



July 3, 2023

Ms. Jo M Ryan
Vice President of Development: West
Thompson Thrift
111 Monument Circle, Suite 1500
Indianapolis, IN 46204

Re: Venetucci Thompson Thrift
Traffic Impact Study
El Paso County, Colorado

Dear Ms. Ryan:

Thank you for the Traffic Impact Study email dated June 27, 2023 for the Venetucci Thompson Thrift project. We held a meeting Gilbert LaForce at El Paso County (traffic engineering reviewer), and have made several updates as a result of this meeting and summarized below based on this meeting and your prior comments:

- Road impact fees should never be requested from two agencies. The county has already contacted their lawyer based on the City of Fountain's request for road impact fees. We have included the following statement based on our correspondence with the County, "It should be noted that the City of Fountain requested road impact fees as part of the pre-application process; however, the project is not being annexed into the City of Fountain and only one road impact fee should be collected for the project. The single impact fee is for maintaining and improving all of the roadways in the surrounding area. If the City of Fountain wishes to further collect fees, an agreement should be negotiated with El Paso County."
- CDOT was previously exploring the possibility of combining the two T-intersections of B Street/Venetucci Blvd and B Street/US-85 as one four legged roundabout intersection. This has since been put on pause and we have identified a much cheaper alternative (eastbound dual left turn lanes); therefore, we have removed the additional analysis with roundabout control to avoid any chance of being held responsible for those improvements. We have acknowledged our understanding of the possible roundabout and added the following statement, "It is understood that the intersection of B Street and US-85 may be combined with the intersection of B Street and Venetucci Boulevard (#2) in the future as a four-leg roundabout. If pursued in the future, this roundabout configuration will be evaluated by others and was not evaluated in this study due to the current configuration of this intersection operating acceptably and vehicle queues being mitigated with the implementation of eastbound dual left turn lanes."
- Based on CDOT controlling a small segment of B Street west of US-85, CDOT access permits will be required for the south leg of Venetucci Boulevard at B Street and on the west leg of B-Street at the intersection with US-85. We can prepare these permits for you once requested by CDOT.
- Based on the request of Gilbert LaForce at El Paso County, we have been in correspondence with CDOT, City of Fountain, City of Colorado Springs, and El Paso County to determine which agency controls each of the roadways in the surrounding area. This is now identified in Figure 11.

- We have explored the possibility of incorporating an interim westbound to southbound left turn lane at the B-Street and Venetucci Boulevard intersection. This could be an interim solution for additional access to the area prior to the potential conversion to roundabout control in the long-term future. CDOT would have to accept a waiver as the westbound left turn lane length would not meet their standards. This westbound left turn lane would need to be designated to a length of 385 feet with a 145-foot taper to meet CDOT standards. However, this intersection is approximately 240 feet west of US-85. Therefore, this turn lane could not be designated to meet CDOT standards and would need to be built substandard in length.

The following is a copy of our previous summary (with modifications of the roundabout analysis) to have everything together in this email:

- The intersection of B Street and US-85 operates well from a vehicle delay standpoint but is currently experiencing long vehicle queues in the eastbound left turn lane during the afternoon peak hour. It is understood that the intersection of B Street and US-85 is being considered for a conversion from signal control to roundabout control in the future. However, to alleviate these long eastbound left turn vehicle queues, we believe eastbound dual left turn lanes could be considered at this intersection in replace of the conversion to roundabout control. Therefore, the intersection of B Street and US-85 was evaluated with implementation of eastbound dual left turn lanes under existing signal control. The B Street and US-85 intersection is expected to operate with level of service C (LOS C) during the peak hour in 2045 under signal control in 2045. Therefore, we believe it is more ideal for the B Street and US-85 intersection to remain under signal control but provide eastbound dual left turn lanes at this intersection. It should be noted that project traffic is expected to contribute approximately 3.9 percent of the eastbound left turn movements at this intersection in 2025 and this has been explicitly documented in Table 12 and discussed is several locations.
- The \$2.5M estimate you mentioned for the conversion to roundabout control is an accurate estimate. With the two intersections being combined to a single roundabout control intersection, we believe the construction costs for this intersection would be approximately \$2.6M. If CDOT decides to pursue this roundabout and in a perfect world, the project should only have to contribute 2.0% of the cost of the roundabout based on expected project traffic contributions at the two combined intersections. As you know through correspondence with the County, City, and CDOT, that is not the case in this situation. We estimate the cost for implementation of dual left turn lanes and associated signal modifications and two receiving lanes along US-85 to cost approximately \$750,000 (project traffic contributes 3.9% of these eastbound left turn movements as identified in Table 12).
- Further, an eastbound right turn lane is warranted at the B Street and Venetucci Boulevard intersection based on El Paso County standards and existing traffic volumes. To meet El Paso County standards, this right turn lane should provide a length of 305 feet with a 160-foot taper. Of note, this eastbound right turn lane is warranted based on existing traffic volumes while project traffic is expected to contribute to approximately 4.1 percent of the eastbound right turn movements at this intersection in 2025 (also reported in Table 12 and discussed is several locations).
- With project construction, a private access west leg will be constructed at the Walmart North Access and Venetucci Boulevard intersection to provide access to the project. It is recommended that this west leg be designated with a separate left turn lane and a shared through/right turn lane. Additionally, a northbound left turn lane is currently striped out for

future use at this proposed project access. This northbound left turn lane should be designated to a maximum possible length of 150 feet plus a 140-foot shared taper.

Once you find the report acceptable, you will need to sign the second page under the Developer's Statement prior to submittal to El Paso County.

Please let us know if you have any questions. I am happy to hop on a call to discuss in more detail.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Jeffrey R. Planck, P.E.
Project Manager

Traffic Impact Study

Venetucci Thompson Thrift

El Paso County, Colorado

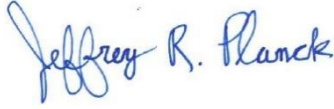
Prepared for:
Thompson Thrift Residential

Kimley»Horn

T R A F F I C I M P A C T S T U D Y

Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Jeffrey R. Planck, P.E., PE #53006

June 30, 2023
Date

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

Ms. Jo M. Ryan, AICP
Thompson Thrift Residential
111 Monument Circle
Suite 1600
Indianapolis, Indiana 46204

Date

Venetucci Thompson Thrift

El Paso County, Colorado

Prepared for
Thompson Thrift Residential
111 Monument Circle
Suite 1600
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Prepared by
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June 2023

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1.0 EXECUTIVE SUMMARY

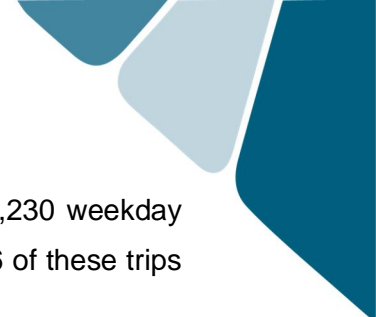
This report has been prepared to document the results of a Traffic Impact Study for the Venetucci Thompson Thrift multi-family development proposed to be located generally in the northwest corner of Venetucci Boulevard and Chamberlin South Avenue alignment in El Paso County, Colorado. For the purposes of this analysis, the project is anticipated to include approximately 336 multifamily housing units. It is expected that the proposed development will be completed in the next couple years; therefore, analysis was conducted for the 2025 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study in accordance with El Paso County and State of Colorado Department of Transportation (CDOT) standards and requirements:

- B Street and US-85 (#1)
- B Street and Venetucci Boulevard (#2)
- Walmart North Access/South Project Access and Venetucci Boulevard (#3)
- Walmart Heights and Venetucci Boulevard (#4)
- Academy Boulevard and Venetucci Boulevard (West) (#5)
- Academy Boulevard and Venetucci Boulevard (East) (#6)

In addition, the proposed full movement north access (#7) along the west side of Venetucci Boulevard was evaluated.


Regional access to the Venetucci Thompson Thrift project will be provided by Interstate 25, US-85, and Academy Boulevard. Primary access will be provided by Venetucci Boulevard. Direct access will be provided by a proposed full movement access along the west side of Venetucci Boulevard to align with the Walmart North Access (#3) and a proposed full movement along the west side of Venetucci Boulevard to be incorporated into the existing roundabout (#7).



The Venetucci Thompson Thrift project is expected to generate approximately 2,230 weekday daily trips, with 128 of these trips occurring during the morning peak hour and 166 of these trips occurring during the afternoon peak hour.

Based on the analysis presented in this report, Kimley-Horn believes Venetucci Thompson Thrift will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

- The intersection of B Street and US-85 currently operates acceptably with level of service B (LOS B) during the morning peak hour and LOS C during the afternoon peak hour; however, long vehicle queues are currently being experienced within the eastbound left turn lane during the afternoon peak hour. To alleviate these long eastbound left turn vehicle queues, eastbound dual left turn lanes could be considered at this intersection. Therefore, the intersection of B Street and US-85 was evaluated with implementation of eastbound dual left turn lanes under existing signal control in this study. Vehicles queues are expected to be mitigated with eastbound dual left turn lanes at the B Street and US-85 intersection while this intersection is expected to operate with LOS C during the peak hour in 2045 under signal control. It should be noted that project traffic is expected to contribute approximately 3.9 percent of the eastbound left turn movements at this intersection in 2025.
- An eastbound right turn lane is warranted at the B Street and Venetucci Boulevard intersection based on El Paso County standards and existing traffic volumes. To meet El Paso County standards, this right turn lane should provide a length of 305 feet with a 160-foot taper. Of note, this eastbound right turn lane is warranted based on existing traffic volumes while project traffic is expected to contribute to approximately 4.1 percent of the eastbound right turn movements at this intersection in 2025.
- With project construction, a private access west leg will be constructed at the Walmart North Access and Venetucci Boulevard intersection (#3) to provide access to the project. It is recommended that this west leg be designated with a separate left turn lane and a shared through/right turn lane. Additionally, a northbound left turn lane is currently striped out for



future use at this proposed project access. This northbound left turn lane should be designated to a maximum possible length of 150 feet plus a 140-foot shared taper.

- With completion of the Venetucci Thompson Thrift project, a second access will be provided by a proposed north full movement access along the west side of Venetucci Boulevard to be incorporated into the existing roundabout (#7). The proposed north access along the west side of Venetucci Boulevard to align with the existing roundabout (#7) is recommended to have one lane and yield control for all three approaches.
- Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of El Paso County, CDOT, and the Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition.

2.0 INTRODUCTION

Kimley-Horn and Associates, Inc. has prepared this report to document the results of a Traffic Impact Study for the Venetucci Thompson Thrift multi-family development proposed to be located generally in the northwest corner of Venetucci Boulevard and Chamberlin South Avenue alignment in El Paso County, Colorado. A vicinity map illustrating the Venetucci Thompson Thrift development location is shown in **Figure 1**. For the purposes of this analysis, the project is anticipated to include approximately 336 multifamily housing units. A conceptual site plan is attached in **Appendix F**. It is expected that the project will be completed in the next couple years; therefore, analysis was conducted for the 2025 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study in accordance with El Paso County and CDOT standards and requirements:

- B Street and US-85 (#1)
- B Street and Venetucci Boulevard (#2)
- Walmart North Access/South Project Access and Venetucci Boulevard (#3)
- Walmart Heights and Venetucci Boulevard (#4)
- Academy Boulevard and Venetucci Boulevard (West) (#5)
- Academy Boulevard and Venetucci Boulevard (East) (#6)

In addition, the proposed full movement north access (#7) along the west side of Venetucci Boulevard was evaluated.

Regional access to Venetucci Thompson Thrift will be provided by Interstate 25, US-85, and Academy Boulevard. Primary access will be provided by Venetucci Boulevard. Direct access will be provided by a proposed full movement access along the west side of Venetucci Boulevard to align with the Walmart North Access (#3) and a proposed full movement along the west side of Venetucci Boulevard to be incorporated into the existing roundabout (#7).



FIGURE 1
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
VICINITY MAP

3.0 EXISTING AND FUTURE CONDITIONS

3.1 Existing Study Area

The existing site is comprised of undeveloped vacant land. Surrounding the site to the east is vacant land and a retail shopping center. West of the site are single family homes. North of the site is more vacant land while retail uses and single-family residences are located in the extended area to the northwest. The South Academy Highlands development is proposed to the south of the project and is a mixed-use development. Pikes Peak State College is located south of Academy Boulevard.

3.2 Existing Roadway Network

US-85 is a CDOT Highway, categorized NR-A: Non-Rural Principal Highway that provides one through lane of travel in each direction with a 45 mile per hour speed limit through the study area. North of B Street, US-85 no longer is a CDOT highway and resumes as Venetucci Boulevard.

B Street provides two through lanes of travel in each direction, eastbound and westbound, with a 40 mile per hour speed limit through the study area. B Street is classified as an El Paso County Minor Arterial.

Venetucci Boulevard extends north-south with one through lane in each direction north of the Walmart North Access and two through lanes in each direction south of the Walmart North Access. Venetucci Boulevard is not categorized in the street classification map but has the characteristics of a non-residential collector street. The speed limit along Venetucci Boulevard ranges between 30 and 35 miles per hour.

Academy Boulevard is classified as an El Paso County Expressway with three through lanes in each direction eastbound and westbound and has a posted speed limit of 50 miles per hour.

The signalized 'T'-intersection of B Street and US-85 (#1) operates with permissive-only left turn phasing on the northbound US-85 approach and protected left turn phasing on the eastbound B Street approach. The northbound approach provides a left turn lane and one through lane while the southbound approach provides one through lane and a free right turn lane. The eastbound approach consists of one left turn lane and a right turn lane. An aerial photo of the existing intersection configuration is below (north is up - typical).



B Street and US-85 (#1)

The unsignalized 'T'-intersection of B Street and Venetucci Boulevard (#2) operates with stop control on the northbound Venetucci Boulevard approach. This intersection is a right-in/right-out intersection with left turns restricted. The northbound approach provides one right turn lane. The eastbound approach consists of two through lanes with the outside lane being a shared through/right turn lane. The westbound approach consists of two through lanes. An aerial photo of the existing intersection configuration is below.



B Street and Venetucci Boulevard (#2)

The signalized 'T'-intersection of Walmart North Access and Venetucci Boulevard (#3) operates with permissive-only left turn phasing on the southbound Venetucci Boulevard approach and protected left turn phasing on the westbound Walmart North Access approach. The northbound approach provides one through lane and a right turn lane. The southbound approach provides one left turn lane and one through lane. The westbound approach consists of one left turn lane and a right turn lane. An aerial photo of the existing intersection configuration is below.



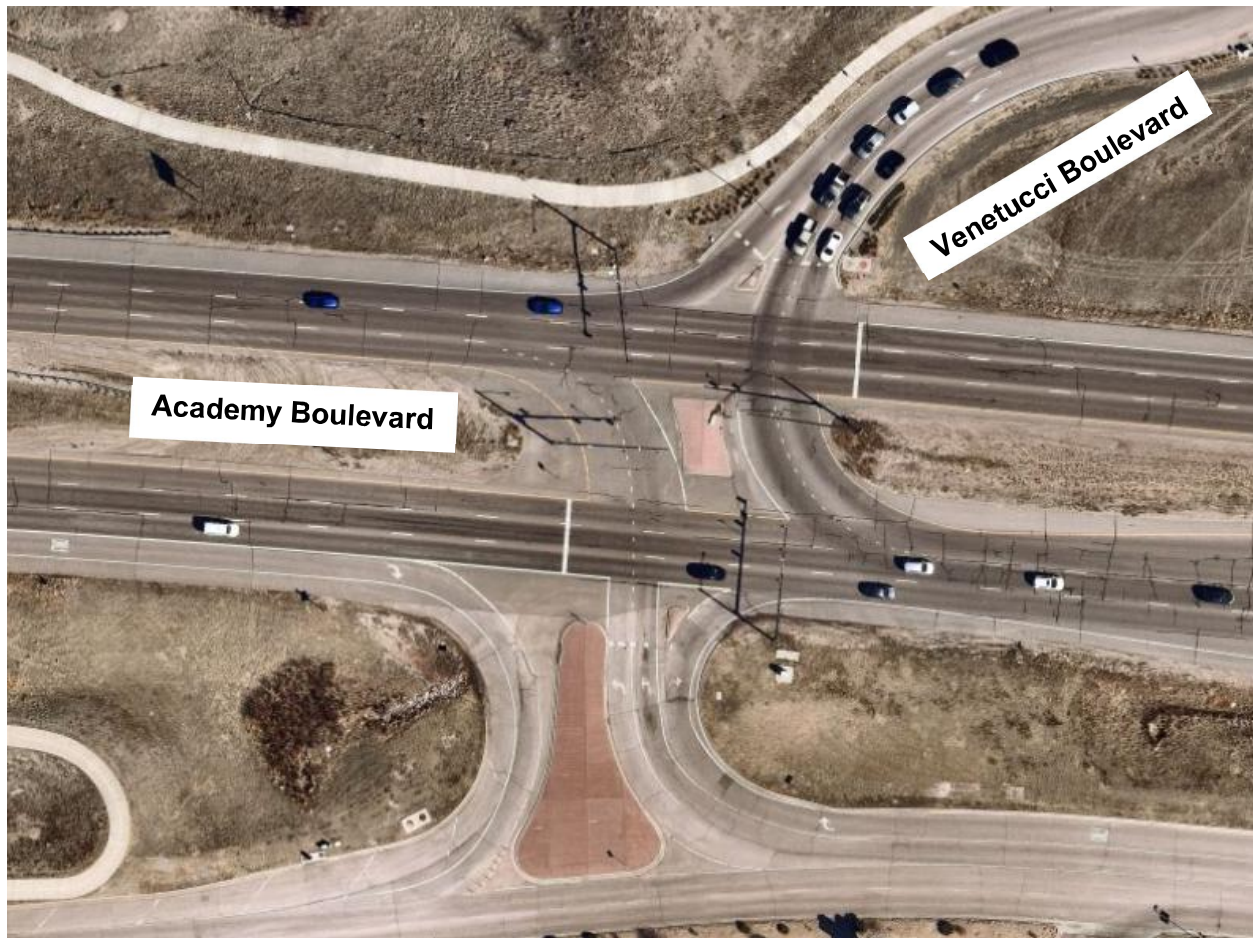
Walmart North Access and Venetucci Boulevard (#3)

The signalized intersection of Walmart Heights and Venetucci Boulevard (#4) operates with permissive-only left turn phasing on the northbound and southbound Venetucci Boulevard approaches, protected left turn phasing on the Walmart Heights westbound approach, and protected-permitted left turn phasing on the eastbound Walmart Heights approach. The northbound and southbound approaches provide one left turn lane, two through lanes, and a right turn lane. The eastbound approach consists of one left turn lane and a shared through/right turn lane. The westbound approach provides one left turn lane, a shared left turn/through lane, and a right turn lane for future use. Of note, the west leg of this intersection is currently closed and will be available for public use as a private access with completion of the South Academy Highland development. An aerial photo of the existing intersection configuration is below.



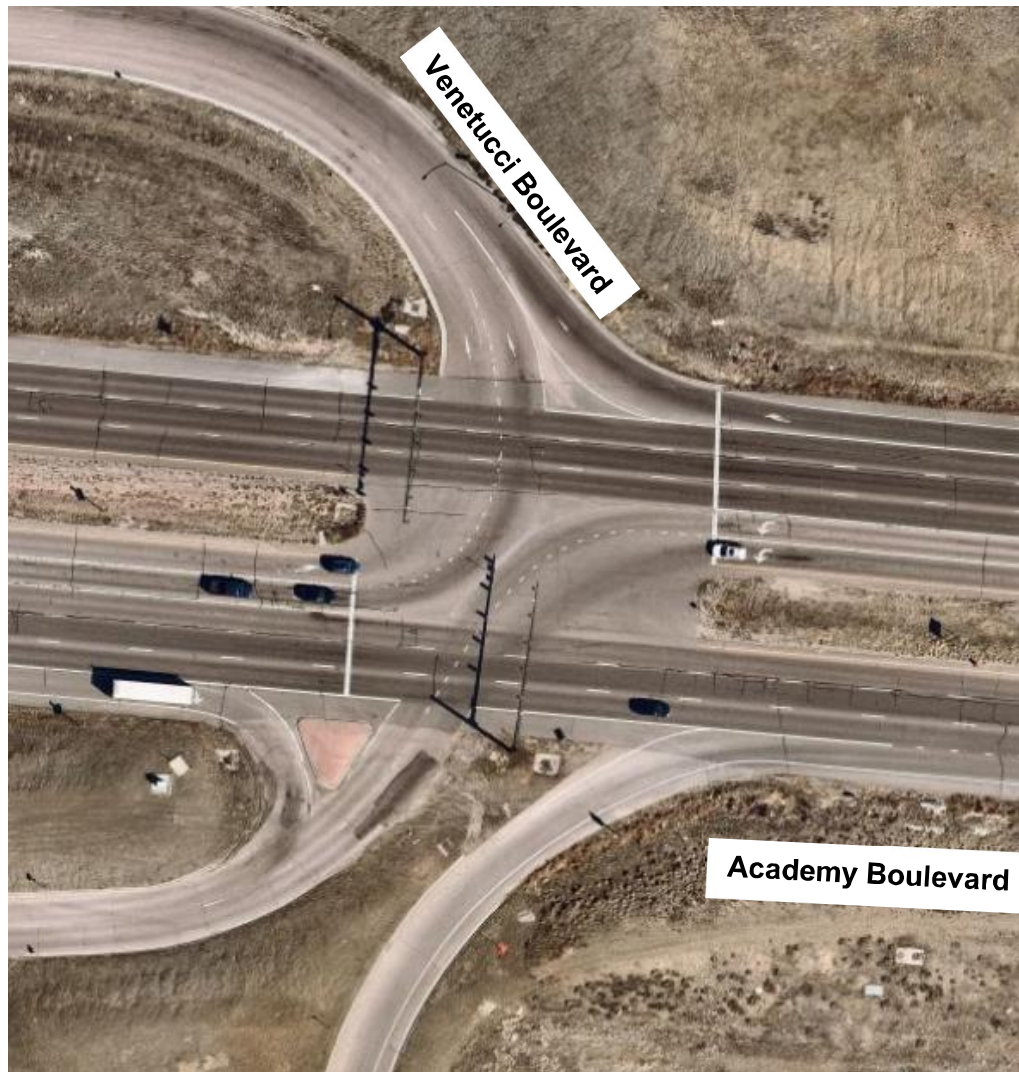
Walmart Heights and Venetucci Boulevard (#4)

The signalized intersection of Academy Boulevard and Venetucci Boulevard (West) (#5) operates with permissive-only left turn phasing on the northbound Venetucci Boulevard approach and protected left turn phasing on the southbound Venetucci Boulevard approach. The northbound approach provides two left turn lanes and a yield controlled right turn lane. The southbound approach consists of dual left turn lanes and a right turn lane. The eastbound approach consists of three through lanes and a free right turn lane while the westbound approach provides three through lanes. An aerial photo of the existing intersection configuration is below.



Academy Boulevard and Venetucci Boulevard (West) (#5)

The signalized intersection of Academy Boulevard and Venetucci Boulevard (East) (#6) operates with protected left turn phasing on the eastbound and westbound Academy Boulevard approaches. The eastbound and westbound approaches consist of dual left turn lanes, three through lanes, and a right turn lane. The northbound approach consists of one free right turn lane while the north leg of this intersection provides three receiving lanes. An aerial photo of the existing intersection configuration is below.

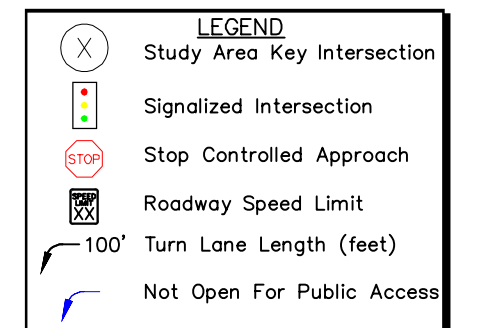
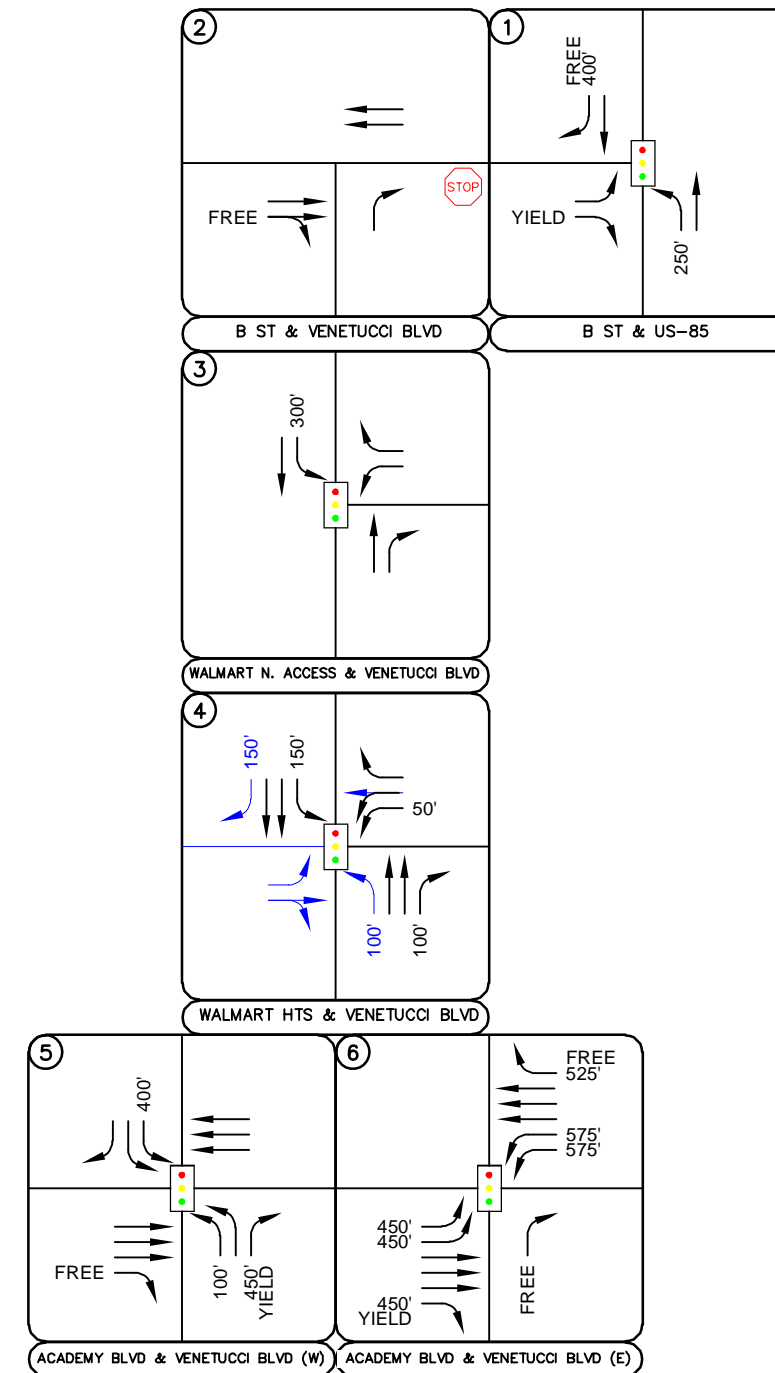


Academy Boulevard and Venetucci Boulevard (East) (#6)

The intersection lane configuration and control for the study area intersections are shown in **Figure 2**.



FIGURE 2
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
EXISTING GEOMETRY AND CONTROL



3.3 Existing Traffic Volumes

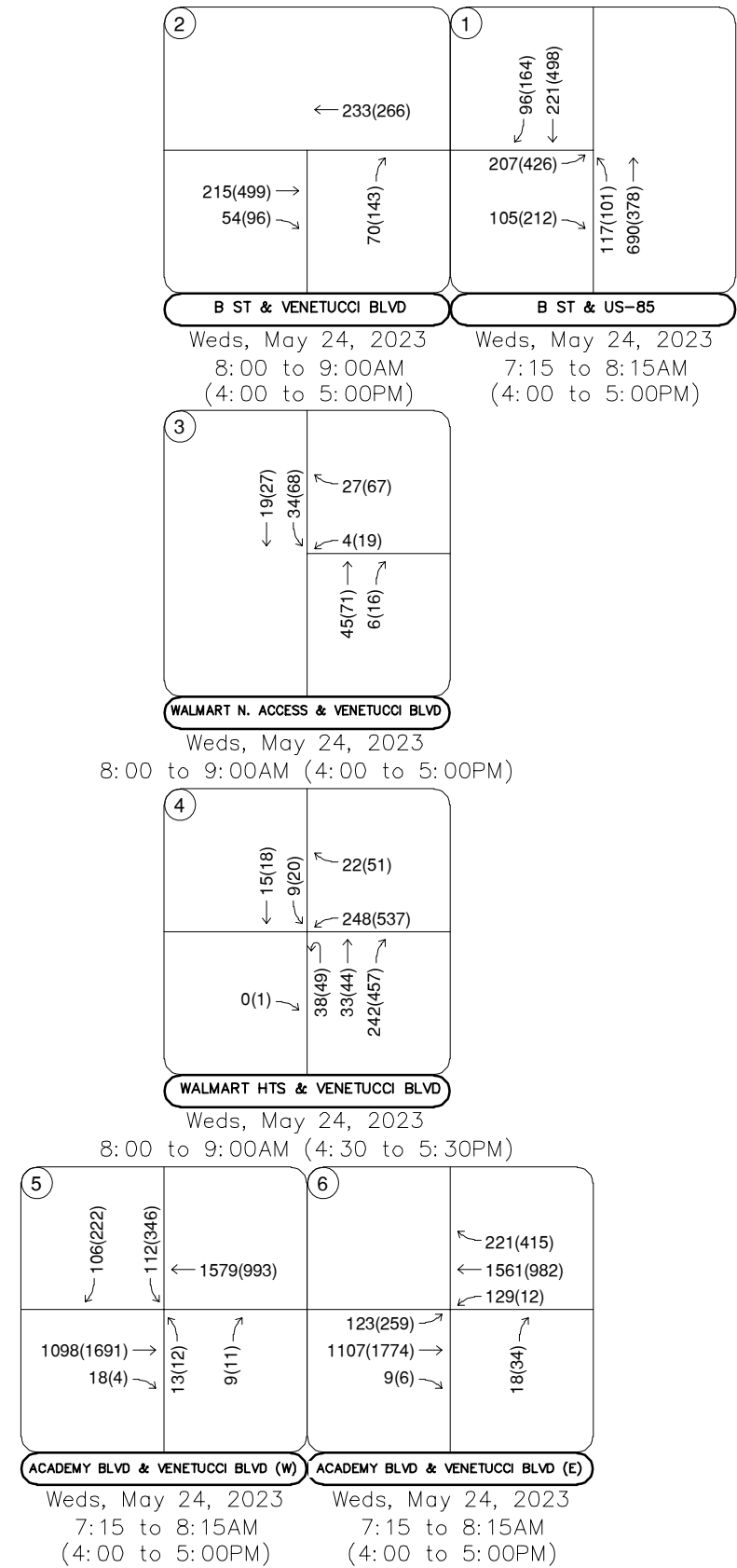
Existing turning movement counts were conducted at the study intersections on Wednesday, May 24, 2023 during the weekday morning and afternoon peak hours. The counts were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on this count date. The existing intersection traffic volumes are shown in **Figure 3** with count sheets provided in **Appendix A**.

3.4 Unspecified Development Traffic Growth

According to traffic projections from the El Paso County 2016 Major Transportation Corridor Plan Update (MTCP) traffic model, the area surrounding the site is expected to have an average 25-year growth factor of 1.426. This growth factor equates to an annual growth rate of 1.431 percent. Future traffic volume projections and growth rate calculations are provided in **Appendix B**. This annual growth rate was used to estimate short-term 2025 and long-term 2045 traffic volume projections at the key intersections. In addition, project traffic from the proposed South Academy Highlands development was added to the background traffic volumes. Supporting documents from the South Academy Highland Traffic Technical Memorandum are included in **Appendix C**. The calculated background traffic volumes for 2025 and 2045 are shown in **Figure 4** and **Figure 5**, respectively.



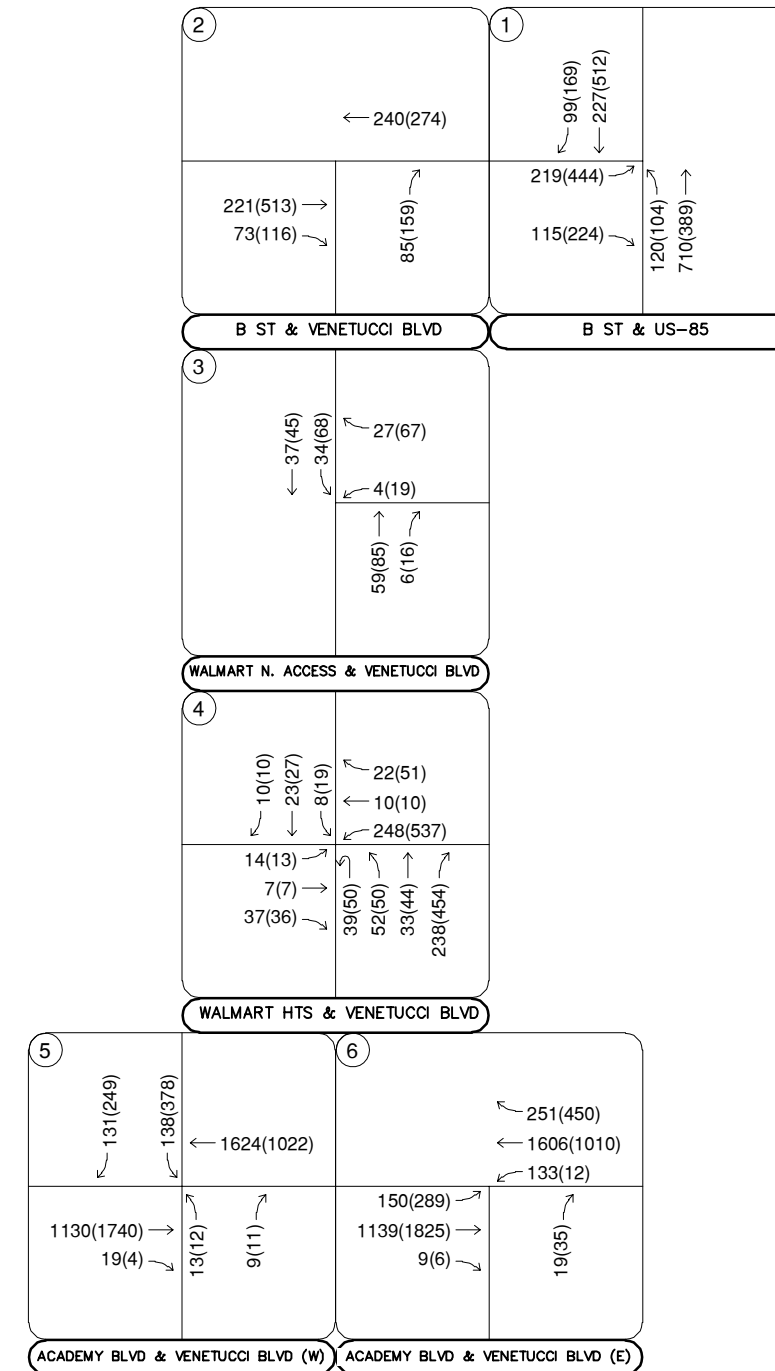
FIGURE 3
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
2023 EXISTING TRAFFIC VOLUMES



| LEGEND | |
|----------|---|
| (X) | Study Area Key Intersection |
| XXX(XXX) | Weekday AM(PM) Peak Hour Traffic Volumes |
| XX,X00 | Estimated Daily Traffic Volume |



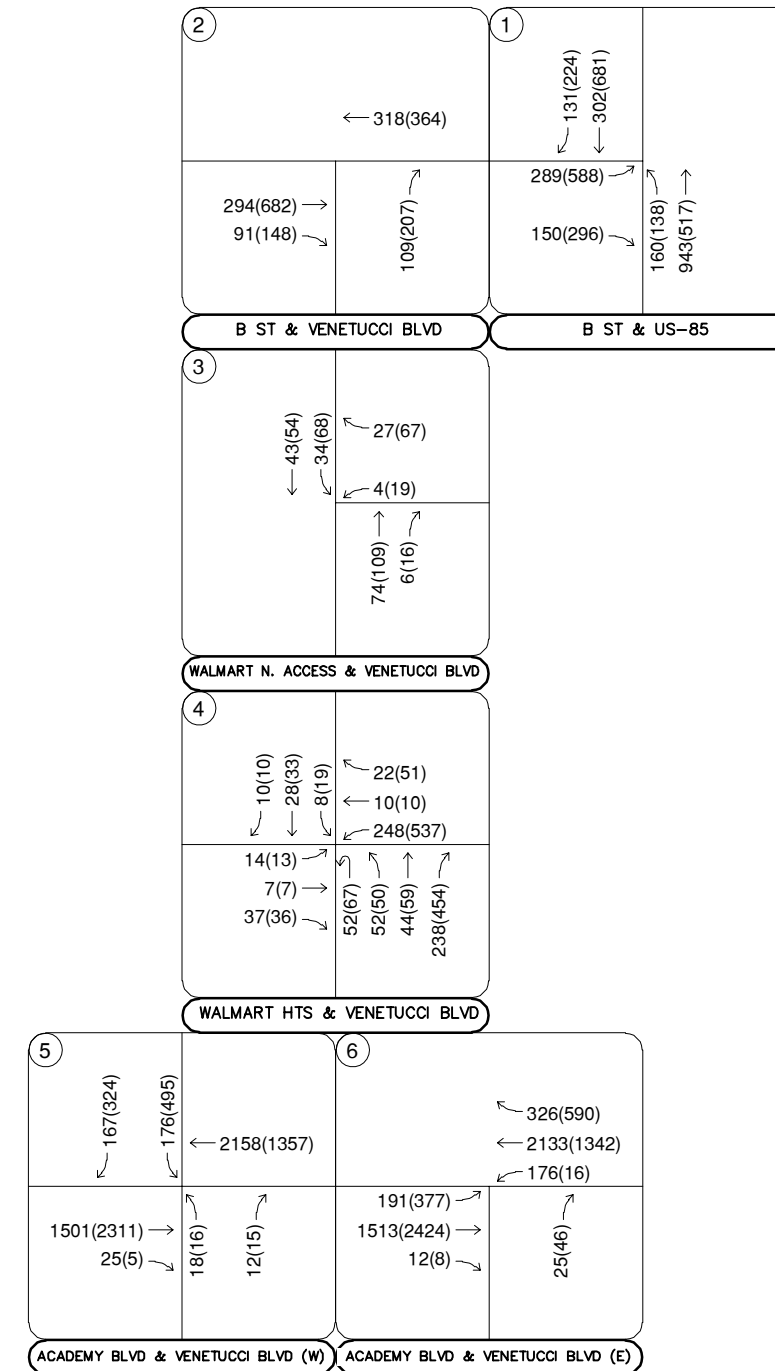
FIGURE 4
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
2025 BACKGROUND TRAFFIC VOLUMES



| LEGEND | |
|----------|--------------------------------|
| (X) | Study Area Key Intersection |
| XXX(XXX) | Weekday AM(PM) |
| | Peak Hour Traffic Volumes |
| XX,X00 | Estimated Daily Traffic Volume |



FIGURE 5
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
2045 BACKGROUND TRAFFIC VOLUMES



| LEGEND | |
|----------|--------------------------------|
| (X) | Study Area Key Intersection |
| XXX(XXX) | Weekday AM(PM) |
| | Peak Hour Traffic Volumes |
| XX,X00 | Estimated Daily Traffic Volume |

4.0 PROJECT TRAFFIC CHARACTERISTICS

4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*¹ published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report fitted curve equations that apply to Multifamily Low-Rise Housing (ITE Land Use Code 220) for traffic associated with the development.

The Venetucci Thompson Thrift project is expected to generate approximately 2,230 weekday daily trips, with 128 of these trips occurring during the morning peak hour and 166 of these trips occurring during the afternoon peak hour. Calculations were based on the procedure and information provided in the ITE *Trip Generation Manual, 11th Edition – Volume 1: User's Guide and Handbook*, 2021. **Table 1** summarizes the estimated trip generation for the Venetucci Thompson Thrift. The trip generation worksheets are included in **Appendix D**.

Table 1 – Venetucci Thompson Thrift Traffic Generation

| Land Use and Size | Weekday Vehicle Trips | | | | | | |
|---|-----------------------|--------------|-----|-------|--------------|-----|-------|
| | Daily | AM Peak Hour | | | PM Peak Hour | | |
| | | In | Out | Total | In | Out | Total |
| Multifamily Housing (Low-Rise) (220) – 336 Dwelling Units | 2,230 | 31 | 97 | 128 | 105 | 61 | 166 |

4.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic information, existing and anticipated surrounding employment areas, and the proposed access system for the project. Due to the residential nature of the site, a cursory observation of the number of office/businesses within an approximate 12-mile radius of the site and commercial properties within a 5-mile radius of the site was utilized as a basis for trip distribution. It is believed that residents travelling from

¹ Institute of Transportation Engineers, *Trip Generation Manual*, Eleventh Edition, Washington DC, 2021.

the site will mainly travel along Academy Boulevard and US-85 to access Interstate 25 and SH-115. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The project trip distribution for the proposed development is illustrated in **Figure 6**.

4.3 Traffic Assignment

Venetucci Thompson Thrift project traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Traffic assignment is shown in **Figure 7**.

4.4 Total (Background Plus Project) Traffic

Site traffic volumes were added to the background volumes to represent estimated traffic conditions for the short-term 2025 buildout horizon and long-term 2045 twenty-year planning horizon. These total traffic volumes for the study area are illustrated for the 2025 and 2045 horizon years in **Figures 8 and 9**, respectively.



FIGURE 6
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
PROJECT TRIP DISTRIBUTION

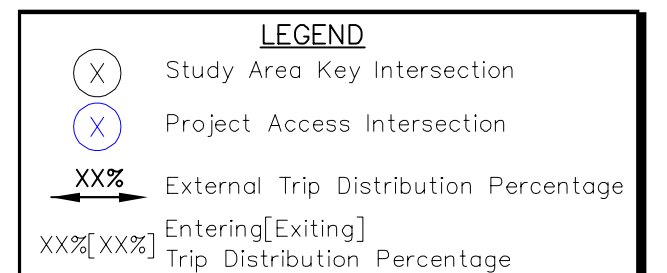
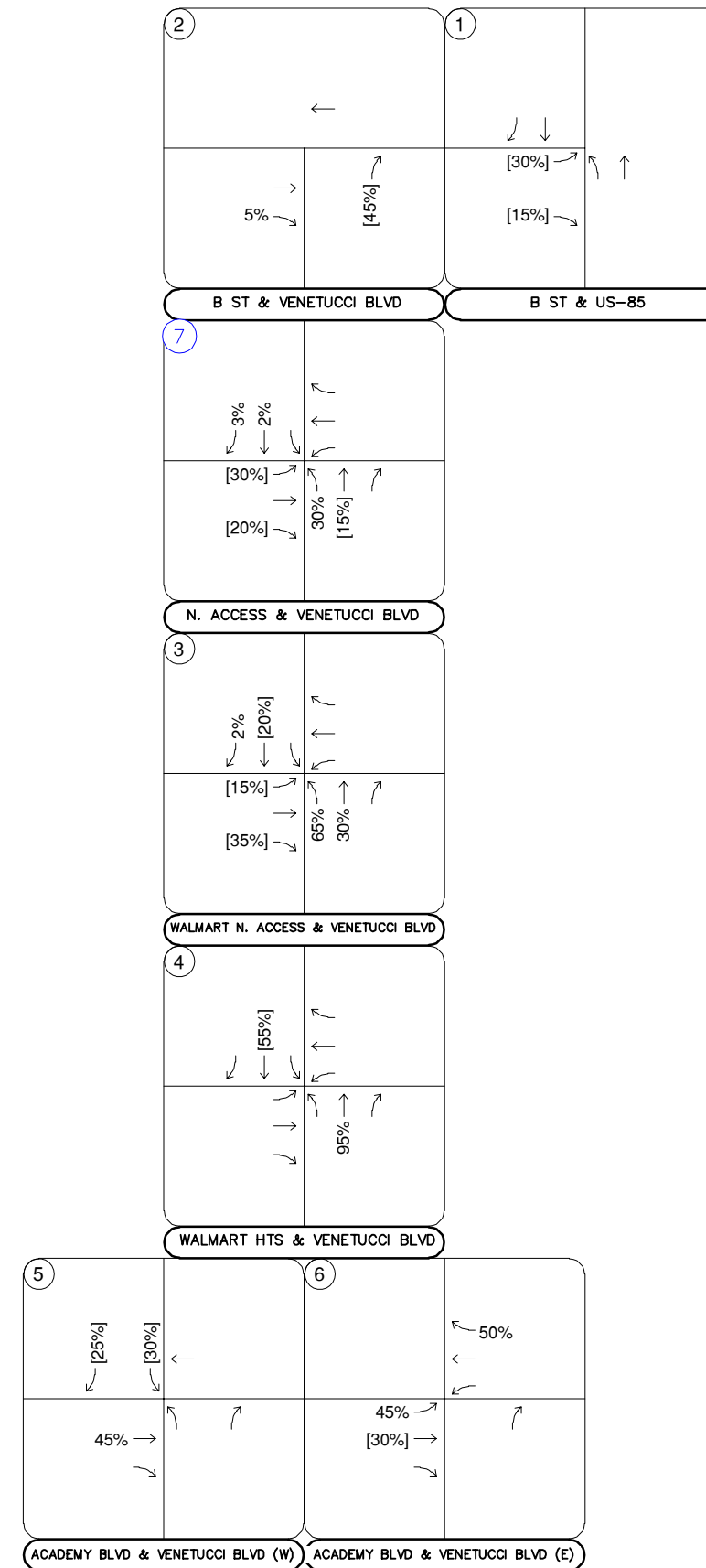




FIGURE 7
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
PROJECT TRAFFIC ASSIGNMENT

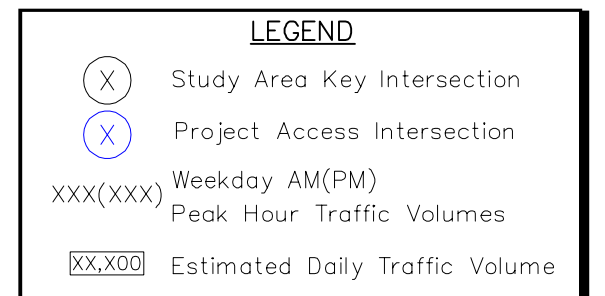
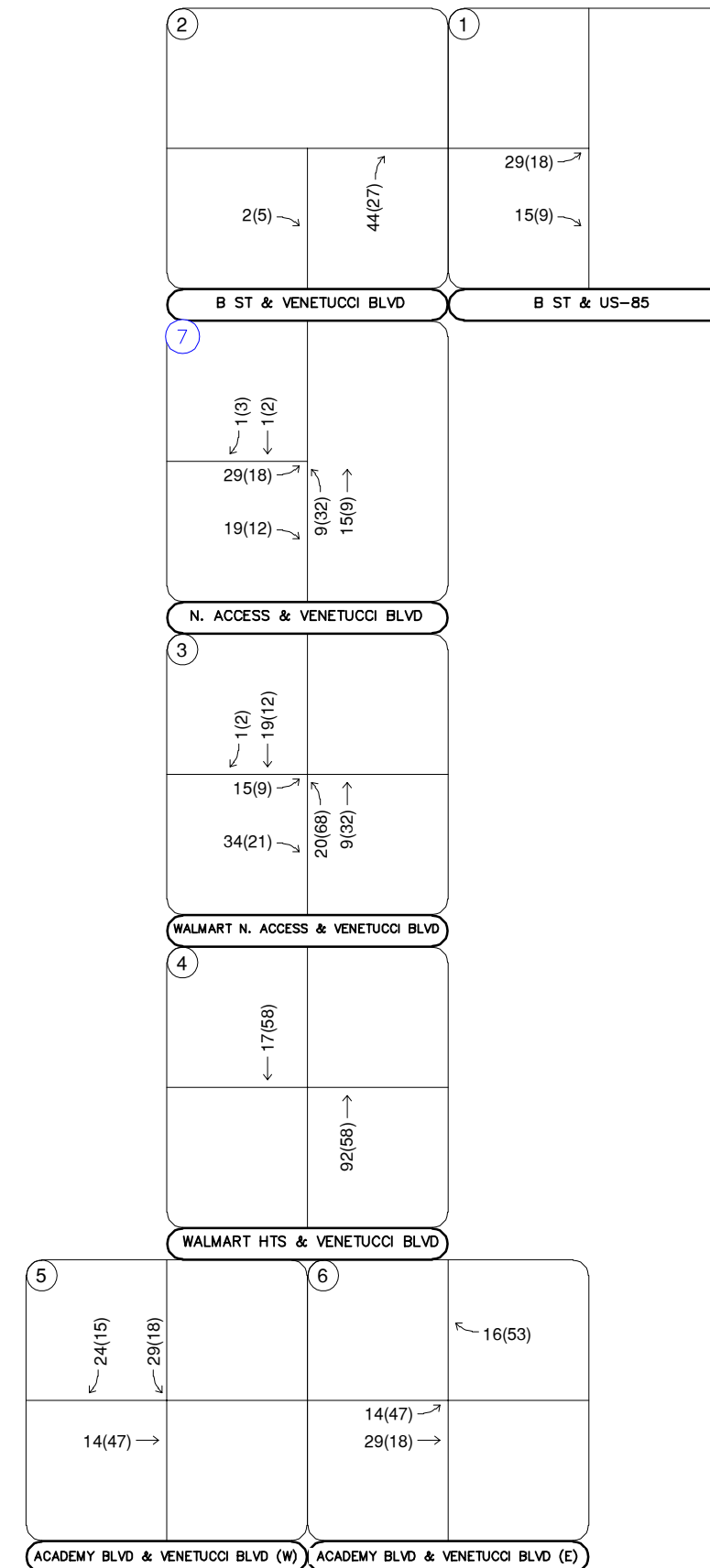
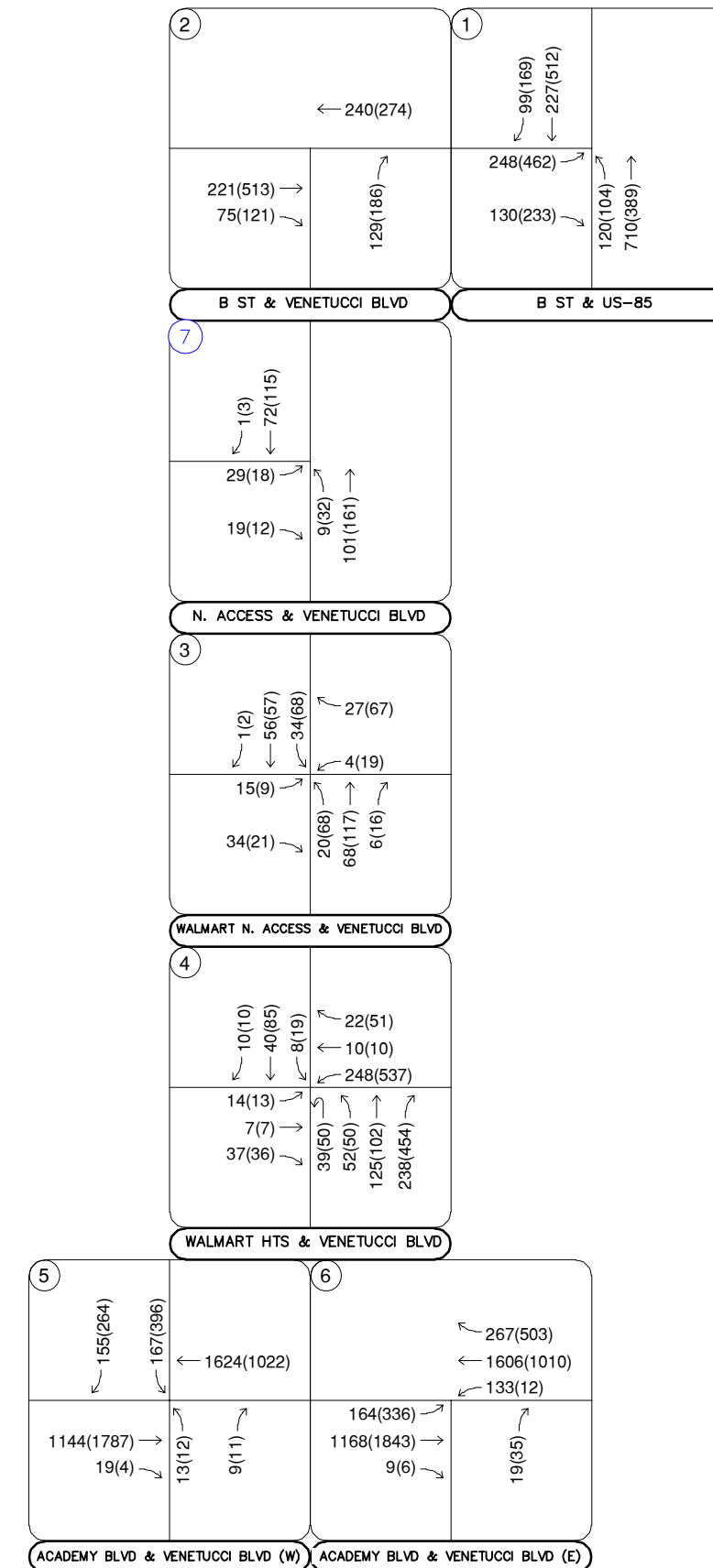




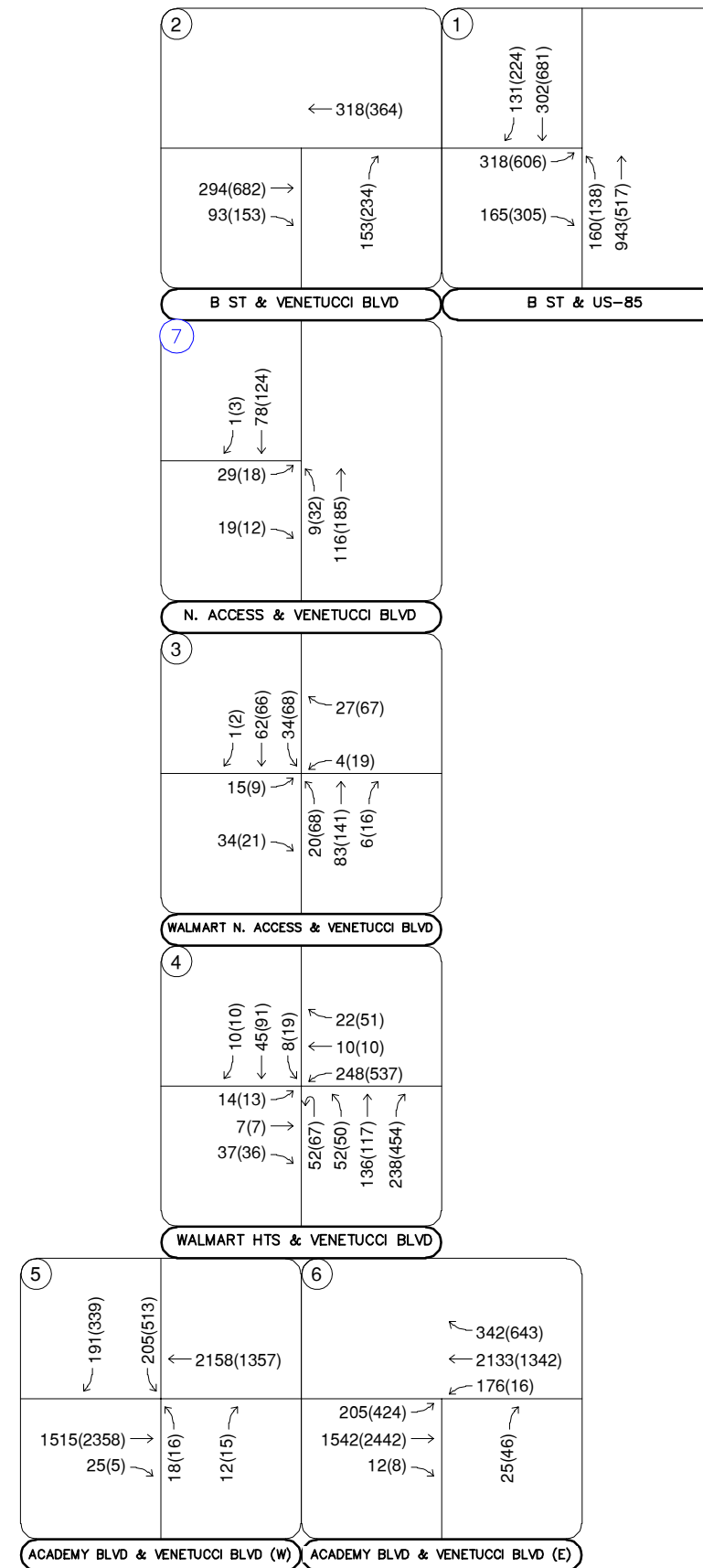
FIGURE 8
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
2025 TOTAL TRAFFIC VOLUMES



| LEGEND | |
|----------|---|
| (X) | Study Area Key Intersection |
| (X) | Project Access Intersection |
| xxx(xxx) | Weekday AM(PM) Peak Hour Traffic Volumes |
| xx,x00 | Estimated Daily Traffic Volume |



FIGURE 9
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
2045 TOTAL TRAFFIC VOLUMES



| LEGEND | |
|----------|---|
| (X) | Study Area Key Intersection |
| (X) | Project Access Intersection |
| xxx(xxx) | Weekday AM(PM) Peak Hour Traffic Volumes |
| xx,x00 | Estimated Daily Traffic Volume |

5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2025 and 2045 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the *Highway Capacity Manual (HCM)*².

5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). Based on El Paso County standards, the threshold for acceptable LOS is not less than LOS D during peak hours. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

| Level of Service | Signalized Intersection Average Total Delay (sec/veh) | Unsignalized Intersection Average Total Delay (sec/veh) |
|------------------|---|---|
| A | ≤ 10 | ≤ 10 |
| B | > 10 and ≤ 20 | > 10 and ≤ 15 |
| C | > 20 and ≤ 35 | > 15 and ≤ 25 |
| D | > 35 and ≤ 55 | > 25 and ≤ 35 |
| E | > 55 and ≤ 80 | > 35 and ≤ 50 |
| F | > 80 | > 50 |

Definitions provided from the Highway Capacity Manual, Sixth Edition, Transportation Research Board, 2016.

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS for a two-way stop-controlled intersection is not defined for the intersection as a whole. LOS for signalized, roundabout, and all-way stop controlled intersections are defined for each approach and for the overall intersection.

² Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

5.2 Key Intersection Operational Analysis

Calculations for the operational level of service at the key intersections for the study area are provided in **Appendix E**. The existing year analysis is based on the lane geometry and intersection control shown in **Figure 2**. Existing peak hour factors were utilized in the existing and 2025 horizon analysis years while the HCM urban standard of 0.92 was used for the long-term 2045 horizon analysis. The existing heavy vehicle percentages obtained from the turning movement counts were also used in each horizon year. Based on increased national attention given to establishing appropriate yellow and all-red clearance intervals to improve intersection safety, these have been calculated and are applied for approaches at the signalized intersections. The increase in yellow and all red time sacrifices intersection capacity for improved safety. Synchro traffic analysis software was used to analyze the signalized and unsignalized key intersections for HCM level of service.

B Street and US-85 (#1)

The signalized 'T'-intersection of B Street and US-85 (#1) operates with permissive-only left turn phasing on the northbound US-85 approach and protected left turn phasing on the eastbound B Street approach. The intersection operates acceptably at LOS C or better during both peak hours under existing conditions. With project traffic, this intersection is anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. However, due to long eastbound left turn vehicle queues in the existing condition, dual left turn lanes could be considered along the eastbound approach of this intersection. With dual eastbound left turn lanes, this intersection is anticipated to operate acceptably throughout 2045 with project traffic. **Table 3** provides the results of the LOS analysis conducted at this intersection. It is understood that this intersection may be combined with the intersection of B Street and Venetucci Boulevard (#2) in the future as a four-leg roundabout. Analysis of this future roundabout would require rerouting of existing traffic as this would allow for full movements at the intersection of B Street and Venetucci Boulevard (#2). If pursued in the future, this roundabout configuration will be evaluated by others and was not evaluated in this study due to the current configuration of this intersection operating acceptably and vehicle queues being mitigated with the implementation of eastbound dual left turn lanes.

Table 3 – B Street and US-85 (#1) LOS Results

| Scenario | AM Peak Hour | | PM Peak Hour | |
|--------------------------------|-----------------|-----|-----------------|-----|
| | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS |
| 2023 Existing | 15.6 | B | 28.8 | C |
| 2025 Background | 16.2 | B | 29.9 | C |
| 2025 Background Plus Project | 17.8 | B | 31.1 | C |
| 2025 Background Plus Project # | 14.6 | B | 21.5 | C |
| 2045 Background | 20.3 | C | 37.8 | D |
| 2045 Background Plus Project | 22.0 | C | 39.4 | D |
| 2045 Background Plus Project # | 16.3 | B | 23.2 | C |

= Dual Eastbound Left Turn Lanes

B Street and Venetucci Boulevard (#2)

The unsignalized 'T'-intersection of B Street and Venetucci Boulevard (#2) operates with stop control on the northbound Venetucci Boulevard approach. The intersection movements operate acceptably at LOS B or better during both peak hours under existing conditions. Based on existing traffic volumes, an eastbound right turn lane is warranted at this intersection based on El Paso County standards. Of note, this eastbound right turn lane is warranted based on an existing peak hour right turning volume of 96 vehicles (threshold of 50 vph) and project traffic is expected to only contribute approximately four percent of these right-turning movements at buildout. With project traffic and an eastbound right turn lane, all movements are anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. **Table 4** provides the results of the LOS analysis conducted at this intersection. If desired, as an interim solution to improve access in the area prior to the possibility of future roundabout control combined at this intersection and the B Street/US-85 intersection, CDOT could consider allowing this intersection to be converted to a three-quarter access in the future with addition of a westbound left turn lane. However, this westbound left turn lane would need to be designated to a length of 385 feet with a 145-foot taper to meet CDOT standards. This intersection is approximately 240 feet west of US-85. Therefore, this turn lane could not be designated to meet CDOT standards and would need to be built substandard in length.

Table 4 – B Street and Venetucci Boulevard (#2) LOS Results

| Scenario | AM Peak Hour | | PM Peak Hour | |
|--|-----------------|-----|-----------------|-----|
| | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS |
| 2023 Existing Northbound Approach | 9.6 | A | 13.6 | B |
| 2025 Background Northbound Approach | 9.8 | A | 14.5 | B |
| 2025 Background Plus Project # Northbound Approach | 9.8 | A | 13.7 | B |
| 2045 Background Northbound Approach | 10.5 | B | 15.8 | C |
| 2045 Background Plus Project # Northbound Approach | 10.4 | B | 14.6 | B |

= Eastbound Right Turn Lane

Walmart Access/South Project Access and Venetucci Boulevard (#3)

The signalized 'T'-intersection of Walmart Access and Venetucci Boulevard (#3) operates with permissive-only left turn phasing on the southbound Venetucci Boulevard approach and protected left turn phasing on the westbound Walmart North Access approach. The intersection operates acceptably at LOS B or better during both peak hours under existing conditions. With project construction, a west leg will be constructed at this intersection to provide access to the project. It is recommended that this west leg be designated with a left turn lane and a shared through/right turn lane. Additionally, to meet El Paso County standards, it is recommended that a northbound left turn lane be designated at this intersection. With these improvements and project traffic, this intersection is anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. **Table 5** provides the results of the LOS analysis conducted at this intersection.

Table 5 – Walmart Access/South Access and Venetucci Boulevard (#3) LOS Results

| Scenario | AM Peak Hour | | PM Peak Hour | |
|--------------------------------|-----------------|-----|-----------------|-----|
| | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS |
| 2023 Existing | 9.6 | A | 16.6 | B |
| 2025 Background | 7.7 | A | 13.5 | B |
| 2025 Background Plus Project # | 12.2 | B | 11.3 | B |
| 2045 Background | 4.6 | A | 9.9 | A |
| 2045 Background Plus Project # | 10.7 | B | 9.3 | A |

= West Leg with Left Turn Lane and Shared Through/Right Turn Lane and Northbound Left Turn Lane

Walmart Heights and Venetucci Boulevard (#4)

The signalized intersection of Walmart Heights and Venetucci Boulevard (#4) operates with permissive-only left turn phasing on the northbound and southbound Venetucci Boulevard approach, protected left turn phasing on the Walmart Heights westbound approach, and protected-permitted left turn phasing on the eastbound Walmart Heights approach. The intersection operates acceptably at LOS D or better during both peak hours under existing conditions. With project traffic, this intersection is anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 6** provides the results of the LOS analysis conducted at this intersection.

Table 6 – Walmart Heights and Venetucci Boulevard (#4) LOS Results

| Scenario | AM Peak Hour | | PM Peak Hour | |
|------------------------------|-----------------|-----|-----------------|-----|
| | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS |
| 2023 Existing | 34.2 | C | 35.1 | D |
| 2025 Background | 33.9 | C | 35.0 | C |
| 2025 Background Plus Project | 29.1 | C | 32.2 | C |
| 2045 Background | 35.0 | D | 36.1 | D |
| 2045 Background Plus Project | 29.8 | C | 32.2 | C |

Academy Boulevard and Venetucci Boulevard (West) (#5)

The signalized intersection of Academy Boulevard and Venetucci Boulevard (West) (#5) operates with permissive-only left turn phasing on the northbound Venetucci Boulevard approach and protected left turn phasing on the southbound Venetucci Boulevard approach. The intersection operates acceptably at LOS C during both peak hours under existing conditions. With project traffic, this intersection is anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 7** provides the results of the LOS analysis conducted at this intersection.

Table 7 – Academy Boulevard and Venetucci Boulevard (West) (#5) LOS Results

| Scenario | AM Peak Hour | | PM Peak Hour | |
|------------------------------|-----------------|-----|-----------------|-----|
| | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS |
| 2023 Existing | 20.9 | C | 27.3 | C |
| 2025 Background | 21.3 | C | 27.8 | C |
| 2025 Background Plus Project | 21.6 | C | 27.9 | C |
| 2045 Background | 24.0 | C | 34.1 | C |
| 2045 Background Plus Project | 24.3 | C | 35.2 | D |

Academy Boulevard and Venetucci Boulevard (East) (#6)

The signalized intersection of Academy Boulevard and Venetucci Boulevard (East) (#6) operates with protected left turn phasing on the eastbound and westbound Academy Boulevard approaches. The intersection operates acceptably at LOS C or better during both peak hours under existing conditions. With project traffic, this intersection is anticipated to continue operating at an acceptable level of service throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 8** provides the results of the LOS analysis conducted at this intersection.

