Traffic Impact Study Report

Terraces of Lafayette

City of Lafayette, California

January 7, 2020

TJKM

Table of Contents

Executive Summary **1**

1.0 Introduction to the Updated Report **7**

1.1 Proposed Project and Design Improvements 7

1.2 Study Scenarios and Scope 10

1.3 Regulatory Framework and References 10

1.4 Rebuilt Traffic Models 11

1.5 Updated Analysis Methodology 11

1.6 Project Variants 11

1.7 Significance Thresholds 12

2.0 Study Area and Scope **15**

2.1 Study Intersections 15

2.2 Study Segments 15

2.3 Proposed Project and Project Variant 16

2.4 Scenarios 16

2.4 Other Analysis 16

3.0 Regulatory Framework and Policy Constraints **18**

3.1 CEQA 18

3.2 City of Lafayette 18

3.3 CCTA 18

3.4 Lamorinda Area 19

3.5 Caltrans 20

4.0 Methodology and Significance Thresholds **22**

4.1 Scenario Development 22

4.2 Level of Services analysis 23

4.3 Queuing 26

4.4 Weaving Areas 27

4.5 Delay Index 27

4.6 CEQA Requirements and Other Standards 29
4.7 Site review 30
5.0 Existing Conditions 31
5.1 Existing Setting and Roadway System 31
5.2 Existing Pedestrian Facilities 32
5.3 Existing Bicycle Facilities 33
5.4 Existing Transit Facilities 33
5.5 Characteristics of Pedestrian Operations and Parking along Project Frontages 36
5.6 Level of Service and Average Delay Analysis 39
5.7 Queuing Analysis 40
5.8 Delay Index 44
6.0 Existing plus Project Conditions 46
6.1 Proposed Project and Project Variant 46
6.2 Trip generation 48
6.3 Trip Distribution and Assignment 48
6.4 Intersection Level of Service 53
6.5 Queuing 55
6.6 Pleasant Hill Road Weaving Conditions 60
6.7 Delay Index 60
6.8 Pedestrian, Bicycle, and Transit Impacts 61
7.0 Cumulative (2040) Conditions 64
7.1 Intersection Level of Service 64
7.2 Queuing 65
7.3 Delay Index 69
8.0 Cumulative (2040) plus Project Conditions 71
8.1 Intersection Level of Service 71
8.2 Queuing 74
8.3 Pleasant Hill Road Weaving Conditions 79
8.4 Delay Index 79

9.0 Additional Analysis 81

9.1 Alternative Trip Generation 81

9.2 Site Plan Evaluation 88

9.3 Parking Analysis 90

9.4 Project Impacts to Passenger Loading and On-Street Parking Areas 91

9.5 Emergency Vehicle Response Times 91

9.6 Proposed Southbound Lane on Pleasant Hill Road 92

9.7 Construction Impacts 93

Conclusions and Recommendations 95

Project Impacts and Mitigation Measures 1

Tables

Table 1. Level of Service Definitions for Signalized Intersections 24

Table 2. Level of Service Definitions for Stop-Controlled Intersections 25

Table 3. Level of Service Analysis – Existing Conditions 40

Table 4. Queuing Analysis – Existing Conditions 41

Table 5. Pleasant Hill Road Delay Index – Existing Conditions 44

Table 6. SR-24 Delay Index – Existing Conditions 45

Table 7. Project Trip Generation 50

Table 8. Level of Service Analysis – Existing plus Project Conditions 54

Table 9. Queuing Analysis – Existing plus Project Conditions 56

Table 10. Pleasant Hill Road Weaving Conditions – Existing plus Project Conditions 60

Table 11. Pleasant Hill Road Delay Index – Existing plus Project Conditions 61

Table 12. SR-24 Delay Index – Existing plus Project Conditions 61

Table 13. Level of Service Analysis – Cumulative Conditions 65

Table 14. Queuing Analysis – Cumulative Conditions 66

Table 15. Pleasant Hill Road Delay Index – Cumulative Conditions 69

Table 16. SR-24 Delay Index – Cumulative Conditions 70

Table 17. Level of Service Analysis – Cumulative plus Project Conditions 73

Table 18. Queuing Analysis – Cumulative plus Project Conditions 76

Table 19. Pleasant Hill Road Weaving Conditions – Cumulative plus Project Conditions 79

Table 20. Pleasant Hill Road Delay Index – Cumulative plus Project Conditions 80

Table 21. SR-24 Delay Index – Cumulative plus Project Conditions 80

Table 22. Alternative Project Trip Generation 83

Table 23. Level of Service at Impacted Intersections – Existing plus Alternative Project Trips 87

Table 24. Level of Service at Impacted Intersections – Cumulative plus Alternative Project Trips 87

Figures

Figure 1. Project Vicinity 13

Figure 2. Project Site Plan 14

Figure 3: Existing Pedestrian, Bicycle, and Transit Facilities 35

Figure 4: Passenger Loading Operations on Project Frontages 38

Figure 5: Existing Traffic Volumes, Lane Geometry, and Controls 42

Figure 6: Project Trip Distribution and Assignment 51

Figure 7: Existing plus Project Conditions Traffic Volumes, Lane Geometry, and Controls 58

Figure 8: Cumulative Conditions Traffic Volumes, Lane Geometry, and Controls 67

Figure 9: Cumulative plus Project Conditions Traffic Volumes, Lane Geometry, and Controls 77

Figure 10. Alternative Trip Assignment 84

Appendices

Appendix A – Summary of Project Impacts and Mitigation Measures

Appendix B – Existing Turning Movement Counts and CCTA Model Flow Maps

Appendix C – Existing Conditions Level of Service Worksheets

Appendix D – Existing plus Project Conditions Level of Service Worksheets

Appendix E – Cumulative Conditions Level of Service Worksheets

Appendix F – Cumulative plus Project Conditions Level of Service Worksheets

Appendix G – Alternative Trip Generation Level of Service Worksheets

Appendix H – Sight Distance Analysis

Appendix I – 2018 Emergency Response Times Statistics

Appendix J – Caltrans Letter, March 2019

Appendix K – Traffic Impacts and Significance Criteria, 2012 Traffic Impact Analysis

EXECUTIVE SUMMARY

This report summarizes the results of the Traffic Impact Study (TIS) conducted for the Terraces of Lafayette project (proposed project), which would construct 315 apartments at the southwest corner of Deer Hill Road and Pleasant Hill Road. In 2012, TJKM conducted a traffic and circulation study for the proposed Terraces of Lafayette project. That study was then incorporated into an Environmental Impact Report (EIR) that was certified in 2013. The purpose of this report is to update the 2012 study to better reflect conditions in 2019 and identify any changes to the level of severity of impacts analyzed in 2012.

To evaluate the impacts on the transportation infrastructure due to the addition of traffic from the proposed project, 17 intersections and two corridors were evaluated during the a.m., school p.m., and p.m. peak periods, under four study scenarios. The project would include a proposed new southbound lane on Pleasant Hill Road along the project frontage. A project variant without this proposed new southbound lane was also evaluated. The study intersections and corridors were evaluated under Existing (2019), Existing plus Project, Cumulative (2040), and Cumulative plus Project Conditions. For the purposes of this analysis, potential significant transportation impacts are identified based on CEQA standards, thresholds either established by the City of Lafayette or other responsible agencies, and other criteria described in the 2012 study and applied here in consultation with City of Lafayette staff.

A comparison of transportation impacts identified in the 2012 traffic study and 2013 Final EIR and those described below is included in **Appendix A**. A summary of similarities and differences between this study and the 2012 study, including a detailed list of project design refinements, is provided in Chapter 1. Unless otherwise noted, all analysis results and findings of significance described below apply to both the proposed project and the project variant.

Project Trip Generation

The proposed residential development is expected to generate 2,032 total daily trips, including 158 a.m. peak hour trips (32 in, 126 out), 148 school p.m. peak hour trips (71 in, 77 out), and 191 p.m. peak hour trips (117 in, 74 out). Project trip generation assumptions are consistent with the 2012 study.

Existing (2019) Conditions

Under this scenario, analysis of study roadways and intersections indicate that the study area experiences traffic congestion and delay above acceptable performance standards.

- *Level of service*: Seven of the nine signalized intersections currently operate at unacceptable level of service during two or three peak hours, including all Pleasant Hill Road intersections other than Pleasant Hill Road & SR-24 Eastbound Off-Ramps/Old Tunnel Road. The unsignalized intersection of Deer Hill Road & Brown Avenue also operates at unacceptable LOS F during all peak hours but does not satisfy the peak hour signal warrant.
- *Queuing*: At the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, all dedicated turn lanes currently experience 95th percentile queues that exceed the available storage capacity, under all peak periods.
- *Delay Index*: Projected delay index performance for 2019 Conditions shows that both Pleasant Hill Road and SR-24 both operate within acceptable delay index limits in both peak directions.

Existing plus Project Conditions

Under this scenario, intersection and roadway performance would generally be similar to Existing Conditions, with impacts that can be fully mitigated for both the proposed project and project variant.

- *Level of service*: The project would have a significant impact at the intersection of Deer Hill Road & Brown Avenue that can be mitigated with signalization, with less-than-significant impacts at all other locations. With mitigation, the project would have a **less-than-significant impact**.
- *Queuing*: The project includes improvements to existing turn lanes. The project would have a **less-than-significant impact** on intersection queuing under both the proposed project and project variant. Driveway queuing operations would be adequate and have a **less-than-significant impact** both on- and off-site.
- *Weaving areas*: The project driveways would not create new or worsen existing weaving areas, resulting in a **less-than-significant impact**.
- *Delay index*: Projected delay index performance for 2019 plus Project Conditions shows that Pleasant Hill Road and SR-24 both operate within acceptable delay index limits in both peak directions, under both the proposed project and project variant. The proposed project would reduce delay on Pleasant Hill Road in the southbound a.m. direction. The project would have a **less-than-significant impact** on both Pleasant Hill Road and SR-24.
- *Pedestrian and bicycle impacts*: The project would expand and improve available bicycle and transit facilities and would have a **less-than-significant impact** under both the proposed project and project variant.
- *Transit impacts*: The project would have a less-than-significant impact on BART ridership, but increased demand for parking spaces could have a significant impact on the Lafayette BART station vicinity. This can be mitigated with a fully subsidized shuttle connecting the project to the BART station. With mitigation, the project would have a **less-than-significant impact** on transit.

Cumulative (2040) Conditions

Under this scenario, existing traffic patterns and delay are expected to intensify, with corresponding increases in congestion and delay.

- *Level of service*: Seven of the nine signalized intersections would continue to operate at unacceptable level of service during two or three peak hours, including all Pleasant Hill Road intersections other than Pleasant Hill Road & SR-24 Eastbound Off-Ramps/Old Tunnel Road. The unsignalized intersection of Deer Hill Road & Brown Avenue would also operate at unacceptable LOS F during all peak hours and would satisfy the peak hour signal warrant.
- *Queuing*: At the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, all dedicated turn lanes would continue to experience 95th percentile queues that exceed the available storage capacity, under all peak periods.
- *Delay Index*: Projected delay index performance for 2040 Conditions shows that both Pleasant Hill Road and SR-24 would continue to operate within acceptable delay index limits in the a.m. peak direction, but Pleasant Hill Road would exceed the acceptable delay index limit in the northbound p.m. peak direction. SR-24 would operate within the acceptable delay index limit in the p.m. peak direction.

Cumulative plus Project Conditions

Under this scenario, intersection and roadway performance would generally be similar to Cumulative Conditions, with some impacts that can be fully mitigated. Significant impacts are noted below.

- *Level of service*: The proposed project would have a significant impact at the intersection of Deer Hill Road & Brown Avenue that can be mitigated with signalization, with less-than-significant impacts at all other locations. The project variant would also produce a significant impact at Pleasant Hill Road & Deer Hill Road/Stanley Boulevard that cannot be feasibly mitigated. With mitigation, the proposed project would have a **less-than-significant impact**. The project variant would have a **significant and unavoidable impact**.
- *Queuing*: The project includes improvements to existing turn lanes. Driveway queuing operations would be adequate and have a **less-than-significant impact** both on- and off-site, under both the proposed project and project variant.
- *Weaving areas*: The project driveways would not create new or worsen existing weaving areas.
- *Delay index*: Projected delay index performance for 2040 plus Project Conditions shows that SR-24 would continue to operate within acceptable delay index limits in both peak directions. Pleasant Hill Road would exceed the acceptable delay index limit in the northbound p.m. peak direction, under both the proposed project and project variant, with delay index increasing to a significant degree. The proposed project would reduce delay on Pleasant Hill Road in the southbound a.m. direction, but the project variant would have a significant impact on delay index in the southbound a.m. direction. The proposed project would have a **significant and unavoidable impact** on Pleasant Hill Road during the p.m. peak hour. The project variant would have a **significant and unavoidable impact** on Pleasant Hill Road during both peak hours.

Alternative Trip Generation

Since the trip generation estimates for the proposed project were initially generated for the 2012 study, newer trip generation data has become available that alters these estimates. An analysis using this more recent trip generation data, was conducted for informational purposes only. Based on the newer data, the project would be expected to generate 1,714 total daily trips, including 113 a.m. peak hour trips (29 in, 84 out), 99 school p.m. peak hour trips (50 in, 49 out), and 139 p.m. peak hour trips (85 in, 54 out). Although the number of project trips would be smaller than those analyzed throughout this report, intersection delay and level of service results remained substantially similar. There were no changes in findings of significance at any of the study intersections, and the project would not generate any new impacts.

Vehicle Site Access and Circulation

TJKM evaluated the project site design based on detailed civil engineering drawings dated April 24, 2019, and an annotated overall site plan dated June 19, 2019. The project site would be accessed via two driveways on Deer Hill Road and one right-in/right-out only driveway on Pleasant Hill Road. Driveway design and sight distance are adequate. Interior access drives and drive aisles meet City of Lafayette standards for minimum width and provide adequate curb radii for large vehicles to maneuver. The project would provide adequate access and on-site circulation for vehicles, and adequate access for emergency

vehicles and trucks. Overall, the project site design would have a **less-than-significant impact** on safety, access, and circulation both on- and off-site.

Pedestrian and Bicycle Access and Circulation

Pedestrians would access the site via connections to the proposed pedestrian facilities on the Pleasant Hill Road and Deer Hill Road frontages. The site includes walkways and accessible connecting all buildings and major common areas, with accessible paths utilizing switchbacks and curves to traverse the hilly terrain. Bicycles would access the site via driveways and walkways connecting to the proposed multiuse path on the Pleasant Hill Road frontage. Bicyclists could either use internal access drives or walk their bikes on the pedestrian walkways, as dictated by the topography. Although not shown on the current site plans, it is assumed that additional details of walkway design and bike parking locations will be included in final design plans. Pedestrian curb ramps should be shown in the final, more detailed plans at all pedestrian crossings. Overall, pedestrian and bicycle access and circulation are adequate. The project is expected to have a **less-than-significant impact** on pedestrians and bicyclists on- and off-site.

Parking Analysis

Under the City of Lafayette Municipal Code, the proposed project would be required to provide 511 parking spaces, based on the number of one-, two- and three-bedroom units to be constructed. The project site plans show a total parking supply of 557 spaces, including 11 accessible spaces as required by the Americans with Disabilities Act. The overall parking supply is adequate, and the project would have a **less-than-significant impact** on surrounding roadways due to parking demand. However, the site plans do not show the locations or size of bicycle parking areas required by City standards, nor do they indicate which accessible spaces are van-accessible. It is also unclear whether all parking spaces meet City minimum dimensions. Although not required to mitigate a significant impact, the project plans should be reviewed and revised in consultation with City staff to include these missing items and to ensure compliance with parking lot design standards.

Passenger Loading and On-Street Parking Areas

The proposed project would expand and improve the existing designated passenger loading area on the Pleasant Hill Road frontage, immediately south of Deer Hill Road. The loading area would be approximately doubled in length, provided with sidewalks and curb ramps, and widened to accommodate a bus turn-out. The loading area would accommodate approximately eight waiting vehicles. The portion of the Deer Hill Road frontage currently used for passenger loading would also be improved with new sidewalks. However, the proposed project would remove 19 existing on-street parking spaces that are largely vacant in the morning but used in the afternoon by vehicles waiting to pick up students from the nearby high school. The expanded passenger loading area would provide some new space for these vehicles to wait, and other nearby on-street parking spaces exist to the south and on the east side of Pleasant Hill Road. It is expected that the proposed project would have a **less-than-significant impact** on passenger loading and parking.

Emergency Vehicle Response Times

Data provided by the Contra Costa County Fire Protection District (FPD) shows that in 2018, the three fire stations closest to the project site failed to meet the target response time of five minutes, set by the City of Lafayette and the FPD. All three fire stations utilize the Pleasant Hill Road corridor for emergency calls. The project's significant impact on Pleasant Hill Road delay index under Cumulative plus Project Conditions would therefore contribute to a significant impact on emergency response times. As mitigation, TJKM recommends that the project applicant contribute a fair share toward implementing emergency vehicle signal preemption on Pleasant Hill Road. With mitigation, the project would have a **less-than significant impact** on emergency services response times.

Compliance with the Lamorinda Action Plan

Although the added southbound lane on Pleasant Hill Road proposed by the project would provide operational benefits at the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, it would conflict with the Gateway Constraints Policy outlined in the *Lamorinda Action Plan*. The policy specifies that Pleasant Hill Road should be limited to two southbound through lanes for the entire corridor, and even short-link sections of additional southbound through lanes are prohibited. As such, the proposed project's conflict with the Gateway Constraints Policy would constitute a **significant impact**. The project variant, which would not include the added southbound through lane, would not conflict with the Gateway Constraints Policy and would have a **less-than-significant impact**. TJKM recommends that the applicant obtain approval of amendments to the *Lamorinda Action Plan* such that there is no longer a conflict, or proceed with the project variant instead of the proposed project.

Construction Impacts

Due to the project location and proposed scope, construction activities associated with the proposed project are expected to have significant impacts on the adjacent streets and pedestrian facilities that require mitigation. Large truck traffic during construction, particularly during the grading phase, may create additional congestion and hazardous conditions due to maneuvering in heavy traffic, as well as creating excessive wear and tear on the pavement of Pleasant Hill Road. Passenger loading areas on the Pleasant Hill Road and Deer Hill Road frontages would also be disrupted by construction. These constitute significant construction-related impacts. These impacts could be mitigated by implementing a detailed construction traffic staging and management plan, to be developed in consultation with, and reviewed and approved by, City of Lafayette engineering staff. With development of an adequate construction traffic staging and management plan, as described below, the project would have a **less-than-significant impact** on the surrounding streets and pedestrian facilities during construction. The construction management plan should include the following:

- Stage construction activities at existing passenger loading areas on the Pleasant Hill Road and Deer Hill Road frontages for the summer school break, such that new pedestrian facilities are in place prior to the following school year.
- Limit heavy vehicle traffic to off-peak periods, avoiding school drop-off and pick-up times.

- Conduct a detailed engineering analysis of the remaining pavement lifespan on Pleasant Hill Road and the amount that would be used by construction traffic. Repair pavement and restore pavement markings wherever construction traffic would produce unacceptable wear.

Required Mitigation Measures

In order to mitigate the significant impacts described above, the following mitigation measures were identified. Where a mitigation measure was previously identified in the 2013 Final EIR, the associated numbered mitigation measure is noted:

- Signalize the intersection of Deer Hill Road & Brown Avenue. At the discretion of the City of Lafayette and in consultation with City of Lafayette engineering staff, a roundabout may be considered as an alternative mitigation measure (TRAF-2 and TRAF-9).
- Provide a fully subsidized shuttle connecting the project to the BART station (TRAF-14).
- Contribute a fair share toward implementing emergency vehicle signal preemption on Pleasant Hill Road (TRAF-5).
- Develop a detailed construction traffic staging and management plan, in consultation with, and reviewed and approved by, City of Lafayette engineering staff, as described above (TRAF-7).
- Obtain approval of amendments to the *Lamorinda Action Plan* such that there is no longer a conflict with the proposed project, or proceed with the project variant instead of the proposed project.

Recommendations

Although not required to mitigate specific significant impacts, TJKM recommends the following improvement measures, which should be included in the project conditions of approval [1]:

- To maintain adequate sight lines between vehicles at driveways and oncoming vehicles in the roadway, all landscaping within 15 feet of the driveways shall be maintained at no more than 30 inches in height, or trees shall be maintained with canopy foliage no less than seven feet above the ground. Landscaping plans near the project driveways should be approved in consultation with City of Lafayette engineering staff. It should be noted that the sight distance impacts based on driveway locations and configurations, identified in the 2012 study, were eliminated by design changes.
- The final project site plans should show the locations of required pedestrian curb ramps at all pedestrian crossings and stop signs at the internal intersection in the northeast corner of the site.
- The project applicant should work with City staff to identify preferred placement for the two required van accessible parking spaces and bike parking facilities, and to confirm that final parking lot plans satisfy minimum design standards for parking spaces.

