be partially complete/entirely complete, the project was not fully occupied at the time traffic counts were conducted. Therefore, the related project was considered and listed to provide a more conservative analysis

**TABLE 3**  
**VMT ANALYSIS SUMMARY**

| <b>Revised Project Information</b>         |                     |
|--|---------------------|
| <b>Land Use</b>                            | <b>Size</b>         |
| Housing   Hotel                            | 57 rooms            |
| Retail   High-Turnover Sit-Down Restaurant | 11,310 sf           |
| <b>Revised Project Analysis [a]</b>        |                     |
| Project Area Planning Commission           | Central Los Angeles |
| Travel Behavior Zone                       | Urban               |
| Maximum Allowable VMT Reduction            | 75%                 |
| <b>VMT Analysis [b]</b>                    |                     |
| Daily Vehicle Trips                        | 913                 |
| Daily VMT                                  | 6,135               |
| Household VMT per Capita [c]               | -                   |
| Impact Threshold                           | 6.0                 |
| Significant Impact                         | -                   |
| Work VMT per Employee [d]                  | 6.8                 |
| Impact Threshold                           | 7.6                 |
| Significant Impact                         | NO                  |

Notes

[a] Revised Project Analysis based on the *City of Los Angeles VMT Calculator Version 1.3* (July 2020).

[b] Revised Project design features include:

1. Bicycle parking per LAMC requirements
2. Pedestrian network improvements within project and connecting off-site

[c] Based on home-based production trips only (see Attachment A, Report 4).

[d] Based on home-based work attraction trips only (see Attachment A, Report 4).

**TABLE 4**  
**LEVEL OF SERVICE DEFINITIONS FOR INTERSECTIONS**

| Level of Service | Definition  | Delay [a]                |                            |
|------------------|---|--------------------------|----------------------------|
|                  |   | Signalized Intersections | Unsignalized Intersections |
| A                | EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.  | 0.0 - 10.0               | 0.0 - 10.0                 |
| B                | VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.  | 10.1 - 20.0              | 10.1 - 15.0                |
| C                | GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.   | 20.1 - 35.0              | 15.1 - 25.0                |
| D                | 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.                            | 35.1 - 55.0              | 25.1 - 35.0                |
| E                | POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.  | 55.1 - 80.0              | 35.1 - 50.0                |
| F                | 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. | > 80.0                   | > 50.0                     |

Notes

Source: *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016).

[a] Measured in seconds.

**TABLE 5**  
**EXISTING CONDITIONS (YEAR 2019)**  
**INTERSECTION LEVELS OF SERVICE**

| No        | Intersection                       | Peak Hour | Existing Conditions |     | Existing with Revised Project Conditions |     |
|-----------|------------------------------------|-----------|---------------------|-----|--|-----|
|           |                                    |           | Delay               | LOS | Delay                                    | LOS |
| 1.<br>[a] | Cosmo Street & Hollywood Boulevard | AM        | 9.8                 | A   | 10.4                                     | B   |
|           |                                    | PM        | 11.3                | B   | 11.1                                     | B   |
| 2.        | Ivar Avenue & Hollywood Boulevard  | AM        | 13.3                | B   | 13.1                                     | B   |
|           |                                    | PM        | 13.6                | B   | 13.5                                     | B   |
| 3.        | Cahuenga Boulevard & Selma Avenue  | AM        | 5.4                 | A   | 5.7                                      | A   |
|           |                                    | PM        | 9.6                 | A   | 9.9                                      | A   |
| 4.<br>[a] | Cosmo Street & Selma Avenue        | AM        | 9.3                 | A   | 9.7                                      | A   |
|           |                                    | PM        | 10.4                | B   | 11.0                                     | B   |
| 5.        | Ivar Avenue & Selma Avenue         | AM        | 8.9                 | A   | 9.0                                      | A   |
|           |                                    | PM        | 10.5                | B   | 10.2                                     | B   |

Notes

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 10 (HCM 6th Edition methodology)

[a] Worst-case approach delay is reported for two-way stop-controlled intersections.

**TABLE 6**  
**FUTURE CONDITIONS (YEAR 2023)**  
**INTERSECTION LEVELS OF SERVICE**

| No        | Intersection                       | Peak Hour | Future without Revised Project Conditions |     | Future with Revised Project Conditions |     |
|-----------|------------------------------------|-----------|---|-----|--|-----|
|           |                                    |           | Delay                                     | LOS | Delay                                  | LOS |
| 1.<br>[a] | Cosmo Street & Hollywood Boulevard | AM        | 11.1                                      | B   | 12.2                                   | B   |
|           |                                    | PM        | 15.5                                      | B   | 13.9                                   | B   |
| 2.        | Ivar Avenue & Hollywood Boulevard  | AM        | 18.4                                      | B   | 18.8                                   | B   |
|           |                                    | PM        | 36.4                                      | D   | 39.9                                   | D   |
| 3.        | Cahuenga Boulevard & Selma Avenue  | AM        | 11.6                                      | B   | 12.0                                   | B   |
|           |                                    | PM        | 16.0                                      | B   | 16.3                                   | B   |
| 4.<br>[a] | Cosmo Street & Selma Avenue        | AM        | 10.3                                      | B   | 10.8                                   | B   |
|           |                                    | PM        | 12.8                                      | B   | 13.8                                   | B   |
| 5.        | Ivar Avenue & Selma Avenue         | AM        | 8.8                                       | A   | 8.6                                    | A   |
|           |                                    | PM        | 14.5                                      | B   | 15.0                                   | B   |

Notes

Delay is measured in seconds per vehicle

LOS = Level of service

Results per Synchro 10 (HCM 6th Edition methodology)

[a] Worst-case approach delay is reported for two-way stop-controlled intersections.

***Attachment A***

***VMT Calculator Worksheets***

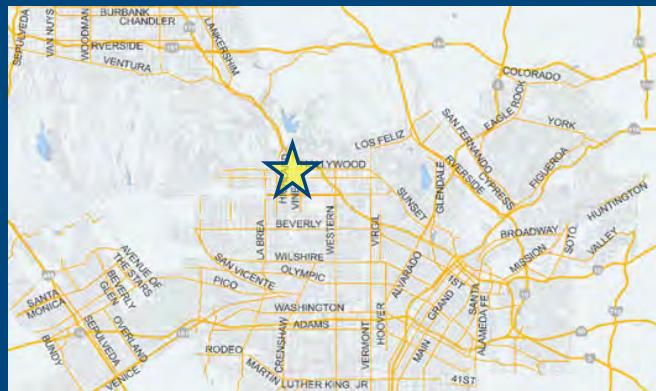
# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



*Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?*

## Project Information

|           |                              |
|-----------|------------------------------|
| Project:  | 6300 Hollywood               |
| Scenario: | Refined Project              |
| Address:  | 6300 W HOLLYWOOD BLVD, 90028 |



**Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?**

Yes     No

## Existing Land Use

| Land Use Type           | Value | Unit | +/- |
|-------------------------|-------|------|-----|
| Housing   Single Family |       | DU   |     |

Click here to add a single custom land use type (will be included in the above list)

## Proposed Project Land Use

| Land Use Type                              | Value | Unit  | +/- |
|--|-------|-------|-----|
| Retail   High-Turnover Sit-Down Restaurant | 11.31 | ksf   |     |
| Housing   Hotel                            | 57    | Rooms |     |
| Retail   High-Turnover Sit-Down Restaurant | 11.31 | ksf   |     |

Click here to add a single custom land use type (will be included in the above list)

## Project Screening Summary

| Existing Land Use        | Proposed Project           |
|--------------------------|----------------------------|
| 0<br>Daily Vehicle Trips | 938<br>Daily Vehicle Trips |
| 0<br>Daily VMT           | 6,299<br>Daily VMT         |

### Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station.

### Tier 2 Screening Criteria

The net increase in daily trips < 250 trips **938**  
Net Daily Trips

The net increase in daily VMT ≤ 0 **6,299**  
Net Daily VMT

The proposed project consists of only retail land uses ≤ 50,000 square feet total. **11.310**  
ksf

**The proposed project is required to perform VMT analysis.**

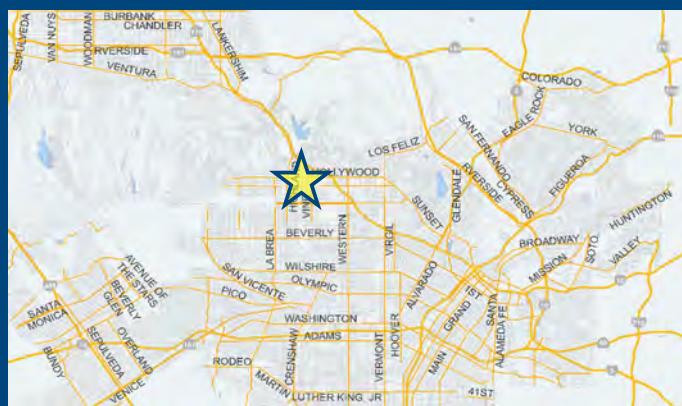


# CITY OF LOS ANGELES VMT CALCULATOR Version 1.3



## Project Information

**Project:** 6300 Hollywood  
**Scenario:** Refined Project  
**Address:** 6300 W HOLLYWOOD BLVD, 90028



| Proposed Project Land Use Type             | Value | Unit  |
|--|-------|-------|
| Housing   Hotel                            | 57    | Rooms |
| Retail   High-Turnover Sit-Down Restaurant | 11.31 | ksf   |

## TDM Strategies

Select each section to show individual strategies  
 Use  to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

**Max Home Based TDM Achieved?**

Proposed Project

With Mitigation

No

**Max Work Based TDM Achieved?**

No

No

**A** Parking

**B** Transit

**C** Education & Encouragement

**D** Commute Trip Reductions

**E** Shared Mobility

**F** Bicycle Infrastructure

**G** Neighborhood Enhancement

Traffic Calming Improvements

percent of streets within project with traffic calming improvements

Proposed Prj     Mitigation

percent of intersections within project with traffic calming improvements

Pedestrian Network Improvements

within project and connecting off-site

Proposed Prj     Mitigation

## Analysis Results

| Proposed Project         | With Mitigation          |
|--------------------------|--------------------------|
| 913                      | 913                      |
| Daily Vehicle Trips      | Daily Vehicle Trips      |
| 6,135                    | 6,135                    |
| Daily VMT                | Daily VMT                |
| 0.0                      | 0.0                      |
| Household VMT per Capita | Household VMT per Capita |
| 6.8                      | 6.8                      |
| Work VMT per Employee    | Work VMT per Employee    |

## Significant VMT Impact?

| Household: No                                | Household: No                                |
|--|--|
| Threshold = 6.0<br>15% Below APC             | Threshold = 6.0<br>15% Below APC             |
| Work: No<br>Threshold = 7.6<br>15% Below APC | Work: No<br>Threshold = 7.6<br>15% Below APC |



# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: September 14, 2021

Project Name: 6300 Hollywood

Project Scenario: Refined Project

Project Address: 6300 W HOLLYWOOD BLVD, 90028



Version 1.3

| Project Information       |  |               |
|---------------------------|--|---------------|
| Land Use Type             | Value                                    | Units         |
| <b>Housing</b>            | <i>Single Family</i>                     | 0             |
|                           | <i>Multi Family</i>                      | 0             |
|                           | <i>Townhouse</i>                         | 0             |
|                           | <b>Hotel</b>                             | <b>57</b>     |
|                           | <i>Motel</i>                             | 0             |
| <i>Affordable Housing</i> | <i>Family</i>                            | 0             |
|                           | <i>Senior</i>                            | 0             |
|                           | <i>Special Needs</i>                     | 0             |
|                           | <i>Permanent Supportive</i>              | 0             |
|                           | <i>General Retail</i>                    | 0.000         |
| <b>Retail</b>             | <i>Furniture Store</i>                   | 0.000         |
|                           | <i>Pharmacy/Drugstore</i>                | 0.000         |
|                           | <i>Supermarket</i>                       | 0.000         |
|                           | <i>Bank</i>                              | 0.000         |
|                           | <i>Health Club</i>                       | 0.000         |
|                           | <b>High-Turnover Sit-Down Restaurant</b> | <b>11.310</b> |
|                           | <i>Fast-Food Restaurant</i>              | 0.000         |
|                           | <i>Quality Restaurant</i>                | 0.000         |
|                           | <i>Auto Repair</i>                       | 0.000         |
|                           | <i>Home Improvement</i>                  | 0.000         |
| <i>Office</i>             | <i>Free-Standing Discount</i>            | 0.000         |
|                           | <i>Movie Theater</i>                     | 0             |
| <i>Industrial</i>         | <i>General Office</i>                    | 0.000         |
|                           | <i>Medical Office</i>                    | 0.000         |
|                           | <i>Light Industrial</i>                  | 0.000         |
| <i>School</i>             | <i>Manufacturing</i>                     | 0.000         |
|                           | <i>Warehousing/Self-Storage</i>          | 0.000         |
|                           | <i>University</i>                        | 0             |
| <i>Other</i>              | <i>High School</i>                       | 0             |
|                           | <i>Middle School</i>                     | 0             |
|                           | <i>Elementary</i>                        | 0             |
|                           | <i>Private School (K-12)</i>             | 0             |
|                           |  | Trips         |

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 1: Project & Analysis Overview

Date: September 14, 2021

Project Name: 6300 Hollywood

Project Scenario: Refined Project

Project Address: 6300 W HOLLYWOOD BLVD, 90028



Version 1.3

| Analysis Results   |                          |                 |                          |
|--|--------------------------|-----------------|--------------------------|
| Proposed Project   |                          | With Mitigation |                          |
| 913  | Daily Vehicle Trips      | 913             | Daily Vehicle Trips      |
| 6,135  | Daily VMT                | 6,135           | Daily VMT                |
| 0  | Household VMT per Capita | 0               | Household VMT per Capita |
| 6.8  | Work VMT per Employee    | 6.8             | Work VMT per Employee    |
| Significant VMT Impact?  |                          |                 |                          |
| APC: Central   |                          |                 |                          |
| Impact Threshold: 15% Below APC Average<br>Household = 6.0<br>Work = 7.6 |                          |                 |                          |
| Proposed Project   |                          | With Mitigation |                          |
| VMT Threshold  | Impact                   | VMT Threshold   | Impact                   |
| Household > 6.0  | No                       | Household > 6.0 | No                       |
| Work > 7.6   | No                       | Work > 7.6      | No                       |

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: September 14, 2021

Project Name: 6300 Hollywood

Project Scenario: Refined Project

Project Address: 6300 W HOLLYWOOD BLVD, 90028



Version 1.3

| TDM Strategy Inputs       |   |   |                  |             |
|---------------------------|---|---|------------------|-------------|
|                           | Strategy Type                           | Description   | Proposed Project | Mitigations |
| <b>Parking</b>            | <i>Reduce parking supply</i>            | <i>City code parking provision (spaces)</i><br><i>Actual parking provision (spaces)</i> | 0<br>0           | 0<br>0      |
|                           | <i>Unbundle parking</i>                 | <i>Monthly cost for parking (\$)</i>  | \$0              | \$0         |
|                           | <i>Parking cash-out</i>                 | <i>Employees eligible (%)</i>   | 0%               | 0%          |
|                           | <i>Price workplace parking</i>          | <i>Daily parking charge (\$)</i>  | \$0.00           | \$0.00      |
|                           |   | <i>Employees subject to priced parking (%)</i>  | 0%               | 0%          |
|                           | <i>Residential area parking permits</i> | <i>Cost of annual permit (\$)</i>   | \$0              | \$0         |
| (cont. on following page) |   |   |                  |             |

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: September 14, 2021

Project Name: 6300 Hollywood

Project Scenario: Refined Project

Project Address: 6300 W HOLLYWOOD BLVD, 90028



Version 1.3

### TDM Strategy Inputs, Cont.

| Strategy Type             | Description                                     | Proposed Project   | Mitigations |
|---------------------------|---|--|-------------|
| Transit                   | <i>Reduce transit headways</i>                  | <i>Reduction in headways (increase in frequency) (%)</i>                   | 0%          |
|                           |   | <i>Existing transit mode share (as a percent of total daily trips) (%)</i> | 0%          |
|                           |   | <i>Lines within project site improved (&lt;50%, &gt;=50%)</i>              | 0           |
|                           | <i>Implement neighborhood shuttle</i>           | <i>Degree of implementation (low, medium, high)</i>                        | 0           |
|                           |   | <i>Employees and residents eligible (%)</i>                                | 0%          |
|                           | <i>Transit subsidies</i>                        | <i>Employees and residents eligible (%)</i>                                | 0%          |
|                           |   | <i>Amount of transit subsidy per passenger (daily equivalent) (\$)</i>     | \$0.00      |
| Education & Encouragement | <i>Voluntary travel behavior change program</i> | <i>Employees and residents participating (%)</i>                           | 0%          |
|                           | <i>Promotions and marketing</i>                 | <i>Employees and residents participating (%)</i>                           | 0%          |
| (cont. on following page) |   |  |             |

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: September 14, 2021

Project Name: 6300 Hollywood

Project Scenario: Refined Project

Project Address: 6300 W HOLLYWOOD BLVD, 90028



Version 1.3

### TDM Strategy Inputs, Cont.

| Strategy Type                  | Description   | Proposed Project  | Mitigations |
|--------------------------------|---|---|-------------|
| <b>Commute Trip Reductions</b> | <i>Required commute trip reduction program</i>      | <i>Employees participating (%)</i>  | 0%          |
|                                | <i>Alternative Work Schedules and Telecommute</i>   | <i>Employees participating (%)</i>  | 0%          |
|                                | <i>Type of program</i>                              | 0   | 0           |
|                                | <i>Degree of implementation (low, medium, high)</i> | 0   | 0           |
|                                | <i>Employer sponsored vanpool or shuttle</i>        | <i>Employees eligible (%)</i>   | 0%          |
|                                | <i>Employer size (small, medium, large)</i>         | 0   | 0           |
|                                | <i>Ride-share program</i>                           | <i>Employees eligible (%)</i>   | 0%          |
| <b>Shared Mobility</b>         | <i>Car share</i>                                    | <i>Car share project setting (Urban, Suburban, All Other)</i>   | 0           |
|                                | <i>Bike share</i>                                   | <i>Within 600 feet of existing bike share station - OR-implementing new bike share station (Yes/No)</i> | 0           |
|                                | <i>School carpool program</i>                       | <i>Level of implementation (Low, Medium, High)</i>  | 0           |
| (cont. on following page)      |   |   |             |

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 2: TDM Inputs

Date: September 14, 2021

Project Name: 6300 Hollywood

Project Scenario: Refined Project

Project Address: 6300 W HOLLYWOOD BLVD, 90028



Version 1.3

### TDM Strategy Inputs, Cont.

|                          | Strategy Type                                       | Description   | Proposed Project                       | Mitigations                            |
|--------------------------|---|---|--|--|
| Bicycle Infrastructure   | <i>Implement/Improve on-street bicycle facility</i> | <i>Provide bicycle facility along site (Yes/No)</i>                                 | 0                                      | 0                                      |
|                          | Include Bike parking per LAMC                       | Meets City Bike Parking Code (Yes/No)   | Yes                                    | Yes                                    |
|                          | <i>Include secure bike parking and showers</i>      | <i>Includes indoor bike parking/lockers, showers, &amp; repair station (Yes/No)</i> | 0                                      | 0                                      |
| Neighborhood Enhancement | <i>Traffic calming improvements</i>                 | <i>Streets with traffic calming improvements (%)</i>                                | 0%                                     | 0%                                     |
|                          |   | <i>Intersections with traffic calming improvements (%)</i>                          | 0%                                     | 0%                                     |
|                          | Pedestrian network improvements                     | Included (within project and connecting off-site/within project only)               | within project and connecting off-site | within project and connecting off-site |

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: September 14, 2021

Project Name: 6300 Hollywood

Project Scenario: Refined Project

Project Address: 6300 W HOLLYWOOD BLVD, 90028



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy

Place type: Urban

|                                      | TDM Adjustments by Trip Purpose & Strategy         |           |                            |           |                             |           |                             |           |                                 |           |                                 |           | Source  |  |
|--------------------------------------|--|-----------|----------------------------|-----------|-----------------------------|-----------|-----------------------------|-----------|---------------------------------|-----------|---------------------------------|-----------|---|--|
|                                      | Home Based Work Production                         |           | Home Based Work Attraction |           | Home Based Other Production |           | Home Based Other Attraction |           | Non-Home Based Other Production |           | Non-Home Based Other Attraction |           |   |  |
|                                      | Proposed   | Mitigated | Proposed                   | Mitigated | Proposed                    | Mitigated | Proposed                    | Mitigated | Proposed                        | Mitigated | Proposed                        | Mitigated |   |  |
| <b>Parking</b>                       | Reduce parking supply                              | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        | TDM Strategy Appendix, Parking sections 1 - 5                   |  |
|                                      | Unbundle parking                                   | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        |   |  |
|                                      | Parking cash-out                                   | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        |   |  |
|                                      | Price workplace parking                            | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        |   |  |
|                                      | Residential area parking permits                   | 0.00%     | 0.00%                      | 0.00%     | 0.00%                       | 0.00%     | 0.00%                       | 0.00%     | 0.00%                           | 0.00%     | 0.00%                           | 0.00%     |   |  |
| <b>Transit</b>                       | Reduce transit headways                            | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        | TDM Strategy Appendix, Transit sections 1 - 3                   |  |
|                                      | Implement neighborhood shuttle                     | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        |   |  |
|                                      | Transit subsidies                                  | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        |   |  |
| <b>Education &amp; Encouragement</b> | Voluntary travel behavior change program           | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        | TDM Strategy Appendix, Education & Encouragement sections 1 - 2 |  |
|                                      | Promotions and marketing                           | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        |   |  |
| <b>Commute Trip Reductions</b>       | Required commute trip reduction program            | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        | TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4   |  |
|                                      | Alternative Work Schedules and Telecommute Program | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        |   |  |
|                                      | Employer sponsored vanpool or shuttle              | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        |   |  |
|                                      | Ride-share program                                 | 0%        | 0%                         | 0%        | 0%                          | 0%        | 0%                          | 0%        | 0%                              | 0%        | 0%                              | 0%        |   |  |
| <b>Shared Mobility</b>               | Car-share  | 0.0%      | 0.0%                       | 0.0%      | 0.0%                        | 0.0%      | 0.0%                        | 0.0%      | 0.0%                            | 0.0%      | 0.0%                            | 0.0%      | TDM Strategy Appendix, Shared Mobility sections 1 - 3           |  |
|                                      | Bike share   | 0.00%     | 0.00%                      | 0.00%     | 0.00%                       | 0.00%     | 0.00%                       | 0.00%     | 0.00%                           | 0.00%     | 0.00%                           | 0.00%     |   |  |
|                                      | School carpool program                             | 0.0%      | 0.0%                       | 0.0%      | 0.0%                        | 0.0%      | 0.0%                        | 0.0%      | 0.0%                            | 0.0%      | 0.0%                            | 0.0%      |   |  |

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 3: TDM Outputs

Date: September 14, 2021

Project Name: 6300 Hollywood

Project Scenario: Refined Project

Project Address: 6300 W HOLLYWOOD BLVD, 90028



Version 1.3

### TDM Adjustments by Trip Purpose & Strategy, Cont.

#### Place type: Urban

|                          | Home Based Work Production                    |           | Home Based Work Attraction |           | Home Based Other Production |           | Home Based Other Attraction |           | Non-Home Based Other Production |           | Non-Home Based Other Attraction |           | Source   |
|--------------------------|---|-----------|----------------------------|-----------|-----------------------------|-----------|-----------------------------|-----------|---------------------------------|-----------|---------------------------------|-----------|--|
|                          | Proposed                                      | Mitigated | Proposed                   | Mitigated | Proposed                    | Mitigated | Proposed                    | Mitigated | Proposed                        | Mitigated | Proposed                        | Mitigated |  |
|                          | Bicycle Infrastructure                        |           |                            |           |                             |           |                             |           |                                 |           |                                 |           |  |
| Bicycle Infrastructure   | Implement/ Improve on-street bicycle facility | 0.0%      | 0.0%                       | 0.0%      | 0.0%                        | 0.0%      | 0.0%                        | 0.0%      | 0.0%                            | 0.0%      | 0.0%                            | 0.0%      | TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3   |
|                          | Include Bike parking per LAMC                 | 0.6%      | 0.6%                       | 0.6%      | 0.6%                        | 0.6%      | 0.6%                        | 0.6%      | 0.6%                            | 0.6%      | 0.6%                            | 0.6%      |  |
|                          | Include secure bike parking and showers       | 0.0%      | 0.0%                       | 0.0%      | 0.0%                        | 0.0%      | 0.0%                        | 0.0%      | 0.0%                            | 0.0%      | 0.0%                            | 0.0%      |  |
| Neighborhood Enhancement | Traffic calming improvements                  | 0.0%      | 0.0%                       | 0.0%      | 0.0%                        | 0.0%      | 0.0%                        | 0.0%      | 0.0%                            | 0.0%      | 0.0%                            | 0.0%      | TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2 |
|                          | Pedestrian network improvements               | 2.0%      | 2.0%                       | 2.0%      | 2.0%                        | 2.0%      | 2.0%                        | 2.0%      | 2.0%                            | 2.0%      | 2.0%                            | 2.0%      |  |

### Final Combined & Maximum TDM Effect

|                 | Home Based Work Production |           | Home Based Work Attraction |           | Home Based Other Production |           | Home Based Other Attraction |           | Non-Home Based Other Production |           | Non-Home Based Other Attraction |           | Source |
|-----------------|----------------------------|-----------|----------------------------|-----------|-----------------------------|-----------|-----------------------------|-----------|---------------------------------|-----------|---------------------------------|-----------|--------|
|                 | Proposed                   | Mitigated | Proposed                   | Mitigated | Proposed                    | Mitigated | Proposed                    | Mitigated | Proposed                        | Mitigated | Proposed                        | Mitigated |        |
|                 | COMBINED TOTAL             | 3%        | 3%                         | 3%        | 3%                          | 3%        | 3%                          | 3%        | 3%                              | 3%        | 3%                              | 3%        | 3%     |
| MAX. TDM EFFECT | 3%                         | 3%        | 3%                         | 3%        | 3%                          | 3%        | 3%                          | 3%        | 3%                              | 3%        | 3%                              | 3%        | 3%     |

$$= \text{Minimum } (X\%, 1-[(1-A)*(1-B)...])$$

where X% =

|       |                 |     |
|-------|-----------------|-----|
| PLACE | urban           | 75% |
| TYPE  | compact infill  | 40% |
| MAX:  | suburban center | 20% |
|       | suburban        | 15% |

Note:  $(1-[(1-A)*(1-B)...])$  reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G*) for further discussion of dampening.

# CITY OF LOS ANGELES VMT CALCULATOR

## Report 4: MXD Methodology

Date: September 14, 2021

Project Name: 6300 Hollywood

Project Scenario: Refined Project

Project Address: 6300 W HOLLYWOOD BLVD, 90028



Version 1.3

### MXD Methodology - Project Without TDM

|                                 | Unadjusted Trips | MXD Adjustment | MXD Trips | Average Trip Length | Unadjusted VMT | MXD VMT |
|---------------------------------|------------------|----------------|-----------|---------------------|----------------|---------|
| Home Based Work Production      | 0                | 0.0%           | 0         | 7.5                 | 0              | 0       |
| Home Based Other Production     | 0                | 0.0%           | 0         | 4.5                 | 0              | 0       |
| Non-Home Based Other Production | 252              | -7.9%          | 232       | 7.5                 | 1,890          | 1,740   |
| Home-Based Work Attraction      | 107              | -42.1%         | 62        | 8.3                 | 888            | 515     |
| Home-Based Other Attraction     | 820              | -49.8%         | 412       | 6.1                 | 5,002          | 2,513   |
| Non-Home Based Other Attraction | 252              | -7.9%          | 232       | 6.6                 | 1,663          | 1,531   |

### MXD Methodology with TDM Measures

|                                 | Proposed Project |               |             | Project with Mitigation Measures |                 |               |
|---------------------------------|------------------|---------------|-------------|----------------------------------|-----------------|---------------|
|                                 | TDM Adjustment   | Project Trips | Project VMT | TDM Adjustment                   | Mitigated Trips | Mitigated VMT |
| Home Based Work Production      | -2.6%            | 0             | 0           | -2.6%                            | 0               | 0             |
| Home Based Other Production     | -2.6%            | 0             | 0           | -2.6%                            | 0               | 0             |
| Non-Home Based Other Production | -2.6%            | 226           | 1,695       | -2.6%                            | 226             | 1,695         |
| Home-Based Work Attraction      | -2.6%            | 60            | 502         | -2.6%                            | 60              | 502           |
| Home-Based Other Attraction     | -2.6%            | 401           | 2,447       | -2.6%                            | 401             | 2,447         |
| Non-Home Based Other Attraction | -2.6%            | 226           | 1,491       | -2.6%                            | 226             | 1,491         |

### MXD VMT Methodology Per Capita & Per Employee

Total Population: 0

Total Employees: 74

APC: Central

|                                      | Proposed Project | Project with Mitigation Measures |
|--------------------------------------|------------------|----------------------------------|
| Total Home Based Production VMT      | 0                | 0                                |
| Total Home Based Work Attraction VMT | 502              | 502                              |
| Total Home Based VMT Per Capita      | 0.0              | 0.0                              |
| Total Work Based VMT Per Employee    | 6.8              | 6.8                              |

***Attachment B***

***LOS Worksheets***

**Intersection**

Int Delay, s/veh 0.1

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 437  | 5    | 8    | 696  | 0    | 5    |
| Future Vol, veh/h        | 437  | 5    | 8    | 696  | 0    | 5    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 35   | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 475  | 5    | 9    | 757  | 0    | 5    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |           |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 0      | 0      | 480    | 0 | 799 240   |
| Stage 1              | -      | -      | -      | - | 478 -     |
| Stage 2              | -      | -      | -      | - | 321 -     |
| Critical Hdwy        | -      | -      | 4.14   | - | 6.29 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.04 -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.67 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 1079   | - | 355 761   |
| Stage 1              | -      | -      | -      | - | 571 -     |
| Stage 2              | -      | -      | -      | - | 671 -     |
| Platoon blocked, %   | -      | -      | -      | - | -         |
| Mov Cap-1 Maneuver   | -      | -      | 1079   | - | 350 761   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 350 -     |
| Stage 1              | -      | -      | -      | - | 571 -     |
| Stage 2              | -      | -      | -      | - | 662 -     |

| Approach             | EB | WB  | NB  |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0  | 0.1 | 9.8 |
| HCM LOS              |    |     | A   |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 761   | -   | -   | 1079  | -   |
| HCM Lane V/C Ratio    | 0.007 | -   | -   | 0.008 | -   |
| HCM Control Delay (s) | 9.8   | -   | -   | 8.4   | 0   |
| HCM Lane LOS          | A     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0     | -   |

HCM 6th Signalized Intersection Summary  
2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations              | ↑     | ↑↑   |      | ↑    | ↑↑    |      |      | ↔    |      |      | ↔    |      |
| Traffic Volume (veh/h)           | 11    | 430  | 20   | 60   | 612   | 30   | 3    | 30   | 34   | 6    | 252  | 48   |
| Future Volume (veh/h)            | 11    | 430  | 20   | 60   | 612   | 30   | 3    | 30   | 34   | 6    | 252  | 48   |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            |       | No   |      |      | No    |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 12    | 467  | 22   | 65   | 665   | 33   | 3    | 33   | 37   | 7    | 274  | 52   |
| 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, %             | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 526   | 2331 | 110  | 646  | 2325  | 115  | 46   | 182  | 191  | 44   | 333  | 62   |
| Arrive On Green                  | 0.67  | 0.67 | 0.67 | 0.67 | 0.67  | 0.67 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h                  | 748   | 3455 | 162  | 907  | 3446  | 171  | 18   | 826  | 868  | 13   | 1517 | 283  |
| Grp Volume(v), veh/h             | 12    | 240  | 249  | 65   | 343   | 355  | 73   | 0    | 0    | 333  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln        | 748   | 1777 | 1841 | 907  | 1777  | 1840 | 1712 | 0    | 0    | 1814 | 0    | 0    |
| Q Serve(g_s), s                  | 0.6   | 4.6  | 4.6  | 2.6  | 7.0   | 7.0  | 0.0  | 0.0  | 0.0  | 2.9  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 7.6   | 4.6  | 4.6  | 7.2  | 7.0   | 7.0  | 3.1  | 0.0  | 0.0  | 15.8 | 0.0  | 0.0  |
| Prop In Lane                     | 1.00  |      | 0.09 | 1.00 |       | 0.09 | 0.04 |      | 0.51 | 0.02 |      | 0.16 |
| Lane Grp Cap(c), veh/h           | 526   | 1199 | 1242 | 646  | 1199  | 1241 | 418  | 0    | 0    | 439  | 0    | 0    |
| V/C Ratio(X)                     | 0.02  | 0.20 | 0.20 | 0.10 | 0.29  | 0.29 | 0.17 | 0.00 | 0.00 | 0.76 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h            | 526   | 1199 | 1242 | 646  | 1199  | 1241 | 792  | 0    | 0    | 845  | 0    | 0    |
| HCM Platoon Ratio                | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)               | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 0.99 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh         | 7.4   | 5.5  | 5.5  | 6.9  | 5.9   | 5.9  | 28.6 | 0.0  | 0.0  | 33.5 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.1   | 0.4  | 0.4  | 0.3  | 0.6   | 0.6  | 0.2  | 0.0  | 0.0  | 2.7  | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh       | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%), veh/ln        | 0.2   | 2.8  | 2.9  | 0.9  | 4.4   | 4.5  | 2.3  | 0.0  | 0.0  | 11.5 | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh            | 7.5   | 5.9  | 5.9  | 7.2  | 6.5   | 6.5  | 28.8 | 0.0  | 0.0  | 36.2 | 0.0  | 0.0  |
| LnGrp LOS                        | A     | A    | A    | A    | A     | A    | C    | A    | A    | D    | A    | A    |
| Approach Vol, veh/h              | 501   |      |      |      | 763   |      |      | 73   |      |      | 333  |      |
| Approach Delay, s/veh            | 5.9   |      |      |      | 6.6   |      |      | 28.8 |      |      | 36.2 |      |
| Approach LOS                     | A     |      |      |      | A     |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs             | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+Rc), s         | 65.2  |      | 24.8 |      | 65.2  |      | 24.8 |      |      |      |      |      |
| Change Period (Y+Rc), s          | * 4.5 |      | 5.0  |      | * 4.5 |      | 5.0  |      |      |      |      |      |
| Max Green Setting (Gmax), s      | * 41  |      | 40.0 |      | * 41  |      | 40.0 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s     | 9.2   |      | 5.1  |      | 9.6   |      | 17.8 |      |      |      |      |      |
| Green Ext Time (p_c), s          | 5.3   |      | 0.4  |      | 3.2   |      | 2.0  |      |      |      |      |      |

#### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 13.3 |
| HCM 6th LOS        | B    |

#### Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           | ↑    | ↑↑    |      | ↑     | ↑↑   |       |      | ↔     |      |      | ↔    |      |
| Traffic Volume (veh/h)        | 11   | 430   | 20   | 60    | 612  | 30    | 3    | 30    | 34   | 6    | 252  | 48   |
| Future Volume (veh/h)         | 11   | 430   | 20   | 60    | 612  | 30    | 3    | 30    | 34   | 6    | 252  | 48   |
| Number                        | 1    | 6     | 16   | 5     | 2    | 12    | 7    | 4     | 14   | 3    | 8    | 18   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       | 1.00 | 1.00  |      | 1.00  | 1.00 |       | 1.00 | 1.00 |      | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      | No    |      |       | No   |       | No   |      | No   |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 12   | 467   | 22   | 65    | 665  | 33    | 3    | 33    | 37   | 7    | 274  | 52   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       | Yes  |       | Yes  |       | Yes  |       | Yes  |      | Yes  |      |
| Cap, veh/h                    | 526  | 2331  | 110  | 646   | 2325 | 115   | 46   | 182   | 191  | 44   | 333  | 62   |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Prop Arrive On Green          | 0.67 | 0.67  | 0.67 | 0.67  | 0.67 | 0.67  | 0.22 | 0.22  | 0.22 | 0.22 | 0.22 | 0.22 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 7.5  | 5.9   | 5.9  | 7.2   | 6.5  | 6.5   | 28.8 | 0.0   | 0.0  | 36.2 | 0.0  | 0.0  |
| Ln Grp LOS                    | A    | A     | A    | A     | A    | A     | C    | A     | A    | D    | A    | A    |
| Approach Vol, veh/h           | 501  |       |      | 763   |      |       | 73   |       |      | 333  |      |      |
| Approach Delay, s/veh         | 5.9  |       |      | 6.6   |      |       | 28.8 |       |      | 36.2 |      |      |
| Approach LOS                  | A    |       |      | A     |      |       | C    |       |      | D    |      |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 6.0   |      | 8.0   |      | 6.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 65.2  |      | 24.8  |      | 65.2  |      | 24.8  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.0   |      | * 4.5 |      | 5.0   |      |      |      |      |
| Max Green (Gmax), s           |      | * 41  |      | 40.0  |      | * 41  |      | 40.0  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.3   |      | 5.4   |      | 5.3   |      | 5.3   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 9.2   |      | 5.1   |      | 9.6   |      | 17.8  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 5.3   |      | 0.4   |      | 3.2   |      | 2.0   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.00  |      | 0.00  |      | 0.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 907   |      | 18    |      | 748   |      | 13    |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3446  |      | 826   |      | 3455  |      | 1517  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 171   |      | 868   |      | 162   |      | 283   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 0     | 5    | 0     | 7    | 0     | 1    | 0     | 3    |      |      |      |
| Lane Assignment               |      | L     |      | L+T+R |      | L     |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 65   | 0    | 73   | 0    | 12   | 0    | 333  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 907  | 0    | 1712 | 0    | 748  | 0    | 1814 |
| Q Serve Time (g_s), s               | 0.0  | 2.6  | 0.0  | 0.0  | 0.0  | 0.6  | 0.0  | 2.9  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 7.2  | 0.0  | 3.1  | 0.0  | 7.6  | 0.0  | 15.8 |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 907  | 0    | 1071 | 0    | 748  | 0    | 1352 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1867 | 0    | 0    | 0    | 1868 |
| Perm LT Eff Green (g_p), s          | 0.0  | 60.7 | 0.0  | 19.8 | 0.0  | 60.7 | 0.0  | 19.8 |
| Perm LT Serve Time (g_u), s         | 0.0  | 56.1 | 0.0  | 4.0  | 0.0  | 53.7 | 0.0  | 16.7 |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 2.6  | 0.0  | 0.0  | 0.0  | 0.6  | 0.0  | 2.9  |
| Time to First Blk (g_f), s          | 0.0  | 0.0  | 0.0  | 14.7 | 0.0  | 0.0  | 0.0  | 12.8 |
| Serve Time pre Blk (g_fs), s        | 0.0  | 0.0  | 0.0  | 3.1  | 0.0  | 0.0  | 0.0  | 12.8 |
| Prop LT Inside Lane (P_L)           | 0.00 | 1.00 | 0.00 | 0.04 | 0.00 | 1.00 | 0.00 | 0.02 |
| Lane Grp Cap (c), veh/h             | 0    | 646  | 0    | 418  | 0    | 526  | 0    | 439  |
| V/C Ratio (X)                       | 0.00 | 0.10 | 0.00 | 0.17 | 0.00 | 0.02 | 0.00 | 0.76 |
| Avail Cap (c_a), veh/h              | 0    | 646  | 0    | 792  | 0    | 526  | 0    | 845  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 0.99 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 6.9  | 0.0  | 28.6 | 0.0  | 7.4  | 0.0  | 33.5 |
| Incr Delay (d2), s/veh              | 0.0  | 0.3  | 0.0  | 0.2  | 0.0  | 0.1  | 0.0  | 2.7  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 7.2  | 0.0  | 28.8 | 0.0  | 7.5  | 0.0  | 36.2 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 0.5  | 0.0  | 1.3  | 0.0  | 0.1  | 0.0  | 6.8  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.3  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.62 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 0.9  | 0.0  | 2.3  | 0.0  | 0.2  | 0.0  | 11.5 |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.23 | 0.00 | 0.10 | 0.00 | 0.09 | 0.00 | 2.49 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      | T    |      |      |      | T    |      |      |
| Lanes in Grp                | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 343  | 0    | 0    | 0    | 240  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 1777 | 0    | 0    | 0    | 1777 | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 7.0  | 0.0  | 0.0  | 0.0  | 4.6  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 7.0  | 0.0  | 0.0  | 0.0  | 4.6  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 1199 | 0    | 0    | 0    | 1199 | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.29 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 1199 | 0    | 0    | 0    | 1199 | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 5.5  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.6  | 0.0  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 6.5  | 0.0  | 0.0  | 0.0  | 5.9  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 2.2  | 0.0  | 0.0  | 0.0  | 1.5  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 4.4  | 0.0  | 0.0  | 0.0  | 2.8  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.26 | 0.00 | 0.00 | 0.00 | 0.50 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 355  | 0    | 0    | 0    | 249  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1840 | 0    | 0    | 0    | 1841 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 7.0  | 0.0  | 0.0  | 0.0  | 4.6  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 7.0  | 0.0  | 0.0  | 0.0  | 4.6  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.09 | 0.00 | 0.51 | 0.00 | 0.09 | 0.00 | 0.16 |
| Lane Grp Cap (c), veh/h          | 0    | 1241 | 0    | 0    | 0    | 1242 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.29 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1241 | 0    | 0    | 0    | 1242 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 5.5  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.6  | 0.0  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 6.5  | 0.0  | 0.0  | 0.0  | 5.9  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 2.3  | 0.0  | 0.0  | 0.0  | 1.5  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 4.5  | 0.0  | 0.0  | 0.0  | 2.9  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.27 | 0.00 | 0.00 | 0.00 | 0.52 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay 13.3