Table 8 – Academy Boulevard and Venetucci Boulevard (East) (#6) LOS Results

| Scenario | AM Peak Hour | | PM Peak Hour | |
|------------------------------|-----------------|-----|-----------------|-----|
| | Delay (sec/veh) | LOS | Delay (sec/veh) | LOS |
| 2023 Existing | 18.4 | B | 22.1 | C |
| 2025 Background | 19.0 | B | 22.3 | C |
| 2025 Background Plus Project | 19.2 | B | 22.7 | C |
| 2045 Background | 23.7 | C | 25.0 | C |
| 2045 Background Plus Project | 23.8 | C | 25.4 | C |

5.3 Project Access Intersections

With completion of the Venetucci Thompson Thrift project, access will be provided by a proposed full movement access along the west side of Venetucci Boulevard to align with the Walmart North Access (#3) and a proposed north full movement access along the west side of Venetucci Boulevard to be incorporated into the existing roundabout (#7). The proposed access to align with the Walmart North Access (#3) was analyzed in the previous Section 5.2 as an existing intersection. The proposed north access along the west side of Venetucci Boulevard to align to tie into the existing roundabout (#7) is recommended to have one lane and yield control for all three approaches. **Table 9** provides the results of the level of service for this project access intersection. As shown in the table, the roundabout project access intersection along Venetucci Boulevard (#7) is anticipated operate with acceptable LOS A during the peak hours in both the buildout year 2025 and the 2045 long-term horizons.

Table 9 – Project Access Level of Service Results

| Intersection | 2025 Total | | | | 2045 Total | | | |
|----------------------------------|------------------------|-----|------------------------|-----|------------------------|-----|------------------------|-----|
| | AM Peak | | PM Peak | | AM Peak | | PM Peak | |
| | Delay (sec/ veh) | LOS | Delay (sec/ veh) | LOS | Delay (sec/ veh) | LOS | Delay (sec/ veh) | LOS |
| Venetucci Blvd North Access (#7) | 3.3 | A | 3.8 | A | 3.4 | A | 3.9 | A |

5.4 CDOT Turn Bay Length Analysis

The threshold for requiring an access permit along Colorado Department of Transportation (CDOT) roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent. Based on traffic projections, the addition of project traffic on all legs of B Street and US-85 (#1) is not anticipated to increase existing access traffic volumes by more than 20 percent, with the maximum expected increase at eight (8) percent during the morning peak hour on the north leg (44/525). Further, a CDOT access permit is required when a new access is being proposed along a CDOT highway or when improvements are identified as needed as at access along a CDOT highway. Project traffic is not expected to increase existing volumes by more than 20 percent and there are not any new accesses being proposed along CDOT highways. If the west leg of B Street is improved to include dual left turn lanes at the intersection with US-85, then a CDOT access permit is anticipated to be needed for the west leg of B Street at US-85.

Further, the addition of project traffic on the south leg at the B Street and Venetucci Boulevard intersection (#2) is anticipated to increase existing traffic by more than 20 percent. Therefore, an access permit is anticipated to be needed at this intersection as development occurs.

5.5 El Paso County Turn Lane Requirement Analysis

The El Paso County Engineering Criteria Manual (ECM) was used to determine if left and right turn lanes are warranted along B Street, Venetucci Boulevard, and Academy Boulevard. El Paso County classifies B Street as a minor arterial roadway, Venetucci Boulevard has characteristics of a non-residential collector, and Academy Boulevard is classified as an expressway.

According to El Paso County ECM guidelines for minor arterial and lower classification roadways, a left turn lane is required for any access with a projected peak hour left turning volume of 25 vehicles per hour or greater, a right turn lane is required for any access with a projected peak hour right turning volume of 50 vehicles per hour or greater, and a right turn acceleration lane is generally not required.

According to El Paso County ECM guidelines for expressways, a left turn lane is required for any access that allows left turn ingress movements, a right turn lane is required for any access with a projected peak hour right turning volume of 10 vehicles per hour or greater, and a right turn

acceleration lane is required for any access with a projected peak hour right turning volume of 10 vehicles per hour or greater

Based on B Street providing a posted speed limit of 40 miles per hour, Venetucci Boulevard providing a speed limit between 30 and 35 miles per hour, and Academy Boulevard providing a speed limit of 50 miles per hour, the turn lane requirements that the project traffic contributes to are as follows:

B Street and US-85 (#1):

- An eastbound left turn lane exists and **is** warranted at this intersection based on existing traffic volumes being 426 eastbound left turns during the peak hour and the threshold being 25 vehicles per hour. The existing eastbound left turn lane is continuous and therefore meets El Paso County standards. However, to mitigate vehicle queues, implementation of dual left turn lanes on this approach could be considered.
- An eastbound right turn lane exists and **is** warranted at this intersection based on existing traffic volumes being 212 eastbound right turns during the peak hour and the threshold being 50 vehicles per hour. The existing eastbound right turn lane is continuous and therefore meets El Paso County standards.

B Street and Venetucci Boulevard (#2):

- An eastbound right turn lane **is** warranted at this intersection based on existing traffic volumes being 96 eastbound right turns during the peak hour and the threshold being 25 vehicles per hour. Based on the 40-mile per hour speed limit, the required deceleration lane length is 155 feet with 150 feet in storage length, plus a 160-foot taper to meet El Paso County standards by 2025. Therefore, it is recommended that an eastbound right turn lane be designated at this intersection to a length of 305 feet plus a 160-foot taper. As noted previously, this turn lane is needed based on existing conditions and project traffic is expected to only contribute approximately four percent of these right-turning movements at buildout.
- A northbound right turn lane exists and **is** warranted at this intersection based on existing traffic volumes being 143 northbound right turns during the peak hour and the threshold

being 50 vehicles per hour. The existing northbound right turn lane is continuous and therefore meets El Paso County standards.

South Project Access/Walmart North Access and Venetucci Boulevard (#3):

- A northbound left turn lane **is** warranted at this intersection based on projected 2025 total traffic volumes being 68 northbound left turns during the peak hour and the threshold being 25 vehicles per hour. Based on the 35-mile per hour speed limit, the required deceleration lane length is 135 feet with 100 feet in storage length, plus a 140-foot taper to meet El Paso County standards (235 feet length plus 140-foot taper). This turn lane is currently striped out for future use; however, the maximum possible length that can be provided due to existing back-to-back left turn lanes is approximately 150 feet of length plus a 140-foot shared taper.
- A southbound right turn lane **is not** warranted at this intersection based on projected 2025 total traffic volumes being two (2) southbound right turns during the peak hour and the threshold being 50 vehicles per hour.

Academy Boulevard and Venetucci Boulevard (West) (#5):

- A southbound left turn lane exists and **is** warranted at this intersection based on existing traffic volumes being 346 southbound left turns during the peak hour and the threshold being 25 vehicles per hour. The existing dual southbound left turn lanes are continuous and therefore meets El Paso County standards.
- A southbound right turn lane exists and **is** warranted at this intersection based on existing traffic volumes being 222 southbound right turns during the peak hour and the threshold being 50 vehicles per hour. The existing southbound right turn lane is 400 feet with a 130-foot taper. Based on the 35-mile per hour speed limit, the required deceleration lane length is 135 feet with 250 feet in storage length, plus a 140-foot taper to meet El Paso County standards. Therefore, the required right turn lane length at this location is 385 feet plus a 140-foot taper. The existing southbound right turn lane is continuous and therefore meets El Paso County standards for turn lane length.

Academy Boulevard and Venetucci Boulevard (East) (#6):

- An eastbound left turn lane exists and **is** warranted at this intersection based on left turn lanes being warranted along all expressway intersections. The existing dual eastbound left turn lanes are 450 feet with a 225-foot taper. Based on the 50-mile per hour speed limit, the required deceleration lane length is 235 feet with 250 feet in storage length, plus a 200-foot taper to meet El Paso County standards. Therefore, the required left turn lane length at this location is 485 feet plus a 200-foot taper. The current dual left turn length of 460 feet with a 225-foot taper meets the overall length requirement with a 25-foot shift in turn lane length versus taper length requirement; therefore, no modifications are believed to be needed to these dual left turn lanes.
- A westbound right turn lane exists and **is** warranted at this intersection based on existing traffic volumes being 415 westbound right turns during the peak hour and the threshold being 10 vehicles per hour. The existing westbound right turn lane is 525 feet with a 150-foot taper. Based on the 50-mile per hour speed limit, the required deceleration lane length is 235 feet with 250 feet in storage length, plus a 200-foot taper to meet El Paso County standards. Therefore, the required right turn lane length at this location is 485 feet plus a 200-foot taper. The current right turn length of 525 feet with a 150-foot taper meets the overall length requirement; therefore, no modifications are believed to be needed to this right turn lane.

5.6 Vehicle Queuing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths. Results are shown in the following **Table 10** with calculations provided within the level of service operational sheets of **Appendix E**.

Table 10 – Turn Lane Queuing Analysis Results

| Intersection Turn Lane | Existing Turn Lane Length (feet) | 2025 Calculated Queue (feet) | 2025 Recommended Length (feet) | 2045 Calculated Queue (feet) | 2045 Recommended Length (feet) |
|--|----------------------------------|------------------------------|--------------------------------|------------------------------|--------------------------------|
| B St & US-85 (#1) | | | | | |
| Eastbound Left | C (250') | 650' | C (250') | 800' | C (250') |
| Eastbound Right | C (250') | 25' | C (250') | 25' | C (250') |
| Northbound Left | 250' | 150' | 250' | 250' | 250' |
| Southbound Right | 400' | 25' | 400' | 25' | 400' |
| B St & US-85 (#1) – Dual EBL | | | | | |
| Eastbound Left | C (250') | 325' | 325'/C DL | 375' | 375'/C DL |
| Eastbound Right | C (250') | 625' | C (250') | 25' | C (250') |
| Northbound Left | 250' | 100' | 250' | 150' | 250' |
| Southbound Right | 400' | 25' | 400' | 25' | 400' |
| B St & Venetucci Blvd (#2) | | | | | |
| Eastbound Right | DNE | 25' | 305'+160'T (EC) | 25' | 305'+160'T (EC) |
| Northbound Right | C | 50' | C | 50' | C |
| Walmart N. Access & Venetucci Blvd (#3) | | | | | |
| Eastbound Left | DNE | 25' | 150' | 25' | 150' |
| Westbound Left | C (150') | 50' | C (150') | 50' | C (150') |
| Northbound Left | DNE | 25' | 150'+140'T (EC) | 25' | 150'+140'T (EC) |
| Northbound Right | C (425') | 25' | C (425') | 25' | C (425') |
| Southbound Left | 300' | 25' | 300' | 25' | 300' |
| Walmart Hts & Venetucci Blvd (#4) | | | | | |
| Westbound Left | 50'/C (250') | 350' | 50'/C (250') | 350' | 50'/C (250') |
| Westbound Right | C (250') | 50' | C (250') | 50' | C (250') |
| Northbound Left | 100' | 25' | 100' | 25' | 100' |
| Northbound Right | 100' | 100' | 100' | 100' | 100' |
| Southbound Left | 150' | 25' | 150' | 25' | 150' |
| Southbound Right | 150' | 25' | 150' | 25' | 150' |
| Academy Blvd & Venetucci Blvd (W) (#5) | | | | | |
| Eastbound Right | C | 25' | C | 25' | C |
| Northbound Left | 100'/C DL | 25' | 100'/C DL | 25' | 100'/C DL |
| Northbound Right | 450' | 25' | 450' | 25' | 450' |
| Southbound Left | 400'/C | 213' | 400'/C | 310' | 400'/C |
| Southbound Right | C | 195' | C | 304' | C |
| Academy Blvd & Venetucci Blvd (E) (#6) | | | | | |
| Eastbound Left | 450' DL | 165' | 450' DL | 157' | 450' DL |
| Eastbound Right | 450' | 25' | 450' | 25' | 450' |
| Westbound Left | 575' DL | 87' | 575' DL | 111' | 575' DL |
| Westbound Right | 525' | 52' | 525' | 148' | 525' |
| Northbound Right | C | 25' | C | 25' | C |

DNE = Does Not Exist; C = Continuous Lane; DL = Dual Left Turn Lanes; **Red** Text = Storage Deficiency; **Blue** Text = Recommendation; (EC) = El Paso County Standard Requirement

The vehicle queues are all anticipated to remain within the existing or recommended turn lane lengths throughout the 2045 horizon; however, several vehicles queues within continuous

auxiliary turn lanes are expected to extend beyond adjacent intersections. The westbound left turn queue at the intersection of Walmart Heights and Venetucci Boulevard (#4) is anticipated to extend to the internal intersection to the east. If and when long vehicle queues are experienced at the Walmart Heights adjacent access, vehicles will likely reroute to the access to the north. Of note, this is an existing condition to an adjacent development and project traffic does not contribute to this movement.

The eastbound left turn queue at the intersection of B Street and US-85 (#1) may extend beyond the intersection to the west by 2025. Alternative analyses were completed at this intersection with dual eastbound left turn lanes. With dual eastbound left turn lanes, it is recommended that the inside lane be constructed with 325 feet of length and the outside lane be a continuous lane by 2025.

5.7 Access Spacing Requirements and Roadway Classifications/Ownership

According to El Paso County 2016 Major Transportation Corridors Plan Update, Venetucci Boulevard is not explicitly classified which typically indicates a local street classification; however, it is believed that Venetucci Boulevard meets the characteristics of a non-residential collector roadway. The following identifies the intersection spacing requirements for the access intersections associated with the project:

South Project Access/Walmart North Access and Venetucci Boulevard (#3)

The proposed private access west leg at the Walmart North Access and Venetucci Boulevard is located approximately 530 feet north of the Walmart Heights and Venetucci Boulevard (#4) intersection (measured centerline to centerline). According to the El Paso County Engineering Criteria Manual, spacing of access intersections along non-residential collector streets should refer to the entering sight distance table 2-35 in ECM. This indicates that the access spacing requirement is 350 feet which is currently accommodated with the existing access location. Therefore, the proposed west leg private access at the Walmart North Access and Venetucci Boulevard (#3) meets ECM standards.

Venetucci Boulevard North Roundabout Access (#7)

The proposed Venetucci Boulevard North Roundabout Access (#7) is located approximately 600 feet north of the Walmart North Access and Venetucci Boulevard (#3) intersection and

approximately 2,050 feet south of B Street (both measured centerline to centerline). According to the El Paso County Engineering Criteria Manual, spacing of accesses along major collector roadways should be located 660 feet from arterial streets (B Street) while similarly to the South Project Access above, accesses should be located 350 feet other access locations. Therefore, the proposed Venetucci Boulevard North Roundabout Access (#7) meets ECM standards.

With a maximum average daily traffic volume projection of 34,200 along Academy Boulevard in 2025, Academy Boulevard meets El Paso County average daily traffic threshold standard of 48,000 vehicles per day for a 4-lane urban expressway roadway. It should be noted that El Paso County does provide an average daily traffic threshold for a 6-lane urban expressway which is the current configuration along Academy Boulevard.

B Street is expected to contain an average daily traffic volume of approximately 9,100 vpd in 2025 which is within the standard threshold of 40,000 vpd for a four-lane principal arterial and 20,000 vpd for a minor arterial. It should be noted that B Street is classified as a minor arterial but is a four-lane roadway.

US-85 transitions to Venetucci Boulevard north of B Street and this segment of Venetucci Boulevard is classified as a minor arterial. Although not explicitly identified in the MTCP, Venetucci Boulevard meets the characteristics of a non-residential collector street from B Street to Academy Boulevard. The 2025 daily traffic projections of approximately 15,500 vpd and 3,300 vpd along Venetucci Boulevard north of US-85 and between B Street and Academy Boulevard, respectively, meet the threshold limits of 20,000 vpd for a minor arterial (north of US-85) and non-residential collector (between B Street and Academy Boulevard). **Figure 10** illustrates the circulation plan and street classification map for roadways internal and external to the Venetucci Thompson Thrift project. **Figure 11** illustrates the ownership of each of the roadways adjacent to the project site.

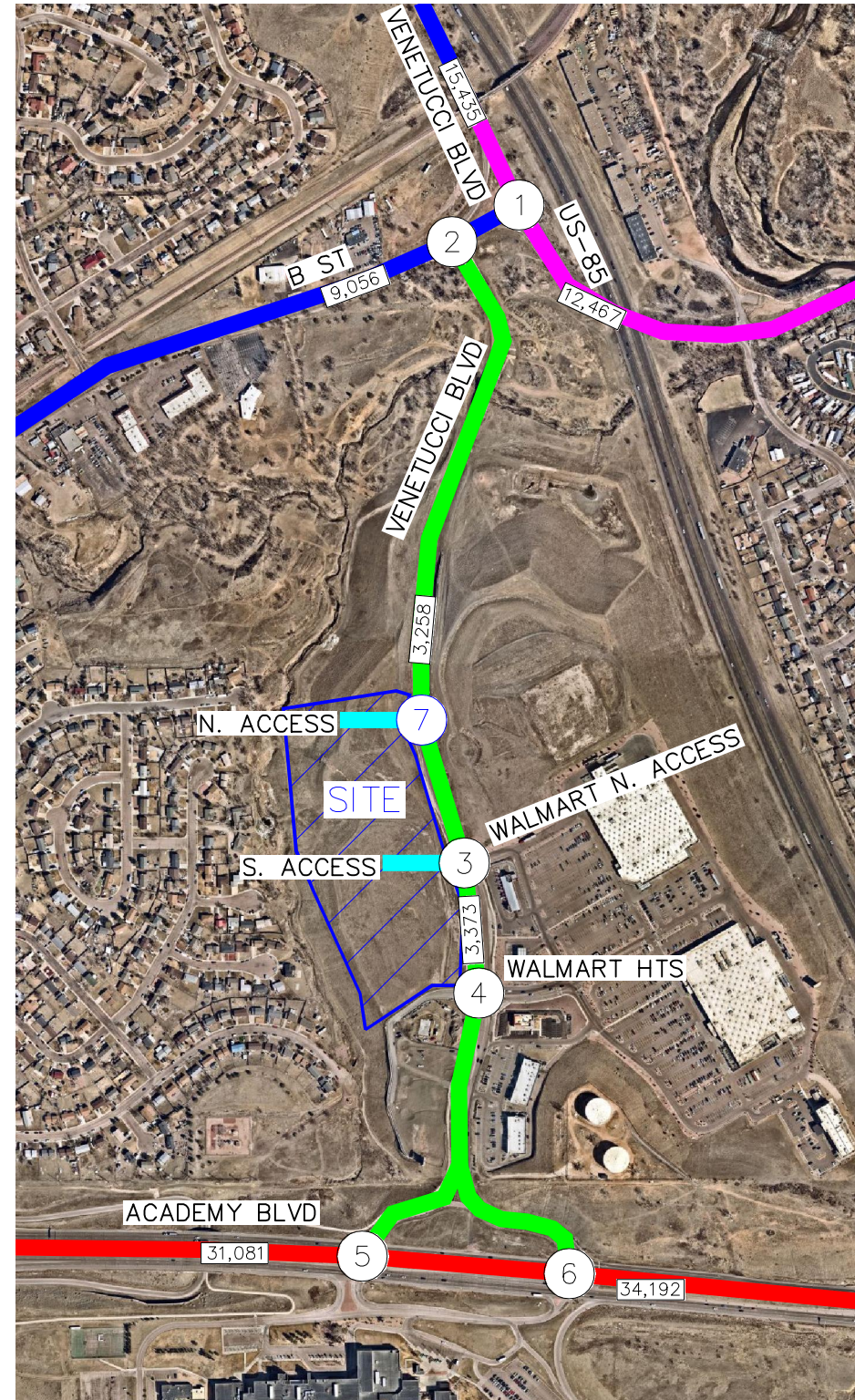
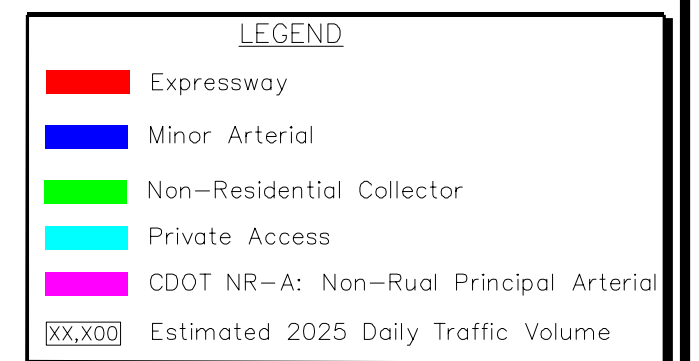


FIGURE 10
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
ROADWAY CLASSIFICATION MAP



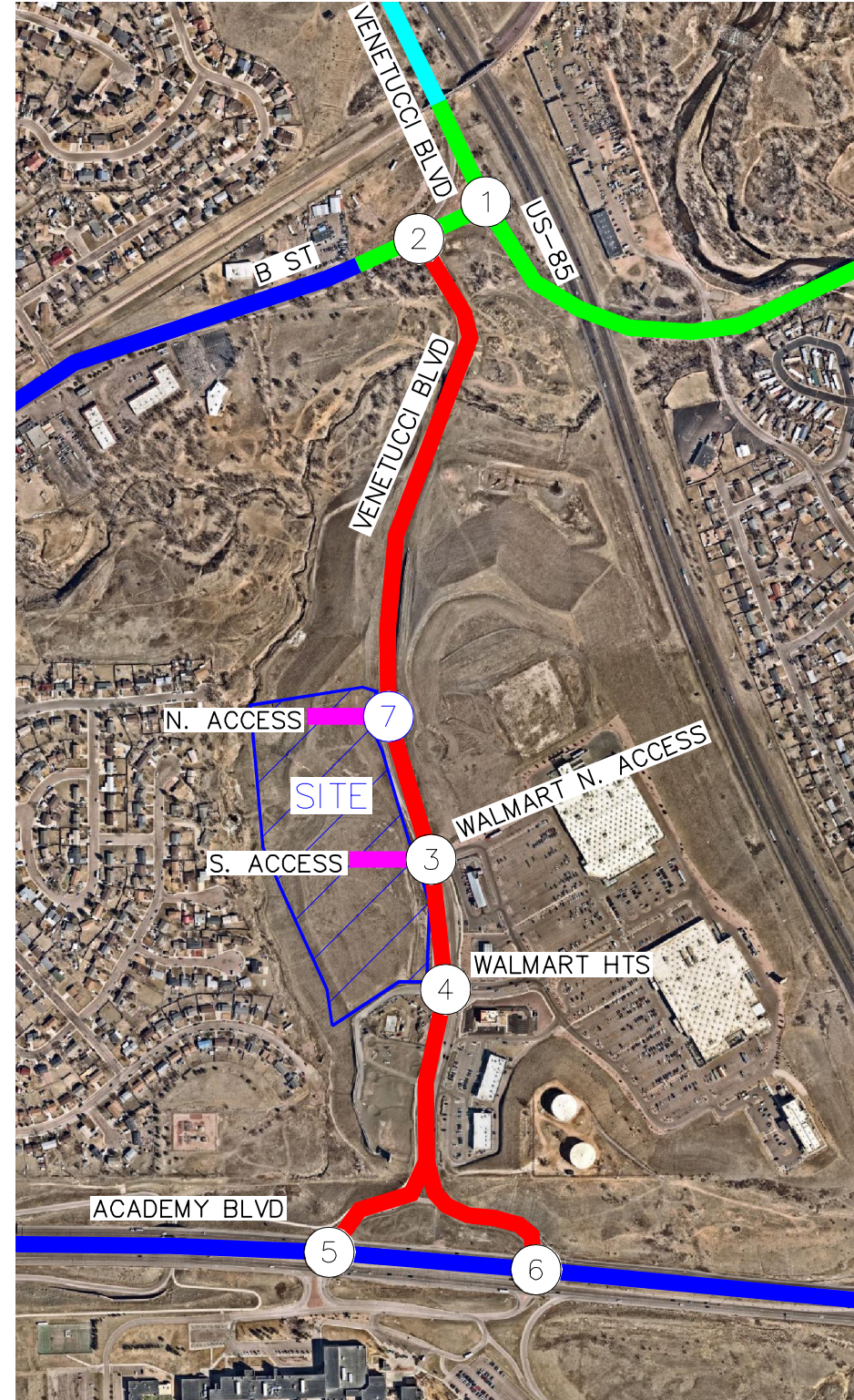


FIGURE 11
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
ROADWAY OWNERSHIP MAP

| LEGEND | |
|--|--------------------------|
| █ | City of Fountain |
| █ | El Paso County |
| █ | CDOT |
| █ | City of Colorado Springs |
| █ | Private |

5.8 Sight Distance Evaluation

It is recommended that sight triangles be provided at all site access points to give drivers exiting the site a clear view of oncoming traffic. Landscaping and objects within sight triangles must not obstruct drivers' views of the adjacent travel lanes. ECM design intersection sight distances for left turn from stop were evaluated at the accesses along Venetucci Boulevard. ECM does not provide sight distances for right-turning vehicles from stop; therefore, AASHTO standards were used for right-turn from stop distances at the project accesses. The following identifies sight distance requirements for the access intersections associated with the project:

Walmart North Access and Venetucci Boulevard (#3)

According to Table 2-21 from ECM and a roadway design speed of 35 miles per hour along Venetucci Boulevard, the intersection sight distance for a vehicle turning left from stop is 390 feet (extrapolated from 30 miles per hour and 40 miles per hour) for a two-lane roadway.

With AASHTO standards, the sight distance for a vehicle turning right from stop is 335 feet. Therefore, all obstructions for left turning vehicles from stop should be clear to the right within the triangle created with a vertex point located 10 feet from the edge of the major road traveled way (typical position of the minor road driver's eye when stopped) and a line-of-sight distance of 390 feet located in the middle of the northbound through lane along Venetucci Boulevard for the Walmart North Access and Venetucci Boulevard (#3) intersection. Likewise, all obstructions for right turning vehicles from stop should be clear to the left within the triangle created with a vertex point located 10 feet from the edge of the major road traveled way and a line-of-sight distance of 335 feet located in the middle of the southbound through lane along Venetucci Boulevard. It is believed that the intersection of Walmart North Access and Venetucci Boulevard (#3) is appropriately located to provide necessary sight distances.

5.8 Bicycle and Pedestrian Access

Bicycle lanes are not present on either side of the B Street, US-85, Venetucci Boulevard, or Academy Boulevard. Sidewalk is provided along the east side of Venetucci Boulevard between B Street and Walmart Heights. Sidewalk is provided along the west side of Venetucci Boulevard from the roundabout to Academy Boulevard.

5.9 Road Impact Fees

Road impact fees were evaluated based on the El Paso County Road Impact Fee Schedule. Based on these fee schedule guidelines, the fee per multi-family dwelling unit is \$2,407. Therefore, the El Paso County road impact fee for the proposed 336 multi-family residences is expected to be \$808,752. Road impact fee calculations are shown in **Table 11**. It is anticipated that road impact fees will be processed with the final plat.

Table 11 – Road Impact Fees

| Use | Units | Fee / Unit | Total Fee |
|---------------------------------------|-------|------------|-----------|
| Multi-Family Housing (El Paso County) | 336 | \$2,407 | \$808,752 |

It should be noted that the City of Fountain requested road impact fees as part of the pre-application process; however, the project is not being annexed into the City of Fountain and only one road impact fee should be collected for the project. The single impact fee is for maintaining and improving all of the roadways in the surrounding area. If the City of Fountain wishes to further collect fees, an agreement should be negotiated with El Paso County.

5.10 Improvement Summary

Based on the results of the intersection operational, turn lane evaluations, and vehicle queuing analysis, the key intersection recommended improvements and control are shown in **Figure 12** for the 2025 horizon and **Figure 13** for the 2045 horizon. Further, an improvement summary table with project traffic contributions is provided in **Table 12**. If dual eastbound left turn lanes are designated at the intersection of B Street and US-85 (#1), this project is only expected to contribute 3.9 percent (18 project traffic PM peak hour volumes / 462 total PM peak hour volumes) of traffic to this movement during the 2025 afternoon peak hour. Although an eastbound right turn lane is warranted at the B Street and Venetucci Boulevard (#2) intersection with existing traffic volumes, it should be noted that this project only contributes 4.1 percent (5 project traffic PM peak hour volumes / 121 total PM peak hour volumes) of traffic volumes to this movement during the afternoon peak hour in 2025.

Table 12 – Project Traffic Contribution Improvement Summary

| Intersection | Improvement | Project Traffic Contribution | Horizon Year |
|---------------------------------------|---|------------------------------|--------------|
| B St & US-85 (#1) | Dual Eastbound Left Turn Lanes (325'/C) | PM Peak 18 / 462 3.9% | 2025 |
| B St & Venetucci Blvd (#2) | Eastbound Right Turn Lane (305'+160' T) | PM Peak 5 / 121 4.1% | 2025 |

XXX / XXX = Project Traffic (Peak Hour) / Total Traffic (Peak Hour)

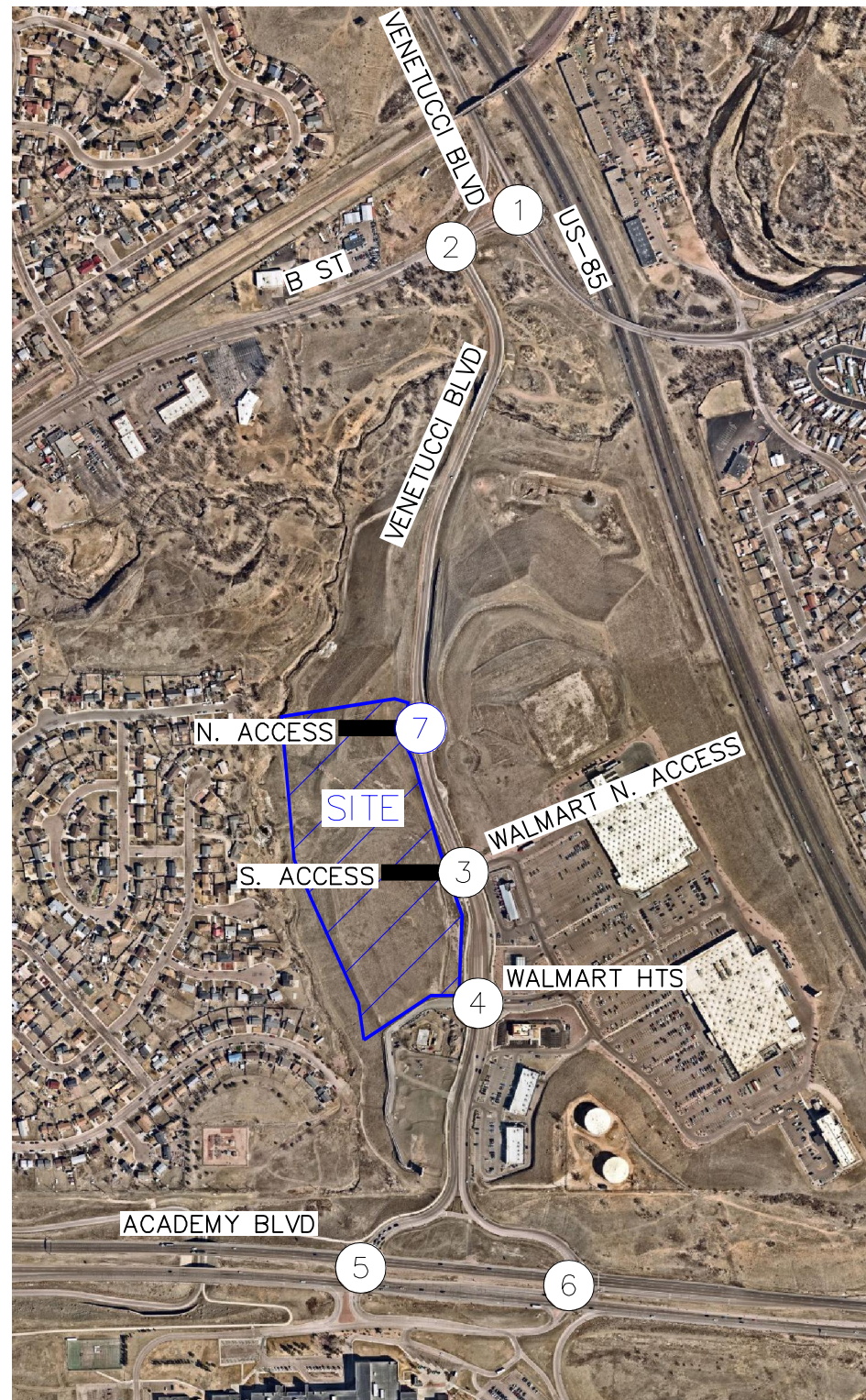


FIGURE 12
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
2025 RECOMMENDED GEOMETRY AND CONTROL

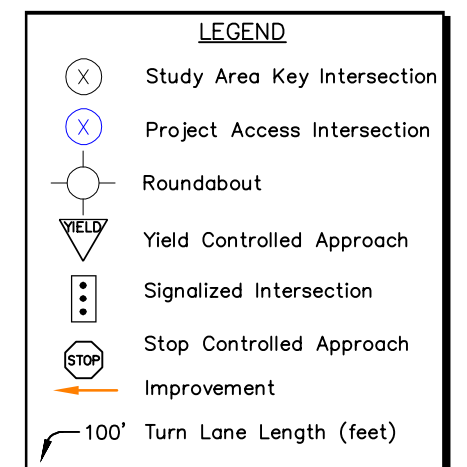
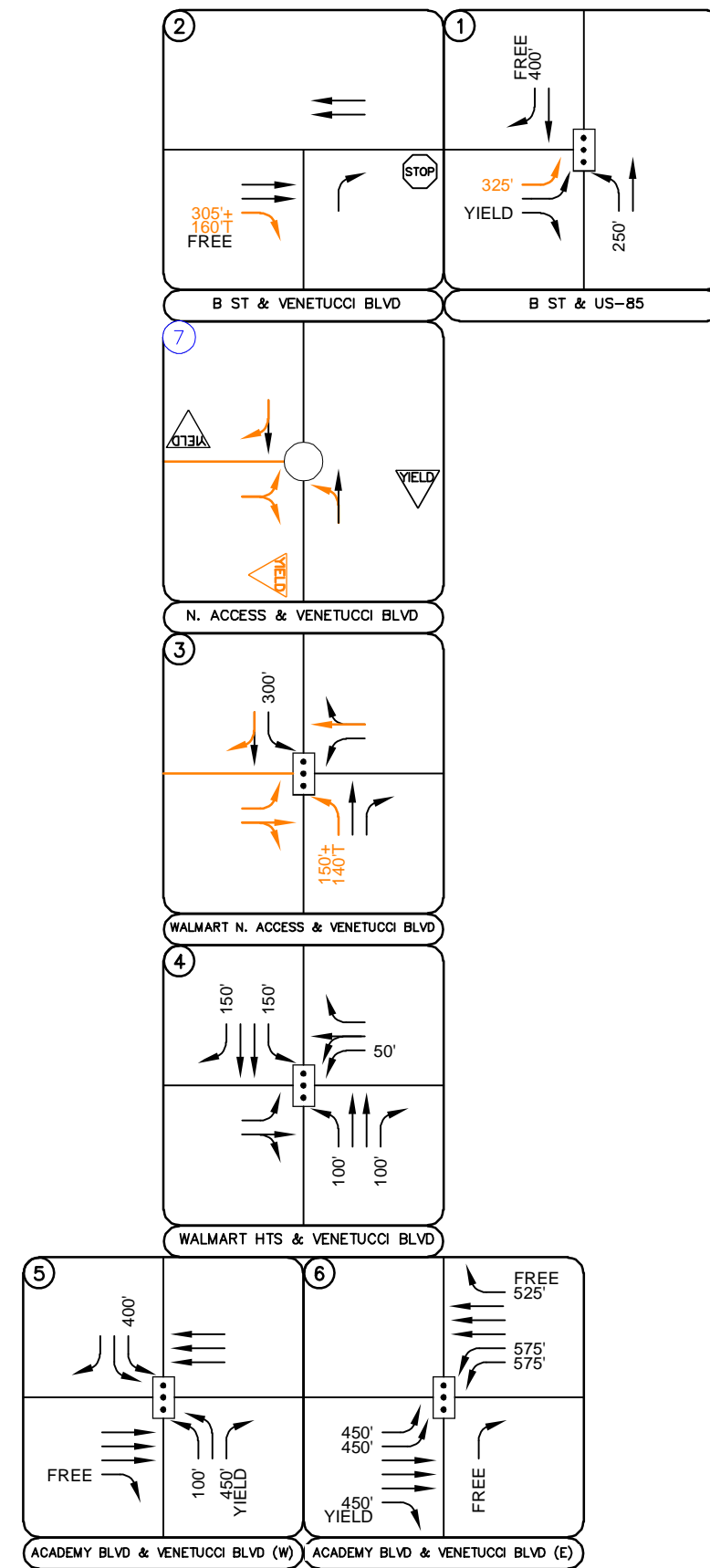
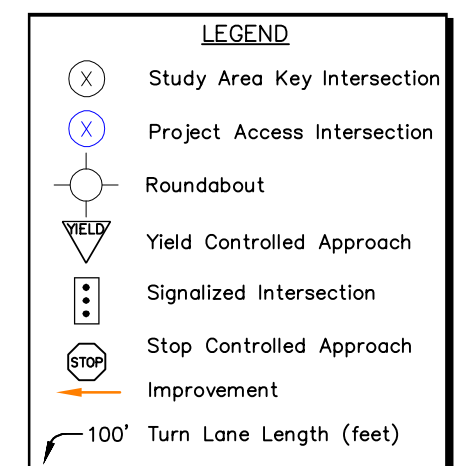
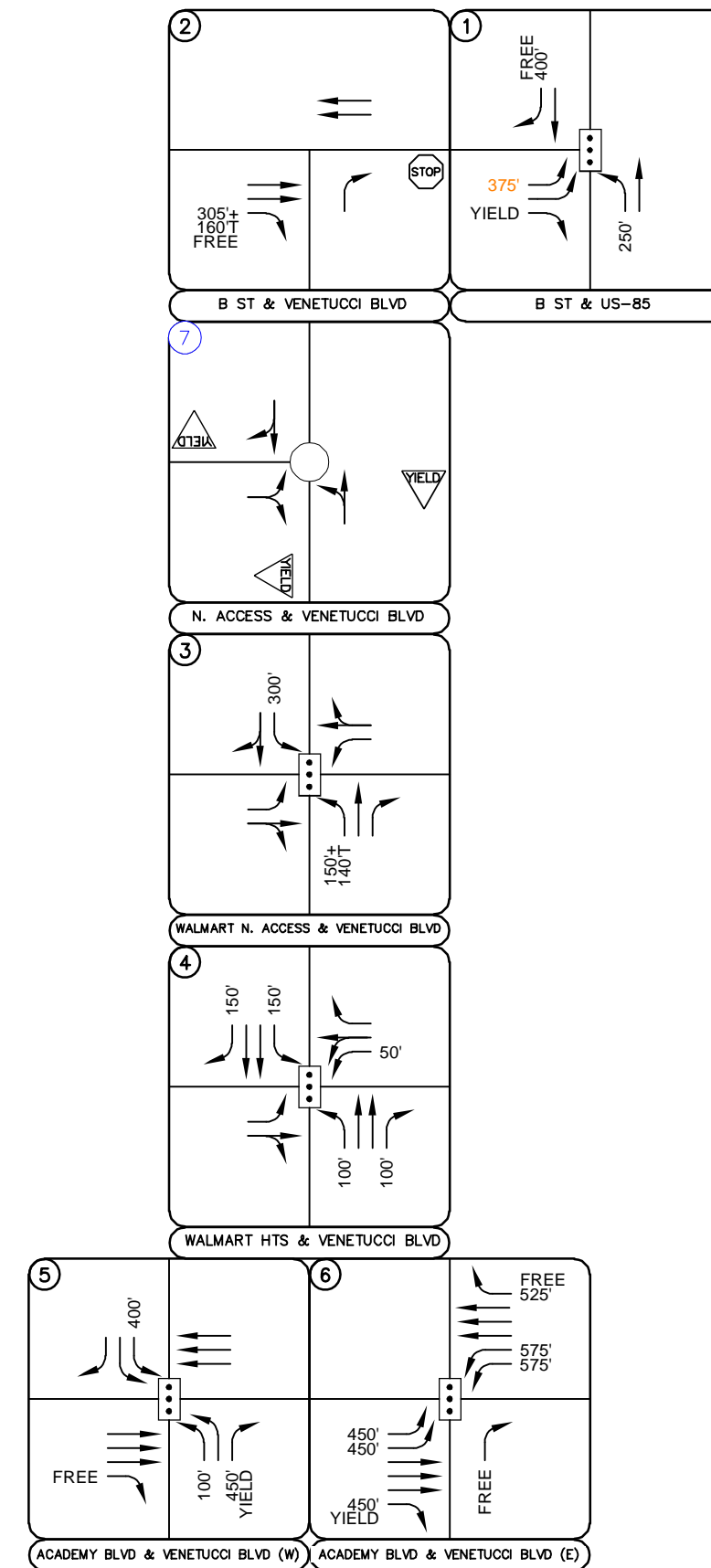




FIGURE 13
VENETUCCI THOMPSON THRIFT
EL PASO COUNTY, COLORADO
2045 RECOMMENDED GEOMETRY AND CONTROL



6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes Venetucci Thompson Thrift will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following conclusions and recommendations:

- The intersection of B Street and US-85 currently operates acceptably with level of service B (LOS B) during the morning peak hour and LOS C during the afternoon peak hour; however, long vehicle queues are currently being experienced within the eastbound left turn lane during the afternoon peak hour. To alleviate these long eastbound left turn vehicle queues, eastbound dual left turn lanes could be considered at this intersection. Therefore, the intersection of B Street and US-85 was evaluated with implementation of eastbound dual left turn lanes under existing signal control in this study. Vehicles queues are expected to be mitigated with eastbound dual left turn lanes at the B Street and US-85 intersection while this intersection is expected to operate with LOS C during the peak hour in 2045 under signal control. It should be noted that project traffic is expected to contribute approximately 3.9 percent of the eastbound left turn movements at this intersection in 2025.
- An eastbound right turn lane is warranted at the B Street and Venetucci Boulevard intersection based on El Paso County standards and existing traffic volumes. To meet El Paso County standards, this right turn lane should provide a length of 305 feet with a 160-foot taper. Of note, this eastbound right turn lane is warranted based on existing traffic volumes while project traffic is expected to contribute to approximately 4.1 percent of the eastbound right turn movements at this intersection in 2025.
- With project construction, a private access west leg will be constructed at the Walmart North Access and Venetucci Boulevard intersection (#3) to provide access to the project. It is recommended that this west leg be designated with a separate left turn lane and a shared through/right turn lane. Additionally, a northbound left turn lane is currently striped out for future use at this proposed project access. This northbound left turn lane should be designated to a maximum possible length of 150 feet plus a 140-foot shared taper.

- With completion of the Venetucci Thompson Thrift project, a second access will be provided by a proposed north full movement access along the west side of Venetucci Boulevard to be incorporated into the existing roundabout (#7). The proposed north access along the west side of Venetucci Boulevard to align with the existing roundabout (#7) is recommended to have one lane and yield control for all three approaches.
- Any onsite or offsite improvements should be incorporated into the Civil Drawings and conform to standards of El Paso County, CDOT, and the Manual on Uniform Traffic Control Devices (MUTCD) – 2009 Edition.



APPENDICES

APPENDIX A

Intersection Count Sheets



Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|-------------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 7:00 AM | 2 | 0 | 4 | 6 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 4 | 0 | 3 | 4 | 11 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 1 | 0 | 4 | 3 | 8 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 5 | 0 | 2 | 7 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 1 | 0 | 3 | 3 | 7 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 1 | 0 | 5 | 4 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 2 | 0 | 4 | 3 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 5 | 0 | 3 | 2 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 21 | 0 | 28 | 32 | 81 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| Peak Hr | 11 | 0 | 12 | 17 | 40 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |

Two-Hour Count Summaries - Heavy Vehicles

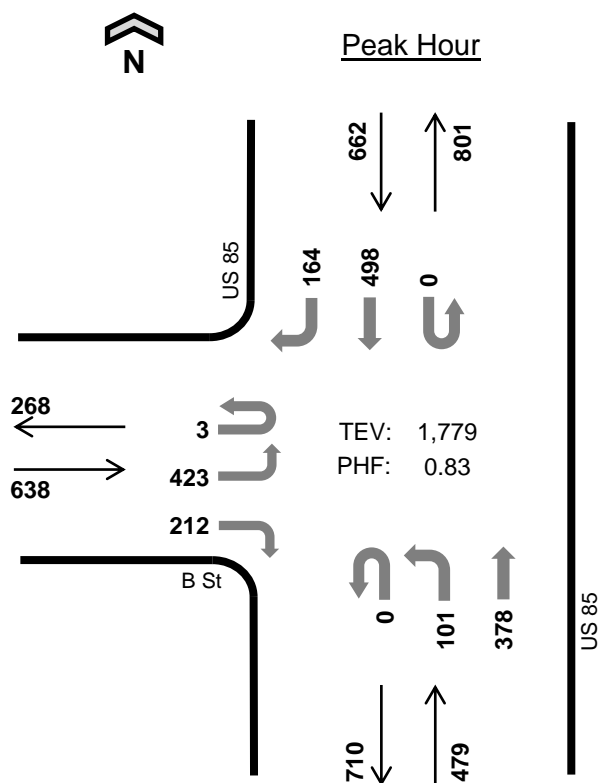
| Interval Start | B St | | | | N/A | | | | US 85 | | | | US 85 | | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|----|-----------|----|----|----|------------|----|----|----|------------|----|----|----|-----------------|---------------------|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 3 | 3 | 12 | 0 |
| 7:15 AM | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 3 | 1 | 11 | 0 |
| 7:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 2 | 8 | 0 |
| 7:45 AM | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 6 | 1 | 14 | 45 |
| 8:00 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 2 | 7 | 40 |
| 8:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 3 | 1 | 10 | 39 |
| 8:30 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 2 | 1 | 9 | 40 |
| 8:45 AM | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 2 | 0 | 10 | 36 |
| Count Total | 0 | 14 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 16 | 12 | 0 | 0 | 0 | 21 | 11 | 81 | 0 |
| Peak Hour | 0 | 8 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 7 | 5 | 0 | 0 | 0 | 11 | 6 | 40 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | B St | | | N/A | | | US 85 | | | US 85 | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|-----------|----|----|------------|----|----|------------|----|----|-----------------|---------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:00 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Count Total | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| Peak Hour | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |

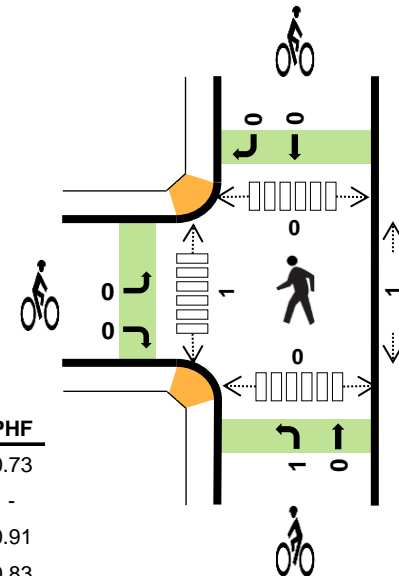
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

US 85 B St



Date: 05/24/2023
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM

| | HV %: | PHF |
|-------|-------|------|
| EB | 1.3% | 0.73 |
| WB | - | - |
| NB | 1.7% | 0.91 |
| SB | 1.4% | 0.83 |
| TOTAL | 1.4% | 0.83 |



Two-Hour Count Summaries

| Interval Start | | B St | | | | N/A | | | | US 85 | | | | US 85 | | | | 15-min Total | Rolling One Hour |
|-------------------|-----|-----------|-----|----|-----|-----------|----|----|----|------------|-----|-----|----|------------|----|-----|-----|-----------------|---------------------|
| | | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | | 0 | 131 | 0 | 89 | 0 | 0 | 0 | 0 | 0 | 28 | 87 | 0 | 0 | 0 | 147 | 52 | 534 | 0 |
| 4:15 PM | | 0 | 97 | 0 | 47 | 0 | 0 | 0 | 0 | 0 | 23 | 85 | 0 | 0 | 0 | 117 | 42 | 411 | 0 |
| 4:30 PM | | 1 | 106 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 27 | 97 | 0 | 0 | 0 | 145 | 34 | 448 | 0 |
| 4:45 PM | | 2 | 89 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 23 | 109 | 0 | 0 | 0 | 89 | 36 | 386 | 1,779 |
| 5:00 PM | | 0 | 83 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 32 | 88 | 0 | 0 | 0 | 131 | 48 | 419 | 1,664 |
| 5:15 PM | | 1 | 70 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 21 | 80 | 0 | 0 | 0 | 123 | 48 | 377 | 1,630 |
| 5:30 PM | | 0 | 70 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 28 | 89 | 0 | 0 | 0 | 116 | 44 | 385 | 1,567 |
| 5:45 PM | | 2 | 55 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 25 | 74 | 0 | 0 | 0 | 72 | 52 | 316 | 1,497 |
| Count Total | | 6 | 701 | 0 | 357 | 0 | 0 | 0 | 0 | 0 | 207 | 709 | 0 | 0 | 0 | 940 | 356 | 3,276 | 0 |
| Peak Hour | All | 3 | 423 | 0 | 212 | 0 | 0 | 0 | 0 | 0 | 101 | 378 | 0 | 0 | 0 | 498 | 164 | 1,779 | 0 |
| | HV | 0 | 6 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 0 | 0 | 0 | 5 | 4 | 25 | 0 |
| | HV% | 0% | 1% | - | 1% | - | - | - | - | - | 2% | 2% | - | - | - | 1% | 2% | 1% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 4:00 PM | 2 | 0 | 4 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 4:15 PM | 3 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 2 | 0 | 2 | 5 | 9 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 4:45 PM | 1 | 0 | 2 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 1 | 0 | 1 | 2 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 2 | 0 | 2 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 1 | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 13 | 0 | 13 | 12 | 38 | 2 | 0 | 1 | 0 | 3 | 1 | 1 | 0 | 0 | 2 |
| Peak Hr | 8 | 0 | 8 | 9 | 25 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 2 |

| Two-Hour Count Summaries - Heavy Vehicles | | | | | | | | | | | | | | | | | | |
|---|-----------|----|----|----|-----------|----|----|----|------------|----|----|----|------------|----|----|----|--------------|------------------|
| Interval Start | B St | | | | N/A | | | | US 85 | | | | US 85 | | | | 15-min Total | Rolling One Hour |
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 1 | 7 | 0 |
| 4:15 PM | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 |
| 4:30 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 2 | 9 | 0 |
| 4:45 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 5 | 25 |
| 5:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 4 | 22 |
| 5:15 PM | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 22 |
| 5:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 16 |
| 5:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 13 |
| Count Total | 0 | 9 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 3 | 10 | 0 | 0 | 0 | 6 | 6 | 38 | 0 |
| Peak Hour | 0 | 6 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 0 | 0 | 0 | 5 | 4 | 25 | 0 |

| Two-Hour Count Summaries - Bikes | | | | | | | | | | | | | | | | | |
|----------------------------------|-----------|----|----|-----------|----|----|------------|----|----|------------|----|----|--------------|------------------|---|---|--|
| Interval Start | B St | | | N/A | | | US 85 | | | US 85 | | | 15-min Total | Rolling One Hour | | | |
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | | | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| 5:00 PM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | |
| 5:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | |
| Count Total | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Venetucci Blvd B St

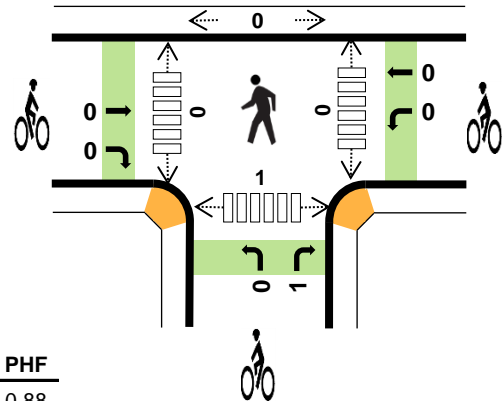
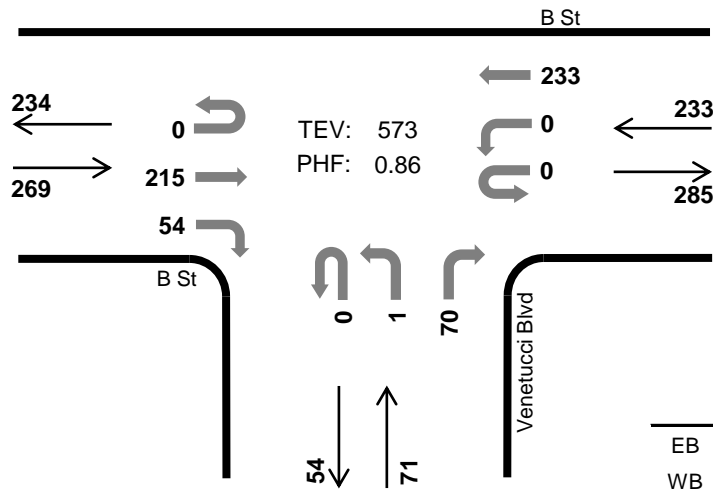


Peak Hour

Date: 05/24/2023

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 8:00 AM to 9:00 AM



| | HV %: | PHF |
|-------|-------|------|
| EB | 3.3% | 0.88 |
| WB | 4.3% | 0.86 |
| NB | 1.4% | 0.74 |
| SB | - | - |
| TOTAL | 3.5% | 0.86 |

Two-Hour Count Summaries

| Interval Start | | B St | | | | B St | | | | Venetucci Blvd | | | | n/a | | | | 15-min Total | Rolling One Hour |
|----------------|-----|-----------|----|-----|----|-----------|----|-----|----|----------------|----|----|-----|------------|----|----|----|--------------|------------------|
| | | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | | 0 | 0 | 60 | 4 | 0 | 0 | 41 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 118 | 0 |
| 7:15 AM | | 0 | 0 | 58 | 6 | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 132 | 0 |
| 7:30 AM | | 0 | 0 | 76 | 10 | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 152 | 0 |
| 7:45 AM | | 0 | 0 | 65 | 10 | 0 | 1 | 49 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 143 | 545 |
| 8:00 AM | | 0 | 0 | 50 | 16 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 139 | 566 |
| 8:15 AM | | 0 | 0 | 56 | 8 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 127 | 561 |
| 8:30 AM | | 0 | 0 | 50 | 13 | 0 | 0 | 68 | 0 | 0 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 141 | 550 |
| 8:45 AM | | 0 | 0 | 59 | 17 | 0 | 0 | 67 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 166 | 573 |
| Count Total | | 0 | 0 | 474 | 84 | 0 | 1 | 435 | 0 | 0 | 1 | 0 | 123 | 0 | 0 | 0 | 0 | 1,118 | 0 |
| Peak Hour | All | 0 | 0 | 215 | 54 | 0 | 0 | 233 | 0 | 0 | 1 | 0 | 70 | 0 | 0 | 0 | 0 | 573 | 0 |
| | HV | 0 | 0 | 9 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 20 | 0 |
| | HV% | - | - | 4% | 0% | - | - | 4% | - | - | 0% | - | 1% | - | - | - | - | 3% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 7:00 AM | 2 | 5 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 1 | 4 | 2 | 0 | 7 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 2 | 5 | 0 | 0 | 7 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 4 | 3 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 1 | 2 | 1 | 0 | 4 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 4 | 4 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 8:45 AM | 3 | 2 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 18 | 27 | 3 | 0 | 48 | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 1 | 1 |
| Peak Hr | 9 | 10 | 1 | 0 | 20 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |

Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | B St | | | | B St | | | | Venetucci Blvd | | | | n/a | | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|----|-----------|----|----|----|----------------|----|----|----|------------|----|----|----|-----------------|---------------------|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| 7:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 7 | 0 |
| 7:30 AM | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| 7:45 AM | 0 | 0 | 4 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 28 |
| 8:00 AM | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 25 |
| 8:15 AM | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 21 |
| 8:30 AM | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 22 |
| 8:45 AM | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 20 |
| Count Total | 0 | 0 | 18 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 48 | 0 |
| Peak Hour | 0 | 0 | 9 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 20 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | B St | | | B St | | | Venetucci Blvd | | | n/a | | | 15-min Total | Rolling One Hour |
|----------------|-----------|----|----|-----------|----|----|----------------|----|----|------------|----|----|--------------|------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Count Total | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Venetucci Blvd B St

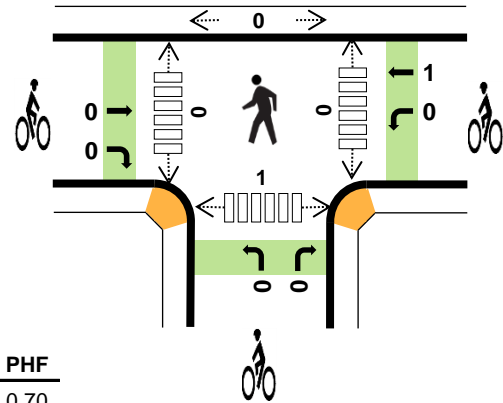
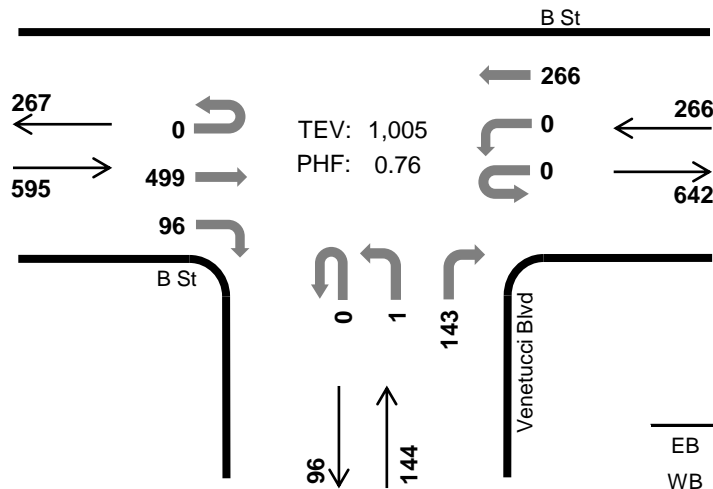


Peak Hour

Date: 05/24/2023

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



| | HV %: | PHF |
|-------|-------|------|
| EB | 1.0% | 0.70 |
| WB | 2.3% | 0.83 |
| NB | 1.4% | 0.84 |
| SB | - | - |
| TOTAL | 1.4% | 0.76 |

Two-Hour Count Summaries

| Interval Start | | B St | | | | B St | | | | Venetucci Blvd | | | | n/a | | | | 15-min Total | Rolling One Hour |
|----------------|-----|-----------|----|-----|-----|-----------|----|-----|----|----------------|----|----|-----|------------|----|----|----|--------------|------------------|
| | | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | | 0 | 0 | 188 | 25 | 0 | 0 | 80 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 0 | 330 | 0 |
| 4:15 PM | | 0 | 0 | 120 | 24 | 0 | 0 | 67 | 0 | 0 | 1 | 0 | 31 | 0 | 0 | 0 | 0 | 243 | 0 |
| 4:30 PM | | 0 | 0 | 110 | 22 | 0 | 0 | 62 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 226 | 0 |
| 4:45 PM | | 0 | 0 | 81 | 25 | 0 | 0 | 57 | 0 | 0 | 0 | 0 | 43 | 0 | 0 | 0 | 0 | 206 | 1,005 |
| 5:00 PM | | 0 | 0 | 86 | 15 | 0 | 0 | 86 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 219 | 894 |
| 5:15 PM | | 0 | 0 | 74 | 22 | 0 | 0 | 64 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 195 | 846 |
| 5:30 PM | | 0 | 0 | 82 | 24 | 0 | 0 | 75 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 209 | 829 |
| 5:45 PM | | 0 | 0 | 51 | 22 | 0 | 0 | 77 | 0 | 0 | 2 | 0 | 33 | 0 | 0 | 0 | 0 | 185 | 808 |
| Count Total | | 0 | 0 | 792 | 179 | 0 | 0 | 568 | 0 | 0 | 3 | 0 | 271 | 0 | 0 | 0 | 0 | 1,813 | 0 |
| Peak Hour | All | 0 | 0 | 499 | 96 | 0 | 0 | 266 | 0 | 0 | 1 | 0 | 143 | 0 | 0 | 0 | 0 | 1,005 | 0 |
| | HV | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 14 | 0 |
| | HV% | - | - | 1% | 0% | - | - | 2% | - | - | 0% | - | 1% | - | - | - | - | 1% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 4:00 PM | 3 | 2 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4:15 PM | 2 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 1 | 2 | 2 | 0 | 5 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 2 | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| 5:15 PM | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 2 | 1 | 1 | 0 | 4 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Count Total | 11 | 9 | 3 | 0 | 23 | 2 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 3 | 3 |
| Peak Hr | 6 | 6 | 2 | 0 | 14 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |

Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | B St | | | | B St | | | | Venetucci Blvd | | | | n/a | | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|----|-----------|----|----|----|----------------|----|----|----|------------|----|----|----|-----------------|---------------------|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| 4:15 PM | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 4:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 5 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 14 |
| 5:00 PM | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 12 |
| 5:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 10 |
| 5:30 PM | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 9 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 |
| Count Total | 0 | 0 | 10 | 1 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 23 | 0 |
| Peak Hour | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 14 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | B St | | | B St | | | Venetucci Blvd | | | n/a | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|-----------|----|----|----------------|----|----|------------|----|----|-----------------|---------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:00 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| 5:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Count Total | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Venetucci Blvd Walmart Retail Center North Access

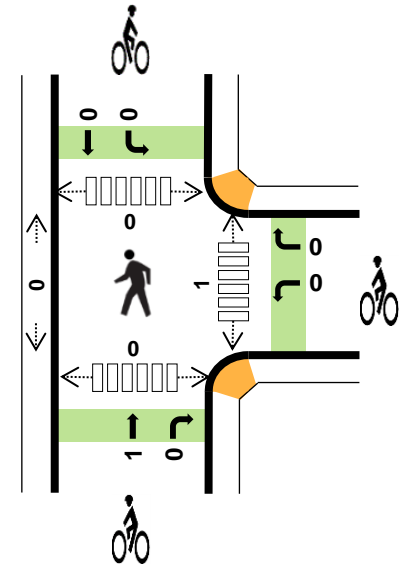
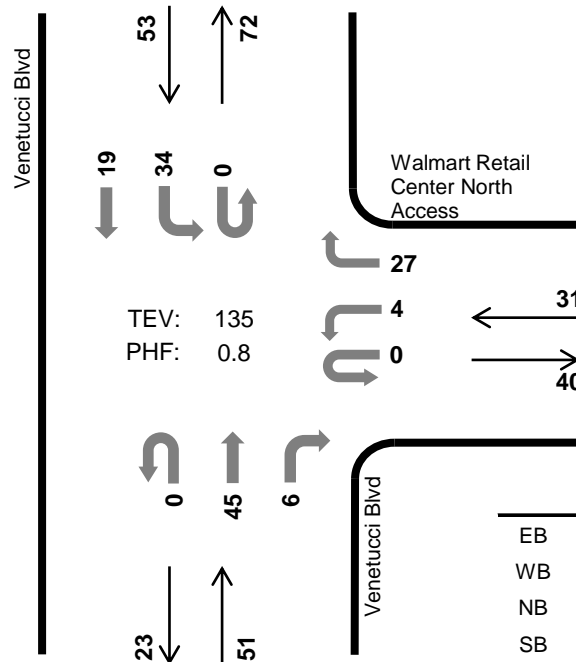


Peak Hour

Date: 05/24/2023

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 8:00 AM to 9:00 AM



Two-Hour Count Summaries

| Interval Start | | N/A | | | | Walmart Retail Center North Access | | | | Venetucci Blvd | | | | Venetucci Blvd | | | | 15-min Total | Rolling One Hour |
|----------------|-----|-----------|----|----|----|------------------------------------|-----|----|----|----------------|----|----|----|----------------|----|----|----|--------------|------------------|
| | | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 11 | 2 | 0 | 2 | 4 | 0 | 24 | 0 |
| 7:15 AM | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 9 | 1 | 0 | 1 | 3 | 0 | 16 | 0 |
| 7:30 AM | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 11 | 0 | 0 | 8 | 4 | 0 | 25 | 0 |
| 7:45 AM | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 12 | 4 | 0 | 7 | 6 | 0 | 33 | 98 |
| 8:00 AM | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 10 | 0 | 0 | 13 | 1 | 0 | 5 | 7 | 0 | 37 | 111 |
| 8:15 AM | | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 12 | 1 | 0 | 5 | 3 | 0 | 28 | 123 |
| 8:30 AM | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 5 | 1 | 0 | 13 | 3 | 0 | 28 | 126 |
| 8:45 AM | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 15 | 3 | 0 | 11 | 6 | 0 | 42 | 135 |
| Count Total | | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 38 | 0 | 0 | 88 | 13 | 0 | 52 | 36 | 0 | 233 | 0 |
| Peak Hour | All | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 27 | 0 | 0 | 45 | 6 | 0 | 34 | 19 | 0 | 135 | 0 |
| | HV | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | HV% | - | - | - | - | - | 25% | - | 4% | - | - | 0% | 0% | - | 0% | 0% | - | 1% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Count Total | 0 | 3 | 2 | 0 | 5 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| Peak Hr | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |

Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | N/A | | | | Walmart Retail Center North Access | | | | Venetucci Blvd | | | | Venetucci Blvd | | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|----|------------------------------------|----|----|----|----------------|----|----|----|----------------|----|----|----|-----------------|---------------------|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | N/A | | | Walmart Retail Center North Access | | | Venetucci Blvd | | | Venetucci Blvd | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|------------------------------------|----|----|----------------|----|----|----------------|----|----|-----------------|---------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Venetucci Blvd Walmart Retail Center North Access