[1] Improvement measures are not required to reduce, avoid, or eliminate adverse physical changes. Instead, they are identified as ways to further reduce the magnitude of less-than-significant impacts. They may be adopted by decision-makers as conditions of approval.

1.0 INTRODUCTION TO THE UPDATED REPORT

In 2012, TJKM conducted a traffic and circulation study for the proposed Terraces Project in Lafayette. That study was then incorporated into an Environmental Impact Report that was certified in 2013. The currently proposed project is substantially similar to the project analyzed in 2012. The purpose of this report is to update that analysis to better reflect conditions in 2019 and identify any changes to the level or severity of impacts analyzed in 2012.

To provide an objective comparison of the findings of this analysis and that of the 2012 analysis, similar methodologies and significance criteria were used to the extent possible. However, some differences exist due to changes in the local regulatory framework, technological advancement of analysis tools, and refinements of standard traffic engineering practices. This chapter summarizes those differences and describes what has changed. The study area and scope, regulatory framework, and methodology are discussed in detail in the following chapters.

1.1 Proposed Project and Design Improvements

The project would construct 315 apartments on a 22.27-acre property at the southwest corner of Deer Hill Road and Pleasant Hill Road, immediately north of SR-24. **Figure 1** shows the project vicinity. This land is currently undeveloped. Although the project size is unchanged since it was studied in 2012, the proposed project design has since been revised to incorporate design improvements originally identified in the 2012 study, 2013 final Environmental Impact Report (FEIR), and/or recommended by City of Lafayette staff. These include mitigation measures identified in the 2012 study, and other recommended improvements not required to mitigate specific significant impacts. **Figure 2** shows the refined project site plan, dated June 19, 2019, including annotations highlighting substantial changes. **Appendix A** contains a numbered list of all significant impacts and mitigation measures included in the 2012 traffic study, as well as the findings of this study. Where a mitigation measure was previously identified in the 2013 Final EIR, the associated numbered mitigation measure is noted.

The evaluation of the proposed project site was based on both the annotated site plan shown in **Figure 2** and on detailed civil engineering drawings provided to TJKM, dated April 24, 2019. It should be noted that these plans do not include full landscaping or signage details, which are generally finalized later in the project development process and are subject to review and approval by City of Lafayette staff. A detailed site plan evaluation is included in Chapter 9.

The following project design changes were included either to incorporate mitigation measures specified in the 2013 FEIR or to eliminate or reduce to a less-than-significant level otherwise significant impacts. Where a design change incorporates a mitigation measure identified in the 2013 FEIR, the associated numbered measure is noted.

1. Relocate the west driveway on Deer Hill Road 100 feet to the west of the location shown on the original 2011 project plans, and add a painted median island prohibiting left turns into the driveway from westbound Deer Hill Road. A westbound median refuge lane would also be added,

to allow exiting vehicles to make two-stage left turns during periods of heavy cross traffic (TRAF-3, TRAF-4, TRAF-8, TRAF-10).

2. Relocate the east driveway on Deer Hill Road 80 feet to the west of the location shown on the original project plans, and add a new 250 ft. left turn lane for storage of westbound vehicles (TRAF-3, TRAF-8).
3. Reconfigure the northeast section of the project site, including the east driveway and building N parking area, to address drainage and grading considerations (affects non-traffic-related issues).
4. At project driveways and internal crosswalks, add special design treatments, such as paving to be specified by the City Engineer, to alert drivers that they are crossing pedestrian and bicycle facilities (TRAF-17, TRAF-20).
5. Revise the project site plans such that corner radii and medians at on-site driveway intersections provide a minimum inside turning radius of 25 feet and a minimum outside turning radius of 45 feet, per Contra Costa County Fire Protection District (CCCFPD) requirements. Project driveways and internal intersections now provide sufficient width and turning radii to allow adequate truck access (TRAF-6, TRAF-8).
6. Remove the previously proposed median break on Pleasant Hill Road opposite the project driveway, to prevent northbound left turns into and eastbound left turns out of the project site (not a previously identified mitigation measure. Eliminates TRAF-5, TRAF-12).
7. Extend the existing northbound left turn lane at Pleasant Hill Road & Deer Hill Road/Stanley Boulevard to Acalanes Avenue, to accommodate existing and Project-related traffic (TRAF-12).
8. Widen Pleasant Hill Road to add the following:
    a. A third lane for southbound through traffic between Deer Hill Road and SR-24. The lane would start approximately 400 feet north of Deer Hill Road and extend south along the entire Project frontage on Pleasant Hill Road to become a right-turn-only lane for the on-ramp to westbound SR 24 (i.e., a "trap" lane) (not a previously identified mitigation measure. Eliminates TRAF-10, TRAF-17).
        i. Note: the project variant also studied in this report does not include this added lane.
    b. A southbound right turn lane at Deer Hill Road, separating right turning vehicles from the bike lane. The existing bike lane widens near the intersection to be used as a turn lane (staff recommendation).
    c. On-street bike lanes that would be located to the left of dedicated right turn lanes. This would also apply to the proposed trap lane for the southbound SR-24 on-ramp (TRAF-18).
    d. A dedicated passenger loading and bus turn-out area to replace the passenger loading spaces that would otherwise be eliminated (TRAF-15, TRAF-21).

9. Construct of a new Class I shared path for bicycles and pedestrians along the Pleasant Hill Road frontage, consistent with City plans to construct a bike path in this location. The pavement width and buffer area will be adequate to permit pedestrians to access loading spaces, and the intersection with the Project driveway will include adequate sight distance and appropriate surface treatments to prevent hazards to pedestrians and bicyclists (TRAF-19, TRAF-20).

For purposes of the following descriptions, the term "upper loop" refers to the on-site driveway closest to Deer Hill Road that serves buildings A, B, C, and D, and connects the west Project driveway on Deer Hill Road to the Pleasant Hill Road driveway. The "lower loop" refers to the on-site driveway closer to the southerly property boundary that serves buildings E through L and the Clubhouse, terminating at the east Project driveway on Deer Hill Road. Other refinements to the 2011 site plan include the following measures:

10. Revise the site plan to include construction of additional on-site pedestrian facilities, including stairs and walkways on alignments as needed, to provide more direct pedestrian connections for the following routes (2012 study recommendations):
    a. Between Deer Hill Road and Building A, along the west Project driveway
    b. Between Building D and Pleasant Hill Road near Building M, along the upper loop driveway
    c. Between Building G and Deer Hill Road, along the lower loop driveway
    d. Between Building L and the Leasing Office, along the lower loop driveway
    e. Between Building M and the recommended facility along the upper loop driveway
    f. Between Building N and the upper loop driveway, with crosswalks to connect with the recommended Building M connection
11. Ensure that all sidewalks satisfy City guidelines for minimum width and buffer strips (TRAF-16).

The following refinements are considered part of the proposed project for the purposes of this study, although proposed landscaping and signage are not shown on the civil engineering plans:

12. To maintain adequate sight-distance, all landscaping within 15 feet of on-site driveway intersections shall be limited to plants with foliage no more than 30 inches fully mature height above the closest adjacent curb elevation, or trees with canopy foliage no less than seven feet above the closest adjacent curb elevation, or other dimensions as specified by the City Engineer. Final plans will ensure that that landscaping and signage, monuments, etc., do not obstruct sight lines at driveways and along the project frontages (2012 study recommendations).
13. At the on-site four-way intersection of the upper loop and lower loop driveways, which connect to Pleasant Hill Road and the east driveway on Deer Hill Road respectively, two-way stop sign control will be installed on one of the two driveways (2012 study recommendations and 2013 FEIR mitigation measure TRAF-3).

1.2 Study Scenarios and Scope

The original study evaluated Existing (2012) and Cumulative (2030) Conditions, with and without the proposed project. This analysis evaluates Existing (2019) and Cumulative (2040) conditions, based on new data collection, field review, and the current Contra Costa Transportation Authority (CCTA) travel demand model. As both the project size and the layout of the surrounding roadway network are unchanged, the same study area and project trip distribution were evaluated. Minor trip reassignments have been included at the project driveways and at the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, due to changes in driveway access and resulting driver behavior. Closing the median on Pleasant Hill Road and improving access at the east Deer Hill Road driveway change which driveways would be used by drivers traveling to and from certain directions. In consultation with City of Lafayette staff, the study area and scope were reviewed and found to be reasonable. Both are described in detail in Chapter 2.

It should be noted that newer trip generation data published in the current edition of the standard reference manual *Trip Generation, 10th Edition* (2017, Institute of Transportation Engineers) would result in a lower estimate of new trips generated by the proposed project. This study conservatively retains the same trip estimates used in the 2012 study. Notable changes between the 8th and 10th editions are described in more detail in Section 4.2. A comparative analysis using 10th Edition (2017) rates is included in chapter 9 for informational purposes only.

1.3 Regulatory Framework and References

The proposed project is subject to regulations adopted by the Contra Costa Transportation Agency (CCTA) and the City of Lafayette, and the Lamorinda Action Plan. Except as noted below, this report references the most up to date documents and applies current policies and regulations, described in detail in chapters 3 and 4. The following regulatory documents and other references cited in the 2012 traffic study have since been updated (with the updated versions identified below):

1. *Technical Procedures*, CCTA (2013)
2. *2017 Countywide Transportation Plan*, CCTA
3. *Lamorinda Action Plan*, CCTA (2017)
4. *Short Range Transit Plan 2016-2025*, CCTA (2016)
5. *Contra Costa Multimodal Traffic Service Objectives (MTSO) Monitoring Report*, CCTA (2013, 2017)
6. *Highway Capacity Manual*, Transportation Research Board (2010, 2016)
    a. Note: HCM 2010 methodology was used as specified in the CCTA Technical Procedures.
7. *Trip Generation, 10th Edition*, Institute of Transportation Engineers (2017)
    a. Note: the 8th Edition(2009) rates were retained for this analysis.
8. *Parking Generation, 5th Edition*, Institute of Transportation Engineers (2019)
9. *Highway Design Manual*, Caltrans (2019)
10. *2015 BART Station Profile Study*
11. *Municipal Code, Chapter 6*, City of Lafayette (2018)

a. Note: parking requirements were last updated by ordinance in 2018, lowering the amount of parking generally required for multifamily dwellings. However, at the direction of City staff this study applies the previous requirements specified for the M-R-B zoning district.

12. *Master Walkways Plan*, City of Lafayette (2015)

1.4 Rebuilt Traffic Models

This study utilizes a fully rebuilt Synchro model and the most recent version of Synchro software for evaluating intersection level of service, intersection and driveway queuing, and traffic simulation. Current traffic signal timing data was provided by the City of Lafayette and Caltrans. This includes the complex signal coordination on Pleasant Hill Road, which was implemented in 2016 in an effort to meter southbound traffic and improve operations at Deer Hill Road. Although the 2012 study utilized both SimTraffic (part of the Synchro software package) and CORSIM software for traffic simulation, CORSIM software is no longer considered state of the art and has not been updated or refined since 2012. Synchro/SimTraffic is now more widely used by jurisdictions nationwide for corridor analysis, and can analyze more complex coordinated signals than CORSIM. Signals on Pleasant Hill Road were not coordinated at the time of the 2012 study, and the current signal coordination scheme involves elements that are not supported and cannot be fully analyzed by CORSIM. By contrast, SimTraffic is actively maintained and provides similar segment-by-segment travel time outputs as those used by the 2012 study that were obtained using CORSIM. For consistency throughout the model development and calibration process, traffic simulation was conducted using SimTraffic alone.

This study also utilizes the most current version of the CCTA Travel Demand Model to calculate expected traffic growth between a baseline year of 2018 and horizon year of 2040. Section 4.1 describes these calculations and how they were used to estimate intersection traffic volumes for this study's horizon year of 2040. The travel demand model is also used for calculating Delay Index as specified in the CCTA *Technical Procedures* and described in section 4.5. The model's baseline year of 2018 includes up-to-date land use and transportation network data, and the model's 2040 horizon year incorporates current land use forecasts and adopted general plans.

1.5 Updated Analysis Methodology

Project impacts at study intersections were evaluated using the Highway Capacity Manual (HCM) 2010 methodology, for consistency with current CCTA *Technical Procedures*. The 2012 study applied the HCM 2000 methodology, which was the most current at the time. Delay index calculations have been updated using the methodology specified in the CCTA *Technical Procedures*, which requires use of the CCTA travel demand model. The 2012 analysis used an older methodology for calculating travel times on roadways operating near or over saturation. Methodology details and differences are described in Chapter 4.

1.6 Project Variants

This study evaluates the proposed project with and without an additional southbound lane on Pleasant Hill Road along the project frontage. In the 2012 study, this added lane was considered as a potential mitigation measure but rejected as infeasible, due to conflicts with policies in the Lamorinda Action Plan. Because the project applicant has proposed the additional lane, this study analyzes it as part of the proposed project. However, because this lane potentially could result in impacts or be infeasible, this

study also analyzes a project variant without the additional lane. As noted above in Section 1.2, the project variant would retain all frontage improvements and other changes on Pleasant Hill Road. Details regarding the differences between the proposed project and the project variant are discussed further in Chapter 6.

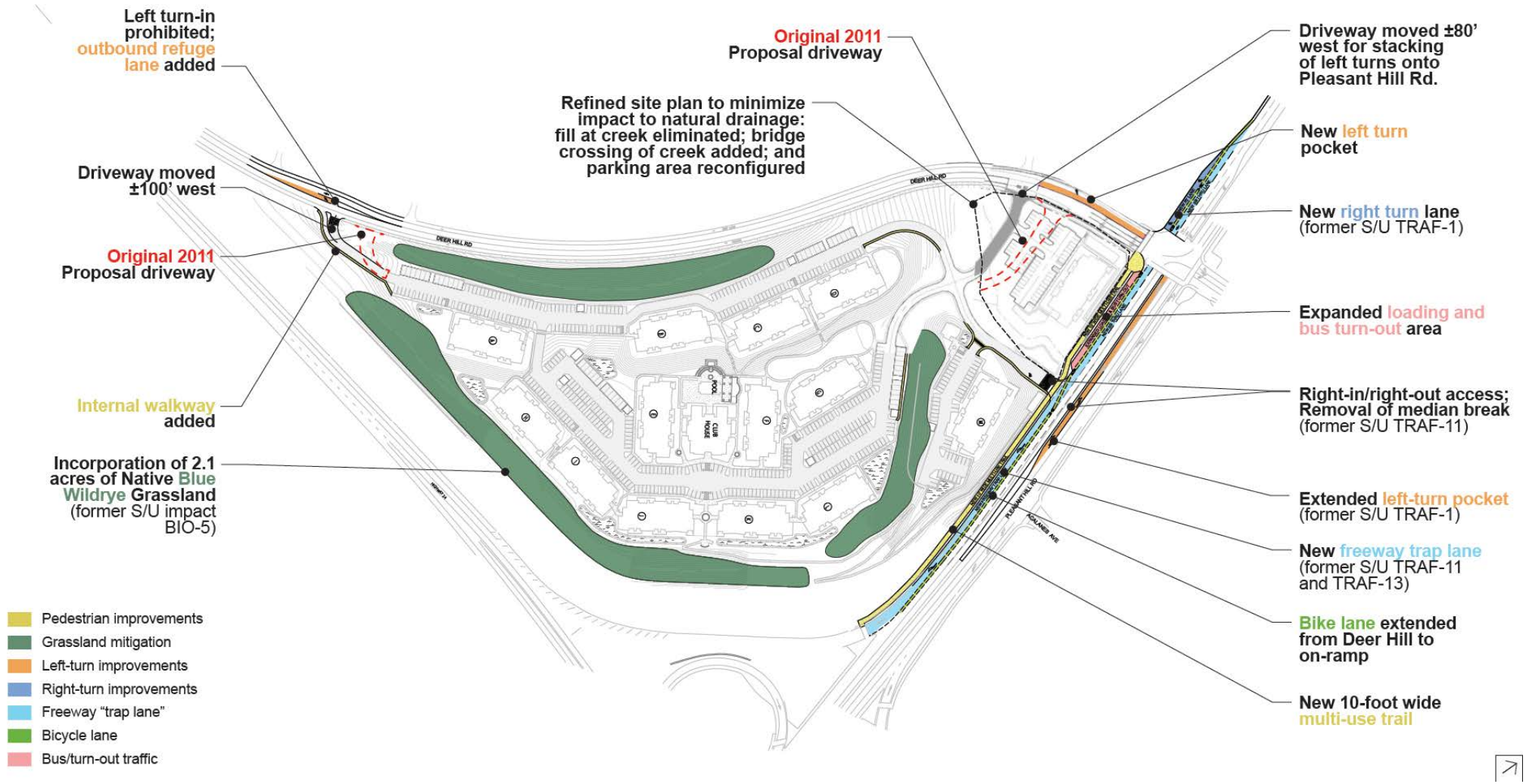
1.7 Significance Thresholds

The 2012 study evaluated project impacts based on 11 separate significance criteria and thresholds, drawn from applicable regulatory documents from multiple jurisdictions and agencies. Chapter 4 specifies the criteria used in this study, based on updated regulatory documents or consultation with applicable agency staff.

Figure 1: Vicinity Map

007-037 October 3, 2019

Figure 2: Project Site Plan



2.0 STUDY AREA AND SCOPE

TJKM evaluated traffic conditions at 17 study intersections during the a.m., school p.m. and p.m. peak periods, consistent with the prior traffic impact study completed in 2012. The 7:00-9:00 a.m. peak period corresponds with peak morning commute, the 2:00-4:00 p.m. peak period corresponds to after-school pickup times, and the 4:00-7:00 p.m. peak period corresponds with peak afternoon commute traffic.

2.1 Study Intersections

The same 17 intersections were analyzed as in the 2012 study. New peak period turning movement counts were conducted at the study intersections on multiple days in April and May of 2019, while all local schools were in session. The 2012 study was based on counts generally collected in May and early December 2011.

The highest single one-hour periods recorded for each peak period are used in the analysis. The study intersections and associated traffic controls are as follows:

1. Pleasant Hill Road & Rancho View Drive (signal)
2. Pleasant Hill Road & Green Valley Drive (signal)
3. Pleasant Hill Road & Reliez Valley Road (signal)
4. Pleasant Hill Road & Spring Hill Road (signal)
5. Pleasant Hill Road & Deer Hill Road/Stanley Boulevard (signal)
6. Pleasant Hill Road & Mt. Diablo Boulevard (signal)
7. Pleasant Hill Road & SR-24 Eastbound Off Ramp (signal)
8. Deer Hill Road & Brown Avenue (two-way stop)
9. Deer Hill Road & First Street/Sierra Vista Way (signal)
10. Deer Hill Road & SR-24 Westbound Ramps/Laurel Drive (signal)
11. Pleasant Hill Road & Project Driveway (one-way stop)
12. Deer Hill Road & Project Driveway Northeast (one-way stop)
13. Deer Hill Road & Project Driveway Southwest (one-way stop)
14. Pleasant Hill Road & Acalanes Avenue (one-way stop)
15. Pleasant Hill Road & SR-24 Westbound Direct Ramps (none)
16. Pleasant Hill Road & SR-24 Westbound Loop Ramps (none)
17. Pleasant Hill Road & SR-24 Eastbound Loop Ramps (none)

2.2 Study Segments

Selected roadway segments were evaluated for detailed operational characteristics and corridor-wide travel time performance. The analysis methodologies are detailed in Chapter 4. The following roadway segments were analyzed:

- Segment operations: Pleasant Hill Road, from Deer Hill Road/Stanley Boulevard to SR-24
- Corridor performance: Pleasant Hill Road, from Taylor Boulevard to SR-24
- Corridor performance: SR-24, from the Caldecott Tunnel to I-680

Consistent with CCTA requirements and the 2012 analysis, corridor performance (delay index) was analyzed for the a.m. and p.m. peak periods only.

2.3 Proposed Project and Project Variant

As shown in **Figure 2**, the proposed project would construct a new southbound lane along the project frontage on Pleasant Hill Road, beginning north of Deer Hill Road and extending south to become a trap lane for the SR-24 westbound on-ramp. Such a lane was considered in the 2012 study as a potential mitigation measure. The added lane was included in the revised project. This study evaluates the following two lane configurations:

1. **Proposed Project**: includes an added southbound through lane on Pleasant Hill Road near the project, as shown in **Figure 2**.
2. **Project Variant**: maintains existing number of southbound through lanes. All proposed frontage improvements and other proposed widening elements would be included in the project variant.