HCM 6th LOS B

### Notes

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

# HCM 6th Signalized Intersection Summary

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021



| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations              |       |      |      |      |       |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)           | 25    | 57   | 20   | 12   | 48    | 26   | 14   | 839  | 27   | 18   | 969  | 39   |
| Future Volume (veh/h)            | 25    | 57   | 20   | 12   | 48    | 26   | 14   | 839  | 27   | 18   | 969  | 39   |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            | No    |      |      | No   |       |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 27    | 62   | 22   | 13   | 52    | 28   | 15   | 912  | 29   | 20   | 1053 | 42   |
| 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, %             | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 77    | 94   | 30   | 58   | 94    | 46   | 58   | 2718 | 86   | 63   | 2689 | 106  |
| Arrive On Green                  | 0.09  | 0.09 | 0.09 | 0.09 | 0.09  | 0.09 | 0.81 | 0.81 | 0.81 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                  | 314   | 1090 | 347  | 149  | 1088  | 533  | 21   | 3370 | 106  | 27   | 3333 | 132  |
| Grp Volume(v), veh/h             | 111   | 0    | 0    | 93   | 0     | 0    | 496  | 0    | 460  | 579  | 0    | 536  |
| Grp Sat Flow(s), veh/h/ln        | 1750  | 0    | 0    | 1770 | 0     | 0    | 1814 | 0    | 1683 | 1813 | 0    | 1678 |
| Q Serve(g_s), s                  | 0.9   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 6.5  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 5.4   | 0.0  | 0.0  | 4.5  | 0.0   | 0.0  | 6.3  | 0.0  | 6.5  | 0.0  | 0.0  | 0.0  |
| Prop In Lane                     | 0.24  |      | 0.20 | 0.14 |       | 0.30 | 0.03 |      | 0.06 | 0.03 |      | 0.08 |
| Lane Grp Cap(c), veh/h           | 201   | 0    | 0    | 199  | 0     | 0    | 1505 | 0    | 1358 | 1504 | 0    | 1354 |
| V/C Ratio(X)                     | 0.55  | 0.00 | 0.00 | 0.47 | 0.00  | 0.00 | 0.33 | 0.00 | 0.34 | 0.39 | 0.00 | 0.40 |
| Avail Cap(c_a), veh/h            | 477   | 0    | 0    | 481  | 0     | 0    | 1505 | 0    | 1358 | 1504 | 0    | 1354 |
| 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(l)               | 1.00  | 0.00 | 0.00 | 1.00 | 0.00  | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh         | 40.0  | 0.0  | 0.0  | 39.6 | 0.0   | 0.0  | 2.3  | 0.0  | 2.3  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 2.3   | 0.0  | 0.0  | 1.7  | 0.0   | 0.0  | 0.6  | 0.0  | 0.7  | 0.7  | 0.0  | 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(95%), veh/ln        | 4.5   | 0.0  | 0.0  | 3.7  | 0.0   | 0.0  | 2.8  | 0.0  | 2.7  | 0.6  | 0.0  | 0.6  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh            | 42.3  | 0.0  | 0.0  | 41.3 | 0.0   | 0.0  | 2.9  | 0.0  | 3.0  | 0.7  | 0.0  | 0.9  |
| LnGrp LOS                        | D     | A    | A    | D    | A     | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h              | 111   |      |      | 93   |       |      | 956  |      | 1115 |      |      |      |
| Approach Delay, s/veh            | 42.3  |      |      | 41.3 |       |      | 2.9  |      | 0.8  |      |      |      |
| Approach LOS                     | D     |      |      | D    |       |      | A    |      | A    |      |      |      |
| Timer - Assigned Phs             | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+Rc), s         | 77.1  |      | 12.9 |      | 77.1  |      | 12.9 |      |      |      |      |      |
| Change Period (Y+Rc), s          | * 4.5 |      | 5.1  |      | * 4.5 |      | 5.1  |      |      |      |      |      |
| Max Green Setting (Gmax), s      | * 58  |      | 22.9 |      | * 58  |      | 22.9 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s     | 8.5   |      | 7.4  |      | 2.0   |      | 6.5  |      |      |      |      |      |
| Green Ext Time (p_c), s          | 8.0   |      | 0.4  |      | 10.2  |      | 0.4  |      |      |      |      |      |
| 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 Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 25   | 57    | 20   | 12    | 48   | 26    | 14   | 839   | 27   | 18   | 969  | 39   |
| Future Volume (veh/h)         | 25   | 57    | 20   | 12    | 48   | 26    | 14   | 839   | 27   | 18   | 969  | 39   |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       | 1.00 | 1.00  |      | 1.00  | 1.00 |       | 1.00 | 1.00 |      | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      | No    |      |       | No   |       | No   |      | No   |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 27   | 62    | 22   | 13    | 52   | 28    | 15   | 912   | 29   | 20   | 1053 | 42   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       | Yes  |       | Yes  |       | Yes  |       | Yes  |      | Yes  |      |
| Cap, veh/h                    | 77   | 94    | 30   | 58    | 94   | 46    | 58   | 2718  | 86   | 63   | 2689 | 106  |
| 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 |
| Prop Arrive On Green          | 0.09 | 0.09  | 0.09 | 0.09  | 0.09 | 0.09  | 0.81 | 0.81  | 0.81 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 42.3 | 0.0   | 0.0  | 41.3  | 0.0  | 0.0   | 2.9  | 0.0   | 3.0  | 0.7  | 0.0  | 0.9  |
| Ln Grp LOS                    | D    | A     | A    | D     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 111  |       |      | 93    |      |       | 956  |       |      | 1115 |      |      |
| Approach Delay, s/veh         | 42.3 |       |      | 41.3  |      |       | 2.9  |       |      | 0.8  |      |      |
| Approach LOS                  | D    |       |      | D     |      |       | A    |       |      | A    |      |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 77.1  |      | 12.9  |      | 77.1  |      | 12.9  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.1   |      | * 4.5 |      | 5.1   |      |      |      |      |
| Max Green (Gmax), s           |      | * 58  |      | 22.9  |      | * 58  |      | 22.9  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.3   |      | 5.4   |      | 5.3   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 8.5   |      | 7.4   |      | 2.0   |      | 6.5   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 8.0   |      | 0.4   |      | 10.2  |      | 0.4   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 0.99  |      | 1.00  |      | 0.99  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.00  |      | 0.00  |      | 0.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 21    |      | 314   |      | 27    |      | 149   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3370  |      | 1090  |      | 3333  |      | 1088  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 106   |      | 347   |      | 132   |      | 533   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T   |      | L+T+R |      | L+T   |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 496  | 0    | 111  | 0    | 579  | 0    | 93   |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1814 | 0    | 1750 | 0    | 1813 | 0    | 1770 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 6.3  | 0.0  | 5.4  | 0.0  | 0.0  | 0.0  | 4.5  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 523  | 0    | 1339 | 0    | 605  | 0    | 1335 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1848 | 0    | 0    | 0    | 1857 |
| Perm LT Eff Green (g_p), s          | 0.0  | 72.6 | 0.0  | 7.8  | 0.0  | 72.6 | 0.0  | 7.8  |
| Perm LT Serve Time (g_u), s         | 0.0  | 72.6 | 0.0  | 3.3  | 0.0  | 66.1 | 0.0  | 2.4  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 43.1 | 0.0  | 2.0  | 0.0  | 40.3 | 0.0  | 3.1  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 6.3  | 0.0  | 2.0  | 0.0  | 0.0  | 0.0  | 3.1  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.03 | 0.00 | 0.24 | 0.00 | 0.03 | 0.00 | 0.14 |
| Lane Grp Cap (c), veh/h             | 0    | 1505 | 0    | 201  | 0    | 1504 | 0    | 199  |
| V/C Ratio (X)                       | 0.00 | 0.33 | 0.00 | 0.55 | 0.00 | 0.39 | 0.00 | 0.47 |
| Avail Cap (c_a), veh/h              | 0    | 1505 | 0    | 477  | 0    | 1504 | 0    | 481  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 2.3  | 0.0  | 40.0 | 0.0  | 0.0  | 0.0  | 39.6 |
| Incr Delay (d2), s/veh              | 0.0  | 0.6  | 0.0  | 2.3  | 0.0  | 0.7  | 0.0  | 1.7  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 2.9  | 0.0  | 42.3 | 0.0  | 0.7  | 0.0  | 41.3 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 1.3  | 0.0  | 2.4  | 0.0  | 0.0  | 0.0  | 2.0  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.2  | 0.0  | 0.1  | 0.0  | 0.3  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 2.8  | 0.0  | 4.5  | 0.0  | 0.6  | 0.0  | 3.7  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.17 | 0.00 | 0.80 | 0.00 | 0.02 | 0.00 | 0.62 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 460  | 0    | 0    | 0    | 536  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1683 | 0    | 0    | 0    | 1678 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 6.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 6.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.06 | 0.00 | 0.20 | 0.00 | 0.08 | 0.00 | 0.30 |
| Lane Grp Cap (c), veh/h          | 0    | 1358 | 0    | 0    | 0    | 1354 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1358 | 0    | 0    | 0    | 1354 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 2.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.7  | 0.0  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 3.0  | 0.0  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 1.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 2.7  | 0.0  | 0.0  | 0.0  | 0.6  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.16 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |     |
|--------------------|-----|
| HCM 6th Ctrl Delay | 5.4 |
| HCM 6th LOS        | A   |

### Notes

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

**Intersection**

Int Delay, s/veh 1.1

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 10   | 110  | 97   | 13   | 7    | 14   |
| Future Vol, veh/h        | 10   | 110  | 97   | 13   | 7    | 14   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 11   | 120  | 105  | 14   | 8    | 15   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |       |       |
|----------------------|--------|--------|--------|---|-------|-------|
| Conflicting Flow All | 119    | 0      | -      | 0 | 254   | 112   |
| Stage 1              | -      | -      | -      | - | 112   | -     |
| Stage 2              | -      | -      | -      | - | 142   | -     |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  | -     |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | 1469   | -      | -      | - | 735   | 941   |
| Stage 1              | -      | -      | -      | - | 913   | -     |
| Stage 2              | -      | -      | -      | - | 885   | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     | -     |
| Mov Cap-1 Maneuver   | 1469   | -      | -      | - | 729   | 941   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 729   | -     |
| Stage 1              | -      | -      | -      | - | 906   | -     |
| Stage 2              | -      | -      | -      | - | 885   | -     |

| Approach             | EB  | WB | SB  |  |  |  |
|----------------------|-----|----|-----|--|--|--|
| HCM Control Delay, s | 0.6 | 0  | 9.3 |  |  |  |
| HCM LOS              |     |    | A   |  |  |  |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |  |
|-----------------------|-------|-----|-----|-----|-------|--|
| Capacity (veh/h)      | 1469  | -   | -   | -   | 858   |  |
| HCM Lane V/C Ratio    | 0.007 | -   | -   | -   | 0.027 |  |
| HCM Control Delay (s) | 7.5   | 0   | -   | -   | 9.3   |  |
| HCM Lane LOS          | A     | A   | -   | -   | A     |  |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.1   |  |

# HCM 6th Signalized Intersection Summary

5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement   | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|--|-------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Configurations  |       |      |      |      |      |      |       |      |      |      |      |      |
| Traffic Volume (veh/h)   | 10    | 60   | 41   | 44   | 74   | 40   | 43    | 79   | 18   | 16   | 252  | 15   |
| Future Volume (veh/h)  | 10    | 60   | 41   | 44   | 74   | 40   | 43    | 79   | 18   | 16   | 252  | 15   |
| Initial Q (Q <sub>b</sub> ), veh   | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)  | 1.00  |      |      | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj   | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach  |       | No   |      |      | No   |      |       | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln   | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h   | 11    | 65   | 45   | 48   | 80   | 43   | 47    | 86   | 20   | 17   | 274  | 16   |
| 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, %   | 2     | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h   | 100   | 175  | 111  | 160  | 160  | 73   | 339   | 587  | 123  | 106  | 1036 | 58   |
| Arrive On Green  | 0.06  | 0.06 | 0.06 | 0.17 | 0.17 | 0.17 | 0.61  | 0.61 | 0.61 | 0.81 | 0.81 | 0.81 |
| Sat Flow, veh/h  | 73    | 1008 | 640  | 330  | 924  | 421  | 386   | 967  | 204  | 35   | 1706 | 96   |
| Grp Volume(v), veh/h   | 121   | 0    | 0    | 171  | 0    | 0    | 153   | 0    | 0    | 307  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln  | 1721  | 0    | 0    | 1675 | 0    | 0    | 1557  | 0    | 0    | 1837 | 0    | 0    |
| Q Serve(g_s), s  | 0.0   | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s  | 3.0   | 0.0  | 0.0  | 4.0  | 0.0  | 0.0  | 1.6   | 0.0  | 0.0  | 1.8  | 0.0  | 0.0  |
| Prop In Lane   | 0.09  |      |      | 0.37 | 0.28 |      | 0.25  | 0.31 |      | 0.13 | 0.06 | 0.05 |
| Lane Grp Cap(c), veh/h   | 385   | 0    | 0    | 392  | 0    | 0    | 1049  | 0    | 0    | 1199 | 0    | 0    |
| V/C Ratio(X)   | 0.31  | 0.00 | 0.00 | 0.44 | 0.00 | 0.00 | 0.15  | 0.00 | 0.00 | 0.26 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h  | 767   | 0    | 0    | 754  | 0    | 0    | 1049  | 0    | 0    | 1199 | 0    | 0    |
| HCM Platoon Ratio  | 0.33  | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.33 | 1.33 | 1.33 |
| Upstream Filter(l)   | 1.00  | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00  | 0.00 | 0.00 | 0.73 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh   | 19.0  | 0.0  | 0.0  | 17.0 | 0.0  | 0.0  | 3.8   | 0.0  | 0.0  | 1.9  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh   | 0.5   | 0.0  | 0.0  | 0.8  | 0.0  | 0.0  | 0.3   | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%), veh/ln  | 2.1   | 0.0  | 0.0  | 2.7  | 0.0  | 0.0  | 0.8   | 0.0  | 0.0  | 0.8  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh   |       |      |      |      |      |      |       |      |      |      |      |      |
| LnGrp Delay(d), s/veh  | 19.4  | 0.0  | 0.0  | 17.8 | 0.0  | 0.0  | 4.1   | 0.0  | 0.0  | 2.3  | 0.0  | 0.0  |
| LnGrp LOS  | B     | A    | A    | B    | A    | A    | A     | A    | A    | A    | A    | A    |
| Approach Vol, veh/h  | 121   |      |      | 171  |      |      | 153   |      |      | 307  |      |      |
| Approach Delay, s/veh  | 19.4  |      |      | 17.8 |      |      | 4.1   |      |      | 2.3  |      |      |
| Approach LOS   | B     |      |      | B    |      |      | A     |      |      | A    |      |      |
| Timer - Assigned Phs   | 2     |      |      | 4    |      |      | 6     |      |      | 8    |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s  | 32.2  |      |      | 12.8 |      |      | 32.2  |      |      | 12.8 |      |      |
| Change Period (Y+R <sub>c</sub> ), s   | * 4.9 |      |      | * 5  |      |      | * 4.9 |      |      | * 5  |      |      |
| Max Green Setting (Gmax), s  | * 17  |      |      | * 18 |      |      | * 17  |      |      | * 18 |      |      |
| Max Q Clear Time (g_c+l1), s   | 3.6   |      |      | 5.0  |      |      | 3.8   |      |      | 6.0  |      |      |
| Green Ext Time (p <sub>c</sub> ), s  | 0.7   |      |      | 0.5  |      |      | 1.5   |      |      | 0.7  |      |      |
| Intersection Summary   |       |      |      |      |      |      |       |      |      |      |      |      |
| HCM 6th Ctrl Delay   |       |      |      | 8.9  |      |      |       |      |      |      |      |      |
| HCM 6th LOS  |       |      |      | A    |      |      |       |      |      |      |      |      |
| Notes  |       |      |      |      |      |      |       |      |      |      |      |      |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. |       |      |      |      |      |      |       |      |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 10   | 60    | 41   | 44    | 74   | 40    | 43   | 79    | 18   | 16   | 252  | 15   |
| Future Volume (veh/h)         | 10   | 60    | 41   | 44    | 74   | 40    | 43   | 79    | 18   | 16   | 252  | 15   |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 11   | 65    | 45   | 48    | 80   | 43    | 47   | 86    | 20   | 17   | 274  | 16   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       | Yes  |      |      |      |
| Cap, veh/h                    | 100  | 175   | 111  | 160   | 160  | 73    | 339  | 587   | 123  | 106  | 1036 | 58   |
| HCM Platoon Ratio             | 0.33 | 0.33  | 0.33 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.33 | 1.33 |
| Prop Arrive On Green          | 0.06 | 0.06  | 0.06 | 0.17  | 0.17 | 0.17  | 0.61 | 0.61  | 0.61 | 0.81 | 0.81 | 0.81 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 19.4 | 0.0   | 0.0  | 17.8  | 0.0  | 0.0   | 4.1  | 0.0   | 0.0  | 2.3  | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | A     | A    | B     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 121  |       |      |       | 171  |       |      | 153   |      |      | 307  |      |
| Approach Delay, s/veh         | 19.4 |       |      |       | 17.8 |       |      | 4.1   |      |      | 2.3  |      |
| Approach LOS                  | B    |       |      |       | B    |       |      | A     |      |      | A    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 32.2  |      | 12.8  |      | 32.2  |      | 12.8  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.9 |      | * 5   |      | * 4.9 |      | * 5   |      |      |      |      |
| Max Green (Gmax), s           |      | * 17  |      | * 18  |      | * 17  |      | * 18  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.5   |      | 5.4   |      | 5.3   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 3.6   |      | 5.0   |      | 3.8   |      | 6.0   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 0.7   |      | 0.5   |      | 1.5   |      | 0.7   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 0.97  |      | 1.00  |      | 0.97  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.01  |      | 0.00  |      | 0.03  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 386   |      | 73    |      | 35    |      | 330   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 967   |      | 1008  |      | 1706  |      | 924   |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 204   |      | 640   |      | 96    |      | 421   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T+R |      | L+T+R |      | L+T+R |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

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|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 153  | 0    | 121  | 0    | 307  | 0    | 171  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1557 | 0    | 1721 | 0    | 1837 | 0    | 1675 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 1.6  | 0.0  | 3.0  | 0.0  | 1.8  | 0.0  | 4.0  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 1106 | 0    | 1288 | 0    | 1308 | 0    | 1304 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 1842 | 0    | 1862 | 0    | 1865 | 0    | 1844 |
| Perm LT Eff Green (g_p), s          | 0.0  | 27.3 | 0.0  | 7.8  | 0.0  | 27.3 | 0.0  | 7.8  |
| Perm LT Serve Time (g_u), s         | 0.0  | 25.5 | 0.0  | 3.8  | 0.0  | 25.7 | 0.0  | 4.8  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.0  |
| Time to First Blk (g_f), s          | 0.0  | 4.5  | 0.0  | 4.1  | 0.0  | 17.7 | 0.0  | 2.2  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 1.6  | 0.0  | 3.0  | 0.0  | 1.8  | 0.0  | 2.2  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.31 | 0.00 | 0.09 | 0.00 | 0.06 | 0.00 | 0.28 |
| Lane Grp Cap (c), veh/h             | 0    | 1049 | 0    | 385  | 0    | 1199 | 0    | 392  |
| V/C Ratio (X)                       | 0.00 | 0.15 | 0.00 | 0.31 | 0.00 | 0.26 | 0.00 | 0.44 |
| Avail Cap (c_a), veh/h              | 0    | 1049 | 0    | 767  | 0    | 1199 | 0    | 754  |
| Upstream Filter (l)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.73 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 3.8  | 0.0  | 19.0 | 0.0  | 1.9  | 0.0  | 17.0 |
| Incr Delay (d2), s/veh              | 0.0  | 0.3  | 0.0  | 0.5  | 0.0  | 0.4  | 0.0  | 0.8  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 4.1  | 0.0  | 19.4 | 0.0  | 2.3  | 0.0  | 17.8 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 0.3  | 0.0  | 1.1  | 0.0  | 0.3  | 0.0  | 1.4  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 0.8  | 0.0  | 2.1  | 0.0  | 0.8  | 0.0  | 2.7  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.05 | 0.00 | 0.42 | 0.00 | 0.04 | 0.00 | 0.16 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

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|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      |      |      |      |      |      |      |      |
| Lanes in Grp                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.13 | 0.00 | 0.37 | 0.00 | 0.05 | 0.00 | 0.25 |
| Lane Grp Cap (c), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay 8.9

HCM 6th LOS A

### Notes

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

**Intersection**

Int Delay, s/veh 0.3

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑   |      | ↑↑↑  |      | Y    |      |
| Traffic Vol, veh/h       | 509  | 11   | 13   | 662  | 2    | 9    |
| Future Vol, veh/h        | 509  | 11   | 13   | 662  | 2    | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 35   | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 553  | 12   | 14   | 720  | 2    | 10   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |           |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 0      | 0      | 565    | 0 | 875 283   |
| Stage 1              | -      | -      | -      | - | 559 -     |
| Stage 2              | -      | -      | -      | - | 316 -     |
| Critical Hdwy        | -      | -      | 4.14   | - | 6.29 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.04 -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.67 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 1003   | - | 321 714   |
| Stage 1              | -      | -      | -      | - | 520 -     |
| Stage 2              | -      | -      | -      | - | 675 -     |
| Platoon blocked, %   | -      | -      | -      | - | -         |
| Mov Cap-1 Maneuver   | -      | -      | 1003   | - | 314 714   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 314 -     |
| Stage 1              | -      | -      | -      | - | 520 -     |
| Stage 2              | -      | -      | -      | - | 659 -     |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.3 | 11.3 |
| HCM LOS              |    | B   |      |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 580   | -   | -   | 1003  | -   |
| HCM Lane V/C Ratio    | 0.021 | -   | -   | 0.014 | -   |
| HCM Control Delay (s) | 11.3  | -   | -   | 8.6   | 0.1 |
| HCM Lane LOS          | B     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | 0     | -   |

HCM 6th Signalized Intersection Summary  
2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement   | EBL  | EBT   | EBR  | WBL  | WBT  | WBR   | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations  | ↑    | ↑↑    |      | ↑    | ↑↑   |       |      | ↔    |      |      | ↔    |      |
| Traffic Volume (veh/h)   | 54   | 437   | 34   | 26   | 453  | 33    | 67   | 185  | 131  | 12   | 50   | 13   |
| Future Volume (veh/h)  | 54   | 437   | 34   | 26   | 453  | 33    | 67   | 185  | 131  | 12   | 50   | 13   |
| Initial Q (Q <sub>b</sub> ), veh   | 0    | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)  | 1.00 |       | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj   | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach  | No   |       |      | No   |      |       | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln   | 1870 | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h   | 59   | 475   | 37   | 28   | 492  | 36    | 73   | 201  | 142  | 13   | 54   | 14   |
| Peak Hour Factor   | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %   | 2    | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h   | 560  | 2055  | 160  | 570  | 2066 | 151   | 111  | 244  | 160  | 90   | 335  | 79   |
| Arrive On Green  | 0.62 | 0.62  | 0.62 | 0.62 | 0.62 | 0.62  | 0.47 | 0.47 | 0.47 | 0.28 | 0.28 | 0.28 |
| Sat Flow, veh/h  | 875  | 3341  | 259  | 888  | 3358 | 245   | 230  | 873  | 572  | 155  | 1200 | 283  |
| Grp Volume(v), veh/h   | 59   | 252   | 260  | 28   | 260  | 268   | 416  | 0    | 0    | 81   | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln  | 875  | 1777  | 1824 | 888  | 1777 | 1826  | 1675 | 0    | 0    | 1638 | 0    | 0    |
| Q Serve(g_s), s  | 2.9  | 5.7   | 5.8  | 1.3  | 5.9  | 6.0   | 15.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s  | 8.9  | 5.7   | 5.8  | 7.1  | 5.9  | 6.0   | 20.3 | 0.0  | 0.0  | 3.0  | 0.0  | 0.0  |
| Prop In Lane   | 1.00 |       | 0.14 | 1.00 |      | 0.13  | 0.18 |      | 0.34 | 0.16 |      | 0.17 |
| Lane Grp Cap(c), veh/h   | 560  | 1093  | 1122 | 570  | 1093 | 1124  | 515  | 0    | 0    | 504  | 0    | 0    |
| V/C Ratio(X)   | 0.11 | 0.23  | 0.23 | 0.05 | 0.24 | 0.24  | 0.81 | 0.00 | 0.00 | 0.16 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h  | 560  | 1093  | 1122 | 570  | 1093 | 1124  | 934  | 0    | 0    | 914  | 0    | 0    |
| HCM Platoon Ratio  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.67 | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)   | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 0.95 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh   | 9.8  | 7.8   | 7.8  | 9.4  | 7.8  | 7.8   | 22.6 | 0.0  | 0.0  | 24.5 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh   | 0.4  | 0.5   | 0.5  | 0.2  | 0.5  | 0.5   | 2.9  | 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(95%), veh/ln  | 1.1  | 3.8   | 4.0  | 0.5  | 4.0  | 4.1   | 10.5 | 0.0  | 0.0  | 2.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh   |      |       |      |      |      |       |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh  | 10.2 | 8.3   | 8.3  | 9.5  | 8.3  | 8.3   | 25.5 | 0.0  | 0.0  | 24.6 | 0.0  | 0.0  |
| LnGrp LOS  | B    | A     | A    | A    | A    | A     | C    | A    | A    | C    | A    | A    |
| Approach Vol, veh/h  |      | 571   |      |      | 556  |       |      | 416  |      |      | 81   |      |
| Approach Delay, s/veh  |      | 8.5   |      |      | 8.4  |       |      | 25.5 |      |      | 24.6 |      |
| Approach LOS   |      | A     |      |      | A    |       |      | C    |      |      | C    |      |
| Timer - Assigned Phs   |      | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s  |      | 59.9  |      | 30.1 |      | 59.9  |      | 30.1 |      |      |      |      |
| Change Period (Y+R <sub>c</sub> ), s   |      | * 4.5 |      | 5.0  |      | * 4.5 |      | 5.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | * 33  |      | 48.0 |      | * 33  |      | 48.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s   |      | 9.1   |      | 22.3 |      | 10.9  |      | 5.0  |      |      |      |      |
| Green Ext Time (p_c), s  |      | 3.4   |      | 2.8  |      | 3.4   |      | 0.5  |      |      |      |      |
| Intersection Summary   |      |       |      |      |      |       |      |      |      |      |      |      |
| HCM 6th Ctrl Delay   |      |       | 13.6 |      |      |       |      |      |      |      |      |      |
| HCM 6th LOS  |      |       | B    |      |      |       |      |      |      |      |      |      |
| Notes  |      |       |      |      |      |       |      |      |      |      |      |      |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. |      |       |      |      |      |       |      |      |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                      | EBL  | EBT   | EBR   | WBL  | WBT  | WBR   | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|-------|------|------|-------|-------|------|------|------|------|------|
| Lane Configurations           | ↑    | ↑↑    |       | ↑    | ↑↑   |       |       | ↔    |      |      | ↔    |      |
| Traffic Volume (veh/h)        | 54   | 437   | 34    | 26   | 453  | 33    | 67    | 185  | 131  | 12   | 50   | 13   |
| Future Volume (veh/h)         | 54   | 437   | 34    | 26   | 453  | 33    | 67    | 185  | 131  | 12   | 50   | 13   |
| Number                        | 1    | 6     | 16    | 5    | 2    | 12    | 7     | 4    | 14   | 3    | 8    | 18   |
| Initial Q, veh                | 0    | 0     | 0     | 0    | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |       | 1.00 | 1.00 |       | 1.00  | 1.00 |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |       |      | No   |       |       | No   |      | No   |      | No   |
| Lanes Open During Work Zone   |      |       |       |      |      |       |       |      |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870  | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 59   | 475   | 37    | 28   | 492  | 36    | 73    | 201  | 142  | 13   | 54   | 14   |
| Peak Hour Factor              | 0.92 | 0.92  | 0.92  | 0.92 | 0.92 | 0.92  | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %          | 2    | 2     | 2     | 2    | 2    | 2     | 2     | 2    | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |       | Yes  |      |       | Yes   |      |      | Yes  |      |      |
| Cap, veh/h                    | 560  | 2055  | 160   | 570  | 2066 | 151   | 111   | 244  | 160  | 90   | 335  | 79   |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.67  | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 |
| Prop Arrive On Green          | 0.62 | 0.62  | 0.62  | 0.62 | 0.62 | 0.62  | 0.47  | 0.47 | 0.47 | 0.28 | 0.28 | 0.28 |
| Unsig. Movement Delay         |      |       |       |      |      |       |       |      |      |      |      |      |
| Ln Grp Delay, s/veh           | 10.2 | 8.3   | 8.3   | 9.5  | 8.3  | 8.3   | 25.5  | 0.0  | 0.0  | 24.6 | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | A     | A     | A    | A    | A     | C     | A    | A    | C    | A    | A    |
| Approach Vol, veh/h           | 571  |       |       |      | 556  |       |       | 416  |      |      | 81   |      |
| Approach Delay, s/veh         | 8.5  |       |       |      | 8.4  |       |       | 25.5 |      |      | 24.6 |      |
| Approach LOS                  | A    |       |       |      | A    |       |       | C    |      |      | C    |      |
| Timer:                        | 1    | 2     | 3     | 4    | 5    | 6     | 7     | 8    |      |      |      |      |
| Assigned Phs                  |      | 2     |       | 4    |      | 6     |       | 8    |      |      |      |      |
| Case No                       |      | 6.0   |       | 8.0  |      | 6.0   |       | 8.0  |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 59.9  |       | 30.1 |      | 59.9  |       | 30.1 |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |       | 5.0  |      | * 4.5 |       | 5.0  |      |      |      |      |
| Max Green (Gmax), s           |      | * 33  |       | 48.0 |      | * 33  |       | 48.0 |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.3   |       | 5.4  |      | 5.3   |       | 5.4  |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 9.1   |       | 22.3 |      | 10.9  |       | 5.0  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 3.4   |       | 2.8  |      | 3.4   |       | 0.5  |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |       | 1.00 |      | 1.00  |       | 1.00 |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |       | 0.00 |      | 0.00  |       | 0.00 |      |      |      |      |
| Left-Turn Movement Data       |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 |      | 5     |       | 7    |      | 1     |       | 3    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 888   |       | 230  |      | 875   |       | 155  |      |      |      |      |
| Through Movement Data         |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 |      | 2     |       | 4    |      | 6     |       | 8    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3358  |       | 873  |      | 3341  |       | 1200 |      |      |      |      |
| Right-Turn Movement Data      |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 |      | 12    |       | 14   |      | 16    |       | 18   |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 245   |       | 572  |      | 259   |       | 283  |      |      |      |      |
| Left Lane Group Data          |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0     | 7    | 0    | 1     | 0     | 3    |      |      |      |      |
| Lane Assignment               | L    |       | L+T+R |      | L    |       | L+T+R |      |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 28   | 0    | 416  | 0    | 59   | 0    | 81   |
| Grp Sat Flow (s), veh/h/ln          | 0    | 888  | 0    | 1675 | 0    | 875  | 0    | 1638 |
| Q Serve Time (g_s), s               | 0.0  | 1.3  | 0.0  | 15.1 | 0.0  | 2.9  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 7.1  | 0.0  | 20.3 | 0.0  | 8.9  | 0.0  | 3.0  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 888  | 0    | 1354 | 0    | 875  | 0    | 1054 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1854 | 0    | 0    | 0    | 1501 |
| Perm LT Eff Green (g_p), s          | 0.0  | 55.4 | 0.0  | 25.1 | 0.0  | 55.4 | 0.0  | 25.1 |
| Perm LT Serve Time (g_u), s         | 0.0  | 49.6 | 0.0  | 22.1 | 0.0  | 49.4 | 0.0  | 4.8  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 1.3  | 0.0  | 15.1 | 0.0  | 2.9  | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 0.0  | 0.0  | 5.2  | 0.0  | 0.0  | 0.0  | 9.3  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 0.0  | 0.0  | 5.2  | 0.0  | 0.0  | 0.0  | 3.0  |
| Prop LT Inside Lane (P_L)           | 0.00 | 1.00 | 0.00 | 0.18 | 0.00 | 1.00 | 0.00 | 0.16 |
| Lane Grp Cap (c), veh/h             | 0    | 570  | 0    | 515  | 0    | 560  | 0    | 504  |
| V/C Ratio (X)                       | 0.00 | 0.05 | 0.00 | 0.81 | 0.00 | 0.11 | 0.00 | 0.16 |
| Avail Cap (c_a), veh/h              | 0    | 570  | 0    | 934  | 0    | 560  | 0    | 914  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 0.95 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 9.4  | 0.0  | 22.6 | 0.0  | 9.8  | 0.0  | 24.5 |
| Incr Delay (d2), s/veh              | 0.0  | 0.2  | 0.0  | 2.9  | 0.0  | 0.4  | 0.0  | 0.1  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 9.5  | 0.0  | 25.5 | 0.0  | 10.2 | 0.0  | 24.6 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 0.2  | 0.0  | 6.0  | 0.0  | 0.5  | 0.0  | 1.3  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.0  | 0.0  | 0.4  | 0.0  | 0.1  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.63 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 0.5  | 0.0  | 10.5 | 0.0  | 1.1  | 0.0  | 2.3  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.12 | 0.00 | 0.45 | 0.00 | 0.54 | 0.00 | 0.51 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      | T    |      |      |      | T    |      |      |
| Lanes in Grp                | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 260  | 0    | 0    | 0    | 252  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 1777 | 0    | 0    | 0    | 1777 | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 5.7  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 5.7  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 1093 | 0    | 0    | 0    | 1093 | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.23 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 1093 | 0    | 0    | 0    | 1093 | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 7.8  | 0.0  | 0.0  | 0.0  | 7.8  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  | 0.5  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 8.3  | 0.0  | 0.0  | 0.0  | 8.3  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 2.0  | 0.0  | 0.0  | 0.0  | 2.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln | 0.0  | 4.0  | 0.0  | 0.0  | 0.0  | 3.8  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.68 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 268  | 0    | 0    | 0    | 260  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1826 | 0    | 0    | 0    | 1824 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 6.0  | 0.0  | 0.0  | 0.0  | 5.8  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 6.0  | 0.0  | 0.0  | 0.0  | 5.8  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.13 | 0.00 | 0.34 | 0.00 | 0.14 | 0.00 | 0.17 |
| Lane Grp Cap (c), veh/h          | 0    | 1124 | 0    | 0    | 0    | 1122 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.23 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1124 | 0    | 0    | 0    | 1122 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 7.8  | 0.0  | 0.0  | 0.0  | 7.8  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  | 0.5  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 8.3  | 0.0  | 0.0  | 0.0  | 8.3  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 2.1  | 0.0  | 0.0  | 0.0  | 2.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 4.1  | 0.0  | 0.0  | 0.0  | 4.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.70 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 13.6 |
| HCM 6th LOS        | B    |

### Notes

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

# HCM 6th Signalized Intersection Summary

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021



| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations              |       |      |      |      |       |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)           | 54    | 115  | 33   | 30   | 77    | 57   | 6    | 980  | 37   | 6    | 659  | 54   |
| Future Volume (veh/h)            | 54    | 115  | 33   | 30   | 77    | 57   | 6    | 980  | 37   | 6    | 659  | 54   |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            | No    |      |      | No   |       |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 59    | 125  | 36   | 33   | 84    | 62   | 7    | 1065 | 40   | 7    | 716  | 59   |
| 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, %             | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 107   | 167  | 44   | 80   | 145   | 94   | 45   | 2496 | 93   | 46   | 2368 | 194  |
| Arrive On Green                  | 0.16  | 0.16 | 0.16 | 0.16 | 0.16  | 0.16 | 0.73 | 0.73 | 0.73 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                  | 349   | 1036 | 271  | 205  | 899   | 585  | 6    | 3407 | 127  | 8    | 3232 | 264  |
| Grp Volume(v), veh/h             | 220   | 0    | 0    | 179  | 0     | 0    | 585  | 0    | 527  | 413  | 0    | 369  |
| Grp Sat Flow(s), veh/h/ln1657    | 0     | 0    | 1689 | 0    | 0     | 1861 | 0    | 1679 | 1850 | 0    | 1654 |      |
| Q Serve(g_s), s                  | 2.7   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 11.0 | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 11.5  | 0.0  | 0.0  | 8.8  | 0.0   | 0.0  | 10.9 | 0.0  | 11.0 | 0.0  | 0.0  | 0.0  |
| Prop In Lane                     | 0.27  |      | 0.16 | 0.18 |       | 0.35 | 0.01 |      | 0.08 | 0.02 |      | 0.16 |
| Lane Grp Cap(c), veh/h           | 317   | 0    | 0    | 319  | 0     | 0    | 1404 | 0    | 1230 | 1396 | 0    | 1212 |
| V/C Ratio(X)                     | 0.69  | 0.00 | 0.00 | 0.56 | 0.00  | 0.00 | 0.42 | 0.00 | 0.43 | 0.30 | 0.00 | 0.30 |
| Avail Cap(c_a), veh/h            | 539   | 0    | 0    | 542  | 0     | 0    | 1404 | 0    | 1230 | 1396 | 0    | 1212 |
| 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(l)               | 1.00  | 0.00 | 0.00 | 1.00 | 0.00  | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh         | 36.4  | 0.0  | 0.0  | 35.3 | 0.0   | 0.0  | 4.7  | 0.0  | 4.7  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 2.7   | 0.0  | 0.0  | 1.5  | 0.0   | 0.0  | 0.9  | 0.0  | 1.1  | 0.5  | 0.0  | 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(95%), veh/ln        | 8.4   | 0.0  | 0.0  | 6.8  | 0.0   | 0.0  | 6.5  | 0.0  | 5.9  | 0.4  | 0.0  | 0.4  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh            | 39.1  | 0.0  | 0.0  | 36.9 | 0.0   | 0.0  | 5.6  | 0.0  | 5.8  | 0.5  | 0.0  | 0.6  |
| LnGrp LOS                        | D     | A    | A    | D    | A     | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h              | 220   |      |      | 179  |       |      | 1112 |      | 782  |      |      |      |
| Approach Delay, s/veh            | 39.1  |      |      | 36.9 |       |      | 5.7  |      | 0.6  |      |      |      |
| Approach LOS                     | D     |      |      | D    |       |      | A    |      | A    |      |      |      |
| Timer - Assigned Phs             | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+Rc), s         | 70.4  |      | 19.6 |      | 70.4  |      | 19.6 |      |      |      |      |      |
| Change Period (Y+Rc), s          | * 4.5 |      | 5.1  |      | * 4.5 |      | 5.1  |      |      |      |      |      |
| Max Green Setting (Gmax), s      | * 54  |      | 26.9 |      | * 54  |      | 26.9 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s     | 13.0  |      | 13.5 |      | 2.0   |      | 10.8 |      |      |      |      |      |
| Green Ext Time (p_c), s          | 9.6   |      | 1.0  |      | 6.0   |      | 0.9  |      |      |      |      |      |
| Intersection Summary             |       |      |      |      |       |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay               |       |      | 9.6  |      |       |      |      |      |      |      |      |      |
| HCM 6th LOS                      |       |      | A    |      |       |      |      |      |      |      |      |      |
| Notes                            |       |      |      |      |       |      |      |      |      |      |      |      |