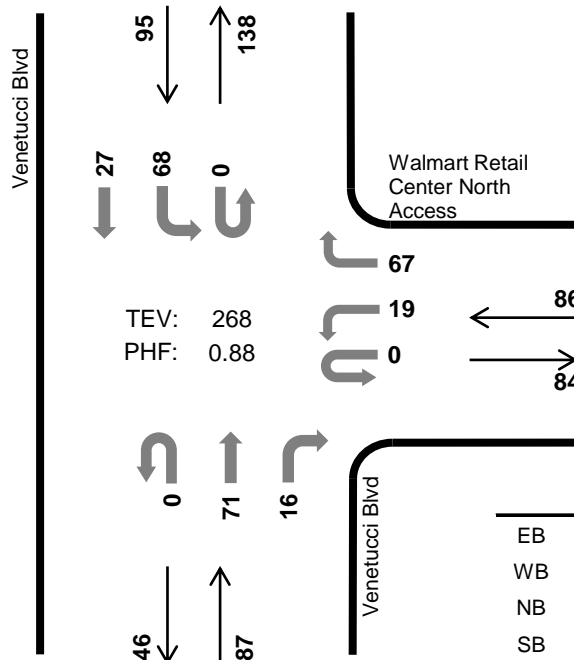


Peak Hour

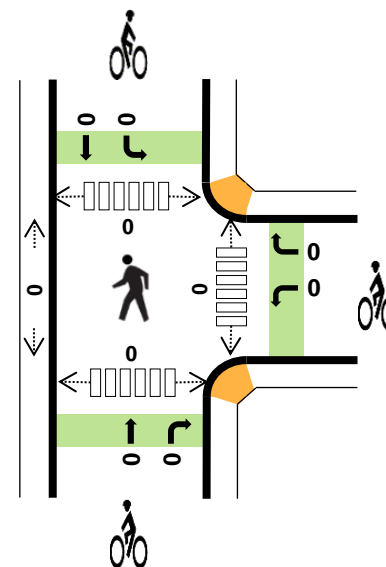
Date: 05/24/2023

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



| | HV %: | PHF |
|-------|-------|------|
| EB | - | - |
| WB | 1.2% | 0.86 |
| NB | 2.3% | 0.87 |
| SB | 0.0% | 0.91 |
| TOTAL | 1.1% | 0.88 |



Two-Hour Count Summaries

| Interval Start | | N/A | | | | Walmart Retail Center North Access | | | | Venetucci Blvd | | | | Venetucci Blvd | | | | 15-min Total | Rolling One Hour |
|-------------------|-----|-----------|----|----|----|------------------------------------|----|----|-----|----------------|----|-----|----|----------------|-----|----|----|-----------------|---------------------|
| | | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 20 | 0 | 0 | 17 | 8 | 0 | 18 | 8 | 0 | 76 | 0 |
| 4:15 PM | | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 17 | 0 | 0 | 14 | 4 | 0 | 19 | 5 | 0 | 64 | 0 |
| 4:30 PM | | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 11 | 0 | 0 | 20 | 1 | 0 | 15 | 7 | 0 | 60 | 0 |
| 4:45 PM | | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 19 | 0 | 0 | 20 | 3 | 0 | 16 | 7 | 0 | 68 | 268 |
| 5:00 PM | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 20 | 3 | 0 | 12 | 4 | 0 | 54 | 246 |
| 5:15 PM | | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 14 | 0 | 0 | 21 | 5 | 0 | 10 | 10 | 0 | 62 | 244 |
| 5:30 PM | | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 12 | 0 | 0 | 17 | 4 | 0 | 21 | 8 | 0 | 68 | 252 |
| 5:45 PM | | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 17 | 0 | 0 | 18 | 4 | 0 | 13 | 4 | 0 | 63 | 247 |
| Count Total | | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 125 | 0 | 0 | 147 | 32 | 0 | 124 | 53 | 0 | 515 | 0 |
| Peak Hour | All | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 67 | 0 | 0 | 71 | 16 | 0 | 68 | 27 | 0 | 268 | 0 |
| | HV | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | HV% | - | - | - | - | - | 5% | - | 0% | - | - | 3% | 0% | - | 0% | 0% | - | 1% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 4:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 5:30 PM | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 0 | 2 | 3 | 1 | 6 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| Peak Hr | 0 | 1 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | N/A | | | | Walmart Retail Center North Access | | | | Venetucci Blvd | | | | Venetucci Blvd | | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|----|------------------------------------|----|----|----|----------------|----|----|----|----------------|----|----|----|-----------------|---------------------|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 4 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 6 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | N/A | | | Walmart Retail Center North Access | | | Venetucci Blvd | | | Venetucci Blvd | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|------------------------------------|----|----|----------------|----|----|----------------|----|----|-----------------|---------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

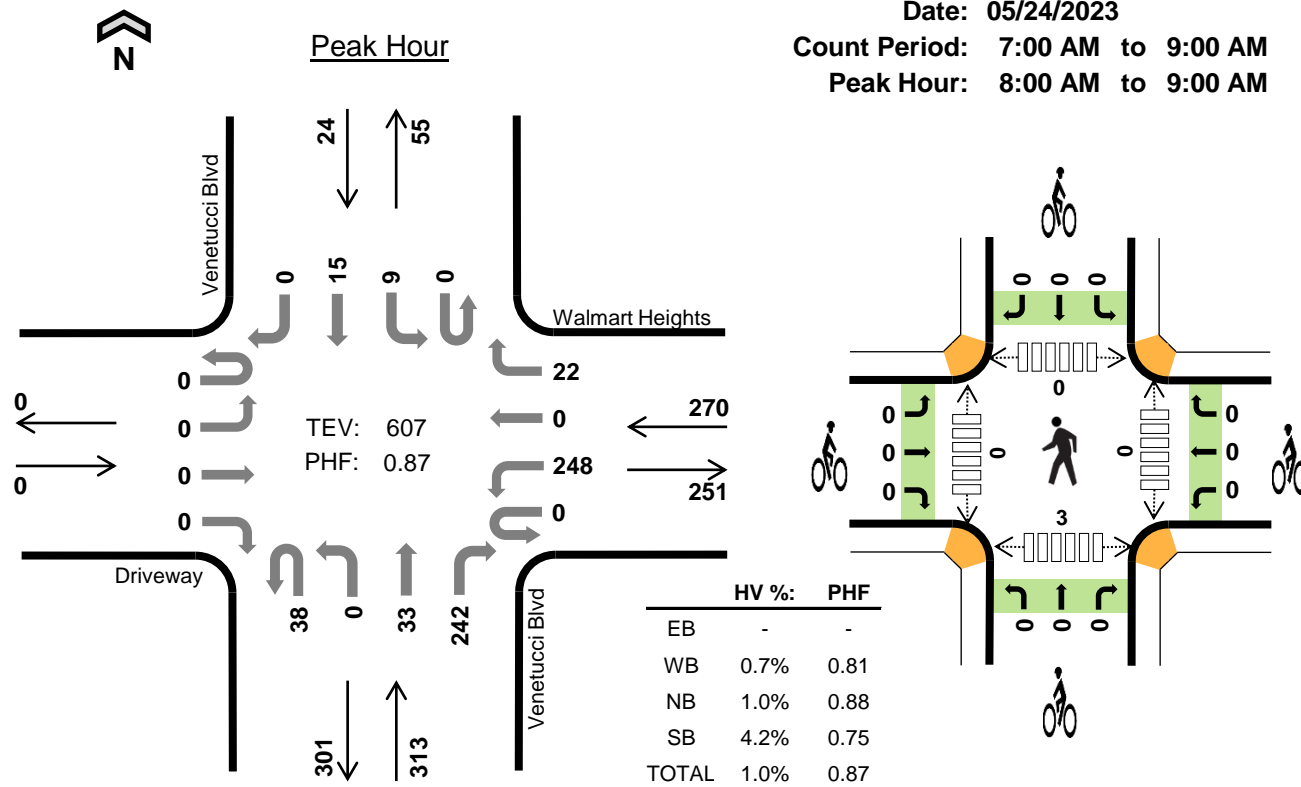
Venetucci Blvd Walmart Heights



Date: 05/24/2023

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 8:00 AM to 9:00 AM



Two-Hour Count Summaries

| Interval Start | | Driveway | | | | Walmart Heights | | | | Venetucci Blvd | | | | Venetucci Blvd | | | | 15-min Total | Rolling One Hour |
|----------------|-----|-----------|----|----|----|-----------------|-----|----|----|----------------|----|----|-----|----------------|----|----|----|--------------|------------------|
| | | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | | 0 | 0 | 0 | 0 | 0 | 25 | 0 | 5 | 6 | 0 | 5 | 31 | 0 | 2 | 2 | 0 | 76 | 0 |
| 7:15 AM | | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 10 | 6 | 0 | 3 | 41 | 0 | 0 | 4 | 0 | 94 | 0 |
| 7:30 AM | | 0 | 0 | 0 | 1 | 0 | 46 | 0 | 3 | 10 | 0 | 6 | 37 | 0 | 2 | 3 | 0 | 108 | 0 |
| 7:45 AM | | 0 | 0 | 0 | 0 | 0 | 38 | 0 | 7 | 11 | 0 | 9 | 60 | 0 | 2 | 3 | 0 | 130 | 408 |
| 8:00 AM | | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 7 | 5 | 0 | 9 | 55 | 0 | 4 | 4 | 0 | 138 | 470 |
| 8:15 AM | | 0 | 0 | 0 | 0 | 0 | 54 | 0 | 5 | 9 | 0 | 8 | 54 | 0 | 1 | 5 | 0 | 136 | 512 |
| 8:30 AM | | 0 | 0 | 0 | 0 | 0 | 65 | 0 | 2 | 13 | 0 | 5 | 71 | 0 | 0 | 3 | 0 | 159 | 563 |
| 8:45 AM | | 0 | 0 | 0 | 0 | 0 | 75 | 0 | 8 | 11 | 0 | 11 | 62 | 0 | 4 | 3 | 0 | 174 | 607 |
| Count Total | | 0 | 0 | 0 | 1 | 0 | 387 | 0 | 47 | 71 | 0 | 56 | 411 | 0 | 15 | 27 | 0 | 1,015 | 0 |
| Peak Hour | All | 0 | 0 | 0 | 0 | 0 | 248 | 0 | 22 | 38 | 0 | 33 | 242 | 0 | 9 | 15 | 0 | 607 | 0 |
| | HV | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 6 | 0 |
| | HV% | - | - | - | - | - | 1% | - | 0% | 0% | - | 3% | 1% | - | 0% | 7% | - | 1% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 7:00 AM | 0 | 2 | 4 | 0 | 6 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 2 | 1 | 1 | 4 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 7:45 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 4 |
| 8:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 8:15 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 8:45 AM | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 0 | 10 | 8 | 2 | 20 | 0 | 1 | 1 | 0 | 2 | 1 | 2 | 1 | 4 | 8 |
| Peak Hour | 0 | 2 | 3 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |

Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | Driveway | | | | Walmart Heights | | | | Venetucci Blvd | | | | Venetucci Blvd | | | | 15-min Total | Rolling One Hour | |
|-------------------|-----------|----|----|----|-----------------|----|----|----|----------------|----|----|----|----------------|----|----|----|-----------------|---------------------|----|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 6 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 14 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 9 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 7 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 5 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 6 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 1 | 0 | 0 | 0 | 1 | 7 | 0 | 0 | 2 | 0 | 20 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 6 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | Driveway | | | Walmart Heights | | | Venetucci Blvd | | | Venetucci Blvd | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|-----------------|----|----|----------------|----|----|----------------|----|----|-----------------|---------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

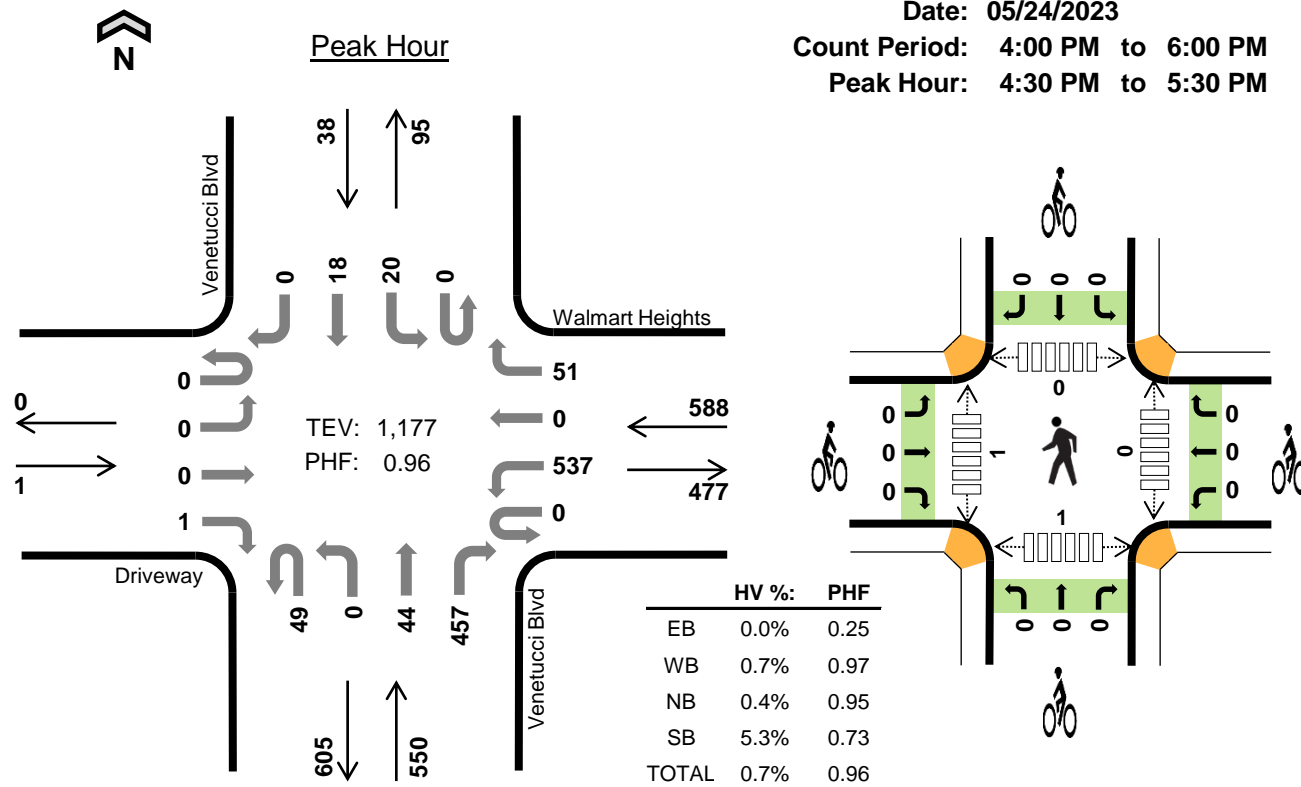
Venetucci Blvd Walmart Heights



Date: 05/24/2023

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:30 PM to 5:30 PM



Two-Hour Count Summaries

| Interval Start | | Driveway | | | | Walmart Heights | | | | Venetucci Blvd | | | | Venetucci Blvd | | | | 15-min Total | Rolling One Hour |
|-------------------|-----|-----------|----|----|----|-----------------|-------|----|----|----------------|----|----|-----|----------------|----|-----|----|-----------------|---------------------|
| | | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | | 0 | 0 | 0 | 0 | 0 | 113 | 0 | 9 | 7 | 0 | 15 | 104 | 0 | 6 | 6 | 0 | 260 | 0 |
| 4:15 PM | | 0 | 0 | 0 | 0 | 0 | 129 | 0 | 6 | 9 | 0 | 12 | 122 | 0 | 6 | 7 | 0 | 291 | 0 |
| 4:30 PM | | 0 | 0 | 0 | 0 | 0 | 137 | 0 | 14 | 6 | 0 | 9 | 119 | 0 | 3 | 7 | 0 | 295 | 0 |
| 4:45 PM | | 0 | 0 | 0 | 0 | 0 | 130 | 0 | 12 | 18 | 0 | 12 | 115 | 0 | 6 | 4 | 0 | 297 | 1,143 |
| 5:00 PM | | 0 | 0 | 0 | 0 | 0 | 139 | 0 | 9 | 15 | 0 | 11 | 100 | 0 | 3 | 2 | 0 | 279 | 1,162 |
| 5:15 PM | | 0 | 0 | 0 | 1 | 0 | 131 | 0 | 16 | 10 | 0 | 12 | 123 | 0 | 8 | 5 | 0 | 306 | 1,177 |
| 5:30 PM | | 0 | 0 | 0 | 0 | 0 | 124 | 0 | 9 | 12 | 0 | 9 | 117 | 0 | 5 | 7 | 0 | 283 | 1,165 |
| 5:45 PM | | 0 | 0 | 0 | 0 | 0 | 122 | 0 | 12 | 13 | 0 | 11 | 94 | 0 | 4 | 9 | 0 | 265 | 1,133 |
| Count Total | | 0 | 0 | 0 | 1 | 0 | 1,025 | 0 | 87 | 90 | 0 | 91 | 894 | 0 | 41 | 47 | 0 | 2,276 | 0 |
| Peak Hour | All | 0 | 0 | 0 | 1 | 0 | 537 | 0 | 51 | 49 | 0 | 44 | 457 | 0 | 20 | 18 | 0 | 1,177 | 0 |
| | HV | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 8 | 0 |
| | HV% | - | - | - | 0% | - | 1% | - | 2% | 0% | - | 2% | 0% | - | 0% | 11% | - | 1% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 4:00 PM | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4:30 PM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 5:00 PM | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 5:15 PM | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 0 | 6 | 5 | 3 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 |
| Peak Hour | 0 | 4 | 2 | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |

Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | Driveway | | | | Walmart Heights | | | | Venetucci Blvd | | | | Venetucci Blvd | | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|----|-----------------|----|----|----|----------------|----|----|----|----------------|----|----|----|-----------------|---------------------|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 7 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 8 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 7 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 2 | 0 | 0 | 1 | 4 | 0 | 0 | 3 | 0 | 14 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 8 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | Driveway | | | Walmart Heights | | | Venetucci Blvd | | | Venetucci Blvd | | | 15-min Total | Rolling One Hour |
|-------------------|-----------|----|----|-----------------|----|----|----------------|----|----|----------------|----|----|-----------------|---------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

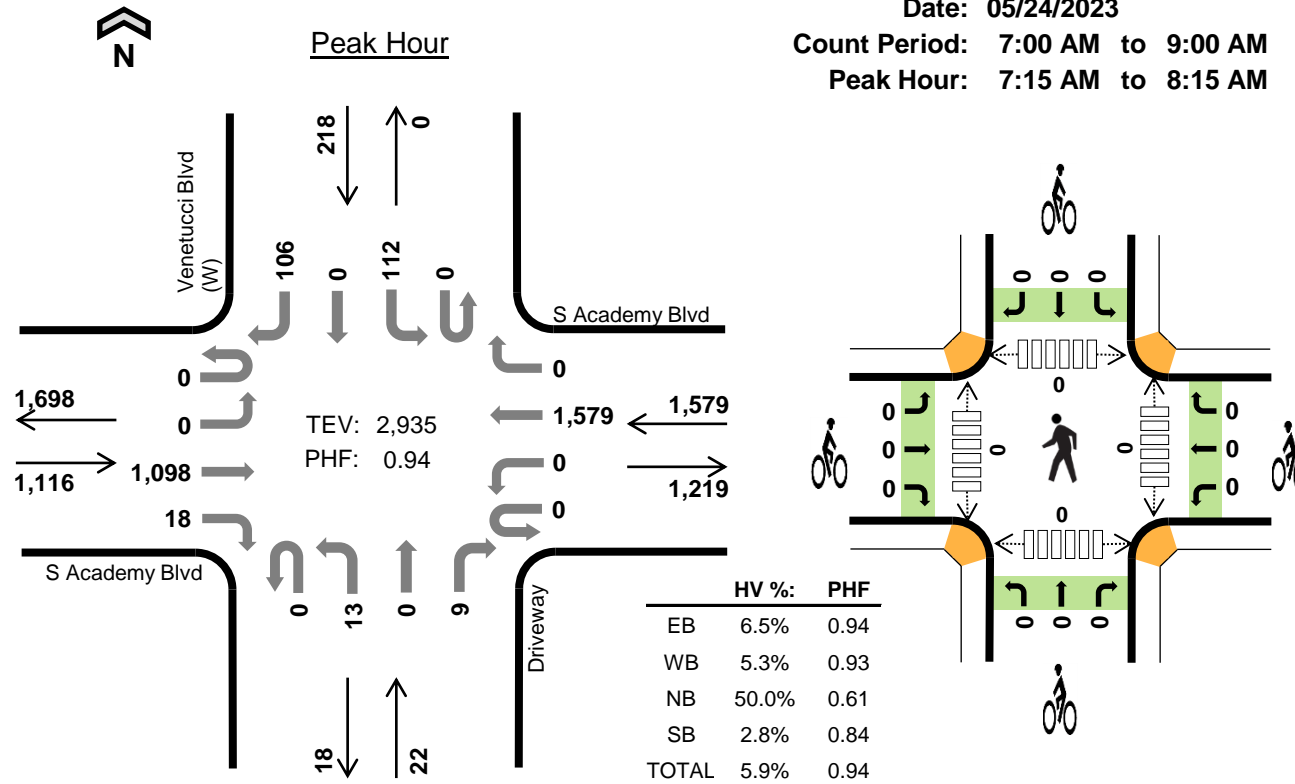
Venetucci Blvd (W) S Academy Blvd



Date: 05/24/2023

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:15 AM to 8:15 AM



Two-Hour Count Summaries

| Interval Start | | S Academy Blvd | | | | S Academy Blvd | | | | Driveway | | | | Venetucci Blvd (W) | | | | 15-min Total | Rolling One Hour |
|----------------|-----|----------------|----|-------|----|----------------|----|-------|----|------------|-----|----|-----|--------------------|-----|----|-----|--------------|------------------|
| | | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | | 0 | 0 | 236 | 2 | 0 | 0 | 396 | 0 | 0 | 2 | 0 | 0 | 0 | 18 | 0 | 14 | 668 | 0 |
| 7:15 AM | | 0 | 0 | 286 | 2 | 0 | 0 | 424 | 0 | 0 | 2 | 0 | 3 | 0 | 22 | 0 | 20 | 759 | 0 |
| 7:30 AM | | 0 | 0 | 291 | 5 | 0 | 0 | 419 | 0 | 0 | 2 | 0 | 2 | 0 | 25 | 0 | 35 | 779 | 0 |
| 7:45 AM | | 0 | 0 | 272 | 6 | 0 | 0 | 377 | 0 | 0 | 3 | 0 | 1 | 0 | 31 | 0 | 20 | 710 | 2,916 |
| 8:00 AM | | 0 | 0 | 249 | 5 | 0 | 0 | 359 | 0 | 0 | 6 | 0 | 3 | 0 | 34 | 0 | 31 | 687 | 2,935 |
| 8:15 AM | | 0 | 0 | 218 | 2 | 0 | 0 | 349 | 0 | 0 | 6 | 0 | 3 | 0 | 35 | 0 | 34 | 647 | 2,823 |
| 8:30 AM | | 0 | 0 | 217 | 5 | 0 | 0 | 411 | 0 | 0 | 3 | 0 | 3 | 0 | 47 | 0 | 37 | 723 | 2,767 |
| 8:45 AM | | 0 | 0 | 200 | 0 | 0 | 0 | 488 | 0 | 0 | 2 | 0 | 2 | 0 | 49 | 0 | 36 | 777 | 2,834 |
| Count Total | | 0 | 0 | 1,969 | 27 | 0 | 0 | 3,223 | 0 | 0 | 26 | 0 | 17 | 0 | 261 | 0 | 227 | 5,750 | 0 |
| Peak Hour | All | 0 | 0 | 1,098 | 18 | 0 | 0 | 1,579 | 0 | 0 | 13 | 0 | 9 | 0 | 112 | 0 | 106 | 2,935 | 0 |
| | HV | 0 | 0 | 73 | 0 | 0 | 0 | 84 | 0 | 0 | 6 | 0 | 5 | 0 | 4 | 0 | 2 | 174 | 0 |
| | HV% | - | - | 7% | 0% | - | - | 5% | - | - | 46% | - | 56% | - | 4% | - | 2% | 6% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|-----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 7:00 AM | 10 | 17 | 1 | 2 | 30 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 17 | 18 | 4 | 2 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 9 | 23 | 2 | 3 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 21 | 14 | 2 | 0 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 26 | 29 | 3 | 1 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 21 | 33 | 2 | 1 | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 20 | 28 | 2 | 1 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 8:45 AM | 12 | 17 | 3 | 1 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 136 | 179 | 19 | 11 | 345 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 |
| Peak Hour | 73 | 84 | 11 | 6 | 174 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | S Academy Blvd | | | | S Academy Blvd | | | | Driveway | | | | Venetucci Blvd (W) | | | | 15-min Total | Rolling One Hour |
|-------------------|----------------|----|-----|----|----------------|----|-----|----|------------|----|----|----|--------------------|----|----|----|-----------------|---------------------|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 10 | 0 | 0 | 0 | 17 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 30 | 0 |
| 7:15 AM | 0 | 0 | 17 | 0 | 0 | 0 | 18 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 41 | 0 |
| 7:30 AM | 0 | 0 | 9 | 0 | 0 | 0 | 23 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 37 | 0 |
| 7:45 AM | 0 | 0 | 21 | 0 | 0 | 0 | 14 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 145 |
| 8:00 AM | 0 | 0 | 26 | 0 | 0 | 0 | 29 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 59 | 174 |
| 8:15 AM | 0 | 0 | 21 | 0 | 0 | 0 | 33 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 57 | 190 |
| 8:30 AM | 0 | 0 | 19 | 1 | 0 | 0 | 28 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 51 | 204 |
| 8:45 AM | 0 | 0 | 12 | 0 | 0 | 0 | 17 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 33 | 200 |
| Count Total | 0 | 0 | 135 | 1 | 0 | 0 | 179 | 0 | 0 | 10 | 0 | 9 | 0 | 8 | 0 | 3 | 345 | 0 |
| Peak Hour | 0 | 0 | 73 | 0 | 0 | 0 | 84 | 0 | 0 | 6 | 0 | 5 | 0 | 4 | 0 | 2 | 174 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | S Academy Blvd | | | S Academy Blvd | | | Driveway | | | Venetucci Blvd (W) | | | 15-min Total | Rolling One Hour |
|-------------------|----------------|----|----|----------------|----|----|------------|----|----|--------------------|----|----|-----------------|---------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

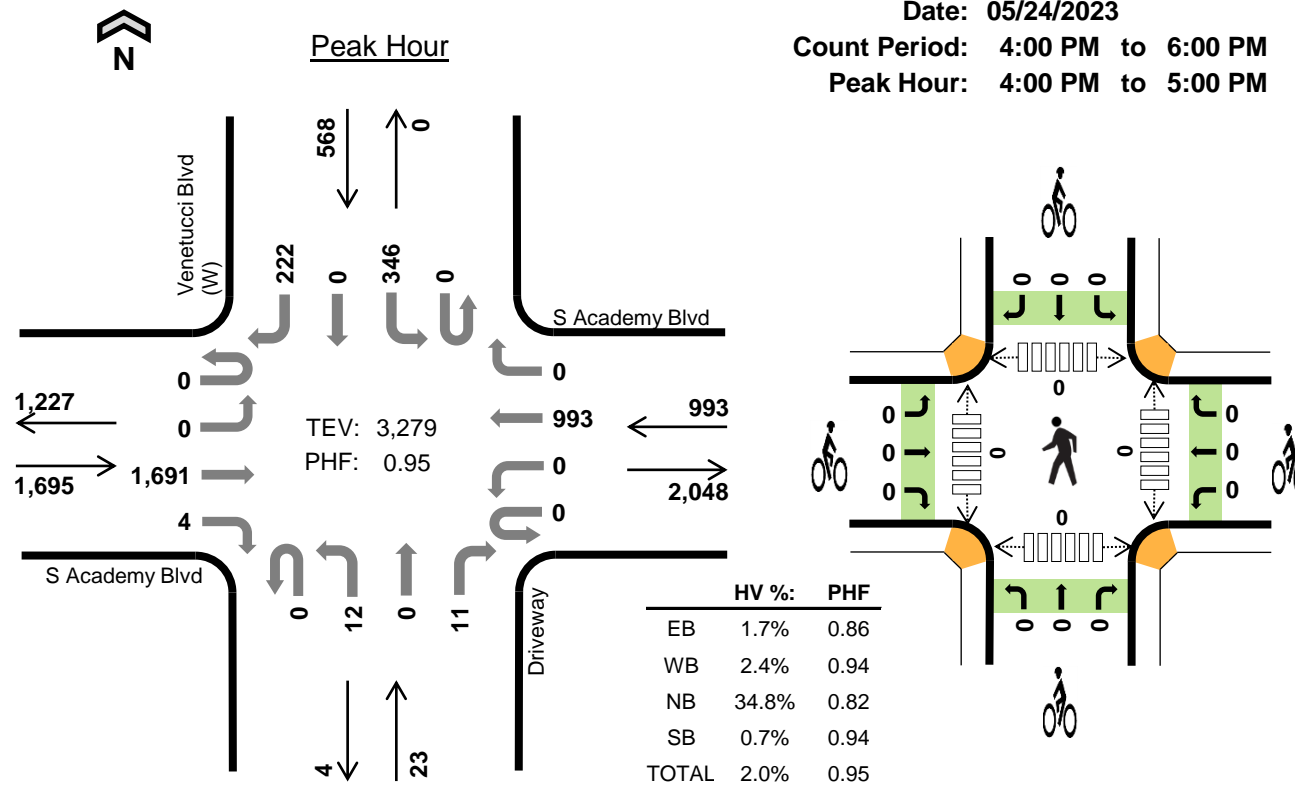
Venetucci Blvd (W) S Academy Blvd



Date: 05/24/2023

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



Two-Hour Count Summaries

| Interval Start | | S Academy Blvd | | | | S Academy Blvd | | | | Driveway | | | | Venetucci Blvd (W) | | | | 15-min Total | Rolling One Hour |
|----------------|-----|----------------|----|-------|----|----------------|----|-------|----|------------|-----|----|-----|--------------------|-----|----|-----|--------------|------------------|
| | | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | | 0 | 0 | 492 | 0 | 0 | 0 | 227 | 0 | 0 | 3 | 0 | 3 | 0 | 84 | 0 | 42 | 851 | 0 |
| 4:15 PM | | 0 | 0 | 385 | 2 | 0 | 0 | 246 | 0 | 0 | 4 | 0 | 3 | 0 | 79 | 0 | 68 | 787 | 0 |
| 4:30 PM | | 0 | 0 | 447 | 1 | 0 | 0 | 265 | 0 | 0 | 3 | 0 | 2 | 0 | 93 | 0 | 51 | 862 | 0 |
| 4:45 PM | | 0 | 0 | 367 | 1 | 0 | 0 | 255 | 0 | 0 | 2 | 0 | 3 | 0 | 90 | 0 | 61 | 779 | 3,279 |
| 5:00 PM | | 0 | 0 | 362 | 2 | 0 | 0 | 218 | 0 | 0 | 17 | 0 | 4 | 0 | 98 | 0 | 58 | 759 | 3,187 |
| 5:15 PM | | 0 | 0 | 335 | 0 | 0 | 0 | 231 | 0 | 0 | 2 | 0 | 4 | 0 | 93 | 0 | 56 | 721 | 3,121 |
| 5:30 PM | | 0 | 0 | 321 | 1 | 0 | 0 | 208 | 0 | 0 | 2 | 0 | 0 | 0 | 88 | 0 | 52 | 672 | 2,931 |
| 5:45 PM | | 0 | 0 | 251 | 2 | 0 | 0 | 229 | 0 | 0 | 3 | 0 | 2 | 0 | 97 | 0 | 54 | 638 | 2,790 |
| Count Total | | 0 | 0 | 2,960 | 9 | 0 | 0 | 1,879 | 0 | 0 | 36 | 0 | 21 | 0 | 722 | 0 | 442 | 6,069 | 0 |
| Peak Hour | All | 0 | 0 | 1,691 | 4 | 0 | 0 | 993 | 0 | 0 | 12 | 0 | 11 | 0 | 346 | 0 | 222 | 3,279 | 0 |
| | HV | 0 | 0 | 29 | 0 | 0 | 0 | 24 | 0 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 0 | 65 | 0 |
| | HV% | - | - | 2% | 0% | - | - | 2% | - | - | 33% | - | 36% | - | 1% | - | 0% | 2% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 4:00 PM | 6 | 3 | 2 | 1 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 6 | 7 | 3 | 1 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 8 | 7 | 2 | 2 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 9 | 7 | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 6 | 3 | 2 | 2 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 5 | 2 | 4 | 1 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 6 | 1 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 7 | 2 | 3 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 53 | 32 | 18 | 7 | 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peak Hour | 29 | 24 | 8 | 4 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | S Academy Blvd | | | | S Academy Blvd | | | | Driveway | | | | Venetucci Blvd (W) | | | | 15-min Total | Rolling One Hour |
|-------------------|----------------|----|----|----|----------------|----|----|----|------------|----|----|----|--------------------|----|----|----|-----------------|---------------------|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 6 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 12 | 0 |
| 4:15 PM | 0 | 0 | 6 | 0 | 0 | 0 | 7 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 17 | 0 |
| 4:30 PM | 0 | 0 | 8 | 0 | 0 | 0 | 7 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 19 | 0 |
| 4:45 PM | 0 | 0 | 9 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 17 | 65 |
| 5:00 PM | 0 | 0 | 6 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 13 | 66 |
| 5:15 PM | 0 | 0 | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 12 | 61 |
| 5:30 PM | 0 | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 50 |
| 5:45 PM | 0 | 0 | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 12 | 45 |
| Count Total | 0 | 0 | 53 | 0 | 0 | 0 | 32 | 0 | 0 | 9 | 0 | 9 | 0 | 7 | 0 | 0 | 110 | 0 |
| Peak Hour | 0 | 0 | 29 | 0 | 0 | 0 | 24 | 0 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 0 | 65 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | S Academy Blvd | | | S Academy Blvd | | | Driveway | | | Venetucci Blvd (W) | | | 15-min Total | Rolling One Hour |
|-------------------|----------------|----|----|----------------|----|----|------------|----|----|--------------------|----|----|-----------------|---------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

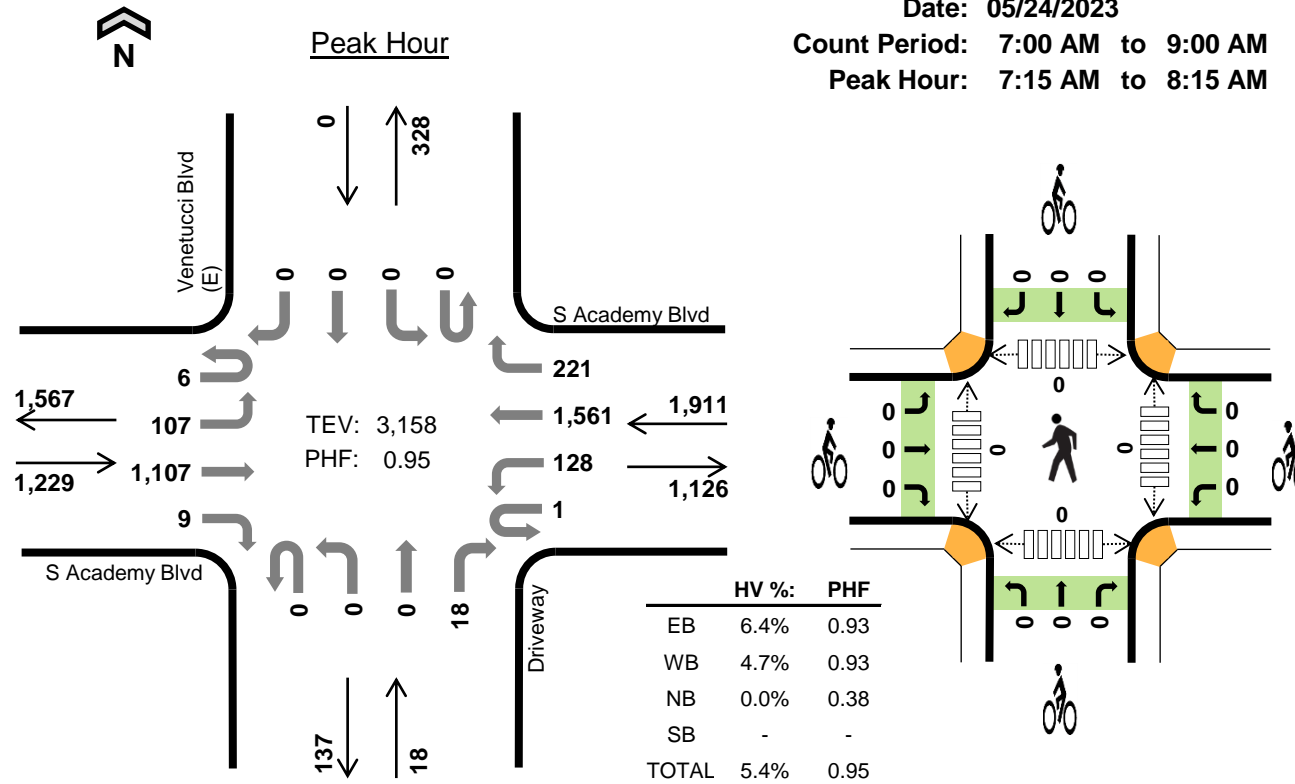
Venetucci Blvd (E) S Academy Blvd



Date: 05/24/2023

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:15 AM to 8:15 AM



Two-Hour Count Summaries

| Interval Start | | S Academy Blvd | | | | S Academy Blvd | | | | Driveway | | | | Venetucci Blvd (E) | | | | 15-min Total | Rolling One Hour |
|-------------------|-----|----------------|-----|-------|-----|----------------|-----|-------|-----|------------|----|----|----|--------------------|----|----|----|-----------------|---------------------|
| | | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | | 0 | 14 | 223 | 1 | 0 | 12 | 399 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 691 | 0 |
| 7:15 AM | | 1 | 17 | 304 | 1 | 0 | 18 | 413 | 45 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 801 | 0 |
| 7:30 AM | | 1 | 25 | 281 | 2 | 0 | 30 | 433 | 53 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 829 | 0 |
| 7:45 AM | | 3 | 41 | 281 | 4 | 0 | 49 | 365 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 801 | 3,122 |
| 8:00 AM | | 1 | 24 | 241 | 2 | 1 | 31 | 350 | 65 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 727 | 3,158 |
| 8:15 AM | | 0 | 37 | 232 | 2 | 1 | 14 | 351 | 51 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 697 | 3,054 |
| 8:30 AM | | 1 | 26 | 238 | 2 | 0 | 11 | 423 | 74 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 781 | 3,006 |
| 8:45 AM | | 0 | 30 | 210 | 1 | 0 | 20 | 479 | 79 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 821 | 3,026 |
| Count Total | | 7 | 214 | 2,010 | 15 | 2 | 185 | 3,213 | 467 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 6,148 | 0 |
| Peak Hour | All | 6 | 107 | 1,107 | 9 | 1 | 128 | 1,561 | 221 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 3,158 | 0 |
| | HV | 0 | 1 | 73 | 5 | 0 | 4 | 83 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 169 | 0 |
| | HV% | 0% | 1% | 7% | 56% | 0% | 3% | 5% | 1% | - | - | - | 0% | - | - | - | - | 5% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|-----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 7:00 AM | 12 | 24 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 21 | 18 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 10 | 26 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 22 | 14 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 26 | 32 | 0 | 0 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 25 | 35 | 0 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 22 | 31 | 0 | 0 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 14 | 18 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 152 | 198 | 0 | 0 | 350 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peak Hour | 79 | 90 | 0 | 0 | 169 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | S Academy Blvd | | | | S Academy Blvd | | | | Driveway | | | | Venetucci Blvd (E) | | | | 15-min Total | Rolling One Hour |
|-------------------|----------------|----|-----|----|----------------|----|-----|----|------------|----|----|----|--------------------|----|----|----|-----------------|---------------------|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 11 | 1 | 0 | 3 | 17 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 |
| 7:15 AM | 0 | 0 | 20 | 1 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 |
| 7:30 AM | 0 | 1 | 8 | 1 | 0 | 2 | 23 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 0 |
| 7:45 AM | 0 | 0 | 21 | 1 | 0 | 1 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 147 |
| 8:00 AM | 0 | 0 | 24 | 2 | 0 | 1 | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 169 |
| 8:15 AM | 0 | 0 | 24 | 1 | 1 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 190 |
| 8:30 AM | 0 | 0 | 21 | 1 | 0 | 2 | 28 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 | 207 |
| 8:45 AM | 0 | 1 | 12 | 1 | 0 | 1 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 203 |
| Count Total | 0 | 2 | 141 | 9 | 1 | 10 | 179 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 350 | 0 |
| Peak Hour | 0 | 1 | 73 | 5 | 0 | 4 | 83 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 169 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | S Academy Blvd | | | S Academy Blvd | | | Driveway | | | Venetucci Blvd (E) | | | 15-min Total | Rolling One Hour |
|-------------------|----------------|----|----|----------------|----|----|------------|----|----|--------------------|----|----|-----------------|---------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

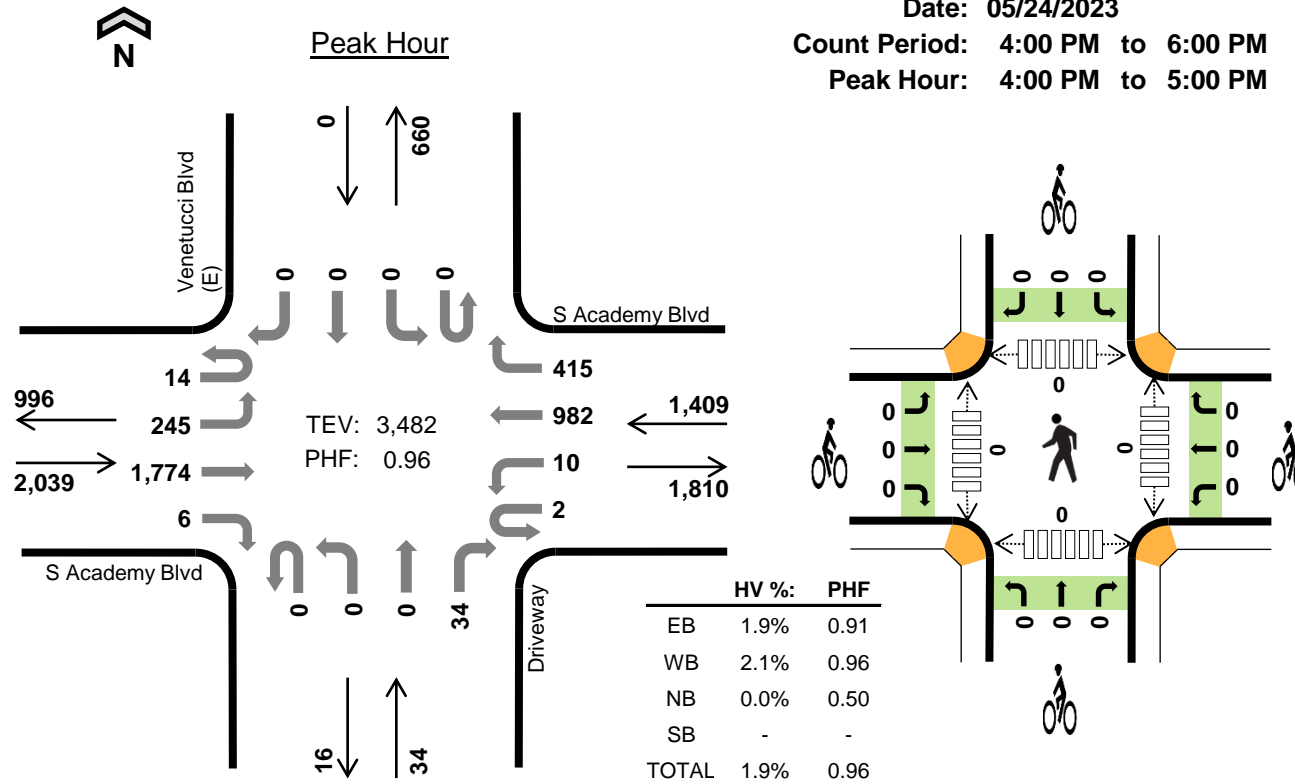
Venetucci Blvd (E) S Academy Blvd



Date: 05/24/2023

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:00 PM to 5:00 PM



Two-Hour Count Summaries

| Interval Start | S Academy Blvd Eastbound | | | | S Academy Blvd Westbound | | | | Driveway Northbound | | | | Venetucci Blvd (E) Southbound | | | | 15-min Total | Rolling One Hour |
|----------------|--------------------------|-----|-------|-------|--------------------------|----|-------|-----|---------------------|----|----|-----|-------------------------------|----|----|----|--------------|------------------|
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 4 | 76 | 479 | 1 | 1 | 4 | 228 | 88 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 898 | 0 |
| 4:15 PM | 3 | 55 | 427 | 2 | 0 | 3 | 240 | 113 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 847 | 0 |
| 4:30 PM | 0 | 67 | 470 | 1 | 0 | 1 | 262 | 101 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 910 | 0 |
| 4:45 PM | 7 | 47 | 398 | 2 | 1 | 2 | 252 | 113 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 827 | 3,482 |
| 5:00 PM | 4 | 52 | 392 | 4 | 0 | 7 | 222 | 93 | 0 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 812 | 3,396 |
| 5:15 PM | 2 | 55 | 375 | 1 | 1 | 1 | 225 | 114 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 786 | 3,335 |
| 5:30 PM | 3 | 53 | 355 | 1 | 1 | 3 | 208 | 108 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 748 | 3,173 |
| 5:45 PM | 3 | 44 | 317 | 1 | 0 | 1 | 217 | 97 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 681 | 3,027 |
| Count Total | 26 | 449 | 3,213 | 13 | 4 | 22 | 1,854 | 827 | 0 | 0 | 0 | 101 | 0 | 0 | 0 | 0 | 6,509 | 0 |
| Peak Hour | All | 14 | 245 | 1,774 | 6 | 2 | 10 | 982 | 415 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 3,482 | 0 |
| | HV | 0 | 1 | 33 | 4 | 0 | 4 | 23 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 0 |
| | HV% | 0% | 0% | 2% | 67% | 0% | 40% | 2% | 0% | - | - | - | 0% | - | - | - | 2% | 0 |

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

| Interval Start | Heavy Vehicle Totals | | | | | Bicycles | | | | | Pedestrians (Crossing Leg) | | | | |
|----------------|----------------------|----|----|----|-------|----------|----|----|----|-------|----------------------------|------|-------|-------|-------|
| | EB | WB | NB | SB | Total | EB | WB | NB | SB | Total | East | West | North | South | Total |
| 4:00 PM | 10 | 5 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 8 | 10 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 9 | 7 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 11 | 7 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 8 | 7 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 8 | 2 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 7 | 2 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 8 | 4 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 69 | 44 | 0 | 0 | 113 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peak Hour | 38 | 29 | 0 | 0 | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Two-Hour Count Summaries - Heavy Vehicles

| Interval Start | S Academy Blvd | | | | S Academy Blvd | | | | Driveway | | | | Venetucci Blvd (E) | | | | 15-min Total | Rolling One Hour |
|-------------------|----------------|----|----|----|----------------|----|----|----|------------|----|----|----|--------------------|----|----|----|-----------------|---------------------|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | | |
| | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | UT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 9 | 1 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 |
| 4:15 PM | 0 | 0 | 7 | 1 | 0 | 2 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 |
| 4:30 PM | 0 | 1 | 8 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 |
| 4:45 PM | 0 | 0 | 9 | 2 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 67 |
| 5:00 PM | 0 | 0 | 6 | 2 | 0 | 2 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 67 |
| 5:15 PM | 0 | 0 | 7 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 59 |
| 5:30 PM | 0 | 0 | 6 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 52 |
| 5:45 PM | 0 | 0 | 7 | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 46 |
| Count Total | 0 | 1 | 59 | 9 | 0 | 8 | 32 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 113 | 0 |
| Peak Hour | 0 | 1 | 33 | 4 | 0 | 4 | 23 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 0 |

Two-Hour Count Summaries - Bikes

| Interval Start | S Academy Blvd | | | S Academy Blvd | | | Driveway | | | Venetucci Blvd (E) | | | 15-min Total | Rolling One Hour |
|-------------------|----------------|----|----|----------------|----|----|------------|----|----|--------------------|----|----|-----------------|---------------------|
| | Eastbound | | | Westbound | | | Northbound | | | Southbound | | | | |
| | LT | TH | RT | LT | TH | RT | LT | TH | RT | LT | TH | RT | | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Count Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Peak Hour | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

APPENDIX B

Future Traffic Projections

MTCP Growth Rate: Venetucci Thompson Thrift MF

| Location | 2015 AADT | 2040 AADT | Growth Factor | Growth Rate |
|---------------------------|-----------|-----------|---------------|-------------|
| Academy Blvd E/O B Street | 44800 | 63900 | 1.43 | 1.43% |



APPENDIX C

Background Study Documents

South Academy Highlands

Traffic Technical Memorandum

Prepared for:
Mr. Jeffrey P. Otto
UTW Academy Development, LLC
c/o SNR Denton US LLP –
One Metropolitan Square
211 North Broadway, Suite 3000
St. Louis. MO 63102-2741

MAY 23, 2022

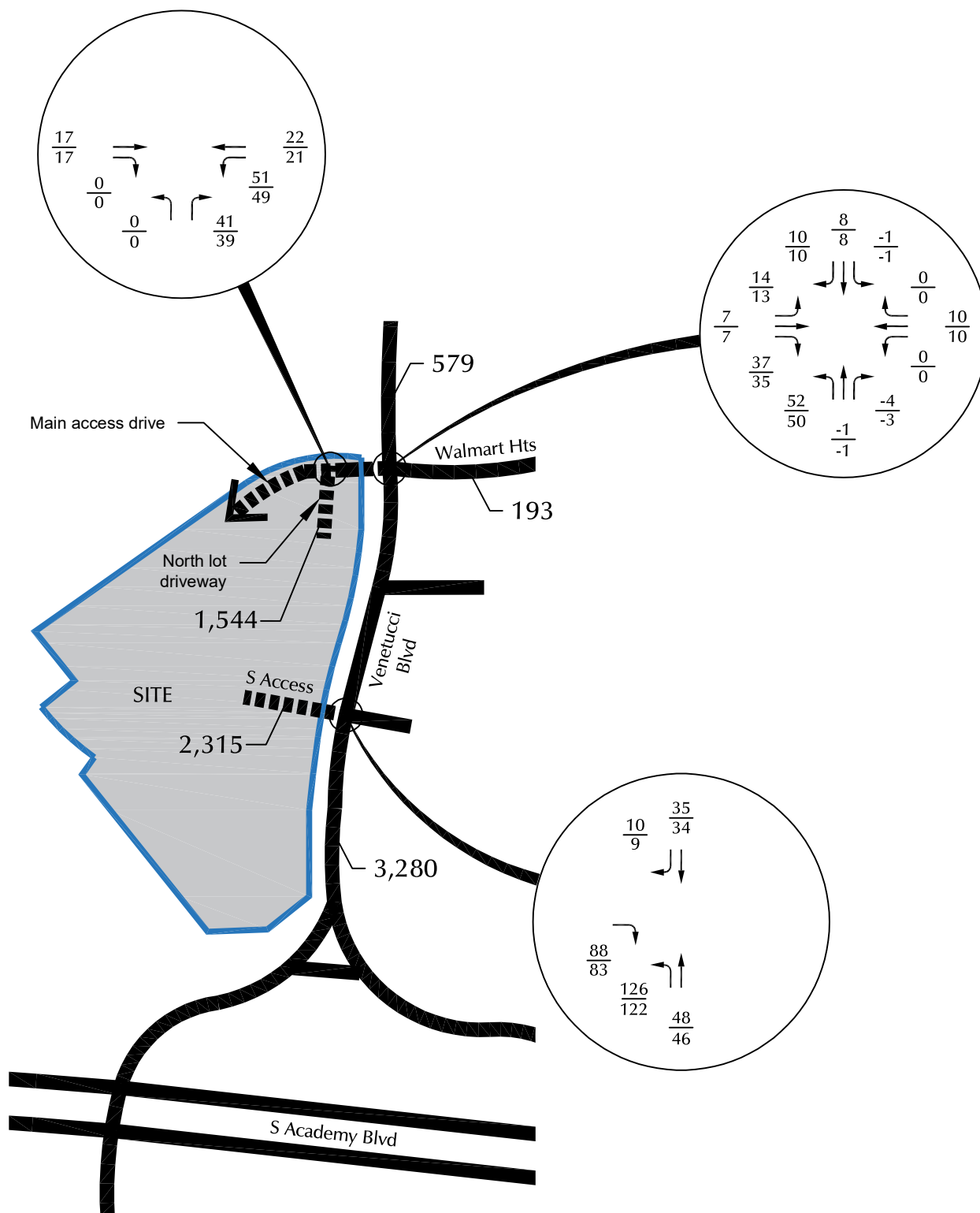
LSC Transportation Consultants
Prepared by: Jeffrey C. Hodsdon, P.E.

LSC #S214990





1" = 250'
scale



$\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (Veh/Hour)
 $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (Veh/Hour)
X,XXX = Average Daily Traffic (Vehicles/Day)

Figure 6
Site-Generated Traffic
South Academy Highlands (LSC# S214990)

APPENDIX D

Trip Generation Worksheets

Project Venetucci Thompson Thrift Multi-Family
 Subject Trip Generation for Multifamily Housing (Low-Rise)
 Designed by TES Date May 31, 2023 Job No. 096302017
 Checked by _____ Date _____ Sheet No. _____ of _____

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Fitted Curve Equations

Land Use Code - Multifamily Housing (Low-Rise) (220)

Independent Variable - Dwelling Units (X)

$$X = 336$$

T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 255)

| | | | |
|------------------------------|---------------------------|---------------------------|-----------|
| (T) = 0.31 (X) + 22.85 | Directional Distribution: | 24% ent. | 76% exit. |
| (T) = 0.31 * (336.0) + 22.85 | T = 128 | Average Vehicle Trip Ends | |
| | 31 entering | 97 exiting | |
| | 31 + 97 = 128 | | |

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 256)

| | | | |
|------------------------------|---------------------------|---------------------------|-----------|
| (T) = 0.43 (X) + 20.55 | Directional Distribution: | 63% ent. | 37% exit. |
| (T) = 0.43 * (336.0) + 20.55 | T = 166 | Average Vehicle Trip Ends | |
| | 105 entering | 61 exiting | |
| | 105 + 61 = 166 | | |

Weekday (200 Series Page 254)

| | | | |
|------------------------------|---------------------------|---------------------------|-----------|
| (T) = 6.41 (X) + 75.31 | Directional Distribution: | 50% ent. | 50% exit. |
| (T) = 6.41 * (336.0) + 75.31 | T = 2230 | Average Vehicle Trip Ends | |
| | 1115 entering | 1115 exiting | |
| | 1115 + 1115 = 2230 | | |















APPENDIX E

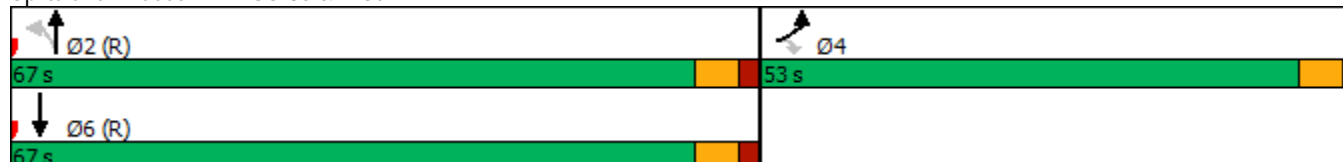
Intersection Analysis Worksheets

Timings
1: US-85 & B St

2023 Existing AM
06/19/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 207 | 105 | 117 | 690 | 221 | 96 |
| Future Volume (vph) | 207 | 105 | 117 | 690 | 221 | 96 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 53.0 | 53.0 | 67.0 | 67.0 | 67.0 | |
| Total Split (%) | 44.2% | 44.2% | 55.8% | 55.8% | 55.8% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 22.2 | 22.2 | 86.8 | 86.8 | 86.8 | 120.0 |
| Actuated g/C Ratio | 0.18 | 0.18 | 0.72 | 0.72 | 0.72 | 1.00 |
| v/c Ratio | 0.74 | 0.31 | 0.17 | 0.59 | 0.19 | 0.07 |
| Control Delay | 59.7 | 8.7 | 6.7 | 11.2 | 6.5 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 59.7 | 8.7 | 6.7 | 11.2 | 6.5 | 0.1 |
| LOS | E | A | A | B | A | A |
| Approach Delay | 42.5 | | | 10.5 | 4.6 | |
| Approach LOS | D | | | B | A | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 60 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.74 | | | | | | |
| Intersection Signal Delay: 16.2 | | | | Intersection LOS: B | | |
| Intersection Capacity Utilization 57.0% | | | | ICU Level of Service B | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2023 Existing AM

1: US-85 & B St

06/19/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 207 | 105 | 117 | 690 | 221 | 96 |
| Future Volume (veh/h) | 207 | 105 | 117 | 690 | 221 | 96 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1870 | 1870 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 238 | 0 | 134 | 793 | 254 | 0 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 4 | 4 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 272 | | 863 | 1409 | 1375 | |
| Arrive On Green | 0.16 | 0.00 | 0.75 | 0.75 | 0.75 | 0.00 |
| Sat Flow, veh/h | 1753 | 1560 | 1126 | 1870 | 1826 | 1547 |
| Grp Volume(v), veh/h | 238 | 0 | 134 | 793 | 254 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1560 | 1126 | 1870 | 1826 | 1547 |
| Q Serve(g_s), s | 15.9 | 0.0 | 4.6 | 21.8 | 4.8 | 0.0 |
| Cycle Q Clear(g_c), s | 15.9 | 0.0 | 9.4 | 21.8 | 4.8 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 272 | | 863 | 1409 | 1375 | |
| V/C Ratio(X) | 0.87 | | 0.16 | 0.56 | 0.18 | |
| Avail Cap(c_a), veh/h | 701 | | 863 | 1409 | 1375 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 49.5 | 0.0 | 5.6 | 6.3 | 4.2 | 0.0 |
| Incr Delay (d2), s/veh | 8.7 | 0.0 | 0.4 | 1.6 | 0.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 12.1 | 0.0 | 2.0 | 12.7 | 3.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 58.2 | 0.0 | 6.0 | 8.0 | 4.5 | 0.0 |
| LnGrp LOS | E | | A | A | A | |
| Approach Vol, veh/h | 238 | | | 927 | 254 | |
| Approach Delay, s/veh | 58.2 | | | 7.7 | 4.5 | |
| Approach LOS | E | | | A | A | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 96.4 | | 23.6 | | 96.4 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 61.0 | | 48.0 | | 61.0 | |
| Max Q Clear Time (g_c+l1), s | 23.8 | | 17.9 | | 6.8 | |
| Green Ext Time (p_c), s | 7.8 | | 0.7 | | 1.7 | |

Intersection Summary













| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 15.6 |
| HCM 6th LOS | B |

Notes

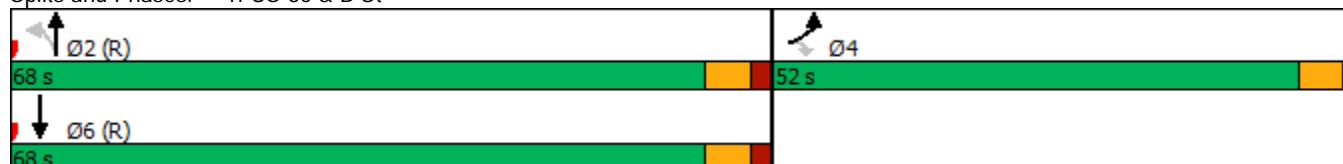
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: US-85 & B St

2023 Existing PM
06/19/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 426 | 212 | 101 | 378 | 498 | 164 |
| Future Volume (vph) | 426 | 212 | 101 | 378 | 498 | 164 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 52.0 | 52.0 | 68.0 | 68.0 | 68.0 | |
| Total Split (%) | 43.3% | 43.3% | 56.7% | 56.7% | 56.7% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 39.9 | 39.9 | 69.1 | 69.1 | 69.1 | 120.0 |
| Actuated g/C Ratio | 0.33 | 0.33 | 0.58 | 0.58 | 0.58 | 1.00 |
| v/c Ratio | 0.87 | 0.37 | 0.36 | 0.42 | 0.56 | 0.13 |
| Control Delay | 53.3 | 5.5 | 19.5 | 17.0 | 19.8 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.3 | 5.5 | 19.5 | 17.0 | 19.8 | 0.2 |
| LOS | D | A | B | B | B | A |
| Approach Delay | 37.4 | | | 17.5 | 14.9 | |
| Approach LOS | D | | | B | B | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 55 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.87 | | | | | | |
| Intersection Signal Delay: 23.7 | | | | Intersection LOS: C | | |
| Intersection Capacity Utilization 69.6% | | | | ICU Level of Service C | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

1: US-85 & B St

2023 Existing PM

06/19/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 426 | 212 | 101 | 378 | 498 | 164 |
| Future Volume (veh/h) | 426 | 212 | 101 | 378 | 498 | 164 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 513 | 0 | 122 | 455 | 600 | 0 |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 549 | | 397 | 1123 | 1123 | |
| Arrive On Green | 0.31 | 0.00 | 0.60 | 0.60 | 0.60 | 0.00 |
| Sat Flow, veh/h | 1781 | 1585 | 819 | 1870 | 1870 | 1585 |
| Grp Volume(v), veh/h | 513 | 0 | 122 | 455 | 600 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 819 | 1870 | 1870 | 1585 |
| Q Serve(g_s), s | 33.6 | 0.0 | 12.4 | 15.4 | 22.7 | 0.0 |
| Cycle Q Clear(g_c), s | 33.6 | 0.0 | 35.0 | 15.4 | 22.7 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 549 | | 397 | 1123 | 1123 | |
| V/C Ratio(X) | 0.93 | | 0.31 | 0.41 | 0.53 | |
| Avail Cap(c_a), veh/h | 698 | | 397 | 1123 | 1123 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 40.3 | 0.0 | 24.4 | 12.7 | 14.1 | 0.0 |
| Incr Delay (d2), s/veh | 17.3 | 0.0 | 2.0 | 1.1 | 1.8 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 24.0 | 0.0 | 4.7 | 10.8 | 14.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 57.7 | 0.0 | 26.4 | 13.8 | 15.9 | 0.0 |
| LnGrp LOS | E | | C | B | B | |
| Approach Vol, veh/h | 513 | | | 577 | 600 | |
| Approach Delay, s/veh | 57.7 | | | 16.4 | 15.9 | |
| Approach LOS | E | | | B | B | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 78.0 | | 42.0 | | 78.0 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 62.0 | | 47.0 | | 62.0 | |
| Max Q Clear Time (g_c+l1), s | 37.0 | | 35.6 | | 24.7 | |
| Green Ext Time (p_c), s | 3.9 | | 1.4 | | 4.6 | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 28.8 |
| HCM 6th LOS | C |













Notes

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

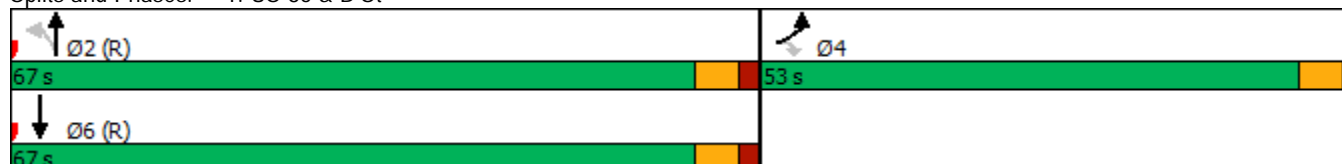
Timings
1: US-85 & B St

2025 Background AM

06/19/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 219 | 115 | 120 | 710 | 227 | 99 |
| Future Volume (vph) | 219 | 115 | 120 | 710 | 227 | 99 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 53.0 | 53.0 | 67.0 | 67.0 | 67.0 | |
| Total Split (%) | 44.2% | 44.2% | 55.8% | 55.8% | 55.8% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 23.2 | 23.2 | 85.8 | 85.8 | 85.8 | 120.0 |
| Actuated g/C Ratio | 0.19 | 0.19 | 0.72 | 0.72 | 0.72 | 1.00 |
| v/c Ratio | 0.75 | 0.33 | 0.17 | 0.61 | 0.20 | 0.07 |
| Control Delay | 59.2 | 8.3 | 7.2 | 12.2 | 6.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 59.2 | 8.3 | 7.2 | 12.2 | 6.9 | 0.1 |
| LOS | E | A | A | B | A | A |
| Approach Delay | 41.7 | | | 11.5 | 4.8 | |
| Approach LOS | D | | | B | A | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 60 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.75 | | | | | | |
| Intersection Signal Delay: 16.8 | | | | Intersection LOS: B | | |
| Intersection Capacity Utilization 58.7% | | | | ICU Level of Service B | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2025 Background AM

06/19/2023

1: US-85 & B St



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 219 | 115 | 120 | 710 | 227 | 99 |
| Future Volume (veh/h) | 219 | 115 | 120 | 710 | 227 | 99 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1870 | 1870 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 252 | 0 | 138 | 816 | 261 | 0 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 4 | 4 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 286 | | 846 | 1393 | 1360 | |
| Arrive On Green | 0.16 | 0.00 | 0.75 | 0.75 | 0.75 | 0.00 |
| Sat Flow, veh/h | 1753 | 1560 | 1118 | 1870 | 1826 | 1547 |
| Grp Volume(v), veh/h | 252 | 0 | 138 | 816 | 261 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1560 | 1118 | 1870 | 1826 | 1547 |
| Q Serve(g_s), s | 16.9 | 0.0 | 5.0 | 23.7 | 5.1 | 0.0 |
| Cycle Q Clear(g_c), s | 16.9 | 0.0 | 10.1 | 23.7 | 5.1 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 286 | | 846 | 1393 | 1360 | |
| V/C Ratio(X) | 0.88 | | 0.16 | 0.59 | 0.19 | |
| Avail Cap(c_a), veh/h | 701 | | 846 | 1393 | 1360 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 49.1 | 0.0 | 6.1 | 6.9 | 4.6 | 0.0 |
| Incr Delay (d2), s/veh | 8.6 | 0.0 | 0.4 | 1.8 | 0.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 12.7 | 0.0 | 2.2 | 13.7 | 3.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 57.7 | 0.0 | 6.5 | 8.7 | 4.9 | 0.0 |
| LnGrp LOS | E | | A | A | A | |
| Approach Vol, veh/h | 252 | | | 954 | 261 | |
| Approach Delay, s/veh | 57.7 | | | 8.4 | 4.9 | |
| Approach LOS | E | | | A | A | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 95.4 | | 24.6 | | 95.4 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 61.0 | | 48.0 | | 61.0 | |
| Max Q Clear Time (g_c+I1), s | 25.7 | | 18.9 | | 7.1 | |
| Green Ext Time (p_c), s | 8.1 | | 0.7 | | 1.7 | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 16.2 |
| HCM 6th LOS | B |