2.4 Scenarios

This study addresses the following traffic scenarios:

- **Existing (2019) Conditions** – This scenario evaluates all of the study locations based on existing traffic volumes, lane geometry and traffic controls.
- **Existing plus Project Conditions** – This scenario adds the traffic and changes to lane geometry from the project to the Existing (2019) Conditions. Two different lane configurations were analyzed:
    - **Proposed Project:** includes an added southbound lane on Pleasant Hill Road
    - **Project Variant:** with existing lane geometry
- **Cumulative (2040) Conditions** – This scenario projects existing traffic volumes projected forward to year 2040 conditions. Projections were based on Contra Costa Transportation Authority (CCTA) Traffic Forecasting Model outputs, described in detail in section 4.1.
- **Cumulative plus Project Conditions** – This scenarioadds the traffic and changes to lane geometry from the project to Cumulative (2040) Conditions. Two different lane configurations were analyzed:
    - **Proposed Project:** includes an added southbound lane on Pleasant Hill Road
    - **Project Variant:** with existing lane geometry

2.4 Other Analysis

In addition to evaluating the effects of new traffic generated by the proposed project, this study also includes the following:

1. Detailed comparison of the project impacts that would occur under the published trip generation rates used in the 2012 study and under revised rates based on newer data, with changes including the number of project trips.

2. The effect of the proposed development on key BART performance measures.
3. Site plan evaluation, including sight distance, site access, and internal circulation.
4. Adequacy of proposed parking supply.
5. Project impacts on street parking and passenger loading areas.
6. Effect of project traffic on emergency vehicle response times
7. Detailed discussion of proposed southbound lane on Pleasant Hill Road:
    a. Caltrans policies, right-of-way considerations, and staff feedback on proposed lane.
    b. Lamorinda Action Plan and Gateway Constraints Policy
    c. CCTA and City of Lafayette staff feedback
8. Recommendations for construction traffic impacts to be addressed by a construction management plan.

3.0 REGULATORY FRAMEWORK AND POLICY CONSTRAINTS

This traffic impact study is conducted within a regulatory framework made up of state, regional, subregional, and local laws and policies. Projects are potentially subject to review by multiple agencies in addition to the local jurisdiction. This section briefly describes the key agencies and policy documents affecting the proposed project and specifying how it is to be studied.

3.1 CEQA

At the state level, the California Environmental Quality Act (CEQA) establishes how proposed projects are to be studied to quantify any resulting environmental impacts, and how those findings are to be shared with the general public. For CEQA purposes, a "project" may include general plans, municipal projects, land development, or any other action that has a potential to result in physical changes to the environment. CEQA requires a lead agency, often a city or county, to conduct an environmental review of proposed projects within their jurisdiction prior to approval. Other public agencies with discretionary approval over a project are referred to as responsible agencies. Lead agencies and other agencies with jurisdiction over the project establish thresholds for the level of study required depending on the type and size of proposed project, in addition to any state-level environmental requirements. The purpose of such studies is to identify a variety of potential environmental impacts, including those related to transportation, and to establish whether those impacts are significant. In addition to comparing project impacts to specific thresholds, lead agencies must determine whether the proposed project conflicts with applicable plans, creates safety hazards, or negatively impacts non-automobile modes. The lead agency must then determine whether the significant impacts can be mitigated, and whether to approve a project in spite of any remaining significant impacts. CEQA establishes requirements for public notification that a study is being prepared, publication of study findings, and the process for receiving and responding to public comments, prior to environmental findings being certified as complete and a project being approved or rejected.

3.2 City of Lafayette

The City of Lafayette is the lead agency responsible for completing the environmental review for the proposed Terraces of Lafayette project and ensuring that the CEQA requirements have been met. This involves working closely with environmental consultants, including TJKM, to establish the appropriate study scope, interpret applicable requirements, and review and publish the resulting findings. After soliciting and responding to public comments, the City will determine whether to approve the proposed project and whether to require changes to the project or establish additional conditions of approval. For a project of this size, the City is also responsible for notifying and coordinating with other agencies at a regional and subregional level.

3.3 CCTA

The Contra Costa Transportation Authority (CCTA) is the congestion management agency established in Contra Costa County. In addition to preparing and implementing congestion management programs in

accordance with California law, CCTA also coordinates county-level transportation planning efforts, establishes technical guidelines for transportation studies, collects and disperses transportation sales taxes for numerous transportation projects, and maintains a countywide transportation demand model. CCTA administers funds collected through the Measure J Growth Management Program (transportation sales tax) and ensures local compliance with Measure J requirements. The Measure J implementation documents include the *Implementation Guide* (2010) and *Technical Procedures* (2013). The most recent Growth Management Program monitoring update was completed in 2017.

The current CCTA *Technical Procedures* establish the overall approach and applicable methodologies for analyzing proposed projects, ranging from small land developments to general plans and countywide initiatives. The *Technical Procedures* also describe the creation and implementation of Action Plans for Routes of Regional Significance (Action Plans), which are established and maintained by Regional Transportation Planning Committees (RTPCs) as part of the Measure J Growth Management Program. Routes of Regional Significance (RORS) are designated by CCTA for regional planning purposes and are subject to regional and subregional requirements. Action Plans may establish Multimodal Transportation Service Objectives (MTSOs) for RORS that are specifically tailored to local needs. The *Technical Procedures* also provide methodologies for calculating all MTSOs.

3.3.1 Notification and Analysis Thresholds

As specified in the *Implementation Guide* and *Technical Procedures*, development projects generating at least 100 peak hour trips require a traffic impact analysis that conforms to the methodology outlined in the *Technical Procedures* and triggers RTPC review, as described below. Reviewing agencies are to be given the opportunity to review and comment on a proposed development and related environmental documents.

3.4 Lamorinda Area

The Lamorinda area is a subregional area composed of the cities of Lafayette, Moraga, Orinda, and nearby portions of unincorporated Contra Costa County. The current *Lamorinda Action Plan* (2017) provides guidance for transportation planning through 2040. It establishes MTSOs for Routes of Regional Significance (RORS) within the area and defines how each component agency and committee is involved in the review of proposed projects. Pursuant to the Growth Management Program's Implementation Guide, the adopted MTSOs within sub-regional plans, such as the Lamorinda Action Plan, should be able to serve as thresholds of significance in the CEQA review of proposed development projects (pg. 3). In order to meet MTSOs, the Plan lists actions that the Lamorinda jurisdictions have agreed to carry out, with support from CCTA, transit agencies serving the area, and other agencies and transportation providers. As part of the Congestion Management Program, MTSOs for all action areas within Contra Costa County are monitored every four years. The most recent monitoring reports were completed in 2013 (final) and 2017 (draft). The Lamorinda Action Plan includes several actions that would affect the immediate project vicinity, including adding County Connection bus service on Pleasant Hill Road/Taylor Boulevard, encouraging travel demand management programs, improving and expanding pedestrian and bicycle facilities, and increasing bus service to Acalanes High School.

3.4.1 Related Agencies/Committees

The Lamorinda area is overseen by the Lamorinda Program Management Committee (LPMC), composed of one elected official from each of the cities of Lafayette, Moraga, and Orinda. The LPMC is supported by a technical advisory committee made up of technical staff from each locality. The Southwest Area Transportation Committee (SWAT) is the RTPC that oversees both the Lamorinda and Tri-Valley action areas and must be notified of any developments generating more than 100 peak hour trips, as required under the Measure J implementation documents. SWAT consists of elected representatives and technical staff from the Cities of Lafayette, Orinda, and San Ramon; the Towns of Danville and Moraga; and the unincorporated area of Southern Contra Costa County.

3.4.2 MTSOs for Routes of Regional Significance in Lafayette

On SR-24, the MTSO is Delay Index, which quantifies the degree to which congestion increases travel time. On Pleasant Hill Road, multiple MTSOs have been established, including Delay Index, side street wait time, peak hour vehicle occupancy, and peak hour level of service. In addition, the Lamorinda Action Plan establishes an MTSO for BART based on the ratio of passengers to available seats, for trains approaching the Lafayette station heading west and approaching the Orinda station heading east. Other RORS within Lamorinda but outside of the City of Lafayette include Camino Pablo/San Pablo Dam Road, Moraga Way, Moraga Road, Mount Diablo Boulevard, and the Lafayette-Moraga Regional Trail.

3.4.3 Gateway Constraints Policy

One key strategy for meeting MTSOs within Lamorinda is the Gateway Constraints Policy. The purpose of this policy is to control the amount of regional traffic passing through Lamorinda by restricting the physical width (capacity) of regional routes that serve Lamorinda and prohibiting jurisdictions from adding more capacity. By controlling the amount of regional traffic on these routes, the goal is to reserve some of the capacity for local residents. Capacity on SR-24 is constrained at Pleasant Hill Road in the east, where the westbound roadway narrows from five to four through lanes. On Pleasant Hill Road, capacity is restricted to two through lanes in each direction between Taylor Boulevard in the north and SR-24 in the south, and through signal timing at intersections within the corridor. The Gateway Constraints Policy goals are supported by a variety of traffic management strategies, including signal coordination on southbound Pleasant Hill Road. Due to signal coordination metering traffic at the northern end of the corridor, the Deer Hill Road/Stanley Boulevard intersection and SR-24 ramps experience lower congestion and no longer act as the primary constraints on southbound capacity.

3.5 Caltrans

Caltrans has jurisdiction over all state freeways and highways within the State of California, including intersections with these facilities. Among other duties, Caltrans is responsible for overseeing operations, maintenance, and new highway construction. Caltrans maintains a wide variety of data resources for use by other agencies, including highway performance and crash statistics. Within the project area, Caltrans has jurisdiction over SR-24, its ramps, and the intersections of those ramps with surface streets. Caltrans establishes its own operational standards independent of local agencies, however, it generally defers to the standards established by local agencies with jurisdiction over adjacent facilities. As such, Caltrans-

managed ramp intersections are typically analyzed based on standards established by the surrounding city or county.

4.0 METHODOLOGY AND SIGNIFICANCE THRESHOLDS

This chapter describes the methodology underlying this technical analysis, as well as the applicable significance thresholds established by each of the regulatory agencies described in section 3. All changes in methodology and significance thresholds between the 2012 study and this study are noted below.

4.1 Scenario Development

4.1.1 Data Collection & Adjustments

Peak hour turning movement counts were collected at the study intersections on multiple days in April and May 2019, with a goal of establishing representative traffic conditions for a typical weekday in the study area. In accordance with standard professional practice and requirements outlined in the CCTA *Technical Guidelines*, all data collection was conducted on non-holiday, midweek days when school was in session, during fair weather, and avoiding construction activities and road closures. Data collected in early April was later discarded due to the influence of overlapping spring break schedules among other nearby schools outside the immediate project vicinity, and anticipated low attendance levels immediately before and after spring breaks.

The key intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard (intersection #5) was used to estimate day-to-day variation in traffic levels between two days before and after May 1. This showed that on May 2, traffic at this intersection was approximately 1.86 percent higher in the a.m. peak hour and 0.36 percent higher in the p.m. peak hour, compared to peak hour traffic on April 30. School p.m. peak hour traffic was slightly lower on May 2 than on April 30. In consultation with City of Lafayette staff, the turning movement counts taken on April 30 at all other study intersections were factored up to reflect the difference in total traffic volume at Pleasant Hill Road & Deer Hill Road/Stanley Boulevard (1.86 percent in the a.m. peak, 0 percent in the school p.m. peak, 0.36 percent in the p.m. peak). For example, the total a.m. peak hour volume at Pleasant Hill Road & Acalanes Avenue was 2,677 vehicles on April 30. The measured volumes for each turning movement were then multiplied by 1.0186 to obtain an estimated total peak hour volume of 2,726. The analysis of Existing Conditions uses these factored turning movement volumes. Intersection turning movement counts for April 30 and May 2, 2019, are included in **Appendix A**.

4.1.2 Growth Factor for Cumulative Conditions

Projected traffic volumes for the future year of 2040 were calculated using a growth rate of 0.704 percent per year, derived from new 2018 and 2040 CCTA Traffic Forecasting Model outputs. The 0.704 percent per year growth rate is based on model outputs for mainline volumes on Pleasant Hill Road and Deer Hill Road. This annual growth was applied to 2019 factored traffic volumes, described above, to estimate traffic conditions for 2040.

4.1.3 Trip Generation

This study utilizes the automobile trip generation estimates developed for the 2012 study. Estimated project trip generation is based on published data from the ITE publication *Trip Generation (8th Edition)*, published in 2008. *Trip Generation* compiles observed trip generation data for a wide variety of land uses, collected across the United States and Canada over the course of multiple decades. Trip generation data

is broken down by time period (e.g., daily, weekday a.m. peak hour of adjacent street traffic), and independent variable (e.g., dwelling units, 1,000 sq. ft., employees). Both average rates and regression formulas for fitted curves are provided. In each edition, ITE includes updated data, removes the oldest data, and refines land use categories as needed. *Trip Generation* constitutes the standard professional reference for estimating the number of trips that will be generated by new development. Professional judgment is used to determine whether to apply average rates or fitted curve formulas for any specific project and analysis period. In the 2012 study, regression formulas were used for daily trips and trips generated during the a.m. and p.m. peak hours. As ITE does not publish school p.m. peak hour trip generation data, that peak hour trip generation rate was estimated based on the *Lafayette Downtown Specific Plan Draft EIR* (2009), based on published data from the Urban Land Institute, and other available traffic studies

It should be noted that the most recent edition of *Trip Generation* is the 10th, published in 2017. The 10th edition revised the selection of residential land uses to better reflect variations in trip generation rates. The proposed project would be classified as Apartments (ITE code 220) under the 8th edition and as Multifamily Housing (Mid-Rise) (ITE code 221) under the 10th edition. Average trip generation rates for Multifamily Housing (10th edition) are over 25 percent lower than for Apartment (8th edition), making the 8th edition trip generation estimates for the proposed project more conservative. Based on this, and for consistency with the prior study, trip generation based on the 8th edition was used throughout this study for identifying project impacts under CEQA. Trip generation calculations and results are described further in Section 6.2.

Project impacts were also reevaluated using 10th edition trip generation data. This analysis is summarized in Section 9.1, for comparison purposes only.

4.2 Level of Services Analysis

Level of Service (LOS) is a qualitative measure that describes operational conditions as they relate to the traffic stream and perceptions by motorists and passengers. The LOS generally describes these conditions in terms of such factors as speed and travel time, delays, freedom to maneuver, traffic interruptions, comfort, convenience and safety. The operational LOS are given letter designations from A to F, with A representing the best operating conditions (free-flow) and F the worst (severely congested flow with high delays). Intersections generally are the capacity-controlling locations with respect to traffic operations on arterial and collector streets.

LOS analysis was conducted using Synchro 10 software. Although the 2012 study utilized HCM 2000 methodology for evaluating intersection level of service, this new study uses the newer HCM 2010 methodology preferred in the CCTA *Technical Procedures*.

4.2.1 HCM 2010 Methodology – Signalized Intersections

The study intersections under traffic signal control were analyzed using the 2010 HCM Operations Methodology for signalized intersections described in Chapter 18 (HCM 2010). This methodology determines LOS based on average control delay per vehicle for the overall intersection during peak hour intersection operating conditions. The LOS methodology is approved and adopted by CCTA. Control delay

includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. **Table 1** summarizes the relationship between the control delay and LOS for signalized intersections. The LOS assessment under all scenarios is based on current traffic controls and optimized signal timing unless otherwise noted.

Table 1. Level of Service Definitions for Signalized Intersections

Level of Service	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.

Source: Highway Capacity Manual 2010

4.2.2 HCM 2010 Methodology – Unsignalized Intersections

The study intersections under all-way stop control were analyzed using the 2010 HCM Operations Methodology for all-way stop controlled intersections described in Chapter 20 (HCM 2010). LOS ratings for stop-sign controlled intersections are based on the average control delay expressed in seconds per vehicle. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The weighted average delay for the entire intersections is presented for all-way stop controlled intersections. **Table 2** summarizes the relationship between delay and LOS for stop-controlled intersections. The delay ranges for unsignalized intersections are lower than for signalized intersections, as drivers expect less delay at stop-controlled intersections.

Each of the study intersections was analyzed using Synchro Version 10 software and HCM 2010 methodology. The LOS assessment under all scenarios is based on current traffic controls unless otherwise noted. In addition, the peak hour signal warrant from the California Manual of Uniform Traffic Control Devices (MUTCD) was evaluated at the stop-controlled study intersections under all scenarios.

Table 2. Level of Service Definitions for Stop-Controlled Intersections

Level of Service	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.

Source: Highway Capacity Manual 2010

4.2.3 Signal Warrant Analysis

At unsignalized intersections operating at unacceptable level of service during either peak hour, TJKM conducted a Peak Hour Signal Warrant analysis. The California MUTCD 2014 (MUTCD) defines nine signal warrants to investigate the need for a traffic control signal. The Peak Hour signal warrant (Warrant 3) compares main street and side street traffic volumes during peak hours. This is the only signal warrant analysis used in this report, since only peak hour volumes are available in traffic studies involving future volumes. However, it should be noted that per the MUTCD, "The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal" (§4C.01). Signal warrant worksheets are included in the LOS appendices corresponding to each analysis scenario.

4.2.4 Level of Service Standards and Significant Impact Criteria

The Circulation Element of the City of Lafayette General Plan establishes acceptable level of service standards for signalized intersections within the City, with separate standards for intersections within and outside of the downtown area. The level of service standard is "Good LOS D" outside of downtown and "Poor LOS D" within downtown. All study intersections are outside of downtown. However, the General Plan bases its standards on the outdated CCTA methodology. It includes the HCM methodology for establishing performance targets only, rather than establishing standards of significance. In addition, the stated ranges of average delay that determine each LOS designation are based on the 1984 HCM methodology. These ranges were revised as of HCM 2000. It should be noted that although the CCTA methodology determines volume-to-capacity (V/C) ratio as the basis for LOS designation, the 2012 report

did not apply the CCTA methodology or report V/C ratios. Under HCM 2010 methodology, intersection-wide V/C ratios are not generated or used as the basis for LOS designation.

In consultation with City of Lafayette staff, and consistent with criteria used in the 2012 study, the following modified criteria were used for this analysis. The project would cause a significant impact at a signalized intersection if it would do the following:

- Cause a signalized intersection to deteriorate from "Good LOS D" (35-45 seconds) or better to "Poor LOS D" or worse, or
- Cause average delay to increase by five or more seconds at an intersection already operating at unacceptable level of service.

The General Plan does not establish level of service standards for unsignalized intersections. In consultation with City of Lafayette staff, and consistent with criteria used in the 2012 study, the following criteria were used for this analysis. The project would causes a significant impact at an unsignalized intersection if it does any of the following:

- Causes the overall level of service at an unsignalized all-way stop controlled intersection to degrade from LOS D or better to LOS E or F.
- Causes the level of service for the worst movement at a one- or two-way stop controlled intersection to degrade from LOS E or better to LOS F, where the intersection also meets at least one signal warrant.
- Causes average delay (whole intersection at all-way stop, worst movement at one- or two-way stop) to increase by five or more seconds at an intersection already operating at an unacceptable level of service.

It should be noted that the City of Lafayette *General Plan* does not directly apply level of service standards to intersections on Pleasant Hill Road between Taylor Boulevard and SR-24, instead deferring to standards established in the Lamorinda Action Plan. The current *Lamorinda Action Plan* establishes the Lafayette level of service standards as one of the corridor's MTSOs, however, this reference reiterates the outdated ranges of average delay based on 1984 HCM methodology. Therefore, this study applies the modified standards described above at all study intersections.

4.3 Queuing

Queuing analysis evaluates the adequacy of dedicated turn lanes to accommodate existing and expected traffic volumes. The 95th percentile queue length represents the maximum queue length experienced on a typical day and is widely used for designing new turn lanes and assessing project impacts on traffic at intersections. Queuing analysis can be done in a variety of ways, including macroscopic calculations based on traffic volumes and signal timing at individual intersections, and microsimulation. Microsimulation provides information on the way a roadway network functions overall, including the ways in which multiple intersections and changes in lane geometry affect traffic patterns. This is particularly helpful for traffic networks operating at or near capacity. For this study, queuing analysis was conducted using SimTraffic microsimulation software, in order to capture the effects of adjacent intersections and freeway

ramps. Simulated queuing operations were evaluated at the dedicated turn lanes of key signalized intersections and at project driveways, assuming an average vehicle length of 25 feet.

The 2012 study identified multiple significant impacts at turn lanes where the proposed project would cause queues to overflow the available storage length. For the purposes of this study and consistent with the 2012 analysis, the project would be considered to have a significant impact on intersection queuing operations if it would do the following:

- Cause the 95th percentile queue length at a dedicated turn lane to exceed the available storage length, or,
- At dedicated turn lanes where the 95th percentile queue already exceeds the available storage length, added project traffic would increase the 95th percentile queue by more than one vehicle.