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

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 54   | 115   | 33   | 30    | 77   | 57    | 6    | 980   | 37   | 6    | 659  | 54   |
| Future Volume (veh/h)         | 54   | 115   | 33   | 30    | 77   | 57    | 6    | 980   | 37   | 6    | 659  | 54   |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       | 1.00 | 1.00  |      | 1.00  | 1.00 |       | 1.00 | 1.00 |      | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      | No    |      |       | No   |       | No   |      | No   |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 59   | 125   | 36   | 33    | 84   | 62    | 7    | 1065  | 40   | 7    | 716  | 59   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       | Yes  |      | Yes  |      |
| Cap, veh/h                    | 107  | 167   | 44   | 80    | 145  | 94    | 45   | 2496  | 93   | 46   | 2368 | 194  |
| 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 |
| Prop Arrive On Green          | 0.16 | 0.16  | 0.16 | 0.16  | 0.16 | 0.16  | 0.73 | 0.73  | 0.73 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 39.1 | 0.0   | 0.0  | 36.9  | 0.0  | 0.0   | 5.6  | 0.0   | 5.8  | 0.5  | 0.0  | 0.6  |
| Ln Grp LOS                    | D    | A     | A    | D     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 220  |       |      | 179   |      |       | 1112 |       |      | 782  |      |      |
| Approach Delay, s/veh         | 39.1 |       |      | 36.9  |      |       | 5.7  |       |      | 0.6  |      |      |
| Approach LOS                  | D    |       |      | D     |      |       | A    |       |      | A    |      |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 70.4  |      | 19.6  |      | 70.4  |      | 19.6  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.1   |      | * 4.5 |      | 5.1   |      |      |      |      |
| Max Green (Gmax), s           |      | * 54  |      | 26.9  |      | * 54  |      | 26.9  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.3   |      | 5.4   |      | 5.3   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 13.0  |      | 13.5  |      | 2.0   |      | 10.8  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 9.6   |      | 1.0   |      | 6.0   |      | 0.9   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.03  |      | 0.00  |      | 0.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 6     |      | 349   |      | 8     |      | 205   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3407  |      | 1036  |      | 3232  |      | 899   |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 127   |      | 271   |      | 264   |      | 585   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T   |      | L+T+R |      | L+T   |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 585  | 0    | 220  | 0    | 413  | 0    | 179  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1861 | 0    | 1657 | 0    | 1850 | 0    | 1689 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 2.7  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 10.9 | 0.0  | 11.5 | 0.0  | 0.0  | 0.0  | 8.8  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 707  | 0    | 1262 | 0    | 518  | 0    | 1245 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1630 | 0    | 0    | 0    | 1672 |
| Perm LT Eff Green (g_p), s          | 0.0  | 65.9 | 0.0  | 14.5 | 0.0  | 65.9 | 0.0  | 14.5 |
| Perm LT Serve Time (g_u), s         | 0.0  | 65.9 | 0.0  | 5.7  | 0.0  | 54.9 | 0.0  | 3.0  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 2.7  | 0.0  | 0.0  | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 49.2 | 0.0  | 2.8  | 0.0  | 49.2 | 0.0  | 4.8  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 10.9 | 0.0  | 2.8  | 0.0  | 0.0  | 0.0  | 4.8  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.01 | 0.00 | 0.27 | 0.00 | 0.02 | 0.00 | 0.18 |
| Lane Grp Cap (c), veh/h             | 0    | 1404 | 0    | 317  | 0    | 1396 | 0    | 319  |
| V/C Ratio (X)                       | 0.00 | 0.42 | 0.00 | 0.69 | 0.00 | 0.30 | 0.00 | 0.56 |
| Avail Cap (c_a), veh/h              | 0    | 1404 | 0    | 539  | 0    | 1396 | 0    | 542  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 4.7  | 0.0  | 36.4 | 0.0  | 0.0  | 0.0  | 35.3 |
| Incr Delay (d2), s/veh              | 0.0  | 0.9  | 0.0  | 2.7  | 0.0  | 0.5  | 0.0  | 1.5  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 5.6  | 0.0  | 39.1 | 0.0  | 0.5  | 0.0  | 36.9 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 3.2  | 0.0  | 4.6  | 0.0  | 0.0  | 0.0  | 3.6  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.4  | 0.0  | 0.2  | 0.0  | 0.2  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.75 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 6.5  | 0.0  | 8.4  | 0.0  | 0.4  | 0.0  | 6.8  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.38 | 0.00 | 1.50 | 0.00 | 0.02 | 0.00 | 1.13 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 527  | 0    | 0    | 0    | 369  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1679 | 0    | 0    | 0    | 1654 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 11.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 11.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.08 | 0.00 | 0.16 | 0.00 | 0.16 | 0.00 | 0.35 |
| Lane Grp Cap (c), veh/h          | 0    | 1230 | 0    | 0    | 0    | 1212 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.43 | 0.00 | 0.00 | 0.00 | 0.30 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1230 | 0    | 0    | 0    | 1212 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 4.7  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 1.1  | 0.0  | 0.0  | 0.0  | 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  |
| Control Delay (d), s/veh         | 0.0  | 5.8  | 0.0  | 0.0  | 0.0  | 0.6  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 2.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.35 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |     |
|--------------------|-----|
| HCM 6th Ctrl Delay | 9.6 |
| HCM 6th LOS        | A   |

### Notes

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

**Intersection**

Int Delay, s/veh 1.5

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 22   | 167  | 152  | 11   | 20   | 21   |
| Future Vol, veh/h        | 22   | 167  | 152  | 11   | 20   | 21   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 24   | 182  | 165  | 12   | 22   | 23   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |       |       |
|----------------------|--------|--------|--------|---|-------|-------|
| Conflicting Flow All | 177    | 0      | -      | 0 | 401   | 171   |
| Stage 1              | -      | -      | -      | - | 171   | -     |
| Stage 2              | -      | -      | -      | - | 230   | -     |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  | -     |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | 1399   | -      | -      | - | 605   | 873   |
| Stage 1              | -      | -      | -      | - | 859   | -     |
| Stage 2              | -      | -      | -      | - | 808   | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     | -     |
| Mov Cap-1 Maneuver   | 1399   | -      | -      | - | 594   | 873   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 594   | -     |
| Stage 1              | -      | -      | -      | - | 843   | -     |
| Stage 2              | -      | -      | -      | - | 808   | -     |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.9 | 0  | 10.4 |
| HCM LOS              |     | B  |      |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1399  | -   | -   | -   | 710   |
| HCM Lane V/C Ratio    | 0.017 | -   | -   | -   | 0.063 |
| HCM Control Delay (s) | 7.6   | 0   | -   | -   | 10.4  |
| HCM Lane LOS          | A     | A   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0.2   |

# HCM 6th Signalized Intersection Summary

5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement                              | EBL  | EBT   | EBR  | WBL  | WBT  | WBR   | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------------------------|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations                   |      |       |      |      |      |       |      |      |      |      |      |      |
| Traffic Volume (veh/h)                | 14   | 127   | 33   | 34   | 100  | 45    | 40   | 220  | 87   | 18   | 85   | 22   |
| Future Volume (veh/h)                 | 14   | 127   | 33   | 34   | 100  | 45    | 40   | 220  | 87   | 18   | 85   | 22   |
| Initial Q (Q <sub>b</sub> ), veh      | 0    | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                   | 1.00 |       |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj                      | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                 |      | No    |      |      | No   |       |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln                | 1870 | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                  | 15   | 138   | 36   | 37   | 109  | 49    | 43   | 239  | 95   | 20   | 92   | 24   |
| 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, %                  | 2    | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                            | 99   | 242   | 60   | 133  | 191  | 77    | 152  | 724  | 265  | 182  | 755  | 181  |
| Arrive On Green                       | 0.06 | 0.06  | 0.06 | 0.18 | 0.18 | 0.18  | 0.60 | 0.60 | 0.60 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                       | 71   | 1371  | 339  | 215  | 1085 | 436   | 105  | 1199 | 439  | 149  | 1250 | 300  |
| Grp Volume(v), veh/h                  | 189  | 0     | 0    | 195  | 0    | 0     | 377  | 0    | 0    | 136  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln             | 1782 | 0     | 0    | 1736 | 0    | 0     | 1743 | 0    | 0    | 1699 | 0    | 0    |
| Q Serve(g_s), s                       | 0.1  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s                 | 4.6  | 0.0   | 0.0  | 4.5  | 0.0  | 0.0   | 4.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop In Lane                          | 0.08 |       | 0.19 | 0.19 |      | 0.25  | 0.11 |      | 0.25 | 0.15 |      | 0.18 |
| Lane Grp Cap(c), veh/h                | 401  | 0     | 0    | 401  | 0    | 0     | 1141 | 0    | 0    | 1117 | 0    | 0    |
| V/C Ratio(X)                          | 0.47 | 0.00  | 0.00 | 0.49 | 0.00 | 0.00  | 0.33 | 0.00 | 0.00 | 0.12 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h                 | 789  | 0     | 0    | 766  | 0    | 0     | 1141 | 0    | 0    | 1117 | 0    | 0    |
| HCM Platoon Ratio                     | 0.33 | 0.33  | 0.33 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(l)                    | 1.00 | 0.00  | 0.00 | 1.00 | 0.00 | 0.00  | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh              | 19.6 | 0.0   | 0.0  | 17.1 | 0.0  | 0.0   | 4.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh                | 0.9  | 0.0   | 0.0  | 0.9  | 0.0  | 0.0   | 0.8  | 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(95%), veh/ln             | 3.4  | 0.0   | 0.0  | 3.1  | 0.0  | 0.0   | 2.2  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh          |      |       |      |      |      |       |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh                 | 20.5 | 0.0   | 0.0  | 18.0 | 0.0  | 0.0   | 5.3  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| LnGrp LOS                             | C    | A     | A    | B    | A    | A     | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h                   |      | 189   |      |      | 195  |       |      | 377  |      |      | 136  |      |
| Approach Delay, s/veh                 |      | 20.5  |      |      | 18.0 |       |      | 5.3  |      |      | 0.2  |      |
| Approach LOS                          |      | C     |      |      | B    |       |      | A    |      |      | A    |      |
| Timer - Assigned Phs                  |      | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s |      | 32.1  |      | 12.9 |      | 32.1  |      | 12.9 |      |      |      |      |
| Change Period (Y+R <sub>c</sub> ), s  |      | * 4.9 |      | * 5  |      | * 4.9 |      | * 5  |      |      |      |      |
| Max Green Setting (Gmax), s           |      | * 17  |      | * 18 |      | * 17  |      | * 18 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s          |      | 6.8   |      | 6.6  |      | 2.0   |      | 6.5  |      |      |      |      |
| Green Ext Time (p_c), s               |      | 1.7   |      | 0.7  |      | 0.6   |      | 0.8  |      |      |      |      |
| Intersection Summary                  |      |       |      |      |      |       |      |      |      |      |      |      |
| HCM 6th Ctrl Delay                    |      |       |      | 10.5 |      |       |      |      |      |      |      |      |
| HCM 6th LOS                           |      |       |      | B    |      |       |      |      |      |      |      |      |

## Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 14   | 127   | 33   | 34    | 100  | 45    | 40   | 220   | 87   | 18   | 85   | 22   |
| Future Volume (veh/h)         | 14   | 127   | 33   | 34    | 100  | 45    | 40   | 220   | 87   | 18   | 85   | 22   |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       | 1.00 | 1.00  |      | 1.00  | 1.00 |       | 1.00 | 1.00 |      | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      | No    |      |       | No   |       | No   |      | No   |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 15   | 138   | 36   | 37    | 109  | 49    | 43   | 239   | 95   | 20   | 92   | 24   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       | Yes  |       | Yes  |       | Yes  |       | Yes  |      | Yes  |      |
| Cap, veh/h                    | 99   | 242   | 60   | 133   | 191  | 77    | 152  | 724   | 265  | 182  | 755  | 181  |
| HCM Platoon Ratio             | 0.33 | 0.33  | 0.33 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 2.00 | 2.00 | 2.00 |
| Prop Arrive On Green          | 0.06 | 0.06  | 0.06 | 0.18  | 0.18 | 0.18  | 0.60 | 0.60  | 0.60 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 20.5 | 0.0   | 0.0  | 18.0  | 0.0  | 0.0   | 5.3  | 0.0   | 0.0  | 0.2  | 0.0  | 0.0  |
| Ln Grp LOS                    | C    | A     | A    | B     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 189  |       |      | 195   |      |       | 377  |       |      | 136  |      |      |
| Approach Delay, s/veh         | 20.5 |       |      | 18.0  |      |       | 5.3  |       |      | 0.2  |      |      |
| Approach LOS                  | C    |       |      | B     |      |       | A    |       |      | A    |      |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 32.1  |      | 12.9  |      | 32.1  |      | 12.9  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.9 |      | * 5   |      | * 4.9 |      | * 5   |      |      |      |      |
| Max Green (Gmax), s           |      | * 17  |      | * 18  |      | * 17  |      | * 18  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.4   |      | 5.3   |      | 5.4   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 6.8   |      | 6.6   |      | 2.0   |      | 6.5   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 1.7   |      | 0.7   |      | 0.6   |      | 0.8   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 0.99  |      | 1.00  |      | 0.99  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.05  |      | 0.00  |      | 0.05  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 105   |      | 71    |      | 149   |      | 215   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 1199  |      | 1371  |      | 1250  |      | 1085  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 439   |      | 339   |      | 300   |      | 436   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T+R |      | L+T+R |      | L+T+R |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 377  | 0    | 189  | 0    | 136  | 0    | 195  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1743 | 0    | 1782 | 0    | 1699 | 0    | 1736 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 4.8  | 0.0  | 4.6  | 0.0  | 0.0  | 0.0  | 4.5  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 1296 | 0    | 1248 | 0    | 1063 | 0    | 1230 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 1860 | 0    | 1863 | 0    | 1857 | 0    | 1853 |
| Perm LT Eff Green (g_p), s          | 0.0  | 27.2 | 0.0  | 7.9  | 0.0  | 27.2 | 0.0  | 7.9  |
| Perm LT Serve Time (g_u), s         | 0.0  | 27.2 | 0.0  | 3.5  | 0.0  | 22.4 | 0.0  | 3.4  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 12.5 | 0.0  | 3.9  | 0.0  | 10.3 | 0.0  | 2.7  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 4.8  | 0.0  | 3.9  | 0.0  | 0.0  | 0.0  | 2.7  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.11 | 0.00 | 0.08 | 0.00 | 0.15 | 0.00 | 0.19 |
| Lane Grp Cap (c), veh/h             | 0    | 1141 | 0    | 401  | 0    | 1117 | 0    | 401  |
| V/C Ratio (X)                       | 0.00 | 0.33 | 0.00 | 0.47 | 0.00 | 0.12 | 0.00 | 0.49 |
| Avail Cap (c_a), veh/h              | 0    | 1141 | 0    | 789  | 0    | 1117 | 0    | 766  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 4.5  | 0.0  | 19.6 | 0.0  | 0.0  | 0.0  | 17.1 |
| Incr Delay (d2), s/veh              | 0.0  | 0.8  | 0.0  | 0.9  | 0.0  | 0.2  | 0.0  | 0.9  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 5.3  | 0.0  | 20.5 | 0.0  | 0.2  | 0.0  | 18.0 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 1.0  | 0.0  | 1.8  | 0.0  | 0.0  | 0.0  | 1.6  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.2  | 0.0  | 0.1  | 0.0  | 0.1  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 2.2  | 0.0  | 3.4  | 0.0  | 0.1  | 0.0  | 3.1  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.15 | 0.00 | 0.69 | 0.00 | 0.01 | 0.00 | 0.19 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      |      |      |      |      |      |      |      |
| Lanes in Grp                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.25 | 0.00 | 0.19 | 0.00 | 0.18 | 0.00 | 0.25 |
| Lane Grp Cap (c), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay 10.5

HCM 6th LOS B

### Notes

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

**Intersection**

Int Delay, s/veh 0.7

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑   |      | ↑↑↑  | ↑    |      |      |
| Traffic Vol, veh/h       | 437  | 12   | 8    | 696  | 0    | 82   |
| Future Vol, veh/h        | 437  | 12   | 8    | 696  | 0    | 82   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 35   | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 475  | 13   | 9    | 757  | 0    | 89   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 0      | 0      | 488    | 0 | 803  |
| Stage 1              | -      | -      | -      | - | 482  |
| Stage 2              | -      | -      | -      | - | 321  |
| Critical Hdwy        | -      | -      | 4.14   | - | 6.29 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.04 |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.67 |
| Pot Cap-1 Maneuver   | -      | -      | 1071   | - | 353  |
| Stage 1              | -      | -      | -      | - | 568  |
| Stage 2              | -      | -      | -      | - | 671  |
| Platoon blocked, %   | -      | -      | -      | - | -    |
| Mov Cap-1 Maneuver   | -      | -      | 1071   | - | 348  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 348  |
| Stage 1              | -      | -      | -      | - | 568  |
| Stage 2              | -      | -      | -      | - | 662  |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 10.4 |
| HCM LOS              |    | B   |      |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 757   | -   | -   | 1071  | -   |
| HCM Lane V/C Ratio    | 0.118 | -   | -   | 0.008 | -   |
| HCM Control Delay (s) | 10.4  | -   | -   | 8.4   | 0   |
| HCM Lane LOS          | B     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | 0     | -   |

HCM 6th Signalized Intersection Summary  
2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                         | EBL  | EBT   | EBR  | WBL  | WBT  | WBR   | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations              | ↑    | ↑↑    |      | ↑    | ↑↑   |       |      | ↔    |      |      | ↔    |      |
| Traffic Volume (veh/h)           | 15   | 451   | 73   | 60   | 612  | 30    | 3    | 30   | 34   | 6    | 255  | 48   |
| Future Volume (veh/h)            | 15   | 451   | 73   | 60   | 612  | 30    | 3    | 30   | 34   | 6    | 255  | 48   |
| Initial Q (Q <sub>b</sub> ), veh | 0    | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00 |       | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            |      | No    |      |      | No   |       |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln           | 1870 | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 16   | 490   | 79   | 65   | 665  | 33    | 3    | 33   | 37   | 7    | 277  | 52   |
| 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, %             | 2    | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 525  | 2064  | 331  | 594  | 2319 | 115   | 46   | 183  | 192  | 44   | 337  | 62   |
| Arrive On Green                  | 0.67 | 0.67  | 0.67 | 0.67 | 0.67 | 0.67  | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h                  | 748  | 3067  | 492  | 843  | 3446 | 171   | 18   | 826  | 868  | 13   | 1521 | 281  |
| Grp Volume(v), veh/h             | 16   | 283   | 286  | 65   | 343  | 355   | 73   | 0    | 0    | 336  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln        | 748  | 1777  | 1782 | 843  | 1777 | 1840  | 1712 | 0    | 0    | 1814 | 0    | 0    |
| Q Serve(g_s), s                  | 0.8  | 5.6   | 5.6  | 2.9  | 7.0  | 7.0   | 0.0  | 0.0  | 0.0  | 2.9  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 7.8  | 5.6   | 5.6  | 8.6  | 7.0  | 7.0   | 3.1  | 0.0  | 0.0  | 15.9 | 0.0  | 0.0  |
| Prop In Lane                     | 1.00 |       | 0.28 | 1.00 |      | 0.09  | 0.04 |      | 0.51 | 0.02 |      | 0.15 |
| Lane Grp Cap(c), veh/h           | 525  | 1196  | 1199 | 594  | 1196 | 1238  | 421  | 0    | 0    | 443  | 0    | 0    |
| V/C Ratio(X)                     | 0.03 | 0.24  | 0.24 | 0.11 | 0.29 | 0.29  | 0.17 | 0.00 | 0.00 | 0.76 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h            | 525  | 1196  | 1199 | 594  | 1196 | 1238  | 792  | 0    | 0    | 845  | 0    | 0    |
| HCM Platoon Ratio                | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)               | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 0.99 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh         | 7.6  | 5.7   | 5.7  | 7.4  | 6.0  | 6.0   | 28.5 | 0.0  | 0.0  | 33.5 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.1  | 0.5   | 0.5  | 0.4  | 0.6  | 0.6   | 0.2  | 0.0  | 0.0  | 2.7  | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh       | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%), veh/ln        | 0.2  | 3.5   | 3.5  | 1.0  | 4.4  | 4.6   | 2.3  | 0.0  | 0.0  | 11.6 | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh     |      |       |      |      |      |       |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh            | 7.7  | 6.2   | 6.2  | 7.8  | 6.6  | 6.5   | 28.7 | 0.0  | 0.0  | 36.2 | 0.0  | 0.0  |
| LnGrp LOS                        | A    | A     | A    | A    | A    | A     | C    | A    | A    | D    | A    | A    |
| Approach Vol, veh/h              |      | 585   |      |      | 763  |       |      | 73   |      |      | 336  |      |
| Approach Delay, s/veh            |      | 6.2   |      |      | 6.7  |       |      | 28.7 |      |      | 36.2 |      |
| Approach LOS                     |      | A     |      |      | A    |       |      | C    |      |      | D    |      |
| Timer - Assigned Phs             |      | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s         |      | 65.1  |      | 24.9 |      | 65.1  |      | 24.9 |      |      |      |      |
| Change Period (Y+Rc), s          |      | * 4.5 |      | 5.0  |      | * 4.5 |      | 5.0  |      |      |      |      |
| Max Green Setting (Gmax), s      |      | * 41  |      | 40.0 |      | * 41  |      | 40.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s     |      | 10.6  |      | 5.1  |      | 9.8   |      | 17.9 |      |      |      |      |
| Green Ext Time (p_c), s          |      | 5.3   |      | 0.4  |      | 3.9   |      | 2.0  |      |      |      |      |
| Intersection Summary             |      |       |      |      |      |       |      |      |      |      |      |      |
| HCM 6th Ctrl Delay               |      |       |      | 13.1 |      |       |      |      |      |      |      |      |
| HCM 6th LOS                      |      |       |      | B    |      |       |      |      |      |      |      |      |
| Notes                            |      |       |      |      |      |       |      |      |      |      |      |      |

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

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                      | EBL  | EBT   | EBR   | WBL  | WBT  | WBR   | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|-------|------|------|-------|-------|------|------|------|------|------|
| Lane Configurations           | ↑    | ↑↑    |       | ↑    | ↑↑   |       |       | ↔    |      |      | ↔    |      |
| Traffic Volume (veh/h)        | 15   | 451   | 73    | 60   | 612  | 30    | 3     | 30   | 34   | 6    | 255  | 48   |
| Future Volume (veh/h)         | 15   | 451   | 73    | 60   | 612  | 30    | 3     | 30   | 34   | 6    | 255  | 48   |
| Number                        | 1    | 6     | 16    | 5    | 2    | 12    | 7     | 4    | 14   | 3    | 8    | 18   |
| Initial Q, veh                | 0    | 0     | 0     | 0    | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       | 1.00  | 1.00 |      | 1.00  | 1.00  |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |       | No   |      |       | No    |      | No   |      | No   |      |
| Lanes Open During Work Zone   |      |       |       |      |      |       |       |      |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870  | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 16   | 490   | 79    | 65   | 665  | 33    | 3     | 33   | 37   | 7    | 277  | 52   |
| 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, %          | 2    | 2     | 2     | 2    | 2    | 2     | 2     | 2    | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       | Yes   |      | Yes  |       | Yes   |      | Yes  |      | Yes  |      |
| Cap, veh/h                    | 525  | 2064  | 331   | 594  | 2319 | 115   | 46    | 183  | 192  | 44   | 337  | 62   |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Prop Arrive On Green          | 0.67 | 0.67  | 0.67  | 0.67 | 0.67 | 0.67  | 0.22  | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| Unsig. Movement Delay         |      |       |       |      |      |       |       |      |      |      |      |      |
| Ln Grp Delay, s/veh           | 7.7  | 6.2   | 6.2   | 7.8  | 6.6  | 6.5   | 28.7  | 0.0  | 0.0  | 36.2 | 0.0  | 0.0  |
| Ln Grp LOS                    | A    | A     | A     | A    | A    | A     | C     | A    | A    | D    | A    | A    |
| Approach Vol, veh/h           | 585  |       |       | 763  |      |       | 73    |      |      | 336  |      |      |
| Approach Delay, s/veh         | 6.2  |       |       | 6.7  |      |       | 28.7  |      |      | 36.2 |      |      |
| Approach LOS                  | A    |       |       | A    |      |       | C     |      |      | D    |      |      |
| Timer:                        | 1    | 2     | 3     | 4    | 5    | 6     | 7     | 8    |      |      |      |      |
| Assigned Phs                  |      | 2     |       | 4    |      | 6     |       | 8    |      |      |      |      |
| Case No                       |      | 6.0   |       | 8.0  |      | 6.0   |       | 8.0  |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 65.1  |       | 24.9 |      | 65.1  |       | 24.9 |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |       | 5.0  |      | * 4.5 |       | 5.0  |      |      |      |      |
| Max Green (Gmax), s           |      | * 41  |       | 40.0 |      | * 41  |       | 40.0 |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.3   |       | 5.4  |      | 5.3   |       | 5.3  |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 10.6  |       | 5.1  |      | 9.8   |       | 17.9 |      |      |      |      |
| Green Ext Time (g_e), s       |      | 5.3   |       | 0.4  |      | 3.9   |       | 2.0  |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |       | 1.00 |      | 1.00  |       | 1.00 |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |       | 0.00 |      | 0.00  |       | 0.00 |      |      |      |      |
| Left-Turn Movement Data       |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 |      | 5     |       | 7    |      | 1     |       | 3    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 843   |       | 18   |      | 748   |       | 13   |      |      |      |      |
| Through Movement Data         |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 |      | 2     |       | 4    |      | 6     |       | 8    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3446  |       | 826  |      | 3067  |       | 1521 |      |      |      |      |
| Right-Turn Movement Data      |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 |      | 12    |       | 14   |      | 16    |       | 18   |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 171   |       | 868  |      | 492   |       | 281  |      |      |      |      |
| Left Lane Group Data          |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0     | 7    | 0    | 1     | 0     | 3    |      |      |      |      |
| Lane Assignment               | L    |       | L+T+R |      | L    |       | L+T+R |      |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

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|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 65   | 0    | 73   | 0    | 16   | 0    | 336  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 843  | 0    | 1712 | 0    | 748  | 0    | 1814 |
| Q Serve Time (g_s), s               | 0.0  | 2.9  | 0.0  | 0.0  | 0.0  | 0.8  | 0.0  | 2.9  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 8.6  | 0.0  | 3.1  | 0.0  | 7.8  | 0.0  | 15.9 |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 843  | 0    | 1068 | 0    | 748  | 0    | 1352 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1867 | 0    | 0    | 0    | 1868 |
| Perm LT Eff Green (g_p), s          | 0.0  | 60.6 | 0.0  | 19.9 | 0.0  | 60.6 | 0.0  | 19.9 |
| Perm LT Serve Time (g_u), s         | 0.0  | 54.9 | 0.0  | 4.0  | 0.0  | 53.5 | 0.0  | 16.8 |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 2.9  | 0.0  | 0.0  | 0.0  | 0.8  | 0.0  | 2.9  |
| Time to First Blk (g_f), s          | 0.0  | 0.0  | 0.0  | 14.8 | 0.0  | 0.0  | 0.0  | 13.0 |
| Serve Time pre Blk (g_fs), s        | 0.0  | 0.0  | 0.0  | 3.1  | 0.0  | 0.0  | 0.0  | 13.0 |
| Prop LT Inside Lane (P_L)           | 0.00 | 1.00 | 0.00 | 0.04 | 0.00 | 1.00 | 0.00 | 0.02 |
| Lane Grp Cap (c), veh/h             | 0    | 594  | 0    | 421  | 0    | 525  | 0    | 443  |
| V/C Ratio (X)                       | 0.00 | 0.11 | 0.00 | 0.17 | 0.00 | 0.03 | 0.00 | 0.76 |
| Avail Cap (c_a), veh/h              | 0    | 594  | 0    | 792  | 0    | 525  | 0    | 845  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 0.99 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 7.4  | 0.0  | 28.5 | 0.0  | 7.6  | 0.0  | 33.5 |
| Incr Delay (d2), s/veh              | 0.0  | 0.4  | 0.0  | 0.2  | 0.0  | 0.1  | 0.0  | 2.7  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 7.8  | 0.0  | 28.7 | 0.0  | 7.7  | 0.0  | 36.2 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 0.5  | 0.0  | 1.3  | 0.0  | 0.1  | 0.0  | 6.8  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.3  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.61 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 1.0  | 0.0  | 2.3  | 0.0  | 0.2  | 0.0  | 11.6 |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.25 | 0.00 | 0.10 | 0.00 | 0.12 | 0.00 | 2.51 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      | T    |      |      |      | T    |      |      |
| Lanes in Grp                | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 343  | 0    | 0    | 0    | 283  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 1777 | 0    | 0    | 0    | 1777 | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 7.0  | 0.0  | 0.0  | 0.0  | 5.6  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 7.0  | 0.0  | 0.0  | 0.0  | 5.6  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 1196 | 0    | 0    | 0    | 1196 | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.29 | 0.00 | 0.00 | 0.00 | 0.24 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 1196 | 0    | 0    | 0    | 1196 | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 6.0  | 0.0  | 0.0  | 0.0  | 5.7  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.6  | 0.0  | 0.0  | 0.0  | 0.5  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 6.6  | 0.0  | 0.0  | 0.0  | 6.2  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 2.2  | 0.0  | 0.0  | 0.0  | 1.8  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

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|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln | 0.0  | 4.4  | 0.0  | 0.0  | 0.0  | 3.5  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.27 | 0.00 | 0.00 | 0.00 | 0.62 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 355  | 0    | 0    | 0    | 286  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1840 | 0    | 0    | 0    | 1782 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 7.0  | 0.0  | 0.0  | 0.0  | 5.6  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 7.0  | 0.0  | 0.0  | 0.0  | 5.6  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.09 | 0.00 | 0.51 | 0.00 | 0.28 | 0.00 | 0.15 |
| Lane Grp Cap (c), veh/h          | 0    | 1238 | 0    | 0    | 0    | 1199 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.29 | 0.00 | 0.00 | 0.00 | 0.24 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1238 | 0    | 0    | 0    | 1199 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 6.0  | 0.0  | 0.0  | 0.0  | 5.7  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.6  | 0.0  | 0.0  | 0.0  | 0.5  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 6.5  | 0.0  | 0.0  | 0.0  | 6.2  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 2.3  | 0.0  | 0.0  | 0.0  | 1.8  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 4.6  | 0.0  | 0.0  | 0.0  | 3.5  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.27 | 0.00 | 0.00 | 0.00 | 0.62 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 13.1 |
| HCM 6th LOS        | B    |

### Notes

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

# HCM 6th Signalized Intersection Summary

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021



| Movement                              | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations                   |       |      |      |      |       |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)                | 25    | 63   | 20   | 13   | 57    | 26   | 14   | 839  | 33   | 18   | 969  | 39   |
| Future Volume (veh/h)                 | 25    | 63   | 20   | 13   | 57    | 26   | 14   | 839  | 33   | 18   | 969  | 39   |
| Initial Q (Q <sub>b</sub> ), veh      | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                   | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                      | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                 | No    |      |      | No   |       |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln                | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                  | 27    | 68   | 22   | 14   | 62    | 28   | 15   | 912  | 36   | 20   | 1053 | 42   |
| 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, %                  | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                            | 76    | 102  | 30   | 58   | 104   | 43   | 58   | 2685 | 105  | 63   | 2678 | 106  |
| Arrive On Green                       | 0.09  | 0.09 | 0.09 | 0.09 | 0.09  | 0.09 | 0.80 | 0.80 | 0.80 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                       | 297   | 1134 | 331  | 145  | 1155  | 479  | 21   | 3342 | 131  | 27   | 3333 | 132  |
| Grp Volume(v), veh/h                  | 117   | 0    | 0    | 104  | 0     | 0    | 501  | 0    | 462  | 579  | 0    | 536  |
| Grp Sat Flow(s), veh/h/ln             | 1762  | 0    | 0    | 1778 | 0     | 0    | 1815 | 0    | 1679 | 1813 | 0    | 1678 |
| Q Serve(g_s), s                       | 0.7   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 6.7  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s                 | 5.7   | 0.0  | 0.0  | 5.0  | 0.0   | 0.0  | 6.5  | 0.0  | 6.7  | 0.0  | 0.0  | 0.0  |
| Prop In Lane                          | 0.23  |      | 0.19 | 0.13 |       | 0.27 | 0.03 |      | 0.08 | 0.03 |      | 0.08 |
| Lane Grp Cap(c), veh/h                | 208   | 0    | 0    | 205  | 0     | 0    | 1500 | 0    | 1349 | 1498 | 0    | 1348 |
| V/C Ratio(X)                          | 0.56  | 0.00 | 0.00 | 0.51 | 0.00  | 0.00 | 0.33 | 0.00 | 0.34 | 0.39 | 0.00 | 0.40 |
| Avail Cap(c_a), veh/h                 | 479   | 0    | 0    | 483  | 0     | 0    | 1500 | 0    | 1349 | 1498 | 0    | 1348 |
| 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(l)                    | 1.00  | 0.00 | 0.00 | 1.00 | 0.00  | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh              | 39.8  | 0.0  | 0.0  | 39.6 | 0.0   | 0.0  | 2.4  | 0.0  | 2.4  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh                | 2.4   | 0.0  | 0.0  | 1.9  | 0.0   | 0.0  | 0.6  | 0.0  | 0.7  | 0.8  | 0.0  | 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(95%), veh/ln             | 4.7   | 0.0  | 0.0  | 4.1  | 0.0   | 0.0  | 2.9  | 0.0  | 2.8  | 0.6  | 0.0  | 0.6  |
| Unsig. Movement Delay, s/veh          |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh                 | 42.2  | 0.0  | 0.0  | 41.5 | 0.0   | 0.0  | 3.0  | 0.0  | 3.1  | 0.8  | 0.0  | 0.9  |
| LnGrp LOS                             | D     | A    | A    | D    | A     | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h                   | 117   |      |      | 104  |       |      | 963  |      | 1115 |      |      |      |
| Approach Delay, s/veh                 | 42.2  |      |      | 41.5 |       |      | 3.0  |      | 0.8  |      |      |      |
| Approach LOS                          | D     |      |      | D    |       |      | A    |      | A    |      |      |      |
| Timer - Assigned Phs                  | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s | 76.8  |      | 13.2 |      | 76.8  |      | 13.2 |      |      |      |      |      |
| Change Period (Y+R <sub>c</sub> ), s  | * 4.5 |      | 5.1  |      | * 4.5 |      | 5.1  |      |      |      |      |      |
| Max Green Setting (Gmax), s           | * 58  |      | 22.9 |      | * 58  |      | 22.9 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s          | 8.7   |      | 7.7  |      | 2.0   |      | 7.0  |      |      |      |      |      |
| Green Ext Time (p_c), s               | 8.1   |      | 0.5  |      | 10.2  |      | 0.4  |      |      |      |      |      |
| Intersection Summary                  |       |      |      |      |       |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay                    |       |      | 5.7  |      |       |      |      |      |      |      |      |      |
| HCM 6th LOS                           |       |      | A    |      |       |      |      |      |      |      |      |      |
| Notes                                 |       |      |      |      |       |      |      |      |      |      |      |      |

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

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 25   | 63    | 20   | 13    | 57   | 26    | 14   | 839   | 33   | 18   | 969  | 39   |
| Future Volume (veh/h)         | 25   | 63    | 20   | 13    | 57   | 26    | 14   | 839   | 33   | 18   | 969  | 39   |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       | 1.00 | 1.00  |      | 1.00  | 1.00 |       | 1.00 | 1.00 |      | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      | No    |      |       | No   |       | No   |      | No   |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 27   | 68    | 22   | 14    | 62   | 28    | 15   | 912   | 36   | 20   | 1053 | 42   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       | Yes  |      | Yes  |      |
| Cap, veh/h                    | 76   | 102   | 30   | 58    | 104  | 43    | 58   | 2685  | 105  | 63   | 2678 | 106  |
| 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 |
| Prop Arrive On Green          | 0.09 | 0.09  | 0.09 | 0.09  | 0.09 | 0.09  | 0.80 | 0.80  | 0.80 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 42.2 | 0.0   | 0.0  | 41.5  | 0.0  | 0.0   | 3.0  | 0.0   | 3.1  | 0.8  | 0.0  | 0.9  |
| Ln Grp LOS                    | D    | A     | A    | D     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 117  |       |      |       | 104  |       |      | 963   |      |      | 1115 |      |
| Approach Delay, s/veh         | 42.2 |       |      |       | 41.5 |       |      | 3.0   |      |      | 0.8  |      |
| Approach LOS                  | D    |       |      |       | D    |       |      | A     |      |      | A    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 76.8  |      | 13.2  |      | 76.8  |      | 13.2  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.1   |      | * 4.5 |      | 5.1   |      |      |      |      |
| Max Green (Gmax), s           |      | * 58  |      | 22.9  |      | * 58  |      | 22.9  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.3   |      | 5.4   |      | 5.3   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 8.7   |      | 7.7   |      | 2.0   |      | 7.0   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 8.1   |      | 0.5   |      | 10.2  |      | 0.4   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.00  |      | 0.00  |      | 0.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 21    |      | 297   |      | 27    |      | 145   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3342  |      | 1134  |      | 3333  |      | 1155  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 131   |      | 331   |      | 132   |      | 479   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T   |      | L+T+R |      | L+T   |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 501  | 0    | 117  | 0    | 579  | 0    | 104  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1815 | 0    | 1762 | 0    | 1813 | 0    | 1778 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.7  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 6.5  | 0.0  | 5.7  | 0.0  | 0.0  | 0.0  | 5.0  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 523  | 0    | 1327 | 0    | 601  | 0    | 1327 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1849 | 0    | 0    | 0    | 1858 |
| Perm LT Eff Green (g_p), s          | 0.0  | 72.3 | 0.0  | 8.1  | 0.0  | 72.3 | 0.0  | 8.1  |
| Perm LT Serve Time (g_u), s         | 0.0  | 72.3 | 0.0  | 3.1  | 0.0  | 65.6 | 0.0  | 2.4  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.7  | 0.0  | 0.0  | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 43.2 | 0.0  | 2.1  | 0.0  | 40.2 | 0.0  | 3.2  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 6.5  | 0.0  | 2.1  | 0.0  | 0.0  | 0.0  | 3.2  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.03 | 0.00 | 0.23 | 0.00 | 0.03 | 0.00 | 0.13 |
| Lane Grp Cap (c), veh/h             | 0    | 1500 | 0    | 208  | 0    | 1498 | 0    | 205  |
| V/C Ratio (X)                       | 0.00 | 0.33 | 0.00 | 0.56 | 0.00 | 0.39 | 0.00 | 0.51 |
| Avail Cap (c_a), veh/h              | 0    | 1500 | 0    | 479  | 0    | 1498 | 0    | 483  |
| Upstream Filter (l)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 2.4  | 0.0  | 39.8 | 0.0  | 0.0  | 0.0  | 39.6 |
| Incr Delay (d2), s/veh              | 0.0  | 0.6  | 0.0  | 2.4  | 0.0  | 0.8  | 0.0  | 1.9  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 3.0  | 0.0  | 42.2 | 0.0  | 0.8  | 0.0  | 41.5 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 1.4  | 0.0  | 2.5  | 0.0  | 0.0  | 0.0  | 2.2  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.3  | 0.0  | 0.1  | 0.0  | 0.3  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 2.9  | 0.0  | 4.7  | 0.0  | 0.6  | 0.0  | 4.1  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.17 | 0.00 | 0.84 | 0.00 | 0.02 | 0.00 | 0.69 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| <b>Lane Assignment</b>      |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 462  | 0    | 0    | 0    | 536  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1679 | 0    | 0    | 0    | 1678 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 6.7  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 6.7  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.08 | 0.00 | 0.19 | 0.00 | 0.08 | 0.00 | 0.27 |
| Lane Grp Cap (c), veh/h          | 0    | 1349 | 0    | 0    | 0    | 1348 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1349 | 0    | 0    | 0    | 1348 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 2.4  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.7  | 0.0  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 3.1  | 0.0  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 1.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 2.8  | 0.0  | 0.0  | 0.0  | 0.6  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.16 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |     |
|--------------------|-----|
| HCM 6th Ctrl Delay | 5.7 |
| HCM 6th LOS        | A   |