Notes

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

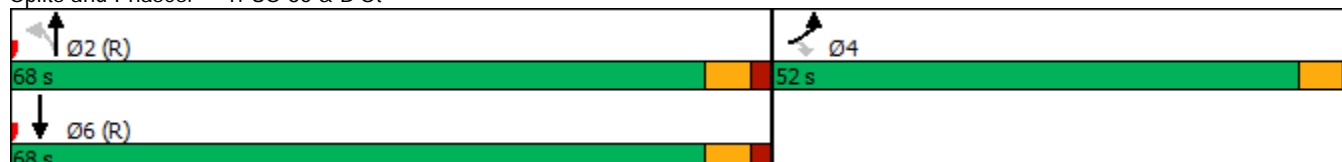
Timings
1: US-85 & B St

2025 Background PM

06/19/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 444 | 224 | 104 | 389 | 512 | 169 |
| Future Volume (vph) | 444 | 224 | 104 | 389 | 512 | 169 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 52.0 | 52.0 | 68.0 | 68.0 | 68.0 | |
| Total Split (%) | 43.3% | 43.3% | 56.7% | 56.7% | 56.7% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 41.0 | 41.0 | 68.0 | 68.0 | 68.0 | 120.0 |
| Actuated g/C Ratio | 0.34 | 0.34 | 0.57 | 0.57 | 0.57 | 1.00 |
| v/c Ratio | 0.89 | 0.39 | 0.40 | 0.44 | 0.58 | 0.13 |
| Control Delay | 54.1 | 6.9 | 21.3 | 17.9 | 20.9 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.1 | 6.9 | 21.3 | 17.9 | 20.9 | 0.2 |
| LOS | D | A | C | B | C | A |
| Approach Delay | 38.3 | | | 18.6 | 15.7 | |
| Approach LOS | D | | | B | B | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 60 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.89 | | | | | | |
| Intersection Signal Delay: 24.7 | | | | Intersection LOS: C | | |
| Intersection Capacity Utilization 71.5% | | | | ICU Level of Service C | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2025 Background PM

1: US-85 & B St

06/19/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 444 | 224 | 104 | 389 | 512 | 169 |
| Future Volume (veh/h) | 444 | 224 | 104 | 389 | 512 | 169 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 535 | 0 | 125 | 469 | 617 | 0 |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 570 | | 371 | 1100 | 1100 | |
| Arrive On Green | 0.32 | 0.00 | 0.59 | 0.59 | 0.59 | 0.00 |
| Sat Flow, veh/h | 1781 | 1585 | 806 | 1870 | 1870 | 1585 |
| Grp Volume(v), veh/h | 535 | 0 | 125 | 469 | 617 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 806 | 1870 | 1870 | 1585 |
| Q Serve(g_s), s | 35.0 | 0.0 | 13.5 | 16.5 | 24.3 | 0.0 |
| Cycle Q Clear(g_c), s | 35.0 | 0.0 | 37.9 | 16.5 | 24.3 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 570 | | 371 | 1100 | 1100 | |
| V/C Ratio(X) | 0.94 | | 0.34 | 0.43 | 0.56 | |
| Avail Cap(c_a), veh/h | 698 | | 371 | 1100 | 1100 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 39.7 | 0.0 | 26.8 | 13.6 | 15.2 | 0.0 |
| Incr Delay (d2), s/veh | 18.4 | 0.0 | 2.4 | 1.2 | 2.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 25.0 | 0.0 | 5.1 | 11.5 | 16.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 58.0 | 0.0 | 29.2 | 14.8 | 17.2 | 0.0 |
| LnGrp LOS | E | | C | B | B | |
| Approach Vol, veh/h | 535 | | | 594 | 617 | |
| Approach Delay, s/veh | 58.0 | | | 17.8 | 17.2 | |
| Approach LOS | E | | | B | B | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 76.6 | | 43.4 | | 76.6 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 62.0 | | 47.0 | | 62.0 | |
| Max Q Clear Time (g_c+I1), s | 39.9 | | 37.0 | | 26.3 | |
| Green Ext Time (p_c), s | 3.9 | | 1.4 | | 4.8 | |

Intersection Summary













| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 29.9 |
| HCM 6th LOS | C |

Notes

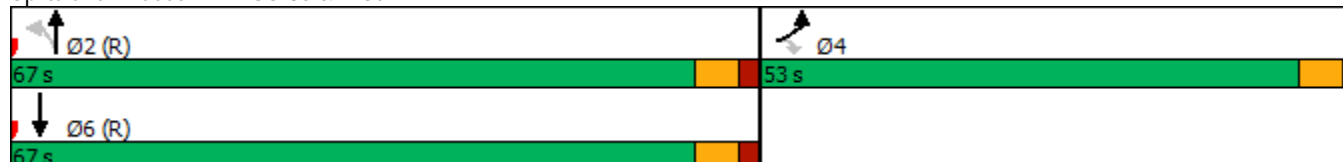
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: US-85 & B St

2025 Total AM
06/19/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 248 | 130 | 120 | 710 | 227 | 99 |
| Future Volume (vph) | 248 | 130 | 120 | 710 | 227 | 99 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 53.0 | 53.0 | 67.0 | 67.0 | 67.0 | |
| Total Split (%) | 44.2% | 44.2% | 55.8% | 55.8% | 55.8% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 25.6 | 25.6 | 83.4 | 83.4 | 83.4 | 120.0 |
| Actuated g/C Ratio | 0.21 | 0.21 | 0.70 | 0.70 | 0.70 | 1.00 |
| v/c Ratio | 0.77 | 0.33 | 0.18 | 0.63 | 0.21 | 0.07 |
| Control Delay | 58.0 | 7.4 | 8.2 | 13.9 | 7.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.0 | 7.4 | 8.2 | 13.9 | 7.9 | 0.1 |
| LOS | E | A | A | B | A | A |
| Approach Delay | 40.7 | | | 13.1 | 5.5 | |
| Approach LOS | D | | | B | A | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 60 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.77 | | | | | | |
| Intersection Signal Delay: 18.3 | | | | Intersection LOS: B | | |
| Intersection Capacity Utilization 60.3% | | | | ICU Level of Service B | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2025 Total AM

1: US-85 & B St

06/19/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 248 | 130 | 120 | 710 | 227 | 99 |
| Future Volume (veh/h) | 248 | 130 | 120 | 710 | 227 | 99 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1870 | 1870 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 285 | 0 | 138 | 816 | 261 | 0 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 4 | 4 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 320 | | 821 | 1358 | 1325 | |
| Arrive On Green | 0.18 | 0.00 | 0.73 | 0.73 | 0.73 | 0.00 |
| Sat Flow, veh/h | 1753 | 1560 | 1118 | 1870 | 1826 | 1547 |
| Grp Volume(v), veh/h | 285 | 0 | 138 | 816 | 261 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1560 | 1118 | 1870 | 1826 | 1547 |
| Q Serve(g_s), s | 19.0 | 0.0 | 5.4 | 25.5 | 5.5 | 0.0 |
| Cycle Q Clear(g_c), s | 19.0 | 0.0 | 10.9 | 25.5 | 5.5 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 320 | | 821 | 1358 | 1325 | |
| V/C Ratio(X) | 0.89 | | 0.17 | 0.60 | 0.20 | |
| Avail Cap(c_a), veh/h | 701 | | 821 | 1358 | 1325 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 47.9 | 0.0 | 7.0 | 8.0 | 5.3 | 0.0 |
| Incr Delay (d2), s/veh | 8.5 | 0.0 | 0.4 | 2.0 | 0.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 14.0 | 0.0 | 2.4 | 14.9 | 3.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 56.4 | 0.0 | 7.4 | 10.0 | 5.6 | 0.0 |
| LnGrp LOS | E | | A | A | A | |
| Approach Vol, veh/h | 285 | | | 954 | 261 | |
| Approach Delay, s/veh | 56.4 | | | 9.6 | 5.6 | |
| Approach LOS | E | | | A | A | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 93.1 | | 26.9 | | 93.1 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 61.0 | | 48.0 | | 61.0 | |
| Max Q Clear Time (g_c+l1), s | 27.5 | | 21.0 | | 7.5 | |
| Green Ext Time (p_c), s | 8.0 | | 0.9 | | 1.7 | |

Intersection Summary













| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 17.8 |
| HCM 6th LOS | B |

Notes

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

Timings
1: US-85 & B St

2025 Total PM
06/19/2023

| |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 462 | 233 | 104 | 389 | 512 | 169 |
| Future Volume (vph) | 462 | 233 | 104 | 389 | 512 | 169 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 52.0 | 52.0 | 68.0 | 68.0 | 68.0 | |
| Total Split (%) | 43.3% | 43.3% | 56.7% | 56.7% | 56.7% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effect Green (s) | 42.3 | 42.3 | 66.7 | 66.7 | 66.7 | 120.0 |
| Actuated g/C Ratio | 0.35 | 0.35 | 0.56 | 0.56 | 0.56 | 1.00 |
| v/c Ratio | 0.89 | 0.40 | 0.42 | 0.45 | 0.60 | 0.13 |
| Control Delay | 54.3 | 7.5 | 22.4 | 18.6 | 21.8 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.3 | 7.5 | 22.4 | 18.6 | 21.8 | 0.2 |
| LOS | D | A | C | B | C | A |
| Approach Delay | 38.6 | | | 19.4 | 16.4 | |
| Approach LOS | D | | | B | B | |

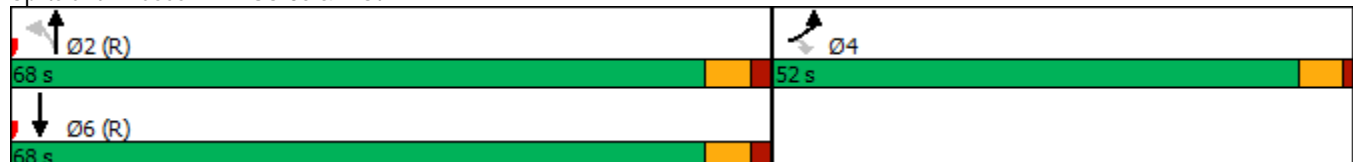
Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 25.4
 Intersection Capacity Utilization 72.5%
 Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service C

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2025 Total PM

1: US-85 & B St

06/19/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 462 | 233 | 104 | 389 | 512 | 169 |
| Future Volume (veh/h) | 462 | 233 | 104 | 389 | 512 | 169 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 557 | 0 | 125 | 469 | 617 | 0 |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 591 | | 357 | 1078 | 1078 | |
| Arrive On Green | 0.33 | 0.00 | 0.58 | 0.58 | 0.58 | 0.00 |
| Sat Flow, veh/h | 1781 | 1585 | 806 | 1870 | 1870 | 1585 |
| Grp Volume(v), veh/h | 557 | 0 | 125 | 469 | 617 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 806 | 1870 | 1870 | 1585 |
| Q Serve(g_s), s | 36.5 | 0.0 | 13.9 | 17.0 | 25.0 | 0.0 |
| Cycle Q Clear(g_c), s | 36.5 | 0.0 | 38.9 | 17.0 | 25.0 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 591 | | 357 | 1078 | 1078 | |
| V/C Ratio(X) | 0.94 | | 0.35 | 0.43 | 0.57 | |
| Avail Cap(c_a), veh/h | 698 | | 357 | 1078 | 1078 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 39.0 | 0.0 | 28.4 | 14.4 | 16.1 | 0.0 |
| Incr Delay (d2), s/veh | 19.5 | 0.0 | 2.7 | 1.3 | 2.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 26.0 | 0.0 | 5.3 | 11.9 | 16.5 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 58.4 | 0.0 | 31.1 | 15.6 | 18.3 | 0.0 |
| LnGrp LOS | E | | C | B | B | |
| Approach Vol, veh/h | 557 | | | 594 | 617 | |
| Approach Delay, s/veh | 58.4 | | | 18.9 | 18.3 | |
| Approach LOS | E | | | B | B | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 75.2 | | 44.8 | | 75.2 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 62.0 | | 47.0 | | 62.0 | |
| Max Q Clear Time (g_c+l1), s | 40.9 | | 38.5 | | 27.0 | |
| Green Ext Time (p_c), s | 3.9 | | 1.3 | | 4.8 | |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 31.1 | | | |
| HCM 6th LOS | | | C | | | |














Notes

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

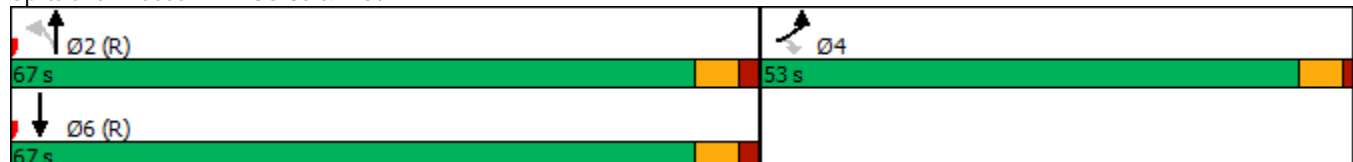
Timings
1: US-85 & B St

2025 Total AM - Dual EBL

06/22/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|--|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |   |  |  |  |  |  |
| Traffic Volume (vph) | 248 | 130 | 120 | 710 | 227 | 99 |
| Future Volume (vph) | 248 | 130 | 120 | 710 | 227 | 99 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 53.0 | 53.0 | 67.0 | 67.0 | 67.0 | |
| Total Split (%) | 44.2% | 44.2% | 55.8% | 55.8% | 55.8% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 15.6 | 15.6 | 93.4 | 93.4 | 93.4 | 120.0 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.78 | 0.78 | 0.78 | 1.00 |
| v/c Ratio | 0.65 | 0.45 | 0.16 | 0.56 | 0.19 | 0.07 |
| Control Delay | 56.5 | 11.6 | 4.2 | 7.5 | 4.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 56.5 | 11.6 | 4.2 | 7.5 | 4.1 | 0.1 |
| LOS | E | B | A | A | A | A |
| Approach Delay | 41.1 | | | 7.0 | 2.9 | |
| Approach LOS | D | | | A | A | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 60 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.65 | | | | | | |
| Intersection Signal Delay: 14.5 | | | | Intersection LOS: B | | |
| Intersection Capacity Utilization 53.6% | | | | ICU Level of Service A | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2025 Total AM - Dual EBL

1: US-85 & B St

06/22/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|-------|------|------|------|-------|------|
| Lane Configurations | ←← | → | ← | ↑ | ↑ | ↖ |
| Traffic Volume (veh/h) | 248 | 130 | 120 | 710 | 227 | 99 |
| Future Volume (veh/h) | 248 | 130 | 120 | 710 | 227 | 99 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1870 | 1870 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 285 | 0 | 138 | 816 | 261 | 0 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 4 | 4 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 364 | | 919 | 1499 | 1463 | |
| Arrive On Green | 0.11 | 0.00 | 0.80 | 0.80 | 0.80 | 0.00 |
| Sat Flow, veh/h | 3401 | 1560 | 1118 | 1870 | 1826 | 1547 |
| Grp Volume(v), veh/h | 285 | 0 | 138 | 816 | 261 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1700 | 1560 | 1118 | 1870 | 1826 | 1547 |
| Q Serve(g_s), s | 9.8 | 0.0 | 3.9 | 18.4 | 4.0 | 0.0 |
| Cycle Q Clear(g_c), s | 9.8 | 0.0 | 7.9 | 18.4 | 4.0 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 364 | | 919 | 1499 | 1463 | |
| V/C Ratio(X) | 0.78 | | 0.15 | 0.54 | 0.18 | |
| Avail Cap(c_a), veh/h | 1360 | | 919 | 1499 | 1463 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 52.2 | 0.0 | 3.7 | 4.2 | 2.8 | 0.0 |
| Incr Delay (d2), s/veh | 3.7 | 0.0 | 0.3 | 1.4 | 0.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 7.8 | 0.0 | 1.5 | 10.0 | 2.2 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 56.0 | 0.0 | 4.0 | 5.6 | 3.0 | 0.0 |
| LnGrp LOS | E | | A | A | A | |
| Approach Vol, veh/h | 285 | | | 954 | 261 | |
| Approach Delay, s/veh | 56.0 | | | 5.4 | 3.0 | |
| Approach LOS | E | | | A | A | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 102.2 | | 17.8 | | 102.2 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 61.0 | | 48.0 | | 61.0 | |
| Max Q Clear Time (g_c+l1), s | 20.4 | | 11.8 | | 6.0 | |
| Green Ext Time (p_c), s | 8.3 | | 1.0 | | 1.7 | |

Intersection Summary

















| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 14.6 |
| HCM 6th LOS | B |

Notes

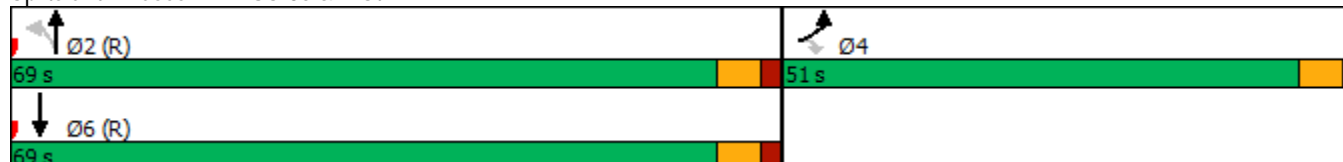
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: US-85 & B St

2025 Total PM - Dual EBL
06/22/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |   |   |   |  |  |   |
| Traffic Volume (vph) | 462 | 233 | 104 | 389 | 512 | 169 |
| Future Volume (vph) | 462 | 233 | 104 | 389 | 512 | 169 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 51.0 | 51.0 | 69.0 | 69.0 | 69.0 | |
| Total Split (%) | 42.5% | 42.5% | 57.5% | 57.5% | 57.5% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 26.0 | 26.0 | 83.0 | 83.0 | 83.0 | 120.0 |
| Actuated g/C Ratio | 0.22 | 0.22 | 0.69 | 0.69 | 0.69 | 1.00 |
| v/c Ratio | 0.75 | 0.53 | 0.27 | 0.36 | 0.48 | 0.13 |
| Control Delay | 50.2 | 11.7 | 9.8 | 9.3 | 10.8 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.2 | 11.7 | 9.8 | 9.3 | 10.8 | 0.2 |
| LOS | D | B | A | A | B | A |
| Approach Delay | 37.3 | | | 9.4 | 8.1 | |
| Approach LOS | D | | | A | A | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 55 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.75 | | | | | | |
| Intersection Signal Delay: 19.3 | | | | Intersection LOS: B | | |
| Intersection Capacity Utilization 60.1% | | | | ICU Level of Service B | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2025 Total PM - Dual EBL

1: US-85 & B St

06/22/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | ←← | → | ← | ↑ | ↑ | ↖ |
| Traffic Volume (veh/h) | 462 | 233 | 104 | 389 | 512 | 169 |
| Future Volume (veh/h) | 462 | 233 | 104 | 389 | 512 | 169 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 557 | 0 | 125 | 469 | 617 | 0 |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 656 | | 527 | 1344 | 1344 | |
| Arrive On Green | 0.19 | 0.00 | 0.72 | 0.72 | 0.72 | 0.00 |
| Sat Flow, veh/h | 3456 | 1585 | 806 | 1870 | 1870 | 1585 |
| Grp Volume(v), veh/h | 557 | 0 | 125 | 469 | 617 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 806 | 1870 | 1870 | 1585 |
| Q Serve(g_s), s | 18.7 | 0.0 | 9.3 | 11.3 | 16.6 | 0.0 |
| Cycle Q Clear(g_c), s | 18.7 | 0.0 | 25.9 | 11.3 | 16.6 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 656 | | 527 | 1344 | 1344 | |
| V/C Ratio(X) | 0.85 | | 0.24 | 0.35 | 0.46 | |
| Avail Cap(c_a), veh/h | 1325 | | 527 | 1344 | 1344 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 47.0 | 0.0 | 12.5 | 6.3 | 7.1 | 0.0 |
| Incr Delay (d2), s/veh | 3.2 | 0.0 | 1.1 | 0.7 | 1.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 13.0 | 0.0 | 3.2 | 7.7 | 10.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 50.1 | 0.0 | 13.6 | 7.1 | 8.2 | 0.0 |
| LnGrp LOS | D | | B | A | A | |
| Approach Vol, veh/h | 557 | | | 594 | 617 | |
| Approach Delay, s/veh | 50.1 | | | 8.4 | 8.2 | |
| Approach LOS | D | | | A | A | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 92.2 | | 27.8 | | 92.2 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 63.0 | | 46.0 | | 63.0 | |
| Max Q Clear Time (g_c+l1), s | 27.9 | | 20.7 | | 18.6 | |
| Green Ext Time (p_c), s | 4.3 | | 2.1 | | 4.9 | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 21.5 |
| HCM 6th LOS | C |

Notes

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













| Intersection | | | | | | |
|-----------------------------|-------|--------|-------|-------|-------|--------|
| Intersection Delay, s/veh | 10.1 | | | | | |
| Intersection LOS | B | | | | | |
| Approach | EB | | NB | | SB | |
| Entry Lanes | 1 | | 2 | | 1 | |
| Conflicting Circle Lanes | 2 | | 2 | | 2 | |
| Adj Approach Flow, veh/h | 434 | | 954 | | 375 | |
| Demand Flow Rate, veh/h | 451 | | 973 | | 394 | |
| Vehicles Circulating, veh/h | 274 | | 296 | | 141 | |
| Vehicles Exiting, veh/h | 141 | | 274 | | 1128 | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | |
| Approach Delay, s/veh | 5.5 | | 14.8 | | 3.4 | |
| Approach LOS | A | | B | | A | |
| Lane | Left | Bypass | Left | Right | Left | Bypass |
| Designated Moves | L | R | L | TR | T | R |
| Assumed Moves | L | R | L | TR | T | R |
| RT Channelized | Yield | | | | Free | |
| Lane Util | 1.000 | | 0.145 | 0.855 | 1.000 | |
| Follow-Up Headway, s | 2.535 | | 2.667 | 2.535 | 2.535 | |
| Critical Headway, s | 4.328 | 155 | 4.645 | 4.328 | 4.328 | 120 |
| Entry Flow, veh/h | 296 | 1043 | 141 | 832 | 274 | 1995 |
| Cap Entry Lane, veh/h | 1125 | 0.962 | 1028 | 1104 | 1260 | 0.952 |
| Entry HV Adj Factor | 0.963 | 149 | 0.979 | 0.980 | 0.952 | 114 |
| Flow Entry, veh/h | 285 | 1003 | 138 | 816 | 261 | 1900 |
| Cap Entry, veh/h | 1083 | 0.149 | 1006 | 1083 | 1200 | 0.060 |
| V/C Ratio | 0.263 | 5.0 | 0.137 | 0.754 | 0.218 | 0.0 |
| Control Delay, s/veh | 5.8 | A | 4.8 | 16.5 | 4.9 | A |
| LOS | A | 1 | A | C | A | 0 |
| 95th %tile Queue, veh | 1 | | 0 | 7 | 1 | |

| Intersection | | | | | | |
|-----------------------------|-------|--------|-------|-------|-------|--------|
| Intersection Delay, s/veh | 10.5 | | | | | |
| Intersection LOS | B | | | | | |
| Approach | EB | | NB | | SB | |
| Entry Lanes | 1 | | 2 | | 1 | |
| Conflicting Circle Lanes | 2 | | 2 | | 2 | |
| Adj Approach Flow, veh/h | 838 | | 594 | | 821 | |
| Demand Flow Rate, veh/h | 855 | | 606 | | 837 | |
| Vehicles Circulating, veh/h | 629 | | 568 | | 127 | |
| Vehicles Exiting, veh/h | 127 | | 629 | | 1046 | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | |
| Approach Delay, s/veh | 14.6 | | 10.7 | | 6.1 | |
| Approach LOS | B | | B | | A | |
| Lane | Left | Bypass | Left | Right | Left | Bypass |
| Designated Moves | L | R | L | TR | T | R |
| Assumed Moves | L | R | L | TR | T | R |
| RT Channelized | Yield | | | | Free | |
| Lane Util | 1.000 | | 0.211 | 0.789 | 1.000 | |
| Follow-Up Headway, s | 2.535 | | 2.667 | 2.535 | 2.535 | |
| Critical Headway, s | 4.328 | 287 | 4.645 | 4.328 | 4.328 | 208 |
| Entry Flow, veh/h | 568 | 726 | 128 | 478 | 629 | 1938 |
| Cap Entry Lane, veh/h | 832 | 0.980 | 801 | 876 | 1275 | 0.980 |
| Entry HV Adj Factor | 0.981 | 281 | 0.977 | 0.980 | 0.980 | 204 |
| Flow Entry, veh/h | 557 | 712 | 125 | 469 | 617 | 1900 |
| Cap Entry, veh/h | 816 | 0.395 | 782 | 859 | 1250 | 0.107 |
| V/C Ratio | 0.683 | 10.3 | 0.160 | 0.546 | 0.493 | 0.0 |
| Control Delay, s/veh | 16.8 | B | 6.3 | 11.8 | 8.1 | A |
| LOS | C | 2 | A | B | A | 0 |
| 95th %tile Queue, veh | 6 | | 1 | 3 | 3 | |

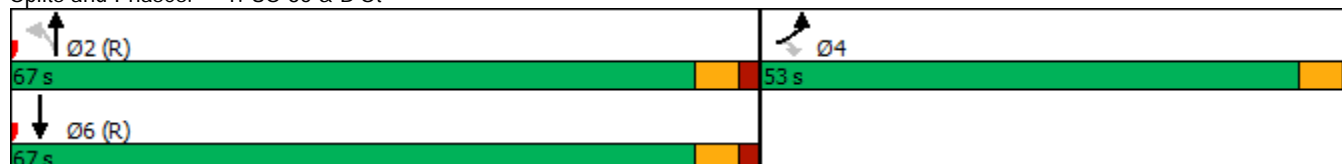
Timings
1: US-85 & B St

2045 Background AM

06/19/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 289 | 150 | 160 | 943 | 302 | 131 |
| Future Volume (vph) | 289 | 150 | 160 | 943 | 302 | 131 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 53.0 | 53.0 | 67.0 | 67.0 | 67.0 | |
| Total Split (%) | 44.2% | 44.2% | 55.8% | 55.8% | 55.8% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 27.6 | 27.6 | 81.4 | 81.4 | 81.4 | 120.0 |
| Actuated g/C Ratio | 0.23 | 0.23 | 0.68 | 0.68 | 0.68 | 1.00 |
| v/c Ratio | 0.79 | 0.34 | 0.25 | 0.81 | 0.27 | 0.09 |
| Control Delay | 56.9 | 6.8 | 9.9 | 22.1 | 9.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 56.9 | 6.8 | 9.9 | 22.1 | 9.2 | 0.1 |
| LOS | E | A | A | C | A | A |
| Approach Delay | 39.8 | | | 20.4 | 6.5 | |
| Approach LOS | D | | | C | A | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 75 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.81 | | | | | | |
| Intersection Signal Delay: 21.6 | | | | Intersection LOS: C | | |
| Intersection Capacity Utilization 74.8% | | | | ICU Level of Service D | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2045 Background AM

06/19/2023

1: US-85 & B St



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 289 | 150 | 160 | 943 | 302 | 131 |
| Future Volume (veh/h) | 289 | 150 | 160 | 943 | 302 | 131 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1870 | 1870 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 314 | 0 | 174 | 1025 | 328 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 4 | 4 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 349 | | 739 | 1326 | 1295 | |
| Arrive On Green | 0.20 | 0.00 | 0.71 | 0.71 | 0.71 | 0.00 |
| Sat Flow, veh/h | 1753 | 1560 | 1052 | 1870 | 1826 | 1547 |
| Grp Volume(v), veh/h | 314 | 0 | 174 | 1025 | 328 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1560 | 1052 | 1870 | 1826 | 1547 |
| Q Serve(g_s), s | 21.0 | 0.0 | 8.4 | 42.3 | 7.6 | 0.0 |
| Cycle Q Clear(g_c), s | 21.0 | 0.0 | 16.1 | 42.3 | 7.6 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 349 | | 739 | 1326 | 1295 | |
| V/C Ratio(X) | 0.90 | | 0.24 | 0.77 | 0.25 | |
| Avail Cap(c_a), veh/h | 701 | | 739 | 1326 | 1295 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 46.9 | 0.0 | 9.0 | 11.2 | 6.2 | 0.0 |
| Incr Delay (d2), s/veh | 8.4 | 0.0 | 0.7 | 4.4 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 15.1 | 0.0 | 3.6 | 23.9 | 5.2 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 55.2 | 0.0 | 9.8 | 15.7 | 6.7 | 0.0 |
| LnGrp LOS | E | | A | B | A | |
| Approach Vol, veh/h | 314 | | | 1199 | 328 | |
| Approach Delay, s/veh | 55.2 | | | 14.8 | 6.7 | |
| Approach LOS | E | | | B | A | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 91.1 | | 28.9 | | 91.1 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 61.0 | | 48.0 | | 61.0 | |
| Max Q Clear Time (g_c+l1), s | 44.3 | | 23.0 | | 9.6 | |
| Green Ext Time (p_c), s | 8.6 | | 0.9 | | 2.2 | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 20.3 |
| HCM 6th LOS | C |













Notes

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

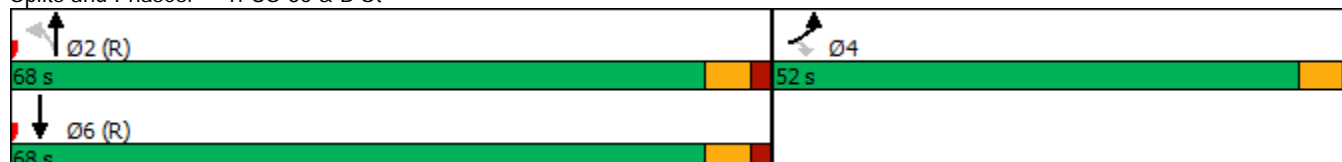
Timings
1: US-85 & B St

2045 Background PM

06/19/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 588 | 296 | 138 | 517 | 681 | 224 |
| Future Volume (vph) | 588 | 296 | 138 | 517 | 681 | 224 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 52.0 | 52.0 | 68.0 | 68.0 | 68.0 | |
| Total Split (%) | 43.3% | 43.3% | 56.7% | 56.7% | 56.7% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 45.6 | 45.6 | 63.4 | 63.4 | 63.4 | 120.0 |
| Actuated g/C Ratio | 0.38 | 0.38 | 0.53 | 0.53 | 0.53 | 1.00 |
| v/c Ratio | 0.95 | 0.46 | 0.84 | 0.57 | 0.75 | 0.15 |
| Control Delay | 61.0 | 14.8 | 64.8 | 22.4 | 28.7 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.0 | 14.8 | 64.8 | 22.4 | 28.7 | 0.2 |
| LOS | E | B | E | C | C | A |
| Approach Delay | 45.5 | | | 31.3 | 21.6 | |
| Approach LOS | D | | | C | C | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 90 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.95 | | | | | | |
| Intersection Signal Delay: 32.9 | | | | Intersection LOS: C | | |
| Intersection Capacity Utilization 90.2% | | | | ICU Level of Service E | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2045 Background PM

06/19/2023

1: US-85 & B St



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 588 | 296 | 138 | 517 | 681 | 224 |
| Future Volume (veh/h) | 588 | 296 | 138 | 517 | 681 | 224 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 639 | 0 | 150 | 562 | 740 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 665 | | 226 | 1000 | 1000 | |
| Arrive On Green | 0.37 | 0.00 | 0.53 | 0.53 | 0.53 | 0.00 |
| Sat Flow, veh/h | 1781 | 1585 | 719 | 1870 | 1870 | 1585 |
| Grp Volume(v), veh/h | 639 | 0 | 150 | 562 | 740 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 719 | 1870 | 1870 | 1585 |
| Q Serve(g_s), s | 42.1 | 0.0 | 24.4 | 24.0 | 36.5 | 0.0 |
| Cycle Q Clear(g_c), s | 42.1 | 0.0 | 60.9 | 24.0 | 36.5 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 665 | | 226 | 1000 | 1000 | |
| V/C Ratio(X) | 0.96 | | 0.67 | 0.56 | 0.74 | |
| Avail Cap(c_a), veh/h | 698 | | 226 | 1000 | 1000 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 36.7 | 0.0 | 44.9 | 18.6 | 21.5 | 0.0 |
| Incr Delay (d2), s/veh | 24.2 | 0.0 | 14.5 | 2.3 | 4.9 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 30.2 | 0.0 | 9.0 | 16.2 | 23.5 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 60.9 | 0.0 | 59.4 | 20.8 | 26.4 | 0.0 |
| LnGrp LOS | E | | E | C | C | |
| Approach Vol, veh/h | 639 | | | 712 | 740 | |
| Approach Delay, s/veh | 60.9 | | | 29.0 | 26.4 | |
| Approach LOS | E | | | C | C | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 70.2 | | 49.8 | | 70.2 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 62.0 | | 47.0 | | 62.0 | |
| Max Q Clear Time (g_c+l1), s | 62.9 | | 44.1 | | 38.5 | |
| Green Ext Time (p_c), s | 0.0 | | 0.8 | | 5.7 | |

Intersection Summary













| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 37.8 |
| HCM 6th LOS | D |

Notes

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

Timings
1: US-85 & B St

2045 Total AM
06/19/2023

| |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 318 | 165 | 160 | 943 | 302 | 131 |
| Future Volume (vph) | 318 | 165 | 160 | 943 | 302 | 131 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 53.0 | 53.0 | 67.0 | 67.0 | 67.0 | |
| Total Split (%) | 44.2% | 44.2% | 55.8% | 55.8% | 55.8% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effect Green (s) | 30.0 | 30.0 | 79.0 | 79.0 | 79.0 | 120.0 |
| Actuated g/C Ratio | 0.25 | 0.25 | 0.66 | 0.66 | 0.66 | 1.00 |
| v/c Ratio | 0.80 | 0.34 | 0.26 | 0.84 | 0.28 | 0.09 |
| Control Delay | 55.4 | 6.2 | 11.2 | 25.1 | 10.4 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.4 | 6.2 | 11.2 | 25.1 | 10.4 | 0.1 |
| LOS | E | A | B | C | B | A |
| Approach Delay | 38.6 | | | 23.1 | 7.3 | |
| Approach LOS | D | | | C | A | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 23.4

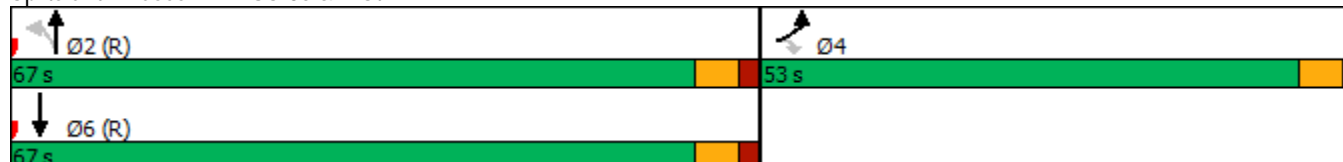
Intersection LOS: C

Intersection Capacity Utilization 76.4%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2045 Total AM

1: US-85 & B St

06/19/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 318 | 165 | 160 | 943 | 302 | 131 |
| Future Volume (veh/h) | 318 | 165 | 160 | 943 | 302 | 131 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1870 | 1870 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 346 | 0 | 174 | 1025 | 328 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 4 | 4 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 382 | | 715 | 1292 | 1261 | |
| Arrive On Green | 0.22 | 0.00 | 0.69 | 0.69 | 0.69 | 0.00 |
| Sat Flow, veh/h | 1753 | 1560 | 1052 | 1870 | 1826 | 1547 |
| Grp Volume(v), veh/h | 346 | 0 | 174 | 1025 | 328 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1753 | 1560 | 1052 | 1870 | 1826 | 1547 |
| Q Serve(g_s), s | 23.1 | 0.0 | 9.0 | 45.0 | 8.1 | 0.0 |
| Cycle Q Clear(g_c), s | 23.1 | 0.0 | 17.1 | 45.0 | 8.1 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 382 | | 715 | 1292 | 1261 | |
| V/C Ratio(X) | 0.91 | | 0.24 | 0.79 | 0.26 | |
| Avail Cap(c_a), veh/h | 701 | | 715 | 1292 | 1261 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 45.7 | 0.0 | 10.2 | 12.7 | 7.0 | 0.0 |
| Incr Delay (d2), s/veh | 8.3 | 0.0 | 0.8 | 5.1 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 16.3 | 0.0 | 3.9 | 25.8 | 5.7 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 54.0 | 0.0 | 11.0 | 17.8 | 7.5 | 0.0 |
| LnGrp LOS | D | | B | B | A | |
| Approach Vol, veh/h | 346 | | | 1199 | 328 | |
| Approach Delay, s/veh | 54.0 | | | 16.8 | 7.5 | |
| Approach LOS | D | | | B | A | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 88.9 | | 31.1 | | 88.9 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 61.0 | | 48.0 | | 61.0 | |
| Max Q Clear Time (g_c+l1), s | 47.0 | | 25.1 | | 10.1 | |
| Green Ext Time (p_c), s | 7.7 | | 1.0 | | 2.2 | |

Intersection Summary













| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 22.0 |
| HCM 6th LOS | C |

Notes

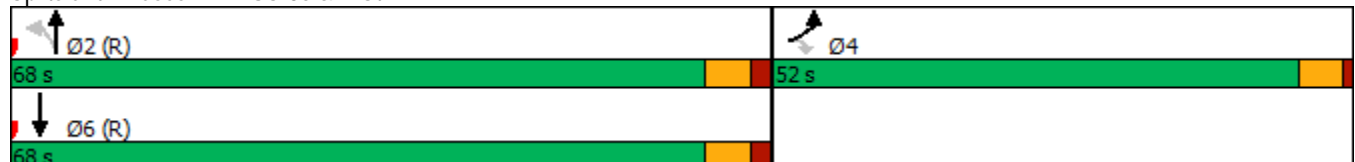
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
1: US-85 & B St

2045 Total PM
06/19/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 606 | 305 | 138 | 517 | 681 | 224 |
| Future Volume (vph) | 606 | 305 | 138 | 517 | 681 | 224 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 52.0 | 52.0 | 68.0 | 68.0 | 68.0 | |
| Total Split (%) | 43.3% | 43.3% | 56.7% | 56.7% | 56.7% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 46.2 | 46.2 | 62.8 | 62.8 | 62.8 | 120.0 |
| Actuated g/C Ratio | 0.38 | 0.38 | 0.52 | 0.52 | 0.52 | 1.00 |
| v/c Ratio | 0.97 | 0.47 | 0.87 | 0.58 | 0.76 | 0.15 |
| Control Delay | 64.1 | 15.4 | 70.6 | 22.7 | 29.2 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 64.1 | 15.4 | 70.6 | 22.7 | 29.2 | 0.2 |
| LOS | E | B | E | C | C | A |
| Approach Delay | 47.8 | | | 32.8 | 22.0 | |
| Approach LOS | D | | | C | C | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 90 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.97 | | | | | | |
| Intersection Signal Delay: 34.4 | | | | Intersection LOS: C | | |
| Intersection Capacity Utilization 91.2% | | | | ICU Level of Service F | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2045 Total PM

1: US-85 & B St

06/19/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 606 | 305 | 138 | 517 | 681 | 224 |
| Future Volume (veh/h) | 606 | 305 | 138 | 517 | 681 | 224 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 659 | 0 | 150 | 562 | 740 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 682 | | 214 | 983 | 983 | |
| Arrive On Green | 0.38 | 0.00 | 0.53 | 0.53 | 0.53 | 0.00 |
| Sat Flow, veh/h | 1781 | 1585 | 719 | 1870 | 1870 | 1585 |
| Grp Volume(v), veh/h | 659 | 0 | 150 | 562 | 740 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 719 | 1870 | 1870 | 1585 |
| Q Serve(g_s), s | 43.5 | 0.0 | 24.8 | 24.5 | 37.3 | 0.0 |
| Cycle Q Clear(g_c), s | 43.5 | 0.0 | 62.1 | 24.5 | 37.3 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 682 | | 214 | 983 | 983 | |
| V/C Ratio(X) | 0.97 | | 0.70 | 0.57 | 0.75 | |
| Avail Cap(c_a), veh/h | 698 | | 214 | 983 | 983 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 36.3 | 0.0 | 46.7 | 19.3 | 22.4 | 0.0 |
| Incr Delay (d2), s/veh | 25.7 | 0.0 | 17.3 | 2.4 | 5.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 31.3 | 0.0 | 9.3 | 16.5 | 24.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 62.0 | 0.0 | 64.0 | 21.7 | 27.7 | 0.0 |
| LnGrp LOS | E | | E | C | C | |
| Approach Vol, veh/h | 659 | | | 712 | 740 | |
| Approach Delay, s/veh | 62.0 | | | 30.6 | 27.7 | |
| Approach LOS | E | | | C | C | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 69.1 | | 50.9 | | 69.1 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 62.0 | | 47.0 | | 62.0 | |
| Max Q Clear Time (g_c+I1), s | 64.1 | | 45.5 | | 39.3 | |
| Green Ext Time (p_c), s | 0.0 | | 0.4 | | 5.6 | |

Intersection Summary

HCM 6th Ctrl Delay 39.4













HCM 6th LOS D

Notes

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

Timings
1: US-85 & B St

2045 Total AM - Dual EBL
06/22/2023

| |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 318 | 165 | 160 | 943 | 302 | 131 |
| Future Volume (vph) | 318 | 165 | 160 | 943 | 302 | 131 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 53.0 | 53.0 | 67.0 | 67.0 | 67.0 | |
| Total Split (%) | 44.2% | 44.2% | 55.8% | 55.8% | 55.8% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effect Green (s) | 18.1 | 18.1 | 90.9 | 90.9 | 90.9 | 120.0 |
| Actuated g/C Ratio | 0.15 | 0.15 | 0.76 | 0.76 | 0.76 | 1.00 |
| v/c Ratio | 0.68 | 0.46 | 0.22 | 0.73 | 0.24 | 0.09 |
| Control Delay | 55.0 | 10.2 | 5.5 | 12.4 | 5.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.0 | 10.2 | 5.5 | 12.4 | 5.2 | 0.1 |
| LOS | E | B | A | B | A | A |
| Approach Delay | 39.7 | | | 11.4 | 3.7 | |
| Approach LOS | D | | | B | A | |

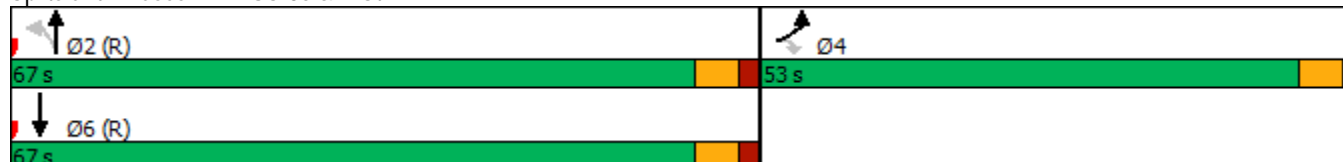
Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 16.5
 Intersection Capacity Utilization 67.9%
 Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service C

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2045 Total AM - Dual EBL

1: US-85 & B St

06/22/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | ←← | → | ← | ↑ | ↑ | ↔ |
| Traffic Volume (veh/h) | 318 | 165 | 160 | 943 | 302 | 131 |
| Future Volume (veh/h) | 318 | 165 | 160 | 943 | 302 | 131 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1841 | 1841 | 1870 | 1870 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 346 | 0 | 174 | 1025 | 328 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 4 | 4 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 429 | | 833 | 1463 | 1428 | |
| Arrive On Green | 0.13 | 0.00 | 0.78 | 0.78 | 0.78 | 0.00 |
| Sat Flow, veh/h | 3401 | 1560 | 1052 | 1870 | 1826 | 1547 |
| Grp Volume(v), veh/h | 346 | 0 | 174 | 1025 | 328 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1700 | 1560 | 1052 | 1870 | 1826 | 1547 |
| Q Serve(g_s), s | 11.9 | 0.0 | 6.3 | 31.7 | 5.7 | 0.0 |
| Cycle Q Clear(g_c), s | 11.9 | 0.0 | 12.0 | 31.7 | 5.7 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 429 | | 833 | 1463 | 1428 | |
| V/C Ratio(X) | 0.81 | | 0.21 | 0.70 | 0.23 | |
| Avail Cap(c_a), veh/h | 1360 | | 833 | 1463 | 1428 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 51.0 | 0.0 | 5.1 | 6.3 | 3.5 | 0.0 |
| Incr Delay (d2), s/veh | 3.6 | 0.0 | 0.6 | 2.8 | 0.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 9.0 | 0.0 | 2.5 | 16.5 | 3.4 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 54.6 | 0.0 | 5.6 | 9.1 | 3.8 | 0.0 |
| LnGrp LOS | D | | A | A | A | |
| Approach Vol, veh/h | 346 | | | 1199 | 328 | |
| Approach Delay, s/veh | 54.6 | | | 8.6 | 3.8 | |
| Approach LOS | D | | | A | A | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 99.9 | | 20.1 | | 99.9 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 61.0 | | 48.0 | | 61.0 | |
| Max Q Clear Time (g_c+l1), s | 33.7 | | 13.9 | | 7.7 | |
| Green Ext Time (p_c), s | 11.1 | | 1.3 | | 2.2 | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 16.3 |
| HCM 6th LOS | B |













Notes

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

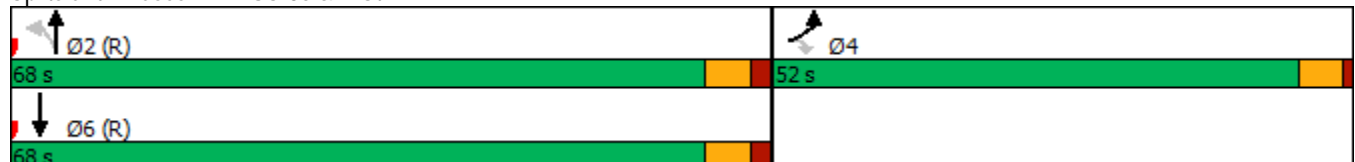
Timings
1: US-85 & B St

2045 Total PM - Dual EBL

06/22/2023

| |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 606 | 305 | 138 | 517 | 681 | 224 |
| Future Volume (vph) | 606 | 305 | 138 | 517 | 681 | 224 |
| Turn Type | Prot | Perm | Perm | NA | NA | Free |
| Protected Phases | 4 | | | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | Free |
| Detector Phase | 4 | 4 | 2 | 2 | 6 | |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | |
| Minimum Split (s) | 23.0 | 23.0 | 24.5 | 24.5 | 24.0 | |
| Total Split (s) | 52.0 | 52.0 | 68.0 | 68.0 | 68.0 | |
| Total Split (%) | 43.3% | 43.3% | 56.7% | 56.7% | 56.7% | |
| Yellow Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| All-Red Time (s) | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | |
| Act Effct Green (s) | 30.1 | 30.1 | 78.9 | 78.9 | 78.9 | 120.0 |
| Actuated g/C Ratio | 0.25 | 0.25 | 0.66 | 0.66 | 0.66 | 1.00 |
| v/c Ratio | 0.77 | 0.64 | 0.45 | 0.46 | 0.60 | 0.15 |
| Control Delay | 47.6 | 24.5 | 16.8 | 12.5 | 15.4 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.6 | 24.5 | 16.8 | 12.5 | 15.4 | 0.2 |
| LOS | D | C | B | B | B | A |
| Approach Delay | 39.8 | | | 13.4 | 11.6 | |
| Approach LOS | D | | | B | B | |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | | | | |
| Natural Cycle: 60 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.77 | | | | | | |
| Intersection Signal Delay: 22.5 | | | | Intersection LOS: C | | |
| Intersection Capacity Utilization 74.9% | | | | ICU Level of Service D | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 1: US-85 & B St



HCM 6th Signalized Intersection Summary

2045 Total PM - Dual EBL

1: US-85 & B St

06/22/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | ←← | → | ← | ↑ | ↑ | ↔ |
| Traffic Volume (veh/h) | 606 | 305 | 138 | 517 | 681 | 224 |
| Future Volume (veh/h) | 606 | 305 | 138 | 517 | 681 | 224 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 659 | 0 | 150 | 562 | 740 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 764 | | 407 | 1285 | 1285 | |
| Arrive On Green | 0.22 | 0.00 | 0.69 | 0.69 | 0.69 | 0.00 |
| Sat Flow, veh/h | 3456 | 1585 | 719 | 1870 | 1870 | 1585 |
| Grp Volume(v), veh/h | 659 | 0 | 150 | 562 | 740 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 719 | 1870 | 1870 | 1585 |
| Q Serve(g_s), s | 22.0 | 0.0 | 16.4 | 16.1 | 24.6 | 0.0 |
| Cycle Q Clear(g_c), s | 22.0 | 0.0 | 40.9 | 16.1 | 24.6 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 764 | | 407 | 1285 | 1285 | |
| V/C Ratio(X) | 0.86 | | 0.37 | 0.44 | 0.58 | |
| Avail Cap(c_a), veh/h | 1353 | | 407 | 1285 | 1285 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 45.0 | 0.0 | 20.3 | 8.4 | 9.7 | 0.0 |
| Incr Delay (d2), s/veh | 3.0 | 0.0 | 2.6 | 1.1 | 1.9 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 14.8 | 0.0 | 5.4 | 10.6 | 15.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 48.0 | 0.0 | 22.9 | 9.5 | 11.6 | 0.0 |
| LnGrp LOS | D | | C | A | B | |
| Approach Vol, veh/h | 659 | | | 712 | 740 | |
| Approach Delay, s/veh | 48.0 | | | 12.3 | 11.6 | |
| Approach LOS | D | | | B | B | |
| Timer - Assigned Phs | 2 | | 4 | | 6 | |
| Phs Duration (G+Y+Rc), s | 88.5 | | 31.5 | | 88.5 | |
| Change Period (Y+Rc), s | 6.0 | | 5.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 62.0 | | 47.0 | | 62.0 | |
| Max Q Clear Time (g_c+l1), s | 42.9 | | 24.0 | | 26.6 | |
| Green Ext Time (p_c), s | 4.8 | | 2.5 | | 6.3 | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 23.2 |
| HCM 6th LOS | C |

Notes

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

| Intersection | | | | | | |
|-----------------------------|-------|--------|-------|-------|-------|--------|
| Intersection Delay, s/veh | 25.5 | | | | | |
| Intersection LOS | D | | | | | |
| Approach | EB | | NB | | SB | |
| Entry Lanes | 1 | | 2 | | 1 | |
| Conflicting Circle Lanes | 2 | | 2 | | 2 | |
| Adj Approach Flow, veh/h | 525 | | 1199 | | 470 | |
| Demand Flow Rate, veh/h | 546 | | 1223 | | 493 | |
| Vehicles Circulating, veh/h | 344 | | 360 | | 177 | |
| Vehicles Exiting, veh/h | 177 | | 344 | | 1405 | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | |
| Approach Delay, s/veh | 6.6 | | 42.1 | | 4.0 | |
| Approach LOS | A | | E | | A | |
| Lane | Left | Bypass | Left | Right | Left | Bypass |
| Designated Moves | L | R | L | TR | T | R |
| Assumed Moves | L | R | L | TR | T | R |
| RT Channelized | Yield | | | | Free | |
| Lane Util | 1.000 | | 0.145 | 0.855 | 1.000 | |
| Follow-Up Headway, s | 2.535 | | 2.667 | 2.535 | 2.535 | |
| Critical Headway, s | 4.328 | 186 | 4.645 | 4.328 | 4.328 | 149 |
| Entry Flow, veh/h | 360 | 972 | 177 | 1046 | 344 | 1995 |
| Cap Entry Lane, veh/h | 1060 | 0.962 | 969 | 1046 | 1222 | 0.952 |
| Entry HV Adj Factor | 0.961 | 179 | 0.983 | 0.980 | 0.952 | 142 |
| Flow Entry, veh/h | 346 | 934 | 174 | 1025 | 328 | 1900 |
| Cap Entry, veh/h | 1019 | 0.192 | 953 | 1025 | 1164 | 0.075 |
| V/C Ratio | 0.340 | 5.7 | 0.183 | 1.000 | 0.282 | 0.0 |
| Control Delay, s/veh | 7.0 | A | 5.5 | 48.3 | 5.7 | A |
| LOS | A | 1 | A | F | A | 0 |
| 95th %tile Queue, veh | 2 | | 1 | 20 | 1 | |

| Intersection | | | | | | |
|-----------------------------|-------|--------|-------|-------|-------|--------|
| Intersection Delay, s/veh | 18.0 | | | | | |
| Intersection LOS | C | | | | | |
| Approach | EB | | NB | | SB | |
| Entry Lanes | 1 | | 2 | | 1 | |
| Conflicting Circle Lanes | 2 | | 2 | | 2 | |
| Adj Approach Flow, veh/h | 991 | | 712 | | 983 | |
| Demand Flow Rate, veh/h | 1011 | | 726 | | 1003 | |
| Vehicles Circulating, veh/h | 755 | | 672 | | 153 | |
| Vehicles Exiting, veh/h | 153 | | 755 | | 1245 | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | |
| Approach Delay, s/veh | 29.3 | | 16.4 | | 7.8 | |
| Approach LOS | D | | C | | A | |
| Lane | Left | Bypass | Left | Right | Left | Bypass |
| Designated Moves | L | R | L | TR | T | R |
| Assumed Moves | L | R | L | TR | T | R |
| RT Channelized | Yield | | | | Free | |
| Lane Util | 1.000 | | 0.211 | 0.789 | 1.000 | |
| Follow-Up Headway, s | 2.535 | | 2.667 | 2.535 | 2.535 | |
| Critical Headway, s | 4.328 | 339 | 4.645 | 4.328 | 4.328 | 248 |
| Entry Flow, veh/h | 672 | 639 | 153 | 573 | 755 | 1938 |
| Cap Entry Lane, veh/h | 747 | 0.980 | 727 | 802 | 1247 | 0.980 |
| Entry HV Adj Factor | 0.981 | 332 | 0.980 | 0.980 | 0.980 | 243 |
| Flow Entry, veh/h | 659 | 626 | 150 | 562 | 740 | 1900 |
| Cap Entry, veh/h | 733 | 0.530 | 713 | 786 | 1222 | 0.128 |
| V/C Ratio | 0.899 | 14.7 | 0.210 | 0.714 | 0.605 | 0.0 |
| Control Delay, s/veh | 36.7 | B | 7.4 | 18.7 | 10.4 | A |
| LOS | E | 3 | A | C | B | 0 |
| 95th %tile Queue, veh | 12 | | 1 | 6 | 4 | |

Intersection

Int Delay, s/veh 1.2

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 215 | 54 | 0 | 233 | 0 | 70 |
| Future Vol, veh/h | 215 | 54 | 0 | 233 | 0 | 70 |
| 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 | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 3 | 3 | 4 | 4 | 2 | 2 |
| Mvmt Flow | 250 | 63 | 0 | 271 | 0 | 81 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0 | 0 | - - - 157 |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |
| Critical Hdwy | - | - | - - - 6.94 |
| Critical Hdwy Stg 1 | - | - | - - - |
| Critical Hdwy Stg 2 | - | - | - - - |
| Follow-up Hdwy | - | - | - - - 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 - 0 861 |
| Stage 1 | - | - | 0 - 0 - |
| Stage 2 | - | - | 0 - 0 - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | - - - 861 |
| Mov Cap-2 Maneuver | - | - | - - - |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |

| Approach | EB | WB | NB |
|----------------------|----|----|-----|
| HCM Control Delay, s | 0 | 0 | 9.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 861 | - | - | - |
| HCM Lane V/C Ratio | 0.095 | - | - | - |
| HCM Control Delay (s) | 9.6 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - |

| Intersection | | | | | | |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh | 1.9 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑↱ | | | ↑↑ | | ↱ |
| Traffic Vol, veh/h | 499 | 96 | 0 | 266 | 0 | 143 |
| Future Vol, veh/h | 499 | 96 | 0 | 266 | 0 | 143 |
| 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 | 76 | 76 | 76 | 76 | 76 | 76 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 657 | 126 | 0 | 350 | 0 | 188 |
| | | | | | | |
| Major/Minor | Major1 | | Major2 | | Minor1 | |
| Conflicting Flow All | 0 | 0 | - | - | - | 392 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 607 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | - | 607 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| | | | | | | |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 13.6 | |
| HCM LOS | | | | | B | |
| | | | | | | |
| | | | | | | |
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT | | |
| Capacity (veh/h) | 607 | - | - | - | | |
| HCM Lane V/C Ratio | 0.31 | - | - | - | | |
| HCM Control Delay (s) | 13.6 | - | - | - | | |
| HCM Lane LOS | B | - | - | - | | |
| HCM 95th %tile Q(veh) | 1.3 | - | - | - | | |

Intersection

Int Delay, s/veh 1.3

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 221 | 73 | 0 | 240 | 0 | 85 |
| Future Vol, veh/h | 221 | 73 | 0 | 240 | 0 | 85 |
| 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 | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 3 | 3 | 4 | 4 | 2 | 2 |
| Mvmt Flow | 257 | 85 | 0 | 279 | 0 | 99 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0 | 0 | - - - 171 |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |
| Critical Hdwy | - | - | - - - 6.94 |
| Critical Hdwy Stg 1 | - | - | - - - |
| Critical Hdwy Stg 2 | - | - | - - - |
| Follow-up Hdwy | - | - | - - - 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 - 0 843 |
| Stage 1 | - | - | 0 - 0 - |
| Stage 2 | - | - | 0 - 0 - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | - - - 843 |
| Mov Cap-2 Maneuver | - | - | - - - |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |

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

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 843 | - | - | - |
| HCM Lane V/C Ratio | 0.117 | - | - | - |
| HCM Control Delay (s) | 9.8 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - |

Intersection

Int Delay, s/veh 2.2

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 513 | 116 | 0 | 274 | 0 | 159 |
| Future Vol, veh/h | 513 | 116 | 0 | 274 | 0 | 159 |
| 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 | 76 | 76 | 76 | 76 | 76 | 76 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 675 | 153 | 0 | 361 | 0 | 209 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0 | 0 | - - - 414 |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |
| Critical Hdwy | - | - | - - - 6.94 |
| Critical Hdwy Stg 1 | - | - | - - - |
| Critical Hdwy Stg 2 | - | - | - - - |
| Follow-up Hdwy | - | - | - - - 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 - 0 587 |
| Stage 1 | - | - | 0 - 0 |
| Stage 2 | - | - | 0 - 0 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | - - - 587 |
| Mov Cap-2 Maneuver | - | - | - - - |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 14.5 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 587 | - | - | - |
| HCM Lane V/C Ratio | 0.356 | - | - | - |
| HCM Control Delay (s) | 14.5 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 1.6 | - | - | - |

Intersection

Int Delay, s/veh 1.9

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑↑ | ↑ | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 221 | 75 | 0 | 240 | 0 | 129 |
| Future Vol, veh/h | 221 | 75 | 0 | 240 | 0 | 129 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 150 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 3 | 3 | 4 | 4 | 2 | 2 |
| Mvmt Flow | 257 | 87 | 0 | 279 | 0 | 150 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0 | 0 | - - - 129 |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |
| Critical Hdwy | - | - | - - - 6.94 |
| Critical Hdwy Stg 1 | - | - | - - - |
| Critical Hdwy Stg 2 | - | - | - - - |
| Follow-up Hdwy | - | - | - - - 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 - 0 897 |
| Stage 1 | - | - | 0 - 0 - |
| Stage 2 | - | - | 0 - 0 - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | - - - 897 |
| Mov Cap-2 Maneuver | - | - | - - - |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |

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

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 897 | - | - | - |
| HCM Lane V/C Ratio | 0.167 | - | - | - |
| HCM Control Delay (s) | 9.8 | - | - | - |
| HCM Lane LOS | A | - | - | - |
| HCM 95th %tile Q(veh) | 0.6 | - | - | - |

Intersection

Int Delay, s/veh 2.3

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑↑ | ↑ | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 513 | 121 | 0 | 274 | 0 | 186 |
| Future Vol, veh/h | 513 | 121 | 0 | 274 | 0 | 186 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 150 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 76 | 76 | 76 | 76 | 76 | 76 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 675 | 159 | 0 | 361 | 0 | 245 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0 | 0 | - - - 338 |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |
| Critical Hdwy | - | - | - - - 6.94 |
| Critical Hdwy Stg 1 | - | - | - - - |
| Critical Hdwy Stg 2 | - | - | - - - |
| Follow-up Hdwy | - | - | - - - 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 - 0 658 |
| Stage 1 | - | - | 0 - 0 |
| Stage 2 | - | - | 0 - 0 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | - - - 658 |
| Mov Cap-2 Maneuver | - | - | - - - |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 13.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 658 | - | - | - |
| HCM Lane V/C Ratio | 0.372 | - | - | - |
| HCM Control Delay (s) | 13.7 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 1.7 | - | - | - |

Intersection

Int Delay, s/veh 1.4

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑↑ | | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 294 | 91 | 0 | 318 | 0 | 109 |
| Future Vol, veh/h | 294 | 91 | 0 | 318 | 0 | 109 |
| 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 | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 3 | 3 | 4 | 4 | 2 | 2 |
| Mvmt Flow | 342 | 106 | 0 | 370 | 0 | 127 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0 | 0 | - - - 224 |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |
| Critical Hdwy | - | - | - - - 6.94 |
| Critical Hdwy Stg 1 | - | - | - - - |
| Critical Hdwy Stg 2 | - | - | - - - |
| Follow-up Hdwy | - | - | - - - 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 - 0 779 |
| Stage 1 | - | - | 0 - 0 - |
| Stage 2 | - | - | 0 - 0 - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | - - - 779 |
| Mov Cap-2 Maneuver | - | - | - - - |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |

| Approach | EB | WB | NB |
|----------------------|----|----|------|
| HCM Control Delay, s | 0 | 0 | 10.5 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 779 | - | - | - |
| HCM Lane V/C Ratio | 0.163 | - | - | - |
| HCM Control Delay (s) | 10.5 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.6 | - | - | - |

| Intersection | | | | | | |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh | 2.3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑↱ | | | ↑↑ | | ↱ |
| Traffic Vol, veh/h | 682 | 148 | 0 | 364 | 0 | 207 |
| Future Vol, veh/h | 682 | 148 | 0 | 364 | 0 | 207 |
| 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 | 741 | 161 | 0 | 396 | 0 | 225 |
| | | | | | | |
| Major/Minor | Major1 | | Major2 | | Minor1 | |
| Conflicting Flow All | 0 | 0 | - | - | - | 451 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 556 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | - | 556 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| | | | | | | |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 15.8 | |
| HCM LOS | | | | | C | |
| | | | | | | |
| | | | | | | |
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT | | |
| Capacity (veh/h) | 556 | - | - | - | | |
| HCM Lane V/C Ratio | 0.405 | - | - | - | | |
| HCM Control Delay (s) | 15.8 | - | - | - | | |
| HCM Lane LOS | C | - | - | - | | |
| HCM 95th %tile Q(veh) | 1.9 | - | - | - | | |

Intersection

Int Delay, s/veh 1.9

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations | ↑↑ | ↑ | | ↑↑ | | ↑ |
| Traffic Vol, veh/h | 294 | 93 | 0 | 318 | 0 | 153 |
| Future Vol, veh/h | 294 | 93 | 0 | 318 | 0 | 153 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 150 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 3 | 3 | 4 | 4 | 2 | 2 |
| Mvmt Flow | 342 | 108 | 0 | 370 | 0 | 178 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 0 | 0 | - - - 171 |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |
| Critical Hdwy | - | - | - - - 6.94 |
| Critical Hdwy Stg 1 | - | - | - - - |
| Critical Hdwy Stg 2 | - | - | - - - |
| Follow-up Hdwy | - | - | - - - 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 - 0 843 |
| Stage 1 | - | - | 0 - 0 - |
| Stage 2 | - | - | 0 - 0 - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | - - - 843 |
| Mov Cap-2 Maneuver | - | - | - - - |
| Stage 1 | - | - | - - - |
| Stage 2 | - | - | - - - |

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













| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h) | 843 | - | - | - |
| HCM Lane V/C Ratio | 0.211 | - | - | - |
| HCM Control Delay (s) | 10.4 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th %tile Q(veh) | 0.8 | - | - | - |

| Intersection | | | | | | |
|--------------------------|--------|------|--------|------|--------|------|
| Int Delay, s/veh | 2.4 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↑↑ | ↗ | | ↑↑ | | ↗ |
| Traffic Vol, veh/h | 682 | 153 | 0 | 364 | 0 | 234 |
| Future Vol, veh/h | 682 | 153 | 0 | 364 | 0 | 234 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 150 | - | - | - | 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 | 741 | 166 | 0 | 396 | 0 | 254 |
| | | | | | | |
| Major/Minor | Major1 | | Major2 | | Minor1 | |
| Conflicting Flow All | 0 | 0 | - | - | - | 371 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 626 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | - | - | - | 626 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 14.6 | |
| HCM LOS | | | | | B | |
| | | | | | | |
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT | | |
| Capacity (veh/h) | 626 | - | - | - | | |
| HCM Lane V/C Ratio | 0.406 | - | - | - | | |
| HCM Control Delay (s) | 14.6 | - | - | - | | |
| HCM Lane LOS | B | - | - | - | | |
| HCM 95th %tile Q(veh) | 2 | - | - | - | | |

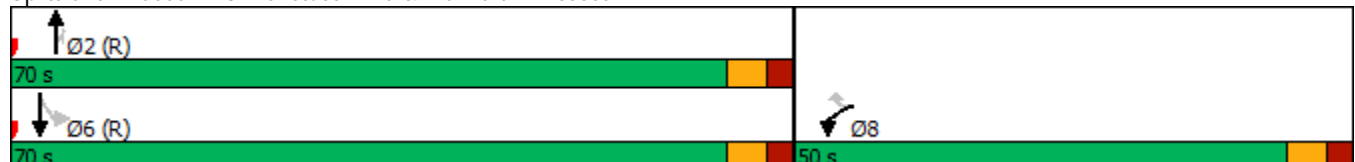
Timings 3: Venetucci Blvd & Walmart N. Access

2023 Existing AM

06/19/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 4 | 27 | 45 | 6 | 34 | 19 |
| Future Volume (vph) | 4 | 27 | 45 | 6 | 34 | 19 |
| Turn Type | Prot | Perm | NA | Perm | Perm | NA |
| Protected Phases | 8 | | 2 | | | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 50.0 | 50.0 | 70.0 | 70.0 | 70.0 | 70.0 |
| Total Split (%) | 41.7% | 41.7% | 58.3% | 58.3% | 58.3% | 58.3% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effct Green (s) | 6.5 | 6.5 | 108.5 | 108.5 | 108.5 | 108.5 |
| Actuated g/C Ratio | 0.05 | 0.05 | 0.90 | 0.90 | 0.90 | 0.90 |
| v/c Ratio | 0.06 | 0.30 | 0.03 | 0.01 | 0.04 | 0.01 |
| Control Delay | 54.2 | 24.2 | 0.8 | 0.2 | 1.5 | 1.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.2 | 24.2 | 0.8 | 0.2 | 1.5 | 1.5 |
| LOS | D | C | A | A | A | A |
| Approach Delay | 28.1 | | 0.7 | | | 1.5 |
| Approach LOS | C | | A | | | A |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | | | | |
| Natural Cycle: 50 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.30 | | | | | | |
| Intersection Signal Delay: 7.3 | | | | Intersection LOS: A | | |
| Intersection Capacity Utilization 22.7% | | | | ICU Level of Service A | | |
| Analysis Period (min) 15 | | | | | | |