4.4 Weaving Areas

Weaving areas are portions of a roadway where individual vehicles within two or more traffic streams may cross, without the control of traffic signals. Weaving areas can also be identified where drivers are required to merge lanes in a short length of roadway, including between closely spaced freeway ramps. The presence of a weaving area can affect roadway capacity by reducing the average vehicle speed, as drivers may slow down in order to identify openings in traffic and merge safely. Methodologies for evaluating weaving conditions typically assume the overall facility provides uninterrupted traffic flow, such as on freeways. Streets with traffic control affecting through traffic are defined as interrupted flow facilities. On Pleasant Hill Road near the project site, weaving areas exist between the closely spaced freeway ramps, and between ramps and nearby signalized intersections. Due to the presence of both controlled and uncontrolled intersections, microsimulation with SimTraffic was used to assess changes in traffic patterns on Pleasant Hill Road.

Impacts associated with weaving conditions can be evaluated based on how added traffic or changes in lane geometry affect average speed on a roadway segment. The 2012 study applied criteria based on a percent reduction in speed, however, this was changed in the final environmental impact report (FEIR). For the purposes of identifying significant impacts in this study, and consistent with criteria applied in the FEIR, the project would be considered to create an unacceptable and hazardous weaving condition if it would result in exceedance of the following speed reduction thresholds:

- 1.0 mile per hour (mph) within Speed Range Zone I (0-5.0 mph)
- 1.5 mph within Speed Range Zone II (5.1-10.0 mph)
- 2.0 mph within Speed Range Zone III (10.1-15.0 mph)
- 2.5 mph within Speed Range Zone IV (15.1-20.0 mph)
- 3.0 mph within Speed Range Zone V (20.1-25.0 mph)
- 4.0 mph within Speed Range Zone VI (25.1-30.0 mph)

4.5 Delay Index

Delay index (DI) is a metric for expressing the impact of congestion on travel time. It is a ratio of congested travel time to free flow travel time. On freeways, the free flow speed is typically 65 miles per

hour (mph), and on arterials it is typically the posted speed limit. Travel time is determined by the length of the corridor and the speed of travel. A delay index of 1.0 represents no delay, while a delay index of 2.0 indicates that it takes twice as long to travel through the corridor.

The methodology for determining delay index for specific analysis scenarios, utilizing the CCTA Travel Demand Model and data collected through routine monitoring, is outlined in detail in the CCTA *Technical Procedures*. This involves running the no-project model in the model baseline year and model horizon year and calculating the average annual growth in delay index between these years. Delay index for the "no project" analysis scenarios is the sum of the most recent observed delay index and the amount of expected growth between the observation year and the analysis scenario. For example, delay index for the analysis year of 2019 would be the delay index observed in 2017 plus two years of expected growth in delay index. Delay index for "plus project" scenarios utilizes the model baseline year (no project) and the model horizon year (with project) to calculate the annual growth with the project. Delay index for the "with project" analysis scenarios is the sum of the most recent observed delay index and the amount of expected growth in delay index with the project.

The *Lamorinda Action Plan* establishes delay index as one of the Multimodal Transportation Service Objectives (MTSOs) for the roadways designated as Routes of Regional Significance (RORS). Within the study area, Pleasant Hill Road between Taylor Boulevard and SR-24, and SR-24 between I-680 and the Caldecott Tunnel, are subject to delay index standards for peak hour, peak commute direction traffic. For Pleasant Hill Road, the standard is a delay index of 2.0 or lower, for southbound traffic in the a.m. peak hour and northbound traffic in the p.m. peak hour. For SR-24, the standard is 2.0 or lower currently, increasing to 2.5 or lower for 2030 and beyond, for westbound traffic in the a.m. peak hour and eastbound traffic in the p.m. peak hour.

The *Lamorinda Action Plan* and CCTA do not have established thresholds for how much a project may increase delay index before being considered significant. In consultation with City of Lafayette staff, this study makes use of the threshold assumed in the 2012 study. For the purposes of this study, the project would be considered to have a significant impact on delay index if it would:

- Cause an increase in delay index from acceptable to unacceptable, or
- Increase delay index by 0.05 or more on a roadway already operating with an unacceptable delay index.

It should be noted that the CCTA travel demand model generates peak period volumes for a.m. and p.m. peak periods only. In addition, delay index performance standards apply to a.m. and p.m. peak periods. As such, delay index was analyzed for the a.m. and p.m. peak hours, omitting the school p.m. peak hour.

In the course of conducting the delay index analysis for this study, the CCTA travel demand model outputs were closely analyzed to identify the source of multiple non-intuitive results. It was determined that the "plus project" model results could not be relied upon, and therefore the methodology described above was modified to utilize the same manual trip assignments used for the intersection analysis. In addition, the 2017 and 2013 MTSO monitoring results showed a substantial increase in reported delay index on SR-24. Both sets of monitoring results were compared to current speed data published on the

Caltrans Performance Measurement System (PeMS) website. It was determined that the delay index reported in 2017 on SR-24 systematically overestimates the existing delay index calculated from PeMS results. This may be due to changes in data collection and/or analysis methodology between monitoring cycles. Therefore, the delay index analysis results presented in this report for the study scenarios are based on projections from 2013 observed values rather than 2017 observed values. For example, delay index for the analysis year of 2019 would be the delay index observed in 2013 plus six years of expected growth in delay index.

4.6 CEQA Requirements and Other Standards

4.6.1 CEQA

CEQA requires lead agencies to assess several types of transportation/traffic related impacts. In addition to standards listed above, three types of project impacts were evaluated based on CEQA requirements:

1. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses.
2. Result in inadequate emergency access.
3. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

The potential hazards due to design features analyzed in this study include unacceptable weaving areas (described above), unsafe vehicle conflicts with bicycles and pedestrians, and inadequate sight distance at driveways. Consistent with the 2012 study, increases in emergency response times near the project site, due to project traffic, are included in the evaluation of emergency access.

Transit impacts include adding more demand than can be accommodated and interfering with existing or planned operations. Transit trips generated by the project were calculated based on peak hour automobile trips and recent census data for Lafayette residents. In consultation with City of Lafayette staff, the following criteria used in the 2012 study were applied to identify specific significant transit impacts related to capacity:

- Generate added transit ridership that would increase the peak hour average ridership at a BART station by three percent where average waiting time at fare gates also already exceeds one minute, or would exceed one minute as a result of ridership added by the project.
- Generate added transit ridership that would increase the AM load factor (ratio of passengers to seats) on a County Connection bus line such that it would be over capacity during the AM peak hour. (It should be noted that total capacity of a bus includes both seated and standing passengers.)

It should be noted that CEQA impacts include temporary impacts associated with construction. Mitigation of temporary construction impacts is typically included in a construction management plan developed in consultation with, and reviewed and approved by, lead agency staff.

4.6.2 Lamorinda Action Plan

On Pleasant Hill Road, the *Lamorinda Action Plan* establishes multiple MTSOs in addition to delay index. The following MTSOs are within the scope of this impact study:

1. Maintain a peak hour peak direction delay index of 2.0 or lower.
2. Maintain a maximum wait time for drivers on side streets wishing to access Pleasant Hill Road or Taylor Boulevard of one signal cycle or less.
3. Maintain a peak-hour level of service of Good D or better at signalized intersections, consistent with the Lafayette General Plan for intersections not in the downtown area, except at the gateways to the Action Plan area such as Rancho View Drive.

In addition to the standards listed above, the *Lamorinda Action Plan* specifies a standard of increasing vehicle occupancy on Pleasant Hill Road/Taylor Boulevard to at least 1.3 during the peak commute hours by 2018, maintaining an inventory of available pedestrian and bicycle facilities, and monitoring collision frequency.

4.7 Site review

Evaluation of a proposed project site involves review of physical design features, such as curb radii and aisle width, adequacy of site access for emergency and large vehicles, on-site circulation, pedestrian and bicycle access and facilities, and on-site parking. Sight distance at driveways is evaluated based on published design standards established by Caltrans and depends on both the design of the driveway and the specific geometry of the adjacent roadway. The proposed changes to the project frontage on Pleasant Hill Road were also evaluated for their impact on pedestrians, bicycles, buses, and available on-street parking. Adequacy of on-site parking supply is based on minimum off-street parking requirements established by the City of Lafayette.

5.0 EXISTING CONDITIONS

This section describes existing conditions in the immediate project vicinity, including roadway facilities, bicycle and pedestrian facilities, and available transit service. In addition, existing traffic volumes and operations are presented for the study intersections and roadway segments.

5.1 Existing Setting and Roadway System

Important roadways in the immediate vicinity of the project site are discussed below. Roadway functional classifications are identified in the California Road System (CRS) map, maintained by Caltrans.

State Route 24 (SR-24) is an east-west, eight lane freeway in the project vicinity, designated as a Route of Regional Significance within Contra Costa County. Access from SR-24 to the project site is provided via ramps on Pleasant Hill Road and Deer Hill Road. The posted speed limit on SR-24 is 65 miles per hour (mph).

Pleasant Hill Road is a generally north-south, four lane principal arterial in the project vicinity, designated as a Route of Regional Significance within Contra Costa County. Pleasant Hill Road originates in the City of Pleasant Hill and extends south to Olympic Boulevard. Pleasant Hill Road provides direct access to the project site, Acalanes High School, and SR-24. Pleasant Hill Road is classified as a principal arterial north of SR-24, where it carries a large volume of regional traffic and acts as an alternate route to I-680. South of SR-24, Pleasant Hill Road is classified as a minor arterial. In the immediate project vicinity, bike lanes are provided on both sides of the road; continuous sidewalks are present on the east side of the road; and on-street parking is permitted except during limited times. The posted speed on Pleasant Hill Road varies from 35 to 45 mph.

Deer Hill Road is an east-west, two to four lane principal arterial in the project vicinity, running parallel to SR-24 on the north side of the freeway. Deer Hill Road extends from Happy Valley Road in the west to Pleasant Hill Road to the east, connecting to the Lafayette BART station, SR-24, and the project site. East of Pleasant Hill Road, Deer Hill Road changes designation to Stanley Road, designated as a major collector. East of SR-24/Laurel Drive, the posted speed limit on Deer Hill Road is 45 mph. To the east of Pleasant Hill Road, it changes designation to the major collector Stanley Boulevard. In the immediate project vicinity, there are bike lanes but no sidewalks, and on-street parking is prohibited.

Stanley Boulevard is an east-west, two lane major collector in the project vicinity, extending east from Pleasant Hill Road. Stanley Boulevard provides direct access to Acalanes High School. Approximately one half mile east of Pleasant Hill Road, Stanley Boulevard again changes designation, to Springbrook Road. Near Pleasant Hill Road, there are continuous sidewalks on the north side of the road, along the high school frontage. The speed limit on Stanley Boulevard is 25 mph.

Mount Diablo Boulevard is an east-west, four lane principal arterial in the project vicinity that runs through the core of downtown Lafayette. Mount Diablo Boulevard extends from Acalanes Road in the west to Pleasant Hill Road in the east. In the project vicinity, sidewalks and bike lanes are present on both

sides, and parking is generally permitted. The posted speed limit on Mount Diablo Boulevard in the project vicinity is generally 35 mph, except in the downtown area where the speed limit is 25 mph.

Taylor Boulevard is a north-south, four lane principal arterial north of the project vicinity, designated as a Route of Regional Significance within the Central County action area of Contra Costa County. Taylor Boulevard extends north from Pleasant Hill Road, connecting to the Central County area, and acts as an alternate route to I-680. Immediately north of Pleasant Hill Road, there are bike lanes but no sidewalks, and the speed limit is 40 mph.

Reliez Valley Road is a generally north-south, two lane minor arterial that extends north from Pleasant Hill Road. Reliez Valley Road primarily provides access to residential areas, but is sometimes used as an alternate route south by residents of other communities north of Lafayette who wish to avoid the congested merge at Taylor Boulevard and Pleasant Hill Road. In the project vicinity, there are sidewalks on the south side of the road only, and parking is generally permitted on the north side. The speed limit on Reliez Valley Road is 30 mph.

First Street is a short north-south, two lane principal arterial that connects Deer Hill Road to Mt. Diablo Boulevard. North of Deer Hill Road, it changes designation to the local street Sierra Vista Way. There are sidewalks on both sides and limited on-street parking. The speed limit on First Street is 25 mph.

Old Tunnel Road is an east-west, two lane major collector that extends east from Pleasant Hill Road. Near Pleasant Hill Road, there are sidewalks on the north side of the road and on-street parking. The speed limit on Old Tunnel Road is 25 mph.

Local streets within the project vicinity include the following two-lane local roadways, generally serving residential areas and with speed limits of 25 mph: Acalanes Avenue, Green Valley Drive, Springhill Road/Quandt Road, and Rancho View Drive.

5.2 Existing Pedestrian Facilities

Walkability is defined as the ability to travel easily and safely between various origins and destinations without having to rely on automobiles or other motorized travel. The ideal "walkable" community includes wide sidewalks, a mix of land uses such as residential, employment, and shopping opportunities, a limited number of conflict points with vehicle traffic, and easy access to transit facilities, and services.

Pedestrian facilities are comprised of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access destinations such as institutions, businesses, public transportation, and recreation facilities.

Pedestrian facilities in the project vicinity reflect a semi-rural character. As shown in **Figure 3**, there are no existing continuous sidewalks on Deer Hill Road or on the west side of Pleasant Hill Road in the immediate project vicinity. On Pleasant Hill Road, there are continuous sidewalks on the east side of the roadway, as well as on the west side immediately south of the project frontage. On Stanley Boulevard, there are sidewalks on both sides close to Pleasant Hill Road and Acalanes High School, but east of the school they continue on the north side of the roadway only.

Major intersections generally feature crosswalks and pedestrian signal heads. Pedestrian activities during the morning school drop-off period are described below in Section 5.5.

The City of Lafayette *Master Walkways Plan*, last updated in 2015, provides a master walkways list for future capital improvements, including work completed to date and work remaining. The purpose of the master walkways list is to guide the City Council in selecting projects to include in the capital improvement program. Streets are included in the master walkways list based on several criteria including the amount of current or future pedestrian and vehicular volumes, use by children, and hazardous routes. This list includes the west side of Pleasant Hill Road between the SR-24 freeway on-ramp and Reliez Valley Road and the north side of Deer Hill Road from Pleasant Hill Road to Happy Valley Road.

5.3 Existing Bicycle Facilities

The *City of Lafayette Bikeways Master Plan* (adopted September 2006) provides a list of existing and proposed bicycle facilities in the City of Lafayette. It also contains the policy vision, design guidance, and specific recommendations to guide the development of pedestrian and bicycle facilities. Bicycle facilities include the following:

1. Bike Paths (Class I) – Paved trails that are separated from roadways
2. Bike Lanes (Class II) – Lanes on roadways designated for use by bicycles through striping, pavement legends, and signs
3. Bike Routes (Class III) – Designated roadways for bicycle use by signs or other markings may or may not include additional pavement width for cyclists

Within the immediate project vicinity, Pleasant Hill Road, Deer Hill Road, and most of Mt. Diablo Boulevard feature bike lanes on both sides of the roadway. There is also a section of multi-use path on both sides of Pleasant Hill Road south of Mt. Diablo Boulevard, which is part of the City's planned trail network. Existing bicycle facilities are shown in **Figure 3**.

At the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, the southbound bicycle lane widens to become a de facto right turn lane, and signage reminds drivers that turning vehicles may use the bike lane. Both the proposed project and the project variant would separate this shared lane into a dedicated bike lane and right turn lane.

5.4 Existing Transit Facilities

Transit service within the general project vicinity is provided by BART and County Connection, which provides bus service in Lamorinda, the Tri Valley, and Central Contra Costa County.

5.4.1 BART

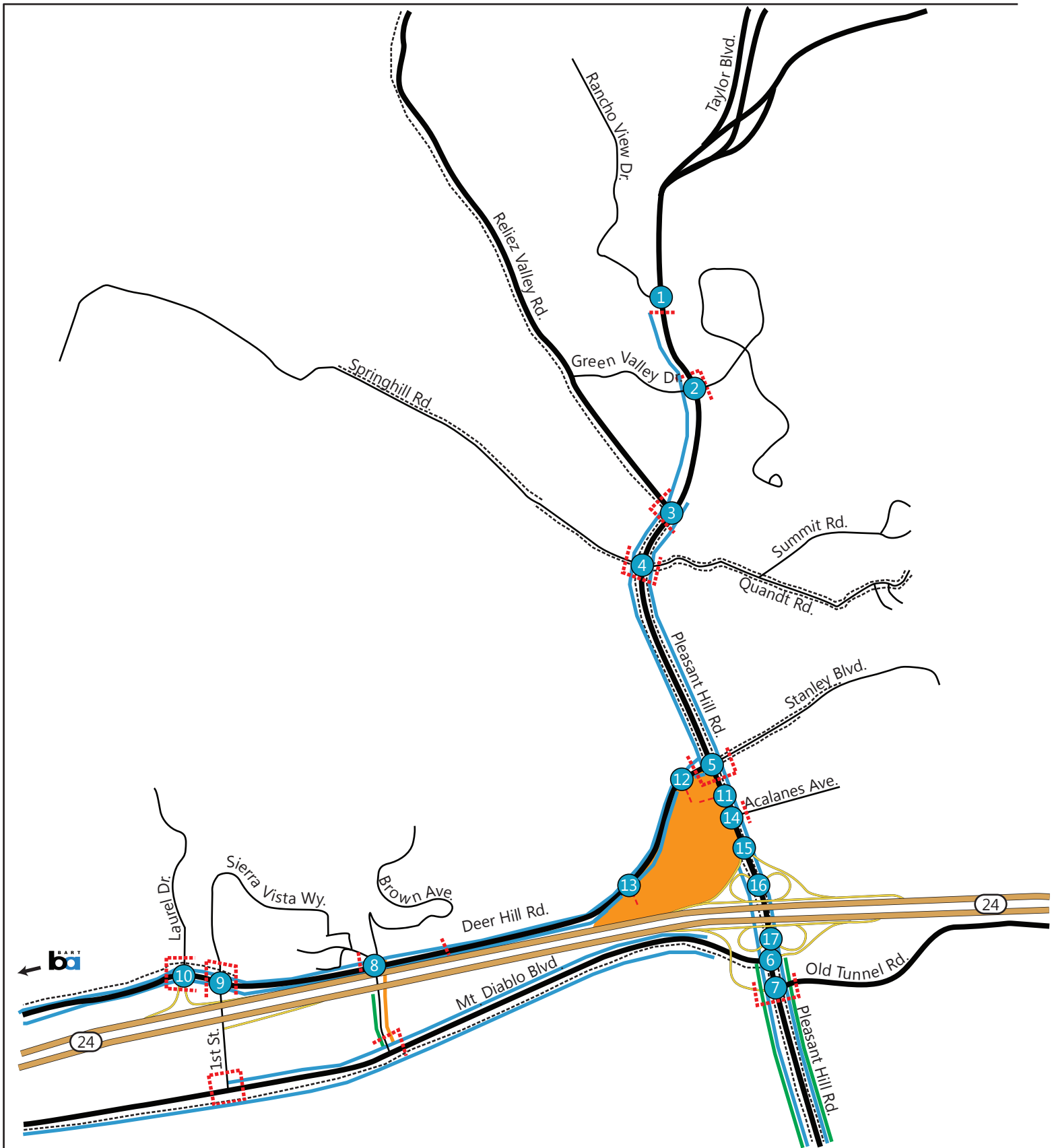
Regional rail transit is provided by Bay Area Rapid Transit (BART). The Lafayette BART station is located on Deer Hill Road, approximately 1.2 miles west of the project site, and is served by the Antioch – SFO/Millbrae line. As shown in **Figure 3**, the Lafayette BART station is outside of the immediate project vicinity and study area.

5.4.2 County Connection

There is currently one regular bus route serving Lamorinda, route 6, which connects the Orinda and Lafayette BART stations with central Moraga. However, as the nearest bus stop is at the Lafayette BART station and more than one mile away from the project site, it is farther away than most people are willing to walk to transit (¼ – ½ mile). County Connection offers paratransit services within ¾-1 ½ miles of regular fixed bus routes for riders with disabilities that prevent them from using transit independently. The project location is within the 1 ½ mile range from the Lafayette BART station.

County Connection also operates one school route near the project site, which connects Acalanes High School with the Lafayette BART station via Happy Valley Road and Mt. Diablo Road. This route consists of one bus to the high school in the morning and one bus toward BART in the afternoon, when school is in session.

Figure 3: Existing Pedestrian, Bicycle, and Transit Facilities



5.5 Characteristics of Pedestrian Operations and Parking along Project Frontages

As shown in **Figure 4**, the project frontages adjacent to the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard are currently used for passenger unloading during the morning drop-off period for Acalanes High School. Street parking is provided on both sides of Pleasant Hill Road from the SR-24 underpass to just south of Deer Hill Road. This section describes existing passenger drop-off operations, pedestrian behavior, and parking usage as observed on the morning of Tuesday, October 1, 2019.