### Notes

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

**Intersection**

Int Delay, s/veh 1.1

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 22   | 110  | 107  | 83   | 7    | 14   |
| Future Vol, veh/h        | 22   | 110  | 107  | 83   | 7    | 14   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 24   | 120  | 116  | 90   | 8    | 15   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |       |       |
|----------------------|--------|--------|--------|---|-------|-------|
| Conflicting Flow All | 206    | 0      | -      | 0 | 329   | 161   |
| Stage 1              | -      | -      | -      | - | 161   | -     |
| Stage 2              | -      | -      | -      | - | 168   | -     |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  | -     |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | 1365   | -      | -      | - | 665   | 884   |
| Stage 1              | -      | -      | -      | - | 868   | -     |
| Stage 2              | -      | -      | -      | - | 862   | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     | -     |
| Mov Cap-1 Maneuver   | 1365   | -      | -      | - | 652   | 884   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 652   | -     |
| Stage 1              | -      | -      | -      | - | 852   | -     |
| Stage 2              | -      | -      | -      | - | 862   | -     |

| Approach             | EB  | WB | SB  |  |  |  |
|----------------------|-----|----|-----|--|--|--|
| HCM Control Delay, s | 1.3 | 0  | 9.7 |  |  |  |
| HCM LOS              |     |    | A   |  |  |  |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |  |
|-----------------------|-------|-----|-----|-----|-------|--|
| Capacity (veh/h)      | 1365  | -   | -   | -   | 790   |  |
| HCM Lane V/C Ratio    | 0.018 | -   | -   | -   | 0.029 |  |
| HCM Control Delay (s) | 7.7   | 0   | -   | -   | 9.7   |  |
| HCM Lane LOS          | A     | A   | -   | -   | A     |  |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0.1   |  |

# HCM 6th Signalized Intersection Summary

5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations              |       |      |      |      |       |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)           | 10    | 60   | 41   | 44   | 101   | 40   | 43   | 79   | 18   | 16   | 255  | 67   |
| Future Volume (veh/h)            | 10    | 60   | 41   | 44   | 101   | 40   | 43   | 79   | 18   | 16   | 255  | 67   |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            |       | No   |      |      | No    |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 11    | 65   | 45   | 48   | 110   | 43   | 47   | 86   | 20   | 17   | 277  | 73   |
| 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, %             | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 100   | 177  | 113  | 149  | 184   | 63   | 333  | 576  | 121  | 101  | 852  | 216  |
| Arrive On Green                  | 0.06  | 0.06 | 0.06 | 0.17 | 0.17  | 0.17 | 0.61 | 0.61 | 0.61 | 0.81 | 0.81 | 0.81 |
| Sat Flow, veh/h                  | 74    | 1016 | 645  | 285  | 1051  | 364  | 377  | 951  | 200  | 29   | 1408 | 357  |
| Grp Volume(v), veh/h             | 121   | 0    | 0    | 201  | 0     | 0    | 153  | 0    | 0    | 367  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln        | 1734  | 0    | 0    | 1700 | 0     | 0    | 1528 | 0    | 0    | 1793 | 0    | 0    |
| Q Serve(g_s), s                  | 0.0   | 0.0  | 0.0  | 1.8  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 3.0   | 0.0  | 0.0  | 4.8  | 0.0   | 0.0  | 1.6  | 0.0  | 0.0  | 2.4  | 0.0  | 0.0  |
| Prop In Lane                     | 0.09  |      | 0.37 | 0.24 |       |      | 0.21 | 0.31 |      | 0.13 | 0.05 | 0.20 |
| Lane Grp Cap(c), veh/h           | 390   | 0    | 0    | 396  | 0     | 0    | 1029 | 0    | 0    | 1169 | 0    | 0    |
| V/C Ratio(X)                     | 0.31  | 0.00 | 0.00 | 0.51 | 0.00  | 0.00 | 0.15 | 0.00 | 0.00 | 0.31 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h            | 769   | 0    | 0    | 763  | 0     | 0    | 1029 | 0    | 0    | 1169 | 0    | 0    |
| HCM Platoon Ratio                | 0.33  | 0.33 | 0.33 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.33 | 1.33 | 1.33 |
| Upstream Filter(l)               | 1.00  | 0.00 | 0.00 | 1.00 | 0.00  | 0.00 | 1.00 | 0.00 | 0.00 | 0.72 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh         | 18.9  | 0.0  | 0.0  | 17.3 | 0.0   | 0.0  | 3.8  | 0.0  | 0.0  | 2.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.4   | 0.0  | 0.0  | 1.0  | 0.0   | 0.0  | 0.3  | 0.0  | 0.0  | 0.5  | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh       | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%), veh/ln        | 2.1   | 0.0  | 0.0  | 3.2  | 0.0   | 0.0  | 0.8  | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh            | 19.4  | 0.0  | 0.0  | 18.3 | 0.0   | 0.0  | 4.1  | 0.0  | 0.0  | 2.5  | 0.0  | 0.0  |
| LnGrp LOS                        | B     | A    | A    | B    | A     | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h              | 121   |      |      | 201  |       |      | 153  |      |      | 367  |      |      |
| Approach Delay, s/veh            | 19.4  |      |      | 18.3 |       |      | 4.1  |      |      | 2.5  |      |      |
| Approach LOS                     | B     |      |      | B    |       |      | A    |      |      | A    |      |      |
| Timer - Assigned Phs             | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+Rc), s         | 32.1  |      | 12.9 |      | 32.1  |      | 12.9 |      |      |      |      |      |
| Change Period (Y+Rc), s          | * 4.9 |      | * 5  |      | * 4.9 |      | * 5  |      |      |      |      |      |
| Max Green Setting (Gmax), s      | * 17  |      | * 18 |      | * 17  |      | * 18 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s     | 3.6   |      | 5.0  |      | 4.4   |      | 6.8  |      |      |      |      |      |
| Green Ext Time (p_c), s          | 0.7   |      | 0.5  |      | 1.8   |      | 0.8  |      |      |      |      |      |
| Intersection Summary             |       |      |      |      |       |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay               |       |      | 9.0  |      |       |      |      |      |      |      |      |      |
| HCM 6th LOS                      |       |      | A    |      |       |      |      |      |      |      |      |      |

## Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 10   | 60    | 41   | 44    | 101  | 40    | 43   | 79    | 18   | 16   | 255  | 67   |
| Future Volume (veh/h)         | 10   | 60    | 41   | 44    | 101  | 40    | 43   | 79    | 18   | 16   | 255  | 67   |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 11   | 65    | 45   | 48    | 110  | 43    | 47   | 86    | 20   | 17   | 277  | 73   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       | Yes  |      |      |      |
| Cap, veh/h                    | 100  | 177   | 113  | 149   | 184  | 63    | 333  | 576   | 121  | 101  | 852  | 216  |
| HCM Platoon Ratio             | 0.33 | 0.33  | 0.33 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.33 | 1.33 |
| Prop Arrive On Green          | 0.06 | 0.06  | 0.06 | 0.17  | 0.17 | 0.17  | 0.61 | 0.61  | 0.61 | 0.81 | 0.81 | 0.81 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 19.4 | 0.0   | 0.0  | 18.3  | 0.0  | 0.0   | 4.1  | 0.0   | 0.0  | 2.5  | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | A     | A    | B     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 121  |       |      |       | 201  |       |      | 153   |      |      | 367  |      |
| Approach Delay, s/veh         | 19.4 |       |      |       | 18.3 |       |      | 4.1   |      |      | 2.5  |      |
| Approach LOS                  | B    |       |      |       | B    |       |      | A     |      |      | A    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 32.1  |      | 12.9  |      | 32.1  |      | 12.9  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.9 |      | * 5   |      | * 4.9 |      | * 5   |      |      |      |      |
| Max Green (Gmax), s           |      | * 17  |      | * 18  |      | * 17  |      | * 18  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.6   |      | 5.4   |      | 5.3   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 3.6   |      | 5.0   |      | 4.4   |      | 6.8   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 0.7   |      | 0.5   |      | 1.8   |      | 0.8   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 0.98  |      | 1.00  |      | 0.98  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.01  |      | 0.00  |      | 0.06  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 377   |      | 74    |      | 29    |      | 285   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 951   |      | 1016  |      | 1408  |      | 1051  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 200   |      | 645   |      | 357   |      | 364   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T+R |      | L+T+R |      | L+T+R |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 153  | 0    | 121  | 0    | 367  | 0    | 201  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1528 | 0    | 1734 | 0    | 1793 | 0    | 1700 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.8  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 1.6  | 0.0  | 3.0  | 0.0  | 2.4  | 0.0  | 4.8  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 1047 | 0    | 1254 | 0    | 1308 | 0    | 1304 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 1842 | 0    | 1862 | 0    | 1866 | 0    | 1848 |
| Perm LT Eff Green (g_p), s          | 0.0  | 27.2 | 0.0  | 7.9  | 0.0  | 27.2 | 0.0  | 7.9  |
| Perm LT Serve Time (g_u), s         | 0.0  | 24.8 | 0.0  | 3.0  | 0.0  | 25.6 | 0.0  | 4.9  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.8  |
| Time to First Blk (g_f), s          | 0.0  | 4.5  | 0.0  | 4.1  | 0.0  | 17.7 | 0.0  | 2.2  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 1.6  | 0.0  | 3.0  | 0.0  | 2.4  | 0.0  | 2.2  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.31 | 0.00 | 0.09 | 0.00 | 0.05 | 0.00 | 0.24 |
| Lane Grp Cap (c), veh/h             | 0    | 1029 | 0    | 390  | 0    | 1169 | 0    | 396  |
| V/C Ratio (X)                       | 0.00 | 0.15 | 0.00 | 0.31 | 0.00 | 0.31 | 0.00 | 0.51 |
| Avail Cap (c_a), veh/h              | 0    | 1029 | 0    | 769  | 0    | 1169 | 0    | 763  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.72 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 3.8  | 0.0  | 18.9 | 0.0  | 2.0  | 0.0  | 17.3 |
| Incr Delay (d2), s/veh              | 0.0  | 0.3  | 0.0  | 0.4  | 0.0  | 0.5  | 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  |
| Control Delay (d), s/veh            | 0.0  | 4.1  | 0.0  | 19.4 | 0.0  | 2.5  | 0.0  | 18.3 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 0.3  | 0.0  | 1.1  | 0.0  | 0.4  | 0.0  | 1.7  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 0.8  | 0.0  | 2.1  | 0.0  | 1.0  | 0.0  | 3.2  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.05 | 0.00 | 0.42 | 0.00 | 0.04 | 0.00 | 0.20 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      |      |      |      |      |      |      |      |
| Lanes in Grp                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.13 | 0.00 | 0.37 | 0.00 | 0.20 | 0.00 | 0.21 |
| Lane Grp Cap (c), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |     |
|--------------------|-----|
| HCM 6th Ctrl Delay | 9.0 |
| HCM 6th LOS        | A   |

### Notes

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

**Intersection**

Int Delay, s/veh 0.9

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑   |      | ↑↑↑  |      | Y    |      |
| Traffic Vol, veh/h       | 509  | 19   | 13   | 662  | 2    | 89   |
| Future Vol, veh/h        | 509  | 19   | 13   | 662  | 2    | 89   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 35   | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 553  | 21   | 14   | 720  | 2    | 97   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |      |
|----------------------|--------|--------|--------|---|------|------|
| Conflicting Flow All | 0      | 0      | 574    | 0 | 880  | 287  |
| Stage 1              | -      | -      | -      | - | 564  | -    |
| Stage 2              | -      | -      | -      | - | 316  | -    |
| Critical Hdwy        | -      | -      | 4.14   | - | 6.29 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.04 | -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.67 | 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 995    | - | 319  | 710  |
| Stage 1              | -      | -      | -      | - | 517  | -    |
| Stage 2              | -      | -      | -      | - | 675  | -    |
| Platoon blocked, %   | -      | -      | -      | - | -    | -    |
| Mov Cap-1 Maneuver   | -      | -      | 995    | - | 312  | 710  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 312  | -    |
| Stage 1              | -      | -      | -      | - | 517  | -    |
| Stage 2              | -      | -      | -      | - | 659  | -    |

| Approach             | EB | WB  | NB   |  |  |  |
|----------------------|----|-----|------|--|--|--|
| HCM Control Delay, s | 0  | 0.3 | 11.1 |  |  |  |
| HCM LOS              |    |     | B    |  |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |  |
|-----------------------|-------|-----|-----|-------|-----|--|
| Capacity (veh/h)      | 691   | -   | -   | 995   | -   |  |
| HCM Lane V/C Ratio    | 0.143 | -   | -   | 0.014 | -   |  |
| HCM Control Delay (s) | 11.1  | -   | -   | 8.7   | 0.1 |  |
| HCM Lane LOS          | B     | -   | -   | A     | A   |  |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0     | -   |  |

# HCM 6th Signalized Intersection Summary

2: Ivar Avenue & Hollywood Boulevard

09/28/2021



| Movement                              | EBL  | EBT   | EBR  | WBL  | WBT  | WBR   | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------------------------|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations                   | ↑    | ↑↑    |      | ↑    | ↑↑   |       |      | ↔    |      |      | ↔    |      |
| Traffic Volume (veh/h)                | 58   | 459   | 89   | 26   | 453  | 33    | 67   | 185  | 131  | 12   | 53   | 13   |
| Future Volume (veh/h)                 | 58   | 459   | 89   | 26   | 453  | 33    | 67   | 185  | 131  | 12   | 53   | 13   |
| Initial Q (Q <sub>b</sub> ), veh      | 0    | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                   | 1.00 |       | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                      | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                 |      | No    |      |      | No   |       |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln                | 1870 | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                  | 63   | 499   | 97   | 28   | 492  | 36    | 73   | 201  | 142  | 13   | 58   | 14   |
| Peak Hour Factor                      | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %                  | 2    | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                            | 561  | 1828  | 353  | 522  | 2067 | 151   | 111  | 243  | 159  | 87   | 345  | 76   |
| Arrive On Green                       | 0.62 | 0.62  | 0.62 | 0.62 | 0.62 | 0.62  | 0.47 | 0.47 | 0.47 | 0.28 | 0.28 | 0.28 |
| Sat Flow, veh/h                       | 875  | 2969  | 574  | 822  | 3358 | 245   | 230  | 872  | 571  | 146  | 1238 | 273  |
| Grp Volume(v), veh/h                  | 63   | 298   | 298  | 28   | 260  | 268   | 416  | 0    | 0    | 85   | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln             | 875  | 1777  | 1767 | 822  | 1777 | 1826  | 1674 | 0    | 0    | 1657 | 0    | 0    |
| Q Serve(g_s), s                       | 3.1  | 7.0   | 7.0  | 1.5  | 5.9  | 6.0   | 15.2 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s                 | 9.1  | 7.0   | 7.0  | 8.5  | 5.9  | 6.0   | 20.3 | 0.0  | 0.0  | 3.2  | 0.0  | 0.0  |
| Prop In Lane                          | 1.00 |       | 0.33 | 1.00 |      | 0.13  | 0.18 |      | 0.34 | 0.15 |      | 0.16 |
| Lane Grp Cap(c), veh/h                | 561  | 1094  | 1088 | 522  | 1094 | 1124  | 514  | 0    | 0    | 508  | 0    | 0    |
| V/C Ratio(X)                          | 0.11 | 0.27  | 0.27 | 0.05 | 0.24 | 0.24  | 0.81 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h                 | 561  | 1094  | 1088 | 522  | 1094 | 1124  | 897  | 0    | 0    | 885  | 0    | 0    |
| HCM Platoon Ratio                     | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.67 | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)                    | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 0.95 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh              | 9.9  | 8.0   | 8.0  | 10.0 | 7.8  | 7.8   | 22.6 | 0.0  | 0.0  | 24.5 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh                | 0.4  | 0.6   | 0.6  | 0.2  | 0.5  | 0.5   | 3.0  | 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(95%), veh/ln             | 1.1  | 4.7   | 4.7  | 0.5  | 4.0  | 4.1   | 10.5 | 0.0  | 0.0  | 2.5  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh          |      |       |      |      |      |       |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh                 | 10.3 | 8.6   | 8.6  | 10.2 | 8.3  | 8.3   | 25.6 | 0.0  | 0.0  | 24.7 | 0.0  | 0.0  |
| LnGrp LOS                             | B    | A     | A    | B    | A    | A     | C    | A    | A    | C    | A    | A    |
| Approach Vol, veh/h                   |      | 659   |      |      | 556  |       |      | 416  |      |      | 85   |      |
| Approach Delay, s/veh                 |      | 8.8   |      |      | 8.4  |       |      | 25.6 |      |      | 24.7 |      |
| Approach LOS                          |      | A     |      |      | A    |       |      | C    |      |      | C    |      |
| Timer - Assigned Phs                  |      | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s |      | 59.9  |      | 30.1 |      | 59.9  |      | 30.1 |      |      |      |      |
| Change Period (Y+R <sub>c</sub> ), s  |      | * 4.5 |      | 5.0  |      | * 4.5 |      | 5.0  |      |      |      |      |
| Max Green Setting (Gmax), s           |      | * 35  |      | 46.0 |      | * 35  |      | 46.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s          |      | 10.5  |      | 22.3 |      | 11.1  |      | 5.2  |      |      |      |      |
| Green Ext Time (p_c), s               |      | 3.5   |      | 2.8  |      | 4.2   |      | 0.5  |      |      |      |      |
| Intersection Summary                  |      |       |      |      |      |       |      |      |      |      |      |      |
| HCM 6th Ctrl Delay                    |      |       | 13.5 |      |      |       |      |      |      |      |      |      |
| HCM 6th LOS                           |      |       | B    |      |      |       |      |      |      |      |      |      |

## Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           | ↑    | ↑↑    |      | ↑     | ↑↑   |       |      | ↔     |      |      | ↔    |      |
| Traffic Volume (veh/h)        | 58   | 459   | 89   | 26    | 453  | 33    | 67   | 185   | 131  | 12   | 53   | 13   |
| Future Volume (veh/h)         | 58   | 459   | 89   | 26    | 453  | 33    | 67   | 185   | 131  | 12   | 53   | 13   |
| Number                        | 1    | 6     | 16   | 5     | 2    | 12    | 7    | 4     | 14   | 3    | 8    | 18   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      | No   |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 63   | 499   | 97   | 28    | 492  | 36    | 73   | 201   | 142  | 13   | 58   | 14   |
| Peak Hour Factor              | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 561  | 1828  | 353  | 522   | 2067 | 151   | 111  | 243   | 159  | 87   | 345  | 76   |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.67 | 1.67  | 1.67 | 1.00 | 1.00 | 1.00 |
| Prop Arrive On Green          | 0.62 | 0.62  | 0.62 | 0.62  | 0.62 | 0.62  | 0.47 | 0.47  | 0.47 | 0.28 | 0.28 | 0.28 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 10.3 | 8.6   | 8.6  | 10.2  | 8.3  | 8.3   | 25.6 | 0.0   | 0.0  | 24.7 | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | A     | A    | B     | A    | A     | C    | A     | A    | C    | A    | A    |
| Approach Vol, veh/h           | 659  |       |      |       | 556  |       |      | 416   |      |      | 85   |      |
| Approach Delay, s/veh         | 8.8  |       |      |       | 8.4  |       |      | 25.6  |      |      | 24.7 |      |
| Approach LOS                  | A    |       |      |       | A    |       |      | C     |      |      | C    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 6.0   |      | 8.0   |      | 6.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 59.9  |      | 30.1  |      | 59.9  |      | 30.1  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.0   |      | * 4.5 |      | 5.0   |      |      |      |      |
| Max Green (Gmax), s           |      | * 35  |      | 46.0  |      | * 35  |      | 46.0  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.3   |      | 5.4   |      | 5.3   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 10.5  |      | 22.3  |      | 11.1  |      | 5.2   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 3.5   |      | 2.8   |      | 4.2   |      | 0.5   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.01  |      | 0.00  |      | 0.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 822   |      | 230   |      | 875   |      | 146   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3358  |      | 872   |      | 2969  |      | 1238  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 245   |      | 571   |      | 574   |      | 273   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               | L    |       |      | L+T+R |      | L     |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 28   | 0    | 416  | 0    | 63   | 0    | 85   |
| Grp Sat Flow (s), veh/h/ln          | 0    | 822  | 0    | 1674 | 0    | 875  | 0    | 1657 |
| Q Serve Time (g_s), s               | 0.0  | 1.5  | 0.0  | 15.2 | 0.0  | 3.1  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 8.5  | 0.0  | 20.3 | 0.0  | 9.1  | 0.0  | 3.2  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 822  | 0    | 1349 | 0    | 875  | 0    | 1054 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1854 | 0    | 0    | 0    | 1526 |
| Perm LT Eff Green (g_p), s          | 0.0  | 55.4 | 0.0  | 25.1 | 0.0  | 55.4 | 0.0  | 25.1 |
| Perm LT Serve Time (g_u), s         | 0.0  | 48.4 | 0.0  | 21.9 | 0.0  | 49.4 | 0.0  | 4.8  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 1.5  | 0.0  | 15.2 | 0.0  | 3.1  | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 0.0  | 0.0  | 5.2  | 0.0  | 0.0  | 0.0  | 9.7  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 0.0  | 0.0  | 5.2  | 0.0  | 0.0  | 0.0  | 3.2  |
| Prop LT Inside Lane (P_L)           | 0.00 | 1.00 | 0.00 | 0.18 | 0.00 | 1.00 | 0.00 | 0.15 |
| Lane Grp Cap (c), veh/h             | 0    | 522  | 0    | 514  | 0    | 561  | 0    | 508  |
| V/C Ratio (X)                       | 0.00 | 0.05 | 0.00 | 0.81 | 0.00 | 0.11 | 0.00 | 0.17 |
| Avail Cap (c_a), veh/h              | 0    | 522  | 0    | 897  | 0    | 561  | 0    | 885  |
| Upstream Filter (l)                 | 0.00 | 1.00 | 0.00 | 0.95 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 10.0 | 0.0  | 22.6 | 0.0  | 9.9  | 0.0  | 24.5 |
| Incr Delay (d2), s/veh              | 0.0  | 0.2  | 0.0  | 3.0  | 0.0  | 0.4  | 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  |
| Control Delay (d), s/veh            | 0.0  | 10.2 | 0.0  | 25.6 | 0.0  | 10.3 | 0.0  | 24.7 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 0.3  | 0.0  | 6.0  | 0.0  | 0.6  | 0.0  | 1.3  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.0  | 0.0  | 0.4  | 0.0  | 0.1  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.63 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 0.5  | 0.0  | 10.5 | 0.0  | 1.1  | 0.0  | 2.5  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.13 | 0.00 | 0.45 | 0.00 | 0.58 | 0.00 | 0.54 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      | T    |      |      |      | T    |      |      |
| Lanes in Grp                | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 260  | 0    | 0    | 0    | 298  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 1777 | 0    | 0    | 0    | 1777 | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 7.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 7.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 1094 | 0    | 0    | 0    | 1094 | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 1094 | 0    | 0    | 0    | 1094 | 0    | 0    |
| Upstream Filter (l)         | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 7.8  | 0.0  | 0.0  | 0.0  | 8.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  | 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  |
| Control Delay (d), s/veh    | 0.0  | 8.3  | 0.0  | 0.0  | 0.0  | 8.6  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 2.0  | 0.0  | 0.0  | 0.0  | 2.4  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln | 0.0  | 4.0  | 0.0  | 0.0  | 0.0  | 4.7  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.82 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 268  | 0    | 0    | 0    | 298  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1826 | 0    | 0    | 0    | 1767 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 6.0  | 0.0  | 0.0  | 0.0  | 7.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 6.0  | 0.0  | 0.0  | 0.0  | 7.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.13 | 0.00 | 0.34 | 0.00 | 0.33 | 0.00 | 0.16 |
| Lane Grp Cap (c), veh/h          | 0    | 1124 | 0    | 0    | 0    | 1088 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1124 | 0    | 0    | 0    | 1088 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 7.8  | 0.0  | 0.0  | 0.0  | 8.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  | 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  |
| Control Delay (d), s/veh         | 0.0  | 8.3  | 0.0  | 0.0  | 0.0  | 8.6  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 2.1  | 0.0  | 0.0  | 0.0  | 2.4  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.2  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 4.1  | 0.0  | 0.0  | 0.0  | 4.7  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.83 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 13.5 |
| HCM 6th LOS        | B    |

### Notes

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

# HCM 6th Signalized Intersection Summary

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021



| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations              |       |      |      |      |       |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)           | 54    | 121  | 33   | 31   | 86    | 57   | 6    | 980  | 43   | 6    | 659  | 54   |
| Future Volume (veh/h)            | 54    | 121  | 33   | 31   | 86    | 57   | 6    | 980  | 43   | 6    | 659  | 54   |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            | No    |      |      | No   |       |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 59    | 132  | 36   | 34   | 93    | 62   | 7    | 1065 | 47   | 7    | 716  | 59   |
| 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, %             | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 106   | 175  | 43   | 80   | 155   | 92   | 44   | 2459 | 108  | 46   | 2350 | 192  |
| Arrive On Green                  | 0.17  | 0.17 | 0.17 | 0.17 | 0.17  | 0.17 | 0.73 | 0.73 | 0.73 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                  | 334   | 1054 | 262  | 200  | 933   | 553  | 6    | 3382 | 149  | 8    | 3232 | 264  |
| Grp Volume(v), veh/h             | 227   | 0    | 0    | 189  | 0     | 0    | 589  | 0    | 530  | 413  | 0    | 369  |
| Grp Sat Flow(s), veh/h/ln1650    | 0     | 0    | 1686 | 0    | 0     | 1861 | 0    | 1675 | 1850 | 0    | 1654 |      |
| Q Serve(g_s), s                  | 2.6   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 11.4 | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 11.9  | 0.0  | 0.0  | 9.3  | 0.0   | 0.0  | 11.3 | 0.0  | 11.4 | 0.0  | 0.0  | 0.0  |
| Prop In Lane                     | 0.26  |      | 0.16 | 0.18 |       | 0.33 | 0.01 |      | 0.09 | 0.02 |      | 0.16 |
| Lane Grp Cap(c), veh/h           | 325   | 0    | 0    | 327  | 0     | 0    | 1394 | 0    | 1218 | 1386 | 0    | 1203 |
| V/C Ratio(X)                     | 0.70  | 0.00 | 0.00 | 0.58 | 0.00  | 0.00 | 0.42 | 0.00 | 0.44 | 0.30 | 0.00 | 0.31 |
| Avail Cap(c_a), veh/h            | 556   | 0    | 0    | 560  | 0     | 0    | 1394 | 0    | 1218 | 1386 | 0    | 1203 |
| 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(l)               | 1.00  | 0.00 | 0.00 | 1.00 | 0.00  | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh         | 36.1  | 0.0  | 0.0  | 35.1 | 0.0   | 0.0  | 4.9  | 0.0  | 4.9  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 2.7   | 0.0  | 0.0  | 1.6  | 0.0   | 0.0  | 0.9  | 0.0  | 1.1  | 0.6  | 0.0  | 0.7  |
| Initial Q Delay(d3),s/veh        | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln         | 8.6   | 0.0  | 0.0  | 7.1  | 0.0   | 0.0  | 6.8  | 0.0  | 6.2  | 0.4  | 0.0  | 0.4  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh             | 38.8  | 0.0  | 0.0  | 36.7 | 0.0   | 0.0  | 5.8  | 0.0  | 6.0  | 0.6  | 0.0  | 0.7  |
| LnGrp LOS                        | D     | A    | A    | D    | A     | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h              | 227   |      |      | 189  |       |      | 1119 |      | 782  |      |      |      |
| Approach Delay, s/veh            | 38.8  |      |      | 36.7 |       |      | 5.9  |      | 0.6  |      |      |      |
| Approach LOS                     | D     |      |      | D    |       |      | A    |      | A    |      |      |      |
| Timer - Assigned Phs             | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+Rc), s         | 69.9  |      | 20.1 |      | 69.9  |      | 20.1 |      |      |      |      |      |
| Change Period (Y+Rc), s          | * 4.5 |      | 5.1  |      | * 4.5 |      | 5.1  |      |      |      |      |      |
| Max Green Setting (Gmax), s      | * 53  |      | 27.9 |      | * 53  |      | 27.9 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s     | 13.4  |      | 13.9 |      | 2.0   |      | 11.3 |      |      |      |      |      |
| Green Ext Time (p_c), s          | 9.6   |      | 1.1  |      | 6.0   |      | 0.9  |      |      |      |      |      |
| Intersection Summary             |       |      |      |      |       |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay               |       |      | 9.9  |      |       |      |      |      |      |      |      |      |
| HCM 6th LOS                      |       |      | A    |      |       |      |      |      |      |      |      |      |
| Notes                            |       |      |      |      |       |      |      |      |      |      |      |      |

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

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 54   | 121   | 33   | 31    | 86   | 57    | 6    | 980   | 43   | 6    | 659  | 54   |
| Future Volume (veh/h)         | 54   | 121   | 33   | 31    | 86   | 57    | 6    | 980   | 43   | 6    | 659  | 54   |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       | 1.00 | 1.00  |      | 1.00  | 1.00 |       | 1.00 | 1.00 |      | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      | No    |      |       | No   |       | No   |      | No   |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 59   | 132   | 36   | 34    | 93   | 62    | 7    | 1065  | 47   | 7    | 716  | 59   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       | Yes  |      | Yes  |      |
| Cap, veh/h                    | 106  | 175   | 43   | 80    | 155  | 92    | 44   | 2459  | 108  | 46   | 2350 | 192  |
| 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 |
| Prop Arrive On Green          | 0.17 | 0.17  | 0.17 | 0.17  | 0.17 | 0.17  | 0.73 | 0.73  | 0.73 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 38.8 | 0.0   | 0.0  | 36.7  | 0.0  | 0.0   | 5.8  | 0.0   | 6.0  | 0.6  | 0.0  | 0.7  |
| Ln Grp LOS                    | D    | A     | A    | D     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 227  |       |      | 189   |      |       | 1119 |       |      | 782  |      |      |
| Approach Delay, s/veh         | 38.8 |       |      | 36.7  |      |       | 5.9  |       |      | 0.6  |      |      |
| Approach LOS                  | D    |       |      | D     |      |       | A    |       |      | A    |      |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 69.9  |      | 20.1  |      | 69.9  |      | 20.1  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.1   |      | * 4.5 |      | 5.1   |      |      |      |      |
| Max Green (Gmax), s           |      | * 53  |      | 27.9  |      | * 53  |      | 27.9  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.3   |      | 5.4   |      | 5.3   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 13.4  |      | 13.9  |      | 2.0   |      | 11.3  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 9.6   |      | 1.1   |      | 6.0   |      | 0.9   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.02  |      | 0.00  |      | 0.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 6     |      | 334   |      | 8     |      | 200   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3382  |      | 1054  |      | 3232  |      | 933   |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 149   |      | 262   |      | 264   |      | 553   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T   |      | L+T+R |      | L+T   |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 589  | 0    | 227  | 0    | 413  | 0    | 189  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1861 | 0    | 1650 | 0    | 1850 | 0    | 1686 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 2.6  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 11.3 | 0.0  | 11.9 | 0.0  | 0.0  | 0.0  | 9.3  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 707  | 0    | 1251 | 0    | 515  | 0    | 1237 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1607 | 0    | 0    | 0    | 1660 |
| Perm LT Eff Green (g_p), s          | 0.0  | 65.4 | 0.0  | 15.0 | 0.0  | 65.4 | 0.0  | 15.0 |
| Perm LT Serve Time (g_u), s         | 0.0  | 65.4 | 0.0  | 5.7  | 0.0  | 54.1 | 0.0  | 3.1  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 2.6  | 0.0  | 0.0  | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 48.8 | 0.0  | 3.0  | 0.0  | 48.8 | 0.0  | 4.9  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 11.3 | 0.0  | 3.0  | 0.0  | 0.0  | 0.0  | 4.9  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.01 | 0.00 | 0.26 | 0.00 | 0.02 | 0.00 | 0.18 |
| Lane Grp Cap (c), veh/h             | 0    | 1394 | 0    | 325  | 0    | 1386 | 0    | 327  |
| V/C Ratio (X)                       | 0.00 | 0.42 | 0.00 | 0.70 | 0.00 | 0.30 | 0.00 | 0.58 |
| Avail Cap (c_a), veh/h              | 0    | 1394 | 0    | 556  | 0    | 1386 | 0    | 560  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 4.9  | 0.0  | 36.1 | 0.0  | 0.0  | 0.0  | 35.1 |
| Incr Delay (d2), s/veh              | 0.0  | 0.9  | 0.0  | 2.7  | 0.0  | 0.6  | 0.0  | 1.6  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 5.8  | 0.0  | 38.8 | 0.0  | 0.6  | 0.0  | 36.7 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 3.4  | 0.0  | 4.7  | 0.0  | 0.0  | 0.0  | 3.8  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.4  | 0.0  | 0.2  | 0.0  | 0.2  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.74 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 6.8  | 0.0  | 8.6  | 0.0  | 0.4  | 0.0  | 7.1  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.40 | 0.00 | 1.53 | 0.00 | 0.02 | 0.00 | 1.19 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 530  | 0    | 0    | 0    | 369  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1675 | 0    | 0    | 0    | 1654 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 11.4 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 11.4 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.09 | 0.00 | 0.16 | 0.00 | 0.16 | 0.00 | 0.33 |
| Lane Grp Cap (c), veh/h          | 0    | 1218 | 0    | 0    | 0    | 1203 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.44 | 0.00 | 0.00 | 0.00 | 0.31 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1218 | 0    | 0    | 0    | 1203 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 4.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 1.1  | 0.0  | 0.0  | 0.0  | 0.7  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 6.0  | 0.0  | 0.0  | 0.0  | 0.7  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 3.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.80 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 6.2  | 0.0  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.36 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |     |
|--------------------|-----|
| HCM 6th Ctrl Delay | 9.9 |
| HCM 6th LOS        | A   |

### Notes

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

**Intersection**

Int Delay, s/veh 1.5

| Movement                   | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|----------------------------|------|------|------|------|------|------|
| <b>Lane Configurations</b> |      |      |      |      |      |      |
| Traffic Vol, veh/h         | 35   | 167  | 162  | 85   | 20   | 21   |
| Future Vol, veh/h          | 35   | 167  | 162  | 85   | 20   | 21   |
| Conflicting Peds, #/hr     | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control               | Free | Free | Free | Free | Stop | Stop |
| RT Channelized             | -    | None | -    | None | -    | None |
| Storage Length             | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, #   | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                   | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor           | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %          | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                  | 38   | 182  | 176  | 92   | 22   | 23   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |       |       |
|----------------------|--------|--------|--------|---|-------|-------|
| Conflicting Flow All | 268    | 0      | -      | 0 | 480   | 222   |
| Stage 1              | -      | -      | -      | - | 222   | -     |
| Stage 2              | -      | -      | -      | - | 258   | -     |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  | -     |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | 1296   | -      | -      | - | 545   | 818   |
| Stage 1              | -      | -      | -      | - | 815   | -     |
| Stage 2              | -      | -      | -      | - | 785   | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     | -     |
| Mov Cap-1 Maneuver   | 1296   | -      | -      | - | 527   | 818   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 527   | -     |
| Stage 1              | -      | -      | -      | - | 788   | -     |
| Stage 2              | -      | -      | -      | - | 785   | -     |

| Approach             | EB  | WB | SB |  |  |  |
|----------------------|-----|----|----|--|--|--|
| HCM Control Delay, s | 1.4 | 0  | 11 |  |  |  |
| HCM LOS              |     |    | B  |  |  |  |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |  |
|-----------------------|-------|-----|-----|-----|-------|--|
| Capacity (veh/h)      | 1296  | -   | -   | -   | 644   |  |
| HCM Lane V/C Ratio    | 0.029 | -   | -   | -   | 0.069 |  |
| HCM Control Delay (s) | 7.9   | 0   | -   | -   | 11    |  |
| HCM Lane LOS          | A     | A   | -   | -   | B     |  |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0.2   |  |

# HCM 6th Signalized Intersection Summary

5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Configurations              |       |      |      |      |      |      |       |      |      |      |      |      |
| Traffic Volume (veh/h)           | 14    | 127  | 33   | 34   | 129  | 45   | 40    | 220  | 87   | 18   | 88   | 77   |
| Future Volume (veh/h)            | 14    | 127  | 33   | 34   | 129  | 45   | 40    | 220  | 87   | 18   | 88   | 77   |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      |      | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            |       | No   |      |      | No   |      |       | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 15    | 138  | 36   | 37   | 140  | 49   | 43    | 239  | 95   | 20   | 96   | 84   |
| 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, %             | 2     | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 99    | 250  | 62   | 127  | 215  | 69   | 151   | 715  | 262  | 136  | 536  | 422  |
| Arrive On Green                  | 0.06  | 0.06 | 0.06 | 0.18 | 0.18 | 0.18 | 0.60  | 0.60 | 0.60 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                  | 71    | 1378 | 341  | 185  | 1185 | 379  | 103   | 1194 | 437  | 80   | 895  | 706  |
| Grp Volume(v), veh/h             | 189   | 0    | 0    | 226  | 0    | 0    | 377   | 0    | 0    | 200  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln        | 1790  | 0    | 0    | 1749 | 0    | 0    | 1735  | 0    | 0    | 1680 | 0    | 0    |
| Q Serve(g_s), s                  | 0.0   | 0.0  | 0.0  | 0.7  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 4.6   | 0.0  | 0.0  | 5.3  | 0.0  | 0.0  | 4.8   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop In Lane                     | 0.08  |      |      | 0.19 | 0.16 |      | 0.22  | 0.11 |      | 0.25 | 0.10 | 0.42 |
| Lane Grp Cap(c), veh/h           | 411   | 0    | 0    | 410  | 0    | 0    | 1128  | 0    | 0    | 1094 | 0    | 0    |
| V/C Ratio(X)                     | 0.46  | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 | 0.33  | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h            | 790   | 0    | 0    | 773  | 0    | 0    | 1128  | 0    | 0    | 1094 | 0    | 0    |
| HCM Platoon Ratio                | 0.33  | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.67 | 1.67 | 1.67 |
| Upstream Filter(l)               | 1.00  | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00  | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh         | 19.5  | 0.0  | 0.0  | 17.2 | 0.0  | 0.0  | 4.6   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.8   | 0.0  | 0.0  | 1.2  | 0.0  | 0.0  | 0.8   | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh       | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%), veh/ln        | 3.4   | 0.0  | 0.0  | 3.6  | 0.0  | 0.0  | 2.3   | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |      |      |       |      |      |      |      |      |
| LnGrp Delay(d), s/veh            | 20.3  | 0.0  | 0.0  | 18.4 | 0.0  | 0.0  | 5.4   | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| LnGrp LOS                        | C     | A    | A    | B    | A    | A    | A     | A    | A    | A    | A    | A    |
| Approach Vol, veh/h              | 189   |      |      | 226  |      |      | 377   |      |      | 200  |      |      |
| Approach Delay, s/veh            | 20.3  |      |      | 18.4 |      |      | 5.4   |      |      | 0.4  |      |      |
| Approach LOS                     | C     |      |      | B    |      |      | A     |      |      | A    |      |      |
| Timer - Assigned Phs             | 2     |      |      | 4    |      |      | 6     |      |      | 8    |      |      |
| Phs Duration (G+Y+Rc), s         | 31.8  |      |      | 13.2 |      |      | 31.8  |      |      | 13.2 |      |      |
| Change Period (Y+Rc), s          | * 4.9 |      |      | * 5  |      |      | * 4.9 |      |      | * 5  |      |      |
| Max Green Setting (Gmax), s      | * 17  |      |      | * 18 |      |      | * 17  |      |      | * 18 |      |      |
| Max Q Clear Time (g_c+l1), s     | 6.8   |      |      | 6.6  |      |      | 2.0   |      |      | 7.3  |      |      |
| Green Ext Time (p_c), s          | 1.7   |      |      | 0.7  |      |      | 1.0   |      |      | 0.9  |      |      |

## Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 10.2 |
| HCM 6th LOS        | B    |

## Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

5: Ivar Avenue & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 14   | 127   | 33   | 34    | 129  | 45    | 40   | 220   | 87   | 18   | 88   | 77   |
| Future Volume (veh/h)         | 14   | 127   | 33   | 34    | 129  | 45    | 40   | 220   | 87   | 18   | 88   | 77   |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       | 1.00 | 1.00  |      | 1.00  | 1.00 |       | 1.00 | 1.00 |      | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      | No    |      |       | No   |       | No   |      | No   |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 15   | 138   | 36   | 37    | 140  | 49    | 43   | 239   | 95   | 20   | 96   | 84   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       | Yes  |       | Yes  |       | Yes  |       | Yes  |      | Yes  |      |
| Cap, veh/h                    | 99   | 250   | 62   | 127   | 215  | 69    | 151  | 715   | 262  | 136  | 536  | 422  |
| HCM Platoon Ratio             | 0.33 | 0.33  | 0.33 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.67 | 1.67 |
| Prop Arrive On Green          | 0.06 | 0.06  | 0.06 | 0.18  | 0.18 | 0.18  | 0.60 | 0.60  | 0.60 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 20.3 | 0.0   | 0.0  | 18.4  | 0.0  | 0.0   | 5.4  | 0.0   | 0.0  | 0.4  | 0.0  | 0.0  |
| Ln Grp LOS                    | C    | A     | A    | B     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 189  |       |      | 226   |      |       | 377  |       |      | 200  |      |      |
| Approach Delay, s/veh         | 20.3 |       |      | 18.4  |      |       | 5.4  |       |      | 0.4  |      |      |
| Approach LOS                  | C    |       |      | B     |      |       | A    |       |      | A    |      |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 31.8  |      | 13.2  |      | 31.8  |      | 13.2  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.9 |      | * 5   |      | * 4.9 |      | * 5   |      |      |      |      |
| Max Green (Gmax), s           |      | * 17  |      | * 18  |      | * 17  |      | * 18  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.4   |      | 5.3   |      | 5.5   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 6.8   |      | 6.6   |      | 2.0   |      | 7.3   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 1.7   |      | 0.7   |      | 1.0   |      | 0.9   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 0.99  |      | 1.00  |      | 0.99  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.05  |      | 0.00  |      | 0.09  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 103   |      | 71    |      | 80    |      | 185   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 1194  |      | 1378  |      | 895   |      | 1185  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 437   |      | 341   |      | 706   |      | 379   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T+R |      | L+T+R |      | L+T+R |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 377  | 0    | 189  | 0    | 200  | 0    | 226  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1735 | 0    | 1790 | 0    | 1680 | 0    | 1749 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.7  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 4.8  | 0.0  | 4.6  | 0.0  | 0.0  | 0.0  | 5.3  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 1223 | 0    | 1213 | 0    | 1063 | 0    | 1230 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 1860 | 0    | 1863 | 0    | 1861 | 0    | 1855 |
| Perm LT Eff Green (g_p), s          | 0.0  | 26.9 | 0.0  | 8.2  | 0.0  | 26.9 | 0.0  | 8.2  |
| Perm LT Serve Time (g_u), s         | 0.0  | 26.9 | 0.0  | 2.9  | 0.0  | 22.1 | 0.0  | 3.6  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.7  |
| Time to First Blk (g_f), s          | 0.0  | 12.5 | 0.0  | 4.0  | 0.0  | 13.6 | 0.0  | 2.8  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 4.8  | 0.0  | 4.0  | 0.0  | 0.0  | 0.0  | 2.8  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.11 | 0.00 | 0.08 | 0.00 | 0.10 | 0.00 | 0.16 |
| Lane Grp Cap (c), veh/h             | 0    | 1128 | 0    | 411  | 0    | 1094 | 0    | 410  |
| V/C Ratio (X)                       | 0.00 | 0.33 | 0.00 | 0.46 | 0.00 | 0.18 | 0.00 | 0.55 |
| Avail Cap (c_a), veh/h              | 0    | 1128 | 0    | 790  | 0    | 1094 | 0    | 773  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 4.6  | 0.0  | 19.5 | 0.0  | 0.0  | 0.0  | 17.2 |
| Incr Delay (d2), s/veh              | 0.0  | 0.8  | 0.0  | 0.8  | 0.0  | 0.4  | 0.0  | 1.2  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 5.4  | 0.0  | 20.3 | 0.0  | 0.4  | 0.0  | 18.4 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 1.0  | 0.0  | 1.8  | 0.0  | 0.0  | 0.0  | 1.9  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.3  | 0.0  | 0.1  | 0.0  | 0.1  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 2.3  | 0.0  | 3.4  | 0.0  | 0.2  | 0.0  | 3.6  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.15 | 0.00 | 0.69 | 0.00 | 0.01 | 0.00 | 0.22 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      |      |      |      |      |      |      |      |
| Lanes in Grp                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.25 | 0.00 | 0.19 | 0.00 | 0.42 | 0.00 | 0.22 |
| Lane Grp Cap (c), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay 10.2

HCM 6th LOS B

### Notes

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

**Intersection**

Int Delay, s/veh 0.1

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑   |      | ↔↑↑  |      | ↔    |      |
| Traffic Vol, veh/h       | 746  | 5    | 8    | 985  | 0    | 5    |
| Future Vol, veh/h        | 746  | 5    | 8    | 985  | 0    | 5    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 35   | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 811  | 5    | 9    | 1071 | 0    | 5    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 0      | 0      | 816    | 0 | 1260 |
| Stage 1              | -      | -      | -      | - | 814  |
| Stage 2              | -      | -      | -      | - | 446  |
| Critical Hdwy        | -      | -      | 4.14   | - | 6.29 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.04 |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.67 |
| Pot Cap-1 Maneuver   | -      | -      | 807    | - | 193  |
| Stage 1              | -      | -      | -      | - | 385  |
| Stage 2              | -      | -      | -      | - | 578  |
| Platoon blocked, %   | -      | -      | -      | - | -    |
| Mov Cap-1 Maneuver   | -      | -      | 807    | - | 188  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 188  |
| Stage 1              | -      | -      | -      | - | 385  |
| Stage 2              | -      | -      | -      | - | 562  |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.2 | 11.1 |
| HCM LOS              |    | B   |      |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 593   | -   | -   | 807   | -   |
| HCM Lane V/C Ratio    | 0.009 | -   | -   | 0.011 | -   |
| HCM Control Delay (s) | 11.1  | -   | -   | 9.5   | 0.1 |
| HCM Lane LOS          | B     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0     | -   |

HCM 6th Signalized Intersection Summary  
2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                              | EBL  | EBT   | EBR  | WBL  | WBT  | WBR   | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------------------------|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations                   |      |       |      |      |      |       |      |      |      |      |      |      |
| Traffic Volume (veh/h)                | 43   | 671   | 56   | 195  | 849  | 70    | 37   | 63   | 186  | 51   | 301  | 65   |
| Future Volume (veh/h)                 | 43   | 671   | 56   | 195  | 849  | 70    | 37   | 63   | 186  | 51   | 301  | 65   |
| Initial Q (Q <sub>b</sub> ), veh      | 0    | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                   | 1.00 |       | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                      | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                 |      | No    |      |      | No   |       |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln                | 1870 | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                  | 47   | 729   | 61   | 212  | 923  | 76    | 40   | 68   | 202  | 55   | 327  | 71   |
| 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, %                  | 2    | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                            | 335  | 2006  | 168  | 418  | 2009 | 165   | 81   | 119  | 290  | 87   | 375  | 78   |
| Arrive On Green                       | 0.60 | 0.60  | 0.60 | 0.60 | 0.60 | 0.60  | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 |
| Sat Flow, veh/h                       | 564  | 3320  | 278  | 686  | 3324 | 274   | 123  | 412  | 1000 | 147  | 1292 | 267  |
| Grp Volume(v), veh/h                  | 47   | 390   | 400  | 212  | 493  | 506   | 310  | 0    | 0    | 453  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln             | 564  | 1777  | 1820 | 686  | 1777 | 1821  | 1535 | 0    | 0    | 1706 | 0    | 0    |
| Q Serve(g_s), s                       | 4.5  | 10.0  | 10.0 | 20.4 | 13.7 | 13.7  | 0.0  | 0.0  | 0.0  | 7.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s                 | 18.2 | 10.0  | 10.0 | 30.4 | 13.7 | 13.7  | 15.6 | 0.0  | 0.0  | 23.0 | 0.0  | 0.0  |
| Prop In Lane                          | 1.00 |       | 0.15 | 1.00 |      | 0.15  | 0.13 |      | 0.65 | 0.12 |      | 0.16 |
| Lane Grp Cap(c), veh/h                | 335  | 1074  | 1100 | 418  | 1074 | 1101  | 490  | 0    | 0    | 540  | 0    | 0    |
| V/C Ratio(X)                          | 0.14 | 0.36  | 0.36 | 0.51 | 0.46 | 0.46  | 0.63 | 0.00 | 0.00 | 0.84 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h                 | 335  | 1074  | 1100 | 418  | 1074 | 1101  | 539  | 0    | 0    | 594  | 0    | 0    |
| HCM Platoon Ratio                     | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)                    | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 0.93 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh              | 14.7 | 9.0   | 9.0  | 16.7 | 9.8  | 9.8   | 28.0 | 0.0  | 0.0  | 30.7 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh                | 0.9  | 1.0   | 0.9  | 4.3  | 1.4  | 1.4   | 1.9  | 0.0  | 0.0  | 9.6  | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh            | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(85%), veh/ln             | 1.1  | 5.8   | 5.9  | 5.5  | 7.6  | 7.7   | 8.4  | 0.0  | 0.0  | 14.0 | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh          |      |       |      |      |      |       |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh                 | 15.6 | 10.0  | 10.0 | 21.1 | 11.2 | 11.1  | 29.9 | 0.0  | 0.0  | 40.3 | 0.0  | 0.0  |
| LnGrp LOS                             | B    | A     | A    | C    | B    | B     | C    | A    | A    | D    | A    | A    |
| Approach Vol, veh/h                   |      | 837   |      |      | 1211 |       |      | 310  |      |      | 453  |      |
| Approach Delay, s/veh                 |      | 10.3  |      |      | 12.9 |       |      | 29.9 |      |      | 40.3 |      |
| Approach LOS                          |      | B     |      |      | B    |       |      | C    |      |      | D    |      |
| Timer - Assigned Phs                  |      | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s |      | 58.9  |      | 31.1 |      | 58.9  |      | 31.1 |      |      |      |      |
| Change Period (Y+R <sub>c</sub> ), s  |      | * 4.5 |      | 5.0  |      | * 4.5 |      | 5.0  |      |      |      |      |
| Max Green Setting (Gmax), s           |      | * 52  |      | 29.0 |      | * 52  |      | 29.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s          |      | 32.4  |      | 17.6 |      | 20.2  |      | 25.0 |      |      |      |      |
| Green Ext Time (p_c), s               |      | 8.4   |      | 1.5  |      | 6.3   |      | 1.1  |      |      |      |      |

#### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 18.4 |
| HCM 6th LOS        | B    |

#### Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                      | EBL  | EBT   | EBR   | WBL  | WBT  | WBR   | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|-------|------|------|-------|-------|------|------|------|------|------|
| Lane Configurations           | ↑    | ↑↑    |       | ↑    | ↑↑   |       |       | ↔    |      |      | ↔    |      |
| Traffic Volume (veh/h)        | 43   | 671   | 56    | 195  | 849  | 70    | 37    | 63   | 186  | 51   | 301  | 65   |
| Future Volume (veh/h)         | 43   | 671   | 56    | 195  | 849  | 70    | 37    | 63   | 186  | 51   | 301  | 65   |
| Number                        | 1    | 6     | 16    | 5    | 2    | 12    | 7     | 4    | 14   | 3    | 8    | 18   |
| Initial Q, veh                | 0    | 0     | 0     | 0    | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       | 1.00  | 1.00 |      | 1.00  | 1.00  |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |       | No   |      |       | No    |      | No   |      | No   |      |
| Lanes Open During Work Zone   |      |       |       |      |      |       |       |      |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870  | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 47   | 729   | 61    | 212  | 923  | 76    | 40    | 68   | 202  | 55   | 327  | 71   |
| 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, %          | 2    | 2     | 2     | 2    | 2    | 2     | 2     | 2    | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       | Yes   |      | Yes  |       | Yes   |      | Yes  |      | Yes  |      |
| Cap, veh/h                    | 335  | 2006  | 168   | 418  | 2009 | 165   | 81    | 119  | 290  | 87   | 375  | 78   |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Prop Arrive On Green          | 0.60 | 0.60  | 0.60  | 0.60 | 0.60 | 0.60  | 0.29  | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 |
| Unsig. Movement Delay         |      |       |       |      |      |       |       |      |      |      |      |      |
| Ln Grp Delay, s/veh           | 15.6 | 10.0  | 10.0  | 21.1 | 11.2 | 11.1  | 29.9  | 0.0  | 0.0  | 40.3 | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | A     | A     | C    | B    | B     | C     | A    | A    | D    | A    | A    |
| Approach Vol, veh/h           | 837  |       |       | 1211 |      |       | 310   |      |      | 453  |      |      |
| Approach Delay, s/veh         | 10.3 |       |       | 12.9 |      |       | 29.9  |      |      | 40.3 |      |      |
| Approach LOS                  | B    |       |       | B    |      |       | C     |      |      | D    |      |      |
| Timer:                        | 1    | 2     | 3     | 4    | 5    | 6     | 7     | 8    |      |      |      |      |
| Assigned Phs                  |      | 2     |       | 4    |      | 6     |       | 8    |      |      |      |      |
| Case No                       |      | 6.0   |       | 8.0  |      | 6.0   |       | 8.0  |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 58.9  |       | 31.1 |      | 58.9  |       | 31.1 |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |       | 5.0  |      | * 4.5 |       | 5.0  |      |      |      |      |
| Max Green (Gmax), s           |      | * 52  |       | 29.0 |      | * 52  |       | 29.0 |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.5   |       | 5.6  |      | 5.4   |       | 5.4  |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 32.4  |       | 17.6 |      | 20.2  |       | 25.0 |      |      |      |      |
| Green Ext Time (g_e), s       |      | 8.4   |       | 1.5  |      | 6.3   |       | 1.1  |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |       | 1.00 |      | 1.00  |       | 1.00 |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |       | 0.15 |      | 0.00  |       | 1.00 |      |      |      |      |
| Left-Turn Movement Data       |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 |      | 5     |       | 7    |      | 1     |       | 3    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 686   |       | 123  |      | 564   |       | 147  |      |      |      |      |
| Through Movement Data         |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 |      | 2     |       | 4    |      | 6     |       | 8    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3324  |       | 412  |      | 3320  |       | 1292 |      |      |      |      |
| Right-Turn Movement Data      |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 |      | 12    |       | 14   |      | 16    |       | 18   |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 274   |       | 1000 |      | 278   |       | 267  |      |      |      |      |
| Left Lane Group Data          |      |       |       |      |      |       |       |      |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0     | 7    | 0    | 1     | 0     | 3    |      |      |      |      |
| Lane Assignment               | L    |       | L+T+R |      | L    |       | L+T+R |      |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 212  | 0    | 310  | 0    | 47   | 0    | 453  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 686  | 0    | 1535 | 0    | 564  | 0    | 1706 |
| Q Serve Time (g_s), s               | 0.0  | 20.4 | 0.0  | 0.0  | 0.0  | 4.5  | 0.0  | 7.4  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 30.4 | 0.0  | 15.6 | 0.0  | 18.2 | 0.0  | 23.0 |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 686  | 0    | 1002 | 0    | 564  | 0    | 1127 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1449 | 0    | 0    | 0    | 1641 |
| Perm LT Eff Green (g_p), s          | 0.0  | 54.4 | 0.0  | 26.1 | 0.0  | 54.4 | 0.0  | 26.1 |
| Perm LT Serve Time (g_u), s         | 0.0  | 44.4 | 0.0  | 3.1  | 0.0  | 40.7 | 0.0  | 10.5 |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 20.4 | 0.0  | 0.0  | 0.0  | 4.5  | 0.0  | 7.4  |
| Time to First Blk (g_f), s          | 0.0  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  | 7.1  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  | 7.1  |
| Prop LT Inside Lane (P_L)           | 0.00 | 1.00 | 0.00 | 0.13 | 0.00 | 1.00 | 0.00 | 0.12 |
| Lane Grp Cap (c), veh/h             | 0    | 418  | 0    | 490  | 0    | 335  | 0    | 540  |
| V/C Ratio (X)                       | 0.00 | 0.51 | 0.00 | 0.63 | 0.00 | 0.14 | 0.00 | 0.84 |
| Avail Cap (c_a), veh/h              | 0    | 418  | 0    | 539  | 0    | 335  | 0    | 594  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 0.93 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 16.7 | 0.0  | 28.0 | 0.0  | 14.7 | 0.0  | 30.7 |
| Incr Delay (d2), s/veh              | 0.0  | 4.3  | 0.0  | 1.9  | 0.0  | 0.9  | 0.0  | 9.6  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 21.1 | 0.0  | 29.9 | 0.0  | 15.6 | 0.0  | 40.3 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 3.0  | 0.0  | 5.7  | 0.0  | 0.6  | 0.0  | 9.1  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.5  | 0.0  | 0.3  | 0.0  | 0.1  | 0.0  | 1.4  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.56 | 0.00 | 1.41 | 0.00 | 1.80 | 0.00 | 1.32 |
| %ile Back of Q (85%), veh/ln        | 0.0  | 5.5  | 0.0  | 8.4  | 0.0  | 1.1  | 0.0  | 14.0 |
| %ile Storage Ratio (RQ%)            | 0.00 | 1.39 | 0.00 | 0.36 | 0.00 | 0.58 | 0.00 | 3.03 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      | T    |      |      |      | T    |      |      |
| Lanes in Grp                | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 493  | 0    | 0    | 0    | 390  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 1777 | 0    | 0    | 0    | 1777 | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 10.0 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 10.0 | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 1074 | 0    | 0    | 0    | 1074 | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.46 | 0.00 | 0.00 | 0.00 | 0.36 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 1074 | 0    | 0    | 0    | 1074 | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 9.8  | 0.0  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  | 1.0  | 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  |
| Control Delay (d), s/veh    | 0.0  | 11.2 | 0.0  | 0.0  | 0.0  | 10.0 | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 4.8  | 0.0  | 0.0  | 0.0  | 3.5  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.46 | 0.00 | 1.00 | 0.00 | 1.53 | 0.00 | 1.00 |
| %ile Back of Q (85%), veh/ln | 0.0  | 7.6  | 0.0  | 0.0  | 0.0  | 5.8  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.46 | 0.00 | 0.00 | 0.00 | 1.03 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 506  | 0    | 0    | 0    | 400  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1821 | 0    | 0    | 0    | 1820 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 10.0 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 10.0 | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.15 | 0.00 | 0.65 | 0.00 | 0.15 | 0.00 | 0.16 |
| Lane Grp Cap (c), veh/h          | 0    | 1101 | 0    | 0    | 0    | 1100 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.46 | 0.00 | 0.00 | 0.00 | 0.36 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1101 | 0    | 0    | 0    | 1100 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 9.8  | 0.0  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 11.1 | 0.0  | 0.0  | 0.0  | 10.0 | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 4.9  | 0.0  | 0.0  | 0.0  | 3.6  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.45 | 0.00 | 1.00 | 0.00 | 1.53 | 0.00 | 1.00 |
| %ile Back of Q (85%), veh/ln     | 0.0  | 7.7  | 0.0  | 0.0  | 0.0  | 5.9  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.47 | 0.00 | 0.00 | 0.00 | 1.05 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 18.4 |
| HCM 6th LOS        | B    |

### Notes

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

# HCM 6th Signalized Intersection Summary

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021



| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations              |       |      |      |      |       |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)           | 90    | 147  | 69   | 12   | 134   | 34   | 66   | 1023 | 28   | 35   | 1214 | 110  |
| Future Volume (veh/h)            | 90    | 147  | 69   | 12   | 134   | 34   | 66   | 1023 | 28   | 35   | 1214 | 110  |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            | No    |      |      | No   |       |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 98    | 160  | 75   | 13   | 146   | 37   | 72   | 1112 | 30   | 38   | 1320 | 120  |
| 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, %             | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 146   | 197  | 85   | 55   | 336   | 81   | 127  | 1866 | 50   | 75   | 2000 | 181  |
| Arrive On Green                  | 0.24  | 0.24 | 0.24 | 0.08 | 0.08  | 0.08 | 0.65 | 0.65 | 0.65 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                  | 396   | 824  | 355  | 52   | 1406  | 339  | 125  | 2853 | 76   | 50   | 3057 | 277  |
| Grp Volume(v), veh/h             | 333   | 0    | 0    | 196  | 0     | 0    | 549  | 0    | 665  | 761  | 0    | 717  |
| Grp Sat Flow(s), veh/h/ln1575    | 0     | 0    | 1798 | 0    | 0     | 1366 | 0    | 1688 | 1731 | 0    | 1652 |      |
| Q Serve(g_s), s                  | 9.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 20.2 | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 18.3  | 0.0  | 0.0  | 9.3  | 0.0   | 0.0  | 12.9 | 0.0  | 20.2 | 0.0  | 0.0  | 0.0  |
| Prop In Lane                     | 0.29  |      | 0.23 | 0.07 |       | 0.19 | 0.13 |      | 0.05 | 0.05 |      | 0.17 |
| Lane Grp Cap(c), veh/h           | 428   | 0    | 0    | 473  | 0     | 0    | 939  | 0    | 1104 | 1175 | 0    | 1081 |
| V/C Ratio(X)                     | 0.78  | 0.00 | 0.00 | 0.41 | 0.00  | 0.00 | 0.59 | 0.00 | 0.60 | 0.65 | 0.00 | 0.66 |
| Avail Cap(c_a), veh/h            | 538   | 0    | 0    | 596  | 0     | 0    | 939  | 0    | 1104 | 1175 | 0    | 1081 |
| HCM Platoon Ratio                | 1.00  | 1.00 | 1.00 | 0.33 | 0.33  | 0.33 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(l)               | 1.00  | 0.00 | 0.00 | 1.00 | 0.00  | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh         | 32.9  | 0.0  | 0.0  | 35.8 | 0.0   | 0.0  | 7.6  | 0.0  | 8.9  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 5.6   | 0.0  | 0.0  | 0.6  | 0.0   | 0.0  | 2.7  | 0.0  | 2.4  | 2.8  | 0.0  | 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(85%),veh/ln         | 0.3   | 0.0  | 0.0  | 6.7  | 0.0   | 0.0  | 7.5  | 0.0  | 9.8  | 1.6  | 0.0  | 1.7  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh             | 38.4  | 0.0  | 0.0  | 36.4 | 0.0   | 0.0  | 10.3 | 0.0  | 11.3 | 2.8  | 0.0  | 3.2  |
| LnGrp LOS                        | D     | A    | A    | D    | A     | A    | B    | A    | B    | A    | A    | A    |
| Approach Vol, veh/h              | 333   |      |      | 196  |       |      | 1214 |      | 1478 |      |      |      |
| Approach Delay, s/veh            | 38.4  |      |      | 36.4 |       |      | 10.8 |      | 3.0  |      |      |      |
| Approach LOS                     | D     |      |      | D    |       |      | B    |      | A    |      |      |      |
| Timer - Assigned Phs             | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+Rc), s         | 63.4  |      | 26.6 |      | 63.4  |      | 26.6 |      |      |      |      |      |
| Change Period (Y+Rc), s          | * 4.5 |      | 5.1  |      | * 4.5 |      | 5.1  |      |      |      |      |      |
| Max Green Setting (Gmax), s      | * 53  |      | 27.9 |      | * 53  |      | 27.9 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s     | 22.2  |      | 20.3 |      | 2.0   |      | 11.3 |      |      |      |      |      |
| Green Ext Time (p_c), s          | 11.8  |      | 1.2  |      | 17.3  |      | 1.0  |      |      |      |      |      |
| Intersection Summary             |       |      |      |      |       |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay               |       |      | 11.6 |      |       |      |      |      |      |      |      |      |
| HCM 6th LOS                      |       |      | B    |      |       |      |      |      |      |      |      |      |
| Notes                            |       |      |      |      |       |      |      |      |      |      |      |      |

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

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 90   | 147   | 69   | 12    | 134  | 34    | 66   | 1023  | 28   | 35   | 1214 | 110  |
| Future Volume (veh/h)         | 90   | 147   | 69   | 12    | 134  | 34    | 66   | 1023  | 28   | 35   | 1214 | 110  |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 98   | 160   | 75   | 13    | 146  | 37    | 72   | 1112  | 30   | 38   | 1320 | 120  |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 146  | 197   | 85   | 55    | 336  | 81    | 127  | 1866  | 50   | 75   | 2000 | 181  |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00 | 0.33  | 0.33 | 0.33  | 1.00 | 1.00  | 1.00 | 2.00 | 2.00 | 2.00 |
| Prop Arrive On Green          | 0.24 | 0.24  | 0.24 | 0.08  | 0.08 | 0.08  | 0.65 | 0.65  | 0.65 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 38.4 | 0.0   | 0.0  | 36.4  | 0.0  | 0.0   | 10.3 | 0.0   | 11.3 | 2.8  | 0.0  | 3.2  |
| Ln Grp LOS                    | D    | A     | A    | D     | A    | A     | B    | A     | B    | A    | A    | A    |
| Approach Vol, veh/h           | 333  |       |      |       | 196  |       |      | 1214  |      |      | 1478 |      |
| Approach Delay, s/veh         | 38.4 |       |      |       | 36.4 |       |      | 10.8  |      |      | 3.0  |      |
| Approach LOS                  | D    |       |      |       | D    |       |      | B     |      |      | A    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 63.4  |      | 26.6  |      | 63.4  |      | 26.6  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.1   |      | * 4.5 |      | 5.1   |      |      |      |      |
| Max Green (Gmax), s           |      | * 53  |      | 27.9  |      | * 53  |      | 27.9  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.7   |      | 5.4   |      | 5.4   |      | 5.3   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 22.2  |      | 20.3  |      | 2.0   |      | 11.3  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 11.8  |      | 1.2   |      | 17.3  |      | 1.0   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.49  |      | 0.00  |      | 0.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 125   |      | 396   |      | 50    |      | 52    |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 2853  |      | 824   |      | 3057  |      | 1406  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 76    |      | 355   |      | 277   |      | 339   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T   |      | L+T+R |      | L+T   |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 549  | 0    | 333  | 0    | 761  | 0    | 196  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1366 | 0    | 1575 | 0    | 1731 | 0    | 1798 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 12.9 | 0.0  | 18.3 | 0.0  | 0.0  | 0.0  | 9.3  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 377  | 0    | 1220 | 0    | 500  | 0    | 1163 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1524 | 0    | 0    | 0    | 1806 |
| Perm LT Eff Green (g_p), s          | 0.0  | 58.9 | 0.0  | 21.5 | 0.0  | 58.9 | 0.0  | 21.5 |
| Perm LT Serve Time (g_u), s         | 0.0  | 58.9 | 0.0  | 12.2 | 0.0  | 38.7 | 0.0  | 3.2  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 13.0 | 0.0  | 2.8  | 0.0  | 23.2 | 0.0  | 12.1 |
| Serve Time pre Blk (g_fs), s        | 0.0  | 12.9 | 0.0  | 2.8  | 0.0  | 0.0  | 0.0  | 9.3  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.13 | 0.00 | 0.29 | 0.00 | 0.05 | 0.00 | 0.07 |
| Lane Grp Cap (c), veh/h             | 0    | 939  | 0    | 428  | 0    | 1175 | 0    | 473  |
| V/C Ratio (X)                       | 0.00 | 0.59 | 0.00 | 0.78 | 0.00 | 0.65 | 0.00 | 0.41 |
| Avail Cap (c_a), veh/h              | 0    | 939  | 0    | 538  | 0    | 1175 | 0    | 596  |
| Upstream Filter (l)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 7.6  | 0.0  | 32.9 | 0.0  | 0.0  | 0.0  | 35.8 |
| Incr Delay (d2), s/veh              | 0.0  | 2.7  | 0.0  | 5.6  | 0.0  | 2.8  | 0.0  | 0.6  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 10.3 | 0.0  | 38.4 | 0.0  | 2.8  | 0.0  | 36.4 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 4.5  | 0.0  | 6.8  | 0.0  | 0.0  | 0.0  | 4.4  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.7  | 0.0  | 0.7  | 0.0  | 0.9  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.46 | 0.00 | 1.38 | 0.00 | 1.80 | 0.00 | 1.49 |
| %ile Back of Q (85%), veh/ln        | 0.0  | 7.5  | 0.0  | 10.3 | 0.0  | 1.6  | 0.0  | 6.7  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.44 | 0.00 | 1.83 | 0.00 | 0.07 | 0.00 | 1.12 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (85%), veh/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 665  | 0    | 0    | 0    | 717  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1688 | 0    | 0    | 0    | 1652 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 20.2 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 20.2 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.05 | 0.00 | 0.23 | 0.00 | 0.17 | 0.00 | 0.19 |
| Lane Grp Cap (c), veh/h          | 0    | 1104 | 0    | 0    | 0    | 1081 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.60 | 0.00 | 0.00 | 0.00 | 0.66 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1104 | 0    | 0    | 0    | 1081 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 8.9  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 2.4  | 0.0  | 0.0  | 0.0  | 3.2  | 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  |
| Control Delay (d), s/veh         | 0.0  | 11.3 | 0.0  | 0.0  | 0.0  | 3.2  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 6.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.7  | 0.0  | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.39 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (85%), veh/ln     | 0.0  | 9.8  | 0.0  | 0.0  | 0.0  | 1.7  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.58 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 11.6 |
| HCM 6th LOS        | B    |

### Notes

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

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Intersection

Int Delay, s/veh 0.6

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 10   | 219  | 193  | 14   | 7    | 15   |
| Future Vol, veh/h        | 10   | 219  | 193  | 14   | 7    | 15   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 11   | 238  | 210  | 15   | 8    | 16   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |       |       |
|----------------------|--------|--------|--------|---|-------|-------|
| Conflicting Flow All | 225    | 0      | -      | 0 | 478   | 218   |
| Stage 1              | -      | -      | -      | - | 218   | -     |
| Stage 2              | -      | -      | -      | - | 260   | -     |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  | -     |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | 1344   | -      | -      | - | 546   | 822   |
| Stage 1              | -      | -      | -      | - | 818   | -     |
| Stage 2              | -      | -      | -      | - | 783   | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     | -     |
| Mov Cap-1 Maneuver   | 1344   | -      | -      | - | 541   | 822   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 541   | -     |
| Stage 1              | -      | -      | -      | - | 811   | -     |
| Stage 2              | -      | -      | -      | - | 783   | -     |

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| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.3 | 0  | 10.3 |
| HCM LOS              |     | B  |      |

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| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1344  | -   | -   | -   | 705   |
| HCM Lane V/C Ratio    | 0.008 | -   | -   | -   | 0.034 |
| HCM Control Delay (s) | 7.7   | 0   | -   | -   | 10.3  |
| HCM Lane LOS          | A     | A   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.1   |

# HCM 6th Signalized Intersection Summary

5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Configurations              |       |      |      |      |      |      |       |      |      |      |      |      |
| Traffic Volume (veh/h)           | 71    | 106  | 43   | 69   | 113  | 88   | 45    | 192  | 42   | 63   | 366  | 72   |
| Future Volume (veh/h)            | 71    | 106  | 43   | 69   | 113  | 88   | 45    | 192  | 42   | 63   | 366  | 72   |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      |      | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            |       | No   |      |      | No   |      |       | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 77    | 115  | 47   | 75   | 123  | 96   | 49    | 209  | 46   | 68   | 398  | 78   |
| 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, %             | 2     | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 197   | 213  | 74   | 174  | 185  | 125  | 181   | 695  | 140  | 163  | 755  | 139  |
| Arrive On Green                  | 0.07  | 0.07 | 0.07 | 0.22 | 0.22 | 0.22 | 0.56  | 0.56 | 0.56 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                  | 408   | 948  | 332  | 329  | 824  | 559  | 159   | 1250 | 251  | 131  | 1359 | 249  |
| Grp Volume(v), veh/h             | 239   | 0    | 0    | 294  | 0    | 0    | 304   | 0    | 0    | 544  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln        | 1689  | 0    | 0    | 1711 | 0    | 0    | 1660  | 0    | 0    | 1739 | 0    | 0    |
| Q Serve(g_s), s                  | 0.0   | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 5.9   | 0.0  | 0.0  | 6.9  | 0.0  | 0.0  | 4.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop In Lane                     | 0.32  |      |      | 0.20 | 0.26 |      | 0.33  | 0.16 |      | 0.15 | 0.12 | 0.14 |
| Lane Grp Cap(c), veh/h           | 484   | 0    | 0    | 484  | 0    | 0    | 1016  | 0    | 0    | 1056 | 0    | 0    |
| V/C Ratio(X)                     | 0.49  | 0.00 | 0.00 | 0.61 | 0.00 | 0.00 | 0.30  | 0.00 | 0.00 | 0.51 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h            | 751   | 0    | 0    | 760  | 0    | 0    | 1016  | 0    | 0    | 1056 | 0    | 0    |
| HCM Platoon Ratio                | 0.33  | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(l)               | 1.00  | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00  | 0.00 | 0.00 | 0.47 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh         | 18.9  | 0.0  | 0.0  | 16.2 | 0.0  | 0.0  | 5.3   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.8   | 0.0  | 0.0  | 1.2  | 0.0  | 0.0  | 0.8   | 0.0  | 0.0  | 0.8  | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh       | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(85%), veh/ln        | 4.0   | 0.0  | 0.0  | 4.2  | 0.0  | 0.0  | 2.1   | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |      |      |       |      |      |      |      |      |
| LnGrp Delay(d), s/veh            | 19.6  | 0.0  | 0.0  | 17.4 | 0.0  | 0.0  | 6.1   | 0.0  | 0.0  | 0.8  | 0.0  | 0.0  |
| LnGrp LOS                        | B     | A    | A    | B    | A    | A    | A     | A    | A    | A    | A    | A    |
| Approach Vol, veh/h              | 239   |      |      | 294  |      |      | 304   |      |      | 544  |      |      |
| Approach Delay, s/veh            | 19.6  |      |      | 17.4 |      |      | 6.1   |      |      | 0.8  |      |      |
| Approach LOS                     | B     |      |      | B    |      |      | A     |      |      | A    |      |      |
| Timer - Assigned Phs             | 2     |      |      | 4    |      |      | 6     |      |      | 8    |      |      |
| Phs Duration (G+Y+Rc), s         | 29.9  |      |      | 15.1 |      |      | 29.9  |      |      | 15.1 |      |      |
| Change Period (Y+Rc), s          | * 4.9 |      |      | * 5  |      |      | * 4.9 |      |      | * 5  |      |      |
| Max Green Setting (Gmax), s      | * 17  |      |      | * 18 |      |      | * 17  |      |      | * 18 |      |      |
| Max Q Clear Time (g_c+l1), s     | 6.0   |      |      | 7.9  |      |      | 2.0   |      |      | 8.9  |      |      |
| Green Ext Time (p_c), s          | 1.4   |      |      | 1.0  |      |      | 3.3   |      |      | 1.2  |      |      |

## Intersection Summary

|                    |     |
|--------------------|-----|
| HCM 6th Ctrl Delay | 8.8 |
| HCM 6th LOS        | A   |

## Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 71   | 106   | 43   | 69    | 113  | 88    | 45   | 192   | 42   | 63   | 366  | 72   |
| Future Volume (veh/h)         | 71   | 106   | 43   | 69    | 113  | 88    | 45   | 192   | 42   | 63   | 366  | 72   |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      | No   |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 77   | 115   | 47   | 75    | 123  | 96    | 49   | 209   | 46   | 68   | 398  | 78   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 197  | 213   | 74   | 174   | 185  | 125   | 181  | 695   | 140  | 163  | 755  | 139  |
| HCM Platoon Ratio             | 0.33 | 0.33  | 0.33 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 2.00 | 2.00 | 2.00 |
| Prop Arrive On Green          | 0.07 | 0.07  | 0.07 | 0.22  | 0.22 | 0.22  | 0.56 | 0.56  | 0.56 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 19.6 | 0.0   | 0.0  | 17.4  | 0.0  | 0.0   | 6.1  | 0.0   | 0.0  | 0.8  | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | A     | A    | B     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 239  |       |      |       | 294  |       |      | 304   |      |      | 544  |      |
| Approach Delay, s/veh         | 19.6 |       |      |       | 17.4 |       |      | 6.1   |      |      | 0.8  |      |
| Approach LOS                  | B    |       |      |       | B    |       |      | A     |      |      | A    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 29.9  |      | 15.1  |      | 29.9  |      | 15.1  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.9 |      | * 5   |      | * 4.9 |      | * 5   |      |      |      |      |
| Max Green (Gmax), s           |      | * 17  |      | * 18  |      | * 17  |      | * 18  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.5   |      | 5.5   |      | 5.4   |      | 5.5   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 6.0   |      | 7.9   |      | 2.0   |      | 8.9   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 1.4   |      | 1.0   |      | 3.3   |      | 1.2   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.15  |      | 0.00  |      | 0.27  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 159   |      | 408   |      | 131   |      | 329   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 1250  |      | 948   |      | 1359  |      | 824   |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 251   |      | 332   |      | 249   |      | 559   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T+R |      | L+T+R |      | L+T+R |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 304  | 0    | 239  | 0    | 544  | 0    | 294  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1660 | 0    | 1689 | 0    | 1739 | 0    | 1711 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 4.0  | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 6.9  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 933  | 0    | 1181 | 0    | 1142 | 0    | 1243 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 1855 | 0    | 1746 | 0    | 1859 | 0    | 1847 |
| Perm LT Eff Green (g_p), s          | 0.0  | 25.0 | 0.0  | 10.1 | 0.0  | 25.0 | 0.0  | 10.1 |
| Perm LT Serve Time (g_u), s         | 0.0  | 25.0 | 0.0  | 3.2  | 0.0  | 21.0 | 0.0  | 4.2  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.0  |
| Time to First Blk (g_f), s          | 0.0  | 9.3  | 0.0  | 2.4  | 0.0  | 9.5  | 0.0  | 2.4  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 4.0  | 0.0  | 2.4  | 0.0  | 0.0  | 0.0  | 2.4  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.16 | 0.00 | 0.32 | 0.00 | 0.12 | 0.00 | 0.26 |
| Lane Grp Cap (c), veh/h             | 0    | 1016 | 0    | 484  | 0    | 1056 | 0    | 484  |
| V/C Ratio (X)                       | 0.00 | 0.30 | 0.00 | 0.49 | 0.00 | 0.51 | 0.00 | 0.61 |
| Avail Cap (c_a), veh/h              | 0    | 1016 | 0    | 751  | 0    | 1056 | 0    | 760  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.47 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 5.3  | 0.0  | 18.9 | 0.0  | 0.0  | 0.0  | 16.2 |
| Incr Delay (d2), s/veh              | 0.0  | 0.8  | 0.0  | 0.8  | 0.0  | 0.8  | 0.0  | 1.2  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 6.1  | 0.0  | 19.6 | 0.0  | 0.8  | 0.0  | 17.4 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 1.0  | 0.0  | 2.3  | 0.0  | 0.0  | 0.0  | 2.4  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.2  | 0.0  | 0.1  | 0.0  | 0.2  | 0.0  | 0.2  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.67 | 0.00 | 1.80 | 0.00 | 1.65 |
| %ile Back of Q (85%), veh/ln        | 0.0  | 2.1  | 0.0  | 4.0  | 0.0  | 0.4  | 0.0  | 4.2  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.14 | 0.00 | 0.81 | 0.00 | 0.02 | 0.00 | 0.26 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (85%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      |      |      |      |      |      |      |      |
| Lanes in Grp                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.15 | 0.00 | 0.20 | 0.00 | 0.14 | 0.00 | 0.33 |
| Lane Grp Cap (c), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (85%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay 8.8