Splits and Phases: 3: Venetucci Blvd & Walmart N. Access



HCM 6th Signalized Intersection Summary

3: Venetucci Blvd & Walmart N. Access













2023 Existing AM
06/19/2023

| |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 4 | 27 | 45 | 6 | 34 | 19 |
| Future Volume (veh/h) | 4 | 27 | 45 | 6 | 34 | 19 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1796 | 1796 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 5 | 15 | 56 | 4 | 42 | 24 |
| Peak Hour Factor | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Percent Heavy Veh, % | 7 | 7 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 35 | 31 | 1645 | 1394 | 1241 | 1645 |
| Arrive On Green | 0.02 | 0.02 | 1.00 | 1.00 | 0.88 | 0.88 |
| Sat Flow, veh/h | 1711 | 1522 | 1870 | 1585 | 1343 | 1870 |
| Grp Volume(v), veh/h | 5 | 15 | 56 | 4 | 42 | 24 |
| Grp Sat Flow(s),veh/h/ln | 1711 | 1522 | 1870 | 1585 | 1343 | 1870 |
| Q Serve(g_s), s | 0.3 | 1.2 | 0.0 | 0.0 | 0.5 | 0.2 |
| Cycle Q Clear(g_c), s | 0.3 | 1.2 | 0.0 | 0.0 | 0.5 | 0.2 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 35 | 31 | 1645 | 1394 | 1241 | 1645 |
| V/C Ratio(X) | 0.14 | 0.49 | 0.03 | 0.00 | 0.03 | 0.01 |
| Avail Cap(c_a), veh/h | 627 | 558 | 1645 | 1394 | 1241 | 1645 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.8 | 58.2 | 0.0 | 0.0 | 0.9 | 0.9 |
| Incr Delay (d2), s/veh | 1.9 | 11.4 | 0.0 | 0.0 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.3 | 1.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 59.6 | 69.5 | 0.0 | 0.0 | 0.9 | 0.9 |
| LnGrp LOS | E | E | A | A | A | A |
| Approach Vol, veh/h | 20 | | 60 | | | 66 |
| Approach Delay, s/veh | 67.1 | | 0.0 | | | 0.9 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | 2 | | 6 | | 8 | |
| Phs Duration (G+Y+Rc), s | 111.6 | | 111.6 | | 8.4 | |
| Change Period (Y+Rc), s | 6.0 | | 6.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 64.0 | | 64.0 | | 44.0 | |
| Max Q Clear Time (g_c+I1), s | 2.0 | | 2.5 | | 3.2 | |
| Green Ext Time (p_c), s | 0.3 | | 0.3 | | 0.0 | |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 9.6 | | | |
| HCM 6th LOS | | | A | | | |

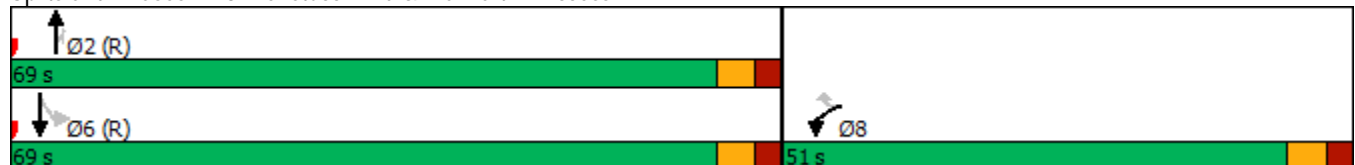
Timings 3: Venetucci Blvd & Walmart N. Access

2023 Existing PM

06/19/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 19 | 67 | 71 | 16 | 68 | 27 |
| Future Volume (vph) | 19 | 67 | 71 | 16 | 68 | 27 |
| Turn Type | Prot | Perm | NA | Perm | Perm | NA |
| Protected Phases | 8 | | 2 | | | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 51.0 | 51.0 | 69.0 | 69.0 | 69.0 | 69.0 |
| Total Split (%) | 42.5% | 42.5% | 57.5% | 57.5% | 57.5% | 57.5% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effct Green (s) | 7.3 | 7.3 | 104.2 | 104.2 | 104.2 | 104.2 |
| Actuated g/C Ratio | 0.06 | 0.06 | 0.87 | 0.87 | 0.87 | 0.87 |
| v/c Ratio | 0.21 | 0.46 | 0.05 | 0.01 | 0.07 | 0.02 |
| Control Delay | 57.1 | 20.6 | 1.1 | 0.2 | 1.9 | 1.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.1 | 20.6 | 1.1 | 0.2 | 1.9 | 1.9 |
| LOS | E | C | A | A | A | A |
| Approach Delay | 28.8 | | 0.9 | | | 1.9 |
| Approach LOS | C | | A | | | A |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | | | | |
| Natural Cycle: 50 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.46 | | | | | | |
| Intersection Signal Delay: 10.2 | | | | Intersection LOS: B | | |
| Intersection Capacity Utilization 24.6% | | | | ICU Level of Service A | | |
| Analysis Period (min) 15 | | | | | | |













Splits and Phases: 3: Venetucci Blvd & Walmart N. Access



HCM 6th Signalized Intersection Summary

3: Venetucci Blvd & Walmart N. Access

2023 Existing PM
06/19/2023













| |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 19 | 67 | 71 | 16 | 68 | 27 |
| Future Volume (veh/h) | 19 | 67 | 71 | 16 | 68 | 27 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 22 | 42 | 81 | 9 | 77 | 31 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 70 | 62 | 1610 | 1365 | 1185 | 1610 |
| Arrive On Green | 0.04 | 0.04 | 1.00 | 1.00 | 0.86 | 0.86 |
| Sat Flow, veh/h | 1781 | 1585 | 1870 | 1585 | 1307 | 1870 |
| Grp Volume(v), veh/h | 22 | 42 | 81 | 9 | 77 | 31 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1870 | 1585 | 1307 | 1870 |
| Q Serve(g_s), s | 1.4 | 3.1 | 0.0 | 0.0 | 1.0 | 0.3 |
| Cycle Q Clear(g_c), s | 1.4 | 3.1 | 0.0 | 0.0 | 1.0 | 0.3 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 70 | 62 | 1610 | 1365 | 1185 | 1610 |
| V/C Ratio(X) | 0.32 | 0.68 | 0.05 | 0.01 | 0.06 | 0.02 |
| Avail Cap(c_a), veh/h | 668 | 594 | 1610 | 1365 | 1185 | 1610 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 56.1 | 56.9 | 0.0 | 0.0 | 1.2 | 1.2 |
| Incr Delay (d2), s/veh | 2.6 | 12.2 | 0.1 | 0.0 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.3 | 2.6 | 0.0 | 0.0 | 0.3 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 58.7 | 69.1 | 0.1 | 0.0 | 1.3 | 1.2 |
| LnGrp LOS | E | E | A | A | A | A |
| Approach Vol, veh/h | 64 | | 90 | | | 108 |
| Approach Delay, s/veh | 65.5 | | 0.1 | | | 1.3 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | 2 | | 6 | | 8 | |
| Phs Duration (G+Y+Rc), s | 109.3 | | 109.3 | | 10.7 | |
| Change Period (Y+Rc), s | 6.0 | | 6.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 63.0 | | 63.0 | | 45.0 | |
| Max Q Clear Time (g_c+l1), s | 2.0 | | 3.0 | | 5.1 | |
| Green Ext Time (p_c), s | 0.5 | | 0.4 | | 0.2 | |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | 16.6 | | | | | |
| HCM 6th LOS | B | | | | | |

Timings

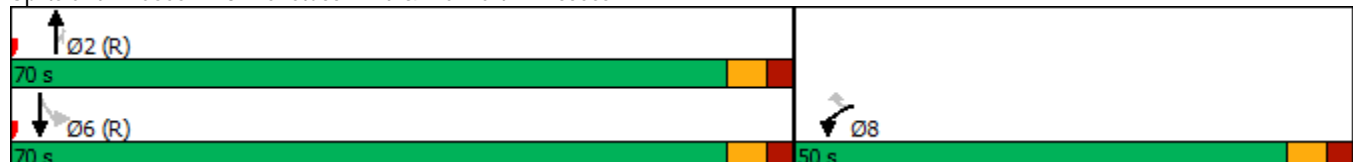
3: Venetucci Blvd & Walmart N. Access

2025 Background AM

06/22/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 4 | 27 | 59 | 6 | 34 | 37 |
| Future Volume (vph) | 4 | 27 | 59 | 6 | 34 | 37 |
| Turn Type | Prot | Perm | NA | Perm | Perm | NA |
| Protected Phases | 8 | | 2 | | | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 50.0 | 50.0 | 70.0 | 70.0 | 70.0 | 70.0 |
| Total Split (%) | 41.7% | 41.7% | 58.3% | 58.3% | 58.3% | 58.3% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effct Green (s) | 6.5 | 6.5 | 108.5 | 108.5 | 108.5 | 108.5 |
| Actuated g/C Ratio | 0.05 | 0.05 | 0.90 | 0.90 | 0.90 | 0.90 |
| v/c Ratio | 0.06 | 0.30 | 0.04 | 0.01 | 0.04 | 0.03 |
| Control Delay | 54.2 | 24.2 | 1.7 | 1.3 | 1.5 | 1.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.2 | 24.2 | 1.7 | 1.3 | 1.5 | 1.5 |
| LOS | D | C | A | A | A | A |
| Approach Delay | 28.1 | | 1.6 | | | 1.5 |
| Approach LOS | C | | A | | | A |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | | | | |
| Natural Cycle: 50 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.30 | | | | | | |
| Intersection Signal Delay: 6.5 | | | | Intersection LOS: A | | |
| Intersection Capacity Utilization 22.7% | | | | ICU Level of Service A | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 3: Venetucci Blvd & Walmart N. Access















HCM 6th Signalized Intersection Summary

3: Venetucci Blvd & Walmart N. Access

2025 Background AM

06/22/2023













| |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 4 | 27 | 59 | 6 | 34 | 37 |
| Future Volume (veh/h) | 4 | 27 | 59 | 6 | 34 | 37 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1796 | 1796 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 5 | 15 | 74 | 4 | 42 | 46 |
| Peak Hour Factor | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| Percent Heavy Veh, % | 7 | 7 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 35 | 31 | 1645 | 1394 | 1222 | 1645 |
| Arrive On Green | 0.02 | 0.02 | 1.00 | 1.00 | 0.88 | 0.88 |
| Sat Flow, veh/h | 1711 | 1522 | 1870 | 1585 | 1321 | 1870 |
| Grp Volume(v), veh/h | 5 | 15 | 74 | 4 | 42 | 46 |
| Grp Sat Flow(s),veh/h/ln | 1711 | 1522 | 1870 | 1585 | 1321 | 1870 |
| Q Serve(g_s), s | 0.3 | 1.2 | 0.0 | 0.0 | 0.5 | 0.4 |
| Cycle Q Clear(g_c), s | 0.3 | 1.2 | 0.0 | 0.0 | 0.5 | 0.4 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 35 | 31 | 1645 | 1394 | 1222 | 1645 |
| V/C Ratio(X) | 0.14 | 0.49 | 0.04 | 0.00 | 0.03 | 0.03 |
| Avail Cap(c_a), veh/h | 627 | 558 | 1645 | 1394 | 1222 | 1645 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.8 | 58.2 | 0.0 | 0.0 | 0.9 | 0.9 |
| Incr Delay (d2), s/veh | 1.9 | 11.4 | 0.1 | 0.0 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.3 | 1.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 59.6 | 69.5 | 0.1 | 0.0 | 0.9 | 0.9 |
| LnGrp LOS | E | E | A | A | A | A |
| Approach Vol, veh/h | 20 | | 78 | | | 88 |
| Approach Delay, s/veh | 67.1 | | 0.0 | | | 0.9 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | 2 | | 6 | | 8 | |
| Phs Duration (G+Y+Rc), s | 111.6 | | 111.6 | | 8.4 | |
| Change Period (Y+Rc), s | 6.0 | | 6.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 64.0 | | 64.0 | | 44.0 | |
| Max Q Clear Time (g_c+l1), s | 2.0 | | 2.5 | | 3.2 | |
| Green Ext Time (p_c), s | 0.4 | | 0.4 | | 0.0 | |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 7.7 | | | |
| HCM 6th LOS | | | A | | | |

Timings

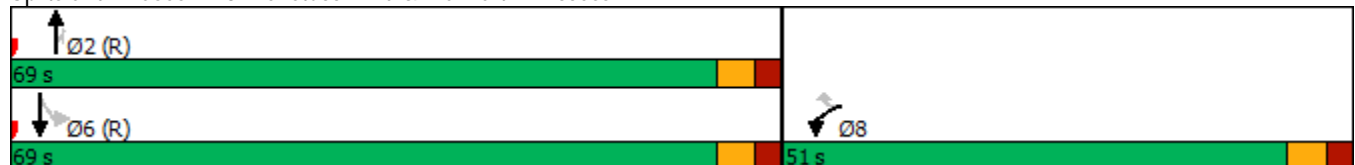
3: Venetucci Blvd & Walmart N. Access

2025 Background PM

06/22/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 19 | 67 | 85 | 16 | 68 | 45 |
| Future Volume (vph) | 19 | 67 | 85 | 16 | 68 | 45 |
| Turn Type | Prot | Perm | NA | Perm | Perm | NA |
| Protected Phases | 8 | | 2 | | | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 51.0 | 51.0 | 69.0 | 69.0 | 69.0 | 69.0 |
| Total Split (%) | 42.5% | 42.5% | 57.5% | 57.5% | 57.5% | 57.5% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effct Green (s) | 7.3 | 7.3 | 104.2 | 104.2 | 104.2 | 104.2 |
| Actuated g/C Ratio | 0.06 | 0.06 | 0.87 | 0.87 | 0.87 | 0.87 |
| v/c Ratio | 0.21 | 0.46 | 0.06 | 0.01 | 0.07 | 0.03 |
| Control Delay | 57.1 | 20.6 | 1.2 | 0.4 | 1.9 | 1.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.1 | 20.6 | 1.2 | 0.4 | 1.9 | 1.8 |
| LOS | E | C | A | A | A | A |
| Approach Delay | 28.8 | | 1.1 | | | 1.9 |
| Approach LOS | C | | A | | | A |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | | | | |
| Natural Cycle: 50 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.46 | | | | | | |
| Intersection Signal Delay: 9.4 | | | | Intersection LOS: A | | |
| Intersection Capacity Utilization 24.6% | | | | ICU Level of Service A | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 3: Venetucci Blvd & Walmart N. Access















HCM 6th Signalized Intersection Summary

3: Venetucci Blvd & Walmart N. Access

2025 Background PM

06/22/2023

| |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 19 | 67 | 85 | 16 | 68 | 45 |
| Future Volume (veh/h) | 19 | 67 | 85 | 16 | 68 | 45 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 22 | 36 | 97 | 9 | 77 | 51 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 63 | 56 | 1617 | 1370 | 1173 | 1617 |
| Arrive On Green | 0.04 | 0.04 | 1.00 | 1.00 | 0.86 | 0.86 |
| Sat Flow, veh/h | 1781 | 1585 | 1870 | 1585 | 1288 | 1870 |
| Grp Volume(v), veh/h | 22 | 36 | 97 | 9 | 77 | 51 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1870 | 1585 | 1288 | 1870 |
| Q Serve(g_s), s | 1.4 | 2.7 | 0.0 | 0.0 | 1.0 | 0.5 |
| Cycle Q Clear(g_c), s | 1.4 | 2.7 | 0.0 | 0.0 | 1.0 | 0.5 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 63 | 56 | 1617 | 1370 | 1173 | 1617 |
| V/C Ratio(X) | 0.35 | 0.64 | 0.06 | 0.01 | 0.07 | 0.03 |
| Avail Cap(c_a), veh/h | 668 | 594 | 1617 | 1370 | 1173 | 1617 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 56.5 | 57.1 | 0.0 | 0.0 | 1.2 | 1.1 |
| Incr Delay (d2), s/veh | 3.2 | 11.3 | 0.1 | 0.0 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.3 | 2.3 | 0.1 | 0.0 | 0.3 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 59.7 | 68.4 | 0.1 | 0.0 | 1.3 | 1.2 |
| LnGrp LOS | E | E | A | A | A | A |
| Approach Vol, veh/h | 58 | | 106 | | | 128 |
| Approach Delay, s/veh | 65.1 | | 0.1 | | | 1.2 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | 2 | | 6 | | 8 | |
| Phs Duration (G+Y+Rc), s | 109.7 | | 109.7 | | 10.3 | |
| Change Period (Y+Rc), s | 6.0 | | 6.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 63.0 | | 63.0 | | 45.0 | |
| Max Q Clear Time (g_c+I1), s | 2.0 | | 3.0 | | 4.7 | |
| Green Ext Time (p_c), s | 0.6 | | 0.5 | | 0.2 | |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 13.5 | | | |
| HCM 6th LOS | | | B | | | |

Timings

3: Venetucci Blvd & South Access/Walmart N. Access

2025 Total AM

06/22/2023



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ↰ | ↱ | ↰ | ↱ | ↰ | ↱ | ↰ | ↰ | ↱ |
| Traffic Volume (vph) | 15 | 0 | 4 | 0 | 20 | 68 | 6 | 34 | 56 |
| Future Volume (vph) | 15 | 0 | 4 | 0 | 20 | 68 | 6 | 34 | 56 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | Perm | NA |
| Protected Phases | | 4 | | 8 | | 2 | | | 6 |
| Permitted Phases | 4 | | 8 | | 2 | | 2 | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 2 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 22.5 | 22.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 48.0 | 48.0 | 48.0 | 48.0 | 72.0 | 72.0 | 72.0 | 72.0 | 72.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 7.4 | 7.4 | 6.2 | 6.2 | 105.3 | 105.3 | 105.3 | 105.3 | 105.3 |
| Actuated g/C Ratio | 0.06 | 0.06 | 0.05 | 0.05 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| v/c Ratio | 0.19 | 0.04 | 0.07 | 0.04 | 0.02 | 0.05 | 0.01 | 0.04 | 0.04 |
| Control Delay | 58.1 | 0.1 | 55.5 | 0.1 | 0.3 | 0.3 | 0.0 | 1.6 | 1.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.1 | 0.1 | 55.5 | 0.1 | 0.3 | 0.3 | 0.0 | 1.6 | 1.5 |
| LOS | E | A | E | A | A | A | A | A | A |
| Approach Delay | | 17.6 | | 7.2 | | 0.3 | | | 1.5 |
| Approach LOS | | B | | A | | A | | | A |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.19

Intersection Signal Delay: 4.4

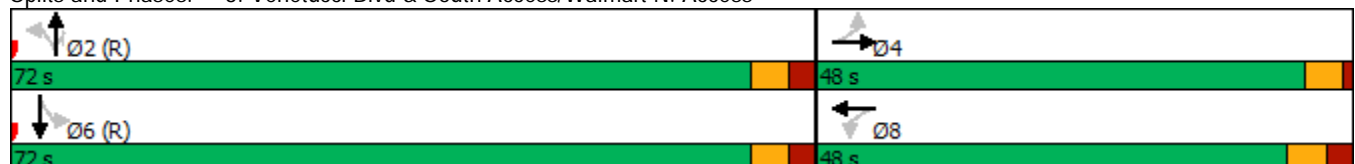
Intersection LOS: A

Intersection Capacity Utilization 26.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Venetucci Blvd & South Access/Walmart N. Access

























HCM 6th Signalized Intersection Summary

3: Venetucci Blvd & South Access/Walmart N. Access

2025 Total AM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 15 | 0 | 34 | 4 | 0 | 27 | 20 | 68 | 6 | 34 | 56 | 1 |
| Future Volume (veh/h) | 15 | 0 | 34 | 4 | 0 | 27 | 20 | 68 | 6 | 34 | 56 | 1 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1796 | 1870 | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 16 | 0 | 19 | 5 | 0 | 15 | 22 | 85 | 4 | 42 | 70 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.80 | 0.92 | 0.80 | 0.92 | 0.80 | 0.80 | 0.80 | 0.80 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 7 | 2 | 7 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 96 | 0 | 55 | 91 | 0 | 55 | 1203 | 1618 | 1371 | 1191 | 1591 | 23 |
| Arrive On Green | 0.04 | 0.00 | 0.04 | 0.04 | 0.00 | 0.04 | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 | 0.86 |
| Sat Flow, veh/h | 1398 | 0 | 1585 | 1338 | 0 | 1585 | 1329 | 1870 | 1585 | 1308 | 1839 | 26 |
| Grp Volume(v), veh/h | 16 | 0 | 19 | 5 | 0 | 15 | 22 | 85 | 4 | 42 | 0 | 71 |
| Grp Sat Flow(s),veh/h/ln | 1398 | 0 | 1585 | 1338 | 0 | 1585 | 1329 | 1870 | 1585 | 1308 | 0 | 1866 |
| Q Serve(g_s), s | 1.4 | 0.0 | 1.4 | 0.4 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.6 |
| Cycle Q Clear(g_c), s | 2.5 | 0.0 | 1.4 | 1.8 | 0.0 | 1.1 | 0.7 | 0.0 | 0.0 | 0.5 | 0.0 | 0.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.01 |
| Lane Grp Cap(c), veh/h | 96 | 0 | 55 | 91 | 0 | 55 | 1203 | 1618 | 1371 | 1191 | 0 | 1614 |
| V/C Ratio(X) | 0.17 | 0.00 | 0.34 | 0.05 | 0.00 | 0.27 | 0.02 | 0.05 | 0.00 | 0.04 | 0.00 | 0.04 |
| Avail Cap(c_a), veh/h | 554 | 0 | 575 | 513 | 0 | 555 | 1203 | 1618 | 1371 | 1191 | 0 | 1614 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.6 | 0.0 | 56.6 | 57.5 | 0.0 | 56.4 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 1.1 |
| Incr Delay (d2), s/veh | 0.8 | 0.0 | 3.6 | 0.2 | 0.0 | 2.6 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.9 | 0.0 | 1.1 | 0.3 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 58.4 | 0.0 | 60.2 | 57.7 | 0.0 | 59.0 | 0.0 | 0.1 | 0.0 | 1.2 | 0.0 | 1.2 |
| LnGrp LOS | E | A | E | E | A | E | A | A | A | A | A | A |
| Approach Vol, veh/h | 35 | | | 20 | | | 111 | | | 113 | | |
| Approach Delay, s/veh | 59.4 | | | 58.7 | | | 0.1 | | | 1.2 | | |
| Approach LOS | E | | | E | | | A | | | A | | |
| Timer - Assigned Phs | 2 | | | 4 | | | 6 | | | 8 | | |
| Phs Duration (G+Y+Rc), s | 109.8 | | | 10.2 | | | 109.8 | | | 10.2 | | |
| Change Period (Y+Rc), s | 6.0 | | | * 6 | | | 6.0 | | | 6.0 | | |
| Max Green Setting (Gmax), s | 66.0 | | | * 44 | | | 66.0 | | | 42.0 | | |
| Max Q Clear Time (g_c+I1), s | 2.7 | | | 4.5 | | | 2.6 | | | 3.8 | | |
| Green Ext Time (p_c), s | 0.6 | | | 0.1 | | | 0.5 | | | 0.1 | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 12.2 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Timings

3: Venetucci Blvd & South Access/Walmart N. Access

2025 Total PM

06/22/2023



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 9 | 0 | 19 | 0 | 68 | 117 | 16 | 68 | 57 |
| Future Volume (vph) | 9 | 0 | 19 | 0 | 68 | 117 | 16 | 68 | 57 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | Perm | NA |
| Protected Phases | | 4 | | 8 | | 2 | | | 6 |
| Permitted Phases | 4 | | 8 | | 2 | | 2 | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 2 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 22.5 | 22.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 46.0 | 74.0 | 74.0 | 74.0 | 74.0 | 74.0 |
| Total Split (%) | 38.3% | 38.3% | 38.3% | 38.3% | 61.7% | 61.7% | 61.7% | 61.7% | 61.7% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 8.7 | 8.7 | 7.5 | 7.5 | 104.0 | 104.0 | 104.0 | 104.0 | 104.0 |
| Actuated g/C Ratio | 0.07 | 0.07 | 0.06 | 0.06 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| v/c Ratio | 0.11 | 0.02 | 0.26 | 0.09 | 0.06 | 0.08 | 0.01 | 0.07 | 0.04 |
| Control Delay | 53.0 | 0.0 | 60.0 | 0.2 | 1.1 | 1.1 | 0.2 | 2.0 | 1.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.0 | 0.0 | 60.0 | 0.2 | 1.1 | 1.1 | 0.2 | 2.0 | 1.8 |
| LOS | D | A | E | A | A | A | A | A | A |
| Approach Delay | | 16.1 | | 13.6 | | 1.0 | | | 1.9 |
| Approach LOS | | B | | B | | A | | | A |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 4.7

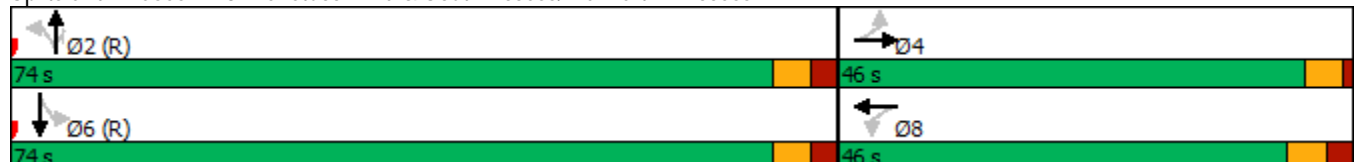
Intersection LOS: A

Intersection Capacity Utilization 28.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Venetucci Blvd & South Access/Walmart N. Access

























HCM 6th Signalized Intersection Summary

3: Venetucci Blvd & South Access/Walmart N. Access

2025 Total PM













06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 9 | 0 | 21 | 19 | 0 | 67 | 68 | 117 | 16 | 68 | 57 | 2 |
| Future Volume (veh/h) | 9 | 0 | 21 | 19 | 0 | 67 | 68 | 117 | 16 | 68 | 57 | 2 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 10 | 0 | 12 | 22 | 0 | 36 | 74 | 133 | 9 | 77 | 65 | 2 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.88 | 0.92 | 0.88 | 0.92 | 0.88 | 0.88 | 0.88 | 0.88 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 89 | 0 | 69 | 111 | 0 | 69 | 1196 | 1602 | 1358 | 1128 | 1546 | 48 |
| Arrive On Green | 0.04 | 0.00 | 0.04 | 0.04 | 0.00 | 0.04 | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 | 0.86 |
| Sat Flow, veh/h | 1372 | 0 | 1585 | 1402 | 0 | 1585 | 1334 | 1870 | 1585 | 1246 | 1805 | 56 |
| Grp Volume(v), veh/h | 10 | 0 | 12 | 22 | 0 | 36 | 74 | 133 | 9 | 77 | 0 | 67 |
| Grp Sat Flow(s),veh/h/ln | 1372 | 0 | 1585 | 1402 | 0 | 1585 | 1334 | 1870 | 1585 | 1246 | 0 | 1860 |
| Q Serve(g_s), s | 0.9 | 0.0 | 0.9 | 1.8 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.6 |
| Cycle Q Clear(g_c), s | 3.5 | 0.0 | 0.9 | 2.7 | 0.0 | 2.7 | 0.7 | 0.0 | 0.0 | 1.1 | 0.0 | 0.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.03 |
| Lane Grp Cap(c), veh/h | 89 | 0 | 69 | 111 | 0 | 69 | 1196 | 1602 | 1358 | 1128 | 0 | 1594 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.17 | 0.20 | 0.00 | 0.52 | 0.06 | 0.08 | 0.01 | 0.07 | 0.00 | 0.04 |
| Avail Cap(c_a), veh/h | 504 | 0 | 548 | 517 | 0 | 528 | 1196 | 1602 | 1358 | 1128 | 0 | 1594 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.9 | 0.0 | 55.3 | 56.6 | 0.0 | 56.2 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 1.3 |
| Incr Delay (d2), s/veh | 0.6 | 0.0 | 1.2 | 0.9 | 0.0 | 6.1 | 0.1 | 0.1 | 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 | 0.6 | 0.0 | 0.7 | 1.2 | 0.0 | 2.1 | 0.1 | 0.1 | 0.0 | 0.3 | 0.0 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 58.5 | 0.0 | 56.5 | 57.5 | 0.0 | 62.2 | 0.1 | 0.1 | 0.0 | 1.4 | 0.0 | 1.3 |
| LnGrp LOS | E | A | E | E | A | E | A | A | A | A | A | A |
| Approach Vol, veh/h | 22 | | | 58 | | | 216 | | | 144 | | |
| Approach Delay, s/veh | 57.4 | | | 60.5 | | | 0.1 | | | 1.4 | | |
| Approach LOS | E | | | E | | | A | | | A | | |
| Timer - Assigned Phs | 2 | | | 4 | | | 6 | | | 8 | | |
| Phs Duration (G+Y+Rc), s | 108.8 | | | 11.2 | | | 108.8 | | | 11.2 | | |
| Change Period (Y+Rc), s | 6.0 | | | * 6 | | | 6.0 | | | 6.0 | | |
| Max Green Setting (Gmax), s | 68.0 | | | * 42 | | | 68.0 | | | 40.0 | | |
| Max Q Clear Time (g_c+I1), s | 2.7 | | | 5.5 | | | 3.1 | | | 4.7 | | |
| Green Ext Time (p_c), s | 1.1 | | | 0.1 | | | 0.7 | | | 0.2 | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 11.3 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

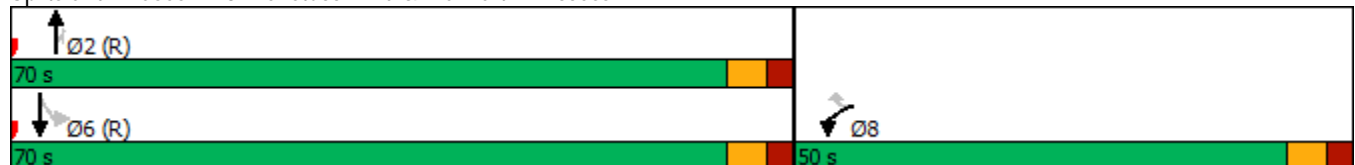
Timings 3: Venetucci Blvd & Walmart N. Access

2045 Background AM

06/22/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 4 | 27 | 74 | 6 | 34 | 43 |
| Future Volume (vph) | 4 | 27 | 74 | 6 | 34 | 43 |
| Turn Type | Prot | Perm | NA | Perm | Perm | NA |
| Protected Phases | 8 | | 2 | | | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 50.0 | 50.0 | 70.0 | 70.0 | 70.0 | 70.0 |
| Total Split (%) | 41.7% | 41.7% | 58.3% | 58.3% | 58.3% | 58.3% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effct Green (s) | 6.4 | 6.4 | 108.6 | 108.6 | 108.6 | 108.6 |
| Actuated g/C Ratio | 0.05 | 0.05 | 0.90 | 0.90 | 0.90 | 0.90 |
| v/c Ratio | 0.04 | 0.27 | 0.05 | 0.00 | 0.03 | 0.03 |
| Control Delay | 54.0 | 24.6 | 1.4 | 1.2 | 1.5 | 1.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.0 | 24.6 | 1.4 | 1.2 | 1.5 | 1.5 |
| LOS | D | C | A | A | A | A |
| Approach Delay | 28.1 | | 1.4 | | | 1.5 |
| Approach LOS | C | | A | | | A |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | | | | |
| Natural Cycle: 50 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.27 | | | | | | |
| Intersection Signal Delay: 5.8 | | | | Intersection LOS: A | | |
| Intersection Capacity Utilization 22.7% | | | | ICU Level of Service A | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 3: Venetucci Blvd & Walmart N. Access















HCM 6th Signalized Intersection Summary

3: Venetucci Blvd & Walmart N. Access

2045 Background AM













06/22/2023

| |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 4 | 27 | 74 | 6 | 34 | 43 |
| Future Volume (veh/h) | 4 | 27 | 74 | 6 | 34 | 43 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1796 | 1796 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 4 | 7 | 80 | 3 | 37 | 47 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 7 | 7 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 22 | 19 | 1659 | 1406 | 1227 | 1659 |
| Arrive On Green | 0.01 | 0.01 | 1.00 | 1.00 | 0.89 | 0.89 |
| Sat Flow, veh/h | 1711 | 1522 | 1870 | 1585 | 1315 | 1870 |
| Grp Volume(v), veh/h | 4 | 7 | 80 | 3 | 37 | 47 |
| Grp Sat Flow(s),veh/h/ln | 1711 | 1522 | 1870 | 1585 | 1315 | 1870 |
| Q Serve(g_s), s | 0.3 | 0.5 | 0.0 | 0.0 | 0.4 | 0.3 |
| Cycle Q Clear(g_c), s | 0.3 | 0.5 | 0.0 | 0.0 | 0.4 | 0.3 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 22 | 19 | 1659 | 1406 | 1227 | 1659 |
| V/C Ratio(X) | 0.18 | 0.36 | 0.05 | 0.00 | 0.03 | 0.03 |
| Avail Cap(c_a), veh/h | 627 | 558 | 1659 | 1406 | 1227 | 1659 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 58.6 | 58.7 | 0.0 | 0.0 | 0.8 | 0.8 |
| Incr Delay (d2), s/veh | 3.9 | 10.8 | 0.1 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.3 | 0.5 | 0.0 | 0.0 | 0.1 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 62.5 | 69.6 | 0.1 | 0.0 | 0.8 | 0.8 |
| LnGrp LOS | E | E | A | A | A | A |
| Approach Vol, veh/h | 11 | | 83 | | | 84 |
| Approach Delay, s/veh | 67.0 | | 0.1 | | | 0.8 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | 2 | | 6 | | 8 | |
| Phs Duration (G+Y+Rc), s | 112.5 | | 112.5 | | 7.5 | |
| Change Period (Y+Rc), s | 6.0 | | 6.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 64.0 | | 64.0 | | 44.0 | |
| Max Q Clear Time (g_c+I1), s | 2.0 | | 2.4 | | 2.5 | |
| Green Ext Time (p_c), s | 0.5 | | 0.4 | | 0.0 | |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 4.6 | | | |
| HCM 6th LOS | | | A | | | |

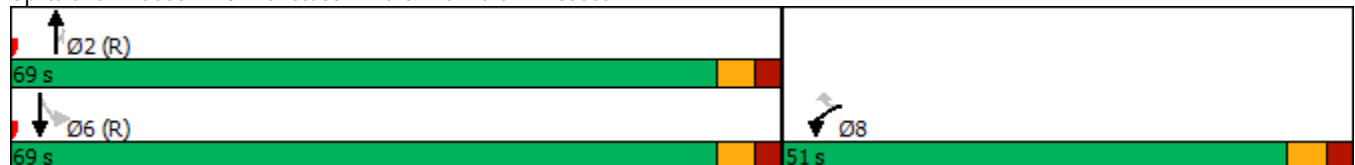
Timings 3: Venetucci Blvd & Walmart N. Access

2045 Background PM

06/22/2023

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (vph) | 19 | 67 | 109 | 16 | 68 | 54 |
| Future Volume (vph) | 19 | 67 | 109 | 16 | 68 | 54 |
| Turn Type | Prot | Perm | NA | Perm | Perm | NA |
| Protected Phases | 8 | | 2 | | | 6 |
| Permitted Phases | | 8 | | 2 | 6 | |
| Detector Phase | 8 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 51.0 | 51.0 | 69.0 | 69.0 | 69.0 | 69.0 |
| Total Split (%) | 42.5% | 42.5% | 57.5% | 57.5% | 57.5% | 57.5% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Recall Mode | None | None | C-Max | C-Max | C-Max | C-Max |
| Act Effct Green (s) | 7.2 | 7.2 | 104.3 | 104.3 | 104.3 | 104.3 |
| Actuated g/C Ratio | 0.06 | 0.06 | 0.87 | 0.87 | 0.87 | 0.87 |
| v/c Ratio | 0.20 | 0.45 | 0.07 | 0.01 | 0.07 | 0.04 |
| Control Delay | 56.9 | 20.8 | 1.2 | 0.3 | 1.9 | 1.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 56.9 | 20.8 | 1.2 | 0.3 | 1.9 | 1.8 |
| LOS | E | C | A | A | A | A |
| Approach Delay | 28.9 | | 1.1 | | | 1.9 |
| Approach LOS | C | | A | | | A |
| Intersection Summary | | | | | | |
| Cycle Length: 120 | | | | | | |
| Actuated Cycle Length: 120 | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | | | | |
| Natural Cycle: 50 | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | |
| Maximum v/c Ratio: 0.45 | | | | | | |
| Intersection Signal Delay: 8.6 | | | | Intersection LOS: A | | |
| Intersection Capacity Utilization 24.6% | | | | ICU Level of Service A | | |
| Analysis Period (min) 15 | | | | | | |

Splits and Phases: 3: Venetucci Blvd & Walmart N. Access















HCM 6th Signalized Intersection Summary

3: Venetucci Blvd & Walmart N. Access

2045 Background PM

06/22/2023



















| |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 19 | 67 | 109 | 16 | 68 | 54 |
| Future Volume (veh/h) | 19 | 67 | 109 | 16 | 68 | 54 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 21 | 24 | 118 | 5 | 74 | 59 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 58 | 51 | 1623 | 1375 | 1160 | 1623 |
| Arrive On Green | 0.03 | 0.03 | 1.00 | 1.00 | 0.87 | 0.87 |
| Sat Flow, veh/h | 1781 | 1585 | 1870 | 1585 | 1268 | 1870 |
| Grp Volume(v), veh/h | 21 | 24 | 118 | 5 | 74 | 59 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1870 | 1585 | 1268 | 1870 |
| Q Serve(g_s), s | 1.4 | 1.8 | 0.0 | 0.0 | 1.0 | 0.5 |
| Cycle Q Clear(g_c), s | 1.4 | 1.8 | 0.0 | 0.0 | 1.0 | 0.5 |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 58 | 51 | 1623 | 1375 | 1160 | 1623 |
| V/C Ratio(X) | 0.36 | 0.47 | 0.07 | 0.00 | 0.06 | 0.04 |
| Avail Cap(c_a), veh/h | 668 | 594 | 1623 | 1375 | 1160 | 1623 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 56.8 | 57.0 | 0.0 | 0.0 | 1.1 | 1.1 |
| Incr Delay (d2), s/veh | 3.8 | 6.5 | 0.1 | 0.0 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.2 | 1.5 | 0.1 | 0.0 | 0.3 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 60.7 | 63.5 | 0.1 | 0.0 | 1.2 | 1.1 |
| LnGrp LOS | E | E | A | A | A | A |
| Approach Vol, veh/h | 45 | | 123 | | | 133 |
| Approach Delay, s/veh | 62.2 | | 0.1 | | | 1.2 |
| Approach LOS | E | | A | | | A |
| Timer - Assigned Phs | 2 | | 6 | | 8 | |
| Phs Duration (G+Y+Rc), s | 110.1 | | 110.1 | | 9.9 | |
| Change Period (Y+Rc), s | 6.0 | | 6.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 63.0 | | 63.0 | | 45.0 | |
| Max Q Clear Time (g_c+l1), s | 2.0 | | 3.0 | | 3.8 | |
| Green Ext Time (p_c), s | 0.7 | | 0.6 | | 0.1 | |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 9.9 | | | |
| HCM 6th LOS | | | A | | | |

Timings

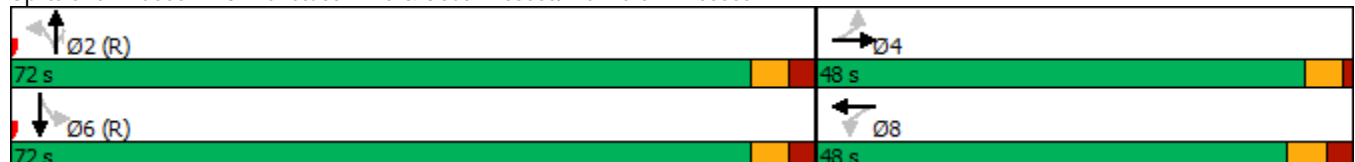
3: Venetucci Blvd & South Access/Walmart N. Access

2045 Total AM

06/22/2023

| |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 15 | 0 | 4 | 0 | 20 | 83 | 6 | 34 | 62 |
| Future Volume (vph) | 15 | 0 | 4 | 0 | 20 | 83 | 6 | 34 | 62 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | Perm | NA |
| Protected Phases | | 4 | | 8 | | 2 | | | 6 |
| Permitted Phases | 4 | | 8 | | 2 | | 2 | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 2 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 22.5 | 22.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 48.0 | 48.0 | 48.0 | 48.0 | 72.0 | 72.0 | 72.0 | 72.0 | 72.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effct Green (s) | 7.4 | 7.4 | 6.2 | 6.2 | 105.3 | 105.3 | 105.3 | 105.3 | 105.3 |
| Actuated g/C Ratio | 0.06 | 0.06 | 0.05 | 0.05 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| v/c Ratio | 0.19 | 0.04 | 0.06 | 0.03 | 0.02 | 0.06 | 0.01 | 0.03 | 0.04 |
| Control Delay | 58.0 | 0.1 | 55.0 | 0.1 | 0.2 | 0.3 | 0.0 | 1.6 | 1.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.0 | 0.1 | 55.0 | 0.1 | 0.2 | 0.3 | 0.0 | 1.6 | 1.5 |
| LOS | E | A | D | A | A | A | A | A | A |
| Approach Delay | | 17.6 | | 6.7 | | 0.3 | | | 1.5 |
| Approach LOS | | B | | A | | A | | | A |
| Intersection Summary | | | | | | | | | |
| Cycle Length: 120 | | | | | | | | | |
| Actuated Cycle Length: 120 | | | | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green | | | | | | | | | |
| Natural Cycle: 50 | | | | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | | | | |
| Maximum v/c Ratio: 0.19 | | | | | | | | | |
| Intersection Signal Delay: 4.3 | | | | | Intersection LOS: A | | | | |
| Intersection Capacity Utilization 26.3% | | | | | ICU Level of Service A | | | | |
| Analysis Period (min) 15 | | | | | | | | | |

Splits and Phases: 3: Venetucci Blvd & South Access/Walmart N. Access

























HCM 6th Signalized Intersection Summary

3: Venetucci Blvd & South Access/Walmart N. Access

2045 Total AM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 15 | 0 | 34 | 4 | 0 | 27 | 20 | 83 | 6 | 34 | 62 | 1 |
| Future Volume (veh/h) | 15 | 0 | 34 | 4 | 0 | 27 | 20 | 83 | 6 | 34 | 62 | 1 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1796 | 1870 | 1796 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 16 | 0 | 19 | 4 | 0 | 7 | 22 | 90 | 3 | 37 | 67 | 1 |
| 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 | 7 | 2 | 7 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 100 | 0 | 52 | 88 | 0 | 52 | 1209 | 1622 | 1375 | 1190 | 1594 | 24 |
| Arrive On Green | 0.03 | 0.00 | 0.03 | 0.03 | 0.00 | 0.03 | 1.00 | 1.00 | 1.00 | 0.87 | 0.87 | 0.87 |
| Sat Flow, veh/h | 1409 | 0 | 1585 | 1338 | 0 | 1585 | 1333 | 1870 | 1585 | 1303 | 1838 | 27 |
| Grp Volume(v), veh/h | 16 | 0 | 19 | 4 | 0 | 7 | 22 | 90 | 3 | 37 | 0 | 68 |
| Grp Sat Flow(s),veh/h/ln | 1409 | 0 | 1585 | 1338 | 0 | 1585 | 1333 | 1870 | 1585 | 1303 | 0 | 1865 |
| Q Serve(g_s), s | 1.3 | 0.0 | 1.4 | 0.4 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.6 |
| Cycle Q Clear(g_c), s | 1.9 | 0.0 | 1.4 | 1.8 | 0.0 | 0.5 | 0.6 | 0.0 | 0.0 | 0.5 | 0.0 | 0.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.01 |
| Lane Grp Cap(c), veh/h | 100 | 0 | 52 | 88 | 0 | 52 | 1209 | 1622 | 1375 | 1190 | 0 | 1618 |
| V/C Ratio(X) | 0.16 | 0.00 | 0.37 | 0.05 | 0.00 | 0.14 | 0.02 | 0.06 | 0.00 | 0.03 | 0.00 | 0.04 |
| Avail Cap(c_a), veh/h | 565 | 0 | 575 | 513 | 0 | 555 | 1209 | 1622 | 1375 | 1190 | 0 | 1618 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.3 | 0.0 | 56.8 | 57.7 | 0.0 | 56.4 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 1.1 |
| Incr Delay (d2), s/veh | 0.7 | 0.0 | 4.3 | 0.2 | 0.0 | 1.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.9 | 0.0 | 1.1 | 0.2 | 0.0 | 0.4 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 58.0 | 0.0 | 61.1 | 57.9 | 0.0 | 57.6 | 0.0 | 0.1 | 0.0 | 1.1 | 0.0 | 1.1 |
| LnGrp LOS | E | A | E | E | A | E | A | A | A | A | A | A |
| Approach Vol, veh/h | 35 | | | 11 | | | 115 | | | 105 | | |
| Approach Delay, s/veh | 59.7 | | | 57.7 | | | 0.1 | | | 1.1 | | |
| Approach LOS | E | | | E | | | A | | | A | | |
| Timer - Assigned Phs | 2 | | | 4 | | | 6 | | | 8 | | |
| Phs Duration (G+Y+Rc), s | 110.1 | | | 9.9 | | | 110.1 | | | 9.9 | | |
| Change Period (Y+Rc), s | 6.0 | | | * 6 | | | 6.0 | | | 6.0 | | |
| Max Green Setting (Gmax), s | 66.0 | | | * 44 | | | 66.0 | | | 42.0 | | |
| Max Q Clear Time (g_c+I1), s | 2.6 | | | 3.9 | | | 2.6 | | | 3.8 | | |
| Green Ext Time (p_c), s | 0.6 | | | 0.1 | | | 0.5 | | | 0.0 | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 10.7 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Timings

3: Venetucci Blvd & South Access/Walmart N. Access

2045 Total PM

06/22/2023



| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | NBR | SBL | SBT |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 9 | 0 | 19 | 0 | 68 | 141 | 16 | 68 | 66 |
| Future Volume (vph) | 9 | 0 | 19 | 0 | 68 | 141 | 16 | 68 | 66 |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | Perm | NA |
| Protected Phases | | 4 | | 8 | | 2 | | | 6 |
| Permitted Phases | 4 | | 8 | | 2 | | 2 | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 2 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 22.5 | 22.5 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 48.0 | 48.0 | 48.0 | 48.0 | 72.0 | 72.0 | 72.0 | 72.0 | 72.0 |
| Total Split (%) | 40.0% | 40.0% | 40.0% | 40.0% | 60.0% | 60.0% | 60.0% | 60.0% | 60.0% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 8.6 | 8.6 | 7.4 | 7.4 | 104.1 | 104.1 | 104.1 | 104.1 | 104.1 |
| Actuated g/C Ratio | 0.07 | 0.07 | 0.06 | 0.06 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| v/c Ratio | 0.11 | 0.02 | 0.25 | 0.09 | 0.06 | 0.09 | 0.01 | 0.07 | 0.05 |
| Control Delay | 53.1 | 0.0 | 59.8 | 0.2 | 1.0 | 1.1 | 0.1 | 2.0 | 1.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.1 | 0.0 | 59.8 | 0.2 | 1.0 | 1.1 | 0.1 | 2.0 | 1.8 |
| LOS | D | A | E | A | A | A | A | A | A |
| Approach Delay | | 16.1 | | 13.5 | | 1.0 | | | 1.9 |
| Approach LOS | | B | | B | | A | | | A |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.25

Intersection Signal Delay: 4.5

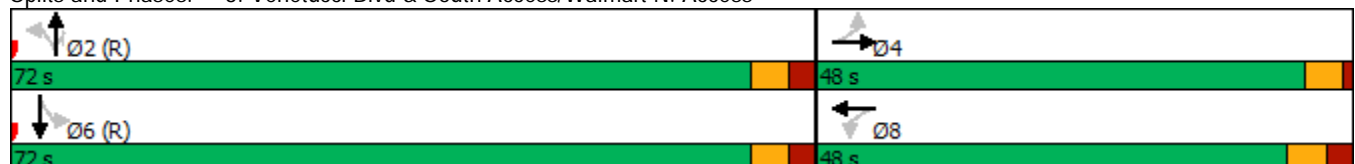
Intersection LOS: A

Intersection Capacity Utilization 34.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Venetucci Blvd & South Access/Walmart N. Access

























HCM 6th Signalized Intersection Summary

3: Venetucci Blvd & South Access/Walmart N. Access

2045 Total PM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 9 | 0 | 21 | 19 | 0 | 67 | 68 | 141 | 16 | 68 | 66 | 2 |
| Future Volume (veh/h) | 9 | 0 | 21 | 19 | 0 | 67 | 68 | 141 | 16 | 68 | 66 | 2 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 10 | 0 | 12 | 21 | 0 | 24 | 74 | 153 | 5 | 74 | 72 | 2 |
| 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 | 91 | 0 | 59 | 102 | 0 | 59 | 1196 | 1614 | 1368 | 1120 | 1563 | 43 |
| Arrive On Green | 0.04 | 0.00 | 0.04 | 0.04 | 0.00 | 0.04 | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 | 0.86 |
| Sat Flow, veh/h | 1387 | 0 | 1585 | 1402 | 0 | 1585 | 1326 | 1870 | 1585 | 1228 | 1811 | 50 |
| Grp Volume(v), veh/h | 10 | 0 | 12 | 21 | 0 | 24 | 74 | 153 | 5 | 74 | 0 | 74 |
| Grp Sat Flow(s),veh/h/ln | 1387 | 0 | 1585 | 1402 | 0 | 1585 | 1326 | 1870 | 1585 | 1228 | 0 | 1861 |
| Q Serve(g_s), s | 0.9 | 0.0 | 0.9 | 1.8 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.7 |
| Cycle Q Clear(g_c), s | 2.6 | 0.0 | 0.9 | 2.7 | 0.0 | 1.8 | 0.7 | 0.0 | 0.0 | 1.1 | 0.0 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.03 |
| Lane Grp Cap(c), veh/h | 91 | 0 | 59 | 102 | 0 | 59 | 1196 | 1614 | 1368 | 1120 | 0 | 1606 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.20 | 0.21 | 0.00 | 0.41 | 0.06 | 0.09 | 0.00 | 0.07 | 0.00 | 0.05 |
| Avail Cap(c_a), veh/h | 542 | 0 | 575 | 540 | 0 | 555 | 1196 | 1614 | 1368 | 1120 | 0 | 1606 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.8 | 0.0 | 56.0 | 57.3 | 0.0 | 56.5 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 1.2 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 1.7 | 1.0 | 0.0 | 4.5 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.6 | 0.0 | 0.7 | 1.2 | 0.0 | 1.4 | 0.1 | 0.1 | 0.0 | 0.3 | 0.0 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 58.3 | 0.0 | 57.7 | 58.3 | 0.0 | 60.9 | 0.1 | 0.1 | 0.0 | 1.3 | 0.0 | 1.2 |
| LnGrp LOS | E | A | E | E | A | E | A | A | A | A | A | A |
| Approach Vol, veh/h | 22 | | | 45 | | | 232 | | | 148 | | |
| Approach Delay, s/veh | 58.0 | | | 59.7 | | | 0.1 | | | 1.3 | | |
| Approach LOS | E | | | E | | | A | | | A | | |
| Timer - Assigned Phs | 2 | | | 4 | | | 6 | | | 8 | | |
| Phs Duration (G+Y+Rc), s | 109.5 | | | 10.5 | | | 109.5 | | | 10.5 | | |
| Change Period (Y+Rc), s | 6.0 | | | * 6 | | | 6.0 | | | 6.0 | | |
| Max Green Setting (Gmax), s | 66.0 | | | * 44 | | | 66.0 | | | 42.0 | | |
| Max Q Clear Time (g_c+I1), s | 2.7 | | | 4.6 | | | 3.1 | | | 4.7 | | |
| Green Ext Time (p_c), s | 1.2 | | | 0.1 | | | 0.7 | | | 0.2 | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 9.3 | | | | | | | | | |
| HCM 6th LOS | | | A | | | | | | | | | |
| Notes | | | | | | | | | | | | |

Timings

4: Venetucci Blvd & Walmart Heights

2023 Existing AM
06/22/2023

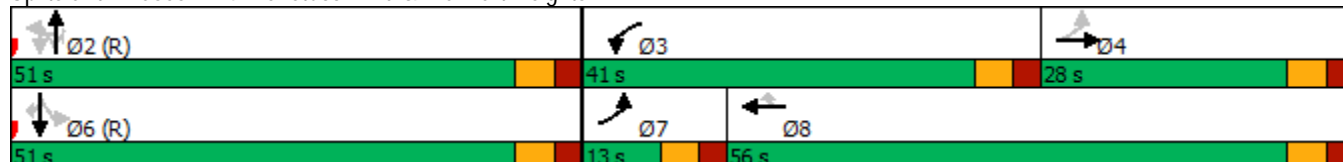
| | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | Ø4 | Ø7 |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Lane Group | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | Ø4 | Ø7 |
| Lane Configurations | ↰ | ↰ | ↰ | | ↰ | ↰ | ↰ | ↰ | ↰ | | |
| Traffic Volume (vph) | 248 | 0 | 22 | 38 | 0 | 33 | 242 | 9 | 15 | | |
| Future Volume (vph) | 248 | 0 | 22 | 38 | 0 | 33 | 242 | 9 | 15 | | |
| Turn Type | Prot | NA | Perm | Perm | Perm | NA | Perm | Perm | NA | | |
| Protected Phases | 3 | 8 | | | | 2 | | | 6 | 4 | 7 |
| Permitted Phases | | | 8 | 2 | 2 | | 2 | 6 | | | |
| Detector Phase | 3 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 |
| Total Split (s) | 41.0 | 56.0 | 56.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 | 28.0 | 13.0 |
| Total Split (%) | 34.2% | 46.7% | 46.7% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% | 23% | 11% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | |
| Lead/Lag | Lead | Lag | Lag | | | | | | | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | | | | Yes | Yes |
| Recall Mode | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | None | None |
| Act Effect Green (s) | 63.0 | 63.0 | 63.0 | | 45.0 | 45.0 | 45.0 | 45.0 | 45.0 | | |
| Actuated g/C Ratio | 0.52 | 0.52 | 0.52 | | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 | | |
| v/c Ratio | 0.16 | 0.16 | 0.03 | | 0.08 | 0.03 | 0.36 | 0.02 | 0.01 | | |
| Control Delay | 15.4 | 15.4 | 0.0 | | 24.8 | 23.9 | 4.3 | 25.7 | 25.1 | | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Total Delay | 15.4 | 15.4 | 0.0 | | 24.8 | 23.9 | 4.3 | 25.7 | 25.1 | | |
| LOS | B | B | A | | C | C | A | C | C | | |
| Approach Delay | | 14.2 | | | | 8.8 | | | 25.3 | | |
| Approach LOS | | B | | | | A | | | C | | |

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.36
 Intersection Signal Delay: 11.8
 Intersection Capacity Utilization 29.2%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 4: Venetucci Blvd & Walmart Heights

























HCM 6th Signalized Intersection Summary

4: Venetucci Blvd & Walmart Heights

2023 Existing AM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 248 | 0 | 22 | 38 | 0 | 33 | 242 | 9 | 15 |
| Future Volume (veh/h) | 0 | 0 | 0 | 248 | 0 | 22 | 38 | 0 | 33 | 242 | 9 | 15 |
| Initial Q (Qb), veh | 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 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 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 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 0 | 0 | 0 | 285 | 0 | 14 | | 0 | 38 | 140 | 10 | 17 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 4 | 4 |
| Cap, veh/h | 61 | 2 | 0 | 366 | 0 | 163 | | 60 | 2833 | 1264 | 1004 | 2788 |
| Arrive On Green | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 | 0.10 | | 0.00 | 0.80 | 0.80 | 0.80 | 0.80 |
| Sat Flow, veh/h | 1781 | 1870 | 0 | 3563 | 0 | 1585 | | 1396 | 3554 | 1585 | 1187 | 3497 |
| Grp Volume(v), veh/h | 0 | 0 | 0 | 285 | 0 | 14 | | 0 | 38 | 140 | 10 | 17 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1870 | 0 | 1781 | 0 | 1585 | | 1396 | 1777 | 1585 | 1187 | 1749 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 9.4 | 0.0 | 1.0 | | 0.0 | 0.3 | 2.4 | 0.2 | 0.1 |
| Cycle Q Clear(g_c), s | 0.0 | 0.0 | 0.0 | 9.4 | 0.0 | 1.0 | | 0.0 | 0.3 | 2.4 | 0.5 | 0.1 |
| Prop In Lane | 1.00 | | 0.00 | 1.00 | | 1.00 | | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 61 | 2 | 0 | 366 | 0 | 163 | | 60 | 2833 | 1264 | 1004 | 2788 |
| V/C Ratio(X) | 0.00 | 0.00 | 0.00 | 0.78 | 0.00 | 0.09 | | 0.00 | 0.01 | 0.11 | 0.01 | 0.01 |
| Avail Cap(c_a), veh/h | 164 | 343 | 0 | 1039 | 0 | 660 | | 60 | 2833 | 1264 | 1004 | 2788 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 0.0 | 0.0 | 52.5 | 0.0 | 48.7 | | 0.0 | 2.5 | 2.7 | 2.5 | 2.5 |
| Incr Delay (d2), s/veh | 0.0 | 0.0 | 0.0 | 3.6 | 0.0 | 0.2 | | 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 |
| %ile BackOfQ(95%),veh/ln | 0.0 | 0.0 | 0.0 | 7.8 | 0.0 | 0.7 | | 0.0 | 0.1 | 1.2 | 0.1 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 0.0 | 0.0 | 56.1 | 0.0 | 49.0 | | 0.0 | 2.5 | 2.9 | 2.6 | 2.5 |
| LnGrp LOS | A | A | A | E | A | D | | A | A | A | A | A |
| Approach Vol, veh/h | 0 | | | 299 | | | 178 | | | 27 | | |
| Approach Delay, s/veh | 0.0 | | | 55.8 | | | 2.8 | | | 2.5 | | |
| Approach LOS | | | | E | | | A | | | A | | |
| Timer - Assigned Phs | 2 | | 3 | 4 | | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 101.7 | | 18.3 | 0.0 | | 101.7 | 0.0 | 18.3 | | | | |
| Change Period (Y+Rc), s | 6.0 | | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | 45.0 | | 35.0 | 22.0 | | 45.0 | 7.0 | 50.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | | 11.4 | 0.0 | | 2.5 | 0.0 | 3.0 | | | | |
| Green Ext Time (p_c), s | 0.7 | | 1.0 | 0.0 | | 0.1 | 0.0 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 34.2 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| User approved volume balancing among the lanes for turning movement. | | | | | | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary
4: Venetucci Blvd & Walmart Heights

2023 Existing AM
06/22/2023

| Movement | SBR |
|------------------------------|------|
| Lane Configurations | |
| Traffic Volume (veh/h) | 0 |
| Future Volume (veh/h) | 0 |
| Initial Q (Qb), veh | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |
| Parking Bus, Adj | 1.00 |
| Work Zone On Approach | |
| Adj Sat Flow, veh/h/ln | 1841 |
| Adj Flow Rate, veh/h | 0 |
| Peak Hour Factor | 0.87 |
| Percent Heavy Veh, % | 4 |
| Cap, veh/h | 1244 |
| Arrive On Green | 0.00 |
| Sat Flow, veh/h | 1560 |
| Grp Volume(v), veh/h | 0 |
| Grp Sat Flow(s),veh/h/ln | 1560 |
| Q Serve(g_s), s | 0.0 |
| Cycle Q Clear(g_c), s | 0.0 |
| Prop In Lane | 1.00 |
| Lane Grp Cap(c), veh/h | 1244 |
| V/C Ratio(X) | 0.00 |
| Avail Cap(c_a), veh/h | 1244 |
| HCM Platoon Ratio | 1.00 |
| Upstream Filter(I) | 0.00 |
| Uniform Delay (d), s/veh | 0.0 |
| Incr Delay (d2), s/veh | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.0 |
| Unsig. Movement Delay, s/veh | |
| LnGrp Delay(d),s/veh | 0.0 |
| LnGrp LOS | A |
| Approach Vol, veh/h | |
| Approach Delay, s/veh | |
| Approach LOS | |
| Timer - Assigned Phs | |

Timings 4: Venetucci Blvd & Walmart Heights

2023 Existing PM
06/22/2023

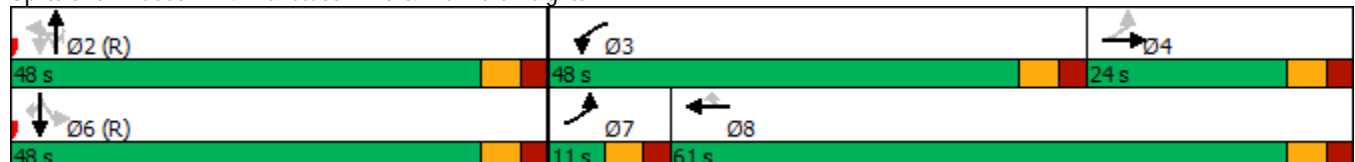
| | → | ↖ | ← | ↗ | ↘ | ↙ | ↑ | ↖ | ↗ | ↓ | |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Lane Group | EBT | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | Ø7 |
| Lane Configurations | ↖ | ↖ | ↖ | ↖ | | ↖ | ↖ | ↖ | ↖ | ↖ | |
| Traffic Volume (vph) | 0 | 537 | 0 | 51 | 49 | 0 | 44 | 457 | 20 | 18 | |
| Future Volume (vph) | 0 | 537 | 0 | 51 | 49 | 0 | 44 | 457 | 20 | 18 | |
| Turn Type | NA | Prot | NA | Perm | Perm | Perm | NA | Perm | Perm | NA | |
| Protected Phases | 4 | 3 | 8 | | | | 2 | | | 6 | 7 |
| Permitted Phases | | | | 8 | 2 | 2 | | 2 | 6 | | |
| Detector Phase | 4 | 3 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 11.0 |
| Total Split (s) | 24.0 | 48.0 | 61.0 | 61.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 11.0 |
| Total Split (%) | 20.0% | 40.0% | 50.8% | 50.8% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 9% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | |
| Lead/Lag | Lag | Lead | Lag | Lag | | | | | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | | | | | | | Yes |
| Recall Mode | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | None |
| Act Effect Green (s) | 9.6 | 59.6 | 59.6 | 66.0 | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | |
| Actuated g/C Ratio | 0.08 | 0.50 | 0.50 | 0.55 | | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | |
| v/c Ratio | 0.00 | 0.33 | 0.34 | 0.06 | | 0.11 | 0.04 | 0.55 | 0.05 | 0.02 | |
| Control Delay | 0.0 | 22.9 | 22.9 | 1.1 | | 27.3 | 25.9 | 5.1 | 31.0 | 29.9 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 0.0 | 22.9 | 22.9 | 1.1 | | 27.3 | 25.9 | 5.1 | 31.0 | 29.9 | |
| LOS | A | C | C | A | | C | C | A | C | C | |
| Approach Delay | | | 21.0 | | | | 8.8 | | | 30.5 | |
| Approach LOS | | | C | | | | A | | | C | |

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 15.6
Intersection Capacity Utilization 51.6%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service A

Splits and Phases: 4: Venetucci Blvd & Walmart Heights

























HCM 6th Signalized Intersection Summary

4: Venetucci Blvd & Walmart Heights

2023 Existing PM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 0 | 0 | 1 | 537 | 0 | 51 | 49 | 0 | 44 | 457 | 20 | 18 |
| Future Volume (veh/h) | 0 | 0 | 1 | 537 | 0 | 51 | 49 | 0 | 44 | 457 | 20 | 18 |
| Initial Q (Qb), veh | 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 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 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 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 0 | 0 | 1 | 559 | 0 | 27 | | 0 | 46 | 242 | 21 | 19 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 96 | 0 | 40 | 660 | 0 | 413 | | 60 | 2272 | 1013 | 736 | 2218 |
| Arrive On Green | 0.00 | 0.00 | 0.03 | 0.19 | 0.00 | 0.26 | | 0.00 | 0.64 | 0.64 | 0.64 | 0.64 |
| Sat Flow, veh/h | 1781 | 0 | 1585 | 3563 | 0 | 1585 | | 1393 | 3554 | 1585 | 1065 | 3469 |
| Grp Volume(v), veh/h | 0 | 0 | 1 | 559 | 0 | 27 | | 0 | 46 | 242 | 21 | 19 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1585 | 1781 | 0 | 1585 | | 1393 | 1777 | 1585 | 1065 | 1735 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.1 | 18.2 | 0.0 | 1.5 | | 0.0 | 0.6 | 7.8 | 0.9 | 0.2 |
| Cycle Q Clear(g_c), s | 0.0 | 0.0 | 0.1 | 18.2 | 0.0 | 1.5 | | 0.0 | 0.6 | 7.8 | 1.4 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 96 | 0 | 40 | 660 | 0 | 413 | | 60 | 2272 | 1013 | 736 | 2218 |
| V/C Ratio(X) | 0.00 | 0.00 | 0.02 | 0.85 | 0.00 | 0.07 | | 0.00 | 0.02 | 0.24 | 0.03 | 0.01 |
| Avail Cap(c_a), veh/h | 169 | 0 | 238 | 1247 | 0 | 726 | | 60 | 2272 | 1013 | 736 | 2218 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 0.0 | 57.0 | 47.2 | 0.0 | 33.4 | | 0.0 | 7.9 | 9.2 | 8.2 | 7.8 |
| Incr Delay (d2), s/veh | 0.0 | 0.0 | 0.2 | 3.1 | 0.0 | 0.1 | | 0.0 | 0.0 | 0.6 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.0 | 0.0 | 0.1 | 13.1 | 0.0 | 1.1 | | 0.0 | 0.4 | 5.0 | 0.4 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 0.0 | 57.3 | 50.3 | 0.0 | 33.4 | | 0.0 | 7.9 | 9.8 | 8.2 | 7.9 |
| LnGrp LOS | A | A | E | D | A | C | | A | A | A | A | A |
| Approach Vol, veh/h | | 1 | | | 586 | | | | 288 | | | 40 |
| Approach Delay, s/veh | | 57.3 | | | 49.6 | | | | 9.5 | | | 8.1 |
| Approach LOS | | E | | | D | | | | A | | | A |
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 82.7 | 28.2 | 9.0 | | 82.7 | 0.0 | 37.3 | | | | |
| Change Period (Y+Rc), s | | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 42.0 | 42.0 | 18.0 | | 42.0 | 5.0 | 55.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 9.8 | 20.2 | 2.1 | | 3.4 | 0.0 | 3.5 | | | | |
| Green Ext Time (p_c), s | | 1.1 | 2.1 | 0.0 | | 0.2 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 35.1 | | | | | | | | | |
| HCM 6th LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| User approved volume balancing among the lanes for turning movement. | | | | | | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary
4: Venetucci Blvd & Walmart Heights