5.5.1 High School Drop-Offs

There is a designated passenger loading zone (drop-off A) immediately south of the intersection, on the west side of Pleasant Hill Road. The rightmost southbound lane widens to approximately 20 feet, providing space for vehicles to pull out of traffic to drop off passengers. The space adjacent to the roadway is unpaved but flat, with a trodden path free of vegetation that leads to the curb ramp and crosswalks at the intersection.

Drop-off A: West side of Pleasant Hill Road south of Deer Hill Road

Drop-off B: South side of Deer Hill Road west of Pleasant Hill Road

A large number of students are also dropped off on Deer Hill Road immediately west of the intersection (drop-off B), by vehicles waiting at the signal to turn right onto Pleasant Hill Road. Students are dropped off into the bike lane and walk toward a narrow trodden path closer to the intersection. Part of this path is obstructed by the traffic signal controller cabinet, PG&E service point, and pull boxes.

In addition to curbside drop-offs at areas A and B, some vehicles also drop off students on the raised median island (area C), as they wait in the northbound left turn lane. Most students walk along the median to the intersection, and wait for a pedestrian walk signal. A small number of students were

observed crossing northbound Pleasant Hill Road from the median to the sidewalk during periods when traffic was completely stopped.

Students waiting to cross Pleasant Hill Road

Although a large number of students are dropped off outside of designated passenger loading areas and in areas without pedestrian facilities, observations indicated that students generally navigate this environment safely and with respect for the traffic signal.

5.5.2 Street Parking Usage

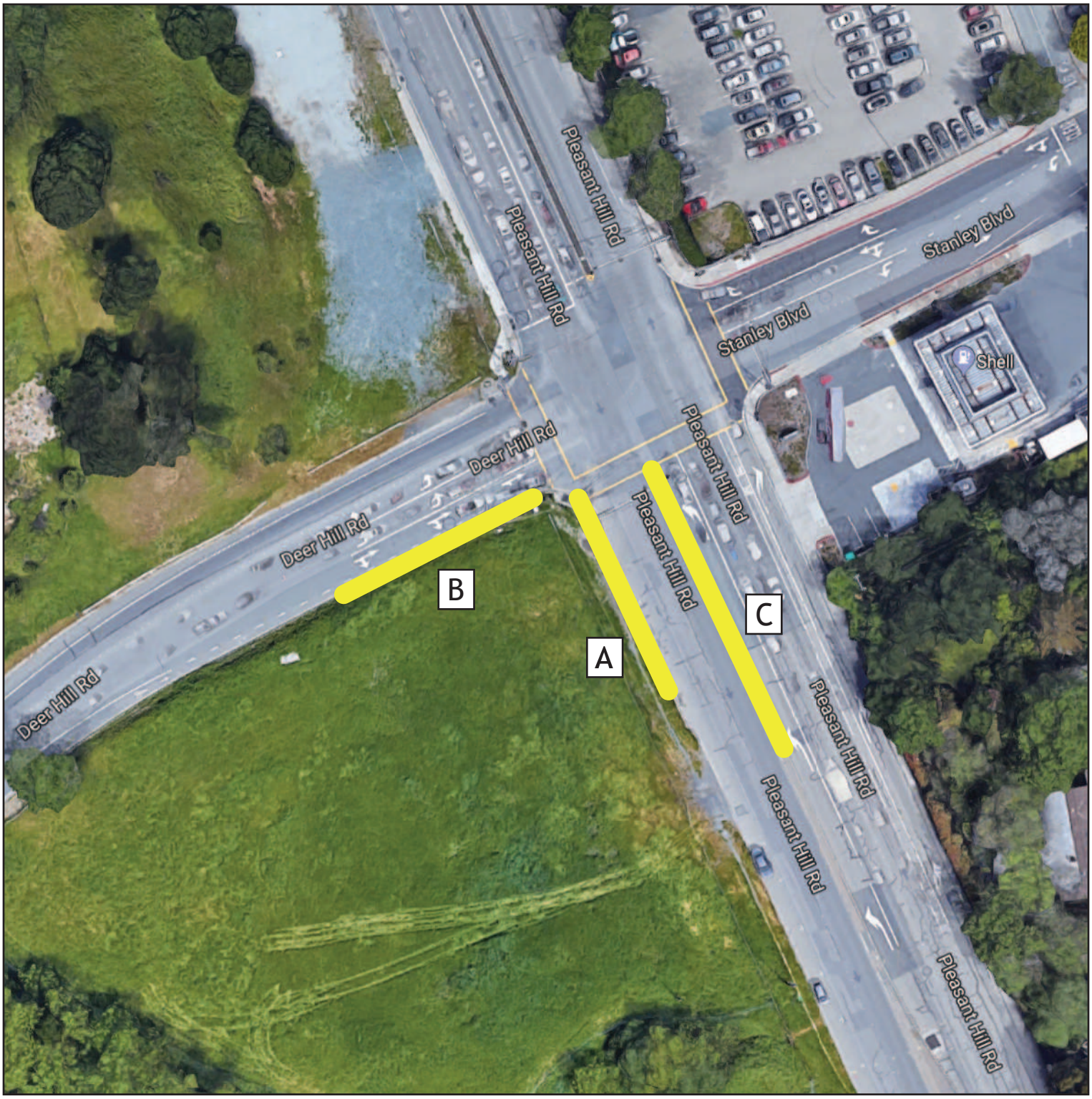
Street parking along and to the south of the project frontage consists of marked individual spaces, with signage prohibiting parking between 3-6 a.m. and on Saturdays, Sundays, and holidays. According to the current Acalanes High School parking policy, which applies to and must be signed by all students applying for parking permits, use of street parking is limited to staff. The policy notes that it is also enforced by the Lafayette Police Department[2]

On the morning of October 1, 2019, parking along the project frontage was entirely vacant, with few cars parked in any other marked spaces along Pleasant Hill Road. This suggests that these spaces are not typically used for high school-related parking on typical weekdays. However, these spaces may be used for events or by vehicles waiting to pick up students after school.

Vacant parking along Pleasant Hill Road frontage

[2] Acalanes High School Parking Policy, *available at* https://www.acalanes.k12.ca.us/cms/lib01/CA01001364/Centricity/Domain/391/registration/ParkingPolicy.pdf.

Figure 4: Passenger Loading Operations on Project Frontages



LEGEND

Passenger Loading Zones

N

TJKM

5.6 Level of Service and Average Delay Analysis

As described in Section 4.1, existing operations of the study intersections were evaluated for the highest one-hour volume during the weekday morning, after school, and evening peak periods based on existing vehicle volumes with adjustments described in detail in section 4.1.1. Existing signal timing and phasing for intersections on Pleasant Hill Road were obtained from the signal coordination plan prepared by TJKM in 2016, with subsequent timing changes provided by City of Lafayette Staff. Signal timing for other signalized intersections was assumed using default parameters established in the CCTA *Technical Procedures*, with optimized cycle length and phases splits. Intersection operations were analyzed using Synchro 10 software and the HCM 2010 methodology. In addition to calculating average delay and level of service, the average side street wait time was also calculated for unsignalized intersections on Pleasant Hill Road north of SR-24. These wait times were used to calculate the average number of cycles drivers on side streets must wait to pass through the intersection. As stated in the *Lamorinda Action Plan*, one of the multimodal transportation service objective (MTSO) established for Pleasant Hill Road states that average side street wait times should not exceed one cycle. Traffic volumes, lane geometry, and traffic controls for this scenario are shown in **Figure 5**.

The results of the LOS analysis and side street waiting times using the Synchro 10 software program for Existing Conditions are summarized in **Table 3**. Under this scenario, all but one of the signalized intersections on Pleasant Hill Road operates at unacceptable "poor LOS D" or worse during the a.m. and p.m. peak hours. The signalized intersections at Rancho View Drive, Reliez Valley Road, and Deer Hill Road/Stanley Boulevard also operate at unacceptable LOS during the school p.m. peak hour. The signalized intersection of Pleasant Hill Road & SR-24 Eastbound Off-Ramp/Old Tunnel Road and the unsignalized intersection of Pleasant Hill Road & Acalanes Avenue operate at acceptable LOS C or better during all peak hours.

On Deer Hill Road, the signalized intersection at SR-24 Westbound Ramps/Laurel Drive and the unsignalized intersection at Brown Avenue would both operate at unacceptable LOS E or F during all peak hours. The signalized intersection of Deer Hill Road & First Street/Sierra Vista Way operates at acceptable LOS C during all peak hours. Under this scenario, only the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard operates with a side street wait time of more than one cycle.

A peak hour signal warrant analysis was conducted at the two unsignalized intersections, to determine if a traffic signal may be warranted. A signal **is not warranted** at either intersection under this scenario. LOS worksheets and peak hour signal warrants are provided in **Appendix C**.

Table 3. Level of Service Analysis – Existing Conditions

ID	Study Intersection	Control	Peak Hour[1]	Cycle Length[2]	Existing		
					Delay[3]	LOS[4]	Side St. Cycles[5]
1	Pleasant Hill Road & Rancho View Drive	Signal	AM	75	**118.4**	**F**	0.3
			School	100	**55.9**	**E**	0.3
			PM	62	**296.0**	**F**	0.2
2	Pleasant Hill Road & Green Valley Drivel	Signal	AM	75	**61.4**	**E**	0.4
			School	130	43.6	D	0.3
			PM	62	**348.0**	**F**	0.2
3	Pleasant Hill Road & Reliez Valley Road	Signal	AM	150	**68.3**	**E**	0.3
			School	100	**45.5**	**D**	0.3
			PM	100	**89.2**	**F**	0.3
4	Pleasant Hill Road & Spring Hill Road	Signal	AM	150	**106.4**	**F**	0.4
			School	140	23.6	C	0.3
			PM	62	**95.8**	**F**	0.4
5	Pleasant Hill Road & Deer Hill Road/ Stanley Boulevard	Signal	AM	150	**112.8**	**F**	0.5
			School	125	**73.6**	**E**	**1.8**
			PM	135	**104.3**	**F**	**2.4**
6	Pleasant Hill Road & Mt. Diablo Boulevard	Signal	AM	70	**204.2**	**F**	0.4
			School	80	19.8	B	0.2
			PM	70	**90.2**	**F**	0.4
7	Pleasant Hill Road & SR 24 EB Off Ramp	Signal	AM	60	9.0	A	0.2
			School	60	9.6	A	0.2
			PM	60	10.8	B	0.2
8	Deer Hill Road & Brown Avenue	Two-Way Stop Control	AM		**318.6**	**F (NB)**	
			School		**84.9**	**F (SB)**	
			PM		**52.4**	**F (NB)**	
9	Deer Hill Road & First Street/ Sierra Vista Way	Signal	AM		23.2	C	
			School		22.7	C	
			PM		22.2	C	
10	Deer Hill Road & SR 24 WB Ramps/ Laurel Drive	Signal	AM		**71.6**	**E**	
			School		**55.9**	**E**	
			PM		**57.3**	**E**	
14	Pleasant Hill Road & Acalanes Avenue	One-Way Stop Control	AM		20.7	C	
			School		23.3	C	
			PM		22.7	C	

Notes:
[1] Peak periods: AM: 7-9 a.m., School PM: 2-4 p.m.; PM: 4-7 p.m.
[2] At Pleasant Hill Road signals only, traffic cycle length expressed in seconds.
[3] Average delay expressed in seconds. At side-street stop controlled intersection, average delay is reported for the minor street approach.
[4] "Good LOS D" at signalized intersections is defined as delay of 35.1-45 seconds. "Poor LOS D" defined as delay of 45.1-55 seconds.
[5] At Pleasant Hill Road signals only, the wait time for side street vehicles, expressed as side street delay divided by cycle length.
Bold indicates intersection operates at unacceptable LOS.

5.7 Queuing Analysis

TJKM analyzed the peak hour 95th percentile queue lengths for all dedicated turn lanes and signalized study intersections, using the Synchro traffic model to generate traffic simulation in SimTraffic. Simulation can take into account the effects of cross traffic at unsignalized intersections and the interactions of closely spaced intersections on queue development. Estimated 95th percentile queue lengths for each scenario were developed using five one-hour simulation runs for each peak hour. For the proposed project, queuing operations at the key study intersection of Pleasant Hill Road & Deer Hill Road/Stanley

Boulevard were of primary concern. **Table 4** summarizes the estimated 95th percentile queue lengths at this intersection for Existing Conditions. Simulation analysis summary sheets are included in **Appendix C**.

At the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, all dedicated turn lanes experience some degree of queue overflow during all three peak hours. It should be noted that the southbound right turn lane is currently a de factor turn lane. The existing lane striping indicates that it is a bike lane. However, the pavement is widened to accommodate a lane of traffic, and signage reminds drivers that they may use the bike lane for turning right. Due to these operational characteristics, it was treated as a dedicated turn lane for the purpose of this analysis. Both the proposed project and the project variant would include widening of this approach to create separate bike and right turn lanes, reducing hazardous conflicts and increasing the available storage length.

Table 4. Queuing Analysis – Existing Conditions

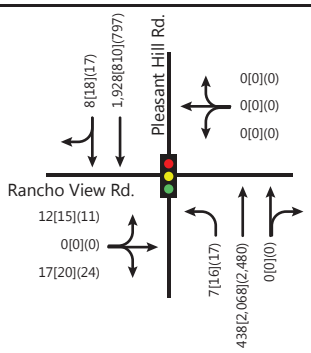
ID	Study Intersections	Lane Group	Storage Length	Peak Hour	Queue Length
5	Pleasant Hill Rd. & Deer Hill Rd./Stanley Blvd.	Eastbound Left	100	AM	**140**
				SCH	**125**
				PM	**125**
		Westbound Left	185	AM	**285**
				SCH	**290**
				PM	**310**
		Westbound Right	95	AM	**230**
				SCH	**210**
				PM	**185**
		Northbound Left	255	AM	**295**
				SCH	**380**
				PM	**290**
		Southbound Left	175	AM	**275**
				SCH	**305**
				PM	**330**
		Southbound Right	180	AM	**270**
				SCH	**275**
				PM	**230**

Notes: Storage length and 95th percentile queue are expressed in feet per lane, rounded to the nearest five feet. For queue increases of less than 25 feet, no additional vehicles would appear in the lane(s).

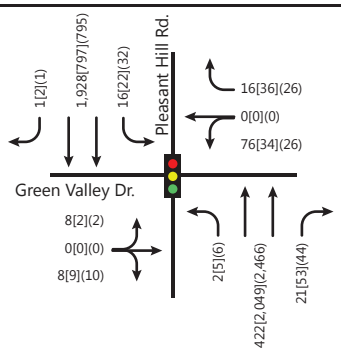
Bold indicates overflow.

Figure 5a: Existing Traffic Volumes, Lane Geometry, and Controls

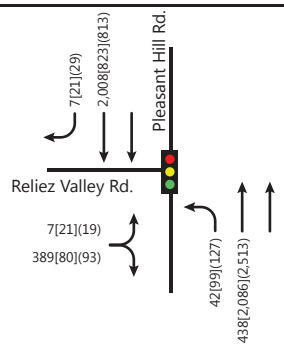
Intersection #1
Pleasant Hill Rd. / Rancho View Rd.



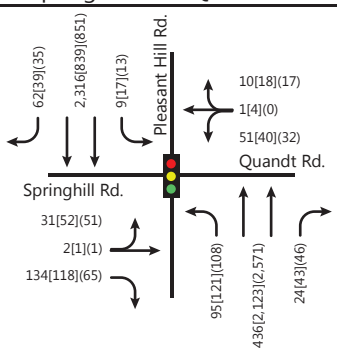
Intersection #2
Pleasant Hill Rd. / Green Valley Dr.



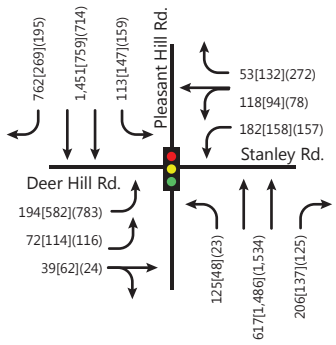
Intersection #3
Pleasant Hill Rd. / Reliez Valley Rd.



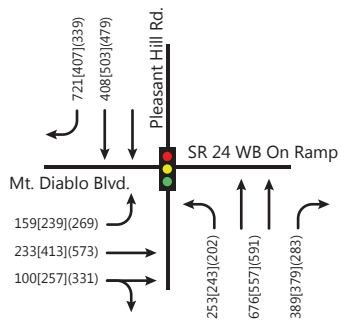
Intersection #4
Pleasant Hill Rd. / Springhill Rd. / Quandt Rd.



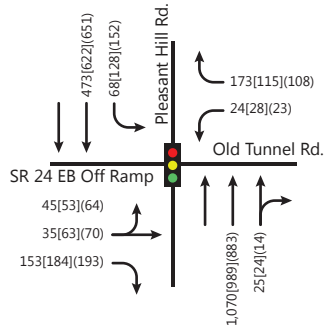
Intersection #5
Pleasant Hill Rd. / Deer Hill Rd. / Stanley Blvd.



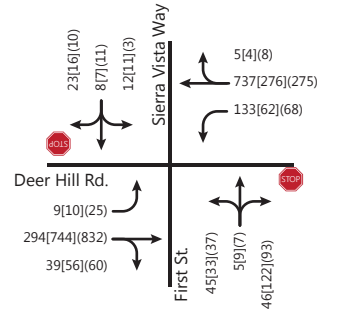
Intersection #6
Pleasant Hill Rd. / Mt. Diablo Blvd. / SR 24 WB On Ramp



Intersection #7
Pleasant Hill Rd. / Old Tunnel Rd. / SR 24 EB Off Ramp



Intersection #8
Brown Ave. / Deer Hill Rd.



LEGEND

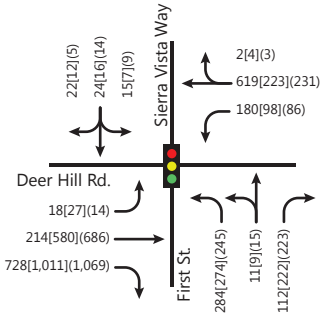
- Stop Sign
- Study Intersection
- Project Site
- Project Driveway
- Traffic Signal
- XX — AM Peak Hour Volume
- [XX] — School PM Peak Hour Volume
- (XX) — PM Peak Hour Volume

N

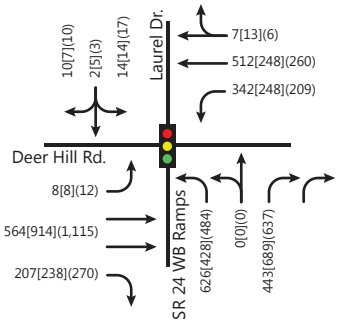
TJKM

Figure 5b: Existing Traffic Volumes, Lane Geometry, and Controls

Intersection #9
First St. / Sierra Vista Wy. / Deer Hill Rd.



Intersection #10
SR 24 WB Ramps / Laurel Dr. / Deer Hill Rd.



Intersection #11
Pleasant Hill Rd. / Project Dwy.

Future Project Dwy.

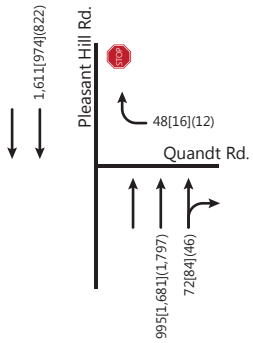
Intersection #12
Deer Hill Rd. / East Project Dwy.

Future Project Dwy.

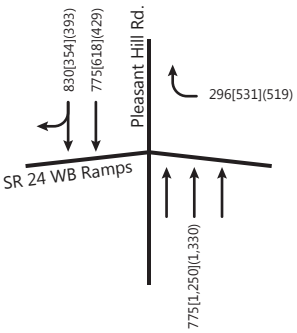
Intersection #13
Deer Hill Rd. / West Project Dwy.

Future Project Dwy.

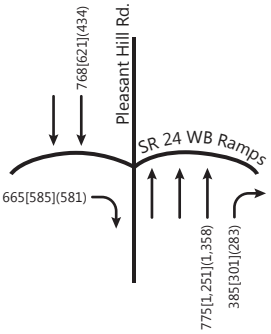
Intersection #14
Pleasant Hill Rd. / Acalanes Ave.