HCM 6th LOS A

### Notes

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

**Intersection**

Int Delay, s/veh 0.3

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑   |      | ↑↑↑  |      | Y    |      |
| Traffic Vol, veh/h       | 856  | 11   | 14   | 1111 | 2    | 9    |
| Future Vol, veh/h        | 856  | 11   | 14   | 1111 | 2    | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 35   | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 930  | 12   | 15   | 1208 | 2    | 10   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |           |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 0      | 0      | 942    | 0 | 1449 471  |
| Stage 1              | -      | -      | -      | - | 936 -     |
| Stage 2              | -      | -      | -      | - | 513 -     |
| Critical Hdwy        | -      | -      | 4.14   | - | 6.29 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.04 -    |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.67 3.32 |
| Pot Cap-1 Maneuver   | -      | -      | 724    | - | 149 539   |
| Stage 1              | -      | -      | -      | - | 333 -     |
| Stage 2              | -      | -      | -      | - | 533 -     |
| Platoon blocked, %   | -      | -      | -      | - | -         |
| Mov Cap-1 Maneuver   | -      | -      | 724    | - | 140 539   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 140 -     |
| Stage 1              | -      | -      | -      | - | 333 -     |
| Stage 2              | -      | -      | -      | - | 499 -     |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.3 | 15.5 |
| HCM LOS              |    |     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 355   | -   | -   | 724   | -   |
| HCM Lane V/C Ratio    | 0.034 | -   | -   | 0.021 | -   |
| HCM Control Delay (s) | 15.5  | -   | -   | 10.1  | 0.2 |
| HCM Lane LOS          | C     | -   | -   | B     | A   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | 0.1   | -   |

HCM 6th Signalized Intersection Summary  
2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement   | EBL  | EBT   | EBR  | WBL  | WBT  | WBR   | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--|------|-------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations  |      |       |      |      |      |       |      |      |      |      |      |      |
| Traffic Volume (veh/h)   | 79   | 709   | 84   | 242  | 792  | 95    | 127  | 233  | 299  | 59   | 90   | 58   |
| Future Volume (veh/h)  | 79   | 709   | 84   | 242  | 792  | 95    | 127  | 233  | 299  | 59   | 90   | 58   |
| Initial Q (Q <sub>b</sub> ), veh   | 0    | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)  | 1.00 |       | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj   | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach  |      | No    |      |      | No   |       |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln   | 1870 | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h   | 86   | 771   | 91   | 263  | 861  | 103   | 138  | 253  | 325  | 64   | 98   | 63   |
| 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, %   | 2    | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h   | 286  | 1690  | 199  | 322  | 1687 | 202   | 149  | 218  | 266  | 138  | 204  | 113  |
| Arrive On Green  | 0.53 | 0.53  | 0.53 | 0.53 | 0.53 | 0.53  | 0.61 | 0.61 | 0.61 | 0.37 | 0.37 | 0.37 |
| Sat Flow, veh/h  | 583  | 3201  | 378  | 641  | 3196 | 382   | 277  | 595  | 724  | 236  | 556  | 308  |
| Grp Volume(v), veh/h   | 86   | 428   | 434  | 263  | 479  | 485   | 716  | 0    | 0    | 225  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln  | 583  | 1777  | 1802 | 641  | 1777 | 1802  | 1595 | 0    | 0    | 1100 | 0    | 0    |
| Q Serve(g_s), s  | 10.1 | 13.5  | 13.5 | 34.0 | 15.7 | 15.7  | 21.3 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s  | 25.7 | 13.5  | 13.5 | 47.5 | 15.7 | 15.7  | 33.0 | 0.0  | 0.0  | 11.7 | 0.0  | 0.0  |
| Prop In Lane   | 1.00 |       | 0.21 | 1.00 |      | 0.21  | 0.19 |      | 0.45 | 0.28 |      | 0.28 |
| Lane Grp Cap(c), veh/h   | 286  | 938   | 951  | 322  | 938  | 951   | 633  | 0    | 0    | 455  | 0    | 0    |
| V/C Ratio(X)   | 0.30 | 0.46  | 0.46 | 0.82 | 0.51 | 0.51  | 1.13 | 0.00 | 0.00 | 0.49 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h  | 286  | 938   | 951  | 322  | 938  | 951   | 633  | 0    | 0    | 455  | 0    | 0    |
| HCM Platoon Ratio  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.67 | 1.67 | 1.67 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)   | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 0.68 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh   | 22.1 | 13.2  | 13.2 | 29.3 | 13.7 | 13.7  | 18.6 | 0.0  | 0.0  | 21.1 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh   | 2.7  | 1.6   | 1.6  | 19.9 | 2.0  | 2.0   | 72.8 | 0.0  | 0.0  | 0.8  | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%), veh/ln  | 2.8  | 9.3   | 9.4  | 11.9 | 10.5 | 10.6  | 30.6 | 0.0  | 0.0  | 6.4  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh   |      |       |      |      |      |       |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh  | 24.7 | 14.8  | 14.8 | 49.3 | 15.7 | 15.7  | 91.4 | 0.0  | 0.0  | 21.9 | 0.0  | 0.0  |
| LnGrp LOS  | C    | B     | B    | D    | B    | B     | F    | A    | A    | C    | A    | A    |
| Approach Vol, veh/h  |      | 948   |      |      | 1227 |       |      | 716  |      |      | 225  |      |
| Approach Delay, s/veh  |      | 15.7  |      |      | 22.9 |       |      | 91.4 |      |      | 21.9 |      |
| Approach LOS   |      | B     |      |      | C    |       |      | F    |      |      | C    |      |
| Timer - Assigned Phs   |      | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s  |      | 52.0  |      | 38.0 |      | 52.0  |      | 38.0 |      |      |      |      |
| Change Period (Y+R <sub>c</sub> ), s   |      | * 4.5 |      | 5.0  |      | * 4.5 |      | 5.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | * 48  |      | 33.0 |      | * 48  |      | 33.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s   |      | 49.5  |      | 35.0 |      | 27.7  |      | 13.7 |      |      |      |      |
| Green Ext Time (p <sub>c</sub> ), s  |      | 0.0   |      | 0.0  |      | 6.5   |      | 1.4  |      |      |      |      |
| Intersection Summary   |      |       |      |      |      |       |      |      |      |      |      |      |
| HCM 6th Ctrl Delay   |      |       | 36.4 |      |      |       |      |      |      |      |      |      |
| HCM 6th LOS  |      |       | D    |      |      |       |      |      |      |      |      |      |
| Notes  |      |       |      |      |      |       |      |      |      |      |      |      |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. |      |       |      |      |      |       |      |      |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           | ↑    | ↑↑    |      | ↑     | ↑↑   |       |      | ↔     |      |      | ↔    |      |
| Traffic Volume (veh/h)        | 79   | 709   | 84   | 242   | 792  | 95    | 127  | 233   | 299  | 59   | 90   | 58   |
| Future Volume (veh/h)         | 79   | 709   | 84   | 242   | 792  | 95    | 127  | 233   | 299  | 59   | 90   | 58   |
| Number                        | 1    | 6     | 16   | 5     | 2    | 12    | 7    | 4     | 14   | 3    | 8    | 18   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 86   | 771   | 91   | 263   | 861  | 103   | 138  | 253   | 325  | 64   | 98   | 63   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       | Yes  |      |      |      |
| Cap, veh/h                    | 286  | 1690  | 199  | 322   | 1687 | 202   | 149  | 218   | 266  | 138  | 204  | 113  |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.67 | 1.67  | 1.67 | 1.00 | 1.00 | 1.00 |
| Prop Arrive On Green          | 0.53 | 0.53  | 0.53 | 0.53  | 0.53 | 0.53  | 0.61 | 0.61  | 0.61 | 0.37 | 0.37 | 0.37 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 24.7 | 14.8  | 14.8 | 49.3  | 15.7 | 15.7  | 91.4 | 0.0   | 0.0  | 21.9 | 0.0  | 0.0  |
| Ln Grp LOS                    | C    | B     | B    | D     | B    | B     | F    | A     | A    | C    | A    | A    |
| Approach Vol, veh/h           | 948  |       |      |       | 1227 |       |      | 716   |      | 225  |      |      |
| Approach Delay, s/veh         | 15.7 |       |      |       | 22.9 |       |      | 91.4  |      | 21.9 |      |      |
| Approach LOS                  | B    |       |      |       | C    |       |      | F     |      | C    |      |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 6.0   |      | 8.0   |      | 6.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 52.0  |      | 38.0  |      | 52.0  |      | 38.0  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.0   |      | * 4.5 |      | 5.0   |      |      |      |      |
| Max Green (Gmax), s           |      | * 48  |      | 33.0  |      | * 48  |      | 33.0  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.6   |      | 5.5   |      | 5.5   |      | 5.8   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 49.5  |      | 35.0  |      | 27.7  |      | 13.7  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 0.0   |      | 0.0   |      | 6.5   |      | 1.4   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 1.00  |      | 0.00  |      | 0.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 641   |      | 277   |      | 583   |      | 236   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3196  |      | 595   |      | 3201  |      | 556   |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 382   |      | 724   |      | 378   |      | 308   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L     |      | L+T+R |      | L     |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

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|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 263  | 0    | 716  | 0    | 86   | 0    | 225  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 641  | 0    | 1595 | 0    | 583  | 0    | 1100 |
| Q Serve Time (g_s), s               | 0.0  | 34.0 | 0.0  | 21.3 | 0.0  | 10.1 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 47.5 | 0.0  | 33.0 | 0.0  | 25.7 | 0.0  | 11.7 |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 641  | 0    | 1245 | 0    | 583  | 0    | 849  |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1584 | 0    | 0    | 0    | 978  |
| Perm LT Eff Green (g_p), s          | 0.0  | 47.5 | 0.0  | 33.0 | 0.0  | 47.5 | 0.0  | 33.0 |
| Perm LT Serve Time (g_u), s         | 0.0  | 34.0 | 0.0  | 21.3 | 0.0  | 31.8 | 0.0  | 0.0  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 34.0 | 0.0  | 21.3 | 0.0  | 10.1 | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 0.0  | 0.0  | 3.1  | 0.0  | 0.0  | 0.0  | 5.0  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 0.0  | 0.0  | 3.1  | 0.0  | 0.0  | 0.0  | 5.0  |
| Prop LT Inside Lane (P_L)           | 0.00 | 1.00 | 0.00 | 0.19 | 0.00 | 1.00 | 0.00 | 0.28 |
| Lane Grp Cap (c), veh/h             | 0    | 322  | 0    | 633  | 0    | 286  | 0    | 455  |
| V/C Ratio (X)                       | 0.00 | 0.82 | 0.00 | 1.13 | 0.00 | 0.30 | 0.00 | 0.49 |
| Avail Cap (c_a), veh/h              | 0    | 322  | 0    | 633  | 0    | 286  | 0    | 455  |
| Upstream Filter (l)                 | 0.00 | 1.00 | 0.00 | 0.68 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 29.3 | 0.0  | 18.6 | 0.0  | 22.1 | 0.0  | 21.1 |
| Incr Delay (d2), s/veh              | 0.0  | 19.9 | 0.0  | 72.8 | 0.0  | 2.7  | 0.0  | 0.8  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 49.3 | 0.0  | 91.4 | 0.0  | 24.7 | 0.0  | 21.9 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 5.6  | 0.0  | 9.0  | 0.0  | 1.3  | 0.0  | 3.4  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 1.8  | 0.0  | 12.8 | 0.0  | 0.2  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.60 | 0.00 | 1.40 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 11.9 | 0.0  | 30.6 | 0.0  | 2.8  | 0.0  | 6.4  |
| %ile Storage Ratio (RQ%)            | 0.00 | 3.02 | 0.00 | 1.32 | 0.00 | 1.42 | 0.00 | 1.38 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 20.8 | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      | T    |      |      |      | T    |      |      |
| Lanes in Grp                | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 479  | 0    | 0    | 0    | 428  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 1777 | 0    | 0    | 0    | 1777 | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 15.7 | 0.0  | 0.0  | 0.0  | 13.5 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 15.7 | 0.0  | 0.0  | 0.0  | 13.5 | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 938  | 0    | 0    | 0    | 938  | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.51 | 0.00 | 0.00 | 0.00 | 0.46 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 938  | 0    | 0    | 0    | 938  | 0    | 0    |
| Upstream Filter (l)         | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 13.2 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 2.0  | 0.0  | 0.0  | 0.0  | 1.6  | 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  |
| Control Delay (d), s/veh    | 0.0  | 15.7 | 0.0  | 0.0  | 0.0  | 14.8 | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 5.8  | 0.0  | 0.0  | 0.0  | 5.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

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|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.65 | 0.00 | 1.00 | 0.00 | 1.70 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 10.5 | 0.0  | 0.0  | 0.0  | 9.3  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.63 | 0.00 | 0.00 | 0.00 | 1.63 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 485  | 0    | 0    | 0    | 434  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1802 | 0    | 0    | 0    | 1802 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 15.7 | 0.0  | 0.0  | 0.0  | 13.5 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 15.7 | 0.0  | 0.0  | 0.0  | 13.5 | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.21 | 0.00 | 0.45 | 0.00 | 0.21 | 0.00 | 0.28 |
| Lane Grp Cap (c), veh/h          | 0    | 951  | 0    | 0    | 0    | 951  | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.51 | 0.00 | 0.00 | 0.00 | 0.46 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 951  | 0    | 0    | 0    | 951  | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 13.2 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 2.0  | 0.0  | 0.0  | 0.0  | 1.6  | 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  |
| Control Delay (d), s/veh         | 0.0  | 15.7 | 0.0  | 0.0  | 0.0  | 14.8 | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 5.1  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.65 | 0.00 | 1.00 | 0.00 | 1.70 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 10.6 | 0.0  | 0.0  | 0.0  | 9.4  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.64 | 0.00 | 0.00 | 0.00 | 1.65 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay                    36.4

HCM 6th LOS                            D

### Notes

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

# HCM 6th Signalized Intersection Summary

3: Cahuenga Boulevard & Selma Avenue

09/28/2021



| Movement                              | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations                   |       |      |      |      |       |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)                | 147   | 225  | 102  | 43   | 217   | 59   | 6    | 1219 | 51   | 6    | 878  | 186  |
| Future Volume (veh/h)                 | 147   | 225  | 102  | 43   | 217   | 59   | 6    | 1219 | 51   | 6    | 878  | 186  |
| Initial Q (Q <sub>b</sub> ), veh      | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                   | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                      | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                 | No    |      |      | No   |       |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln                | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                  | 160   | 245  | 111  | 47   | 236   | 64   | 7    | 1325 | 55   | 7    | 954  | 202  |
| 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, %                  | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                            | 214   | 283  | 122  | 97   | 439   | 111  | 43   | 1775 | 73   | 43   | 1488 | 313  |
| Arrive On Green                       | 0.37  | 0.37 | 0.37 | 0.74 | 0.74  | 0.74 | 0.52 | 0.52 | 0.52 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                       | 437   | 764  | 329  | 141  | 1188  | 301  | 5    | 3389 | 140  | 5    | 2842 | 598  |
| Grp Volume(v), veh/h                  | 516   | 0    | 0    | 347  | 0     | 0    | 729  | 0    | 658  | 624  | 0    | 539  |
| Grp Sat Flow(s), veh/h/ln1530         | 0     | 0    | 1630 | 0    | 0     | 1857 | 0    | 1677 | 1850 | 0    | 1594 |      |
| Q Serve(g_s), s                       | 21.3  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 27.7 | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s                 | 28.6  | 0.0  | 0.0  | 7.3  | 0.0   | 0.0  | 27.4 | 0.0  | 27.7 | 0.0  | 0.0  | 0.0  |
| Prop In Lane                          | 0.31  |      | 0.22 | 0.14 |       | 0.18 | 0.01 |      | 0.08 | 0.01 |      | 0.37 |
| Lane Grp Cap(c), veh/h                | 618   | 0    | 0    | 648  | 0     | 0    | 1013 | 0    | 878  | 1009 | 0    | 835  |
| V/C Ratio(X)                          | 0.83  | 0.00 | 0.00 | 0.54 | 0.00  | 0.00 | 0.72 | 0.00 | 0.75 | 0.62 | 0.00 | 0.65 |
| Avail Cap(c_a), veh/h                 | 743   | 0    | 0    | 786  | 0     | 0    | 1013 | 0    | 878  | 1009 | 0    | 835  |
| HCM Platoon Ratio                     | 1.00  | 1.00 | 1.00 | 2.00 | 2.00  | 2.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(l)                    | 1.00  | 0.00 | 0.00 | 1.00 | 0.00  | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh              | 26.5  | 0.0  | 0.0  | 8.3  | 0.0   | 0.0  | 16.7 | 0.0  | 16.8 | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh                | 7.0   | 0.0  | 0.0  | 0.7  | 0.0   | 0.0  | 4.4  | 0.0  | 5.8  | 2.8  | 0.0  | 3.8  |
| Initial Q Delay(d3),s/veh             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln              | 6.6   | 0.0  | 0.0  | 3.8  | 0.0   | 0.0  | 17.7 | 0.0  | 16.7 | 1.4  | 0.0  | 1.6  |
| Unsig. Movement Delay, s/veh          |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh                  | 33.5  | 0.0  | 0.0  | 9.0  | 0.0   | 0.0  | 21.1 | 0.0  | 22.7 | 2.8  | 0.0  | 3.8  |
| LnGrp LOS                             | C     | A    | A    | A    | A     | A    | C    | A    | C    | A    | A    | A    |
| Approach Vol, veh/h                   | 516   |      |      | 347  |       |      | 1387 |      | 1163 |      |      |      |
| Approach Delay, s/veh                 | 33.5  |      |      | 9.0  |       |      | 21.9 |      | 3.3  |      |      |      |
| Approach LOS                          | C     |      |      | A    |       |      | C    |      | A    |      |      |      |
| Timer - Assigned Phs                  | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s | 51.6  |      | 38.4 |      | 51.6  |      | 38.4 |      |      |      |      |      |
| Change Period (Y+R <sub>c</sub> ), s  | * 4.5 |      | 5.1  |      | * 4.5 |      | 5.1  |      |      |      |      |      |
| Max Green Setting (Gmax), s           | * 40  |      | 40.9 |      | * 40  |      | 40.9 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s          | 29.7  |      | 30.6 |      | 2.0   |      | 9.3  |      |      |      |      |      |
| Green Ext Time (p_c), s               | 6.3   |      | 2.7  |      | 10.4  |      | 2.4  |      |      |      |      |      |
| Intersection Summary                  |       |      |      |      |       |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay                    |       |      | 16.0 |      |       |      |      |      |      |      |      |      |
| HCM 6th LOS                           |       |      | B    |      |       |      |      |      |      |      |      |      |
| Notes                                 |       |      |      |      |       |      |      |      |      |      |      |      |

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

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 147  | 225   | 102  | 43    | 217  | 59    | 6    | 1219  | 51   | 6    | 878  | 186  |
| Future Volume (veh/h)         | 147  | 225   | 102  | 43    | 217  | 59    | 6    | 1219  | 51   | 6    | 878  | 186  |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      |      | No   |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 160  | 245   | 111  | 47    | 236  | 64    | 7    | 1325  | 55   | 7    | 954  | 202  |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 214  | 283   | 122  | 97    | 439  | 111   | 43   | 1775  | 73   | 43   | 1488 | 313  |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00 | 2.00  | 2.00 | 2.00  | 1.00 | 1.00  | 1.00 | 2.00 | 2.00 | 2.00 |
| Prop Arrive On Green          | 0.37 | 0.37  | 0.37 | 0.74  | 0.74 | 0.74  | 0.52 | 0.52  | 0.52 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 33.5 | 0.0   | 0.0  | 9.0   | 0.0  | 0.0   | 21.1 | 0.0   | 22.7 | 2.8  | 0.0  | 3.8  |
| Ln Grp LOS                    | C    | A     | A    | A     | A    | A     | C    | A     | C    | A    | A    | A    |
| Approach Vol, veh/h           | 516  |       |      |       | 347  |       |      | 1387  |      |      | 1163 |      |
| Approach Delay, s/veh         | 33.5 |       |      |       | 9.0  |       |      | 21.9  |      |      | 3.3  |      |
| Approach LOS                  | C    |       |      |       | A    |       |      | C     |      |      | A    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 51.6  |      | 38.4  |      | 51.6  |      | 38.4  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.1   |      | * 4.5 |      | 5.1   |      |      |      |      |
| Max Green (Gmax), s           |      | * 40  |      | 40.9  |      | * 40  |      | 40.9  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.3   |      | 5.6   |      | 5.3   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 29.7  |      | 30.6  |      | 2.0   |      | 9.3   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 6.3   |      | 2.7   |      | 10.4  |      | 2.4   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.37  |      | 0.00  |      | 0.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 5     |      | 437   |      | 5     |      | 141   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3389  |      | 764   |      | 2842  |      | 1188  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 140   |      | 329   |      | 598   |      | 301   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T   |      | L+T+R |      | L+T   |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 729  | 0    | 516  | 0    | 624  | 0    | 347  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1857 | 0    | 1530 | 0    | 1850 | 0    | 1630 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 21.3 | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 27.4 | 0.0  | 28.6 | 0.0  | 0.0  | 0.0  | 7.3  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 494  | 0    | 1096 | 0    | 399  | 0    | 1042 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1682 | 0    | 0    | 0    | 1519 |
| Perm LT Eff Green (g_p), s          | 0.0  | 47.1 | 0.0  | 33.3 | 0.0  | 47.1 | 0.0  | 33.3 |
| Perm LT Serve Time (g_u), s         | 0.0  | 47.1 | 0.0  | 26.0 | 0.0  | 19.4 | 0.0  | 4.7  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 21.3 | 0.0  | 0.0  | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 34.6 | 0.0  | 2.3  | 0.0  | 34.6 | 0.0  | 10.8 |
| Serve Time pre Blk (g_fs), s        | 0.0  | 27.4 | 0.0  | 2.3  | 0.0  | 0.0  | 0.0  | 7.3  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.01 | 0.00 | 0.31 | 0.00 | 0.01 | 0.00 | 0.14 |
| Lane Grp Cap (c), veh/h             | 0    | 1013 | 0    | 618  | 0    | 1009 | 0    | 648  |
| V/C Ratio (X)                       | 0.00 | 0.72 | 0.00 | 0.83 | 0.00 | 0.62 | 0.00 | 0.54 |
| Avail Cap (c_a), veh/h              | 0    | 1013 | 0    | 743  | 0    | 1009 | 0    | 786  |
| Upstream Filter (l)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 16.7 | 0.0  | 26.5 | 0.0  | 0.0  | 0.0  | 8.3  |
| Incr Delay (d2), s/veh              | 0.0  | 4.4  | 0.0  | 7.0  | 0.0  | 2.8  | 0.0  | 0.7  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 21.1 | 0.0  | 33.5 | 0.0  | 2.8  | 0.0  | 9.0  |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 10.8 | 0.0  | 9.9  | 0.0  | 0.0  | 0.0  | 2.0  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 1.2  | 0.0  | 1.2  | 0.0  | 0.8  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.47 | 0.00 | 1.49 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 17.7 | 0.0  | 16.6 | 0.0  | 1.4  | 0.0  | 3.8  |
| %ile Storage Ratio (RQ%)            | 0.00 | 1.04 | 0.00 | 2.95 | 0.00 | 0.06 | 0.00 | 0.64 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 658  | 0    | 0    | 0    | 539  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1677 | 0    | 0    | 0    | 1594 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 27.7 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 27.7 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.08 | 0.00 | 0.22 | 0.00 | 0.37 | 0.00 | 0.18 |
| Lane Grp Cap (c), veh/h          | 0    | 878  | 0    | 0    | 0    | 835  | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.75 | 0.00 | 0.00 | 0.00 | 0.65 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 878  | 0    | 0    | 0    | 835  | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 16.8 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 5.8  | 0.0  | 0.0  | 0.0  | 3.8  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 22.7 | 0.0  | 0.0  | 0.0  | 3.8  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 9.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.49 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 16.7 | 0.0  | 0.0  | 0.0  | 1.6  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.98 | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 16.0 |
| HCM 6th LOS        | B    |

### Notes

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

**Intersection**

Int Delay, s/veh 1.1

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 23   | 291  | 307  | 11   | 21   | 22   |
| Future Vol, veh/h        | 23   | 291  | 307  | 11   | 21   | 22   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 25   | 316  | 334  | 12   | 23   | 24   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |       |       |
|----------------------|--------|--------|--------|---|-------|-------|
| Conflicting Flow All | 346    | 0      | -      | 0 | 706   | 340   |
| Stage 1              | -      | -      | -      | - | 340   | -     |
| Stage 2              | -      | -      | -      | - | 366   | -     |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  | -     |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | 1213   | -      | -      | - | 402   | 702   |
| Stage 1              | -      | -      | -      | - | 721   | -     |
| Stage 2              | -      | -      | -      | - | 702   | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     | -     |
| Mov Cap-1 Maneuver   | 1213   | -      | -      | - | 392   | 702   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 392   | -     |
| Stage 1              | -      | -      | -      | - | 703   | -     |
| Stage 2              | -      | -      | -      | - | 702   | -     |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.6 | 0  | 12.8 |
| HCM LOS              |     |    | B    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1213  | -   | -   | -   | 506   |
| HCM Lane V/C Ratio    | 0.021 | -   | -   | -   | 0.092 |
| HCM Control Delay (s) | 8     | 0   | -   | -   | 12.8  |
| HCM Lane LOS          | A     | A   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0.3   |

# HCM 6th Signalized Intersection Summary

5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement                              | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------------------------|-------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Configurations                   |       |      |      |      |      |      |       |      |      |      |      |      |
| Traffic Volume (veh/h)                | 84    | 180  | 34   | 59   | 160  | 116  | 42    | 351  | 116  | 80   | 235  | 116  |
| Future Volume (veh/h)                 | 84    | 180  | 34   | 59   | 160  | 116  | 42    | 351  | 116  | 80   | 235  | 116  |
| Initial Q (Q <sub>b</sub> ), veh      | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                   | 1.00  |      |      | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj                      | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                 |       | No   |      |      | No   |      |       | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln                | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                  | 91    | 196  | 37   | 64   | 174  | 126  | 46    | 382  | 126  | 87   | 255  | 126  |
| 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, %                  | 2     | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                            | 194   | 294  | 50   | 149  | 243  | 158  | 126   | 652  | 203  | 196  | 510  | 225  |
| Arrive On Green                       | 0.09  | 0.09 | 0.09 | 0.26 | 0.26 | 0.26 | 0.52  | 0.52 | 0.52 | 0.17 | 0.17 | 0.17 |
| Sat Flow, veh/h                       | 346   | 1111 | 188  | 208  | 918  | 596  | 76    | 1265 | 395  | 196  | 989  | 437  |
| Grp Volume(v), veh/h                  | 324   | 0    | 0    | 364  | 0    | 0    | 554   | 0    | 0    | 468  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln             | 1644  | 0    | 0    | 1723 | 0    | 0    | 1735  | 0    | 0    | 1622 | 0    | 0    |
| Q Serve(g_s), s                       | 0.0   | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 1.1  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s                 | 8.4   | 0.0  | 0.0  | 8.5  | 0.0  | 0.0  | 9.7   | 0.0  | 0.0  | 10.8 | 0.0  | 0.0  |
| Prop In Lane                          | 0.28  |      |      | 0.11 | 0.18 |      | 0.35  | 0.08 |      | 0.23 | 0.19 | 0.27 |
| Lane Grp Cap(c), veh/h                | 537   | 0    | 0    | 550  | 0    | 0    | 981   | 0    | 0    | 931  | 0    | 0    |
| V/C Ratio(X)                          | 0.60  | 0.00 | 0.00 | 0.66 | 0.00 | 0.00 | 0.56  | 0.00 | 0.00 | 0.50 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h                 | 744   | 0    | 0    | 766  | 0    | 0    | 981   | 0    | 0    | 931  | 0    | 0    |
| HCM Platoon Ratio                     | 0.33  | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(l)                    | 1.00  | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00  | 0.00 | 0.00 | 0.51 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh              | 18.8  | 0.0  | 0.0  | 15.3 | 0.0  | 0.0  | 7.6   | 0.0  | 0.0  | 13.5 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh                | 1.1   | 0.0  | 0.0  | 1.4  | 0.0  | 0.0  | 2.4   | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh            | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%), veh/ln             | 6.3   | 0.0  | 0.0  | 5.6  | 0.0  | 0.0  | 5.8   | 0.0  | 0.0  | 7.4  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh          |       |      |      |      |      |      |       |      |      |      |      |      |
| LnGrp Delay(d), s/veh                 | 19.9  | 0.0  | 0.0  | 16.7 | 0.0  | 0.0  | 10.0  | 0.0  | 0.0  | 14.5 | 0.0  | 0.0  |
| LnGrp LOS                             | B     | A    | A    | B    | A    | A    | A     | A    | A    | B    | A    | A    |
| Approach Vol, veh/h                   | 324   |      |      | 364  |      |      | 554   |      |      | 468  |      |      |
| Approach Delay, s/veh                 | 19.9  |      |      | 16.7 |      |      | 10.0  |      |      | 14.5 |      |      |
| Approach LOS                          | B     |      |      | B    |      |      | A     |      |      | B    |      |      |
| Timer - Assigned Phs                  | 2     |      |      | 4    |      |      | 6     |      |      | 8    |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s | 28.1  |      |      | 16.9 |      |      | 28.1  |      |      | 16.9 |      |      |
| Change Period (Y+R <sub>c</sub> ), s  | * 4.9 |      |      | * 5  |      |      | * 4.9 |      |      | * 5  |      |      |
| Max Green Setting (Gmax), s           | * 17  |      |      | * 18 |      |      | * 17  |      |      | * 18 |      |      |
| Max Q Clear Time (g_c+l1), s          | 11.7  |      |      | 10.4 |      |      | 12.8  |      |      | 10.5 |      |      |
| Green Ext Time (p_c), s               | 1.8   |      |      | 1.2  |      |      | 1.3   |      |      | 1.4  |      |      |

## Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 14.5 |
| HCM 6th LOS        | B    |

## Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 84   | 180   | 34   | 59    | 160  | 116   | 42   | 351   | 116  | 80   | 235  | 116  |
| Future Volume (veh/h)         | 84   | 180   | 34   | 59    | 160  | 116   | 42   | 351   | 116  | 80   | 235  | 116  |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 91   | 196   | 37   | 64    | 174  | 126   | 46   | 382   | 126  | 87   | 255  | 126  |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 194  | 294   | 50   | 149   | 243  | 158   | 126  | 652   | 203  | 196  | 510  | 225  |
| HCM Platoon Ratio             | 0.33 | 0.33  | 0.33 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 0.33 | 0.33 | 0.33 |
| Prop Arrive On Green          | 0.09 | 0.09  | 0.09 | 0.26  | 0.26 | 0.26  | 0.52 | 0.52  | 0.52 | 0.17 | 0.17 | 0.17 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 19.9 | 0.0   | 0.0  | 16.7  | 0.0  | 0.0   | 10.0 | 0.0   | 0.0  | 14.5 | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | A     | A    | B     | A    | A     | A    | A     | A    | B    | A    | A    |
| Approach Vol, veh/h           | 324  |       |      |       | 364  |       |      | 554   |      |      | 468  |      |
| Approach Delay, s/veh         | 19.9 |       |      |       | 16.7 |       |      | 10.0  |      |      | 14.5 |      |
| Approach LOS                  | B    |       |      |       | B    |       |      | A     |      |      | B    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 28.1  |      | 16.9  |      | 28.1  |      | 16.9  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.9 |      | * 5   |      | * 4.9 |      | * 5   |      |      |      |      |
| Max Green (Gmax), s           |      | * 17  |      | * 18  |      | * 17  |      | * 18  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.4   |      | 5.5   |      | 5.6   |      | 5.5   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 11.7  |      | 10.4  |      | 12.8  |      | 10.5  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 1.8   |      | 1.2   |      | 1.3   |      | 1.4   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.50  |      | 0.00  |      | 0.54  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 76    |      | 346   |      | 196   |      | 208   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 1265  |      | 1111  |      | 989   |      | 918   |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 395   |      | 188   |      | 437   |      | 596   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T+R |      | L+T+R |      | L+T+R |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 554  | 0    | 324  | 0    | 468  | 0    | 364  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1735 | 0    | 1644 | 0    | 1622 | 0    | 1723 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.1  | 0.0  | 0.1  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 9.7  | 0.0  | 8.4  | 0.0  | 10.8 | 0.0  | 8.5  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 1018 | 0    | 1096 | 0    | 906  | 0    | 1166 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 1863 | 0    | 1625 | 0    | 1853 | 0    | 1789 |
| Perm LT Eff Green (g_p), s          | 0.0  | 23.2 | 0.0  | 11.9 | 0.0  | 23.2 | 0.0  | 11.9 |
| Perm LT Serve Time (g_u), s         | 0.0  | 12.4 | 0.0  | 3.4  | 0.0  | 13.5 | 0.0  | 3.5  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.1  | 0.0  | 0.1  |
| Time to First Blk (g_f), s          | 0.0  | 10.6 | 0.0  | 2.7  | 0.0  | 7.4  | 0.0  | 3.6  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 9.7  | 0.0  | 2.7  | 0.0  | 7.4  | 0.0  | 3.6  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.08 | 0.00 | 0.28 | 0.00 | 0.19 | 0.00 | 0.18 |
| Lane Grp Cap (c), veh/h             | 0    | 981  | 0    | 537  | 0    | 931  | 0    | 550  |
| V/C Ratio (X)                       | 0.00 | 0.56 | 0.00 | 0.60 | 0.00 | 0.50 | 0.00 | 0.66 |
| Avail Cap (c_a), veh/h              | 0    | 981  | 0    | 744  | 0    | 931  | 0    | 766  |
| Upstream Filter (l)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.51 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 7.6  | 0.0  | 18.8 | 0.0  | 13.5 | 0.0  | 15.3 |
| Incr Delay (d2), s/veh              | 0.0  | 2.4  | 0.0  | 1.1  | 0.0  | 1.0  | 0.0  | 1.4  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 10.0 | 0.0  | 19.9 | 0.0  | 14.5 | 0.0  | 16.7 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 2.6  | 0.0  | 3.3  | 0.0  | 4.6  | 0.0  | 2.9  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.6  | 0.0  | 0.2  | 0.0  | 0.3  | 0.0  | 0.2  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.53 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 5.8  | 0.0  | 6.3  | 0.0  | 7.4  | 0.0  | 5.6  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.37 | 0.00 | 1.25 | 0.00 | 0.32 | 0.00 | 0.34 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

| Middle Lane Group Data      |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      |      |      |      |      |      |      |      |
| Lanes in Grp                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.23 | 0.00 | 0.11 | 0.00 | 0.27 | 0.00 | 0.35 |
| Lane Grp Cap (c), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay 14.5

HCM 6th LOS B

### Notes

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

**Intersection**

Int Delay, s/veh 0.7

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↑↑   |      | ↑↑↑  | ↑    |      |      |
| Traffic Vol, veh/h       | 746  | 12   | 8    | 985  | 0    | 82   |
| Future Vol, veh/h        | 746  | 12   | 8    | 985  | 0    | 82   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 35   | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 811  | 13   | 9    | 1071 | 0    | 89   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |      |
|----------------------|--------|--------|--------|---|------|
| Conflicting Flow All | 0      | 0      | 824    | 0 | 1264 |
| Stage 1              | -      | -      | -      | - | 818  |
| Stage 2              | -      | -      | -      | - | 446  |
| Critical Hdwy        | -      | -      | 4.14   | - | 6.29 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 6.04 |
| Follow-up Hdwy       | -      | -      | 2.22   | - | 3.67 |
| Pot Cap-1 Maneuver   | -      | -      | 802    | - | 192  |
| Stage 1              | -      | -      | -      | - | 384  |
| Stage 2              | -      | -      | -      | - | 578  |
| Platoon blocked, %   | -      | -      | -      | - | -    |
| Mov Cap-1 Maneuver   | -      | -      | 802    | - | 187  |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 187  |
| Stage 1              | -      | -      | -      | - | 384  |
| Stage 2              | -      | -      | -      | - | 562  |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.2 | 12.2 |
| HCM LOS              |    | B   |      |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 589   | -   | -   | 802   | -   |
| HCM Lane V/C Ratio    | 0.151 | -   | -   | 0.011 | -   |
| HCM Control Delay (s) | 12.2  | -   | -   | 9.5   | 0.1 |
| HCM Lane LOS          | B     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | 0     | -   |

# HCM 6th Signalized Intersection Summary

2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations              | ↑     | ↑↑   |      | ↑    | ↑↑    |      |      | ↔    |      |      | ↔    |      |
| Traffic Volume (veh/h)           | 47    | 692  | 109  | 195  | 849   | 70   | 37   | 63   | 186  | 51   | 304  | 65   |
| Future Volume (veh/h)            | 47    | 692  | 109  | 195  | 849   | 70   | 37   | 63   | 186  | 51   | 304  | 65   |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            | No    |      |      | No   |       |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 51    | 752  | 118  | 212  | 923   | 76   | 40   | 68   | 202  | 55   | 330  | 71   |
| 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, %             | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 335   | 1862 | 292  | 384  | 2011  | 166  | 81   | 119  | 289  | 87   | 375  | 77   |
| Arrive On Green                  | 0.60  | 0.60 | 0.60 | 0.60 | 0.60  | 0.60 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 |
| Sat Flow, veh/h                  | 564   | 3078 | 483  | 637  | 3324  | 274  | 123  | 410  | 997  | 146  | 1295 | 266  |
| Grp Volume(v), veh/h             | 51    | 434  | 436  | 212  | 493   | 506  | 310  | 0    | 0    | 456  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln        | 564   | 1777 | 1783 | 637  | 1777  | 1821 | 1530 | 0    | 0    | 1706 | 0    | 0    |
| Q Serve(g_s), s                  | 4.9   | 11.5 | 11.5 | 23.5 | 13.7  | 13.7 | 0.0  | 0.0  | 0.0  | 7.6  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 18.6  | 11.5 | 11.5 | 35.0 | 13.7  | 13.7 | 15.7 | 0.0  | 0.0  | 23.3 | 0.0  | 0.0  |
| Prop In Lane                     | 1.00  |      | 0.27 | 1.00 |       | 0.15 | 0.13 |      | 0.65 | 0.12 |      | 0.16 |
| Lane Grp Cap(c), veh/h           | 335   | 1075 | 1079 | 384  | 1075  | 1102 | 488  | 0    | 0    | 539  | 0    | 0    |
| V/C Ratio(X)                     | 0.15  | 0.40 | 0.40 | 0.55 | 0.46  | 0.46 | 0.64 | 0.00 | 0.00 | 0.85 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h            | 335   | 1075 | 1079 | 384  | 1075  | 1102 | 521  | 0    | 0    | 575  | 0    | 0    |
| HCM Platoon Ratio                | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)               | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 0.93 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh         | 14.8  | 9.3  | 9.3  | 18.4 | 9.7   | 9.7  | 28.0 | 0.0  | 0.0  | 30.8 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 1.0   | 1.1  | 1.1  | 5.6  | 1.4   | 1.4  | 2.2  | 0.0  | 0.0  | 10.7 | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh       | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%), veh/ln        | 1.2   | 7.8  | 7.8  | 6.9  | 8.9   | 9.1  | 9.9  | 0.0  | 0.0  | 16.3 | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh            | 15.8  | 10.4 | 10.4 | 24.1 | 11.1  | 11.1 | 30.2 | 0.0  | 0.0  | 41.5 | 0.0  | 0.0  |
| LnGrp LOS                        | B     | B    | B    | C    | B     | B    | C    | A    | A    | D    | A    | A    |
| Approach Vol, veh/h              | 921   |      |      |      | 1211  |      |      | 310  |      |      | 456  |      |
| Approach Delay, s/veh            | 10.7  |      |      |      | 13.4  |      |      | 30.2 |      |      | 41.5 |      |
| Approach LOS                     | B     |      |      |      | B     |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs             | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+Rc), s         | 58.9  |      | 31.1 |      | 58.9  |      | 31.1 |      |      |      |      |      |
| Change Period (Y+Rc), s          | * 4.5 |      | 5.0  |      | * 4.5 |      | 5.0  |      |      |      |      |      |
| Max Green Setting (Gmax), s      | * 53  |      | 28.0 |      | * 53  |      | 28.0 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s     | 37.0  |      | 17.7 |      | 20.6  |      | 25.3 |      |      |      |      |      |
| Green Ext Time (p_c), s          | 7.6   |      | 1.4  |      | 7.2   |      | 0.8  |      |      |      |      |      |
| Intersection Summary             |       |      |      |      |       |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay               |       |      | 18.8 |      |       |      |      |      |      |      |      |      |
| HCM 6th LOS                      |       |      | B    |      |       |      |      |      |      |      |      |      |
| Notes                            |       |      |      |      |       |      |      |      |      |      |      |      |