2023 Existing PM
06/22/2023























| Movement | SBR |
|------------------------------|------|
| Lane Configurations | |
| Traffic Volume (veh/h) | 0 |
| Future Volume (veh/h) | 0 |
| Initial Q (Qb), veh | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |
| Parking Bus, Adj | 1.00 |
| Work Zone On Approach | |
| Adj Sat Flow, veh/h/ln | 1826 |
| Adj Flow Rate, veh/h | 0 |
| Peak Hour Factor | 0.96 |
| Percent Heavy Veh, % | 5 |
| Cap, veh/h | 989 |
| Arrive On Green | 0.00 |
| Sat Flow, veh/h | 1547 |
| Grp Volume(v), veh/h | 0 |
| Grp Sat Flow(s),veh/h/ln | 1547 |
| Q Serve(g_s), s | 0.0 |
| Cycle Q Clear(g_c), s | 0.0 |
| Prop In Lane | 1.00 |
| Lane Grp Cap(c), veh/h | 989 |
| V/C Ratio(X) | 0.00 |
| Avail Cap(c_a), veh/h | 989 |
| HCM Platoon Ratio | 1.00 |
| Upstream Filter(I) | 0.00 |
| Uniform Delay (d), s/veh | 0.0 |
| Incr Delay (d2), s/veh | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.0 |
| Unsig. Movement Delay, s/veh | |
| LnGrp Delay(d),s/veh | 0.0 |
| LnGrp LOS | A |
| Approach Vol, veh/h | |
| Approach Delay, s/veh | |
| Approach LOS | |
| Timer - Assigned Phs | |

Timings

4: Venetucci Blvd & Walmart Heights

2025 Background AM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | | |  |  |  |  |  |
| Traffic Volume (vph) | 14 | 7 | 248 | 10 | 22 | 39 | 52 | 33 | 238 | 8 | 23 | 10 |
| Future Volume (vph) | 14 | 7 | 248 | 10 | 22 | 39 | 52 | 33 | 238 | 8 | 23 | 10 |
| Turn Type | pm+pt | NA | Prot | NA | Perm | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | | 8 | 2 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 13.0 | 28.0 | 41.0 | 56.0 | 56.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 |
| Total Split (%) | 10.8% | 23.3% | 34.2% | 46.7% | 46.7% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | | | | |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 23.0 | 18.9 | 36.5 | 36.5 | 51.6 | | 51.2 | 51.2 | 51.2 | 51.2 | 51.2 | 51.2 |
| Actuated g/C Ratio | 0.19 | 0.16 | 0.30 | 0.30 | 0.43 | | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| v/c Ratio | 0.06 | 0.17 | 0.29 | 0.29 | 0.03 | | 0.17 | 0.03 | 0.33 | 0.02 | 0.02 | 0.01 |
| Control Delay | 23.3 | 15.3 | 41.3 | 41.2 | 0.1 | | 22.1 | 19.4 | 3.5 | 19.2 | 19.1 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.3 | 15.3 | 41.3 | 41.2 | 0.1 | | 22.1 | 19.4 | 3.5 | 19.2 | 19.1 | 0.3 |
| LOS | C | B | D | D | A | | C | B | A | B | B | A |
| Approach Delay | | 17.2 | | 38.1 | | | | 9.5 | | | 14.6 | |
| Approach LOS | | B | | D | | | | A | | | B | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 21.2

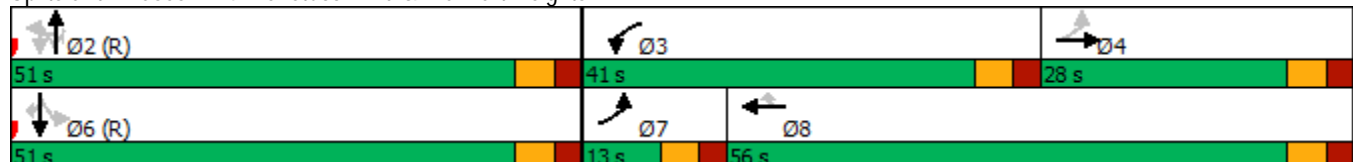
Intersection LOS: C

Intersection Capacity Utilization 38.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Venetucci Blvd & Walmart Heights

























HCM 6th Signalized Intersection Summary

4: Venetucci Blvd & Walmart Heights

2025 Background AM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 14 | 7 | 37 | 248 | 10 | 22 | 39 | 52 | 33 | 238 | 8 | 23 |
| Future Volume (veh/h) | 14 | 7 | 37 | 248 | 10 | 22 | 39 | 52 | 33 | 238 | 8 | 23 |
| Initial Q (Qb), veh | 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 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 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 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 16 | 8 | 20 | 293 | 0 | 14 | | 60 | 38 | 136 | 9 | 26 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 4 | 4 |
| Cap, veh/h | 141 | 17 | 42 | 375 | 0 | 196 | | 1035 | 2520 | 1124 | 901 | 2480 |
| Arrive On Green | 0.02 | 0.04 | 0.04 | 0.11 | 0.00 | 0.12 | | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Sat Flow, veh/h | 1781 | 474 | 1184 | 3563 | 0 | 1585 | | 1378 | 3554 | 1585 | 1192 | 3497 |
| Grp Volume(v), veh/h | 16 | 0 | 28 | 293 | 0 | 14 | | 60 | 38 | 136 | 9 | 26 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1657 | 1781 | 0 | 1585 | | 1378 | 1777 | 1585 | 1192 | 1749 |
| Q Serve(g_s), s | 1.0 | 0.0 | 2.0 | 9.6 | 0.0 | 0.9 | | 1.6 | 0.4 | 3.3 | 0.3 | 0.3 |
| Cycle Q Clear(g_c), s | 1.0 | 0.0 | 2.0 | 9.6 | 0.0 | 0.9 | | 1.9 | 0.4 | 3.3 | 0.6 | 0.3 |
| Prop In Lane | 1.00 | | 0.71 | 1.00 | | 1.00 | | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 141 | 0 | 59 | 375 | 0 | 196 | | 1035 | 2520 | 1124 | 901 | 2480 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.47 | 0.78 | 0.00 | 0.07 | | 0.06 | 0.02 | 0.12 | 0.01 | 0.01 |
| Avail Cap(c_a), veh/h | 214 | 0 | 304 | 1039 | 0 | 660 | | 1035 | 2520 | 1124 | 901 | 2480 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.3 | 0.0 | 56.8 | 52.3 | 0.0 | 46.5 | | 5.4 | 5.1 | 5.6 | 5.2 | 5.1 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 5.8 | 3.6 | 0.0 | 0.2 | | 0.1 | 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 |
| %ile BackOfQ(95%),veh/ln | 0.9 | 0.0 | 1.7 | 8.0 | 0.0 | 0.7 | | 0.8 | 0.2 | 1.9 | 0.1 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.7 | 0.0 | 62.6 | 55.9 | 0.0 | 46.6 | | 5.5 | 5.1 | 5.8 | 5.2 | 5.1 |
| LnGrp LOS | D | A | E | E | A | D | | A | A | A | A | A |
| Approach Vol, veh/h | | 44 | | | 307 | | | | 234 | | | 40 |
| Approach Delay, s/veh | | 59.7 | | | 55.5 | | | | 5.6 | | | 5.1 |
| Approach LOS | | E | | | E | | | | A | | | A |
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 91.1 | 18.6 | 10.3 | | 91.1 | 8.1 | 20.8 | | | | |
| Change Period (Y+Rc), s | | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 45.0 | 35.0 | 22.0 | | 45.0 | 7.0 | 50.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 5.3 | 11.6 | 4.0 | | 2.6 | 3.0 | 2.9 | | | | |
| Green Ext Time (p_c), s | | 0.9 | 1.0 | 0.1 | | 0.2 | 0.0 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 33.9 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| User approved volume balancing among the lanes for turning movement. | | | | | | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary

4: Venetucci Blvd & Walmart Heights

2025 Background AM

06/22/2023























| Movement | SBR |
|------------------------------|------|
| Lane Configurations | |
| Traffic Volume (veh/h) | 10 |
| Future Volume (veh/h) | 10 |
| Initial Q (Qb), veh | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |
| Parking Bus, Adj | 1.00 |
| Work Zone On Approach | |
| Adj Sat Flow, veh/h/ln | 1841 |
| Adj Flow Rate, veh/h | 5 |
| Peak Hour Factor | 0.87 |
| Percent Heavy Veh, % | 4 |
| Cap, veh/h | 1106 |
| Arrive On Green | 0.71 |
| Sat Flow, veh/h | 1560 |
| Grp Volume(v), veh/h | 5 |
| Grp Sat Flow(s),veh/h/ln | 1560 |
| Q Serve(g_s), s | 0.1 |
| Cycle Q Clear(g_c), s | 0.1 |
| Prop In Lane | 1.00 |
| Lane Grp Cap(c), veh/h | 1106 |
| V/C Ratio(X) | 0.00 |
| Avail Cap(c_a), veh/h | 1106 |
| HCM Platoon Ratio | 1.00 |
| Upstream Filter(l) | 1.00 |
| Uniform Delay (d), s/veh | 5.1 |
| Incr Delay (d2), s/veh | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.1 |
| Unsig. Movement Delay, s/veh | |
| LnGrp Delay(d),s/veh | 5.1 |
| LnGrp LOS | A |
| Approach Vol, veh/h | |
| Approach Delay, s/veh | |
| Approach LOS | |
| Timer - Assigned Phs | |

Timings

2025 Background PM

4: Venetucci Blvd & Walmart Heights

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | | |  |  |  |  |  |
| Traffic Volume (vph) | 13 | 7 | 537 | 10 | 51 | 50 | 50 | 44 | 454 | 19 | 27 | 10 |
| Future Volume (vph) | 13 | 7 | 537 | 10 | 51 | 50 | 50 | 44 | 454 | 19 | 27 | 10 |
| Turn Type | pm+pt | NA | Prot | NA | Perm | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | | 8 | 2 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 11.0 | 24.0 | 48.0 | 61.0 | 61.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 |
| Total Split (%) | 9.2% | 20.0% | 40.0% | 50.8% | 50.8% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | | | | |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 23.0 | 20.2 | 44.4 | 44.4 | 61.6 | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 |
| Actuated g/C Ratio | 0.19 | 0.17 | 0.37 | 0.37 | 0.51 | | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 |
| v/c Ratio | 0.06 | 0.15 | 0.46 | 0.46 | 0.06 | | 0.22 | 0.04 | 0.55 | 0.04 | 0.02 | 0.02 |
| Control Delay | 18.8 | 15.0 | 36.6 | 36.4 | 1.6 | | 29.0 | 25.9 | 5.1 | 29.0 | 28.5 | 0.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.8 | 15.0 | 36.6 | 36.4 | 1.6 | | 29.0 | 25.9 | 5.1 | 29.0 | 28.5 | 0.7 |
| LOS | B | B | D | D | A | | C | C | A | C | C | A |
| Approach Delay | | 15.9 | | 33.5 | | | | 10.7 | | | 23.9 | |
| Approach LOS | | B | | C | | | | B | | | C | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 21.9

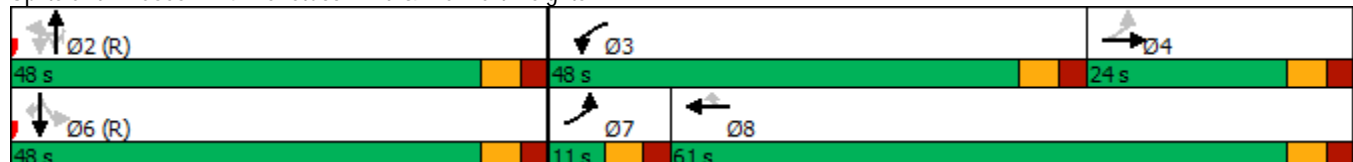
Intersection LOS: C

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Venetucci Blvd & Walmart Heights

























HCM 6th Signalized Intersection Summary

4: Venetucci Blvd & Walmart Heights

2025 Background PM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 13 | 7 | 36 | 537 | 10 | 51 | 50 | 50 | 44 | 454 | 19 | 27 |
| Future Volume (veh/h) | 13 | 7 | 36 | 537 | 10 | 51 | 50 | 50 | 44 | 454 | 19 | 27 |
| Initial Q (Qb), veh | 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 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 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 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 14 | 7 | 19 | 566 | 0 | 27 | | 52 | 46 | 233 | 20 | 28 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 139 | 17 | 45 | 668 | 0 | 331 | | 916 | 2222 | 991 | 726 | 2169 |
| Arrive On Green | 0.02 | 0.04 | 0.04 | 0.19 | 0.00 | 0.21 | | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 |
| Sat Flow, veh/h | 1781 | 445 | 1208 | 3563 | 0 | 1585 | | 1376 | 3554 | 1585 | 1074 | 3469 |
| Grp Volume(v), veh/h | 14 | 0 | 26 | 566 | 0 | 27 | | 52 | 46 | 233 | 20 | 28 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1653 | 1781 | 0 | 1585 | | 1376 | 1777 | 1585 | 1074 | 1735 |
| Q Serve(g_s), s | 0.9 | 0.0 | 1.8 | 18.4 | 0.0 | 1.6 | | 1.8 | 0.6 | 7.7 | 0.9 | 0.4 |
| Cycle Q Clear(g_c), s | 0.9 | 0.0 | 1.8 | 18.4 | 0.0 | 1.6 | | 2.1 | 0.6 | 7.7 | 1.5 | 0.4 |
| Prop In Lane | 1.00 | | 0.73 | 1.00 | | 1.00 | | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 139 | 0 | 61 | 668 | 0 | 331 | | 916 | 2222 | 991 | 726 | 2169 |
| V/C Ratio(X) | 0.10 | 0.00 | 0.42 | 0.85 | 0.00 | 0.08 | | 0.06 | 0.02 | 0.24 | 0.03 | 0.01 |
| Avail Cap(c_a), veh/h | 186 | 0 | 248 | 1247 | 0 | 726 | | 916 | 2222 | 991 | 726 | 2169 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.3 | 0.0 | 56.5 | 47.1 | 0.0 | 38.2 | | 8.9 | 8.5 | 9.9 | 8.8 | 8.5 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 4.6 | 3.1 | 0.0 | 0.1 | | 0.1 | 0.0 | 0.6 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.7 | 0.0 | 1.5 | 13.2 | 0.0 | 1.2 | | 1.0 | 0.4 | 5.0 | 0.4 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.6 | 0.0 | 61.1 | 50.2 | 0.0 | 38.3 | | 9.0 | 8.5 | 10.4 | 8.9 | 8.5 |
| LnGrp LOS | D | A | E | D | A | D | | A | A | B | A | A |
| Approach Vol, veh/h | | 40 | | | 593 | | | | 331 | | | 53 |
| Approach Delay, s/veh | | 58.8 | | | 49.6 | | | | 9.9 | | | 8.6 |
| Approach LOS | | E | | | D | | | | A | | | A |
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 81.0 | 28.5 | 10.5 | | 81.0 | 7.9 | 31.1 | | | | |
| Change Period (Y+Rc), s | | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 42.0 | 42.0 | 18.0 | | 42.0 | 5.0 | 55.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 9.7 | 20.4 | 3.8 | | 3.5 | 2.9 | 3.6 | | | | |
| Green Ext Time (p_c), s | | 1.3 | 2.1 | 0.1 | | 0.2 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 35.0 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| User approved volume balancing among the lanes for turning movement. | | | | | | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary

4: Venetucci Blvd & Walmart Heights

2025 Background PM

06/22/2023























| Movement | SBR |
|------------------------------|------|
| Lane Configurations | |
| Traffic Volume (veh/h) | 10 |
| Future Volume (veh/h) | 10 |
| Initial Q (Qb), veh | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |
| Parking Bus, Adj | 1.00 |
| Work Zone On Approach | |
| Adj Sat Flow, veh/h/ln | 1826 |
| Adj Flow Rate, veh/h | 5 |
| Peak Hour Factor | 0.96 |
| Percent Heavy Veh, % | 5 |
| Cap, veh/h | 968 |
| Arrive On Green | 0.63 |
| Sat Flow, veh/h | 1547 |
| Grp Volume(v), veh/h | 5 |
| Grp Sat Flow(s),veh/h/ln | 1547 |
| Q Serve(g_s), s | 0.1 |
| Cycle Q Clear(g_c), s | 0.1 |
| Prop In Lane | 1.00 |
| Lane Grp Cap(c), veh/h | 968 |
| V/C Ratio(X) | 0.01 |
| Avail Cap(c_a), veh/h | 968 |
| HCM Platoon Ratio | 1.00 |
| Upstream Filter(l) | 1.00 |
| Uniform Delay (d), s/veh | 8.4 |
| Incr Delay (d2), s/veh | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.1 |
| Unsig. Movement Delay, s/veh | |
| LnGrp Delay(d),s/veh | 8.5 |
| LnGrp LOS | A |
| Approach Vol, veh/h | |
| Approach Delay, s/veh | |
| Approach LOS | |
| Timer - Assigned Phs | |

Timings

2025 Total AM

4: Venetucci Blvd & Walmart Heights

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | | |  |  |  |  |  |
| Traffic Volume (vph) | 14 | 7 | 248 | 10 | 22 | 39 | 52 | 125 | 238 | 8 | 40 | 10 |
| Future Volume (vph) | 14 | 7 | 248 | 10 | 22 | 39 | 52 | 125 | 238 | 8 | 40 | 10 |
| Turn Type | pm+pt | NA | Prot | NA | Perm | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | | 8 | 2 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 13.0 | 28.0 | 41.0 | 56.0 | 56.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 |
| Total Split (%) | 10.8% | 23.3% | 34.2% | 46.7% | 46.7% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | | | | |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 23.0 | 18.9 | 36.5 | 36.5 | 51.6 | | 51.2 | 51.2 | 51.2 | 51.2 | 51.2 | 51.2 |
| Actuated g/C Ratio | 0.19 | 0.16 | 0.30 | 0.30 | 0.43 | | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| v/c Ratio | 0.06 | 0.17 | 0.29 | 0.29 | 0.03 | | 0.18 | 0.10 | 0.33 | 0.02 | 0.03 | 0.01 |
| Control Delay | 23.3 | 15.3 | 41.3 | 41.2 | 0.1 | | 22.2 | 20.7 | 3.5 | 19.1 | 19.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.3 | 15.3 | 41.3 | 41.2 | 0.1 | | 22.2 | 20.7 | 3.5 | 19.1 | 19.2 | 0.1 |
| LOS | C | B | D | D | A | | C | C | A | B | B | A |
| Approach Delay | | 17.2 | | 38.1 | | | | 11.9 | | | 16.0 | |
| Approach LOS | | B | | D | | | | B | | | B | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 21.2

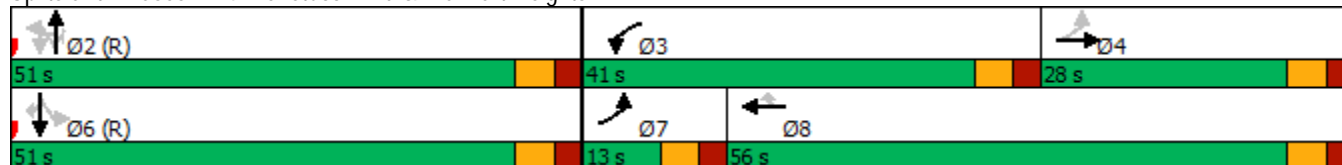
Intersection LOS: C

Intersection Capacity Utilization 38.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Venetucci Blvd & Walmart Heights

























HCM 6th Signalized Intersection Summary

2025 Total AM

4: Venetucci Blvd & Walmart Heights

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 14 | 7 | 37 | 248 | 10 | 22 | 39 | 52 | 125 | 238 | 8 | 40 |
| Future Volume (veh/h) | 14 | 7 | 37 | 248 | 10 | 22 | 39 | 52 | 125 | 238 | 8 | 40 |
| Initial Q (Qb), veh | 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 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 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 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 16 | 8 | 20 | 293 | 0 | 14 | | 60 | 144 | 136 | 9 | 46 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 4 | 4 |
| Cap, veh/h | 141 | 17 | 42 | 375 | 0 | 196 | | 1015 | 2520 | 1124 | 814 | 2480 |
| Arrive On Green | 0.02 | 0.04 | 0.04 | 0.11 | 0.00 | 0.12 | | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Sat Flow, veh/h | 1781 | 474 | 1184 | 3563 | 0 | 1585 | | 1354 | 3554 | 1585 | 1082 | 3497 |
| Grp Volume(v), veh/h | 16 | 0 | 28 | 293 | 0 | 14 | | 60 | 144 | 136 | 9 | 46 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1657 | 1781 | 0 | 1585 | | 1354 | 1777 | 1585 | 1082 | 1749 |
| Q Serve(g_s), s | 1.0 | 0.0 | 2.0 | 9.6 | 0.0 | 0.9 | | 1.6 | 1.5 | 3.3 | 0.3 | 0.5 |
| Cycle Q Clear(g_c), s | 1.0 | 0.0 | 2.0 | 9.6 | 0.0 | 0.9 | | 2.1 | 1.5 | 3.3 | 1.8 | 0.5 |
| Prop In Lane | 1.00 | | 0.71 | 1.00 | | 1.00 | | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 141 | 0 | 59 | 375 | 0 | 196 | | 1015 | 2520 | 1124 | 814 | 2480 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.47 | 0.78 | 0.00 | 0.07 | | 0.06 | 0.06 | 0.12 | 0.01 | 0.02 |
| Avail Cap(c_a), veh/h | 214 | 0 | 304 | 1039 | 0 | 660 | | 1015 | 2520 | 1124 | 814 | 2480 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.3 | 0.0 | 56.8 | 52.3 | 0.0 | 46.5 | | 5.5 | 5.3 | 5.6 | 5.6 | 5.1 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 5.8 | 3.6 | 0.0 | 0.2 | | 0.1 | 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 |
| %ile BackOfQ(95%),veh/ln | 0.9 | 0.0 | 1.7 | 8.0 | 0.0 | 0.7 | | 0.8 | 0.9 | 1.9 | 0.1 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.7 | 0.0 | 62.6 | 55.9 | 0.0 | 46.6 | | 5.6 | 5.3 | 5.8 | 5.6 | 5.2 |
| LnGrp LOS | D | A | E | E | A | D | | A | A | A | A | A |
| Approach Vol, veh/h | | 44 | | | 307 | | | | 340 | | | 60 |
| Approach Delay, s/veh | | 59.7 | | | 55.5 | | | | 5.5 | | | 5.2 |
| Approach LOS | | E | | | E | | | | A | | | A |
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 91.1 | 18.6 | 10.3 | | 91.1 | 8.1 | 20.8 | | | | |
| Change Period (Y+Rc), s | | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 45.0 | 35.0 | 22.0 | | 45.0 | 7.0 | 50.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 5.3 | 11.6 | 4.0 | | 3.8 | 3.0 | 2.9 | | | | |
| Green Ext Time (p_c), s | | 1.6 | 1.0 | 0.1 | | 0.3 | 0.0 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 29.1 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| User approved volume balancing among the lanes for turning movement. | | | | | | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary

4: Venetucci Blvd & Walmart Heights

2025 Total AM

06/22/2023























| Movement | SBR |
|------------------------------|------|
| Lane Configurations | |
| Traffic Volume (veh/h) | 10 |
| Future Volume (veh/h) | 10 |
| Initial Q (Qb), veh | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |
| Parking Bus, Adj | 1.00 |
| Work Zone On Approach | |
| Adj Sat Flow, veh/h/ln | 1841 |
| Adj Flow Rate, veh/h | 5 |
| Peak Hour Factor | 0.87 |
| Percent Heavy Veh, % | 4 |
| Cap, veh/h | 1106 |
| Arrive On Green | 0.71 |
| Sat Flow, veh/h | 1560 |
| Grp Volume(v), veh/h | 5 |
| Grp Sat Flow(s),veh/h/ln | 1560 |
| Q Serve(g_s), s | 0.1 |
| Cycle Q Clear(g_c), s | 0.1 |
| Prop In Lane | 1.00 |
| Lane Grp Cap(c), veh/h | 1106 |
| V/C Ratio(X) | 0.00 |
| Avail Cap(c_a), veh/h | 1106 |
| HCM Platoon Ratio | 1.00 |
| Upstream Filter(l) | 1.00 |
| Uniform Delay (d), s/veh | 5.1 |
| Incr Delay (d2), s/veh | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.1 |
| Unsig. Movement Delay, s/veh | |
| LnGrp Delay(d),s/veh | 5.1 |
| LnGrp LOS | A |
| Approach Vol, veh/h | |
| Approach Delay, s/veh | |
| Approach LOS | |
| Timer - Assigned Phs | |

Timings

4: Venetucci Blvd & Walmart Heights

2025 Total PM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | | |  |  |  |  |  |
| Traffic Volume (vph) | 13 | 7 | 537 | 10 | 51 | 50 | 50 | 102 | 454 | 19 | 85 | 10 |
| Future Volume (vph) | 13 | 7 | 537 | 10 | 51 | 50 | 50 | 102 | 454 | 19 | 85 | 10 |
| Turn Type | pm+pt | NA | Prot | NA | Perm | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | | 8 | 2 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 11.0 | 24.0 | 48.0 | 61.0 | 61.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 |
| Total Split (%) | 9.2% | 20.0% | 40.0% | 50.8% | 50.8% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | | | | |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 23.0 | 20.2 | 44.4 | 44.4 | 61.6 | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 |
| Actuated g/C Ratio | 0.19 | 0.17 | 0.37 | 0.37 | 0.51 | | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 |
| v/c Ratio | 0.06 | 0.15 | 0.46 | 0.46 | 0.06 | | 0.23 | 0.09 | 0.55 | 0.05 | 0.07 | 0.02 |
| Control Delay | 18.8 | 15.0 | 36.6 | 36.4 | 1.6 | | 29.4 | 26.4 | 5.1 | 27.0 | 26.8 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.8 | 15.0 | 36.6 | 36.4 | 1.6 | | 29.4 | 26.4 | 5.1 | 27.0 | 26.8 | 0.1 |
| LOS | B | B | D | D | A | | C | C | A | C | C | A |
| Approach Delay | | 15.9 | | 33.5 | | | | 12.2 | | | 24.6 | |
| Approach LOS | | B | | C | | | | B | | | C | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 22.3

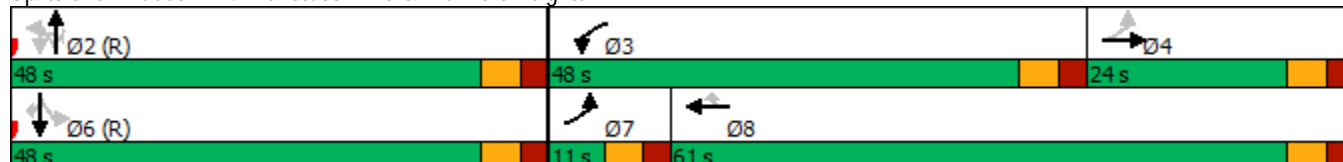
Intersection LOS: C

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Venetucci Blvd & Walmart Heights

























HCM 6th Signalized Intersection Summary

2025 Total PM

4: Venetucci Blvd & Walmart Heights

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 13 | 7 | 36 | 537 | 10 | 51 | 50 | 50 | 102 | 454 | 19 | 85 |
| Future Volume (veh/h) | 13 | 7 | 36 | 537 | 10 | 51 | 50 | 50 | 102 | 454 | 19 | 85 |
| Initial Q (Qb), veh | 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 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 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 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 14 | 7 | 19 | 566 | 0 | 27 | | 52 | 106 | 233 | 20 | 89 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 139 | 17 | 45 | 668 | 0 | 331 | | 861 | 2222 | 991 | 684 | 2169 |
| Arrive On Green | 0.02 | 0.04 | 0.04 | 0.19 | 0.00 | 0.21 | | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 |
| Sat Flow, veh/h | 1781 | 445 | 1208 | 3563 | 0 | 1585 | | 1302 | 3554 | 1585 | 1017 | 3469 |
| Grp Volume(v), veh/h | 14 | 0 | 26 | 566 | 0 | 27 | | 52 | 106 | 233 | 20 | 89 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1653 | 1781 | 0 | 1585 | | 1302 | 1777 | 1585 | 1017 | 1735 |
| Q Serve(g_s), s | 0.9 | 0.0 | 1.8 | 18.4 | 0.0 | 1.6 | | 1.9 | 1.4 | 7.7 | 0.9 | 1.2 |
| Cycle Q Clear(g_c), s | 0.9 | 0.0 | 1.8 | 18.4 | 0.0 | 1.6 | | 3.1 | 1.4 | 7.7 | 2.3 | 1.2 |
| Prop In Lane | 1.00 | | 0.73 | 1.00 | | 1.00 | | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 139 | 0 | 61 | 668 | 0 | 331 | | 861 | 2222 | 991 | 684 | 2169 |
| V/C Ratio(X) | 0.10 | 0.00 | 0.42 | 0.85 | 0.00 | 0.08 | | 0.06 | 0.05 | 0.24 | 0.03 | 0.04 |
| Avail Cap(c_a), veh/h | 186 | 0 | 248 | 1247 | 0 | 726 | | 861 | 2222 | 991 | 684 | 2169 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.3 | 0.0 | 56.5 | 47.1 | 0.0 | 38.2 | | 9.2 | 8.7 | 9.9 | 9.1 | 8.6 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 4.6 | 3.1 | 0.0 | 0.1 | | 0.1 | 0.0 | 0.6 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.7 | 0.0 | 1.5 | 13.2 | 0.0 | 1.2 | | 1.0 | 1.0 | 5.0 | 0.4 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.6 | 0.0 | 61.1 | 50.2 | 0.0 | 38.3 | | 9.4 | 8.7 | 10.4 | 9.2 | 8.7 |
| LnGrp LOS | D | A | E | D | A | D | | A | A | B | A | A |
| Approach Vol, veh/h | | 40 | | | 593 | | | | 391 | | | 114 |
| Approach Delay, s/veh | | 58.8 | | | 49.6 | | | | 9.8 | | | 8.8 |
| Approach LOS | | E | | | D | | | | A | | | A |
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 81.0 | 28.5 | 10.5 | | 81.0 | 7.9 | 31.1 | | | | |
| Change Period (Y+Rc), s | | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 42.0 | 42.0 | 18.0 | | 42.0 | 5.0 | 55.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 9.7 | 20.4 | 3.8 | | 4.3 | 2.9 | 3.6 | | | | |
| Green Ext Time (p_c), s | | 1.7 | 2.1 | 0.1 | | 0.7 | 0.0 | 0.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 32.2 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| User approved volume balancing among the lanes for turning movement. | | | | | | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary
4: Venetucci Blvd & Walmart Heights

2025 Total PM
06/22/2023























| Movement | SBR |
|------------------------------|------|
| Lane Configurations | |
| Traffic Volume (veh/h) | 10 |
| Future Volume (veh/h) | 10 |
| Initial Q (Qb), veh | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |
| Parking Bus, Adj | 1.00 |
| Work Zone On Approach | |
| Adj Sat Flow, veh/h/ln | 1826 |
| Adj Flow Rate, veh/h | 5 |
| Peak Hour Factor | 0.96 |
| Percent Heavy Veh, % | 5 |
| Cap, veh/h | 968 |
| Arrive On Green | 0.63 |
| Sat Flow, veh/h | 1547 |
| Grp Volume(v), veh/h | 5 |
| Grp Sat Flow(s),veh/h/ln | 1547 |
| Q Serve(g_s), s | 0.1 |
| Cycle Q Clear(g_c), s | 0.1 |
| Prop In Lane | 1.00 |
| Lane Grp Cap(c), veh/h | 968 |
| V/C Ratio(X) | 0.01 |
| Avail Cap(c_a), veh/h | 968 |
| HCM Platoon Ratio | 1.00 |
| Upstream Filter(I) | 1.00 |
| Uniform Delay (d), s/veh | 8.4 |
| Incr Delay (d2), s/veh | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.1 |
| Unsig. Movement Delay, s/veh | |
| LnGrp Delay(d),s/veh | 8.5 |
| LnGrp LOS | A |
| Approach Vol, veh/h | |
| Approach Delay, s/veh | |
| Approach LOS | |
| Timer - Assigned Phs | |

Timings

4: Venetucci Blvd & Walmart Heights

2045 Background AM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | | |  |  |  |  |  |
| Traffic Volume (vph) | 14 | 7 | 248 | 10 | 22 | 52 | 52 | 44 | 238 | 8 | 28 | 10 |
| Future Volume (vph) | 14 | 7 | 248 | 10 | 22 | 52 | 52 | 44 | 238 | 8 | 28 | 10 |
| Turn Type | pm+pt | NA | Prot | NA | Perm | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | | 8 | 2 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 13.0 | 28.0 | 41.0 | 56.0 | 56.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 |
| Total Split (%) | 10.8% | 23.3% | 34.2% | 46.7% | 46.7% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | | | | |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 23.2 | 19.2 | 36.1 | 36.1 | 51.5 | | 51.3 | 51.3 | 51.3 | 51.3 | 51.3 | 51.3 |
| Actuated g/C Ratio | 0.19 | 0.16 | 0.30 | 0.30 | 0.43 | | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| v/c Ratio | 0.06 | 0.16 | 0.28 | 0.28 | 0.03 | | 0.19 | 0.03 | 0.31 | 0.02 | 0.02 | 0.01 |
| Control Delay | 23.3 | 15.5 | 41.6 | 41.5 | 0.1 | | 22.4 | 19.5 | 3.5 | 19.0 | 18.9 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.3 | 15.5 | 41.6 | 41.5 | 0.1 | | 22.4 | 19.5 | 3.5 | 19.0 | 18.9 | 0.3 |
| LOS | C | B | D | D | A | | C | B | A | B | B | A |
| Approach Delay | | 17.4 | | 38.3 | | | | 10.4 | | | 14.8 | |
| Approach LOS | | B | | D | | | | B | | | B | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 21.3

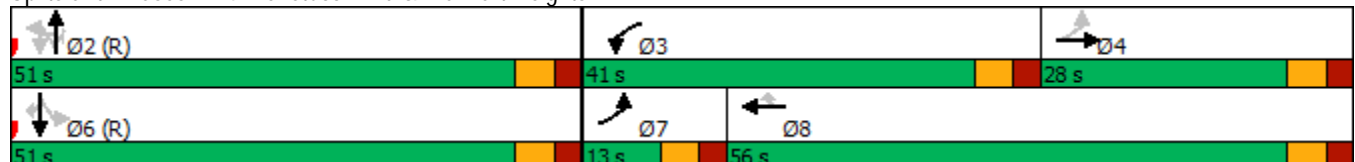
Intersection LOS: C

Intersection Capacity Utilization 38.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Venetucci Blvd & Walmart Heights

























HCM 6th Signalized Intersection Summary

4: Venetucci Blvd & Walmart Heights

2045 Background AM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 14 | 7 | 37 | 248 | 10 | 22 | 52 | 52 | 44 | 238 | 8 | 28 |
| Future Volume (veh/h) | 14 | 7 | 37 | 248 | 10 | 22 | 52 | 52 | 44 | 238 | 8 | 28 |
| Initial Q (Qb), veh | 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 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 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 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 15 | 8 | 18 | 278 | 0 | 8 | | 57 | 48 | 85 | 9 | 30 |
| 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 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 4 | 4 |
| Cap, veh/h | 136 | 17 | 39 | 359 | 0 | 187 | | 1039 | 2544 | 1135 | 941 | 2503 |
| Arrive On Green | 0.02 | 0.03 | 0.03 | 0.10 | 0.00 | 0.12 | | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Sat Flow, veh/h | 1781 | 512 | 1151 | 3563 | 0 | 1585 | | 1372 | 3554 | 1585 | 1237 | 3497 |
| Grp Volume(v), veh/h | 15 | 0 | 26 | 278 | 0 | 8 | | 57 | 48 | 85 | 9 | 30 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1663 | 1781 | 0 | 1585 | | 1372 | 1777 | 1585 | 1237 | 1749 |
| Q Serve(g_s), s | 1.0 | 0.0 | 1.8 | 9.1 | 0.0 | 0.5 | | 1.5 | 0.5 | 1.9 | 0.3 | 0.3 |
| Cycle Q Clear(g_c), s | 1.0 | 0.0 | 1.8 | 9.1 | 0.0 | 0.5 | | 1.8 | 0.5 | 1.9 | 0.7 | 0.3 |
| Prop In Lane | 1.00 | | 0.69 | 1.00 | | 1.00 | | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 136 | 0 | 56 | 359 | 0 | 187 | | 1039 | 2544 | 1135 | 941 | 2503 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.47 | 0.78 | 0.00 | 0.04 | | 0.05 | 0.02 | 0.07 | 0.01 | 0.01 |
| Avail Cap(c_a), veh/h | 211 | 0 | 305 | 1039 | 0 | 660 | | 1039 | 2544 | 1135 | 941 | 2503 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.6 | 0.0 | 56.9 | 52.6 | 0.0 | 46.9 | | 5.1 | 4.9 | 5.1 | 5.0 | 4.9 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 5.9 | 3.6 | 0.0 | 0.1 | | 0.1 | 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 |
| %ile BackOfQ(95%),veh/ln | 0.8 | 0.0 | 1.6 | 7.7 | 0.0 | 0.4 | | 0.8 | 0.3 | 1.1 | 0.1 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 55.0 | 0.0 | 62.9 | 56.2 | 0.0 | 47.0 | | 5.2 | 4.9 | 5.2 | 5.0 | 4.9 |
| LnGrp LOS | D | A | E | E | A | D | | A | A | A | A | A |
| Approach Vol, veh/h | | 41 | | | 286 | | | | 190 | | | 45 |
| Approach Delay, s/veh | | 60.0 | | | 56.0 | | | | 5.2 | | | 4.9 |
| Approach LOS | | E | | | E | | | | A | | | A |
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 91.9 | 18.1 | 10.0 | | 91.9 | 8.0 | 20.1 | | | | |
| Change Period (Y+Rc), s | | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 45.0 | 35.0 | 22.0 | | 45.0 | 7.0 | 50.0 | | | | |
| Max Q Clear Time (g_c+l1), s | | 3.9 | 11.1 | 3.8 | | 2.7 | 3.0 | 2.5 | | | | |
| Green Ext Time (p_c), s | | 0.7 | 0.9 | 0.1 | | 0.2 | 0.0 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 35.0 | | | | | | | | | |
| HCM 6th LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| User approved volume balancing among the lanes for turning movement. | | | | | | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary

4: Venetucci Blvd & Walmart Heights

2045 Background AM

06/22/2023























| Movement | SBR |
|------------------------------|------|
| Lane Configurations | |
| Traffic Volume (veh/h) | 10 |
| Future Volume (veh/h) | 10 |
| Initial Q (Qb), veh | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |
| Parking Bus, Adj | 1.00 |
| Work Zone On Approach | |
| Adj Sat Flow, veh/h/ln | 1841 |
| Adj Flow Rate, veh/h | 6 |
| Peak Hour Factor | 0.92 |
| Percent Heavy Veh, % | 4 |
| Cap, veh/h | 1117 |
| Arrive On Green | 0.72 |
| Sat Flow, veh/h | 1560 |
| Grp Volume(v), veh/h | 6 |
| Grp Sat Flow(s),veh/h/ln | 1560 |
| Q Serve(g_s), s | 0.1 |
| Cycle Q Clear(g_c), s | 0.1 |
| Prop In Lane | 1.00 |
| Lane Grp Cap(c), veh/h | 1117 |
| V/C Ratio(X) | 0.01 |
| Avail Cap(c_a), veh/h | 1117 |
| HCM Platoon Ratio | 1.00 |
| Upstream Filter(l) | 1.00 |
| Uniform Delay (d), s/veh | 4.9 |
| Incr Delay (d2), s/veh | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.1 |
| Unsig. Movement Delay, s/veh | |
| LnGrp Delay(d),s/veh | 4.9 |
| LnGrp LOS | A |
| Approach Vol, veh/h | |
| Approach Delay, s/veh | |
| Approach LOS | |
| Timer - Assigned Phs | |

Timings

2045 Background PM

4: Venetucci Blvd & Walmart Heights

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | | |  |  |  |  |  |
| Traffic Volume (vph) | 13 | 7 | 537 | 10 | 51 | 67 | 50 | 59 | 454 | 19 | 33 | 10 |
| Future Volume (vph) | 13 | 7 | 537 | 10 | 51 | 67 | 50 | 59 | 454 | 19 | 33 | 10 |
| Turn Type | pm+pt | NA | Prot | NA | Perm | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | | 8 | 2 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 11.0 | 24.0 | 48.0 | 61.0 | 61.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 |
| Total Split (%) | 9.2% | 20.0% | 40.0% | 50.8% | 50.8% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | | | | |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 23.0 | 20.2 | 44.4 | 44.4 | 61.6 | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 |
| Actuated g/C Ratio | 0.19 | 0.17 | 0.37 | 0.37 | 0.51 | | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 |
| v/c Ratio | 0.06 | 0.15 | 0.46 | 0.46 | 0.06 | | 0.26 | 0.05 | 0.55 | 0.04 | 0.03 | 0.02 |
| Control Delay | 18.8 | 15.0 | 36.6 | 36.4 | 1.6 | | 29.8 | 26.0 | 5.1 | 28.7 | 28.1 | 0.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.8 | 15.0 | 36.6 | 36.4 | 1.6 | | 29.8 | 26.0 | 5.1 | 28.7 | 28.1 | 0.6 |
| LOS | B | B | D | D | A | | C | C | A | C | C | A |
| Approach Delay | | 15.9 | | 33.5 | | | | 11.7 | | | 24.0 | |
| Approach LOS | | B | | C | | | | B | | | C | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 22.1

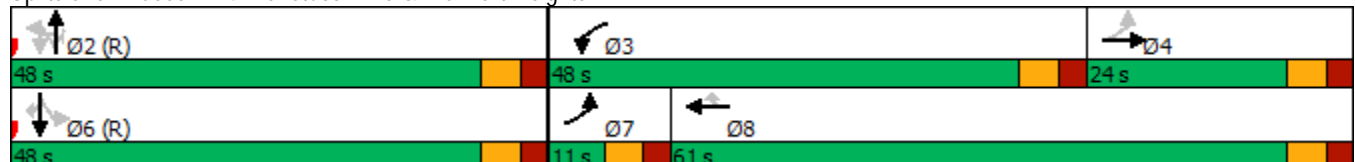
Intersection LOS: C

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Venetucci Blvd & Walmart Heights

























HCM 6th Signalized Intersection Summary

4: Venetucci Blvd & Walmart Heights

2045 Background PM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 13 | 7 | 36 | 537 | 10 | 51 | 67 | 50 | 59 | 454 | 19 | 33 |
| Future Volume (veh/h) | 13 | 7 | 36 | 537 | 10 | 51 | 67 | 50 | 59 | 454 | 19 | 33 |
| Initial Q (Qb), veh | 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 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 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 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 14 | 7 | 19 | 566 | 0 | 17 | | 52 | 61 | 161 | 20 | 34 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 137 | 16 | 43 | 668 | 0 | 329 | | 913 | 2229 | 994 | 762 | 2176 |
| Arrive On Green | 0.02 | 0.04 | 0.04 | 0.19 | 0.00 | 0.21 | | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 |
| Sat Flow, veh/h | 1781 | 445 | 1208 | 3563 | 0 | 1585 | | 1368 | 3554 | 1585 | 1131 | 3469 |
| Grp Volume(v), veh/h | 14 | 0 | 26 | 566 | 0 | 17 | | 52 | 61 | 161 | 20 | 34 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1653 | 1781 | 0 | 1585 | | 1368 | 1777 | 1585 | 1131 | 1735 |
| Q Serve(g_s), s | 0.9 | 0.0 | 1.8 | 18.4 | 0.0 | 1.0 | | 1.8 | 0.8 | 5.1 | 0.8 | 0.4 |
| Cycle Q Clear(g_c), s | 0.9 | 0.0 | 1.8 | 18.4 | 0.0 | 1.0 | | 2.2 | 0.8 | 5.1 | 1.6 | 0.4 |
| Prop In Lane | 1.00 | | 0.73 | 1.00 | | 1.00 | | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 137 | 0 | 59 | 668 | 0 | 329 | | 913 | 2229 | 994 | 762 | 2176 |
| V/C Ratio(X) | 0.10 | 0.00 | 0.44 | 0.85 | 0.00 | 0.05 | | 0.06 | 0.03 | 0.16 | 0.03 | 0.02 |
| Avail Cap(c_a), veh/h | 184 | 0 | 248 | 1247 | 0 | 726 | | 913 | 2229 | 994 | 762 | 2176 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.5 | 0.0 | 56.7 | 47.1 | 0.0 | 38.1 | | 8.8 | 8.5 | 9.3 | 8.8 | 8.4 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 5.2 | 3.1 | 0.0 | 0.1 | | 0.1 | 0.0 | 0.3 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.8 | 0.0 | 1.5 | 13.2 | 0.0 | 0.7 | | 1.0 | 0.5 | 3.2 | 0.4 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.8 | 0.0 | 61.9 | 50.2 | 0.0 | 38.2 | | 9.0 | 8.5 | 9.6 | 8.9 | 8.4 |
| LnGrp LOS | D | A | E | D | A | D | | A | A | A | A | A |
| Approach Vol, veh/h | | 40 | | | 583 | | | | 274 | | | 59 |
| Approach Delay, s/veh | | 59.4 | | | 49.8 | | | | 9.3 | | | 8.6 |
| Approach LOS | | E | | | D | | | | A | | | A |
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 81.3 | 28.5 | 10.3 | | 81.3 | 7.9 | 30.9 | | | | |
| Change Period (Y+Rc), s | | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 42.0 | 42.0 | 18.0 | | 42.0 | 5.0 | 55.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 7.1 | 20.4 | 3.8 | | 3.6 | 2.9 | 3.0 | | | | |
| Green Ext Time (p_c), s | | 1.1 | 2.1 | 0.1 | | 0.3 | 0.0 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 36.1 | | | | | | | | | |
| HCM 6th LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| User approved volume balancing among the lanes for turning movement. | | | | | | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary 4: Venetucci Blvd & Walmart Heights

2045 Background PM

06/22/2023























| Movement | SBR |
|------------------------------|------|
| Lane Configurations | |
| Traffic Volume (veh/h) | 10 |
| Future Volume (veh/h) | 10 |
| Initial Q (Qb), veh | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |
| Parking Bus, Adj | 1.00 |
| Work Zone On Approach | |
| Adj Sat Flow, veh/h/ln | 1826 |
| Adj Flow Rate, veh/h | 5 |
| Peak Hour Factor | 0.96 |
| Percent Heavy Veh, % | 5 |
| Cap, veh/h | 970 |
| Arrive On Green | 0.63 |
| Sat Flow, veh/h | 1547 |
| Grp Volume(v), veh/h | 5 |
| Grp Sat Flow(s),veh/h/ln | 1547 |
| Q Serve(g_s), s | 0.1 |
| Cycle Q Clear(g_c), s | 0.1 |
| Prop In Lane | 1.00 |
| Lane Grp Cap(c), veh/h | 970 |
| V/C Ratio(X) | 0.01 |
| Avail Cap(c_a), veh/h | 970 |
| HCM Platoon Ratio | 1.00 |
| Upstream Filter(l) | 1.00 |
| Uniform Delay (d), s/veh | 8.4 |
| Incr Delay (d2), s/veh | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.1 |
| Unsig. Movement Delay, s/veh | |
| LnGrp Delay(d),s/veh | 8.4 |
| LnGrp LOS | A |
| Approach Vol, veh/h | |
| Approach Delay, s/veh | |
| Approach LOS | |
| Timer - Assigned Phs | |

Timings

4: Venetucci Blvd & Walmart Heights

2045 Total AM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | | |  |  |  |  |  |
| Traffic Volume (vph) | 14 | 7 | 248 | 10 | 22 | 52 | 52 | 136 | 238 | 8 | 45 | 10 |
| Future Volume (vph) | 14 | 7 | 248 | 10 | 22 | 52 | 52 | 136 | 238 | 8 | 45 | 10 |
| Turn Type | pm+pt | NA | Prot | NA | Perm | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | | 8 | 2 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 13.0 | 28.0 | 41.0 | 56.0 | 56.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 | 51.0 |
| Total Split (%) | 10.8% | 23.3% | 34.2% | 46.7% | 46.7% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% | 42.5% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | | | | |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 23.2 | 19.2 | 36.1 | 36.1 | 51.5 | | 51.3 | 51.3 | 51.3 | 51.3 | 51.3 | 51.3 |
| Actuated g/C Ratio | 0.19 | 0.16 | 0.30 | 0.30 | 0.43 | | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| v/c Ratio | 0.06 | 0.16 | 0.28 | 0.28 | 0.03 | | 0.20 | 0.10 | 0.31 | 0.02 | 0.03 | 0.01 |
| Control Delay | 23.3 | 15.5 | 41.6 | 41.5 | 0.1 | | 22.4 | 20.7 | 3.5 | 19.1 | 19.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.3 | 15.5 | 41.6 | 41.5 | 0.1 | | 22.4 | 20.7 | 3.5 | 19.1 | 19.1 | 0.1 |
| LOS | C | B | D | D | A | | C | C | A | B | B | A |
| Approach Delay | | 17.4 | | 38.3 | | | | 12.5 | | | 16.1 | |
| Approach LOS | | B | | D | | | | B | | | B | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 21.3

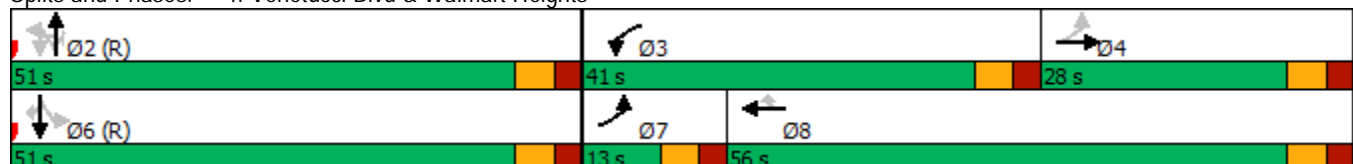
Intersection LOS: C

Intersection Capacity Utilization 38.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Venetucci Blvd & Walmart Heights

























HCM 6th Signalized Intersection Summary

2045 Total AM

4: Venetucci Blvd & Walmart Heights

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 14 | 7 | 37 | 248 | 10 | 22 | 52 | 52 | 136 | 238 | 8 | 45 |
| Future Volume (veh/h) | 14 | 7 | 37 | 248 | 10 | 22 | 52 | 52 | 136 | 238 | 8 | 45 |
| Initial Q (Qb), veh | 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 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 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 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 15 | 8 | 18 | 278 | 0 | 8 | | 57 | 148 | 85 | 9 | 49 |
| 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 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 4 | 4 |
| Cap, veh/h | 136 | 17 | 39 | 359 | 0 | 187 | | 1020 | 2544 | 1135 | 854 | 2503 |
| Arrive On Green | 0.02 | 0.03 | 0.03 | 0.10 | 0.00 | 0.12 | | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Sat Flow, veh/h | 1781 | 512 | 1151 | 3563 | 0 | 1585 | | 1349 | 3554 | 1585 | 1129 | 3497 |
| Grp Volume(v), veh/h | 15 | 0 | 26 | 278 | 0 | 8 | | 57 | 148 | 85 | 9 | 49 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1663 | 1781 | 0 | 1585 | | 1349 | 1777 | 1585 | 1129 | 1749 |
| Q Serve(g_s), s | 1.0 | 0.0 | 1.8 | 9.1 | 0.0 | 0.5 | | 1.5 | 1.5 | 1.9 | 0.3 | 0.5 |
| Cycle Q Clear(g_c), s | 1.0 | 0.0 | 1.8 | 9.1 | 0.0 | 0.5 | | 2.0 | 1.5 | 1.9 | 1.8 | 0.5 |
| Prop In Lane | 1.00 | | 0.69 | 1.00 | | 1.00 | | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 136 | 0 | 56 | 359 | 0 | 187 | | 1020 | 2544 | 1135 | 854 | 2503 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.47 | 0.78 | 0.00 | 0.04 | | 0.06 | 0.06 | 0.07 | 0.01 | 0.02 |
| Avail Cap(c_a), veh/h | 211 | 0 | 305 | 1039 | 0 | 660 | | 1020 | 2544 | 1135 | 854 | 2503 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.6 | 0.0 | 56.9 | 52.6 | 0.0 | 46.9 | | 5.2 | 5.1 | 5.1 | 5.3 | 4.9 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 5.9 | 3.6 | 0.0 | 0.1 | | 0.1 | 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 |
| %ile BackOfQ(95%),veh/ln | 0.8 | 0.0 | 1.6 | 7.7 | 0.0 | 0.4 | | 0.8 | 0.9 | 1.1 | 0.1 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 55.0 | 0.0 | 62.9 | 56.2 | 0.0 | 47.0 | | 5.3 | 5.1 | 5.2 | 5.3 | 4.9 |
| LnGrp LOS | D | A | E | E | A | D | | A | A | A | A | A |
| Approach Vol, veh/h | 41 | | | | 286 | | | | 290 | | 64 | |
| Approach Delay, s/veh | 60.0 | | | | 56.0 | | | | 5.2 | | 5.0 | |
| Approach LOS | E | | | | E | | | | A | | A | |
| Timer - Assigned Phs | 2 | | 3 | | 4 | | 6 | | 7 | | 8 | |
| Phs Duration (G+Y+Rc), s | 91.9 | | 18.1 | | 10.0 | | 91.9 | | 8.0 | | 20.1 | |
| Change Period (Y+Rc), s | 6.0 | | 6.0 | | 6.0 | | 6.0 | | 6.0 | | 6.0 | |
| Max Green Setting (Gmax), s | 45.0 | | 35.0 | | 22.0 | | 45.0 | | 7.0 | | 50.0 | |
| Max Q Clear Time (g_c+I1), s | 4.0 | | 11.1 | | 3.8 | | 3.8 | | 3.0 | | 2.5 | |
| Green Ext Time (p_c), s | 1.4 | | 0.9 | | 0.1 | | 0.3 | | 0.0 | | 0.0 | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 29.8 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| User approved volume balancing among the lanes for turning movement. | | | | | | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary
4: Venetucci Blvd & Walmart Heights

2045 Total AM

06/22/2023























| Movement | SBR |
|------------------------------|------|
| Lane Configurations | |
| Traffic Volume (veh/h) | 10 |
| Future Volume (veh/h) | 10 |
| Initial Q (Qb), veh | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |
| Parking Bus, Adj | 1.00 |
| Work Zone On Approach | |
| Adj Sat Flow, veh/h/ln | 1841 |
| Adj Flow Rate, veh/h | 6 |
| Peak Hour Factor | 0.92 |
| Percent Heavy Veh, % | 4 |
| Cap, veh/h | 1117 |
| Arrive On Green | 0.72 |
| Sat Flow, veh/h | 1560 |
| Grp Volume(v), veh/h | 6 |
| Grp Sat Flow(s),veh/h/ln | 1560 |
| Q Serve(g_s), s | 0.1 |
| Cycle Q Clear(g_c), s | 0.1 |
| Prop In Lane | 1.00 |
| Lane Grp Cap(c), veh/h | 1117 |
| V/C Ratio(X) | 0.01 |
| Avail Cap(c_a), veh/h | 1117 |
| HCM Platoon Ratio | 1.00 |
| Upstream Filter(l) | 1.00 |
| Uniform Delay (d), s/veh | 4.9 |
| Incr Delay (d2), s/veh | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.1 |
| Unsig. Movement Delay, s/veh | |
| LnGrp Delay(d),s/veh | 4.9 |
| LnGrp LOS | A |
| Approach Vol, veh/h | |
| Approach Delay, s/veh | |
| Approach LOS | |
| Timer - Assigned Phs | |

Timings

4: Venetucci Blvd & Walmart Heights

2045 Total PM

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | | |  |  |  |  |  |
| Traffic Volume (vph) | 13 | 7 | 537 | 10 | 51 | 67 | 50 | 117 | 454 | 19 | 91 | 10 |
| Future Volume (vph) | 13 | 7 | 537 | 10 | 51 | 67 | 50 | 117 | 454 | 19 | 91 | 10 |
| Turn Type | pm+pt | NA | Prot | NA | Perm | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | | | 2 | | | 6 | |
| Permitted Phases | 4 | | | | 8 | 2 | 2 | | 2 | 6 | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 2 | 2 | 2 | 2 | 6 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 11.0 | 24.0 | 48.0 | 61.0 | 61.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 | 48.0 |
| Total Split (%) | 9.2% | 20.0% | 40.0% | 50.8% | 50.8% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% | 40.0% |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | | | | |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max |
| Act Effect Green (s) | 23.0 | 20.2 | 44.4 | 44.4 | 61.6 | | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 |
| Actuated g/C Ratio | 0.19 | 0.17 | 0.37 | 0.37 | 0.51 | | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 |
| v/c Ratio | 0.06 | 0.15 | 0.46 | 0.46 | 0.06 | | 0.28 | 0.10 | 0.55 | 0.05 | 0.08 | 0.02 |
| Control Delay | 18.8 | 15.0 | 36.6 | 36.4 | 1.6 | | 30.2 | 26.6 | 5.1 | 27.1 | 27.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 18.8 | 15.0 | 36.6 | 36.4 | 1.6 | | 30.2 | 26.6 | 5.1 | 27.1 | 27.1 | 0.1 |
| LOS | B | B | D | D | A | | C | C | A | C | C | A |
| Approach Delay | | 15.9 | | 33.5 | | | | 13.1 | | | 24.9 | |
| Approach LOS | | B | | C | | | | B | | | C | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 22.5

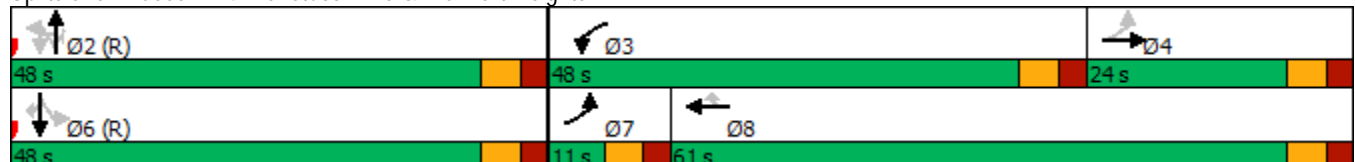
Intersection LOS: C

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: Venetucci Blvd & Walmart Heights

























HCM 6th Signalized Intersection Summary

2045 Total PM

4: Venetucci Blvd & Walmart Heights

06/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  | |  |  |  | |  |  |  |  |  |
| Traffic Volume (veh/h) | 13 | 7 | 36 | 537 | 10 | 51 | 67 | 50 | 117 | 454 | 19 | 91 |
| Future Volume (veh/h) | 13 | 7 | 36 | 537 | 10 | 51 | 67 | 50 | 117 | 454 | 19 | 91 |
| Initial Q (Qb), veh | 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 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 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 | 1826 | 1826 |
| Adj Flow Rate, veh/h | 14 | 7 | 19 | 566 | 0 | 17 | | 52 | 122 | 150 | 20 | 95 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 5 | 5 |
| Cap, veh/h | 137 | 16 | 43 | 668 | 0 | 329 | | 872 | 2229 | 994 | 724 | 2176 |
| Arrive On Green | 0.02 | 0.04 | 0.04 | 0.19 | 0.00 | 0.21 | | 0.63 | 0.63 | 0.63 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1781 | 445 | 1208 | 3563 | 0 | 1585 | | 1295 | 3554 | 1585 | 1081 | 3469 |
| Grp Volume(v), veh/h | 14 | 0 | 26 | 566 | 0 | 17 | | 52 | 122 | 150 | 20 | 95 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1653 | 1781 | 0 | 1585 | | 1295 | 1777 | 1585 | 1081 | 1735 |
| Q Serve(g_s), s | 0.9 | 0.0 | 1.8 | 18.4 | 0.0 | 1.0 | | 1.9 | 1.6 | 4.7 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.9 | 0.0 | 1.8 | 18.4 | 0.0 | 1.0 | | 1.9 | 1.6 | 4.7 | 1.6 | 0.0 |
| Prop In Lane | 1.00 | | 0.73 | 1.00 | | 1.00 | | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 137 | 0 | 59 | 668 | 0 | 329 | | 872 | 2229 | 994 | 724 | 2176 |
| V/C Ratio(X) | 0.10 | 0.00 | 0.44 | 0.85 | 0.00 | 0.05 | | 0.06 | 0.05 | 0.15 | 0.03 | 0.04 |
| Avail Cap(c_a), veh/h | 184 | 0 | 248 | 1247 | 0 | 726 | | 872 | 2229 | 994 | 724 | 2176 |
| 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 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.5 | 0.0 | 56.7 | 47.1 | 0.0 | 38.1 | | 8.7 | 8.6 | 9.2 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 5.2 | 3.1 | 0.0 | 0.1 | | 0.1 | 0.0 | 0.3 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.8 | 0.0 | 1.5 | 13.2 | 0.0 | 0.7 | | 1.0 | 1.1 | 3.0 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.8 | 0.0 | 61.9 | 50.2 | 0.0 | 38.2 | | 8.8 | 8.7 | 9.5 | 0.1 | 0.0 |
| LnGrp LOS | D | A | E | D | A | D | | A | A | A | A | A |
| Approach Vol, veh/h | | 40 | | | 583 | | | | 324 | | | 120 |
| Approach Delay, s/veh | | 59.4 | | | 49.8 | | | | 9.1 | | | 0.0 |
| Approach LOS | | E | | | D | | | | A | | | A |
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 81.3 | 28.5 | 10.3 | | 81.3 | 7.9 | 30.9 | | | | |
| Change Period (Y+Rc), s | | 6.0 | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 42.0 | 42.0 | 18.0 | | 42.0 | 5.0 | 55.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 6.7 | 20.4 | 3.8 | | 3.6 | 2.9 | 3.0 | | | | |
| Green Ext Time (p_c), s | | 1.5 | 2.1 | 0.1 | | 0.7 | 0.0 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 32.2 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |
| User approved volume balancing among the lanes for turning movement. | | | | | | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | | | | | | |

HCM 6th Signalized Intersection Summary 4: Venetucci Blvd & Walmart Heights

2045 Total PM
06/22/2023

| Movement | SBR |
|------------------------------|------|
| Lane Configurations | |
| Traffic Volume (veh/h) | 10 |
| Future Volume (veh/h) | 10 |
| Initial Q (Qb), veh | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |
| Parking Bus, Adj | 1.00 |
| Work Zone On Approach | |
| Adj Sat Flow, veh/h/ln | 1826 |
| Adj Flow Rate, veh/h | 5 |
| Peak Hour Factor | 0.96 |
| Percent Heavy Veh, % | 5 |
| Cap, veh/h | 970 |
| Arrive On Green | 1.00 |
| Sat Flow, veh/h | 1547 |
| Grp Volume(v), veh/h | 5 |
| Grp Sat Flow(s),veh/h/ln | 1547 |
| Q Serve(g_s), s | 0.0 |
| Cycle Q Clear(g_c), s | 0.0 |
| Prop In Lane | 1.00 |
| Lane Grp Cap(c), veh/h | 970 |
| V/C Ratio(X) | 0.01 |
| Avail Cap(c_a), veh/h | 970 |
| HCM Platoon Ratio | 2.00 |
| Upstream Filter(l) | 1.00 |
| Uniform Delay (d), s/veh | 0.0 |
| Incr Delay (d2), s/veh | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 |
| %ile BackOfQ(95%),veh/ln | 0.0 |
| Unsig. Movement Delay, s/veh | |
| LnGrp Delay(d),s/veh | 0.0 |
| LnGrp LOS | A |
| Approach Vol, veh/h | |
| Approach Delay, s/veh | |
| Approach LOS | |
| Timer - Assigned Phs | |

Timings 5: Venetucci Blvd & Academy Blvd (W)

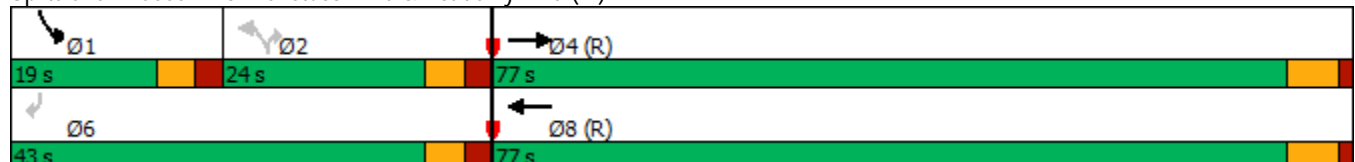
2023 Existing AM
06/19/2023

| | → | ↘ | ← | ↙ | ↗ | ↘ | ↙ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
| Lane Configurations | ↑↑↑ | ↑ | ↑↑↑ | ↘↙ | ↑ | ↘↙ | ↑ |
| Traffic Volume (vph) | 1098 | 18 | 1579 | 13 | 9 | 112 | 106 |
| Future Volume (vph) | 1098 | 18 | 1579 | 13 | 9 | 112 | 106 |
| Turn Type | NA | Free | NA | Perm | Perm | Prot | Perm |
| Protected Phases | 4 | | 8 | | | 1 | |
| Permitted Phases | | Free | | 2 | 2 | | 6 |
| Detector Phase | 4 | | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 77.0 | | 77.0 | 24.0 | 24.0 | 19.0 | 43.0 |
| Total Split (%) | 64.2% | | 64.2% | 20.0% | 20.0% | 15.8% | 35.8% |
| Yellow Time (s) | 4.5 | | 4.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | C-Max | Max | Max | None | Max |
| Act Effect Green (s) | 71.0 | 120.0 | 71.0 | 21.4 | 21.4 | 9.6 | 37.0 |
| Actuated g/C Ratio | 0.59 | 1.00 | 0.59 | 0.18 | 0.18 | 0.08 | 0.31 |
| v/c Ratio | 0.41 | 0.01 | 0.57 | 0.03 | 0.04 | 0.44 | 0.23 |
| Control Delay | 13.7 | 0.0 | 23.1 | 42.5 | 0.3 | 57.4 | 24.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.7 | 0.0 | 23.1 | 42.5 | 0.3 | 57.4 | 24.7 |
| LOS | B | A | C | D | A | E | C |
| Approach Delay | 13.5 | | 23.1 | | | | |
| Approach LOS | B | | C | | | | |