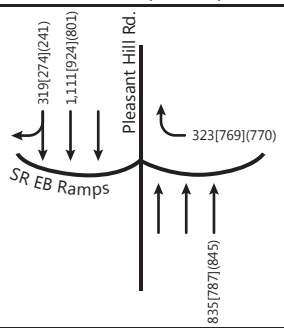
Intersection #15
Pleasant Hill Rd. / SR 24 WB Direct Ramps



Intersection #16
Pleasant Hill Rd. / SR 24 WB Loop Ramps



Intersection #17
Pleasant Hill Rd. / SR EB Loop Ramps



LEGEND

- Stop Sign
- Study Intersection
- Project Site
- Project Driveway
- Traffic Signal
- XX — AM Peak Hour Volume
- [XX] — School PM Peak Hour Volume
- (XX) — PM Peak Hour Volume

N

TJKM

5.8 Delay Index

Delay index on both Pleasant Hill Road and SR-24 was estimated for year 2019 conditions, using methodology based on the CCTA *Technical Procedures* as summarized in Section 4.5. This involved estimating the expected growth in delay index based on modeling results for 2018 and 2040, and adding the appropriate years of growth in delay index to observed values. This analysis utilizes the MTSO monitoring results from 2013, as it was determined based on current speed data published on the Caltrans PeMS website that the delay index reported in the MTSO monitoring results from 2017 for SR-24 systematically overestimates the existing delay index from PeMS results. This may be due to changes in data collection and/or analysis methodology between monitoring cycles in 2013 and 2017, which may have resulted in anomalous increases in peak direction delay index, as described in Section 4.5. **Tables 5** and **6** include both the 2013 and 2017 delay index observations for comparison purposes. It should be noted that the CCTA travel demand model generates peak period volumes for a.m. and p.m. peak periods only, and the periodic monitoring reports cover the same periods. As such, delay index was analyzed for the a.m. and p.m. peak hours, omitting the school p.m. peak hour.

As shown in **Table 5**, Pleasant Hill Road operated within acceptable delay index limits (2.0 maximum) in 2013, but the 2017 monitoring results indicate that the southbound direction exceeded that limit for the a.m. peak hour. Projections for 2019, based on the 2013 monitoring results, show that Pleasant Hill Road would operate within acceptable delay index limits in both peak directions.

Similarly, as shown in **Table 6**, SR-24 operated within acceptable delay index limits (2.0 maximum) in 2013, but the 2017 monitoring results indicate that the eastbound direction exceeded that limit in the p.m. peak hour. Projections for 2019, based on the 2013 monitoring results, show that SR-24 would operate within acceptable delay index limits in both peak directions.

Table 5. Pleasant Hill Road Delay Index – Existing Conditions

Direction	Peak Hour[1]	Peak Direction	2013 Observed[2]	2017 Observed[2]	2019 Projected[3]
Northbound	AM	No	1.2	1.4	1.20
	PM	Yes	1.4	2.0	1.74
Southbound	AM	Yes	1.2	**2.4**	1.34
	PM	No	1.3	1.3	1.40

Notes:
[1] Peak periods: AM: 7-9 a.m.; PM: 4-7 p.m.
[2] Source: *2017 MTSO Monitoring Report (Draft)*, CCTA.
[3] Calculated per CCTA *Technical Guidelines*
Bold indicates facility operates at unacceptable delay index.

Table 6. SR-24 Delay Index – Existing Conditions

Direction	Peak Hour[1]	Peak Direction	2013 Observed	2017 Observed[2]	2019 Projected[3]
Eastbound	AM	No	1.0	1.1	1.02
	PM	Yes	1.4	**2.3**	1.48
Westbound	AM	Yes	1.7	2.0	1.84
	PM	No	1.5	1.0	1.54

Notes:
[1] Peak periods: AM: 7-9 a.m.; PM: 4-7 p.m.
[2] Source: *2017 MTSO Monitoring Report (Draft)*, CCTA.
[3] Calculated per CCTA *Technical Guidelines*
Bold indicates facility operates at unacceptable delay index.

6.0 EXISTING PLUS PROJECT CONDITIONS

This analysis scenario presents the impacts of the proposed project at the study intersections and surrounding roadway system. This scenario is identical to Existing Conditions, but with the addition of projected traffic from the proposed development and proposed changes in roadway geometry.

6.1 Proposed Project and Project Variant

The proposed project would construct 315 apartments at the southwest corner of Deer Hill Road and Pleasant Hill Road, immediately north of SR-24. This land is currently undeveloped. **Figure 2** shows the refined project site plan, dated June 19, 2019. Detailed civil engineering drawings were also provided to TJKM, dated April 24, 2019. Among other improvements and widening on Pleasant Hill Road, the proposed project would add a new southbound through lane, beginning just north of Deer Hill Road/Stanley Boulevard, which would become a trap lane for the SR-24 Westbound Ramps. This study analyzes the proposed project and a project variant that omits the southbound through lane. Policy-related considerations for both the proposed project and project variant are discussed in Section 9.6. A detailed site plan evaluation is included in Section 9.2. Based on the annotated site plan and the detailed civil engineering drawings, key refinements to the project as proposed in 2012 and evaluated in this study are listed below.

The following measures were included either to incorporate mitigation measures specified in the 2012 traffic study or to eliminate or reduce to a less-than-significant level otherwise significant impacts:

1. Relocate the west driveway on Deer Hill Road 100 feet to the west of the location shown on the original 2011 project plans, and add a painted median island prohibiting left turns into the driveway from westbound Deer Hill Road. A westbound median refuge lane would also be added, to allow exiting vehicles to make two-stage left turns during periods of heavy cross traffic.
2. Relocate the east driveway on Deer Hill Road 80 feet to the west of the location shown on the original project plans, and add a new 250 ft. left turn lane for storage of westbound vehicles.
3. Reconfigure the northeast section of the project site, including the east driveway and building N parking area, to address drainage and grading considerations.
4. At project driveways and internal crosswalks, add special design treatments, such as paving to be specified by the City Engineer, to alert drivers that they are crossing pedestrian and bicycle facilities.
5. Revise the project site plans such that corner radii and medians at on-site driveway intersections provide a minimum inside turning radius of 25 feet and a minimum outside turning radius of 45 feet, per Contra Costa County Fire Protection District (CCCFPD) requirements. Project driveways and internal intersections now provide sufficient width and turning radii to allow adequate truck access.
6. Remove the previously proposed median break on Pleasant Hill Road opposite the project driveway, to prevent northbound left turns into and eastbound left turns out of the project site.

7. Extend the existing northbound left turn lane at Pleasant Hill Road & Deer Hill Road/Stanley Boulevard to Acalanes Avenue, to accommodate existing and Project-related traffic.
8. Widen Pleasant Hill Road to add the following:
    a. A third lane for southbound through traffic between Deer Hill Road and SR-24. The lane would start approximately 400 feet north of Deer Hill Road and extend south along the entire Project frontage on Pleasant Hill Road to become a right-turn-only lane for the on-ramp to westbound SR 24 (i.e., a "trap" lane).
        i. Note: the project variant also studied in this report does not include this added lane.
    b. A southbound right turn lane at Deer Hill Road, separating right turning vehicles from the bike lane. The existing bike lane widens near the intersection to be used as a turn lane.
    c. On-street bike lanes that would be located to the left of dedicated right turn lanes. This would also apply to the proposed trap lane for the southbound SR-24 on-ramp.
    d. A dedicated passenger loading and bus turn-out area to replace the passenger loading spaces that would otherwise be eliminated.
9. Construct a new Class I shared path for bicycles and pedestrians along the Pleasant Hill Road frontage, consistent with City plans to construct a bike path in this location. The pavement width and buffer area will be adequate to permit pedestrians to access loading spaces, and the intersection with the Project driveway will include adequate sight distance and appropriate surface treatments to prevent hazards to pedestrians and bicyclists.

For purposes of the following descriptions, the term "upper loop" refers to the on-site driveway closest to Deer Hill Road that serves buildings A, B, C, and D, and connects the west Project driveway on Deer Hill Road to the Pleasant Hill Road driveway. The "lower loop" refers to the on-site driveway closer to the southerly property boundary that serves buildings E through L and the Clubhouse, terminating at the east Project driveway on Deer Hill Road. Other refinements to the 2011 site plan include the following measures:

10. Revise the site plan to include construction of additional on-site pedestrian facilities, including stairs and walkways on alignments as needed, to provide more direct pedestrian connections for the following routes:
    a. Between Deer Hill Road and Building A, along the west Project driveway
    b. Between Building D and Pleasant Hill Road near Building M, along the upper loop driveway
    c. Between Building G and Deer Hill Road, along the lower loop driveway
    d. Between Building L and the Leasing Office, along the lower loop driveway
    e. Between Building M and the recommended facility along the upper loop driveway
    f. Between Building N and the upper loop driveway, with crosswalks to connect with the recommended Building M connection
11. Ensure that all sidewalks satisfy City guidelines for minimum width and buffer strips.

Proposed landscaping and signage are not shown on civil engineering plans and are generally finalized later in the project development process and are subject to review and approval by City of Lafayette staff. The following refinements are considered part of the proposed project for the purposes of this study:

12. To maintain adequate sight-distance, all landscaping within 15 feet of on-site driveway intersections shall be limited to plants with foliage no more than 30 inches fully mature height above the closest adjacent curb elevation, or trees with canopy foliage no less than seven feet above the closest adjacent curb elevation, or other dimensions as specified by the City Engineer. Final plans will ensure that that landscaping and signage, monuments, etc., do not obstruct sight lines at driveways and along the project frontages.
13. At the on-site four-way intersection of the upper loop and lower loop driveways, which connect to Pleasant Hill Road and the east driveway on Deer Hill Road respectively, two-way stop sign control will be installed on one of the two driveways.

6.2 Trip Generation

Consistent with the original TIS completed by TJKM in 2012, trip generation was estimated using regression formulas published in the Institute of Transportation Engineers publication *Trip Generation, 8th Edition* (2008). As shown in **Table 7**, the project is expected to generate 2,032 total daily trips, including 158 a.m. peak hour trips (32 in, 126 out), 148 school p.m. peak hour trips (71 in, 77 out), and 191 p.m. peak hour trips (117 in, 74 out).

It should be noted that newer trip generation data published in the current *Trip Generation, 10th Edition* (2017) would result in a lower estimate of new trips generated by the proposed project. This study conservatively retains the same trip estimates used in the 2012 study. Notable changes between the 8th and 10th editions are described in more detail in Section 4.2.Analysis results based on alternative trip generation estimates using the newer *Trip Generation, 10th Edition* are provided in Section 9.1 for informational purposes only.

6.3 Trip Distribution and Assignment

Trip distribution is a process that determines in what proportion vehicles would be expected to travel between the project site and various destinations outside the project study area. Assignment determines the various routes that vehicles would take from the project site to each destination using the estimated trip distribution. For this study, project trip distribution and assignment are generally identical to the 2012 study, as there have been no changes to the project size or the layout of the surrounding roadway network. Minor trip reassignments have been included at the project driveways and at the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, due to changes in driveway access and resulting driver behavior. Closing the median on Pleasant Hill Road and improving access at the east Deer Hill Road driveway change which driveways would be used by drivers traveling to and from certain directions. Project trip distribution and assignment are shown in **Figure 6**.

Project trip distribution assumptions are as follows

- 21 percent to/from SR-24 to the west, via Pleasant Hill Road
- 24 percent to/from SR-24 to the east
- 13 percent to/from Pleasant Hill Road/Taylor Boulevard to the north
- 16 percent to/from Pleasant Hill Road to the south
- 18 percent to/from Deer Hill Road to the west
- Eight percent to/from Stanley Boulevard to the east

Table 7. Project Trip Generation

Land Use[1]	Size	*Daily*		*AM Peak*					*School PM Peak*					*PM Peak*				
		Rate[1,2]	*Trips*	*Rate[1,2]*	*In:Out*	*In*	*Out*	*Total*	*Rate[23]*	*In:Out*	*In*	*Out*	*Total*	*Rate[1,2]*	*In:Out*	*In*	*Out*	*Total*
Apartments (220)	315 DU	6.45	2,032	0.50	20:80	32	126	158	0.47	48:52	71	77	148	0.61	61:39	117	74	191
Total Trips			**2,032**			**32**	**126**	**158**			**71**	**77**	**148**			**117**	**74**	**191**

Notes

[1] Source: ITE *Trip Generation Manual, 8th Edition*, 2008

[2] Rates calculated based on Total trips from regression equation, divided by size:

Daily: Total trips = 6.06 (DU) + 123.56

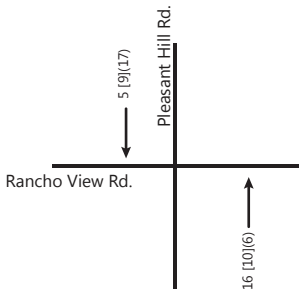
A.M. Peak: Total trips = 0.49 (DU) + 3.73

P.M Peak: Total trips = 0.55 (DU) + 17.65

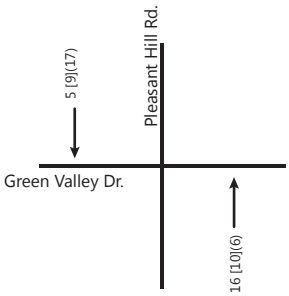
[3] School P.M. Peak Rate is the same proportion of the Daily Rate as that used in the *Lafayette Downtown Specific Plan Draft EIR* (2009) for residential land use, based on Urban Land Institute (ULI) published data and other available traffic studies.

Figure 6a: Project Trip Distribution and Assignment

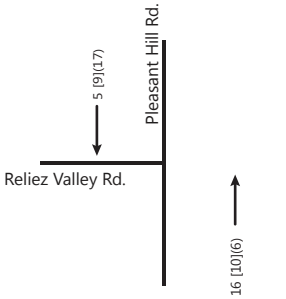
Intersection #1
Pleasant Hill Rd. / Rancho View Rd.



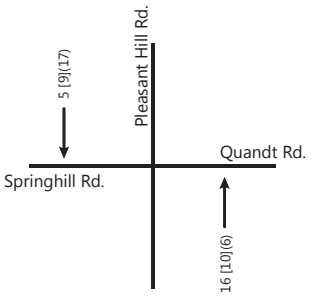
Intersection #2
Pleasant Hill Rd. / Green Valley Dr.



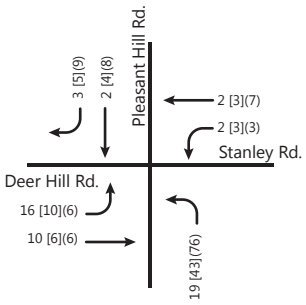
Intersection #3
Pleasant Hill Rd. / Reliez Valley Rd.



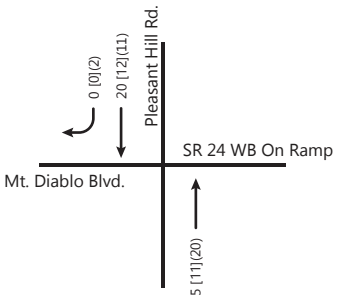
Intersection #4
Pleasant Hill Rd. / Springhill Rd. / Quandt Rd.



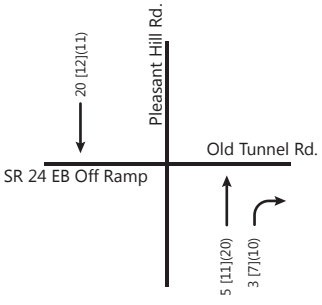
Intersection #5
Pleasant Hill Rd. / Deer Hill Rd. / Stanley Blvd.



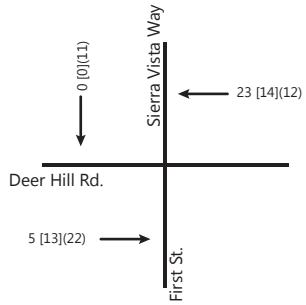
Intersection #6
Pleasant Hill Rd. / Mt. Diablo Blvd. / SR 24 WB On Ramp

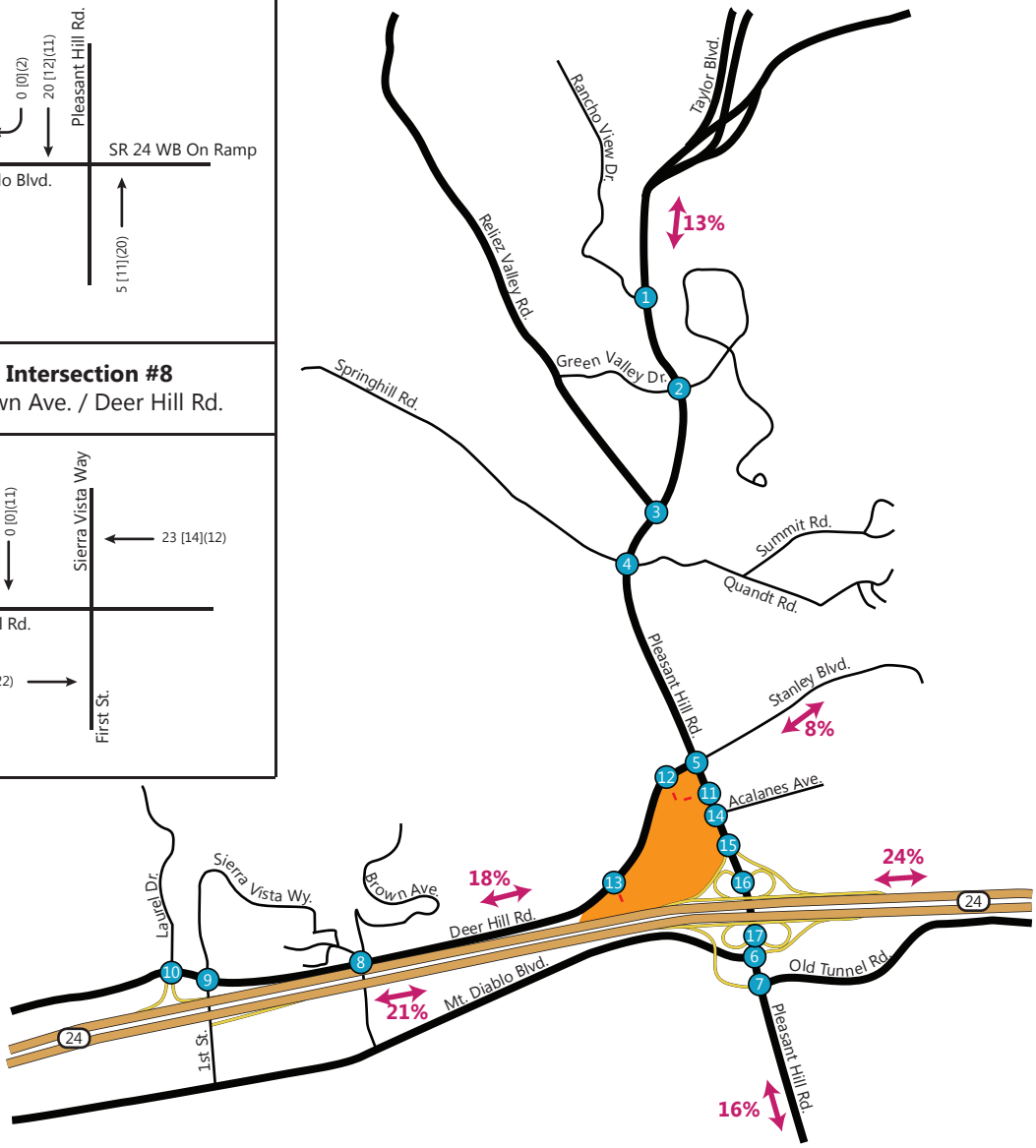


Intersection #7
Pleasant Hill Rd. / Old Tunnel Rd. / SR 24 EB Off Ramp



Intersection #8
Brown Ave. / Deer Hill Rd.





LEGEND

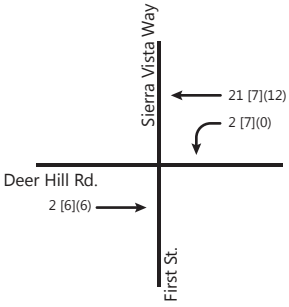
- X — Study Intersection
- Project Site
- Project Driveway
- XX — AM Peak Hour Project Trips
- [XX] — School PM Peak Hour Project Trips
- (XX) — PM Peak Hour Project Trips

N

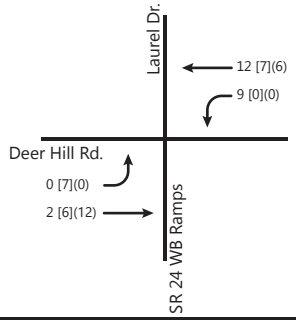
TJKM

Figure 6b: Project Trip Distribution and Assignment

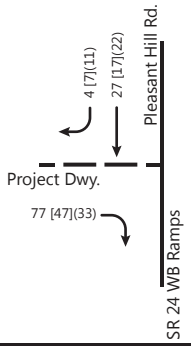
Intersection #9
First St. / Sierra Vista Wy. / Deer Hill Rd.



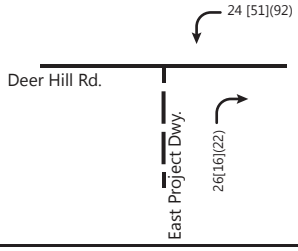
Intersection #10
SR 24 WB Ramps / Laurel Dr. / Deer Hill Rd.