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

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           | ↑    | ↑↑    |      | ↑     | ↑↑   |       |      | ↔     |      |      | ↔    |      |
| Traffic Volume (veh/h)        | 47   | 692   | 109  | 195   | 849  | 70    | 37   | 63    | 186  | 51   | 304  | 65   |
| Future Volume (veh/h)         | 47   | 692   | 109  | 195   | 849  | 70    | 37   | 63    | 186  | 51   | 304  | 65   |
| Number                        | 1    | 6     | 16   | 5     | 2    | 12    | 7    | 4     | 14   | 3    | 8    | 18   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      | No    |      |       | No   |       |      | No   |      |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 51   | 752   | 118  | 212   | 923  | 76    | 40   | 68    | 202  | 55   | 330  | 71   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 335  | 1862  | 292  | 384   | 2011 | 166   | 81   | 119   | 289  | 87   | 375  | 77   |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Prop Arrive On Green          | 0.60 | 0.60  | 0.60 | 0.60  | 0.60 | 0.60  | 0.29 | 0.29  | 0.29 | 0.29 | 0.29 | 0.29 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 15.8 | 10.4  | 10.4 | 24.1  | 11.1 | 11.1  | 30.2 | 0.0   | 0.0  | 41.5 | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | B     | B    | C     | B    | B     | C    | A     | A    | D    | A    | A    |
| Approach Vol, veh/h           | 921  |       |      |       | 1211 |       |      | 310   |      |      | 456  |      |
| Approach Delay, s/veh         | 10.7 |       |      |       | 13.4 |       |      | 30.2  |      |      | 41.5 |      |
| Approach LOS                  | B    |       |      |       | B    |       |      | C     |      |      | D    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 6.0   |      | 8.0   |      | 6.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 58.9  |      | 31.1  |      | 58.9  |      | 31.1  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.0   |      | * 4.5 |      | 5.0   |      |      |      |      |
| Max Green (Gmax), s           |      | * 53  |      | 28.0  |      | * 53  |      | 28.0  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.5   |      | 5.6   |      | 5.4   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 37.0  |      | 17.7  |      | 20.6  |      | 25.3  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 7.6   |      | 1.4   |      | 7.2   |      | 0.8   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.21  |      | 0.00  |      | 1.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 637   |      | 123   |      | 564   |      | 146   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3324  |      | 410   |      | 3078  |      | 1295  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 274   |      | 997   |      | 483   |      | 266   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               | L    |       |      | L+T+R |      | L     |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 212  | 0    | 310  | 0    | 51   | 0    | 456  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 637  | 0    | 1530 | 0    | 564  | 0    | 1706 |
| Q Serve Time (g_s), s               | 0.0  | 23.5 | 0.0  | 0.0  | 0.0  | 4.9  | 0.0  | 7.6  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 35.0 | 0.0  | 15.7 | 0.0  | 18.6 | 0.0  | 23.3 |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 637  | 0    | 999  | 0    | 564  | 0    | 1127 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1442 | 0    | 0    | 0    | 1639 |
| Perm LT Eff Green (g_p), s          | 0.0  | 54.4 | 0.0  | 26.1 | 0.0  | 54.4 | 0.0  | 26.1 |
| Perm LT Serve Time (g_u), s         | 0.0  | 42.9 | 0.0  | 2.8  | 0.0  | 40.8 | 0.0  | 10.4 |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 23.5 | 0.0  | 0.0  | 0.0  | 4.9  | 0.0  | 7.6  |
| Time to First Blk (g_f), s          | 0.0  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  | 7.1  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  | 7.1  |
| Prop LT Inside Lane (P_L)           | 0.00 | 1.00 | 0.00 | 0.13 | 0.00 | 1.00 | 0.00 | 0.12 |
| Lane Grp Cap (c), veh/h             | 0    | 384  | 0    | 488  | 0    | 335  | 0    | 539  |
| V/C Ratio (X)                       | 0.00 | 0.55 | 0.00 | 0.64 | 0.00 | 0.15 | 0.00 | 0.85 |
| Avail Cap (c_a), veh/h              | 0    | 384  | 0    | 521  | 0    | 335  | 0    | 575  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 0.93 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 18.4 | 0.0  | 28.0 | 0.0  | 14.8 | 0.0  | 30.8 |
| Incr Delay (d2), s/veh              | 0.0  | 5.6  | 0.0  | 2.2  | 0.0  | 1.0  | 0.0  | 10.7 |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 24.1 | 0.0  | 30.2 | 0.0  | 15.8 | 0.0  | 41.5 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 3.2  | 0.0  | 5.7  | 0.0  | 0.6  | 0.0  | 9.2  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.6  | 0.0  | 0.3  | 0.0  | 0.1  | 0.0  | 1.6  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.65 | 0.00 | 1.80 | 0.00 | 1.50 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 6.9  | 0.0  | 9.9  | 0.0  | 1.2  | 0.0  | 16.3 |
| %ile Storage Ratio (RQ%)            | 0.00 | 1.76 | 0.00 | 0.43 | 0.00 | 0.63 | 0.00 | 3.53 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      | T    |      |      |      | T    |      |      |
| Lanes in Grp                | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 493  | 0    | 0    | 0    | 434  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 1777 | 0    | 0    | 0    | 1777 | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 11.5 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 11.5 | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 1075 | 0    | 0    | 0    | 1075 | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.46 | 0.00 | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 1075 | 0    | 0    | 0    | 1075 | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 9.7  | 0.0  | 0.0  | 0.0  | 9.3  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  | 1.1  | 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  |
| Control Delay (d), s/veh    | 0.0  | 11.1 | 0.0  | 0.0  | 0.0  | 10.4 | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 4.8  | 0.0  | 0.0  | 0.0  | 4.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.72 | 0.00 | 1.00 | 0.00 | 1.79 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln | 0.0  | 8.9  | 0.0  | 0.0  | 0.0  | 7.8  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.54 | 0.00 | 0.00 | 0.00 | 1.37 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 506  | 0    | 0    | 0    | 436  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1821 | 0    | 0    | 0    | 1783 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 11.5 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 11.5 | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.15 | 0.00 | 0.65 | 0.00 | 0.27 | 0.00 | 0.16 |
| Lane Grp Cap (c), veh/h          | 0    | 1102 | 0    | 0    | 0    | 1079 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.46 | 0.00 | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1102 | 0    | 0    | 0    | 1079 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 9.7  | 0.0  | 0.0  | 0.0  | 9.3  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  | 1.1  | 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  |
| Control Delay (d), s/veh         | 0.0  | 11.1 | 0.0  | 0.0  | 0.0  | 10.4 | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 4.9  | 0.0  | 0.0  | 0.0  | 4.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.71 | 0.00 | 1.00 | 0.00 | 1.78 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 9.1  | 0.0  | 0.0  | 0.0  | 7.8  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.55 | 0.00 | 0.00 | 0.00 | 1.38 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 18.8 |
| HCM 6th LOS        | B    |

### Notes

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

# HCM 6th Signalized Intersection Summary

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021



| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations              |       |      |      |      |       |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)           | 90    | 153  | 69   | 13   | 143   | 34   | 66   | 1023 | 34   | 35   | 1214 | 110  |
| Future Volume (veh/h)            | 90    | 153  | 69   | 13   | 143   | 34   | 66   | 1023 | 34   | 35   | 1214 | 110  |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            | No    |      |      | No   |       |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 98    | 166  | 75   | 14   | 155   | 37   | 72   | 1112 | 37   | 38   | 1320 | 120  |
| 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, %             | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 146   | 204  | 85   | 56   | 346   | 79   | 125  | 1843 | 61   | 74   | 1984 | 180  |
| Arrive On Green                  | 0.24  | 0.24 | 0.24 | 0.08 | 0.08  | 0.08 | 0.65 | 0.65 | 0.65 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                  | 386   | 835  | 347  | 54   | 1419  | 323  | 123  | 2840 | 94   | 50   | 3056 | 277  |
| Grp Volume(v), veh/h             | 339   | 0    | 0    | 206  | 0     | 0    | 554  | 0    | 667  | 761  | 0    | 717  |
| Grp Sat Flow(s), veh/h/ln1567    | 0     | 0    | 1796 | 0    | 0     | 1371 | 0    | 1685 | 1730 | 0    | 1652 |      |
| Q Serve(g_s), s                  | 9.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.3  | 0.0  | 20.7 | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 18.7  | 0.0  | 0.0  | 9.8  | 0.0   | 0.0  | 13.4 | 0.0  | 20.7 | 0.0  | 0.0  | 0.0  |
| Prop In Lane                     | 0.29  |      | 0.22 | 0.07 |       | 0.18 | 0.13 |      | 0.06 | 0.05 |      | 0.17 |
| Lane Grp Cap(c), veh/h           | 434   | 0    | 0    | 481  | 0     | 0    | 935  | 0    | 1094 | 1165 | 0    | 1073 |
| V/C Ratio(X)                     | 0.78  | 0.00 | 0.00 | 0.43 | 0.00  | 0.00 | 0.59 | 0.00 | 0.61 | 0.65 | 0.00 | 0.67 |
| Avail Cap(c_a), veh/h            | 540   | 0    | 0    | 600  | 0     | 0    | 935  | 0    | 1094 | 1165 | 0    | 1073 |
| HCM Platoon Ratio                | 1.00  | 1.00 | 1.00 | 0.33 | 0.33  | 0.33 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(l)               | 1.00  | 0.00 | 0.00 | 1.00 | 0.00  | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh         | 32.7  | 0.0  | 0.0  | 35.8 | 0.0   | 0.0  | 7.9  | 0.0  | 9.2  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 5.8   | 0.0  | 0.0  | 0.6  | 0.0   | 0.0  | 2.8  | 0.0  | 2.5  | 2.9  | 0.0  | 3.3  |
| Initial Q Delay(d3),s/veh        | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/l          | 2.2   | 0.0  | 0.0  | 8.3  | 0.0   | 0.0  | 9.1  | 0.0  | 11.7 | 1.7  | 0.0  | 1.8  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh             | 38.5  | 0.0  | 0.0  | 36.4 | 0.0   | 0.0  | 10.6 | 0.0  | 11.7 | 2.9  | 0.0  | 3.3  |
| LnGrp LOS                        | D     | A    | A    | D    | A     | A    | B    | A    | B    | A    | A    | A    |
| Approach Vol, veh/h              | 339   |      |      | 206  |       |      | 1221 |      | 1478 |      |      |      |
| Approach Delay, s/veh            | 38.5  |      |      | 36.4 |       |      | 11.2 |      | 3.1  |      |      |      |
| Approach LOS                     | D     |      |      | D    |       |      | B    |      | A    |      |      |      |
| Timer - Assigned Phs             | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+Rc), s         | 62.9  |      | 27.1 |      | 62.9  |      | 27.1 |      |      |      |      |      |
| Change Period (Y+Rc), s          | * 4.5 |      | 5.1  |      | * 4.5 |      | 5.1  |      |      |      |      |      |
| Max Green Setting (Gmax), s      | * 52  |      | 28.1 |      | * 52  |      | 28.1 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s     | 22.7  |      | 20.7 |      | 2.0   |      | 11.8 |      |      |      |      |      |
| Green Ext Time (p_c), s          | 11.8  |      | 1.2  |      | 17.3  |      | 1.0  |      |      |      |      |      |
| Intersection Summary             |       |      |      |      |       |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay               |       |      | 12.0 |      |       |      |      |      |      |      |      |      |
| HCM 6th LOS                      |       |      | B    |      |       |      |      |      |      |      |      |      |
| Notes                            |       |      |      |      |       |      |      |      |      |      |      |      |

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

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 90   | 153   | 69   | 13    | 143  | 34    | 66   | 1023  | 34   | 35   | 1214 | 110  |
| Future Volume (veh/h)         | 90   | 153   | 69   | 13    | 143  | 34    | 66   | 1023  | 34   | 35   | 1214 | 110  |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 98   | 166   | 75   | 14    | 155  | 37    | 72   | 1112  | 37   | 38   | 1320 | 120  |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 146  | 204   | 85   | 56    | 346  | 79    | 125  | 1843  | 61   | 74   | 1984 | 180  |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00 | 0.33  | 0.33 | 0.33  | 1.00 | 1.00  | 1.00 | 2.00 | 2.00 | 2.00 |
| Prop Arrive On Green          | 0.24 | 0.24  | 0.24 | 0.08  | 0.08 | 0.08  | 0.65 | 0.65  | 0.65 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 38.5 | 0.0   | 0.0  | 36.4  | 0.0  | 0.0   | 10.6 | 0.0   | 11.7 | 2.9  | 0.0  | 3.3  |
| Ln Grp LOS                    | D    | A     | A    | D     | A    | A     | B    | A     | B    | A    | A    | A    |
| Approach Vol, veh/h           | 339  |       |      |       | 206  |       |      | 1221  |      |      | 1478 |      |
| Approach Delay, s/veh         | 38.5 |       |      |       | 36.4 |       |      | 11.2  |      |      | 3.1  |      |
| Approach LOS                  | D    |       |      |       | D    |       |      | B     |      |      | A    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 62.9  |      | 27.1  |      | 62.9  |      | 27.1  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.1   |      | * 4.5 |      | 5.1   |      |      |      |      |
| Max Green (Gmax), s           |      | * 52  |      | 28.1  |      | * 52  |      | 28.1  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.7   |      | 5.5   |      | 5.4   |      | 5.3   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 22.7  |      | 20.7  |      | 2.0   |      | 11.8  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 11.8  |      | 1.2   |      | 17.3  |      | 1.0   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.54  |      | 0.00  |      | 0.01  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 123   |      | 386   |      | 50    |      | 54    |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 2840  |      | 835   |      | 3056  |      | 1419  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 94    |      | 347   |      | 277   |      | 323   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T   |      | L+T+R |      | L+T   |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

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|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 554  | 0    | 339  | 0    | 761  | 0    | 206  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1371 | 0    | 1567 | 0    | 1730 | 0    | 1796 |
| Q Serve Time (g_s), s               | 0.0  | 0.3  | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 13.4 | 0.0  | 18.7 | 0.0  | 0.0  | 0.0  | 9.8  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 377  | 0    | 1210 | 0    | 497  | 0    | 1157 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1497 | 0    | 0    | 0    | 1795 |
| Perm LT Eff Green (g_p), s          | 0.0  | 58.4 | 0.0  | 22.0 | 0.0  | 58.4 | 0.0  | 22.0 |
| Perm LT Serve Time (g_u), s         | 0.0  | 58.4 | 0.0  | 12.2 | 0.0  | 37.8 | 0.0  | 3.2  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.3  | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 13.2 | 0.0  | 2.8  | 0.0  | 23.0 | 0.0  | 12.1 |
| Serve Time pre Blk (g_fs), s        | 0.0  | 13.2 | 0.0  | 2.8  | 0.0  | 0.0  | 0.0  | 9.8  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.13 | 0.00 | 0.29 | 0.00 | 0.05 | 0.00 | 0.07 |
| Lane Grp Cap (c), veh/h             | 0    | 935  | 0    | 434  | 0    | 1165 | 0    | 481  |
| V/C Ratio (X)                       | 0.00 | 0.59 | 0.00 | 0.78 | 0.00 | 0.65 | 0.00 | 0.43 |
| Avail Cap (c_a), veh/h              | 0    | 935  | 0    | 540  | 0    | 1165 | 0    | 600  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 7.9  | 0.0  | 32.7 | 0.0  | 0.0  | 0.0  | 35.8 |
| Incr Delay (d2), s/veh              | 0.0  | 2.8  | 0.0  | 5.8  | 0.0  | 2.9  | 0.0  | 0.6  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 10.6 | 0.0  | 38.5 | 0.0  | 2.9  | 0.0  | 36.4 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 4.6  | 0.0  | 6.9  | 0.0  | 0.0  | 0.0  | 4.7  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.7  | 0.0  | 0.7  | 0.0  | 0.9  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.71 | 0.00 | 1.59 | 0.00 | 1.80 | 0.00 | 1.75 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 9.1  | 0.0  | 12.2 | 0.0  | 1.7  | 0.0  | 8.3  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.54 | 0.00 | 2.16 | 0.00 | 0.07 | 0.00 | 1.39 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| <b>Lane Assignment</b>      |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 3: Cahuenga Boulevard & Selma Avenue

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|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 667  | 0    | 0    | 0    | 717  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1685 | 0    | 0    | 0    | 1652 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 20.7 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 20.7 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.06 | 0.00 | 0.22 | 0.00 | 0.17 | 0.00 | 0.18 |
| Lane Grp Cap (c), veh/h          | 0    | 1094 | 0    | 0    | 0    | 1073 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.61 | 0.00 | 0.00 | 0.00 | 0.67 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1094 | 0    | 0    | 0    | 1073 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 9.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 2.5  | 0.0  | 0.0  | 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  |
| Control Delay (d), s/veh         | 0.0  | 11.7 | 0.0  | 0.0  | 0.0  | 3.3  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 6.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.8  | 0.0  | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.61 | 0.00 | 1.00 | 0.00 | 1.80 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 11.7 | 0.0  | 0.0  | 0.0  | 1.8  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.68 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 12.0 |
| HCM 6th LOS        | B    |

### Notes

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

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Intersection

Int Delay, s/veh 0.7

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 22   | 219  | 203  | 84   | 7    | 15   |
| Future Vol, veh/h        | 22   | 219  | 203  | 84   | 7    | 15   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 24   | 238  | 221  | 91   | 8    | 16   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |       |       |
|----------------------|--------|--------|--------|---|-------|-------|
| Conflicting Flow All | 312    | 0      | -      | 0 | 553   | 267   |
| Stage 1              | -      | -      | -      | - | 267   | -     |
| Stage 2              | -      | -      | -      | - | 286   | -     |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  | -     |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | 1248   | -      | -      | - | 494   | 772   |
| Stage 1              | -      | -      | -      | - | 778   | -     |
| Stage 2              | -      | -      | -      | - | 763   | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     | -     |
| Mov Cap-1 Maneuver   | 1248   | -      | -      | - | 483   | 772   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 483   | -     |
| Stage 1              | -      | -      | -      | - | 761   | -     |
| Stage 2              | -      | -      | -      | - | 763   | -     |

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| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.7 | 0  | 10.8 |
| HCM LOS              |     | B  |      |

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| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1248  | -   | -   | -   | 649   |
| HCM Lane V/C Ratio    | 0.019 | -   | -   | -   | 0.037 |
| HCM Control Delay (s) | 7.9   | 0   | -   | -   | 10.8  |
| HCM Lane LOS          | A     | A   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0.1   |

# HCM 6th Signalized Intersection Summary

5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement   | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|--|-------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Configurations  |       |      |      |      |      |      |       |      |      |      |      |      |
| Traffic Volume (veh/h)   | 71    | 106  | 43   | 69   | 140  | 88   | 45    | 192  | 42   | 63   | 369  | 124  |
| Future Volume (veh/h)  | 71    | 106  | 43   | 69   | 140  | 88   | 45    | 192  | 42   | 63   | 369  | 124  |
| Initial Q (Q <sub>b</sub> ), veh   | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)  | 1.00  |      |      | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj   | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach  |       | No   |      |      | No   |      |       | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln   | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h   | 77    | 115  | 47   | 75   | 152  | 96   | 49    | 209  | 46   | 68   | 401  | 135  |
| Peak Hour Factor   | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %   | 2     | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h   | 201   | 229  | 79   | 169  | 220  | 123  | 176   | 669  | 134  | 152  | 657  | 207  |
| Arrive On Green  | 0.08  | 0.08 | 0.08 | 0.24 | 0.24 | 0.24 | 0.54  | 0.54 | 0.54 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h  | 393   | 947  | 328  | 293  | 911  | 509  | 154   | 1244 | 249  | 118  | 1220 | 385  |
| Grp Volume(v), veh/h   | 239   | 0    | 0    | 323  | 0    | 0    | 304   | 0    | 0    | 604  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln  | 1667  | 0    | 0    | 1712 | 0    | 0    | 1647  | 0    | 0    | 1723 | 0    | 0    |
| Q Serve(g_s), s  | 0.0   | 0.0  | 0.0  | 1.7  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s  | 5.9   | 0.0  | 0.0  | 7.6  | 0.0  | 0.0  | 4.2   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop In Lane   | 0.32  |      |      | 0.20 | 0.23 |      | 0.30  | 0.16 |      | 0.15 | 0.11 | 0.22 |
| Lane Grp Cap(c), veh/h   | 509   | 0    | 0    | 513  | 0    | 0    | 979   | 0    | 0    | 1016 | 0    | 0    |
| V/C Ratio(X)   | 0.47  | 0.00 | 0.00 | 0.63 | 0.00 | 0.00 | 0.31  | 0.00 | 0.00 | 0.59 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h  | 747   | 0    | 0    | 764  | 0    | 0    | 979   | 0    | 0    | 1016 | 0    | 0    |
| HCM Platoon Ratio  | 0.33  | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(l)   | 1.00  | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00  | 0.00 | 0.00 | 0.41 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh   | 18.4  | 0.0  | 0.0  | 15.8 | 0.0  | 0.0  | 5.8   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh   | 0.7   | 0.0  | 0.0  | 1.3  | 0.0  | 0.0  | 0.8   | 0.0  | 0.0  | 1.1  | 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(95%), veh/ln  | 4.3   | 0.0  | 0.0  | 5.0  | 0.0  | 0.0  | 2.3   | 0.0  | 0.0  | 0.5  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh   |       |      |      |      |      |      |       |      |      |      |      |      |
| LnGrp Delay(d), s/veh  | 19.1  | 0.0  | 0.0  | 17.1 | 0.0  | 0.0  | 6.6   | 0.0  | 0.0  | 1.1  | 0.0  | 0.0  |
| LnGrp LOS  | B     | A    | A    | B    | A    | A    | A     | A    | A    | A    | A    | A    |
| Approach Vol, veh/h  | 239   |      |      | 323  |      |      | 304   |      |      | 604  |      |      |
| Approach Delay, s/veh  | 19.1  |      |      | 17.1 |      |      | 6.6   |      |      | 1.1  |      |      |
| Approach LOS   | B     |      |      | B    |      |      | A     |      |      | A    |      |      |
| Timer - Assigned Phs   | 2     |      |      | 4    |      |      | 6     |      |      | 8    |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s  | 29.1  |      |      | 15.9 |      |      | 29.1  |      |      | 15.9 |      |      |
| Change Period (Y+R <sub>c</sub> ), s   | * 4.9 |      |      | * 5  |      |      | * 4.9 |      |      | * 5  |      |      |
| Max Green Setting (Gmax), s  | * 17  |      |      | * 18 |      |      | * 17  |      |      | * 18 |      |      |
| Max Q Clear Time (g_c+l1), s   | 6.2   |      |      | 7.9  |      |      | 2.0   |      |      | 9.6  |      |      |
| Green Ext Time (p_c), s  | 1.4   |      |      | 1.0  |      |      | 3.8   |      |      | 1.3  |      |      |
| Intersection Summary   |       |      |      |      |      |      |       |      |      |      |      |      |
| HCM 6th Ctrl Delay   |       |      |      | 8.6  |      |      |       |      |      |      |      |      |
| HCM 6th LOS  |       |      |      | A    |      |      |       |      |      |      |      |      |
| Notes  |       |      |      |      |      |      |       |      |      |      |      |      |
| * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier. |       |      |      |      |      |      |       |      |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 71   | 106   | 43   | 69    | 140  | 88    | 45   | 192   | 42   | 63   | 369  | 124  |
| Future Volume (veh/h)         | 71   | 106   | 43   | 69    | 140  | 88    | 45   | 192   | 42   | 63   | 369  | 124  |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      | No   |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 77   | 115   | 47   | 75    | 152  | 96    | 49   | 209   | 46   | 68   | 401  | 135  |
| Peak Hour Factor              | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 201  | 229   | 79   | 169   | 220  | 123   | 176  | 669   | 134  | 152  | 657  | 207  |
| HCM Platoon Ratio             | 0.33 | 0.33  | 0.33 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 2.00 | 2.00 | 2.00 |
| Prop Arrive On Green          | 0.08 | 0.08  | 0.08 | 0.24  | 0.24 | 0.24  | 0.54 | 0.54  | 0.54 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 19.1 | 0.0   | 0.0  | 17.1  | 0.0  | 0.0   | 6.6  | 0.0   | 0.0  | 1.1  | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | A     | A    | B     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 239  |       |      |       | 323  |       |      | 304   |      |      | 604  |      |
| Approach Delay, s/veh         | 19.1 |       |      |       | 17.1 |       |      | 6.6   |      |      | 1.1  |      |
| Approach LOS                  | B    |       |      |       | B    |       |      | A     |      |      | A    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 29.1  |      | 15.9  |      | 29.1  |      | 15.9  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.9 |      | * 5   |      | * 4.9 |      | * 5   |      |      |      |      |
| Max Green (Gmax), s           |      | * 17  |      | * 18  |      | * 17  |      | * 18  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.5   |      | 5.5   |      | 5.4   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 6.2   |      | 7.9   |      | 2.0   |      | 9.6   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 1.4   |      | 1.0   |      | 3.8   |      | 1.3   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.15  |      | 0.00  |      | 0.37  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 154   |      | 393   |      | 118   |      | 293   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 1244  |      | 947   |      | 1220  |      | 911   |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 249   |      | 328   |      | 385   |      | 509   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T+R |      | L+T+R |      | L+T+R |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 304  | 0    | 239  | 0    | 604  | 0    | 323  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1647 | 0    | 1667 | 0    | 1723 | 0    | 1712 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.7  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 4.2  | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 7.6  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 882  | 0    | 1150 | 0    | 1142 | 0    | 1243 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 1855 | 0    | 1700 | 0    | 1860 | 0    | 1849 |
| Perm LT Eff Green (g_p), s          | 0.0  | 24.2 | 0.0  | 10.9 | 0.0  | 24.2 | 0.0  | 10.9 |
| Perm LT Serve Time (g_u), s         | 0.0  | 24.2 | 0.0  | 3.2  | 0.0  | 20.0 | 0.0  | 5.0  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.7  |
| Time to First Blk (g_f), s          | 0.0  | 9.2  | 0.0  | 2.7  | 0.0  | 9.1  | 0.0  | 2.8  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 4.2  | 0.0  | 2.7  | 0.0  | 0.0  | 0.0  | 2.8  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.16 | 0.00 | 0.32 | 0.00 | 0.11 | 0.00 | 0.23 |
| Lane Grp Cap (c), veh/h             | 0    | 979  | 0    | 509  | 0    | 1016 | 0    | 513  |
| V/C Ratio (X)                       | 0.00 | 0.31 | 0.00 | 0.47 | 0.00 | 0.59 | 0.00 | 0.63 |
| Avail Cap (c_a), veh/h              | 0    | 979  | 0    | 747  | 0    | 1016 | 0    | 764  |
| Upstream Filter (l)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.41 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 5.8  | 0.0  | 18.4 | 0.0  | 0.0  | 0.0  | 15.8 |
| Incr Delay (d2), s/veh              | 0.0  | 0.8  | 0.0  | 0.7  | 0.0  | 1.1  | 0.0  | 1.3  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 6.6  | 0.0  | 19.1 | 0.0  | 1.1  | 0.0  | 17.1 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 1.0  | 0.0  | 2.3  | 0.0  | 0.0  | 0.0  | 2.6  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.2  | 0.0  | 0.1  | 0.0  | 0.3  | 0.0  | 0.2  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 2.3  | 0.0  | 4.3  | 0.0  | 0.5  | 0.0  | 5.0  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.15 | 0.00 | 0.86 | 0.00 | 0.02 | 0.00 | 0.31 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      |      |      |      |      |      |      |      |
| Lanes in Grp                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.15 | 0.00 | 0.20 | 0.00 | 0.22 | 0.00 | 0.30 |
| Lane Grp Cap (c), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay 8.6

HCM 6th LOS A

### Notes

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

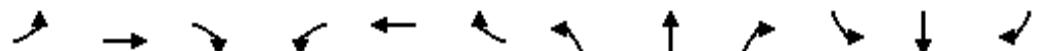
***Attachment C***

***Alternative Trip Distribution  
LOS Worksheets***

# HCM 6th Signalized Intersection Summary

2: Ivar Avenue & Hollywood Boulevard

09/28/2021



| Movement                              | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations                   | ↑     | ↑↑   |      | ↑    | ↑↑    |      |      | ↔    |      |      | ↔    |      |
| Traffic Volume (veh/h)                | 47    | 692  | 109  | 207  | 849   | 70   | 37   | 63   | 186  | 51   | 304  | 65   |
| Future Volume (veh/h)                 | 47    | 692  | 109  | 207  | 849   | 70   | 37   | 63   | 186  | 51   | 304  | 65   |
| Initial Q (Q <sub>b</sub> ), veh      | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                   | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                      | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                 | No    |      |      | No   |       |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln                | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                  | 51    | 752  | 118  | 225  | 923   | 76   | 40   | 68   | 202  | 55   | 330  | 71   |
| 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, %                  | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                            | 335   | 1862 | 292  | 384  | 2011  | 166  | 81   | 119  | 289  | 87   | 375  | 77   |
| Arrive On Green                       | 0.60  | 0.60 | 0.60 | 0.60 | 0.60  | 0.60 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 |
| Sat Flow, veh/h                       | 564   | 3078 | 483  | 637  | 3324  | 274  | 123  | 410  | 997  | 146  | 1295 | 266  |
| Grp Volume(v), veh/h                  | 51    | 434  | 436  | 225  | 493   | 506  | 310  | 0    | 0    | 456  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln             | 564   | 1777 | 1783 | 637  | 1777  | 1821 | 1530 | 0    | 0    | 1706 | 0    | 0    |
| Q Serve(g_s), s                       | 4.9   | 11.5 | 11.5 | 25.7 | 13.7  | 13.7 | 0.0  | 0.0  | 0.0  | 7.6  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s                 | 18.6  | 11.5 | 11.5 | 37.2 | 13.7  | 13.7 | 15.7 | 0.0  | 0.0  | 23.3 | 0.0  | 0.0  |
| Prop In Lane                          | 1.00  |      | 0.27 | 1.00 |       | 0.15 | 0.13 |      | 0.65 | 0.12 |      | 0.16 |
| Lane Grp Cap(c), veh/h                | 335   | 1075 | 1079 | 384  | 1075  | 1102 | 488  | 0    | 0    | 539  | 0    | 0    |
| V/C Ratio(X)                          | 0.15  | 0.40 | 0.40 | 0.59 | 0.46  | 0.46 | 0.64 | 0.00 | 0.00 | 0.85 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h                 | 335   | 1075 | 1079 | 384  | 1075  | 1102 | 521  | 0    | 0    | 575  | 0    | 0    |
| HCM Platoon Ratio                     | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)                    | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 0.93 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh              | 14.8  | 9.3  | 9.3  | 19.0 | 9.7   | 9.7  | 28.0 | 0.0  | 0.0  | 30.8 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh                | 1.0   | 1.1  | 1.1  | 6.4  | 1.4   | 1.4  | 2.2  | 0.0  | 0.0  | 10.7 | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh            | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%), veh/ln             | 1.2   | 7.8  | 7.8  | 7.6  | 8.9   | 9.1  | 9.9  | 0.0  | 0.0  | 16.3 | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh          |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d), s/veh                 | 15.8  | 10.4 | 10.4 | 25.5 | 11.1  | 11.1 | 30.2 | 0.0  | 0.0  | 41.5 | 0.0  | 0.0  |
| LnGrp LOS                             | B     | B    | B    | C    | B     | B    | C    | A    | A    | D    | A    | A    |
| Approach Vol, veh/h                   | 921   |      |      |      | 1224  |      |      | 310  |      |      | 456  |      |
| Approach Delay, s/veh                 | 10.7  |      |      |      | 13.8  |      |      | 30.2 |      |      | 41.5 |      |
| Approach LOS                          | B     |      |      |      | B     |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs                  | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s | 58.9  |      | 31.1 |      | 58.9  |      | 31.1 |      |      |      |      |      |
| Change Period (Y+R <sub>c</sub> ), s  | * 4.5 |      | 5.0  |      | * 4.5 |      | 5.0  |      |      |      |      |      |
| Max Green Setting (Gmax), s           | * 53  |      | 28.0 |      | * 53  |      | 28.0 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s          | 39.2  |      | 17.7 |      | 20.6  |      | 25.3 |      |      |      |      |      |
| Green Ext Time (p_c), s               | 7.0   |      | 1.4  |      | 7.2   |      | 0.8  |      |      |      |      |      |

## Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 18.9 |
| HCM 6th LOS        | B    |

## Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           | ↑    | ↑↑    |      | ↑     | ↑↑   |       |      | ↔     |      |      | ↔    |      |
| Traffic Volume (veh/h)        | 47   | 692   | 109  | 207   | 849  | 70    | 37   | 63    | 186  | 51   | 304  | 65   |
| Future Volume (veh/h)         | 47   | 692   | 109  | 207   | 849  | 70    | 37   | 63    | 186  | 51   | 304  | 65   |
| Number                        | 1    | 6     | 16   | 5     | 2    | 12    | 7    | 4     | 14   | 3    | 8    | 18   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      | No   |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 51   | 752   | 118  | 225   | 923  | 76    | 40   | 68    | 202  | 55   | 330  | 71   |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 335  | 1862  | 292  | 384   | 2011 | 166   | 81   | 119   | 289  | 87   | 375  | 77   |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Prop Arrive On Green          | 0.60 | 0.60  | 0.60 | 0.60  | 0.60 | 0.60  | 0.29 | 0.29  | 0.29 | 0.29 | 0.29 | 0.29 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 15.8 | 10.4  | 10.4 | 25.5  | 11.1 | 11.1  | 30.2 | 0.0   | 0.0  | 41.5 | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | B     | B    | C     | B    | B     | C    | A     | A    | D    | A    | A    |
| Approach Vol, veh/h           | 921  |       |      |       | 1224 |       |      | 310   |      |      | 456  |      |
| Approach Delay, s/veh         | 10.7 |       |      |       | 13.8 |       |      | 30.2  |      |      | 41.5 |      |
| Approach LOS                  | B    |       |      |       | B    |       |      | C     |      |      | D    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 6.0   |      | 8.0   |      | 6.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 58.9  |      | 31.1  |      | 58.9  |      | 31.1  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |      | 5.0   |      | * 4.5 |      | 5.0   |      |      |      |      |
| Max Green (Gmax), s           |      | * 53  |      | 28.0  |      | * 53  |      | 28.0  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.5   |      | 5.6   |      | 5.4   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 39.2  |      | 17.7  |      | 20.6  |      | 25.3  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 7.0   |      | 1.4   |      | 7.2   |      | 0.8   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.21  |      | 0.00  |      | 1.00  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 637   |      | 123   |      | 564   |      | 146   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3324  |      | 410   |      | 3078  |      | 1295  |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 274   |      | 997   |      | 483   |      | 266   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               | L    |       |      | L+T+R |      | L     |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 225  | 0    | 310  | 0    | 51   | 0    | 456  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 637  | 0    | 1530 | 0    | 564  | 0    | 1706 |
| Q Serve Time (g_s), s               | 0.0  | 25.7 | 0.0  | 0.0  | 0.0  | 4.9  | 0.0  | 7.6  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 37.2 | 0.0  | 15.7 | 0.0  | 18.6 | 0.0  | 23.3 |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 637  | 0    | 999  | 0    | 564  | 0    | 1127 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1442 | 0    | 0    | 0    | 1639 |
| Perm LT Eff Green (g_p), s          | 0.0  | 54.4 | 0.0  | 26.1 | 0.0  | 54.4 | 0.0  | 26.1 |
| Perm LT Serve Time (g_u), s         | 0.0  | 42.9 | 0.0  | 2.8  | 0.0  | 40.8 | 0.0  | 10.4 |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 25.7 | 0.0  | 0.0  | 0.0  | 4.9  | 0.0  | 7.6  |
| Time to First Blk (g_f), s          | 0.0  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  | 7.1  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  | 7.1  |
| Prop LT Inside Lane (P_L)           | 0.00 | 1.00 | 0.00 | 0.13 | 0.00 | 1.00 | 0.00 | 0.12 |
| Lane Grp Cap (c), veh/h             | 0    | 384  | 0    | 488  | 0    | 335  | 0    | 539  |
| V/C Ratio (X)                       | 0.00 | 0.59 | 0.00 | 0.64 | 0.00 | 0.15 | 0.00 | 0.85 |
| Avail Cap (c_a), veh/h              | 0    | 384  | 0    | 521  | 0    | 335  | 0    | 575  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 0.93 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 19.0 | 0.0  | 28.0 | 0.0  | 14.8 | 0.0  | 30.8 |
| Incr Delay (d2), s/veh              | 0.0  | 6.4  | 0.0  | 2.2  | 0.0  | 1.0  | 0.0  | 10.7 |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 25.5 | 0.0  | 30.2 | 0.0  | 15.8 | 0.0  | 41.5 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 3.5  | 0.0  | 5.7  | 0.0  | 0.6  | 0.0  | 9.2  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.7  | 0.0  | 0.3  | 0.0  | 0.1  | 0.0  | 1.6  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.65 | 0.00 | 1.80 | 0.00 | 1.50 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 7.6  | 0.0  | 9.9  | 0.0  | 1.2  | 0.0  | 16.3 |
| %ile Storage Ratio (RQ%)            | 0.00 | 1.93 | 0.00 | 0.43 | 0.00 | 0.63 | 0.00 | 3.53 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      | T    |      |      |      | T    |      |      |
| Lanes in Grp                | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 493  | 0    | 0    | 0    | 434  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 1777 | 0    | 0    | 0    | 1777 | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 11.5 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 11.5 | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 1075 | 0    | 0    | 0    | 1075 | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.46 | 0.00 | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 1075 | 0    | 0    | 0    | 1075 | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 9.7  | 0.0  | 0.0  | 0.0  | 9.3  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  | 1.1  | 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  |
| Control Delay (d), s/veh    | 0.0  | 11.1 | 0.0  | 0.0  | 0.0  | 10.4 | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 4.8  | 0.0  | 0.0  | 0.0  | 4.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                              |      |      |      |      |      |      |      |      |
|------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%) | 0.00 | 1.72 | 0.00 | 1.00 | 0.00 | 1.79 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln | 0.0  | 8.9  | 0.0  | 0.0  | 0.0  | 7.8  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)     | 0.00 | 0.54 | 0.00 | 0.00 | 0.00 | 1.37 | 0.00 | 0.00 |
| Initial Q (Qb), veh          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Right Lane Group Data

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 506  | 0    | 0    | 0    | 436  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1821 | 0    | 0    | 0    | 1783 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 11.5 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 13.7 | 0.0  | 0.0  | 0.0  | 11.5 | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.15 | 0.00 | 0.65 | 0.00 | 0.27 | 0.00 | 0.16 |
| Lane Grp Cap (c), veh/h          | 0    | 1102 | 0    | 0    | 0    | 1079 | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.46 | 0.00 | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 1102 | 0    | 0    | 0    | 1079 | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 9.7  | 0.0  | 0.0  | 0.0  | 9.3  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  | 1.1  | 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  |
| Control Delay (d), s/veh         | 0.0  | 11.1 | 0.0  | 0.0  | 0.0  | 10.4 | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 4.9  | 0.0  | 0.0  | 0.0  | 4.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.71 | 0.00 | 1.00 | 0.00 | 1.78 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 9.1  | 0.0  | 0.0  | 0.0  | 7.8  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.55 | 0.00 | 0.00 | 0.00 | 1.38 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 18.9 |
| HCM 6th LOS        | B    |