Intersection Summary

| |
|---|
| Cycle Length: 120 |
| Actuated Cycle Length: 120 |
| Offset: 44 (37%), Referenced to phase 4:EBT and 8:WBT, Start of Green |
| Natural Cycle: 60 |
| Control Type: Actuated-Coordinated |
| Maximum v/c Ratio: 0.57 |
| Intersection Signal Delay: 20.8 |
| Intersection Capacity Utilization 53.7% |
| Analysis Period (min) 15 |
| Intersection LOS: C |
| ICU Level of Service A |

Splits and Phases: 5: Venetucci Blvd & Academy Blvd (W)

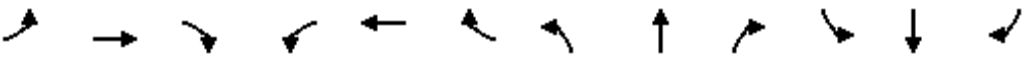


HCM Signalized Intersection Capacity Analysis

5: Venetucci Blvd & Academy Blvd (W)

2023 Existing AM

06/19/2023

| |  | | | | | | | | | | | |
|-----------------------------------|--|------|-------|------|-------|---------------------------|------|------|------|-------|------|-------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↑↑↑ | ↑ | | ↑↑↑ | | ↑↑ | | ↑ | ↑↑ | | ↑ |
| Traffic Volume (vph) | 0 | 1098 | 18 | 0 | 1579 | 0 | 13 | 0 | 9 | 112 | 0 | 106 |
| Future Volume (vph) | 0 | 1098 | 18 | 0 | 1579 | 0 | 13 | 0 | 9 | 112 | 0 | 106 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | 4.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Lane Util. Factor | | 0.91 | 1.00 | | 0.91 | | 0.97 | | 1.00 | 0.97 | | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | | 0.85 | 1.00 | | 0.85 |
| Flt Protected | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (prot) | | 4848 | 1509 | | 4940 | | 2334 | | 1077 | 3400 | | 1568 |
| Flt Permitted | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (perm) | | 4848 | 1509 | | 4940 | | 2334 | | 1077 | 3400 | | 1568 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 0 | 1168 | 19 | 0 | 1680 | 0 | 14 | 0 | 10 | 119 | 0 | 113 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 19 |
| Lane Group Flow (vph) | 0 | 1168 | 19 | 0 | 1680 | 0 | 14 | 0 | 2 | 119 | 0 | 94 |
| Heavy Vehicles (%) | 7% | 7% | 7% | 5% | 5% | 5% | 50% | 50% | 50% | 3% | 3% | 3% |
| Turn Type | | NA | Free | | NA | | Perm | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | | | | 1 | | |
| Permitted Phases | | | Free | | | | 2 | | 2 | | | 6 |
| Actuated Green, G (s) | | 71.0 | 120.0 | | 71.0 | | 21.4 | | 21.4 | 9.6 | | 37.0 |
| Effective Green, g (s) | | 71.0 | 120.0 | | 71.0 | | 21.4 | | 21.4 | 9.6 | | 37.0 |
| Actuated g/C Ratio | | 0.59 | 1.00 | | 0.59 | | 0.18 | | 0.18 | 0.08 | | 0.31 |
| Clearance Time (s) | | 6.0 | | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | | 2868 | 1509 | | 2922 | | 416 | | 192 | 272 | | 483 |
| v/s Ratio Prot | | 0.24 | | | c0.34 | | | | | c0.04 | | |
| v/s Ratio Perm | | | 0.01 | | | | 0.01 | | 0.00 | | | c0.06 |
| v/c Ratio | | 0.41 | 0.01 | | 0.57 | | 0.03 | | 0.01 | 0.44 | | 0.20 |
| Uniform Delay, d1 | | 13.2 | 0.0 | | 15.2 | | 40.8 | | 40.6 | 52.6 | | 30.5 |
| Progression Factor | | 1.00 | 1.00 | | 1.46 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | | 0.4 | 0.0 | | 0.7 | | 0.2 | | 0.1 | 1.1 | | 0.9 |
| Delay (s) | | 13.6 | 0.0 | | 22.9 | | 40.9 | | 40.7 | 53.8 | | 31.4 |
| Level of Service | | B | A | | C | | D | | D | D | | C |
| Approach Delay (s) | | 13.4 | | | 22.9 | | | 40.8 | | | 42.9 | |
| Approach LOS | | B | | | C | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 20.9 | | | HCM 2000 Level of Service | | | | C | | |
| HCM 2000 Volume to Capacity ratio | | | 0.49 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 53.7% | | | ICU Level of Service | | | A | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings 5: Venetucci Blvd & Academy Blvd (W)

2023 Existing PM
06/19/2023

| | → | ↘ | ← | ↙ | ↗ | ↘ | ↙ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
| Lane Configurations | ↑↑↑ | ↑ | ↑↑↑ | ↘↙ | ↑ | ↘↙ | ↑ |
| Traffic Volume (vph) | 1691 | 4 | 993 | 12 | 11 | 346 | 222 |
| Future Volume (vph) | 1691 | 4 | 993 | 12 | 11 | 346 | 222 |
| Turn Type | NA | Free | NA | Perm | Perm | Prot | Perm |
| Protected Phases | 4 | | 8 | | | 1 | |
| Permitted Phases | | Free | | 2 | 2 | | 6 |
| Detector Phase | 4 | | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 69.0 | | 69.0 | 24.0 | 24.0 | 27.0 | 51.0 |
| Total Split (%) | 57.5% | | 57.5% | 20.0% | 20.0% | 22.5% | 42.5% |
| Yellow Time (s) | 4.5 | | 4.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | C-Max | Max | Max | None | Max |
| Act Effect Green (s) | 63.0 | 120.0 | 63.0 | 21.4 | 21.4 | 17.6 | 45.0 |
| Actuated g/C Ratio | 0.52 | 1.00 | 0.52 | 0.18 | 0.18 | 0.15 | 0.38 |
| v/c Ratio | 0.67 | 0.00 | 0.39 | 0.03 | 0.04 | 0.72 | 0.37 |
| Control Delay | 22.4 | 0.0 | 26.6 | 43.0 | 0.3 | 57.3 | 19.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 22.4 | 0.0 | 26.6 | 43.0 | 0.3 | 57.3 | 19.6 |
| LOS | C | A | C | D | A | E | B |
| Approach Delay | 22.3 | | 26.6 | | | | |
| Approach LOS | C | | C | | | | |

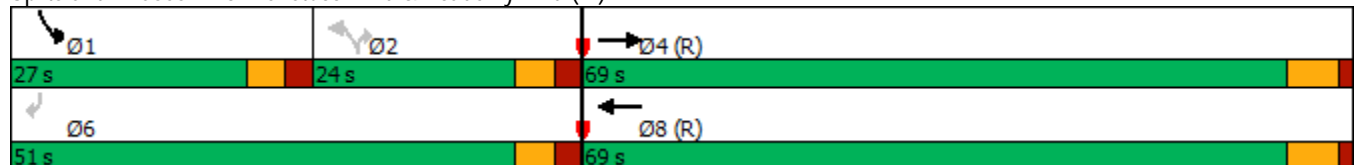
Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 44 (37%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 27.1
 Intersection Capacity Utilization 60.0%
 Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service B

Splits and Phases: 5: Venetucci Blvd & Academy Blvd (W)



HCM Signalized Intersection Capacity Analysis

5: Venetucci Blvd & Academy Blvd (W)

2023 Existing PM

06/19/2023

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|------|-------|-------|------|------|---------------------------|------|------|------|-------|------|-------|
| Lane Configurations | | ↑↑↑ | ↑ | | ↑↑↑ | | ↑↑ | | ↑ | ↑↑ | | ↑ |
| Traffic Volume (vph) | 0 | 1691 | 4 | 0 | 993 | 0 | 12 | 0 | 11 | 346 | 0 | 222 |
| Future Volume (vph) | 0 | 1691 | 4 | 0 | 993 | 0 | 12 | 0 | 11 | 346 | 0 | 222 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | 4.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Lane Util. Factor | | 0.91 | 1.00 | | 0.91 | | 0.97 | | 1.00 | 0.97 | | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | | 0.85 | 1.00 | | 0.85 |
| Flt Protected | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (prot) | | 5085 | 1583 | | 5085 | | 2594 | | 1196 | 3433 | | 1583 |
| Flt Permitted | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (perm) | | 5085 | 1583 | | 5085 | | 2594 | | 1196 | 3433 | | 1583 |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 0 | 1780 | 4 | 0 | 1045 | 0 | 13 | 0 | 12 | 364 | 0 | 234 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 48 |
| Lane Group Flow (vph) | 0 | 1780 | 4 | 0 | 1045 | 0 | 13 | 0 | 2 | 364 | 0 | 186 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 35% | 35% | 35% | 2% | 2% | 2% |
| Turn Type | | NA | Free | | NA | | Perm | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | | | | 1 | | |
| Permitted Phases | | | Free | | | | 2 | | 2 | | | 6 |
| Actuated Green, G (s) | | 63.0 | 120.0 | | 63.0 | | 21.4 | | 21.4 | 17.6 | | 45.0 |
| Effective Green, g (s) | | 63.0 | 120.0 | | 63.0 | | 21.4 | | 21.4 | 17.6 | | 45.0 |
| Actuated g/C Ratio | | 0.52 | 1.00 | | 0.52 | | 0.18 | | 0.18 | 0.15 | | 0.38 |
| Clearance Time (s) | | 6.0 | | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | | 2669 | 1583 | | 2669 | | 462 | | 213 | 503 | | 593 |
| v/s Ratio Prot | | c0.35 | | | 0.21 | | | | | c0.11 | | |
| v/s Ratio Perm | | | 0.00 | | | | 0.01 | | 0.00 | | | c0.12 |
| v/c Ratio | | 0.67 | 0.00 | | 0.39 | | 0.03 | | 0.01 | 0.72 | | 0.31 |
| Uniform Delay, d1 | | 20.8 | 0.0 | | 17.0 | | 40.7 | | 40.6 | 48.9 | | 26.6 |
| Progression Factor | | 1.00 | 1.00 | | 1.53 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | | 1.3 | 0.0 | | 0.4 | | 0.1 | | 0.1 | 5.1 | | 1.4 |
| Delay (s) | | 22.2 | 0.0 | | 26.4 | | 40.8 | | 40.7 | 54.0 | | 27.9 |
| Level of Service | | C | A | | C | | D | | D | D | | C |
| Approach Delay (s) | | 22.1 | | | 26.4 | | | 40.7 | | | 43.8 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 27.3 | | | HCM 2000 Level of Service | | | | C | | |
| HCM 2000 Volume to Capacity ratio | | | 0.61 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | | 18.0 | | |
| Intersection Capacity Utilization | | | 60.0% | | | ICU Level of Service | | | | B | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings 5: Venetucci Blvd & Academy Blvd (W)

2025 Background AM

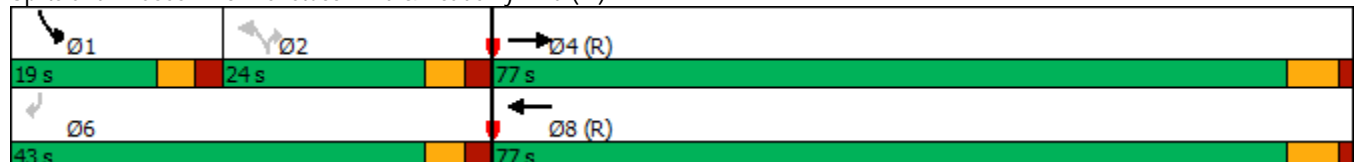
06/19/2023

| | → | ↘ | ← | ↙ | ↗ | ↘ | ↙ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
| Lane Configurations | ↑↑↑ | ↑ | ↑↑↑ | ↘↙ | ↑ | ↘↙ | ↑ |
| Traffic Volume (vph) | 1130 | 19 | 1624 | 13 | 9 | 138 | 131 |
| Future Volume (vph) | 1130 | 19 | 1624 | 13 | 9 | 138 | 131 |
| Turn Type | NA | Free | NA | Perm | Perm | Prot | Perm |
| Protected Phases | 4 | | 8 | | | 1 | |
| Permitted Phases | | Free | | 2 | 2 | | 6 |
| Detector Phase | 4 | | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 77.0 | | 77.0 | 24.0 | 24.0 | 19.0 | 43.0 |
| Total Split (%) | 64.2% | | 64.2% | 20.0% | 20.0% | 15.8% | 35.8% |
| Yellow Time (s) | 4.5 | | 4.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | C-Max | Max | Max | None | Max |
| Act Effect Green (s) | 71.0 | 120.0 | 71.0 | 20.6 | 20.6 | 10.4 | 37.0 |
| Actuated g/C Ratio | 0.59 | 1.00 | 0.59 | 0.17 | 0.17 | 0.09 | 0.31 |
| v/c Ratio | 0.42 | 0.01 | 0.59 | 0.04 | 0.04 | 0.50 | 0.28 |
| Control Delay | 13.9 | 0.0 | 23.0 | 43.2 | 0.3 | 57.9 | 26.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.9 | 0.0 | 23.0 | 43.2 | 0.3 | 57.9 | 26.8 |
| LOS | B | A | C | D | A | E | C |
| Approach Delay | 13.6 | | 23.0 | | | | |
| Approach LOS | B | | C | | | | |

Intersection Summary

| |
|---|
| Cycle Length: 120 |
| Actuated Cycle Length: 120 |
| Offset: 44 (37%), Referenced to phase 4:EBT and 8:WBT, Start of Green |
| Natural Cycle: 65 |
| Control Type: Actuated-Coordinated |
| Maximum v/c Ratio: 0.59 |
| Intersection Signal Delay: 21.3 |
| Intersection Capacity Utilization 56.2% |
| Analysis Period (min) 15 |
| Intersection LOS: C |
| ICU Level of Service B |

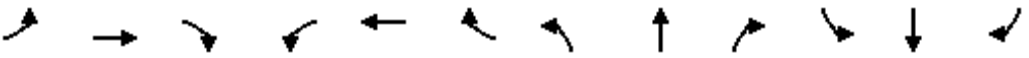
Splits and Phases: 5: Venetucci Blvd & Academy Blvd (W)



HCM Signalized Intersection Capacity Analysis 5: Venetucci Blvd & Academy Blvd (W)

2025 Background AM

06/19/2023

| |  | | | | | | | | | | | |
|-----------------------------------|--|------|-------|------|-------|---------------------------|------|------|------|-------|------|-------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↑↑↑ | ↑ | | ↑↑↑ | | ↑↑ | | ↑ | ↑↑ | | ↑ |
| Traffic Volume (vph) | 0 | 1130 | 19 | 0 | 1624 | 0 | 13 | 0 | 9 | 138 | 0 | 131 |
| Future Volume (vph) | 0 | 1130 | 19 | 0 | 1624 | 0 | 13 | 0 | 9 | 138 | 0 | 131 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | 4.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Lane Util. Factor | | 0.91 | 1.00 | | 0.91 | | 0.97 | | 1.00 | 0.97 | | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | | 0.85 | 1.00 | | 0.85 |
| Flt Protected | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (prot) | | 4848 | 1509 | | 4940 | | 2334 | | 1077 | 3400 | | 1568 |
| Flt Permitted | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (perm) | | 4848 | 1509 | | 4940 | | 2334 | | 1077 | 3400 | | 1568 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 0 | 1202 | 20 | 0 | 1728 | 0 | 14 | 0 | 10 | 147 | 0 | 139 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 19 |
| Lane Group Flow (vph) | 0 | 1202 | 20 | 0 | 1728 | 0 | 14 | 0 | 2 | 147 | 0 | 120 |
| Heavy Vehicles (%) | 7% | 7% | 7% | 5% | 5% | 5% | 50% | 50% | 50% | 3% | 3% | 3% |
| Turn Type | | NA | Free | | NA | | Perm | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | | | | 1 | | |
| Permitted Phases | | | Free | | | | 2 | | 2 | | | 6 |
| Actuated Green, G (s) | | 71.0 | 120.0 | | 71.0 | | 20.6 | | 20.6 | 10.4 | | 37.0 |
| Effective Green, g (s) | | 71.0 | 120.0 | | 71.0 | | 20.6 | | 20.6 | 10.4 | | 37.0 |
| Actuated g/C Ratio | | 0.59 | 1.00 | | 0.59 | | 0.17 | | 0.17 | 0.09 | | 0.31 |
| Clearance Time (s) | | 6.0 | | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | | 2868 | 1509 | | 2922 | | 400 | | 184 | 294 | | 483 |
| v/s Ratio Prot | | 0.25 | | | c0.35 | | | | | c0.04 | | |
| v/s Ratio Perm | | | 0.01 | | | | 0.01 | | 0.00 | | | c0.08 |
| v/c Ratio | | 0.42 | 0.01 | | 0.59 | | 0.04 | | 0.01 | 0.50 | | 0.25 |
| Uniform Delay, d1 | | 13.3 | 0.0 | | 15.4 | | 41.4 | | 41.2 | 52.3 | | 31.1 |
| Progression Factor | | 1.00 | 1.00 | | 1.43 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | | 0.5 | 0.0 | | 0.7 | | 0.2 | | 0.1 | 1.3 | | 1.2 |
| Delay (s) | | 13.8 | 0.0 | | 22.8 | | 41.6 | | 41.3 | 53.7 | | 32.3 |
| Level of Service | | B | A | | C | | D | | D | D | | C |
| Approach Delay (s) | | 13.5 | | | 22.8 | | | 41.5 | | | 43.3 | |
| Approach LOS | | B | | | C | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 21.3 | | | HCM 2000 Level of Service | | | | C | | |
| HCM 2000 Volume to Capacity ratio | | | 0.52 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 56.2% | | | ICU Level of Service | | | B | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings 5: Venetucci Blvd & Academy Blvd (W)

2025 Background PM

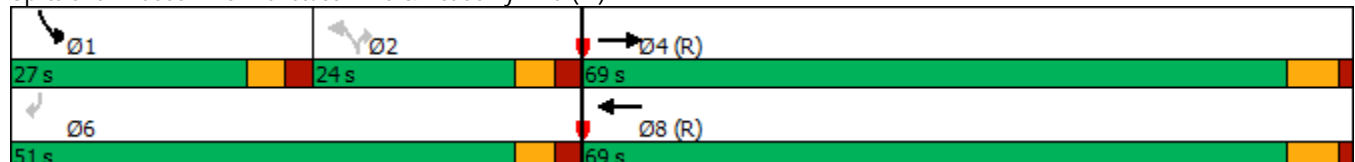
06/19/2023

| | → | ↘ | ← | ↙ | ↗ | ↘ | ↙ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
| Lane Configurations | ↑↑↑ | ↑ | ↑↑↑ | ↘↙ | ↑ | ↘↙ | ↑ |
| Traffic Volume (vph) | 1740 | 4 | 1022 | 12 | 11 | 378 | 249 |
| Future Volume (vph) | 1740 | 4 | 1022 | 12 | 11 | 378 | 249 |
| Turn Type | NA | Free | NA | Perm | Perm | Prot | Perm |
| Protected Phases | 4 | | 8 | | | 1 | |
| Permitted Phases | | Free | | 2 | 2 | | 6 |
| Detector Phase | 4 | | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 69.0 | | 69.0 | 24.0 | 24.0 | 27.0 | 51.0 |
| Total Split (%) | 57.5% | | 57.5% | 20.0% | 20.0% | 22.5% | 42.5% |
| Yellow Time (s) | 4.5 | | 4.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | C-Max | Max | Max | None | Max |
| Act Effect Green (s) | 63.0 | 120.0 | 63.0 | 20.5 | 20.5 | 18.5 | 45.0 |
| Actuated g/C Ratio | 0.52 | 1.00 | 0.52 | 0.17 | 0.17 | 0.15 | 0.38 |
| v/c Ratio | 0.69 | 0.00 | 0.40 | 0.03 | 0.04 | 0.75 | 0.41 |
| Control Delay | 22.8 | 0.0 | 26.3 | 43.5 | 0.3 | 58.0 | 22.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 22.8 | 0.0 | 26.3 | 43.5 | 0.3 | 58.0 | 22.0 |
| LOS | C | A | C | D | A | E | C |
| Approach Delay | 22.8 | | 26.3 | | | | |
| Approach LOS | C | | C | | | | |

Intersection Summary

| |
|---|
| Cycle Length: 120 |
| Actuated Cycle Length: 120 |
| Offset: 44 (37%), Referenced to phase 4:EBT and 8:WBT, Start of Green |
| Natural Cycle: 70 |
| Control Type: Actuated-Coordinated |
| Maximum v/c Ratio: 0.75 |
| Intersection Signal Delay: 27.7 |
| Intersection Capacity Utilization 61.9% |
| Analysis Period (min) 15 |
| Intersection LOS: C |
| ICU Level of Service B |

Splits and Phases: 5: Venetucci Blvd & Academy Blvd (W)

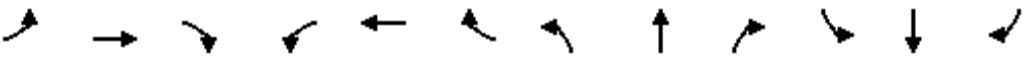


HCM Signalized Intersection Capacity Analysis

5: Venetucci Blvd & Academy Blvd (W)

2025 Background PM

06/19/2023

| |  | | | | | | | | | | | |
|-----------------------------------|--|-------|-------|------|------|---------------------------|------|------|------|-------|------|-------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↑↑↑ | ↑ | | ↑↑↑ | | ↑↑ | | ↑ | ↑↑ | | ↑ |
| Traffic Volume (vph) | 0 | 1740 | 4 | 0 | 1022 | 0 | 12 | 0 | 11 | 378 | 0 | 249 |
| Future Volume (vph) | 0 | 1740 | 4 | 0 | 1022 | 0 | 12 | 0 | 11 | 378 | 0 | 249 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | 4.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Lane Util. Factor | | 0.91 | 1.00 | | 0.91 | | 0.97 | | 1.00 | 0.97 | | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | | 0.85 | 1.00 | | 0.85 |
| Flt Protected | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (prot) | | 5085 | 1583 | | 5085 | | 2594 | | 1196 | 3433 | | 1583 |
| Flt Permitted | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (perm) | | 5085 | 1583 | | 5085 | | 2594 | | 1196 | 3433 | | 1583 |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 0 | 1832 | 4 | 0 | 1076 | 0 | 13 | 0 | 12 | 398 | 0 | 262 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 44 |
| Lane Group Flow (vph) | 0 | 1832 | 4 | 0 | 1076 | 0 | 13 | 0 | 2 | 398 | 0 | 218 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 35% | 35% | 35% | 2% | 2% | 2% |
| Turn Type | | NA | Free | | NA | | Perm | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | | | | 1 | | |
| Permitted Phases | | | Free | | | | 2 | | 2 | | | 6 |
| Actuated Green, G (s) | | 63.0 | 120.0 | | 63.0 | | 20.5 | | 20.5 | 18.5 | | 45.0 |
| Effective Green, g (s) | | 63.0 | 120.0 | | 63.0 | | 20.5 | | 20.5 | 18.5 | | 45.0 |
| Actuated g/C Ratio | | 0.52 | 1.00 | | 0.52 | | 0.17 | | 0.17 | 0.15 | | 0.38 |
| Clearance Time (s) | | 6.0 | | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | | 2669 | 1583 | | 2669 | | 443 | | 204 | 529 | | 593 |
| v/s Ratio Prot | | c0.36 | | | 0.21 | | | | | c0.12 | | |
| v/s Ratio Perm | | | 0.00 | | | | 0.01 | | 0.00 | | | c0.14 |
| v/c Ratio | | 0.69 | 0.00 | | 0.40 | | 0.03 | | 0.01 | 0.75 | | 0.37 |
| Uniform Delay, d1 | | 21.2 | 0.0 | | 17.2 | | 41.5 | | 41.3 | 48.6 | | 27.2 |
| Progression Factor | | 1.00 | 1.00 | | 1.49 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | | 1.5 | 0.0 | | 0.4 | | 0.1 | | 0.1 | 6.0 | | 1.7 |
| Delay (s) | | 22.6 | 0.0 | | 26.1 | | 41.6 | | 41.4 | 54.5 | | 28.9 |
| Level of Service | | C | A | | C | | D | | D | D | | C |
| Approach Delay (s) | | 22.6 | | | 26.1 | | | 41.5 | | | 44.4 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 27.8 | | | HCM 2000 Level of Service | | | | C | | |
| HCM 2000 Volume to Capacity ratio | | | 0.64 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | | 18.0 | | |
| Intersection Capacity Utilization | | | 61.9% | | | ICU Level of Service | | | | B | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

5: Venetucci Blvd & Academy Blvd (W)

2025 Total AM

06/19/2023

| | → | ↘ | ← | ↙ | ↗ | ↘ | ↙ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
| Lane Configurations | ↑↑↑ | ↑ | ↑↑↑ | ↘↙ | ↘ | ↘↙ | ↘ |
| Traffic Volume (vph) | 1144 | 19 | 1624 | 13 | 9 | 167 | 155 |
| Future Volume (vph) | 1144 | 19 | 1624 | 13 | 9 | 167 | 155 |
| Turn Type | NA | Free | NA | Perm | Perm | Prot | Perm |
| Protected Phases | 4 | | 8 | | | 1 | |
| Permitted Phases | | Free | | 2 | 2 | | 6 |
| Detector Phase | 4 | | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 77.0 | | 77.0 | 24.0 | 24.0 | 19.0 | 43.0 |
| Total Split (%) | 64.2% | | 64.2% | 20.0% | 20.0% | 15.8% | 35.8% |
| Yellow Time (s) | 4.5 | | 4.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | C-Max | Max | Max | None | Max |
| Act Effect Green (s) | 71.0 | 120.0 | 71.0 | 19.8 | 19.8 | 11.2 | 37.0 |
| Actuated g/C Ratio | 0.59 | 1.00 | 0.59 | 0.16 | 0.16 | 0.09 | 0.31 |
| v/c Ratio | 0.42 | 0.01 | 0.59 | 0.04 | 0.04 | 0.56 | 0.33 |
| Control Delay | 13.9 | 0.0 | 22.8 | 43.8 | 0.3 | 58.8 | 28.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.9 | 0.0 | 22.8 | 43.8 | 0.3 | 58.8 | 28.7 |
| LOS | B | A | C | D | A | E | C |
| Approach Delay | 13.7 | | 22.8 | | | | |
| Approach LOS | B | | C | | | | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 44 (37%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 21.7

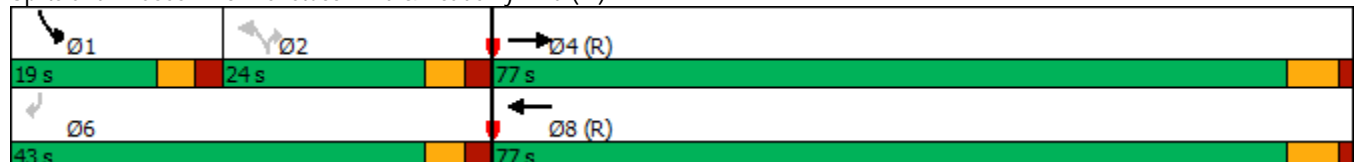
Intersection LOS: C

Intersection Capacity Utilization 57.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Venetucci Blvd & Academy Blvd (W)



HCM Signalized Intersection Capacity Analysis

5: Venetucci Blvd & Academy Blvd (W)

2025 Total AM

06/19/2023

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|------|------|-------|------|-------|---------------------------|------|------|------|-------|------|-------|
| Lane Configurations | | ↑↑↑ | ↑ | | ↑↑↑ | | ↑↑ | | ↑ | ↑↑ | | ↑ |
| Traffic Volume (vph) | 0 | 1144 | 19 | 0 | 1624 | 0 | 13 | 0 | 9 | 167 | 0 | 155 |
| Future Volume (vph) | 0 | 1144 | 19 | 0 | 1624 | 0 | 13 | 0 | 9 | 167 | 0 | 155 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | 4.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Lane Util. Factor | | 0.91 | 1.00 | | 0.91 | | 0.97 | | 1.00 | 0.97 | | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | | 0.85 | 1.00 | | 0.85 |
| Flt Protected | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (prot) | | 4848 | 1509 | | 4940 | | 2334 | | 1077 | 3400 | | 1568 |
| Flt Permitted | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (perm) | | 4848 | 1509 | | 4940 | | 2334 | | 1077 | 3400 | | 1568 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 0 | 1217 | 20 | 0 | 1728 | 0 | 14 | 0 | 10 | 178 | 0 | 165 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 19 |
| Lane Group Flow (vph) | 0 | 1217 | 20 | 0 | 1728 | 0 | 14 | 0 | 2 | 178 | 0 | 146 |
| Heavy Vehicles (%) | 7% | 7% | 7% | 5% | 5% | 5% | 50% | 50% | 50% | 3% | 3% | 3% |
| Turn Type | | NA | Free | | NA | | Perm | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | | | | 1 | | |
| Permitted Phases | | | Free | | | | 2 | | 2 | | | 6 |
| Actuated Green, G (s) | | 71.0 | 120.0 | | 71.0 | | 19.8 | | 19.8 | 11.2 | | 37.0 |
| Effective Green, g (s) | | 71.0 | 120.0 | | 71.0 | | 19.8 | | 19.8 | 11.2 | | 37.0 |
| Actuated g/C Ratio | | 0.59 | 1.00 | | 0.59 | | 0.17 | | 0.17 | 0.09 | | 0.31 |
| Clearance Time (s) | | 6.0 | | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | | 2868 | 1509 | | 2922 | | 385 | | 177 | 317 | | 483 |
| v/s Ratio Prot | | 0.25 | | | c0.35 | | | | | c0.05 | | |
| v/s Ratio Perm | | | 0.01 | | | | 0.01 | | 0.00 | | | c0.09 |
| v/c Ratio | | 0.42 | 0.01 | | 0.59 | | 0.04 | | 0.01 | 0.56 | | 0.30 |
| Uniform Delay, d1 | | 13.4 | 0.0 | | 15.4 | | 42.1 | | 41.9 | 52.1 | | 31.7 |
| Progression Factor | | 1.00 | 1.00 | | 1.42 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | | 0.5 | 0.0 | | 0.7 | | 0.2 | | 0.1 | 2.3 | | 1.6 |
| Delay (s) | | 13.8 | 0.0 | | 22.6 | | 42.3 | | 42.0 | 54.3 | | 33.3 |
| Level of Service | | B | A | | C | | D | | D | D | | C |
| Approach Delay (s) | | 13.6 | | | 22.6 | | | 42.2 | | | 44.2 | |
| Approach LOS | | B | | | C | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 21.6 | | | HCM 2000 Level of Service | | | | C | | |
| HCM 2000 Volume to Capacity ratio | | | 0.54 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 57.6% | | | ICU Level of Service | | | B | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Queues

2025 Total AM

5: Venetucci Blvd & Academy Blvd (W)

06/19/2023



| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 1217 | 20 | 1728 | 14 | 10 | 178 | 165 |
| v/c Ratio | 0.42 | 0.01 | 0.59 | 0.04 | 0.04 | 0.56 | 0.33 |
| Control Delay | 13.9 | 0.0 | 22.8 | 43.8 | 0.3 | 58.8 | 28.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.9 | 0.0 | 22.8 | 43.8 | 0.3 | 58.8 | 28.7 |
| Queue Length 50th (ft) | 178 | 0 | 465 | 4 | 0 | 69 | 81 |
| Queue Length 95th (ft) | 210 | 0 | 536 | 14 | 0 | 105 | 143 |
| Internal Link Dist (ft) | 558 | | 698 | | | | |
| Turn Bay Length (ft) | | | | 100 | 450 | 375 | |
| Base Capacity (vph) | 2868 | 1509 | 2922 | 384 | 246 | 368 | 502 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.01 | 0.59 | 0.04 | 0.04 | 0.48 | 0.33 |
| Intersection Summary | | | | | | | |

Timings

5: Venetucci Blvd & Academy Blvd (W)

2025 Total PM

06/19/2023

| | → | ↘ | ← | ↙ | ↗ | ↘ | ↙ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
| Lane Configurations | ↑↑↑ | ↑ | ↑↑↑ | ↘↙ | ↑ | ↘↙ | ↑ |
| Traffic Volume (vph) | 1787 | 4 | 1022 | 12 | 11 | 396 | 264 |
| Future Volume (vph) | 1787 | 4 | 1022 | 12 | 11 | 396 | 264 |
| Turn Type | NA | Free | NA | Perm | Perm | Prot | Perm |
| Protected Phases | 4 | | 8 | | | 1 | |
| Permitted Phases | | Free | | 2 | 2 | | 6 |
| Detector Phase | 4 | | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 69.0 | | 69.0 | 24.0 | 24.0 | 27.0 | 51.0 |
| Total Split (%) | 57.5% | | 57.5% | 20.0% | 20.0% | 22.5% | 42.5% |
| Yellow Time (s) | 4.5 | | 4.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | C-Max | Max | Max | None | Max |
| Act Effect Green (s) | 63.0 | 120.0 | 63.0 | 20.2 | 20.2 | 18.8 | 45.0 |
| Actuated g/C Ratio | 0.52 | 1.00 | 0.52 | 0.17 | 0.17 | 0.16 | 0.38 |
| v/c Ratio | 0.70 | 0.00 | 0.40 | 0.03 | 0.04 | 0.78 | 0.44 |
| Control Delay | 23.3 | 0.0 | 25.3 | 43.7 | 0.3 | 58.8 | 22.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.3 | 0.0 | 25.3 | 43.7 | 0.3 | 58.8 | 22.9 |
| LOS | C | A | C | D | A | E | C |
| Approach Delay | 23.3 | | 25.3 | | | | |
| Approach LOS | C | | C | | | | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 44 (37%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 27.9

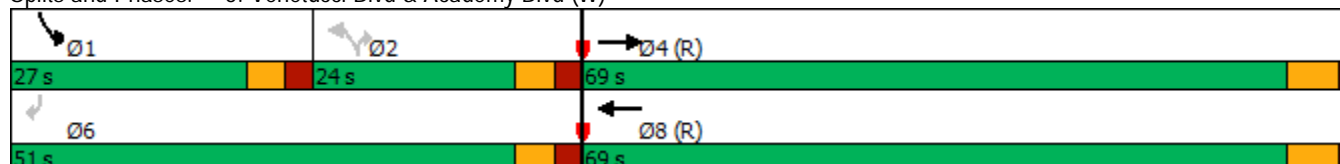
Intersection LOS: C

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Venetucci Blvd & Academy Blvd (W)

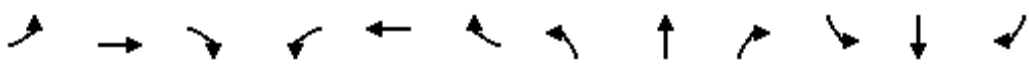


HCM Signalized Intersection Capacity Analysis

5: Venetucci Blvd & Academy Blvd (W)

2025 Total PM

06/19/2023

| |  | | | | | | | | | | | |
|-----------------------------------|--|-------|-------|------|------|---------------------------|------|------|------|-------|------|-------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↑↑↑ | ↗ | | ↑↑↑ | | ↘↘ | | ↗ | ↘↘ | | ↗ |
| Traffic Volume (vph) | 0 | 1787 | 4 | 0 | 1022 | 0 | 12 | 0 | 11 | 396 | 0 | 264 |
| Future Volume (vph) | 0 | 1787 | 4 | 0 | 1022 | 0 | 12 | 0 | 11 | 396 | 0 | 264 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | 4.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Lane Util. Factor | | 0.91 | 1.00 | | 0.91 | | 0.97 | | 1.00 | 0.97 | | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | | 0.85 | 1.00 | | 0.85 |
| Flt Protected | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (prot) | | 5085 | 1583 | | 5085 | | 2594 | | 1196 | 3433 | | 1583 |
| Flt Permitted | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (perm) | | 5085 | 1583 | | 5085 | | 2594 | | 1196 | 3433 | | 1583 |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 0 | 1881 | 4 | 0 | 1076 | 0 | 13 | 0 | 12 | 417 | 0 | 278 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 44 |
| Lane Group Flow (vph) | 0 | 1881 | 4 | 0 | 1076 | 0 | 13 | 0 | 2 | 417 | 0 | 234 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 35% | 35% | 35% | 2% | 2% | 2% |
| Turn Type | | NA | Free | | NA | | Perm | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | | | | 1 | | |
| Permitted Phases | | | Free | | | | 2 | | 2 | | | 6 |
| Actuated Green, G (s) | | 63.0 | 120.0 | | 63.0 | | 20.2 | | 20.2 | 18.8 | | 45.0 |
| Effective Green, g (s) | | 63.0 | 120.0 | | 63.0 | | 20.2 | | 20.2 | 18.8 | | 45.0 |
| Actuated g/C Ratio | | 0.52 | 1.00 | | 0.52 | | 0.17 | | 0.17 | 0.16 | | 0.38 |
| Clearance Time (s) | | 6.0 | | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | | 2669 | 1583 | | 2669 | | 436 | | 201 | 537 | | 593 |
| v/s Ratio Prot | | c0.37 | | | 0.21 | | | | | c0.12 | | |
| v/s Ratio Perm | | | 0.00 | | | | 0.01 | | 0.00 | | | c0.15 |
| v/c Ratio | | 0.70 | 0.00 | | 0.40 | | 0.03 | | 0.01 | 0.78 | | 0.39 |
| Uniform Delay, d1 | | 21.5 | 0.0 | | 17.2 | | 41.7 | | 41.6 | 48.6 | | 27.5 |
| Progression Factor | | 1.00 | 1.00 | | 1.44 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | | 1.6 | 0.0 | | 0.4 | | 0.1 | | 0.1 | 7.0 | | 2.0 |
| Delay (s) | | 23.1 | 0.0 | | 25.1 | | 41.8 | | 41.7 | 55.5 | | 29.5 |
| Level of Service | | C | A | | C | | D | | D | E | | C |
| Approach Delay (s) | | 23.0 | | | 25.1 | | | 41.8 | | | 45.1 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 27.9 | | | HCM 2000 Level of Service | | | | C | | |
| HCM 2000 Volume to Capacity ratio | | | 0.67 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 63.3% | | | ICU Level of Service | | | B | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Queues

2025 Total PM

5: Venetucci Blvd & Academy Blvd (W)

06/19/2023



| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 1881 | 4 | 1076 | 13 | 12 | 417 | 278 |
| v/c Ratio | 0.70 | 0.00 | 0.40 | 0.03 | 0.04 | 0.78 | 0.44 |
| Control Delay | 23.3 | 0.0 | 25.3 | 43.7 | 0.3 | 58.8 | 22.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.3 | 0.0 | 25.3 | 43.7 | 0.3 | 58.8 | 22.9 |
| Queue Length 50th (ft) | 387 | 0 | 279 | 4 | 0 | 160 | 117 |
| Queue Length 95th (ft) | 443 | 0 | 334 | 14 | 0 | 213 | 195 |
| Internal Link Dist (ft) | 558 | | 698 | | | | |
| Turn Bay Length (ft) | | | | 100 | 450 | 375 | |
| Base Capacity (vph) | 2669 | 1583 | 2669 | 436 | 269 | 600 | 638 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.70 | 0.00 | 0.40 | 0.03 | 0.04 | 0.69 | 0.44 |
| Intersection Summary | | | | | | | |

Timings 5: Venetucci Blvd & Academy Blvd (W)

2045 Background AM

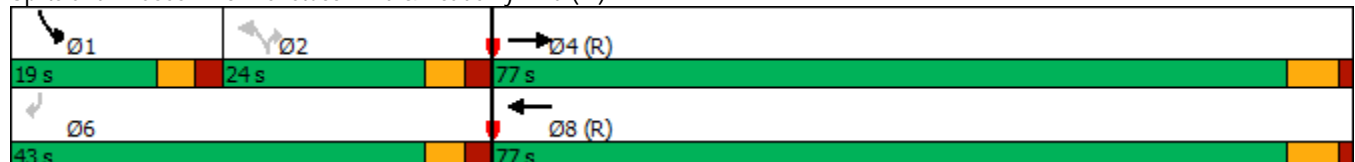
06/19/2023

| | → | ↘ | ← | ↙ | ↗ | ↘ | ↙ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
| Lane Configurations | ↑↑↑ | ↑ | ↑↑↑ | ↘↙ | ↑ | ↘↙ | ↑ |
| Traffic Volume (vph) | 1501 | 25 | 2158 | 18 | 12 | 176 | 167 |
| Future Volume (vph) | 1501 | 25 | 2158 | 18 | 12 | 176 | 167 |
| Turn Type | NA | Free | NA | Perm | Perm | Prot | Perm |
| Protected Phases | 4 | | 8 | | | 1 | |
| Permitted Phases | | Free | | 2 | 2 | | 6 |
| Detector Phase | 4 | | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 77.0 | | 77.0 | 24.0 | 24.0 | 19.0 | 43.0 |
| Total Split (%) | 64.2% | | 64.2% | 20.0% | 20.0% | 15.8% | 35.8% |
| Yellow Time (s) | 4.5 | | 4.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | C-Max | Max | Max | None | Max |
| Act Effect Green (s) | 71.0 | 120.0 | 71.0 | 19.6 | 19.6 | 11.4 | 37.0 |
| Actuated g/C Ratio | 0.59 | 1.00 | 0.59 | 0.16 | 0.16 | 0.10 | 0.31 |
| v/c Ratio | 0.56 | 0.02 | 0.79 | 0.05 | 0.05 | 0.58 | 0.35 |
| Control Delay | 15.8 | 0.0 | 26.9 | 44.0 | 0.4 | 59.2 | 29.5 |
| Queue Delay | 0.0 | 0.0 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.8 | 0.0 | 29.5 | 44.0 | 0.4 | 59.2 | 29.5 |
| LOS | B | A | C | D | A | E | C |
| Approach Delay | 15.6 | | 29.5 | | | | |
| Approach LOS | B | | C | | | | |

Intersection Summary

| |
|---|
| Cycle Length: 120 |
| Actuated Cycle Length: 120 |
| Offset: 44 (37%), Referenced to phase 4:EBT and 8:WBT, Start of Green |
| Natural Cycle: 80 |
| Control Type: Actuated-Coordinated |
| Maximum v/c Ratio: 0.79 |
| Intersection Signal Delay: 25.5 |
| Intersection Capacity Utilization 68.7% |
| Analysis Period (min) 15 |
| Intersection LOS: C |
| ICU Level of Service C |

Splits and Phases: 5: Venetucci Blvd & Academy Blvd (W)

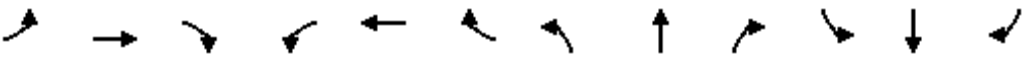


HCM Signalized Intersection Capacity Analysis

5: Venetucci Blvd & Academy Blvd (W)

2045 Background AM

06/19/2023

| |  | | | | | | | | | | | |
|-----------------------------------|--|------|-------|------|-------|---------------------------|------|------|------|-------|------|-------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↑↑↑ | ↑ | | ↑↑↑ | | ↑↑ | | ↑ | ↑↑ | | ↑ |
| Traffic Volume (vph) | 0 | 1501 | 25 | 0 | 2158 | 0 | 18 | 0 | 12 | 176 | 0 | 167 |
| Future Volume (vph) | 0 | 1501 | 25 | 0 | 2158 | 0 | 18 | 0 | 12 | 176 | 0 | 167 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | 4.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Lane Util. Factor | | 0.91 | 1.00 | | 0.91 | | 0.97 | | 1.00 | 0.97 | | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | | 0.85 | 1.00 | | 0.85 |
| Flt Protected | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (prot) | | 4848 | 1509 | | 4940 | | 2334 | | 1077 | 3400 | | 1568 |
| Flt Permitted | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (perm) | | 4848 | 1509 | | 4940 | | 2334 | | 1077 | 3400 | | 1568 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 0 | 1597 | 27 | 0 | 2296 | 0 | 19 | 0 | 13 | 187 | 0 | 178 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 19 |
| Lane Group Flow (vph) | 0 | 1597 | 27 | 0 | 2296 | 0 | 19 | 0 | 2 | 187 | 0 | 159 |
| Heavy Vehicles (%) | 7% | 7% | 7% | 5% | 5% | 5% | 50% | 50% | 50% | 3% | 3% | 3% |
| Turn Type | | NA | Free | | NA | | Perm | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | | | | 1 | | |
| Permitted Phases | | | Free | | | | 2 | | 2 | | | 6 |
| Actuated Green, G (s) | | 71.0 | 120.0 | | 71.0 | | 19.6 | | 19.6 | 11.4 | | 37.0 |
| Effective Green, g (s) | | 71.0 | 120.0 | | 71.0 | | 19.6 | | 19.6 | 11.4 | | 37.0 |
| Actuated g/C Ratio | | 0.59 | 1.00 | | 0.59 | | 0.16 | | 0.16 | 0.10 | | 0.31 |
| Clearance Time (s) | | 6.0 | | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | | 2868 | 1509 | | 2922 | | 381 | | 175 | 323 | | 483 |
| v/s Ratio Prot | | 0.33 | | | c0.46 | | | | | c0.06 | | |
| v/s Ratio Perm | | | 0.02 | | | | 0.01 | | 0.00 | | | c0.10 |
| v/c Ratio | | 0.56 | 0.02 | | 0.79 | | 0.05 | | 0.01 | 0.58 | | 0.33 |
| Uniform Delay, d1 | | 14.9 | 0.0 | | 18.7 | | 42.3 | | 42.1 | 52.0 | | 32.0 |
| Progression Factor | | 1.00 | 1.00 | | 1.34 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | | 0.8 | 0.0 | | 1.5 | | 0.2 | | 0.1 | 2.5 | | 1.8 |
| Delay (s) | | 15.7 | 0.0 | | 26.5 | | 42.6 | | 42.2 | 54.5 | | 33.8 |
| Level of Service | | B | A | | C | | D | | D | D | | C |
| Approach Delay (s) | | 15.4 | | | 26.5 | | | 42.4 | | | 44.4 | |
| Approach LOS | | B | | | C | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 24.0 | | | HCM 2000 Level of Service | | | | C | | |
| HCM 2000 Volume to Capacity ratio | | | 0.68 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 68.7% | | | ICU Level of Service | | | C | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings 5: Venetucci Blvd & Academy Blvd (W)

2045 Background PM

06/19/2023

| | → | ↘ | ← | ↙ | ↗ | ↘ | ↙ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
| Lane Configurations | ↑↑↑ | ↑ | ↑↑↑ | ↘↙ | ↑ | ↘↙ | ↑ |
| Traffic Volume (vph) | 2311 | 5 | 1357 | 16 | 15 | 495 | 324 |
| Future Volume (vph) | 2311 | 5 | 1357 | 16 | 15 | 495 | 324 |
| Turn Type | NA | Free | NA | Perm | Perm | Prot | Perm |
| Protected Phases | 4 | | 8 | | | 1 | |
| Permitted Phases | | Free | | 2 | 2 | | 6 |
| Detector Phase | 4 | | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 69.0 | | 69.0 | 24.0 | 24.0 | 27.0 | 51.0 |
| Total Split (%) | 57.5% | | 57.5% | 20.0% | 20.0% | 22.5% | 42.5% |
| Yellow Time (s) | 4.5 | | 4.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | C-Max | Max | Max | None | Max |
| Act Effect Green (s) | 63.0 | 120.0 | 63.0 | 18.5 | 18.5 | 20.5 | 45.0 |
| Actuated g/C Ratio | 0.52 | 1.00 | 0.52 | 0.15 | 0.15 | 0.17 | 0.38 |
| v/c Ratio | 0.91 | 0.00 | 0.54 | 0.04 | 0.06 | 0.89 | 0.56 |
| Control Delay | 32.4 | 0.0 | 27.1 | 44.1 | 0.5 | 66.8 | 31.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 51.3 | 0.0 |
| Total Delay | 32.4 | 0.0 | 27.1 | 44.1 | 0.5 | 118.1 | 31.4 |
| LOS | C | A | C | D | A | F | C |
| Approach Delay | 32.3 | | 27.1 | | | | |
| Approach LOS | C | | C | | | | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 44 (37%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 40.0

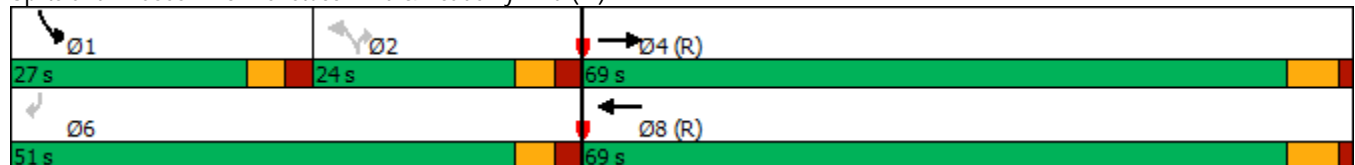
Intersection LOS: D

Intersection Capacity Utilization 76.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 5: Venetucci Blvd & Academy Blvd (W)

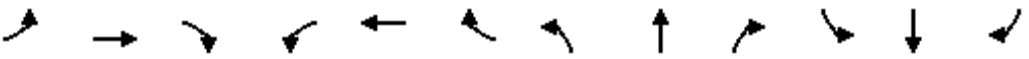


HCM Signalized Intersection Capacity Analysis

5: Venetucci Blvd & Academy Blvd (W)

2045 Background PM

06/19/2023

| |  | | | | | | | | | | | |
|-----------------------------------|--|-------|-------|------|------|---------------------------|------|------|------|-------|------|-------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↑↑↑ | ↗ | | ↑↑↑ | | ↗ | | ↗ | ↗ | | ↗ |
| Traffic Volume (vph) | 0 | 2311 | 5 | 0 | 1357 | 0 | 16 | 0 | 15 | 495 | 0 | 324 |
| Future Volume (vph) | 0 | 2311 | 5 | 0 | 1357 | 0 | 16 | 0 | 15 | 495 | 0 | 324 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | 4.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Lane Util. Factor | | 0.91 | 1.00 | | 0.91 | | 0.97 | | 1.00 | 0.97 | | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | | 0.85 | 1.00 | | 0.85 |
| Flt Protected | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (prot) | | 5085 | 1583 | | 5085 | | 2594 | | 1196 | 3433 | | 1583 |
| Flt Permitted | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (perm) | | 5085 | 1583 | | 5085 | | 2594 | | 1196 | 3433 | | 1583 |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 0 | 2433 | 5 | 0 | 1428 | 0 | 17 | 0 | 16 | 521 | 0 | 341 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 17 |
| Lane Group Flow (vph) | 0 | 2433 | 5 | 0 | 1428 | 0 | 17 | 0 | 2 | 521 | 0 | 324 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 35% | 35% | 35% | 2% | 2% | 2% |
| Turn Type | | NA | Free | | NA | | Perm | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | | | | 1 | | |
| Permitted Phases | | | Free | | | | 2 | | 2 | | | 6 |
| Actuated Green, G (s) | | 63.0 | 120.0 | | 63.0 | | 18.5 | | 18.5 | 20.5 | | 45.0 |
| Effective Green, g (s) | | 63.0 | 120.0 | | 63.0 | | 18.5 | | 18.5 | 20.5 | | 45.0 |
| Actuated g/C Ratio | | 0.52 | 1.00 | | 0.52 | | 0.15 | | 0.15 | 0.17 | | 0.38 |
| Clearance Time (s) | | 6.0 | | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | | 2669 | 1583 | | 2669 | | 399 | | 184 | 586 | | 593 |
| v/s Ratio Prot | | c0.48 | | | 0.28 | | | | | c0.15 | | |
| v/s Ratio Perm | | | 0.00 | | | | 0.01 | | 0.00 | | | c0.20 |
| v/c Ratio | | 0.91 | 0.00 | | 0.54 | | 0.04 | | 0.01 | 0.89 | | 0.55 |
| Uniform Delay, d1 | | 26.0 | 0.0 | | 18.8 | | 43.2 | | 43.0 | 48.6 | | 29.5 |
| Progression Factor | | 1.00 | 1.00 | | 1.39 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | | 6.0 | 0.0 | | 0.7 | | 0.2 | | 0.1 | 15.2 | | 3.6 |
| Delay (s) | | 32.0 | 0.0 | | 26.8 | | 43.4 | | 43.1 | 63.9 | | 33.1 |
| Level of Service | | C | A | | C | | D | | D | E | | C |
| Approach Delay (s) | | 31.9 | | | 26.8 | | | 43.3 | | | 51.7 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 34.1 | | | HCM 2000 Level of Service | | | | C | | |
| HCM 2000 Volume to Capacity ratio | | | 0.85 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 76.3% | | | ICU Level of Service | | | D | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

5: Venetucci Blvd & Academy Blvd (W)

2045 Total AM

06/19/2023

| | → | ↘ | ← | ↙ | ↗ | ↘ | ↙ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
| Lane Configurations | ↑↑↑ | ↑ | ↑↑↑ | ↘↙ | ↑ | ↘↙ | ↑ |
| Traffic Volume (vph) | 1515 | 25 | 2158 | 18 | 12 | 205 | 191 |
| Future Volume (vph) | 1515 | 25 | 2158 | 18 | 12 | 205 | 191 |
| Turn Type | NA | Free | NA | Perm | Perm | Prot | Perm |
| Protected Phases | 4 | | 8 | | | 1 | |
| Permitted Phases | | Free | | 2 | 2 | | 6 |
| Detector Phase | 4 | | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 77.0 | | 77.0 | 24.0 | 24.0 | 19.0 | 43.0 |
| Total Split (%) | 64.2% | | 64.2% | 20.0% | 20.0% | 15.8% | 35.8% |
| Yellow Time (s) | 4.5 | | 4.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | C-Max | Max | Max | None | Max |
| Act Effect Green (s) | 71.0 | 120.0 | 71.0 | 19.0 | 19.0 | 12.0 | 37.0 |
| Actuated g/C Ratio | 0.59 | 1.00 | 0.59 | 0.16 | 0.16 | 0.10 | 0.31 |
| v/c Ratio | 0.56 | 0.02 | 0.79 | 0.05 | 0.05 | 0.64 | 0.40 |
| Control Delay | 15.9 | 0.0 | 26.7 | 44.2 | 0.4 | 61.0 | 31.1 |
| Queue Delay | 0.0 | 0.0 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.9 | 0.0 | 29.3 | 44.2 | 0.4 | 61.0 | 31.1 |
| LOS | B | A | C | D | A | E | C |
| Approach Delay | 15.7 | | 29.3 | | | | |
| Approach LOS | B | | C | | | | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 44 (37%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 25.9

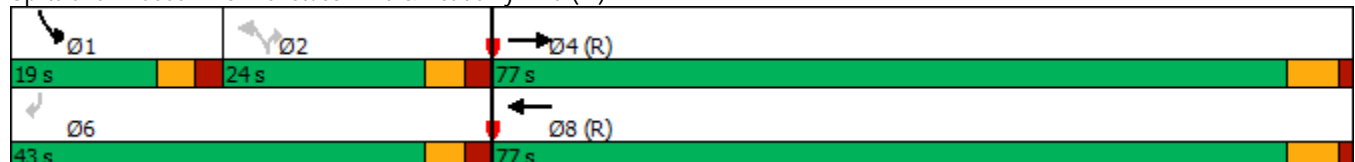
Intersection LOS: C

Intersection Capacity Utilization 70.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 5: Venetucci Blvd & Academy Blvd (W)

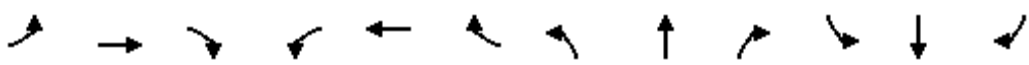


HCM Signalized Intersection Capacity Analysis

5: Venetucci Blvd & Academy Blvd (W)

2045 Total AM

06/19/2023

| |  | | | | | | | | | | | |
|-----------------------------------|--|------|-------|------|-------|---------------------------|------|------|------|-------|------|-------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↑↑↑ | ↑ | | ↑↑↑ | | ↑↑ | | ↑ | ↑↑ | | ↑ |
| Traffic Volume (vph) | 0 | 1515 | 25 | 0 | 2158 | 0 | 18 | 0 | 12 | 205 | 0 | 191 |
| Future Volume (vph) | 0 | 1515 | 25 | 0 | 2158 | 0 | 18 | 0 | 12 | 205 | 0 | 191 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | 4.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Lane Util. Factor | | 0.91 | 1.00 | | 0.91 | | 0.97 | | 1.00 | 0.97 | | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | | 0.85 | 1.00 | | 0.85 |
| Flt Protected | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (prot) | | 4848 | 1509 | | 4940 | | 2334 | | 1077 | 3400 | | 1568 |
| Flt Permitted | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (perm) | | 4848 | 1509 | | 4940 | | 2334 | | 1077 | 3400 | | 1568 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 0 | 1612 | 27 | 0 | 2296 | 0 | 19 | 0 | 13 | 218 | 0 | 203 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 19 |
| Lane Group Flow (vph) | 0 | 1612 | 27 | 0 | 2296 | 0 | 19 | 0 | 2 | 218 | 0 | 184 |
| Heavy Vehicles (%) | 7% | 7% | 7% | 5% | 5% | 5% | 50% | 50% | 50% | 3% | 3% | 3% |
| Turn Type | | NA | Free | | NA | | Perm | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | | | | 1 | | |
| Permitted Phases | | | Free | | | | 2 | | 2 | | | 6 |
| Actuated Green, G (s) | | 71.0 | 120.0 | | 71.0 | | 19.0 | | 19.0 | 12.0 | | 37.0 |
| Effective Green, g (s) | | 71.0 | 120.0 | | 71.0 | | 19.0 | | 19.0 | 12.0 | | 37.0 |
| Actuated g/C Ratio | | 0.59 | 1.00 | | 0.59 | | 0.16 | | 0.16 | 0.10 | | 0.31 |
| Clearance Time (s) | | 6.0 | | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | | 2868 | 1509 | | 2922 | | 369 | | 170 | 340 | | 483 |
| v/s Ratio Prot | | 0.33 | | | c0.46 | | | | | c0.06 | | |
| v/s Ratio Perm | | | 0.02 | | | | 0.01 | | 0.00 | | | c0.12 |
| v/c Ratio | | 0.56 | 0.02 | | 0.79 | | 0.05 | | 0.01 | 0.64 | | 0.38 |
| Uniform Delay, d1 | | 15.0 | 0.0 | | 18.7 | | 42.9 | | 42.6 | 51.9 | | 32.5 |
| Progression Factor | | 1.00 | 1.00 | | 1.33 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | | 0.8 | 0.0 | | 1.5 | | 0.3 | | 0.1 | 4.1 | | 2.3 |
| Delay (s) | | 15.8 | 0.0 | | 26.3 | | 43.1 | | 42.7 | 56.0 | | 34.8 |
| Level of Service | | B | A | | C | | D | | D | E | | C |
| Approach Delay (s) | | 15.5 | | | 26.3 | | | 43.0 | | | 45.8 | |
| Approach LOS | | B | | | C | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 24.3 | | | HCM 2000 Level of Service | | | | C | | |
| HCM 2000 Volume to Capacity ratio | | | 0.70 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 70.2% | | | ICU Level of Service | | | C | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Queues

2045 Total AM

5: Venetucci Blvd & Academy Blvd (W)

06/19/2023



| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 1612 | 27 | 2296 | 19 | 13 | 218 | 203 |
| v/c Ratio | 0.56 | 0.02 | 0.79 | 0.05 | 0.05 | 0.64 | 0.40 |
| Control Delay | 15.9 | 0.0 | 26.7 | 44.2 | 0.4 | 61.0 | 31.1 |
| Queue Delay | 0.0 | 0.0 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.9 | 0.0 | 29.3 | 44.2 | 0.4 | 61.0 | 31.1 |
| Queue Length 50th (ft) | 264 | 0 | 698 | 6 | 0 | 84 | 107 |
| Queue Length 95th (ft) | 307 | 0 | 747 | 18 | 0 | 125 | 178 |
| Internal Link Dist (ft) | 558 | | 698 | | | | |
| Turn Bay Length (ft) | | | | 100 | 450 | 375 | |
| Base Capacity (vph) | 2868 | 1509 | 2922 | 370 | 239 | 368 | 502 |
| Starvation Cap Reductn | 0 | 0 | 489 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.56 | 0.02 | 0.94 | 0.05 | 0.05 | 0.59 | 0.40 |
| Intersection Summary | | | | | | | |

Timings

5: Venetucci Blvd & Academy Blvd (W)

2045 Total PM

06/19/2023

| | → | ↘ | ← | ↙ | ↗ | ↘ | ↙ |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
| Lane Configurations | ↑↑↑ | ↑ | ↑↑↑ | ↙↘ | ↑ | ↙↘ | ↑ |
| Traffic Volume (vph) | 2358 | 5 | 1357 | 16 | 15 | 513 | 339 |
| Future Volume (vph) | 2358 | 5 | 1357 | 16 | 15 | 513 | 339 |
| Turn Type | NA | Free | NA | Perm | Perm | Prot | Perm |
| Protected Phases | 4 | | 8 | | | 1 | |
| Permitted Phases | | Free | | 2 | 2 | | 6 |
| Detector Phase | 4 | | 8 | 2 | 2 | 1 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 24.0 | | 24.0 | 24.0 | 24.0 | 11.0 | 24.0 |
| Total Split (s) | 69.0 | | 69.0 | 24.0 | 24.0 | 27.0 | 51.0 |
| Total Split (%) | 57.5% | | 57.5% | 20.0% | 20.0% | 22.5% | 42.5% |
| Yellow Time (s) | 4.5 | | 4.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.5 | | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | | | | Lag | Lag | Lead | |
| Lead-Lag Optimize? | | | | Yes | Yes | Yes | |
| Recall Mode | C-Max | | C-Max | Max | Max | None | Max |
| Act Effect Green (s) | 63.0 | 120.0 | 63.0 | 18.3 | 18.3 | 20.7 | 45.0 |
| Actuated g/C Ratio | 0.52 | 1.00 | 0.52 | 0.15 | 0.15 | 0.17 | 0.38 |
| v/c Ratio | 0.93 | 0.00 | 0.54 | 0.04 | 0.06 | 0.91 | 0.59 |
| Control Delay | 34.1 | 0.0 | 26.0 | 44.1 | 0.5 | 69.7 | 32.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 49.9 | 0.0 |
| Total Delay | 34.1 | 0.0 | 26.0 | 44.1 | 0.5 | 119.6 | 32.3 |
| LOS | C | A | C | D | A | F | C |
| Approach Delay | 34.0 | | 26.0 | | | | |
| Approach LOS | C | | C | | | | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 44 (37%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 41.0

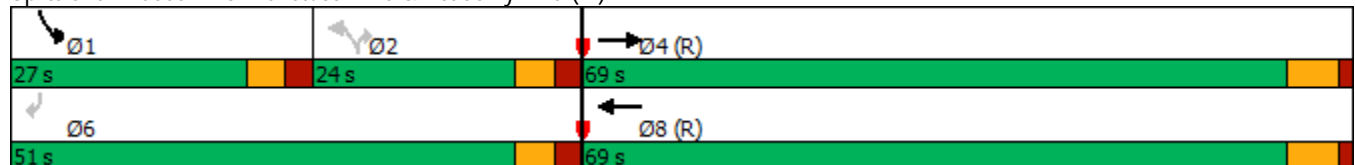
Intersection LOS: D

Intersection Capacity Utilization 77.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 5: Venetucci Blvd & Academy Blvd (W)

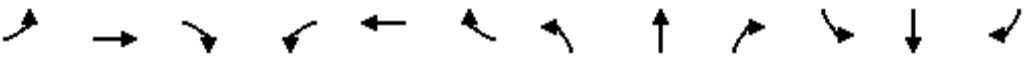


HCM Signalized Intersection Capacity Analysis

5: Venetucci Blvd & Academy Blvd (W)

2045 Total PM

06/19/2023

| |  | | | | | | | | | | | |
|-----------------------------------|--|-------|-------|------|------|---------------------------|------|------|------|-------|------|-------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↑↑↑ | ↑ | | ↑↑↑ | | ↑↑ | | ↑ | ↑↑ | | ↑ |
| Traffic Volume (vph) | 0 | 2358 | 5 | 0 | 1357 | 0 | 16 | 0 | 15 | 513 | 0 | 339 |
| Future Volume (vph) | 0 | 2358 | 5 | 0 | 1357 | 0 | 16 | 0 | 15 | 513 | 0 | 339 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.0 | 4.0 | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Lane Util. Factor | | 0.91 | 1.00 | | 0.91 | | 0.97 | | 1.00 | 0.97 | | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | | 0.85 | 1.00 | | 0.85 |
| Flt Protected | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (prot) | | 5085 | 1583 | | 5085 | | 2594 | | 1196 | 3433 | | 1583 |
| Flt Permitted | | 1.00 | 1.00 | | 1.00 | | 0.95 | | 1.00 | 0.95 | | 1.00 |
| Satd. Flow (perm) | | 5085 | 1583 | | 5085 | | 2594 | | 1196 | 3433 | | 1583 |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 0 | 2482 | 5 | 0 | 1428 | 0 | 17 | 0 | 16 | 540 | 0 | 357 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 17 |
| Lane Group Flow (vph) | 0 | 2482 | 5 | 0 | 1428 | 0 | 17 | 0 | 2 | 540 | 0 | 340 |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 35% | 35% | 35% | 2% | 2% | 2% |
| Turn Type | | NA | Free | | NA | | Perm | | Perm | Prot | | Perm |
| Protected Phases | | 4 | | | 8 | | | | | 1 | | |
| Permitted Phases | | | Free | | | | 2 | | 2 | | | 6 |
| Actuated Green, G (s) | | 63.0 | 120.0 | | 63.0 | | 18.3 | | 18.3 | 20.7 | | 45.0 |
| Effective Green, g (s) | | 63.0 | 120.0 | | 63.0 | | 18.3 | | 18.3 | 20.7 | | 45.0 |
| Actuated g/C Ratio | | 0.52 | 1.00 | | 0.52 | | 0.15 | | 0.15 | 0.17 | | 0.38 |
| Clearance Time (s) | | 6.0 | | | 6.0 | | 6.0 | | 6.0 | 6.0 | | 6.0 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | 3.0 | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | | 2669 | 1583 | | 2669 | | 395 | | 182 | 592 | | 593 |
| v/s Ratio Prot | | c0.49 | | | 0.28 | | | | | c0.16 | | |
| v/s Ratio Perm | | | 0.00 | | | | 0.01 | | 0.00 | | | c0.21 |
| v/c Ratio | | 0.93 | 0.00 | | 0.54 | | 0.04 | | 0.01 | 0.91 | | 0.57 |
| Uniform Delay, d1 | | 26.5 | 0.0 | | 18.8 | | 43.4 | | 43.2 | 48.8 | | 29.9 |
| Progression Factor | | 1.00 | 1.00 | | 1.34 | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | | 7.3 | 0.0 | | 0.7 | | 0.2 | | 0.1 | 18.4 | | 4.0 |
| Delay (s) | | 33.7 | 0.0 | | 25.8 | | 43.6 | | 43.3 | 67.2 | | 33.9 |
| Level of Service | | C | A | | C | | D | | D | E | | C |
| Approach Delay (s) | | 33.7 | | | 25.8 | | | 43.5 | | | 53.9 | |
| Approach LOS | | C | | | C | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 35.2 | | | HCM 2000 Level of Service | | | | D | | |
| HCM 2000 Volume to Capacity ratio | | | 0.88 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 77.7% | | | ICU Level of Service | | | D | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Queues