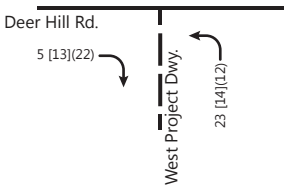
Intersection #11
Pleasant Hill Rd. / Project Dwy.



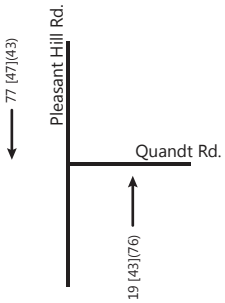
Intersection #12
Deer Hill Rd. / East Project Dwy.



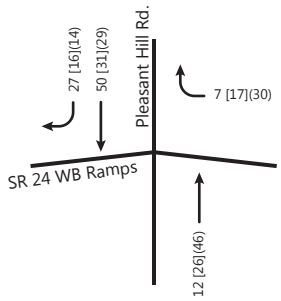
Intersection #13
Deer Hill Rd. / West Project Dwy.



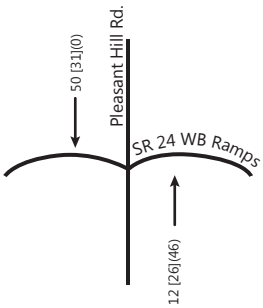
Intersection #14
Pleasant Hill Rd. / Acalanes Ave.



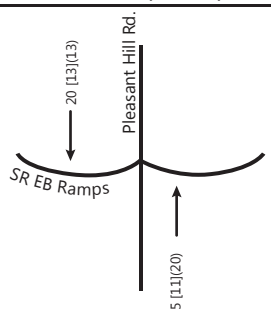
Intersection #15
Pleasant Hill Rd. / SR 24 WB Direct Ramps



Intersection #16
Pleasant Hill Rd. / SR 24 WB Loop Ramps



Intersection #17
Pleasant Hill Rd. / SR EB Loop Ramps



LEGEND

- X — Study Intersection
- Project Site
- Project Driveway
- XX — AM Peak Hour Project Trips
- [XX] — School PM Peak Hour Project Trips
- (XX) — PM Peak Hour Project Trips

N

6.4 Intersection Level of Service

Traffic volumes, lane geometry, and traffic controls for Existing plus Project Conditions are shown in **Figure 7**.The results of the LOS analysis and side street waiting times using the Synchro 10 software program for Existing plus Project Conditions are summarized in **Table 9**. Unless otherwise noted, the analysis results described below apply to both the proposed project and project variant.

Under this scenario, all but one of the signalized intersections on Pleasant Hill Road would continue to operate at unacceptable "poor LOS D" or worse during the a.m. and p.m. peak hours. The intersections at Rancho View Drive, Reliez Valley Road, and Deer Hill Road/Stanley Boulevard would also operate at unacceptable LOS during the school p.m. peak hour. The signalized intersection of Pleasant Hill Road & SR-24 Eastbound Off-Ramp/Old Tunnel Road and the unsignalized intersection of Pleasant Hill Road & Acalanes Avenue would operate at acceptable LOS C or better during all peak hours. At intersections already operating at unacceptable LOS under Existing Conditions, average delay would increase by less than five seconds. Under this scenario, only the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard would continue to operate with side street wait times of more than one cycle. Although the amount of delay increase or decrease at this intersection would be different for the proposed project and the project variant, LOS designations for each peak hour would be the same.

On Deer Hill Road, the signalized intersection at SR-24 Westbound Ramps/Laurel Drive and the unsignalized intersection at Brown Avenue would both operate at unacceptable LOS E or F during all peak hours. The signalized intersection of Deer Hill Road & First Street/Sierra Vista Way operates at acceptable LOS C during all peak hours. At all but one of the intersections already operating at unacceptable LOS under Existing Conditions, the project would increase average delay by less than five seconds. At the unsignalized intersection of Deer Hill Road & Brown Avenue, the project would increase delay by more than 30 seconds during both the a.m. and p.m. peak hours, a **significant impact** requiring mitigation.

A peak hour signal warrant analysis was conducted at the two non-driveway, unsignalized intersections, to determine if a traffic signal may be warranted. A signal **is not warranted** at either intersection under this scenario. LOS worksheets and peak hour signal warrants are provided in **Appendix D**.

Mitigation Measures

The impacted intersection of Deer Hill Road & Brown Avenue was reanalyzed with the addition of a traffic signal, with no changes in lane geometry. As shown in **Table 8**, with signalization the intersection would operate at LOS A during all three peak hours, under both the proposed project and the project variant. At the discretion of the City of Lafayette and in consultation with City of Lafayette engineering staff, a roundabout may be considered as an alternative mitigation measure. Based on the impact criteria utilized for this study, with mitigation the project is expected to have a **less-than-significant impact** at all the study intersections. LOS worksheets for the mitigated intersection are included in **Appendix D**.

Table 8. Level of Service Analysis – Existing plus Project Conditions

ID	Study Intersection	Control	Peak Hour[1]	Existing			Existing plus Proposed Project				Existing plus Project Variant			
				Delay[2]	LOS	Side St. Cycles[3]	Delay	LOS	Change in Delay	Side St. Cycles	Delay	LOS	Change in Delay	Side St. Cycles
1	Pleasant Hill Road & Rancho View Drive	Signal	AM	**118.4**	**F**	*0.3*	**118.8**	**F**	**0.4**	*0.3*	**118.8**	**F**	**0.4**	0.3
			School	**55.9**	**E**	*0.3*	**57.5**	**E**	**1.6**	*0.3*	**57.5**	**E**	**1.6**	0.3
			PM	**296.0**	**F**	*0.2*	**296.7**	**F**	**0.7**	*0.2*	**296.7**	**F**	**0.7**	0.2
2	Pleasant Hill Road & Green Valley Drivel	Signal	AM	**61.4**	**E**	*0.4*	**61.8**	**E**	**0.4**	*0.4*	**61.8**	**E**	**0.4**	0.4
			School	43.6	D	*0.3*	44.7	D	1.1	*0.3*	44.7	D	1.1	0.3
			PM	**348.0**	**F**	*0.2*	**348.1**	**F**	**0.1**	*0.2*	**348.1**	**F**	**0.1**	0.2
3	Pleasant Hill Road & Reliez Valley Road	Signal	AM	**68.3**	**E**	*0.3*	**68.9**	**E**	**0.6**	*0.3*	**68.9**	**E**	**0.6**	0.3
			School	**45.5**	**D**	*0.3*	**46.7**	**D**	**1.2**	*0.3*	**46.7**	**D**	**1.2**	0.3
			PM	**89.2**	**F**	*0.3*	**90.0**	**F**	**0.8**	*0.3*	**90.0**	**F**	**0.8**	0.3
4	Pleasant Hill Road & Spring Hill Road	Signal	AM	**106.4**	**F**	*0.4*	**106.7**	**F**	**0.3**	*0.4*	**106.7**	**F**	**0.3**	0.4
			School	23.6	C	*0.3*	23.9	C	0.3	*0.3*	23.9	C	0.3	0.3
			PM	**95.8**	**F**	*0.4*	**96.4**	**F**	**0.6**	*0.4*	**96.4**	**F**	**0.6**	0.4
5	Pleasant Hill Road & Deer Hill Road/ Stanley Boulevard	Signal	AM	**112.8**	**F**	*0.5*	**87.1**	**F**	**-25.7**	*0.5*	**117.5**	**F**	**4.7**	0.5
			School	**73.6**	**E**	***1.8***	**74.8**	**E**	**1.2**	***1.8***	**75.9**	**E**	**2.3**	**1.8**
			PM	**104.3**	**F**	***2.4***	**106.9**	**F**	**2.6**	***2.4***	**107.4**	**F**	**3.1**	**2.4**
6	Pleasant Hill Road & Mt. Diablo Boulevard	Signal	AM	**204.2**	**F**	*0.4*	**201.6**	**F**	**-2.6**	*0.4*	**201.6**	**F**	**-2.6**	0.4
			School	19.8	B	*0.2*	20.0	C	0.2	*0.2*	20.0	C	0.2	0.2
			PM	**90.2**	**F**	*0.4*	**89.2**	**F**	**-1.0**	*0.4*	**89.2**	**F**	**-1.0**	0.4
7	Pleasant Hill Road & SR-24 EB Off Ramp	Signal	AM	9.0	A	*0.2*	9.0	A	0.0	*0.2*	9.0	A	0.0	0.2
			School	9.6	A	*0.2*	9.6	A	0.0	*0.2*	9.6	A	0.0	0.2
			PM	10.8	B	*0.2*	10.9	B	0.1	*0.2*	10.9	B	0.1	0.2
8	Deer Hill Road & Brown Avenue	Two-Way Stop Control	AM	**318.6**	**F (NB)**		**350.5**	**F (NB)**	**31.9**		**350.5**	**F (NB)**	**31.9**	
			School	**84.9**	**F (SB)**		**97.4**	**F (SB)**	**12.5**		**97.4**	**F (SB)**	**12.5**	
			PM	**52.4**	**F (NB)**		**85.1**	**F (NB)**	**32.7**		**85.1**	**F (NB)**	**32.7**	
	Mitigation: signalize (no widening)	*Signal*	*AM*				*5.4*	*A*	*-313.2*		*5.4*	*A*	*-313.2*	
			School				*6.3*	*A*	*-78.6*		*6.3*	*A*	*-78.6*	
			PM				*6.4*	*A*	*-46.0*		*6.4*	*A*	*-46.0*	
9	Deer Hill Road & First Street/ Sierra Vista Way	Signal	AM	23.2	C		23.7	C	0.5		23.7	C	0.5	
			School	22.7	C		23.1	C	0.4		23.1	C	0.4	
			PM	22.2	C		22.8	C	0.6		22.8	C	0.6	
10	Deer Hill Road & SR-24 WB Ramps/ Laurel Drive	Signal	AM	**71.6**	**E**		**74.5**	**E**	**2.9**		**74.5**	**E**	**2.9**	
			School	**55.9**	**E**		**59.0**	**E**	**3.1**		**59.0**	**E**	**3.1**	
			PM	**57.3**	**E**		**58.2**	**E**	**0.9**		**58.2**	**E**	**0.9**	
11	Pleasant Hill Road & Project Driveway	One-Way Stop Control	AM				27.3	D			23.0	C		
			School				15.0	C			13.4	B		
			PM				13.4	B			12.1	B		
12	Deer Hill Road & Project Driveway Northeast	One-Way Stop Control	AM				10.4	B			10.4	B		
			School				15.2	C			15.2	C		
			PM				18.4	C			18.4	C		
13	Deer Hill Road & Project Driveway Southwest	One-Way Stop Control	AM				30.1	D			30.1	D		
			School				26.1	D			26.1	D		
			PM				28.8	D			28.8	D		
14	Pleasant Hill Road & Acalanes Avenue	One-Way Stop Control	AM	20.7	C		21.1	C	0.4		21.1	C	0.4	
			School	23.3	C		24.0	C	0.7		24.0	C	0.7	
			PM	22.7	C		23.9	C	1.2		23.9	C	1.2	

Notes:

[1] Peak periods: AM: 7-9 a.m., School PM: 2-4 p.m.; PM: 4-7 p.m.

[2] Average delay expressed in seconds. At side-street stop controlled intersection, average delay is reported for the minor street approach.

[3] "Good LOS D" at signalized intersections is defined as delay of 35.1-45 seconds. "Poor LOS D" defined as delay of 45.1-55 seconds.

[4] At Pleasant Hill Road signals only, the wait time for side street vehicles, expressed as side street delay divided by cycle length.

Bold indicates intersection operates at unacceptable LOS. **Red** indicates a significant impact.

6.5 QUEUING

TJKM analyzed the peak hour 95th percentile queue lengths for all dedicated turn lanes and signalized study intersections, using the Synchro traffic model to generate traffic simulation in SimTraffic. Simulation can take into account the effects of cross traffic at unsignalized intersections and the interactions of closely spaced intersections on queue development. Estimated 95th percentile queue lengths for each scenario were developed using five one-hour simulation runs for each peak hour. **Table 9** summarizes the estimated 95th percentile queue lengths for Existing plus Project and Existing plus Project Variant Conditions. The results for Existing Conditions are included for comparison purposes. Unless otherwise noted, the analysis results described below apply to both the proposed project and project variant. Simulation analysis summary sheets are included in **Appendix D**.

At the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, the proposed project would add a new southbound through lane and corresponding receiving lane. Both the proposed project and the project variant would extend the northbound left turn lane to Acalanes Avenue, approximately doubling the available storage length. **Table 9** reflects this change: although the northbound left turn queue overflows the existing storage length under Existing Conditions, the project would increase the storage length such that it can accommodate both existing traffic and added project trips. All other dedicated turn lanes currently overflow under Existing Conditions, but project traffic would add less than one vehicle length to these overflowing queues under both the proposed project and project variant. With the proposed new through lane increasing capacity for southbound traffic, the southbound right turn queue would be reduced by nearly two vehicle lengths under the proposed project. The project would have a **less-than-significant impact** at Pleasant Hill Road & Deer Hill Road/Stanley Boulevard under both the proposed project and project variant.

The 95th percentile queue lengths at the project driveways were also evaluated. At the project driveway on Pleasant Hill Road, only the outbound queue length is of concern, as queues do not form in the southbound through lane at the point of the project driveway. Under Existing plus Project Conditions, this queue is expected to be highest in the a.m. peak hour, at 85 feet (ft.) for the proposed project or 110 ft. for the project variant. Both can be accommodated in the drive aisle leading to the driveway exit, with intermittent blocking of the parking area for building M. At the northeast project driveway on Deer Hill Road, both the outbound (northbound) and inbound (westbound) queue lengths were of concern, as these two movements would be affected by cross traffic and could be blocked by queuing vehicles extending back from the Pleasant Hill Road & Deer Hill Road/Stanley Boulevard intersection. The peak 95th percentile outbound queue would be 190 ft. in the school p.m. peak hour for the proposed project, or 180 ft. in the p.m. peak hour for the project variant. Both can be accommodated in the drive aisle leading to the driveway exit, with intermittent blocking of the entrance to building N. The westbound left (inbound) queue length is expected to be highest in the p.m. peak hour, at 65 ft. for the proposed project or 55 ft. for the project variant. Both can be accommodated in the dedicated left turn pocket proposed on Deer Hill Road, as shown in **Figure 2**. At the southwest project driveway on Deer Hill Road, only the outbound (northbound) left turn queue length is of concern, as outbound right turns are expected to be minimal. Westbound left turns into the driveway are prohibited, and eastbound queues are formed by

traffic extending back from the Pleasant Hill Road & Deer Hill Road/Stanley Boulevard intersection and do not block exiting vehicles. For the proposed project, the highest outbound queue length is expected to be 45 ft. in the a.m. peak hour. For the project variant, the expected outbound queue length would be 40 ft. for all peak hours.

It should be noted that the 95th percentile queue represents the longest queue that can be expected during a typical peak hour and not a persistent congested state. Intermittent blockage of internal intersections would require vehicles on the side aisle to wait to enter the primary drive aisle, but it would not prevent their movement entirely and does not constitute a significant impact. Based on the results of this analysis, inbound and outbound driveway operations for the proposed project and project variant are expected to be adequate. The project would result in a **less-than-significant impact** to driveway queuing both on- and off-site.

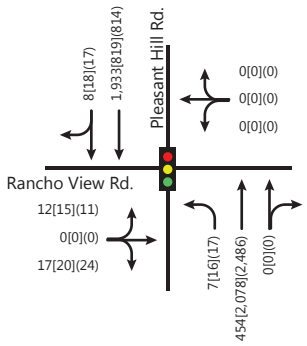
Table 9. Queuing Analysis – Existing plus Project Conditions

ID	Study Intersections	Lane Group	Storage Length	Peak Hour	Existing	Existing plus Project		Existing plus Project Variant	
					Queue Length	Queue Length	Change in Queue	Queue Length	Change in Queue
5	Pleasant Hill Rd. & Deer Hill Rd./Stanley Blvd.	Eastbound Left	100	AM	**140**	**135**	-5	**145**	5
				SCH	**125**	**125**	0	**125**	0
				PM	**125**	**130**	5	**125**	0
	Proposed extension: 460 ft. total storage	Westbound Left	185	AM	**285**	**275**	-10	**290**	5
				SCH	**290**	**300**	10	**285**	-5
				PM	**310**	**300**	-10	**310**	0
		Westbound Right	95	AM	**230**	**210**	-20	**230**	0
				SCH	**210**	**230**	20	**225**	15
				PM	**185**	**185**	0	**175**	-10
		Northbound Left	255 (460)	AM	**295**	330	35	320	25
				SCH	**380**	450	70	450	70
				PM	**290**	460	170	460	170
		Southbound Left	175	AM	**275**	**235**	-40	**285**	10
				SCH	**305**	**305**	0	**310**	5
				PM	**330**	**330**	0	**325**	-5
		Southbound Right	180	AM	**270**	**275**	5	**275**	5
				SCH	**275**	165	-110	**290**	15
				PM	**230**	165	-65	**240**	10
11	Pleasant Hill Road & Project Driveway	Eastbound Right (out)	-	AM		85		110	
				SCH		60		60	
				PM		50		55	
12	Deer Hill Road & Project Driveway Northeast	Westbound Left (in)	-	AM		20		25	
				SCH		35		35	
				PM		65		55	
		Northbound Left/Right (out)	-	AM		70		90	
				SCH		190		170	
				PM		175		180	
13	Deer Hill Road & Project Driveway Southwest	Northbound Left (out)	-	AM		45		40	
				SCH		40		40	
				PM		35		40	

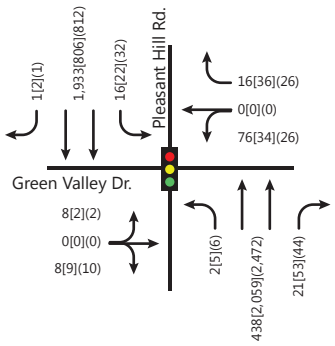
Notes:
Storage length and 95th percentile queue are expressed in feet per lane, rounded to the nearest five feet. For queue increases of less than 25 feet, no additional vehicles would appear in the lane(s).
Bold indicates overflow.

Figure 7a: Existing plus Project Traffic Volumes, Lane Geometry, and Controls

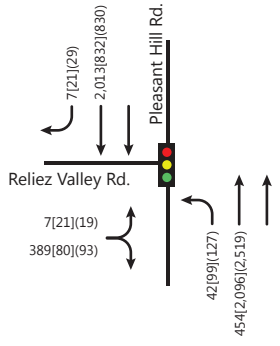
Intersection #1
Pleasant Hill Rd. / Rancho View Rd.



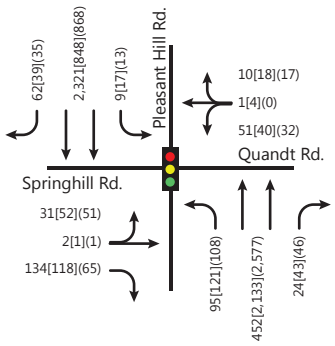
Intersection #2
Pleasant Hill Rd. / Green Valley Dr.



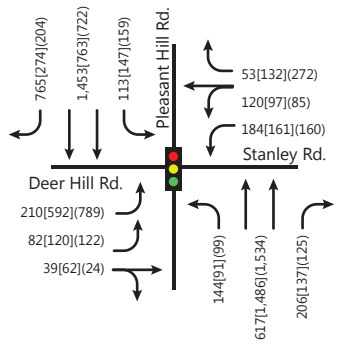
Intersection #3
Pleasant Hill Rd. / Reliez Valley Rd.



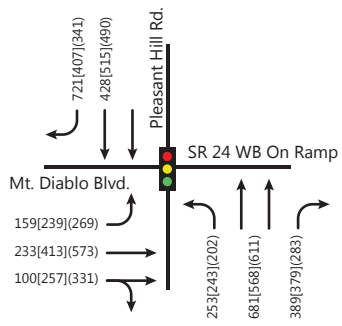
Intersection #4
Pleasant Hill Rd. / Springhill Rd. / Quandt Rd.



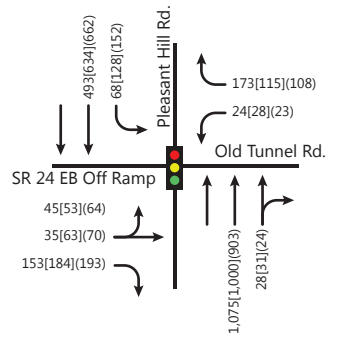
Intersection #5
Pleasant Hill Rd. / Deer Hill Rd. / Stanley Blvd.



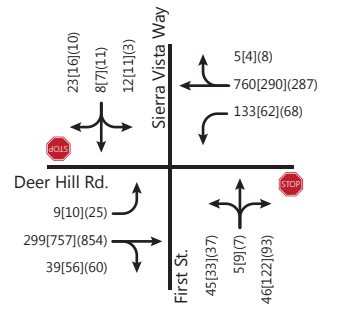
Intersection #6
Pleasant Hill Rd. / Mt. Diablo Blvd. / SR 24 WB On Ramp



Intersection #7
Pleasant Hill Rd. / Old Tunnel Rd. / SR 24 EB Off Ramp



Intersection #8
Brown Ave. / Deer Hill Rd.