### Notes

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

# HCM 6th Signalized Intersection Summary

## 5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement                              | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------------------------|-------|------|------|------|------|------|-------|------|------|------|------|------|
| Lane Configurations                   |       |      |      |      |      |      |       |      |      |      |      |      |
| Traffic Volume (veh/h)                | 71    | 106  | 43   | 69   | 140  | 88   | 45    | 192  | 42   | 63   | 369  | 136  |
| Future Volume (veh/h)                 | 71    | 106  | 43   | 69   | 140  | 88   | 45    | 192  | 42   | 63   | 369  | 136  |
| Initial Q (Q <sub>b</sub> ), veh      | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                   | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                      | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                 | No    |      |      | No   |      |      | No    |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln                | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                  | 77    | 115  | 47   | 75   | 152  | 96   | 49    | 209  | 46   | 68   | 401  | 148  |
| 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, %                  | 2     | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                            | 201   | 229  | 79   | 169  | 220  | 123  | 176   | 668  | 134  | 151  | 642  | 222  |
| Arrive On Green                       | 0.08  | 0.08 | 0.08 | 0.24 | 0.24 | 0.24 | 0.54  | 0.54 | 0.54 | 1.00 | 1.00 | 1.00 |
| Sat Flow, veh/h                       | 393   | 947  | 328  | 293  | 911  | 509  | 154   | 1241 | 249  | 115  | 1192 | 413  |
| Grp Volume(v), veh/h                  | 239   | 0    | 0    | 323  | 0    | 0    | 304   | 0    | 0    | 617  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln1667         | 0     | 0    | 1712 | 0    | 0    | 1644 | 0     | 0    | 1720 | 0    | 0    | 0    |
| Q Serve(g_s), s                       | 0.0   | 0.0  | 0.0  | 1.7  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s                 | 5.9   | 0.0  | 0.0  | 7.6  | 0.0  | 0.0  | 4.2   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop In Lane                          | 0.32  |      | 0.20 | 0.23 |      | 0.30 | 0.16  |      | 0.15 | 0.11 |      | 0.24 |
| Lane Grp Cap(c), veh/h                | 509   | 0    | 0    | 513  | 0    | 0    | 978   | 0    | 0    | 1014 | 0    | 0    |
| V/C Ratio(X)                          | 0.47  | 0.00 | 0.00 | 0.63 | 0.00 | 0.00 | 0.31  | 0.00 | 0.00 | 0.61 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h                 | 747   | 0    | 0    | 764  | 0    | 0    | 978   | 0    | 0    | 1014 | 0    | 0    |
| HCM Platoon Ratio                     | 0.33  | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(l)                    | 1.00  | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00  | 0.00 | 0.00 | 0.39 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh              | 18.4  | 0.0  | 0.0  | 15.8 | 0.0  | 0.0  | 5.8   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh                | 0.7   | 0.0  | 0.0  | 1.3  | 0.0  | 0.0  | 0.8   | 0.0  | 0.0  | 1.1  | 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(95%), veh/ln             | 4.3   | 0.0  | 0.0  | 5.0  | 0.0  | 0.0  | 2.3   | 0.0  | 0.0  | 0.5  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh          |       |      |      |      |      |      |       |      |      |      |      |      |
| LnGrp Delay(d), s/veh                 | 19.1  | 0.0  | 0.0  | 17.1 | 0.0  | 0.0  | 6.6   | 0.0  | 0.0  | 1.1  | 0.0  | 0.0  |
| LnGrp LOS                             | B     | A    | A    | B    | A    | A    | A     | A    | A    | A    | A    | A    |
| Approach Vol, veh/h                   | 239   |      |      | 323  |      |      | 304   |      |      | 617  |      |      |
| Approach Delay, s/veh                 | 19.1  |      |      | 17.1 |      |      | 6.6   |      |      | 1.1  |      |      |
| Approach LOS                          | B     |      |      | B    |      |      | A     |      |      | A    |      |      |
| Timer - Assigned Phs                  | 2     |      |      | 4    |      |      | 6     |      |      | 8    |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s | 29.1  |      |      | 15.9 |      |      | 29.1  |      |      | 15.9 |      |      |
| Change Period (Y+R <sub>c</sub> ), s  | * 4.9 |      |      | * 5  |      |      | * 4.9 |      |      | * 5  |      |      |
| Max Green Setting (Gmax), s           | * 17  |      |      | * 18 |      |      | * 17  |      |      | * 18 |      |      |
| Max Q Clear Time (g_c+l1), s          | 6.2   |      |      | 7.9  |      |      | 2.0   |      |      | 9.6  |      |      |
| Green Ext Time (p_c), s               | 1.4   |      |      | 1.0  |      |      | 3.9   |      |      | 1.3  |      |      |
| Intersection Summary                  |       |      |      |      |      |      |       |      |      |      |      |      |
| HCM 6th Ctrl Delay                    |       |      |      | 8.6  |      |      |       |      |      |      |      |      |
| HCM 6th LOS                           |       |      |      | A    |      |      |       |      |      |      |      |      |
| Notes                                 |       |      |      |      |      |      |       |      |      |      |      |      |

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

# HCM 6th Signalized Intersection Capacity Analysis

5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 71   | 106   | 43   | 69    | 140  | 88    | 45   | 192   | 42   | 63   | 369  | 136  |
| Future Volume (veh/h)         | 71   | 106   | 43   | 69    | 140  | 88    | 45   | 192   | 42   | 63   | 369  | 136  |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      | No    |      |       | No   |       |      | No   |      |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 77   | 115   | 47   | 75    | 152  | 96    | 49   | 209   | 46   | 68   | 401  | 148  |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 201  | 229   | 79   | 169   | 220  | 123   | 176  | 668   | 134  | 151  | 642  | 222  |
| HCM Platoon Ratio             | 0.33 | 0.33  | 0.33 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 2.00 | 2.00 | 2.00 |
| Prop Arrive On Green          | 0.08 | 0.08  | 0.08 | 0.24  | 0.24 | 0.24  | 0.54 | 0.54  | 0.54 | 1.00 | 1.00 | 1.00 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 19.1 | 0.0   | 0.0  | 17.1  | 0.0  | 0.0   | 6.6  | 0.0   | 0.0  | 1.1  | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | A     | A    | B     | A    | A     | A    | A     | A    | A    | A    | A    |
| Approach Vol, veh/h           | 239  |       |      |       | 323  |       |      | 304   |      |      | 617  |      |
| Approach Delay, s/veh         | 19.1 |       |      |       | 17.1 |       |      | 6.6   |      |      | 1.1  |      |
| Approach LOS                  | B    |       |      |       | B    |       |      | A     |      |      | A    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 29.1  |      | 15.9  |      | 29.1  |      | 15.9  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.9 |      | * 5   |      | * 4.9 |      | * 5   |      |      |      |      |
| Max Green (Gmax), s           |      | * 17  |      | * 18  |      | * 17  |      | * 18  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.6   |      | 5.5   |      | 5.4   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 6.2   |      | 7.9   |      | 2.0   |      | 9.6   |      |      |      |      |
| Green Ext Time (g_e), s       |      | 1.4   |      | 1.0   |      | 3.9   |      | 1.3   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.15  |      | 0.00  |      | 0.37  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 154   |      | 393   |      | 115   |      | 293   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 1241  |      | 947   |      | 1192  |      | 911   |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 249   |      | 328   |      | 413   |      | 509   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T+R |      | L+T+R |      | L+T+R |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 304  | 0    | 239  | 0    | 617  | 0    | 323  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1644 | 0    | 1667 | 0    | 1720 | 0    | 1712 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.7  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 4.2  | 0.0  | 5.9  | 0.0  | 0.0  | 0.0  | 7.6  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 872  | 0    | 1150 | 0    | 1142 | 0    | 1243 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 1855 | 0    | 1700 | 0    | 1860 | 0    | 1849 |
| Perm LT Eff Green (g_p), s          | 0.0  | 24.2 | 0.0  | 10.9 | 0.0  | 24.2 | 0.0  | 10.9 |
| Perm LT Serve Time (g_u), s         | 0.0  | 24.2 | 0.0  | 3.2  | 0.0  | 20.0 | 0.0  | 5.0  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 1.7  |
| Time to First Blk (g_f), s          | 0.0  | 9.2  | 0.0  | 2.7  | 0.0  | 9.1  | 0.0  | 2.8  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 4.2  | 0.0  | 2.7  | 0.0  | 0.0  | 0.0  | 2.8  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.16 | 0.00 | 0.32 | 0.00 | 0.11 | 0.00 | 0.23 |
| Lane Grp Cap (c), veh/h             | 0    | 978  | 0    | 509  | 0    | 1014 | 0    | 513  |
| V/C Ratio (X)                       | 0.00 | 0.31 | 0.00 | 0.47 | 0.00 | 0.61 | 0.00 | 0.63 |
| Avail Cap (c_a), veh/h              | 0    | 978  | 0    | 747  | 0    | 1014 | 0    | 764  |
| Upstream Filter (l)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.39 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 5.8  | 0.0  | 18.4 | 0.0  | 0.0  | 0.0  | 15.8 |
| Incr Delay (d2), s/veh              | 0.0  | 0.8  | 0.0  | 0.7  | 0.0  | 1.1  | 0.0  | 1.3  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 6.6  | 0.0  | 19.1 | 0.0  | 1.1  | 0.0  | 17.1 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 1.0  | 0.0  | 2.3  | 0.0  | 0.0  | 0.0  | 2.6  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.2  | 0.0  | 0.1  | 0.0  | 0.3  | 0.0  | 0.2  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 2.3  | 0.0  | 4.3  | 0.0  | 0.5  | 0.0  | 5.0  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.15 | 0.00 | 0.86 | 0.00 | 0.02 | 0.00 | 0.31 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| <b>Lane Assignment</b>      |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      |      |      |      |      |      |      |      |
| Lanes in Grp                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.15 | 0.00 | 0.20 | 0.00 | 0.24 | 0.00 | 0.30 |
| Lane Grp Cap (c), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay                    8.6

HCM 6th LOS                            A

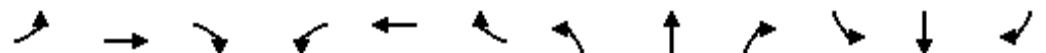
### Notes

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

# HCM 6th Signalized Intersection Summary

2: Ivar Avenue & Hollywood Boulevard

09/28/2021



| Movement                              | EBL  | EBT   | EBR  | WBL  | WBT  | WBR   | NBL   | NBT   | NBR  | SBL  | SBT  | SBR  |
|---------------------------------------|------|-------|------|------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations                   | ↑    | ↑↑    |      | ↑    | ↑↑   |       |       | ↔     |      |      | ↔    |      |
| Traffic Volume (veh/h)                | 83   | 731   | 139  | 256  | 792  | 95    | 127   | 233   | 299  | 59   | 93   | 58   |
| Future Volume (veh/h)                 | 83   | 731   | 139  | 256  | 792  | 95    | 127   | 233   | 299  | 59   | 93   | 58   |
| Initial Q (Q <sub>b</sub> ), veh      | 0    | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)                   | 1.00 |       | 1.00 | 1.00 |      | 1.00  | 1.00  |       | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                      | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach                 |      | No    |      |      | No   |       |       | No    |      |      | No   |      |
| Adj Sat Flow, veh/h/ln                | 1870 | 1870  | 1870 | 1870 | 1870 | 1870  | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h                  | 90   | 795   | 151  | 278  | 861  | 103   | 138   | 253   | 325  | 64   | 101  | 63   |
| 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, %                  | 2    | 2     | 2    | 2    | 2    | 2     | 2     | 2     | 2    | 2    | 2    | 2    |
| Cap, veh/h                            | 295  | 1606  | 305  | 300  | 1722 | 206   | 146   | 210   | 256  | 135  | 205  | 110  |
| Arrive On Green                       | 0.54 | 0.54  | 0.54 | 0.54 | 0.54 | 0.54  | 0.59  | 0.59  | 0.59 | 0.36 | 0.36 | 0.36 |
| Sat Flow, veh/h                       | 583  | 2979  | 566  | 593  | 3196 | 382   | 276   | 592   | 721  | 235  | 576  | 309  |
| Grp Volume(v), veh/h                  | 90   | 474   | 472  | 278  | 479  | 485   | 716   | 0     | 0    | 228  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln             | 583  | 1777  | 1768 | 593  | 1777 | 1802  | 1589  | 0     | 0    | 1120 | 0    | 0    |
| Q Serve(g_s), s                       | 10.4 | 15.1  | 15.1 | 33.4 | 15.3 | 15.3  | 20.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s                 | 25.7 | 15.1  | 15.1 | 48.5 | 15.3 | 15.3  | 32.0  | 0.0   | 0.0  | 12.0 | 0.0  | 0.0  |
| Prop In Lane                          | 1.00 |       | 0.32 | 1.00 |      | 0.21  | 0.19  |       | 0.45 | 0.28 |      | 0.28 |
| Lane Grp Cap(c), veh/h                | 295  | 958   | 953  | 300  | 958  | 971   | 613   | 0     | 0    | 449  | 0    | 0    |
| V/C Ratio(X)                          | 0.31 | 0.50  | 0.50 | 0.93 | 0.50 | 0.50  | 1.17  | 0.00  | 0.00 | 0.51 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h                 | 295  | 958   | 953  | 300  | 958  | 971   | 613   | 0     | 0    | 449  | 0    | 0    |
| HCM Platoon Ratio                     | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.67  | 1.67  | 1.67 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)                    | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 0.65  | 0.00  | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh              | 21.2 | 13.1  | 13.1 | 31.8 | 13.1 | 13.1  | 19.4  | 0.0   | 0.0  | 21.9 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh                | 2.7  | 1.8   | 1.8  | 36.2 | 1.9  | 1.8   | 87.4  | 0.0   | 0.0  | 0.9  | 0.0  | 0.0  |
| Initial Q Delay(d3), s/veh            | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%), veh/ln             | 2.9  | 10.1  | 10.1 | 14.1 | 10.2 | 10.3  | 33.7  | 0.0   | 0.0  | 6.7  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh          |      |       |      |      |      |       |       |       |      |      |      |      |
| LnGrp Delay(d), s/veh                 | 23.9 | 14.9  | 14.9 | 68.0 | 15.0 | 14.9  | 106.8 | 0.0   | 0.0  | 22.8 | 0.0  | 0.0  |
| LnGrp LOS                             | C    | B     | B    | E    | B    | B     | F     | A     | A    | C    | A    | A    |
| Approach Vol, veh/h                   |      | 1036  |      |      | 1242 |       |       | 716   |      |      | 228  |      |
| Approach Delay, s/veh                 |      | 15.7  |      |      | 26.8 |       |       | 106.8 |      |      | 22.8 |      |
| Approach LOS                          |      | B     |      |      | C    |       |       | F     |      |      | C    |      |
| Timer - Assigned Phs                  |      | 2     |      | 4    |      | 6     |       | 8     |      |      |      |      |
| Phs Duration (G+Y+R <sub>c</sub> ), s |      | 53.0  |      | 37.0 |      | 53.0  |       | 37.0  |      |      |      |      |
| Change Period (Y+R <sub>c</sub> ), s  |      | * 4.5 |      | 5.0  |      | * 4.5 |       | 5.0   |      |      |      |      |
| Max Green Setting (Gmax), s           |      | * 49  |      | 32.0 |      | * 49  |       | 32.0  |      |      |      |      |
| Max Q Clear Time (g_c+l1), s          |      | 50.5  |      | 34.0 |      | 27.7  |       | 14.0  |      |      |      |      |
| Green Ext Time (p <sub>c</sub> ), s   |      | 0.0   |      | 0.0  |      | 7.4   |       | 1.4   |      |      |      |      |
| Intersection Summary                  |      |       |      |      |      |       |       |       |      |      |      |      |
| HCM 6th Ctrl Delay                    |      |       | 40.7 |      |      |       |       |       |      |      |      |      |
| HCM 6th LOS                           |      |       | D    |      |      |       |       |       |      |      |      |      |

## Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

| Movement                      | EBL  | EBT   | EBR   | WBL  | WBT  | WBR   | NBL   | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|-------|------|------|-------|-------|-------|------|------|------|------|
| Lane Configurations           | ↑    | ↑↑    |       | ↑    | ↑↑   |       |       | ↔     |      |      | ↔    |      |
| Traffic Volume (veh/h)        | 83   | 731   | 139   | 256  | 792  | 95    | 127   | 233   | 299  | 59   | 93   | 58   |
| Future Volume (veh/h)         | 83   | 731   | 139   | 256  | 792  | 95    | 127   | 233   | 299  | 59   | 93   | 58   |
| Number                        | 1    | 6     | 16    | 5    | 2    | 12    | 7     | 4     | 14   | 3    | 8    | 18   |
| Initial Q, veh                | 0    | 0     | 0     | 0    | 0    | 0     | 0     | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |       | 1.00 | 1.00 |       | 1.00  | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |       |      | No   |       |       | No    |      | No   |      | No   |
| Lanes Open During Work Zone   |      |       |       |      |      |       |       |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870  | 1870 | 1870 | 1870  | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 90   | 795   | 151   | 278  | 861  | 103   | 138   | 253   | 325  | 64   | 101  | 63   |
| 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, %          | 2    | 2     | 2     | 2    | 2    | 2     | 2     | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |       | Yes  |      |       | Yes   |       |      | Yes  |      |      |
| Cap, veh/h                    | 295  | 1606  | 305   | 300  | 1722 | 206   | 146   | 210   | 256  | 135  | 205  | 110  |
| HCM Platoon Ratio             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00  | 1.67  | 1.67  | 1.67 | 1.00 | 1.00 | 1.00 |
| Prop Arrive On Green          | 0.54 | 0.54  | 0.54  | 0.54 | 0.54 | 0.54  | 0.59  | 0.59  | 0.59 | 0.36 | 0.36 | 0.36 |
| Unsig. Movement Delay         |      |       |       |      |      |       |       |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 23.9 | 14.9  | 14.9  | 68.0 | 15.0 | 14.9  | 106.8 | 0.0   | 0.0  | 22.8 | 0.0  | 0.0  |
| Ln Grp LOS                    | C    | B     | B     | E    | B    | B     | F     | A     | A    | C    | A    | A    |
| Approach Vol, veh/h           | 1036 |       |       |      | 1242 |       |       | 716   |      |      | 228  |      |
| Approach Delay, s/veh         | 15.7 |       |       |      | 26.8 |       |       | 106.8 |      |      | 22.8 |      |
| Approach LOS                  | B    |       |       |      | C    |       |       | F     |      |      | C    |      |
| Timer:                        | 1    | 2     | 3     | 4    | 5    | 6     | 7     | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |       | 4    |      | 6     |       | 8     |      |      |      |      |
| Case No                       |      | 6.0   |       | 8.0  |      | 6.0   |       | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 53.0  |       | 37.0 |      | 53.0  |       | 37.0  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.5 |       | 5.0  |      | * 4.5 |       | 5.0   |      |      |      |      |
| Max Green (Gmax), s           |      | * 49  |       | 32.0 |      | * 49  |       | 32.0  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.7   |       | 5.5  |      | 5.5   |       | 5.8   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 50.5  |       | 34.0 |      | 27.7  |       | 14.0  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 0.0   |       | 0.0  |      | 7.4   |       | 1.4   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |       | 1.00 |      | 1.00  |       | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |       | 1.00 |      | 0.00  |       | 0.01  |      |      |      |      |
| Left-Turn Movement Data       |      |       |       |      |      |       |       |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |       | 7    |      | 1     |       | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 593   |       | 276  |      | 583   |       | 235   |      |      |      |      |
| Through Movement Data         |      |       |       |      |      |       |       |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |       | 4    |      | 6     |       | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 3196  |       | 592  |      | 2979  |       | 576   |      |      |      |      |
| Right-Turn Movement Data      |      |       |       |      |      |       |       |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |       | 14   |      | 16    |       | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 382   |       | 721  |      | 566   |       | 309   |      |      |      |      |
| Left Lane Group Data          |      |       |       |      |      |       |       |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0     | 7    | 0    | 1     | 0     | 3     |      |      |      |      |
| Lane Assignment               | L    |       | L+T+R |      | L    |       | L+T+R |       |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                                     |      |      |      |       |      |      |      |      |
|-------------------------------------|------|------|------|-------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1     | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 278  | 0    | 716   | 0    | 90   | 0    | 228  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 593  | 0    | 1589  | 0    | 583  | 0    | 1120 |
| Q Serve Time (g_s), s               | 0.0  | 33.4 | 0.0  | 20.0  | 0.0  | 10.4 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 48.5 | 0.0  | 32.0  | 0.0  | 25.7 | 0.0  | 12.0 |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 593  | 0    | 1241  | 0    | 583  | 0    | 849  |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 0    | 0    | 1564  | 0    | 0    | 0    | 994  |
| Perm LT Eff Green (g_p), s          | 0.0  | 48.5 | 0.0  | 32.0  | 0.0  | 48.5 | 0.0  | 32.0 |
| Perm LT Serve Time (g_u), s         | 0.0  | 33.4 | 0.0  | 20.0  | 0.0  | 33.2 | 0.0  | 0.0  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 33.4 | 0.0  | 20.0  | 0.0  | 10.4 | 0.0  | 0.0  |
| Time to First Blk (g_f), s          | 0.0  | 0.0  | 0.0  | 2.9   | 0.0  | 0.0  | 0.0  | 5.1  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 0.0  | 0.0  | 2.9   | 0.0  | 0.0  | 0.0  | 5.1  |
| Prop LT Inside Lane (P_L)           | 0.00 | 1.00 | 0.00 | 0.19  | 0.00 | 1.00 | 0.00 | 0.28 |
| Lane Grp Cap (c), veh/h             | 0    | 300  | 0    | 613   | 0    | 295  | 0    | 449  |
| V/C Ratio (X)                       | 0.00 | 0.93 | 0.00 | 1.17  | 0.00 | 0.31 | 0.00 | 0.51 |
| Avail Cap (c_a), veh/h              | 0    | 300  | 0    | 613   | 0    | 295  | 0    | 449  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 0.65  | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 31.8 | 0.0  | 19.4  | 0.0  | 21.2 | 0.0  | 21.9 |
| Incr Delay (d2), s/veh              | 0.0  | 36.2 | 0.0  | 87.4  | 0.0  | 2.7  | 0.0  | 0.9  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 68.0 | 0.0  | 106.8 | 0.0  | 23.9 | 0.0  | 22.8 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 6.1  | 0.0  | 9.1   | 0.0  | 1.4  | 0.0  | 3.6  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 3.0  | 0.0  | 14.9  | 0.0  | 0.2  | 0.0  | 0.1  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.54 | 0.00 | 1.41  | 0.00 | 1.80 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 14.1 | 0.0  | 33.7  | 0.0  | 2.9  | 0.0  | 6.7  |
| %ile Storage Ratio (RQ%)            | 0.00 | 3.59 | 0.00 | 1.46  | 0.00 | 1.45 | 0.00 | 1.44 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 25.8  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.3   | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      | T    |      |      |      | T    |      |      |
| Lanes in Grp                | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 479  | 0    | 0    | 0    | 474  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 1777 | 0    | 0    | 0    | 1777 | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 15.3 | 0.0  | 0.0  | 0.0  | 15.1 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 15.3 | 0.0  | 0.0  | 0.0  | 15.1 | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 958  | 0    | 0    | 0    | 958  | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.50 | 0.00 | 0.00 | 0.00 | 0.50 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 958  | 0    | 0    | 0    | 958  | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 13.1 | 0.0  | 0.0  | 0.0  | 13.1 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 1.9  | 0.0  | 0.0  | 0.0  | 1.8  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 15.0 | 0.0  | 0.0  | 0.0  | 14.9 | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 5.7  | 0.0  | 0.0  | 0.0  | 5.6  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  | 0.5  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 2: Ivar Avenue & Hollywood Boulevard

09/28/2021

|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.66 | 0.00 | 1.00 | 0.00 | 1.67 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 10.2 | 0.0  | 0.0  | 0.0  | 10.1 | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.62 | 0.00 | 0.00 | 0.00 | 1.78 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      | T+R  |      |      |      | T+R  |      |      |
| Lanes in Grp                     | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 485  | 0    | 0    | 0    | 472  | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 1802 | 0    | 0    | 0    | 1768 | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 15.3 | 0.0  | 0.0  | 0.0  | 15.1 | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 15.3 | 0.0  | 0.0  | 0.0  | 15.1 | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.21 | 0.00 | 0.45 | 0.00 | 0.32 | 0.00 | 0.28 |
| Lane Grp Cap (c), veh/h          | 0    | 971  | 0    | 0    | 0    | 953  | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.50 | 0.00 | 0.00 | 0.00 | 0.50 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 971  | 0    | 0    | 0    | 953  | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 13.1 | 0.0  | 0.0  | 0.0  | 13.1 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 1.8  | 0.0  | 0.0  | 0.0  | 1.8  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 14.9 | 0.0  | 0.0  | 0.0  | 14.9 | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 5.7  | 0.0  | 0.0  | 0.0  | 5.6  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  | 0.5  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.66 | 0.00 | 1.00 | 0.00 | 1.67 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 10.3 | 0.0  | 0.0  | 0.0  | 10.1 | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.62 | 0.00 | 0.00 | 0.00 | 1.78 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay 40.7

HCM 6th LOS D

### Notes

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

# HCM 6th Signalized Intersection Summary

## 5: Ivar Avenue & Selma Avenue

09/28/2021



| Movement                         | EBL   | EBT  | EBR  | WBL  | WBT   | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|----------------------------------|-------|------|------|------|-------|------|------|------|------|------|------|------|
| Lane Configurations              |       |      |      |      |       |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)           | 84    | 180  | 34   | 59   | 189   | 116  | 42   | 351  | 116  | 80   | 238  | 185  |
| Future Volume (veh/h)            | 84    | 180  | 34   | 59   | 189   | 116  | 42   | 351  | 116  | 80   | 238  | 185  |
| Initial Q (Q <sub>b</sub> ), veh | 0     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)              | 1.00  |      | 1.00 | 1.00 |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj                 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach            | No    |      |      | No   |       |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln           | 1870  | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h             | 91    | 196  | 37   | 64   | 205   | 126  | 46   | 382  | 126  | 87   | 259  | 201  |
| 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, %             | 2     | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                       | 197   | 310  | 52   | 146  | 278   | 155  | 125  | 637  | 199  | 178  | 429  | 299  |
| Arrive On Green                  | 0.09  | 0.09 | 0.09 | 0.28 | 0.28  | 0.28 | 0.50 | 0.50 | 0.50 | 0.16 | 0.16 | 0.16 |
| Sat Flow, veh/h                  | 335   | 1103 | 185  | 190  | 990   | 553  | 77   | 1276 | 399  | 172  | 860  | 599  |
| Grp Volume(v), veh/h             | 324   | 0    | 0    | 395  | 0     | 0    | 554  | 0    | 0    | 547  | 0    | 0    |
| Grp Sat Flow(s), veh/h/ln1623    | 0     | 0    | 1733 | 0    | 0     | 1752 | 0    | 0    | 1631 | 0    | 0    | 0    |
| Q Serve(g_s), s                  | 0.0   | 0.0  | 0.0  | 0.8  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 3.3  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s            | 8.4   | 0.0  | 0.0  | 9.2  | 0.0   | 0.0  | 10.0 | 0.0  | 0.0  | 13.4 | 0.0  | 0.0  |
| Prop In Lane                     | 0.28  |      | 0.11 | 0.16 |       | 0.32 | 0.08 |      | 0.23 | 0.16 |      | 0.37 |
| Lane Grp Cap(c), veh/h           | 559   | 0    | 0    | 580  | 0     | 0    | 961  | 0    | 0    | 907  | 0    | 0    |
| V/C Ratio(X)                     | 0.58  | 0.00 | 0.00 | 0.68 | 0.00  | 0.00 | 0.58 | 0.00 | 0.00 | 0.60 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h            | 738   | 0    | 0    | 772  | 0     | 0    | 961  | 0    | 0    | 907  | 0    | 0    |
| HCM Platoon Ratio                | 0.33  | 0.33 | 0.33 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 |
| Upstream Filter(l)               | 1.00  | 0.00 | 0.00 | 1.00 | 0.00  | 0.00 | 1.00 | 0.00 | 0.00 | 0.30 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh         | 18.4  | 0.0  | 0.0  | 14.9 | 0.0   | 0.0  | 8.2  | 0.0  | 0.0  | 14.9 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 1.0   | 0.0  | 0.0  | 1.5  | 0.0   | 0.0  | 2.5  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh        | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(95%),veh/ln         | 6.2   | 0.0  | 0.0  | 6.0  | 0.0   | 0.0  | 6.1  | 0.0  | 0.0  | 8.2  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh     |       |      |      |      |       |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh             | 19.3  | 0.0  | 0.0  | 16.5 | 0.0   | 0.0  | 10.7 | 0.0  | 0.0  | 15.8 | 0.0  | 0.0  |
| LnGrp LOS                        | B     | A    | A    | B    | A     | A    | B    | A    | A    | B    | A    | A    |
| Approach Vol, veh/h              | 324   |      |      | 395  |       |      | 554  |      |      | 547  |      |      |
| Approach Delay, s/veh            | 19.3  |      |      | 16.5 |       |      | 10.7 |      |      | 15.8 |      |      |
| Approach LOS                     | B     |      |      | B    |       |      | B    |      |      | B    |      |      |
| Timer - Assigned Phs             | 2     |      | 4    |      | 6     |      | 8    |      |      |      |      |      |
| Phs Duration (G+Y+Rc), s         | 27.4  |      | 17.6 |      | 27.4  |      | 17.6 |      |      |      |      |      |
| Change Period (Y+Rc), s          | * 4.9 |      | * 5  |      | * 4.9 |      | * 5  |      |      |      |      |      |
| Max Green Setting (Gmax), s      | * 17  |      | * 18 |      | * 17  |      | * 18 |      |      |      |      |      |
| Max Q Clear Time (g_c+l1), s     | 12.0  |      | 10.4 |      | 15.4  |      | 11.2 |      |      |      |      |      |
| Green Ext Time (p_c), s          | 1.7   |      | 1.2  |      | 0.7   |      | 1.4  |      |      |      |      |      |
| Intersection Summary             |       |      |      |      |       |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay               |       |      | 15.0 |      |       |      |      |      |      |      |      |      |
| HCM 6th LOS                      |       |      | B    |      |       |      |      |      |      |      |      |      |
| Notes                            |       |      |      |      |       |      |      |      |      |      |      |      |

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

# HCM 6th Signalized Intersection Capacity Analysis

5: Ivar Avenue & Selma Avenue

09/28/2021

| Movement                      | EBL  | EBT   | EBR  | WBL   | WBT  | WBR   | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
| Lane Configurations           |      |       |      |       |      |       |      |       |      |      |      |      |
| Traffic Volume (veh/h)        | 84   | 180   | 34   | 59    | 189  | 116   | 42   | 351   | 116  | 80   | 238  | 185  |
| Future Volume (veh/h)         | 84   | 180   | 34   | 59    | 189  | 116   | 42   | 351   | 116  | 80   | 238  | 185  |
| Number                        | 7    | 4     | 14   | 3     | 8    | 18    | 5    | 2     | 12   | 1    | 6    | 16   |
| Initial Q, veh                | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj (A_pbT)          | 1.00 |       |      | 1.00  | 1.00 |       | 1.00 | 1.00  |      | 1.00 | 1.00 | 1.00 |
| Parking Bus Adj               | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach         | No   |       |      |       | No   |       |      | No    |      | No   |      |      |
| Lanes Open During Work Zone   |      |       |      |       |      |       |      |       |      |      |      |      |
| Adj Sat Flow, veh/h/ln        | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h          | 91   | 196   | 37   | 64    | 205  | 126   | 46   | 382   | 126  | 87   | 259  | 201  |
| 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, %          | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2     | 2    | 2    | 2    | 2    |
| Opposing Right Turn Influence | Yes  |       |      | Yes   |      |       | Yes  |       |      | Yes  |      |      |
| Cap, veh/h                    | 197  | 310   | 52   | 146   | 278  | 155   | 125  | 637   | 199  | 178  | 429  | 299  |
| HCM Platoon Ratio             | 0.33 | 0.33  | 0.33 | 1.00  | 1.00 | 1.00  | 1.00 | 1.00  | 1.00 | 0.33 | 0.33 | 0.33 |
| Prop Arrive On Green          | 0.09 | 0.09  | 0.09 | 0.28  | 0.28 | 0.28  | 0.50 | 0.50  | 0.50 | 0.16 | 0.16 | 0.16 |
| Unsig. Movement Delay         |      |       |      |       |      |       |      |       |      |      |      |      |
| Ln Grp Delay, s/veh           | 19.3 | 0.0   | 0.0  | 16.5  | 0.0  | 0.0   | 10.7 | 0.0   | 0.0  | 15.8 | 0.0  | 0.0  |
| Ln Grp LOS                    | B    | A     | A    | B     | A    | A     | B    | A     | A    | B    | A    | A    |
| Approach Vol, veh/h           | 324  |       |      |       | 395  |       |      | 554   |      |      | 547  |      |
| Approach Delay, s/veh         | 19.3 |       |      |       | 16.5 |       |      | 10.7  |      |      | 15.8 |      |
| Approach LOS                  | B    |       |      |       | B    |       |      | B     |      |      | B    |      |
| Timer:                        | 1    | 2     | 3    | 4     | 5    | 6     | 7    | 8     |      |      |      |      |
| Assigned Phs                  |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Case No                       |      | 8.0   |      | 8.0   |      | 8.0   |      | 8.0   |      |      |      |      |
| Phs Duration (G+Y+Rc), s      |      | 27.4  |      | 17.6  |      | 27.4  |      | 17.6  |      |      |      |      |
| Change Period (Y+Rc), s       |      | * 4.9 |      | * 5   |      | * 4.9 |      | * 5   |      |      |      |      |
| Max Green (Gmax), s           |      | * 17  |      | * 18  |      | * 17  |      | * 18  |      |      |      |      |
| Max Allow Headway (MAH), s    |      | 5.4   |      | 5.5   |      | 5.6   |      | 5.4   |      |      |      |      |
| Max Q Clear (g_c+l1), s       |      | 12.0  |      | 10.4  |      | 15.4  |      | 11.2  |      |      |      |      |
| Green Ext Time (g_e), s       |      | 1.7   |      | 1.2   |      | 0.7   |      | 1.4   |      |      |      |      |
| Prob of Phs Call (p_c)        |      | 1.00  |      | 1.00  |      | 1.00  |      | 1.00  |      |      |      |      |
| Prob of Max Out (p_x)         |      | 0.00  |      | 0.51  |      | 0.00  |      | 0.69  |      |      |      |      |
| Left-Turn Movement Data       |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 5     |      | 7     |      | 1     |      | 3     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 77    |      | 335   |      | 172   |      | 190   |      |      |      |      |
| Through Movement Data         |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 2     |      | 4     |      | 6     |      | 8     |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 1276  |      | 1103  |      | 860   |      | 990   |      |      |      |      |
| Right-Turn Movement Data      |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 |      | 12    |      | 14    |      | 16    |      | 18    |      |      |      |      |
| Mvmt Sat Flow, veh/h          |      | 399   |      | 185   |      | 599   |      | 553   |      |      |      |      |
| Left Lane Group Data          |      |       |      |       |      |       |      |       |      |      |      |      |
| Assigned Mvmt                 | 0    | 5     | 0    | 7     | 0    | 1     | 0    | 3     |      |      |      |      |
| Lane Assignment               |      | L+T+R |      | L+T+R |      | L+T+R |      | L+T+R |      |      |      |      |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

09/28/2021

|                                     |      |      |      |      |      |      |      |      |
|-------------------------------------|------|------|------|------|------|------|------|------|
| Lanes in Grp                        | 0    | 1    | 0    | 1    | 0    | 1    | 0    | 1    |
| Grp Vol (v), veh/h                  | 0    | 554  | 0    | 324  | 0    | 547  | 0    | 395  |
| Grp Sat Flow (s), veh/h/ln          | 0    | 1752 | 0    | 1623 | 0    | 1631 | 0    | 1733 |
| Q Serve Time (g_s), s               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 3.3  | 0.0  | 0.8  |
| Cycle Q Clear Time (g_c), s         | 0.0  | 10.0 | 0.0  | 8.4  | 0.0  | 13.4 | 0.0  | 9.2  |
| Perm LT Sat Flow (s_l), veh/h/ln    | 0    | 947  | 0    | 1066 | 0    | 906  | 0    | 1166 |
| Shared LT Sat Flow (s_sh), veh/h/ln | 0    | 1863 | 0    | 1587 | 0    | 1856 | 0    | 1814 |
| Perm LT Eff Green (g_p), s          | 0.0  | 22.5 | 0.0  | 12.6 | 0.0  | 22.5 | 0.0  | 12.6 |
| Perm LT Serve Time (g_u), s         | 0.0  | 9.1  | 0.0  | 3.4  | 0.0  | 12.4 | 0.0  | 4.2  |
| Perm LT Q Serve Time (g_ps), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 3.3  | 0.0  | 0.8  |
| Time to First Blk (g_f), s          | 0.0  | 10.2 | 0.0  | 3.0  | 0.0  | 7.1  | 0.0  | 4.0  |
| Serve Time pre Blk (g_fs), s        | 0.0  | 10.0 | 0.0  | 3.0  | 0.0  | 7.1  | 0.0  | 4.0  |
| Prop LT Inside Lane (P_L)           | 0.00 | 0.08 | 0.00 | 0.28 | 0.00 | 0.16 | 0.00 | 0.16 |
| Lane Grp Cap (c), veh/h             | 0    | 961  | 0    | 559  | 0    | 907  | 0    | 580  |
| V/C Ratio (X)                       | 0.00 | 0.58 | 0.00 | 0.58 | 0.00 | 0.60 | 0.00 | 0.68 |
| Avail Cap (c_a), veh/h              | 0    | 961  | 0    | 738  | 0    | 907  | 0    | 772  |
| Upstream Filter (I)                 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.30 | 0.00 | 1.00 |
| Uniform Delay (d1), s/veh           | 0.0  | 8.2  | 0.0  | 18.4 | 0.0  | 14.9 | 0.0  | 14.9 |
| Incr Delay (d2), s/veh              | 0.0  | 2.5  | 0.0  | 1.0  | 0.0  | 0.9  | 0.0  | 1.5  |
| Initial Q Delay (d3), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh            | 0.0  | 10.7 | 0.0  | 19.3 | 0.0  | 15.8 | 0.0  | 16.5 |
| 1st-Term Q (Q1), veh/ln             | 0.0  | 2.7  | 0.0  | 3.3  | 0.0  | 5.8  | 0.0  | 3.1  |
| 2nd-Term Q (Q2), veh/ln             | 0.0  | 0.7  | 0.0  | 0.1  | 0.0  | 0.2  | 0.0  | 0.2  |
| 3rd-Term Q (Q3), veh/ln             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)        | 0.00 | 1.80 | 0.00 | 1.80 | 0.00 | 1.37 | 0.00 | 1.80 |
| %ile Back of Q (95%), veh/ln        | 0.0  | 6.1  | 0.0  | 6.2  | 0.0  | 8.2  | 0.0  | 6.0  |
| %ile Storage Ratio (RQ%)            | 0.00 | 0.40 | 0.00 | 1.24 | 0.00 | 0.36 | 0.00 | 0.37 |
| Initial Q (Qb), veh                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Middle Lane Group Data

|                             |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|
| Assigned Mvmt               | 0    | 2    | 0    | 4    | 0    | 6    | 0    | 8    |
| Lane Assignment             |      |      |      |      |      |      |      |      |
| Lanes in Grp                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Lane Grp Cap (c), veh/h     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)               | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (I)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Ivar Avenue & Selma Avenue

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|                                  |      |      |      |      |      |      |      |      |
|----------------------------------|------|------|------|------|------|------|------|------|
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Right Lane Group Data</b>     |      |      |      |      |      |      |      |      |
| Assigned Mvmt                    | 0    | 12   | 0    | 14   | 0    | 16   | 0    | 18   |
| Lane Assignment                  |      |      |      |      |      |      |      |      |
| Lanes in Grp                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Vol (v), veh/h               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grp Sat Flow (s), veh/h/ln       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Q Serve Time (g_s), s            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear Time (g_c), s      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Sat Flow (s_R), veh/h/ln | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prot RT Eff Green (g_R), s       | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Prop RT Outside Lane (P_R)       | 0.00 | 0.23 | 0.00 | 0.11 | 0.00 | 0.37 | 0.00 | 0.32 |
| Lane Grp Cap (c), veh/h          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| V/C Ratio (X)                    | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Avail Cap (c_a), veh/h           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Upstream Filter (l)              | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d1), s/veh        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh           | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay (d3), s/veh      | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Control Delay (d), s/veh         | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 1st-Term Q (Q1), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 2nd-Term Q (Q2), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| 3rd-Term Q (Q3), veh/ln          | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Back of Q Factor (f_B%)     | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| %ile Back of Q (95%), veh/ln     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile Storage Ratio (RQ%)         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Initial Q (Qb), veh              | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Final (Residual) Q (Qe), veh     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Delay (ds), s/veh            | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Q (Qs), veh                  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Sat Cap (cs), veh/h              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Q Clear Time (tc), h     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |

### Intersection Summary

HCM 6th Ctrl Delay 15.0

HCM 6th LOS B

### Notes

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