2045 Total PM

5: Venetucci Blvd & Academy Blvd (W)

06/19/2023



| Lane Group | EBT | EBR | WBT | NBL | NBR | SBL | SBR |
|-------------------------|------|------|------|------|------|-------|------|
| Lane Group Flow (vph) | 2482 | 5 | 1428 | 17 | 16 | 540 | 357 |
| v/c Ratio | 0.93 | 0.00 | 0.54 | 0.04 | 0.06 | 0.91 | 0.59 |
| Control Delay | 34.1 | 0.0 | 26.0 | 44.1 | 0.5 | 69.7 | 32.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 49.9 | 0.0 |
| Total Delay | 34.1 | 0.0 | 26.0 | 44.1 | 0.5 | 119.6 | 32.3 |
| Queue Length 50th (ft) | 629 | 0 | 407 | 5 | 0 | 213 | 203 |
| Queue Length 95th (ft) | 711 | 0 | 474 | 17 | 0 | #310 | 304 |
| Internal Link Dist (ft) | 558 | | 698 | | | | |
| Turn Bay Length (ft) | | | | 100 | 450 | 375 | |
| Base Capacity (vph) | 2669 | 1583 | 2669 | 395 | 252 | 600 | 610 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 206 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.93 | 0.00 | 0.54 | 0.04 | 0.06 | 1.37 | 0.59 |

Intersection Summary















95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Timings

6: Venetucci Blvd & Academy Blvd (E)

2023 Existing AM

06/19/2023

| |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
| Lane Configurations |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 123 | 1107 | 9 | 129 | 1561 | 221 | 18 |
| Future Volume (vph) | 123 | 1107 | 9 | 129 | 1561 | 221 | 18 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | | | 4 | | | 8 | 2 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 19.0 | 79.0 | 79.0 | 17.0 | 77.0 | 77.0 | 24.0 |
| Total Split (%) | 15.8% | 65.8% | 65.8% | 14.2% | 64.2% | 64.2% | 20.0% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | Max |
| Act Effect Green (s) | 10.0 | 74.3 | 74.3 | 9.7 | 74.0 | 74.0 | 18.0 |
| Actuated g/C Ratio | 0.08 | 0.62 | 0.62 | 0.08 | 0.62 | 0.62 | 0.15 |
| v/c Ratio | 0.47 | 0.38 | 0.01 | 0.51 | 0.54 | 0.22 | 0.04 |
| Control Delay | 48.2 | 19.3 | 0.1 | 59.3 | 14.3 | 1.9 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.2 | 19.3 | 0.1 | 59.3 | 14.3 | 1.9 | 0.2 |
| LOS | D | B | A | E | B | A | A |
| Approach Delay | | 22.0 | | | 15.9 | | |
| Approach LOS | | C | | | B | | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 18.2

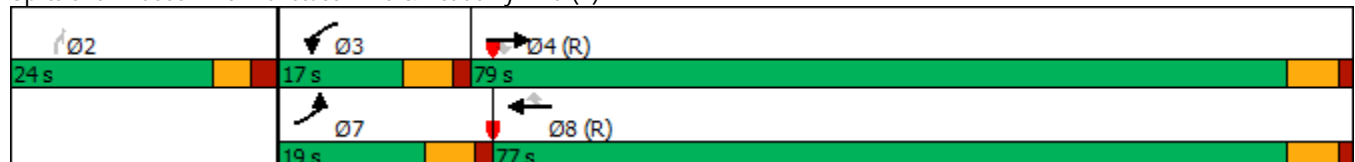
Intersection LOS: B

Intersection Capacity Utilization 44.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Venetucci Blvd & Academy Blvd (E)




























HCM Signalized Intersection Capacity Analysis

6: Venetucci Blvd & Academy Blvd (E)

2023 Existing AM

06/19/2023





















| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |    |  |   |    |  | | |  | | | |
| Traffic Volume (vph) | 123 | 1107 | 9 | 129 | 1561 | 221 | 0 | 0 | 18 | 0 | 0 | 0 |
| Future Volume (vph) | 123 | 1107 | 9 | 129 | 1561 | 221 | 0 | 0 | 18 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | | 1.00 | | | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | | 0.86 | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (prot) | 3303 | 4893 | 1524 | 3335 | 4940 | 1538 | | | 1611 | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (perm) | 3303 | 4893 | 1524 | 3335 | 4940 | 1538 | | | 1611 | | | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 129 | 1165 | 9 | 136 | 1643 | 233 | 0 | 0 | 19 | 0 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 3 | 0 | 0 | 89 | 0 | 0 | 16 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 129 | 1165 | 6 | 136 | 1643 | 144 | 0 | 0 | 3 | 0 | 0 | 0 |
| Heavy Vehicles (%) | 6% | 6% | 6% | 5% | 5% | 5% | 2% | 2% | 2% | 2% | 2% | 2% |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | | | Perm | | | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | | | | | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | |
| Actuated Green, G (s) | 10.0 | 74.3 | 74.3 | 9.7 | 74.0 | 74.0 | | | 18.0 | | | |
| Effective Green, g (s) | 10.0 | 74.3 | 74.3 | 9.7 | 74.0 | 74.0 | | | 18.0 | | | |
| Actuated g/C Ratio | 0.08 | 0.62 | 0.62 | 0.08 | 0.62 | 0.62 | | | 0.15 | | | |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | 3.0 | | | |
| Lane Grp Cap (vph) | 275 | 3029 | 943 | 269 | 3046 | 948 | | | 241 | | | |
| v/s Ratio Prot | 0.04 | 0.24 | | c0.04 | c0.33 | | | | | | | |
| v/s Ratio Perm | | | 0.00 | | | 0.09 | | | c0.00 | | | |
| v/c Ratio | 0.47 | 0.38 | 0.01 | 0.51 | 0.54 | 0.15 | | | 0.01 | | | |
| Uniform Delay, d1 | 52.5 | 11.4 | 8.7 | 52.9 | 13.2 | 9.7 | | | 43.4 | | | |
| Progression Factor | 0.83 | 1.63 | 1.00 | 1.00 | 1.00 | 1.00 | | | 1.00 | | | |
| Incremental Delay, d2 | 1.2 | 0.3 | 0.0 | 1.5 | 0.7 | 0.3 | | | 0.1 | | | |
| Delay (s) | 44.5 | 18.9 | 8.7 | 54.3 | 13.9 | 10.1 | | | 43.5 | | | |
| Level of Service | D | B | A | D | B | B | | | D | | | |
| Approach Delay (s) | | 21.4 | | | 16.2 | | | 43.5 | | | 0.0 | |
| Approach LOS | | C | | | B | | | D | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 18.4 | | | HCM 2000 Level of Service | | | B | | | |
| HCM 2000 Volume to Capacity ratio | | | 0.44 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 44.3% | | | ICU Level of Service | | | A | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

6: Venetucci Blvd & Academy Blvd (E)

2023 Existing PM

06/19/2023

| |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
| Lane Configurations |   |    |  |   |    |  |  |
| Traffic Volume (vph) | 259 | 1774 | 6 | 12 | 982 | 415 | 34 |
| Future Volume (vph) | 259 | 1774 | 6 | 12 | 982 | 415 | 34 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | | | 4 | | | 8 | 2 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 31.0 | 85.0 | 85.0 | 11.0 | 65.0 | 65.0 | 24.0 |
| Total Split (%) | 25.8% | 70.8% | 70.8% | 9.2% | 54.2% | 54.2% | 20.0% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | Max |
| Act Effect Green (s) | 14.7 | 85.6 | 85.6 | 5.0 | 69.3 | 69.3 | 18.0 |
| Actuated g/C Ratio | 0.12 | 0.71 | 0.71 | 0.04 | 0.58 | 0.58 | 0.15 |
| v/c Ratio | 0.64 | 0.51 | 0.01 | 0.09 | 0.35 | 0.39 | 0.10 |
| Control Delay | 42.3 | 22.8 | 0.0 | 56.8 | 14.1 | 2.4 | 0.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 42.3 | 22.8 | 0.0 | 56.8 | 14.1 | 2.4 | 0.6 |
| LOS | D | C | A | E | B | A | A |
| Approach Delay | | 25.2 | | | 11.0 | | |
| Approach LOS | | C | | | B | | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 19.2

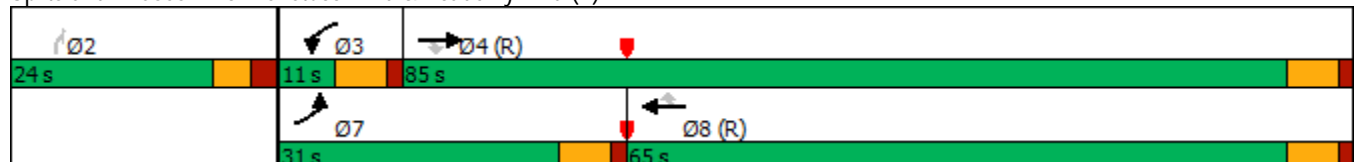
Intersection LOS: B

Intersection Capacity Utilization 48.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Venetucci Blvd & Academy Blvd (E)






















HCM Signalized Intersection Capacity Analysis

6: Venetucci Blvd & Academy Blvd (E)

2023 Existing PM

06/19/2023





















| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | | |  | | | |
| Traffic Volume (vph) | 259 | 1774 | 6 | 12 | 982 | 415 | 0 | 0 | 34 | 0 | 0 | 0 |
| Future Volume (vph) | 259 | 1774 | 6 | 12 | 982 | 415 | 0 | 0 | 34 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | | 1.00 | | | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | | 0.86 | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (prot) | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | | 1611 | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (perm) | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | | 1611 | | | |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 270 | 1848 | 6 | 12 | 1023 | 432 | 0 | 0 | 35 | 0 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 2 | 0 | 0 | 183 | 0 | 0 | 30 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 270 | 1848 | 4 | 13 | 1023 | 249 | 0 | 0 | 5 | 0 | 0 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | | | Perm | | | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | | | | | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | |
| Actuated Green, G (s) | 14.7 | 82.0 | 82.0 | 2.0 | 69.3 | 69.3 | | | 18.0 | | | |
| Effective Green, g (s) | 14.7 | 82.0 | 82.0 | 2.0 | 69.3 | 69.3 | | | 18.0 | | | |
| Actuated g/C Ratio | 0.12 | 0.68 | 0.68 | 0.02 | 0.58 | 0.58 | | | 0.15 | | | |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | 3.0 | | | |
| Lane Grp Cap (vph) | 420 | 3474 | 1081 | 57 | 2936 | 914 | | | 241 | | | |
| v/s Ratio Prot | c0.08 | c0.36 | | 0.00 | 0.20 | | | | | | | |
| v/s Ratio Perm | | | 0.00 | | | 0.16 | | | c0.00 | | | |
| v/c Ratio | 0.64 | 0.53 | 0.00 | 0.23 | 0.35 | 0.27 | | | 0.02 | | | |
| Uniform Delay, d1 | 50.1 | 9.5 | 6.0 | 58.2 | 13.4 | 12.7 | | | 43.5 | | | |
| Progression Factor | 0.74 | 2.66 | 1.00 | 1.00 | 1.00 | 1.00 | | | 1.00 | | | |
| Incremental Delay, d2 | 2.5 | 0.4 | 0.0 | 2.0 | 0.3 | 0.7 | | | 0.2 | | | |
| Delay (s) | 39.6 | 25.6 | 6.0 | 60.3 | 13.7 | 13.5 | | | 43.7 | | | |
| Level of Service | D | C | A | E | B | B | | | D | | | |
| Approach Delay (s) | | 27.3 | | | 14.1 | | | 43.7 | | | 0.0 | |
| Approach LOS | | C | | | B | | | D | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 22.1 | | | HCM 2000 Level of Service | | | C | | | |
| HCM 2000 Volume to Capacity ratio | | | 0.47 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 48.4% | | | ICU Level of Service | | | A | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

6: Venetucci Blvd & Academy Blvd (E)

2025 Background AM

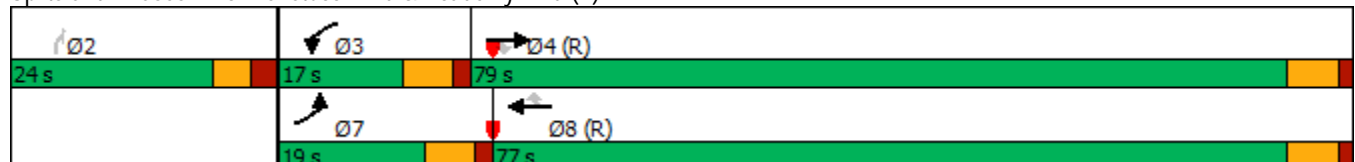
06/19/2023

| |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
| Lane Configurations |   |    |  |   |    |  |  |
| Traffic Volume (vph) | 150 | 1139 | 9 | 133 | 1606 | 251 | 19 |
| Future Volume (vph) | 150 | 1139 | 9 | 133 | 1606 | 251 | 19 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | | | 4 | | | 8 | 2 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 19.0 | 79.0 | 79.0 | 17.0 | 77.0 | 77.0 | 24.0 |
| Total Split (%) | 15.8% | 65.8% | 65.8% | 14.2% | 64.2% | 64.2% | 20.0% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | Max |
| Act Effect Green (s) | 10.8 | 74.2 | 74.2 | 9.8 | 73.2 | 73.2 | 18.0 |
| Actuated g/C Ratio | 0.09 | 0.62 | 0.62 | 0.08 | 0.61 | 0.61 | 0.15 |
| v/c Ratio | 0.53 | 0.40 | 0.01 | 0.51 | 0.56 | 0.25 | 0.05 |
| Control Delay | 49.5 | 19.5 | 0.1 | 59.5 | 15.0 | 1.9 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.5 | 19.5 | 0.1 | 59.5 | 15.0 | 1.9 | 0.2 |
| LOS | D | B | A | E | B | A | A |
| Approach Delay | | 22.8 | | | 16.3 | | |
| Approach LOS | | C | | | B | | |

Intersection Summary

| |
|---|
| Cycle Length: 120 |
| Actuated Cycle Length: 120 |
| Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green |
| Natural Cycle: 60 |
| Control Type: Actuated-Coordinated |
| Maximum v/c Ratio: 0.56 |
| Intersection Signal Delay: 18.8 |
| Intersection Capacity Utilization 45.3% |
| Analysis Period (min) 15 |
| Intersection LOS: B |
| ICU Level of Service A |

Splits and Phases: 6: Venetucci Blvd & Academy Blvd (E)




























HCM Signalized Intersection Capacity Analysis

6: Venetucci Blvd & Academy Blvd (E)

2025 Background AM

06/19/2023















| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |    |  |   |    |  | | |  | | | |
| Traffic Volume (vph) | 150 | 1139 | 9 | 133 | 1606 | 251 | 0 | 0 | 19 | 0 | 0 | 0 |
| Future Volume (vph) | 150 | 1139 | 9 | 133 | 1606 | 251 | 0 | 0 | 19 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | | 1.00 | | | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | | 0.86 | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (prot) | 3303 | 4893 | 1524 | 3335 | 4940 | 1538 | | | 1611 | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (perm) | 3303 | 4893 | 1524 | 3335 | 4940 | 1538 | | | 1611 | | | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 158 | 1199 | 9 | 140 | 1691 | 264 | 0 | 0 | 20 | 0 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 3 | 0 | 0 | 103 | 0 | 0 | 17 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 158 | 1199 | 6 | 140 | 1691 | 161 | 0 | 0 | 3 | 0 | 0 | 0 |
| Heavy Vehicles (%) | 6% | 6% | 6% | 5% | 5% | 5% | 2% | 2% | 2% | 2% | 2% | 2% |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | | | Perm | | | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | | | | | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | |
| Actuated Green, G (s) | 10.8 | 74.2 | 74.2 | 9.8 | 73.2 | 73.2 | | | 18.0 | | | |
| Effective Green, g (s) | 10.8 | 74.2 | 74.2 | 9.8 | 73.2 | 73.2 | | | 18.0 | | | |
| Actuated g/C Ratio | 0.09 | 0.62 | 0.62 | 0.08 | 0.61 | 0.61 | | | 0.15 | | | |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | 3.0 | | | |
| Lane Grp Cap (vph) | 297 | 3025 | 942 | 272 | 3013 | 938 | | | 241 | | | |
| v/s Ratio Prot | c0.05 | 0.25 | | 0.04 | c0.34 | | | | | | | |
| v/s Ratio Perm | | | 0.00 | | | 0.10 | | | c0.00 | | | |
| v/c Ratio | 0.53 | 0.40 | 0.01 | 0.51 | 0.56 | 0.17 | | | 0.01 | | | |
| Uniform Delay, d1 | 52.2 | 11.6 | 8.8 | 52.8 | 13.9 | 10.2 | | | 43.4 | | | |
| Progression Factor | 0.84 | 1.62 | 1.00 | 1.00 | 1.00 | 1.00 | | | 1.00 | | | |
| Incremental Delay, d2 | 1.7 | 0.4 | 0.0 | 1.6 | 0.8 | 0.4 | | | 0.1 | | | |
| Delay (s) | 45.3 | 19.1 | 8.8 | 54.5 | 14.6 | 10.6 | | | 43.5 | | | |
| Level of Service | D | B | A | D | B | B | | | D | | | |
| Approach Delay (s) | | 22.1 | | | 16.8 | | | 43.5 | | | 0.0 | |
| Approach LOS | | C | | | B | | | D | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 19.0 | | | HCM 2000 Level of Service | | | B | | | |
| HCM 2000 Volume to Capacity ratio | | | 0.46 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 45.3% | | | ICU Level of Service | | | A | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

2025 Background PM

6: Venetucci Blvd & Academy Blvd (E)

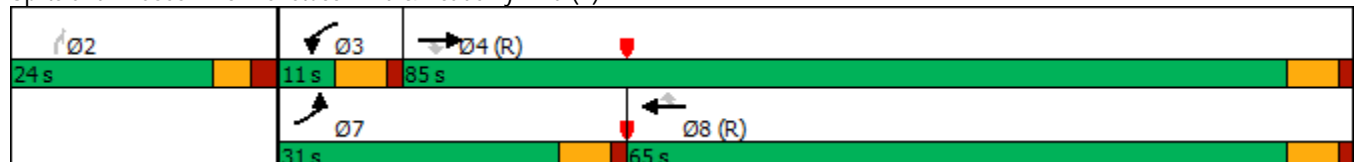
06/19/2023

| |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
| Lane Configurations |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 289 | 1825 | 6 | 12 | 1010 | 450 | 35 |
| Future Volume (vph) | 289 | 1825 | 6 | 12 | 1010 | 450 | 35 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | | | 4 | | | 8 | 2 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 31.0 | 85.0 | 85.0 | 11.0 | 65.0 | 65.0 | 24.0 |
| Total Split (%) | 25.8% | 70.8% | 70.8% | 9.2% | 54.2% | 54.2% | 20.0% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | Max |
| Act Effect Green (s) | 15.8 | 85.6 | 85.6 | 5.0 | 68.2 | 68.2 | 18.0 |
| Actuated g/C Ratio | 0.13 | 0.71 | 0.71 | 0.04 | 0.57 | 0.57 | 0.15 |
| v/c Ratio | 0.67 | 0.52 | 0.01 | 0.09 | 0.36 | 0.43 | 0.10 |
| Control Delay | 42.0 | 22.6 | 0.0 | 56.8 | 14.9 | 2.5 | 0.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 42.0 | 22.6 | 0.0 | 56.8 | 14.9 | 2.5 | 0.6 |
| LOS | D | C | A | E | B | A | A |
| Approach Delay | | 25.1 | | | 11.5 | | |
| Approach LOS | | C | | | B | | |

Intersection Summary

| |
|---|
| Cycle Length: 120 |
| Actuated Cycle Length: 120 |
| Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green |
| Natural Cycle: 65 |
| Control Type: Actuated-Coordinated |
| Maximum v/c Ratio: 0.67 |
| Intersection Signal Delay: 19.4 |
| Intersection Capacity Utilization 49.4% |
| Analysis Period (min) 15 |
| Intersection LOS: B |
| ICU Level of Service A |

Splits and Phases: 6: Venetucci Blvd & Academy Blvd (E)




























HCM Signalized Intersection Capacity Analysis

6: Venetucci Blvd & Academy Blvd (E)

2025 Background PM

06/19/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |    |  |   |    |  | | |  | | | |
| Traffic Volume (vph) | 289 | 1825 | 6 | 12 | 1010 | 450 | 0 | 0 | 35 | 0 | 0 | 0 |
| Future Volume (vph) | 289 | 1825 | 6 | 12 | 1010 | 450 | 0 | 0 | 35 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | | 1.00 | | | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | | 0.86 | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (prot) | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | | 1611 | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (perm) | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | | 1611 | | | |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 301 | 1901 | 6 | 12 | 1052 | 469 | 0 | 0 | 36 | 0 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 2 | 0 | 0 | 202 | 0 | 0 | 31 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 301 | 1901 | 4 | 13 | 1052 | 267 | 0 | 0 | 5 | 0 | 0 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | | | Perm | | | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | | | | | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | |
| Actuated Green, G (s) | 15.8 | 82.0 | 82.0 | 2.0 | 68.2 | 68.2 | | | 18.0 | | | |
| Effective Green, g (s) | 15.8 | 82.0 | 82.0 | 2.0 | 68.2 | 68.2 | | | 18.0 | | | |
| Actuated g/C Ratio | 0.13 | 0.68 | 0.68 | 0.02 | 0.57 | 0.57 | | | 0.15 | | | |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | 3.0 | | | |
| Lane Grp Cap (vph) | 452 | 3474 | 1081 | 57 | 2889 | 899 | | | 241 | | | |
| v/s Ratio Prot | c0.09 | c0.37 | | 0.00 | 0.21 | | | | c0.00 | | | |
| v/s Ratio Perm | | | 0.00 | | | 0.17 | | | | | | |
| v/c Ratio | 0.67 | 0.55 | 0.00 | 0.23 | 0.36 | 0.30 | | | 0.02 | | | |
| Uniform Delay, d1 | 49.6 | 9.6 | 6.0 | 58.2 | 14.1 | 13.4 | | | 43.5 | | | |
| Progression Factor | 0.74 | 2.59 | 1.00 | 1.00 | 1.00 | 1.00 | | | 1.00 | | | |
| Incremental Delay, d2 | 2.7 | 0.5 | 0.0 | 2.0 | 0.4 | 0.8 | | | 0.2 | | | |
| Delay (s) | 39.5 | 25.4 | 6.0 | 60.3 | 14.5 | 14.3 | | | 43.7 | | | |
| Level of Service | D | C | A | E | B | B | | | D | | | |
| Approach Delay (s) | | 27.2 | | | 14.8 | | | 43.7 | | | 0.0 | |
| Approach LOS | | C | | | B | | | D | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 22.3 | | | HCM 2000 Level of Service | | | C | | | |
| HCM 2000 Volume to Capacity ratio | | | 0.49 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 49.4% | | | ICU Level of Service | | | A | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

2025 Total AM

6: Venetucci Blvd & Academy Blvd (E)

06/19/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | ←← | →→→ | ← | ←← | →→→ | ← | ← |
| Traffic Volume (vph) | 164 | 1168 | 9 | 133 | 1606 | 267 | 19 |
| Future Volume (vph) | 164 | 1168 | 9 | 133 | 1606 | 267 | 19 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | | | 4 | | | 8 | 2 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 19.0 | 79.0 | 79.0 | 17.0 | 77.0 | 77.0 | 24.0 |
| Total Split (%) | 15.8% | 65.8% | 65.8% | 14.2% | 64.2% | 64.2% | 20.0% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | Max |
| Act Effect Green (s) | 11.2 | 74.2 | 74.2 | 9.8 | 72.8 | 72.8 | 18.0 |
| Actuated g/C Ratio | 0.09 | 0.62 | 0.62 | 0.08 | 0.61 | 0.61 | 0.15 |
| v/c Ratio | 0.56 | 0.41 | 0.01 | 0.51 | 0.56 | 0.27 | 0.05 |
| Control Delay | 50.7 | 19.3 | 0.0 | 59.5 | 15.2 | 1.9 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.7 | 19.3 | 0.0 | 59.5 | 15.2 | 1.9 | 0.2 |
| LOS | D | B | A | E | B | A | A |
| Approach Delay | | 23.0 | | | 16.4 | | |
| Approach LOS | | C | | | B | | |

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 18.9

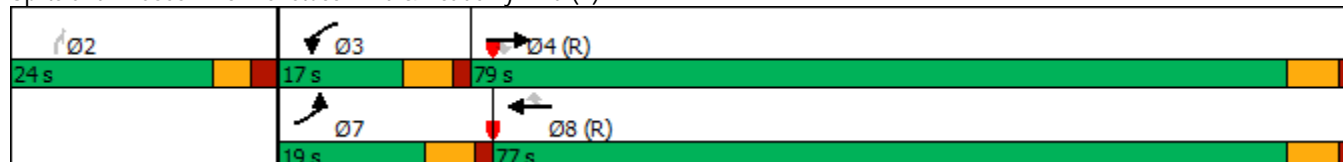
Intersection LOS: B

Intersection Capacity Utilization 45.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Venetucci Blvd & Academy Blvd (E)




























HCM Signalized Intersection Capacity Analysis

6: Venetucci Blvd & Academy Blvd (E)

2025 Total AM

06/19/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |    |  |   |    |  | | |  | | | |
| Traffic Volume (vph) | 164 | 1168 | 9 | 133 | 1606 | 267 | 0 | 0 | 19 | 0 | 0 | 0 |
| Future Volume (vph) | 164 | 1168 | 9 | 133 | 1606 | 267 | 0 | 0 | 19 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | | 1.00 | | | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | | 0.86 | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (prot) | 3303 | 4893 | 1524 | 3335 | 4940 | 1538 | | | 1611 | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (perm) | 3303 | 4893 | 1524 | 3335 | 4940 | 1538 | | | 1611 | | | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 173 | 1229 | 9 | 140 | 1691 | 281 | 0 | 0 | 20 | 0 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 3 | 0 | 0 | 111 | 0 | 0 | 17 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 173 | 1229 | 6 | 140 | 1691 | 170 | 0 | 0 | 3 | 0 | 0 | 0 |
| Heavy Vehicles (%) | 6% | 6% | 6% | 5% | 5% | 5% | 2% | 2% | 2% | 2% | 2% | 2% |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | | | Perm | | | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | | | | | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | |
| Actuated Green, G (s) | 11.2 | 74.2 | 74.2 | 9.8 | 72.8 | 72.8 | | | 18.0 | | | |
| Effective Green, g (s) | 11.2 | 74.2 | 74.2 | 9.8 | 72.8 | 72.8 | | | 18.0 | | | |
| Actuated g/C Ratio | 0.09 | 0.62 | 0.62 | 0.08 | 0.61 | 0.61 | | | 0.15 | | | |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | 3.0 | | | |
| Lane Grp Cap (vph) | 308 | 3025 | 942 | 272 | 2996 | 933 | | | 241 | | | |
| v/s Ratio Prot | c0.05 | 0.25 | | 0.04 | c0.34 | | | | | | | |
| v/s Ratio Perm | | | 0.00 | | | 0.11 | | | c0.00 | | | |
| v/c Ratio | 0.56 | 0.41 | 0.01 | 0.51 | 0.56 | 0.18 | | | 0.01 | | | |
| Uniform Delay, d1 | 52.1 | 11.7 | 8.8 | 52.8 | 14.1 | 10.4 | | | 43.4 | | | |
| Progression Factor | 0.85 | 1.59 | 1.00 | 1.00 | 1.00 | 1.00 | | | 1.00 | | | |
| Incremental Delay, d2 | 2.2 | 0.4 | 0.0 | 1.6 | 0.8 | 0.4 | | | 0.1 | | | |
| Delay (s) | 46.4 | 18.9 | 8.8 | 54.5 | 14.9 | 10.9 | | | 43.5 | | | |
| Level of Service | D | B | A | D | B | B | | | D | | | |
| Approach Delay (s) | | 22.2 | | | 17.0 | | | 43.5 | | | 0.0 | |
| Approach LOS | | C | | | B | | | D | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 19.2 | | | HCM 2000 Level of Service | | | B | | | |
| HCM 2000 Volume to Capacity ratio | | | 0.47 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 45.7% | | | ICU Level of Service | | | A | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Queues

2025 Total AM

6: Venetucci Blvd & Academy Blvd (E)

06/19/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 173 | 1229 | 9 | 140 | 1691 | 281 | 20 |
| v/c Ratio | 0.56 | 0.41 | 0.01 | 0.51 | 0.56 | 0.27 | 0.05 |
| Control Delay | 50.7 | 19.3 | 0.0 | 59.5 | 15.2 | 1.9 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.7 | 19.3 | 0.0 | 59.5 | 15.2 | 1.9 | 0.2 |
| Queue Length 50th (ft) | 68 | 214 | 0 | 54 | 272 | 0 | 0 |
| Queue Length 95th (ft) | 104 | 274 | m0 | 87 | 324 | 35 | 0 |
| Internal Link Dist (ft) | | 698 | | | 695 | | |
| Turn Bay Length (ft) | 450 | | 450 | 575 | | 525 | |
| Base Capacity (vph) | 357 | 3024 | 973 | 305 | 2996 | 1043 | 420 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.48 | 0.41 | 0.01 | 0.46 | 0.56 | 0.27 | 0.05 |

Intersection Summary















m Volume for 95th percentile queue is metered by upstream signal.

Timings

6: Venetucci Blvd & Academy Blvd (E)

2025 Total PM






06/19/2023

| |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
| Lane Configurations |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 336 | 1843 | 6 | 12 | 1010 | 503 | 35 |
| Future Volume (vph) | 336 | 1843 | 6 | 12 | 1010 | 503 | 35 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | | | 4 | | | 8 | 2 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 31.0 | 85.0 | 85.0 | 11.0 | 65.0 | 65.0 | 24.0 |
| Total Split (%) | 25.8% | 70.8% | 70.8% | 9.2% | 54.2% | 54.2% | 20.0% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | Max |
| Act Effect Green (s) | 17.5 | 85.6 | 85.6 | 5.0 | 66.5 | 66.5 | 18.0 |
| Actuated g/C Ratio | 0.15 | 0.71 | 0.71 | 0.04 | 0.55 | 0.55 | 0.15 |
| v/c Ratio | 0.70 | 0.53 | 0.01 | 0.09 | 0.37 | 0.47 | 0.10 |
| Control Delay | 41.5 | 22.3 | 0.0 | 56.8 | 15.9 | 2.8 | 0.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.5 | 22.3 | 0.0 | 56.8 | 15.9 | 2.8 | 0.6 |
| LOS | D | C | A | E | B | A | A |
| Approach Delay | | 25.2 | | | 11.9 | | |
| Approach LOS | | C | | | B | | |

Intersection Summary

| |
|---|
| Cycle Length: 120 |
| Actuated Cycle Length: 120 |
| Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green |
| Natural Cycle: 65 |
| Control Type: Actuated-Coordinated |
| Maximum v/c Ratio: 0.70 |
| Intersection Signal Delay: 19.5 |
| Intersection Capacity Utilization 50.7% |
| Analysis Period (min) 15 |
| Intersection LOS: B |
| ICU Level of Service A |

Splits and Phases: 6: Venetucci Blvd & Academy Blvd (E)




















| | | |
|--|--|--|
|  Ø2 |  Ø3 |  Ø4 (R) |
| 24 s | 11 s | 85 s |
| |  Ø7 |  Ø8 (R) |
| | 31 s | 65 s |

HCM Signalized Intersection Capacity Analysis

6: Venetucci Blvd & Academy Blvd (E)

2025 Total PM

06/19/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | | |  | | | |
| Traffic Volume (vph) | 336 | 1843 | 6 | 12 | 1010 | 503 | 0 | 0 | 35 | 0 | 0 | 0 |
| Future Volume (vph) | 336 | 1843 | 6 | 12 | 1010 | 503 | 0 | 0 | 35 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | | 1.00 | | | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | | 0.86 | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (prot) | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | | 1611 | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (perm) | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | | 1611 | | | |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 350 | 1920 | 6 | 12 | 1052 | 524 | 0 | 0 | 36 | 0 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 2 | 0 | 0 | 234 | 0 | 0 | 31 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 350 | 1920 | 4 | 13 | 1052 | 290 | 0 | 0 | 5 | 0 | 0 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | | | Perm | | | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | | | | | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | |
| Actuated Green, G (s) | 17.5 | 82.0 | 82.0 | 2.0 | 66.5 | 66.5 | | | 18.0 | | | |
| Effective Green, g (s) | 17.5 | 82.0 | 82.0 | 2.0 | 66.5 | 66.5 | | | 18.0 | | | |
| Actuated g/C Ratio | 0.15 | 0.68 | 0.68 | 0.02 | 0.55 | 0.55 | | | 0.15 | | | |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | 3.0 | | | |
| Lane Grp Cap (vph) | 500 | 3474 | 1081 | 57 | 2817 | 877 | | | 241 | | | |
| v/s Ratio Prot | c0.10 | c0.38 | | 0.00 | 0.21 | | | | | | | |
| v/s Ratio Perm | | | 0.00 | | | 0.18 | | | c0.00 | | | |
| v/c Ratio | 0.70 | 0.55 | 0.00 | 0.23 | 0.37 | 0.33 | | | 0.02 | | | |
| Uniform Delay, d1 | 48.8 | 9.7 | 6.0 | 58.2 | 15.0 | 14.6 | | | 43.5 | | | |
| Progression Factor | 0.74 | 2.55 | 1.00 | 1.00 | 1.00 | 1.00 | | | 1.00 | | | |
| Incremental Delay, d2 | 3.0 | 0.4 | 0.0 | 2.0 | 0.4 | 1.0 | | | 0.2 | | | |
| Delay (s) | 39.1 | 25.1 | 6.0 | 60.3 | 15.4 | 15.6 | | | 43.7 | | | |
| Level of Service | D | C | A | E | B | B | | | D | | | |
| Approach Delay (s) | | 27.2 | | | 15.9 | | | 43.7 | | | 0.0 | |
| Approach LOS | | C | | | B | | | D | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 22.7 | | | HCM 2000 Level of Service | | | C | | | |
| HCM 2000 Volume to Capacity ratio | | | 0.50 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 50.7% | | | ICU Level of Service | | | A | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |

c Critical Lane Group

Queues

2025 Total PM

6: Venetucci Blvd & Academy Blvd (E)

06/19/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 350 | 1920 | 6 | 13 | 1052 | 524 | 36 |
| v/c Ratio | 0.70 | 0.53 | 0.01 | 0.09 | 0.37 | 0.47 | 0.10 |
| Control Delay | 41.5 | 22.3 | 0.0 | 56.8 | 15.9 | 2.8 | 0.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.5 | 22.3 | 0.0 | 56.8 | 15.9 | 2.8 | 0.6 |
| Queue Length 50th (ft) | 135 | 452 | 0 | 5 | 160 | 0 | 0 |
| Queue Length 95th (ft) | 165 | 558 | m0 | 15 | 209 | 52 | 0 |
| Internal Link Dist (ft) | | 698 | | | 695 | | |
| Turn Bay Length (ft) | 450 | | 450 | 575 | | 525 | |
| Base Capacity (vph) | 715 | 3627 | 1152 | 143 | 2819 | 1111 | 357 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.49 | 0.53 | 0.01 | 0.09 | 0.37 | 0.47 | 0.10 |















Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Timings 6: Venetucci Blvd & Academy Blvd (E)

2045 Background AM

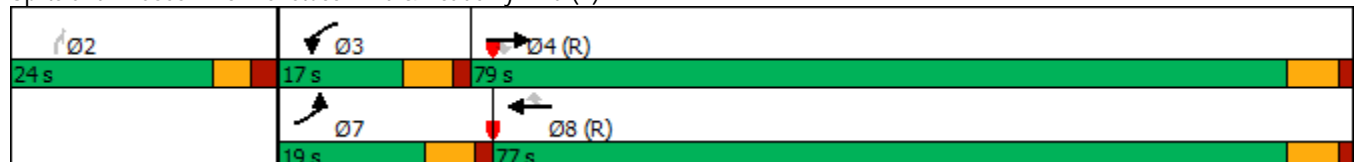
06/19/2023

| |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
| Lane Configurations |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 191 | 1513 | 12 | 176 | 2133 | 326 | 25 |
| Future Volume (vph) | 191 | 1513 | 12 | 176 | 2133 | 326 | 25 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | | | 4 | | | 8 | 2 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 19.0 | 79.0 | 79.0 | 17.0 | 77.0 | 77.0 | 24.0 |
| Total Split (%) | 15.8% | 65.8% | 65.8% | 14.2% | 64.2% | 64.2% | 20.0% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | Max |
| Act Effect Green (s) | 11.7 | 73.6 | 73.6 | 10.4 | 72.3 | 72.3 | 18.0 |
| Actuated g/C Ratio | 0.10 | 0.61 | 0.61 | 0.09 | 0.60 | 0.60 | 0.15 |
| v/c Ratio | 0.62 | 0.53 | 0.01 | 0.64 | 0.75 | 0.32 | 0.07 |
| Control Delay | 49.2 | 26.2 | 0.2 | 63.4 | 19.7 | 2.0 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Total Delay | 49.2 | 26.2 | 0.2 | 63.4 | 19.8 | 2.0 | 0.3 |
| LOS | D | C | A | E | B | A | A |
| Approach Delay | | 28.6 | | | 20.5 | | |
| Approach LOS | | C | | | C | | |

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 23.6
Intersection LOS: C
Intersection Capacity Utilization 56.7%
ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: Venetucci Blvd & Academy Blvd (E)




























HCM Signalized Intersection Capacity Analysis

6: Venetucci Blvd & Academy Blvd (E)

2045 Background AM















06/19/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |    |  |   |    |  | | |  | | | |
| Traffic Volume (vph) | 191 | 1513 | 12 | 176 | 2133 | 326 | 0 | 0 | 25 | 0 | 0 | 0 |
| Future Volume (vph) | 191 | 1513 | 12 | 176 | 2133 | 326 | 0 | 0 | 25 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | | 1.00 | | | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | | 0.86 | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (prot) | 3303 | 4893 | 1524 | 3335 | 4940 | 1538 | | | 1611 | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (perm) | 3303 | 4893 | 1524 | 3335 | 4940 | 1538 | | | 1611 | | | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 201 | 1593 | 13 | 185 | 2245 | 343 | 0 | 0 | 26 | 0 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 5 | 0 | 0 | 136 | 0 | 0 | 22 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 201 | 1593 | 8 | 185 | 2245 | 207 | 0 | 0 | 4 | 0 | 0 | 0 |
| Heavy Vehicles (%) | 6% | 6% | 6% | 5% | 5% | 5% | 2% | 2% | 2% | 2% | 2% | 2% |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | | | Perm | | | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | | | | | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | |
| Actuated Green, G (s) | 11.7 | 73.6 | 73.6 | 10.4 | 72.3 | 72.3 | | | 18.0 | | | |
| Effective Green, g (s) | 11.7 | 73.6 | 73.6 | 10.4 | 72.3 | 72.3 | | | 18.0 | | | |
| Actuated g/C Ratio | 0.10 | 0.61 | 0.61 | 0.09 | 0.60 | 0.60 | | | 0.15 | | | |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | 3.0 | | | |
| Lane Grp Cap (vph) | 322 | 3001 | 934 | 289 | 2976 | 926 | | | 241 | | | |
| v/s Ratio Prot | c0.06 | 0.33 | | 0.06 | c0.45 | | | | | | | |
| v/s Ratio Perm | | | 0.01 | | | 0.13 | | | c0.00 | | | |
| v/c Ratio | 0.62 | 0.53 | 0.01 | 0.64 | 0.75 | 0.22 | | | 0.02 | | | |
| Uniform Delay, d1 | 52.0 | 13.3 | 9.0 | 53.0 | 17.4 | 11.0 | | | 43.5 | | | |
| Progression Factor | 0.80 | 1.89 | 1.00 | 1.00 | 1.00 | 1.00 | | | 1.00 | | | |
| Incremental Delay, d2 | 3.2 | 0.6 | 0.0 | 4.8 | 1.8 | 0.6 | | | 0.1 | | | |
| Delay (s) | 45.0 | 25.7 | 9.0 | 57.8 | 19.2 | 11.5 | | | 43.6 | | | |
| Level of Service | D | C | A | E | B | B | | | D | | | |
| Approach Delay (s) | | 27.8 | | | 20.8 | | | 43.6 | | | 0.0 | |
| Approach LOS | | C | | | C | | | D | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 23.7 | | | HCM 2000 Level of Service | | | C | | | |
| HCM 2000 Volume to Capacity ratio | | | 0.61 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 56.7% | | | ICU Level of Service | | | B | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings 6: Venetucci Blvd & Academy Blvd (E)

2045 Background PM








06/19/2023

| |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
| Lane Configurations |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 377 | 2424 | 8 | 16 | 1342 | 590 | 46 |
| Future Volume (vph) | 377 | 2424 | 8 | 16 | 1342 | 590 | 46 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | | | 4 | | | 8 | 2 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 31.0 | 85.0 | 85.0 | 11.0 | 65.0 | 65.0 | 24.0 |
| Total Split (%) | 25.8% | 70.8% | 70.8% | 9.2% | 54.2% | 54.2% | 20.0% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | Max |
| Act Effect Green (s) | 18.9 | 85.6 | 85.6 | 5.0 | 65.1 | 65.1 | 18.0 |
| Actuated g/C Ratio | 0.16 | 0.71 | 0.71 | 0.04 | 0.54 | 0.54 | 0.15 |
| v/c Ratio | 0.73 | 0.70 | 0.01 | 0.12 | 0.51 | 0.55 | 0.13 |
| Control Delay | 40.6 | 24.9 | 0.0 | 57.3 | 18.6 | 3.9 | 0.8 |
| Queue Delay | 0.0 | 13.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.6 | 38.5 | 0.0 | 57.3 | 18.6 | 3.9 | 0.8 |
| LOS | D | D | A | E | B | A | A |
| Approach Delay | | 38.6 | | | 14.5 | | |
| Approach LOS | | D | | | B | | |

Intersection Summary

| |
|---|
| Cycle Length: 120 |
| Actuated Cycle Length: 120 |
| Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green |
| Natural Cycle: 80 |
| Control Type: Actuated-Coordinated |
| Maximum v/c Ratio: 0.73 |
| Intersection Signal Delay: 28.5 |
| Intersection Capacity Utilization 61.0% |
| Analysis Period (min) 15 |
| Intersection LOS: C |
| ICU Level of Service B |

Splits and Phases: 6: Venetucci Blvd & Academy Blvd (E)


























| | | | |
|---|---|---|---|
|  |  |  |  |
| 24 s | 11 s | 85 s | |
| |  |  |  |
| | 31 s | 65 s | |

HCM Signalized Intersection Capacity Analysis

6: Venetucci Blvd & Academy Blvd (E)

2045 Background PM

06/19/2023















| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |    |  |   |    |  | | |  | | | |
| Traffic Volume (vph) | 377 | 2424 | 8 | 16 | 1342 | 590 | 0 | 0 | 46 | 0 | 0 | 0 |
| Future Volume (vph) | 377 | 2424 | 8 | 16 | 1342 | 590 | 0 | 0 | 46 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | | 1.00 | | | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | | 0.86 | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (prot) | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | | 1611 | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (perm) | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | | 1611 | | | |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 393 | 2525 | 8 | 17 | 1398 | 615 | 0 | 0 | 48 | 0 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 3 | 0 | 0 | 264 | 0 | 0 | 41 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 393 | 2525 | 5 | 17 | 1398 | 351 | 0 | 0 | 7 | 0 | 0 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | | | Perm | | | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | | | | | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | |
| Actuated Green, G (s) | 18.9 | 82.0 | 82.0 | 2.0 | 65.1 | 65.1 | | | 18.0 | | | |
| Effective Green, g (s) | 18.9 | 82.0 | 82.0 | 2.0 | 65.1 | 65.1 | | | 18.0 | | | |
| Actuated g/C Ratio | 0.16 | 0.68 | 0.68 | 0.02 | 0.54 | 0.54 | | | 0.15 | | | |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | 3.0 | | | |
| Lane Grp Cap (vph) | 540 | 3474 | 1081 | 57 | 2758 | 858 | | | 241 | | | |
| v/s Ratio Prot | c0.11 | c0.50 | | 0.00 | 0.27 | | | | | | | |
| v/s Ratio Perm | | | 0.00 | | | 0.22 | | | c0.00 | | | |
| v/c Ratio | 0.73 | 0.73 | 0.01 | 0.30 | 0.51 | 0.41 | | | 0.03 | | | |
| Uniform Delay, d1 | 48.1 | 12.0 | 6.0 | 58.3 | 17.3 | 16.1 | | | 43.5 | | | |
| Progression Factor | 0.78 | 2.28 | 1.00 | 1.00 | 1.00 | 1.00 | | | 1.00 | | | |
| Incremental Delay, d2 | 2.1 | 0.6 | 0.0 | 2.9 | 0.7 | 1.4 | | | 0.2 | | | |
| Delay (s) | 39.5 | 27.8 | 6.0 | 61.2 | 18.0 | 17.6 | | | 43.8 | | | |
| Level of Service | D | C | A | E | B | B | | | D | | | |
| Approach Delay (s) | | 29.3 | | | 18.2 | | | 43.8 | | | 0.0 | |
| Approach LOS | | C | | | B | | | D | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 25.0 | | | HCM 2000 Level of Service | | | C | | | |
| HCM 2000 Volume to Capacity ratio | | | 0.63 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 61.0% | | | ICU Level of Service | | | B | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Timings

6: Venetucci Blvd & Academy Blvd (E)

2045 Total AM

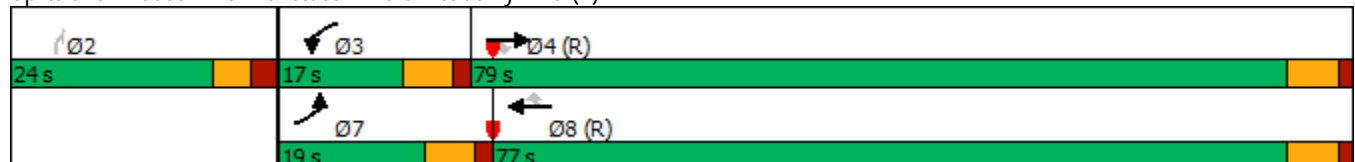
06/19/2023

| |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
| Lane Configurations |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 205 | 1542 | 12 | 176 | 2133 | 342 | 25 |
| Future Volume (vph) | 205 | 1542 | 12 | 176 | 2133 | 342 | 25 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | | | 4 | | | 8 | 2 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 19.0 | 79.0 | 79.0 | 17.0 | 77.0 | 77.0 | 24.0 |
| Total Split (%) | 15.8% | 65.8% | 65.8% | 14.2% | 64.2% | 64.2% | 20.0% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | Max |
| Act Effect Green (s) | 12.0 | 73.6 | 73.6 | 10.4 | 72.0 | 72.0 | 18.0 |
| Actuated g/C Ratio | 0.10 | 0.61 | 0.61 | 0.09 | 0.60 | 0.60 | 0.15 |
| v/c Ratio | 0.65 | 0.54 | 0.01 | 0.64 | 0.76 | 0.34 | 0.07 |
| Control Delay | 50.5 | 26.0 | 0.1 | 63.4 | 19.9 | 2.0 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Total Delay | 50.5 | 26.0 | 0.1 | 63.4 | 20.1 | 2.0 | 0.3 |
| LOS | D | C | A | E | C | A | A |
| Approach Delay | | 28.7 | | | 20.6 | | |
| Approach LOS | | C | | | C | | |

Intersection Summary

| |
|---|
| Cycle Length: 120 |
| Actuated Cycle Length: 120 |
| Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green |
| Natural Cycle: 80 |
| Control Type: Actuated-Coordinated |
| Maximum v/c Ratio: 0.76 |
| Intersection Signal Delay: 23.7 |
| Intersection Capacity Utilization 57.1% |
| Analysis Period (min) 15 |
| Intersection LOS: C |
| ICU Level of Service B |

Splits and Phases: 6: Venetucci Blvd & Academy Blvd (E)






















HCM Signalized Intersection Capacity Analysis

6: Venetucci Blvd & Academy Blvd (E)

2045 Total AM

06/19/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  | | |  | | | |
| Traffic Volume (vph) | 205 | 1542 | 12 | 176 | 2133 | 342 | 0 | 0 | 25 | 0 | 0 | 0 |
| Future Volume (vph) | 205 | 1542 | 12 | 176 | 2133 | 342 | 0 | 0 | 25 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | | 1.00 | | | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | | 0.86 | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (prot) | 3303 | 4893 | 1524 | 3335 | 4940 | 1538 | | | 1611 | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (perm) | 3303 | 4893 | 1524 | 3335 | 4940 | 1538 | | | 1611 | | | |
| Peak-hour factor, PHF | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Adj. Flow (vph) | 216 | 1623 | 13 | 185 | 2245 | 360 | 0 | 0 | 26 | 0 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 5 | 0 | 0 | 144 | 0 | 0 | 22 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 216 | 1623 | 8 | 185 | 2245 | 216 | 0 | 0 | 4 | 0 | 0 | 0 |
| Heavy Vehicles (%) | 6% | 6% | 6% | 5% | 5% | 5% | 2% | 2% | 2% | 2% | 2% | 2% |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | | | Perm | | | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | | | | | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | |
| Actuated Green, G (s) | 12.0 | 73.6 | 73.6 | 10.4 | 72.0 | 72.0 | | | 18.0 | | | |
| Effective Green, g (s) | 12.0 | 73.6 | 73.6 | 10.4 | 72.0 | 72.0 | | | 18.0 | | | |
| Actuated g/C Ratio | 0.10 | 0.61 | 0.61 | 0.09 | 0.60 | 0.60 | | | 0.15 | | | |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | 3.0 | | | |
| Lane Grp Cap (vph) | 330 | 3001 | 934 | 289 | 2964 | 922 | | | 241 | | | |
| v/s Ratio Prot | c0.07 | 0.33 | | 0.06 | c0.45 | | | | | | | |
| v/s Ratio Perm | | | 0.01 | | | 0.14 | | | c0.00 | | | |
| v/c Ratio | 0.65 | 0.54 | 0.01 | 0.64 | 0.76 | 0.23 | | | 0.02 | | | |
| Uniform Delay, d1 | 52.0 | 13.4 | 9.0 | 53.0 | 17.6 | 11.2 | | | 43.5 | | | |
| Progression Factor | 0.81 | 1.86 | 1.00 | 1.00 | 1.00 | 1.00 | | | 1.00 | | | |
| Incremental Delay, d2 | 3.9 | 0.6 | 0.0 | 4.8 | 1.9 | 0.6 | | | 0.1 | | | |
| Delay (s) | 46.2 | 25.5 | 9.0 | 57.8 | 19.5 | 11.8 | | | 43.6 | | | |
| Level of Service | D | C | A | E | B | B | | | D | | | |
| Approach Delay (s) | | 27.8 | | | 21.0 | | | 43.6 | | | 0.0 | |
| Approach LOS | | C | | | C | | | D | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 23.8 | | | | HCM 2000 Level of Service | | | | C | |
| HCM 2000 Volume to Capacity ratio | | | 0.61 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | | Sum of lost time (s) | | | | 18.0 | |
| Intersection Capacity Utilization | | | 57.1% | | | | ICU Level of Service | | | | B | |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

Queues

2045 Total AM

6: Venetucci Blvd & Academy Blvd (E)

06/19/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 216 | 1623 | 13 | 185 | 2245 | 360 | 26 |
| v/c Ratio | 0.65 | 0.54 | 0.01 | 0.64 | 0.76 | 0.34 | 0.07 |
| Control Delay | 50.5 | 26.0 | 0.1 | 63.4 | 19.9 | 2.0 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Total Delay | 50.5 | 26.0 | 0.1 | 63.4 | 20.1 | 2.0 | 0.3 |
| Queue Length 50th (ft) | 85 | 336 | 0 | 72 | 450 | 0 | 0 |
| Queue Length 95th (ft) | 126 | 428 | m0 | 111 | 512 | 38 | 0 |
| Internal Link Dist (ft) | | 698 | | | 695 | | |
| Turn Bay Length (ft) | 450 | | 450 | 575 | | 525 | |
| Base Capacity (vph) | 357 | 2999 | 966 | 305 | 2962 | 1066 | 387 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 118 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.61 | 0.54 | 0.01 | 0.61 | 0.79 | 0.34 | 0.07 |

Intersection Summary





















m Volume for 95th percentile queue is metered by upstream signal.

Timings

6: Venetucci Blvd & Academy Blvd (E)

2045 Total PM






06/19/2023

| |  |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
| Lane Configurations |   |    |  |   |    |  |  |
| Traffic Volume (vph) | 424 | 2442 | 8 | 16 | 1342 | 643 | 46 |
| Future Volume (vph) | 424 | 2442 | 8 | 16 | 1342 | 643 | 46 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | | | 4 | | | 8 | 2 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.0 | 24.0 | 11.0 | 24.0 | 24.0 | 24.0 |
| Total Split (s) | 31.0 | 85.0 | 85.0 | 11.0 | 65.0 | 65.0 | 24.0 |
| Total Split (%) | 25.8% | 70.8% | 70.8% | 9.2% | 54.2% | 54.2% | 20.0% |
| Yellow Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 3.5 |
| All-Red Time (s) | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.5 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | Max |
| Act Effect Green (s) | 20.5 | 85.6 | 85.6 | 5.0 | 63.5 | 63.5 | 18.0 |
| Actuated g/C Ratio | 0.17 | 0.71 | 0.71 | 0.04 | 0.53 | 0.53 | 0.15 |
| v/c Ratio | 0.75 | 0.70 | 0.01 | 0.12 | 0.52 | 0.61 | 0.13 |
| Control Delay | 39.7 | 24.7 | 0.0 | 57.3 | 19.6 | 5.9 | 0.8 |
| Queue Delay | 0.0 | 16.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.7 | 40.9 | 0.0 | 57.3 | 19.6 | 5.9 | 0.8 |
| LOS | D | D | A | E | B | A | A |
| Approach Delay | | 40.6 | | | 15.5 | | |
| Approach LOS | | D | | | B | | |

Intersection Summary

| |
|---|
| Cycle Length: 120 |
| Actuated Cycle Length: 120 |
| Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green |
| Natural Cycle: 80 |
| Control Type: Actuated-Coordinated |
| Maximum v/c Ratio: 0.75 |
| Intersection Signal Delay: 30.0 |
| Intersection Capacity Utilization 61.9% |
| Analysis Period (min) 15 |
| Intersection LOS: C |
| ICU Level of Service B |

Splits and Phases: 6: Venetucci Blvd & Academy Blvd (E)


























| | | |
|--|--|--|
|  02 |  03 |  04 (R) |
| 24 s | 11 s | 85 s |
| |  07 |  08 (R) |
| | 31 s | 65 s |

HCM Signalized Intersection Capacity Analysis

6: Venetucci Blvd & Academy Blvd (E)

2045 Total PM

06/19/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |    |  |   |    |  | | |  | | | |
| Traffic Volume (vph) | 424 | 2442 | 8 | 16 | 1342 | 643 | 0 | 0 | 46 | 0 | 0 | 0 |
| Future Volume (vph) | 424 | 2442 | 8 | 16 | 1342 | 643 | 0 | 0 | 46 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | | 1.00 | | | |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | | 0.86 | | | |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (prot) | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | | 1611 | | | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | | 1.00 | | | |
| Satd. Flow (perm) | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | | 1611 | | | |
| Peak-hour factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Adj. Flow (vph) | 442 | 2544 | 8 | 17 | 1398 | 670 | 0 | 0 | 48 | 0 | 0 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 3 | 0 | 0 | 266 | 0 | 0 | 41 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 442 | 2544 | 5 | 17 | 1398 | 404 | 0 | 0 | 7 | 0 | 0 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | | | Perm | | | |
| Protected Phases | 7 | 4 | | 3 | 8 | | | | | | | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | |
| Actuated Green, G (s) | 20.5 | 82.0 | 82.0 | 2.0 | 63.5 | 63.5 | | | 18.0 | | | |
| Effective Green, g (s) | 20.5 | 82.0 | 82.0 | 2.0 | 63.5 | 63.5 | | | 18.0 | | | |
| Actuated g/C Ratio | 0.17 | 0.68 | 0.68 | 0.02 | 0.53 | 0.53 | | | 0.15 | | | |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | | | 6.0 | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | | 3.0 | | | |
| Lane Grp Cap (vph) | 586 | 3474 | 1081 | 57 | 2690 | 837 | | | 241 | | | |
| v/s Ratio Prot | c0.13 | c0.50 | | 0.00 | 0.27 | | | | | | | |
| v/s Ratio Perm | | | 0.00 | | | 0.26 | | | c0.00 | | | |
| v/c Ratio | 0.75 | 0.73 | 0.01 | 0.30 | 0.52 | 0.48 | | | 0.03 | | | |
| Uniform Delay, d1 | 47.4 | 12.0 | 6.0 | 58.3 | 18.3 | 17.9 | | | 43.5 | | | |
| Progression Factor | 0.77 | 2.24 | 1.00 | 1.00 | 1.00 | 1.00 | | | 1.00 | | | |
| Incremental Delay, d2 | 2.1 | 0.5 | 0.0 | 2.9 | 0.7 | 2.0 | | | 0.2 | | | |
| Delay (s) | 38.7 | 27.5 | 6.0 | 61.2 | 19.1 | 19.9 | | | 43.8 | | | |
| Level of Service | D | C | A | E | B | B | | | D | | | |
| Approach Delay (s) | | 29.1 | | | 19.7 | | | 43.8 | | | 0.0 | |
| Approach LOS | | C | | | B | | | D | | | A | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 25.4 | | | HCM 2000 Level of Service | | | C | | | |
| HCM 2000 Volume to Capacity ratio | | | 0.63 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 120.0 | | | Sum of lost time (s) | | | 18.0 | | | |
| Intersection Capacity Utilization | | | 61.9% | | | ICU Level of Service | | | B | | | |
| Analysis Period (min) | | | 15 | | | | | | | | | |

c Critical Lane Group

Queues

2045 Total PM

6: Venetucci Blvd & Academy Blvd (E)

06/19/2023



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBR |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 442 | 2544 | 8 | 17 | 1398 | 670 | 48 |
| v/c Ratio | 0.75 | 0.70 | 0.01 | 0.12 | 0.52 | 0.61 | 0.13 |
| Control Delay | 39.7 | 24.7 | 0.0 | 57.3 | 19.6 | 5.9 | 0.8 |
| Queue Delay | 0.0 | 16.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.7 | 40.9 | 0.0 | 57.3 | 19.6 | 5.9 | 0.8 |
| Queue Length 50th (ft) | 152 | 664 | 0 | 6 | 248 | 40 | 0 |
| Queue Length 95th (ft) | m157 | 822 | m0 | 19 | 315 | 148 | 0 |
| Internal Link Dist (ft) | | 698 | | | 695 | | |
| Turn Bay Length (ft) | 450 | | 450 | 575 | | 525 | |
| Base Capacity (vph) | 715 | 3627 | 1152 | 143 | 2691 | 1103 | 357 |
| Starvation Cap Reductn | 0 | 1141 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.62 | 1.02 | 0.01 | 0.12 | 0.52 | 0.61 | 0.13 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

| Intersection | | | |
|-----------------------------|-------|-------|-------|
| Intersection Delay, s/veh | 3.3 | | |
| Intersection LOS | A | | |
| Approach | EB | NB | SB |
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 53 | 120 | 79 |
| Demand Flow Rate, veh/h | 54 | 122 | 81 |
| Vehicles Circulating, veh/h | 80 | 33 | 10 |
| Vehicles Exiting, veh/h | 11 | 101 | 145 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 3.2 | 3.5 | 3.2 |
| Approach LOS | A | A | A |
| Lane | Left | Left | Left |
| Designated Moves | LR | LT | TR |
| Assumed Moves | LR | LT | TR |
| RT Channelized | | | |
| Lane Util | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 54 | 122 | 81 |
| Cap Entry Lane, veh/h | 1272 | 1334 | 1366 |
| Entry HV Adj Factor | 0.981 | 0.982 | 0.981 |
| Flow Entry, veh/h | 53 | 120 | 79 |
| Cap Entry, veh/h | 1248 | 1310 | 1339 |
| V/C Ratio | 0.042 | 0.091 | 0.059 |
| Control Delay, s/veh | 3.2 | 3.5 | 3.2 |
| LOS | A | A | A |
| 95th %tile Queue, veh | 0 | 0 | 0 |

| Intersection | | | |
|-----------------------------|-------|-------|-------|
| Intersection Delay, s/veh | 3.8 | | |
| Intersection LOS | A | | |
| Approach | EB | NB | SB |
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 33 | 210 | 128 |
| Demand Flow Rate, veh/h | 33 | 214 | 131 |
| Vehicles Circulating, veh/h | 127 | 20 | 36 |
| Vehicles Exiting, veh/h | 39 | 140 | 198 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 3.2 | 4.0 | 3.6 |
| Approach LOS | A | A | A |
| Lane | Left | Left | Left |
| Designated Moves | LR | LT | TR |
| Assumed Moves | LR | LT | TR |
| RT Channelized | | | |
| Lane Util | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 33 | 214 | 131 |
| Cap Entry Lane, veh/h | 1212 | 1352 | 1330 |
| Entry HV Adj Factor | 1.000 | 0.979 | 0.981 |
| Flow Entry, veh/h | 33 | 210 | 128 |
| Cap Entry, veh/h | 1212 | 1324 | 1305 |
| V/C Ratio | 0.027 | 0.158 | 0.098 |
| Control Delay, s/veh | 3.2 | 4.0 | 3.6 |
| LOS | A | A | A |
| 95th %tile Queue, veh | 0 | 1 | 0 |

| Intersection | | | |
|-----------------------------|-------|-------|-------|
| Intersection Delay, s/veh | 3.4 | | |
| Intersection LOS | A | | |
| Approach | EB | NB | SB |
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 53 | 136 | 86 |
| Demand Flow Rate, veh/h | 54 | 139 | 88 |
| Vehicles Circulating, veh/h | 87 | 33 | 10 |
| Vehicles Exiting, veh/h | 11 | 108 | 162 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 3.2 | 3.6 | 3.2 |
| Approach LOS | A | A | A |
| Lane | Left | Left | Left |
| Designated Moves | LR | LT | TR |
| Assumed Moves | LR | LT | TR |
| RT Channelized | | | |
| Lane Util | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 54 | 139 | 88 |
| Cap Entry Lane, veh/h | 1263 | 1334 | 1366 |
| Entry HV Adj Factor | 0.981 | 0.982 | 0.981 |
| Flow Entry, veh/h | 53 | 136 | 86 |
| Cap Entry, veh/h | 1239 | 1310 | 1339 |
| V/C Ratio | 0.043 | 0.104 | 0.064 |
| Control Delay, s/veh | 3.2 | 3.6 | 3.2 |
| LOS | A | A | A |
| 95th %tile Queue, veh | 0 | 0 | 0 |

| Intersection | | | |
|-----------------------------|-------|-------|-------|
| Intersection Delay, s/veh | 3.9 | | |
| Intersection LOS | A | | |
| Approach | EB | NB | SB |
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 33 | 236 | 138 |
| Demand Flow Rate, veh/h | 33 | 241 | 141 |
| Vehicles Circulating, veh/h | 138 | 20 | 36 |
| Vehicles Exiting, veh/h | 39 | 151 | 225 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 3.2 | 4.2 | 3.6 |
| Approach LOS | A | A | A |
| Lane | Left | Left | Left |
| Designated Moves | LR | LT | TR |
| Assumed Moves | LR | LT | TR |
| RT Channelized | | | |
| Lane Util | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 33 | 241 | 141 |
| Cap Entry Lane, veh/h | 1199 | 1352 | 1330 |
| Entry HV Adj Factor | 1.000 | 0.979 | 0.981 |
| Flow Entry, veh/h | 33 | 236 | 138 |
| Cap Entry, veh/h | 1199 | 1324 | 1305 |
| V/C Ratio | 0.028 | 0.178 | 0.106 |
| Control Delay, s/veh | 3.2 | 4.2 | 3.6 |
| LOS | A | A | A |
| 95th %tile Queue, veh | 0 | 1 | 0 |

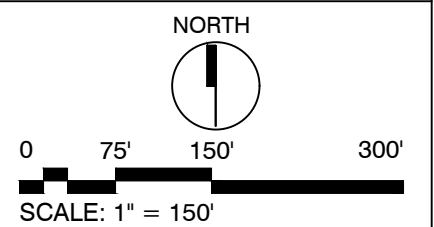
APPENDIX F

Conceptual Site Plan



PROPOSED SITE PLAN

| SITE DATA | |
|-----------------|----------------------|
| SITE AREA | 16.45± AC |
| BUILDING | 336 UNITS |
| TOTAL PARKING | 671 SPACES |
| ADA PARKING | 12 |
| GARAGES | 124 |
| RATIO | 2.00 |
| | |
| POND | 0.67 ± AC |
| | |
| BUILDING A = | 3 |
| BUILDING B = | 2 |
| BUILDING C = | 3 |
| BUILDING D = | 2 |
| | |
| 1 BEDROOM UNITS | 132 |
| 132 x 1 = | 132 SPACES |
| 2 BEDROOM UNITS | 168 |
| 168 x 2 = | 336 SPACES |
| 3 BEDROOM UNITS | 36 |
| 36 x 3 = | 108 SPACES |
| TOTAL | 576 SPACES NEEDED |
| | 671 SPACES SHOWN |
| | 1.164 RATIO |



COLORADO SPRINGS,
COLORADO
SOUTH ACADEMY BLVD &
VENETUCCI BLVD

| | |
|---------------------|----------------|
| DATE: 05.05.2023 | DRAWING # 2 |
|---------------------|----------------|