LEGEND

- Stop Sign
- Study Intersection
- Project Site
- Project Driveway
- Traffic Signal
- XX — AM Peak Hour Volume
- [XX] — School PM Peak Hour Volume
- (XX) — PM Peak Hour Volume

N

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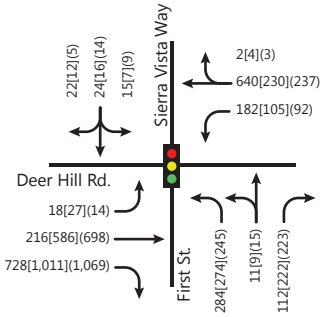
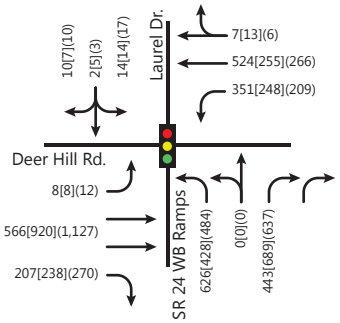
Figure 7b: Existing plus Project Traffic Volumes, Lane Geometry, and Controls

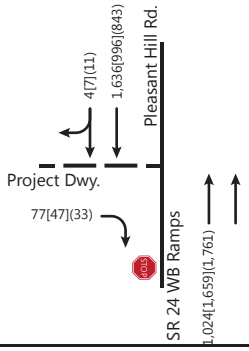
Intersection #9
First St. / Sierra Vista Wy. / Deer Hill Rd.



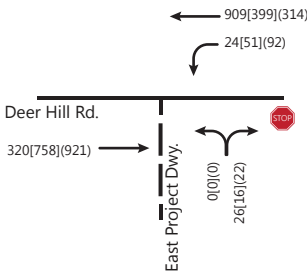
Intersection #10
SR 24 WB Ramps / Laurel Dr. / Deer Hill Rd.



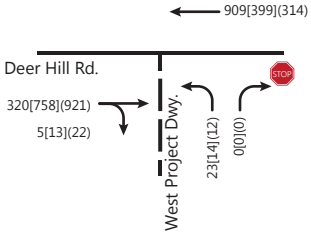
Intersection #11
Pleasant Hill Rd. / Project Dwy.



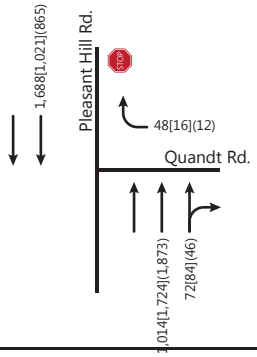
Intersection #12
Deer Hill Rd. / East Project Dwy.



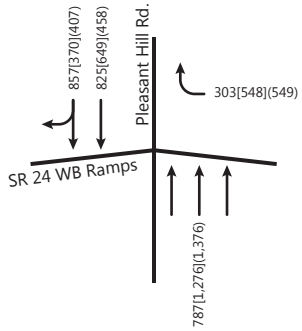
Intersection #13
Deer Hill Rd. / West Project Dwy.



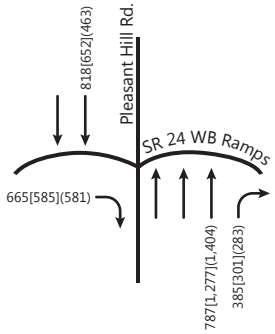
Intersection #14
Pleasant Hill Rd. / Acalanes Ave.



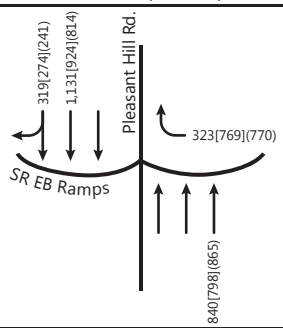
Intersection #15
Pleasant Hill Rd. / SR 24 WB Direct Ramps



Intersection #16
Pleasant Hill Rd. / SR 24 WB Loop Ramps



Intersection #17
Pleasant Hill Rd. / SR EB Loop Ramps



LEGEND

- Stop Sign
- Study Intersection
- Project Site
- Project Driveway
- Traffic Signal
- XX — AM Peak Hour Volume
- [XX] — School PM Peak Hour Volume
- (XX) — PM Peak Hour Volume

N

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6.6 Pleasant Hill Road Weaving Conditions

When the project was initially proposed, the driveway on Pleasant Hill Road was designed for full access, with a median break allowing left turns out and a dedicated northbound left turn pocket. In the 2012 traffic study, the portion of Pleasant Hill Road between SR-24 and the project driveway was analyzed to identify whether the addition of the project driveway would result in unsafe weaving conditions, as drivers attempted to merge across multiple lanes to turn into the driveway. The proposed project has a revised project design that eliminates left turns in and out. This northbound section of roadway was analyzed to determine if the proposed project or project variant would alter traffic speeds. Traffic speeds on the southbound side were also analyzed between Deer Hill Road and the SR-24 on-ramp to evaluate the impact of the new trap lane included in the proposed project.

As shown in **Table 10**, traffic simulation indicates that both the proposed project and project variant would result in small increases in speed in the northbound direction during all peak hours. Southbound traffic would experience a large increase in speed with the addition of the proposed trap lane under the proposed project, but negligible changes in speed without it under the project variant. The project is expected to have a **less-than-significant impact** on traffic speeds and weaving on this section of Pleasant Hill Road under both the proposed project and project variant.

Table 10. Pleasant Hill Road Weaving Conditions – Existing plus Project Conditions

Direction	Peak Hour[1]	Existing		Existing plus Project				Existing plus Project Variant			
		Travel Time (sec)	Speed (mph)	Travel Time	Speed	Time Change	Speed Change	Travel Time	Speed	Time Change	Speed Change
Northbound, SR-24 to Project Driveway	AM	14.3	25.1	14.1	25.5	-0.2	0.4	13.8	26.0	-0.5	0.9
	School	246.4	1.5	228.3	1.6	-18.1	0.1	237.9	1.5	-8.5	0.1
	PM	352.2	1.0	335.0	1.1	-17.2	0.1	330.7	1.1	-21.5	0.1
Southbound, Deer Hill Rd. to SR-24	AM	34.7	19	23.1	28	-11.6	9	34.7	19	0	0
	School	26.3	24	21.0	31	-5.3	6	26.7	24	0.4	0
	PM	27.6	23	23.1	28	-4.5	5	27.7	23	0.1	0

6.7 Delay Index

Delay index on both Pleasant Hill Road and SR-24 was estimated for year 2019 plus Project conditions, using the methodology based on the CCTA *Technical Procedures* and summarized in Section 4.5. This involved estimating the annual expected growth in delay index based on modeling results for 2018 (no project) and 2040 plus Project, adding the appropriate years of growth in delay index to observed values, then comparing the resulting values to no project conditions. **Tables 11** and **12** also include the 2013 delay index observations for comparison purposes. As the proposed new lane on Pleasant Hill Road would have no effect on the SR-24 mainline operations, 2019 plus Project results represent both the proposed project and project variant.

As shown in **Table 11**, Pleasant Hill Road is projected to continue operating within the acceptable delay index threshold (2.0 maximum) in both peak directions – southbound in the a.m. peak and northbound in the p.m. peak. With the new southbound lane under the proposed project adding southbound capacity,

the southbound delay index would be reduced in the a.m. peak hour. As shown in **Table 12**, SR-24 is projected to continue operating within the acceptable delay index threshold (2.0 maximum) in both peak directions – westbound in the a.m. peak and eastbound in the p.m. peak. Therefore, the project is expected to have a **less-than-significant impact** on delay index.

Table 11. Pleasant Hill Road Delay Index – Existing plus Project Conditions

Direction	Peak Hour[1]	Peak Direction	2013 Observed[2]	2019 Projected[3]	2019 plus Proposed Project		2019 plus Project Variant	
					Delay Index	Change	Delay Index	Change
Northbound	AM	No	1.2	1.20	1.20	0.00	1.20	0.00
	PM	Yes	1.4	1.74	1.77	0.04	1.77	0.04
Southbound	AM	Yes	1.2	1.34	1.21	-0.13	1.39	0.04
	PM	No	1.3	1.40	1.44	0.03	1.44	0.03

Notes:
[1] Peak periods: AM: 7-9 a.m.; PM: 4-7 p.m.
[2] Source: *2017 MTSO Monitoring Report (Draft)*, CCTA
[3] Calculated per CCTA *Technical Guidelines*
Bold indicates facility operates at unacceptable delay index.

Table 12. SR-24 Delay Index – Existing plus Project Conditions

Direction	Peak Hour[1]	Peak Direction	2013 Observed[2]	2019 Projected[3]	2019 plus Project	Change in Delay Index
Eastbound	AM	No	1.0	1.02	1.02	0.00
	PM	Yes	1.4	1.48	1.49	0.01
Westbound	AM	Yes	1.7	1.84	1.86	0.02
	PM	No	1.5	1.54	1.54	0.00

Notes:
[1] Peak periods: AM: 7-9 a.m.; PM: 4-7 p.m.
[2] Source: *2017 MTSO Monitoring Report (Draft)*, CCTA
[3] Calculated per CCTA *Technical Guidelines*
Bold indicates facility operates at unacceptable delay index.

6.8 Pedestrian, Bicycle, and Transit Impacts

This section describes project impacts related to pedestrian, bicycle, and transit facilities. The project proposes to expand and improve pedestrian and bicycle facilities along the project frontages, and it is expected to add new riders to BART. Pedestrian and bicycle access and circulation within the project site are discussed in Section 9.2. Pedestrian and transit impacts associated with the project construction are discussed in detail in Section 9.7. As described in Sections 1.1 and 6.1, the proposed project and project variant would include the same pedestrian and bicycle improvements.

6.8.1 Pedestrian Impacts

As discussed in Sections 5.2 and 5.5, the existing pedestrian facilities along the project frontages are minimal but heavily utilized. **Figure 2** shows that the project would construct a new sidewalk along the project frontage on Deer Hill Road, and a multiuse path along the Pleasant Hill Road frontage. The multiuse path along southbound Pleasant Hill Road would replace the existing sidewalk that currently ends south of Acalanes Avenue. It would connect to the existing crosswalk at the SR-24 on-ramp, immediately south of the project site, providing continuous pedestrian access to destinations south of the freeway and west of Pleasant Hill Road. The existing drop-off area on Pleasant Hill Road near Deer Hill

Road would be replaced and improved with paved sidewalks and unobstructed paths of travel. The project would expand the available pedestrian facilities and improve pedestrian safety and convenience near the project site, and the proposed multiuse path is consistent with the City of Lafayette *Walkways Plan*. The project is therefore expected to have a **less-than-significant impact** on pedestrians.

6.8.2 Bicycle Impacts

As shown in **Figure 2**, the project would separate the existing bike lane and de facto turn lane on the southbound approach of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard. It would also include construction of a new marked bike lane along the entire Pleasant Hill Road frontage. The proposed project and project variant would both expand the available bicycle facilities and would be consistent with the City of Lafayette *Bikeways Master Plan*. The project is therefore expected to have a **less-than-significant impact** on bicyclists.

6.8.3 Transit Impacts

Due to the lack of bus transit services in the project vicinity, the project would be unlikely to substantially affect ridership of County Connection buses. Therefore, the discussion of project impacts on transit is limited to BART ridership and parking at the Lafayette BART station. The number of new peak hour trips and total daily parked vehicles resulting from the project were estimated based on daily and peak hour project trip generation, survey data from the 2015-2017 American Community Survey, the *2015 BART Station Profile Study*, BART station information, and detailed BART ridership data. In the project vicinity, survey data shows a commute trip mode share of approximately 11.9 percent. As shown in **Table 7**, the project is expected to generate 2,032 total daily trips, including 158 a.m. peak hour trips (32 in, 126 out), 148 school p.m. peak hour trips (71 in, 77 out), and 191 p.m. peak hour trips (117 in, 74 out). Applying the 11.9 percent transit mode share to the project trip generation, the project could be expected to generate approximately 242 new BART trips daily, including 19 a.m. peak hour and 23 p.m. peak hour trips. According to the *2015 BART Station Profile Study*, 44 percent of home-origin trips involved driving or carpooling and parking at the station. With 121 round trips between the project and the Lafayette BART and 44 percent of these parking at the station, the project would be expected to generate demand for approximately 53 parking spaces.

The existing daily and peak hour ridership at the Lafayette BART station was determined by analyzing origin-destination ridership data for October 2, 2019. On that day, there were 8,331 total entries and exits, including 1,018 entries and exits from 7:00-8:00 a.m., and 1,048 entries and exits from 5:00-6:00 p.m. The project-generated transit trips would increase peak hour total ridership by approximately 1.9 percent in the a.m. peak hour and 2.2 percent in the p.m. peak hour, below the 3.0 percent threshold of significance. The project is expected to have a **less-than-significant impact** on transit ridership.

At the Lafayette BART station, BART data indicates that there are 1,529 total available parking spaces. These spaces can be expected to fill up entirely by approximately 7:00 a.m. The project would therefore create demand for 53 new parking spaces that cannot be accommodated at the Lafayette BART station, a potentially **significant impact** on the immediate station vicinity.

In order to mitigate the potentially significant impact from added parking demand at BART, TJKM recommends the following measure, originally recommended in the 2012 study:

- The project sponsor shall provide subsidized, frequent shuttle service between the project site and the Lafayette BART station during the a.m. and p.m. peak commute periods, until such time that a bus route on Pleasant Hill Road serving the BART station is implemented as called for in the Lamorinda Action Plan, at which point the project sponsor could provide transit vouchers in lieu of a shuttle.

With mitigation, the project is expected to have a **less-than-significant impact** on the BART station vicinity.

7.0 CUMULATIVE (2040) CONDITIONS

This scenario analyzes future conditions with projected traffic volumes for the future year of 2040. As described in Section 4.1, a growth factor of 0.704 percent per year was estimated based on model outputs from the CCTA Travel Demand Forecasting Model. In accordance with the CCTA *Technical Procedures*, traffic controls, signal timing, peak hour factors, and other parameters are identical to Existing Conditions. This may be considered a conservative analysis, as peak hours tend to change over time, and traffic signal timing is expected to change to better address future traffic conditions[3]. Traffic volumes, lane geometry, and traffic controls for this scenario are shown in **Figure 8**.

7.1 Intersection Level of Service

The results of the LOS analysis and side street waiting times using the Synchro 10 software program for Cumulative Conditions are summarized in **Table 13**. Under this scenario, all but one of the signalized intersections on Pleasant Hill Road would operate at unacceptable "poor LOS D" or worse during the a.m. and p.m. peak hours. The signalized intersection of Pleasant Hill Road & SR-24 Eastbound Off-Ramp/Old Tunnel Road and the unsignalized intersection of Pleasant Hill Road & Acalanes Avenue would operate at acceptable LOS D or better during all peak hours. The signalized intersection of Pleasant Hill Road & Mt. Diablo Boulevard would operate at acceptable LOS C during the school p.m. peak hour.

On Deer Hill Road, the signalized intersection at SR-24 Westbound Ramps/Laurel Drive and the unsignalized intersection at Brown Avenue would both operate at unacceptable LOS E or F during all peak hours. The signalized intersection of Deer Hill Road & First Street/Sierra Vista Way would operate at acceptable LOS C during all peak hours. Under this scenario, only the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard would operate with side street wait times of more than one cycle, during the school p.m. and p.m. peak hours only.

A peak hour signal warrant analysis was conducted at the two unsignalized intersections, to determine if a traffic signal may be warranted. A signal **is warranted** at Deer Hill Road & Brown Avenue. A signal **is not warranted** at Pleasant Hill Road & Acalanes Avenue. LOS worksheets and peak hour signal warrants are provided in **Appendix E**.

[3] Although no specific timing changes are proposed at this time, the signal timing on major corridors is typically reviewed and adjusted every few years to accommodate changing traffic conditions.

Table 13. Level of Service Analysis – Cumulative Conditions

ID	Study Intersection	Control	Peak Hour[1]	Cycle Length[2]	Cumulative		
					Delay[3]	LOS[4]	Side St. Cycles[5]
1	Pleasant Hill Road & Rancho View Drive	Signal	AM	75	**190.6**	**F**	0.3
			School	100	**109.9**	**F**	0.3
			PM	62	**395.3**	**F**	0.2
2	Pleasant Hill Road & Green Valley Drivel	Signal	AM	75	**118.6**	**F**	0.4
			School	130	**92.9**	**F**	0.3
			PM	62	**464.8**	**F**	0.2
3	Pleasant Hill Road & Reliez Valley Road	Signal	AM	150	**134.1**	**F**	0.3
			School	100	**95.2**	**F**	0.3
			PM	100	**150.5**	**F**	0.3
4	Pleasant Hill Road & Spring Hill Road	Signal	AM	150	**170.9**	**F**	0.4
			School	140	**50.3**	**D**	0.4
			PM	62	**164.3**	**F**	0.4
5	Pleasant Hill Road & Deer Hill Road/ Stanley Boulevard	Signal	AM	150	**182.4**	**F**	0.6
			School	125	**113.4**	**F**	**2.4**
			PM	135	**157.0**	**F**	**3.0**
6	Pleasant Hill Road & Mt. Diablo Boulevard	Signal	AM	**70**	**242.6**	**F**	0.4
			School	80	31.5	C	0.2
			PM	**70**	**108.6**	**F**	0.4
7	Pleasant Hill Road & SR 24 EB Off Ramp	Signal	AM	60	10.7	B	0.2
			School	60	11.7	B	0.3
			PM	60	15.1	B	0.2
8	Deer Hill Road & Brown Avenue	Two-Way Stop Control	AM		**969.2**	**F (NB)**	
			School		**559.9**	**F (SB)**	
			PM		**460.1**	**F (NB)**	
9	Deer Hill Road & First Street/ Sierra Vista Way	Signal	AM		28.3	C	
			School		27.6	C	
			PM		28.5	C	
10	Deer Hill Road & SR 24 WB Ramps/ Laurel Drive	Signal	AM		**93.5**	**E**	
			School		**74.5**	**E**	
			PM		**80.6**	**F**	
14	Pleasant Hill Road & Acalanes Avenue	One-Way Stop Control	AM		26.3	D	
			School		29.3	D	
			PM		28.4	D	

Notes:
[1] Peak periods: AM: 7-9 a.m., School PM: 2-4 p.m.; PM: 4-7 p.m.
[2] At Pleasant Hill Road signals only, traffic cycle length expressed in seconds.
[3] Average delay expressed in seconds. At side-street stop controlled intersection, average delay is reported for the minor street approach.
[4] "Good LOS D" at signalized intersections is defined as delay of 35.1-45 seconds. "Poor LOS D" defined as delay of 45.1-55 seconds.
[5] At Pleasant Hill Road signals only, the wait time for side street vehicles, expressed as side street delay divided by cycle length.
Bold indicates intersection operates at unacceptable LOS.

7.2 Queuing

TJKM analyzed the peak hour 95th percentile queue lengths for all dedicated turn lanes and signalized study intersections, using the Synchro traffic model to generate traffic simulation in SimTraffic. Simulation can take into account the effects of cross traffic at unsignalized intersections and the interactions of closely spaced intersections on queue development. Estimated 95th percentile queue lengths for each scenario were developed using five one-hour simulation runs for each peak hour. For the proposed project, queuing operations at the key study intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard were of primary concern. **Table 14** summarizes the estimated 95th percentile queue lengths at

this intersection for Cumulative Conditions. Simulation analysis summary sheets are included in **Appendix E**. At the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, all dedicated turn lanes would continue to experience some degree of queue overflow during all three peak hours.

Table 14. Queuing Analysis – Cumulative Conditions

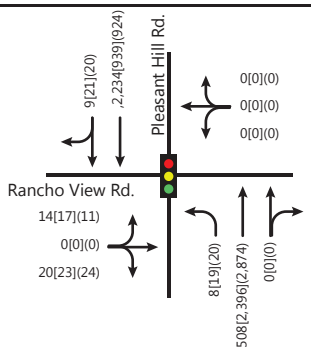
ID	Study Intersections	Lane Group	Storage Length	Peak Hour	Queue Length
5	Pleasant Hill Rd. & Deer Hill Rd./Stanley Blvd.	Eastbound Left	100	AM	**140**
				SCH	**130**
				PM	**125**
		Westbound Left	185	AM	**290**
				SCH	**295**
				PM	**310**
		Westbound Right	95	AM	**220**
				SCH	**205**
				PM	**175**
		Northbound Left	255	AM	**310**
				SCH	**395**
				PM	**260**
		Southbound Left	175	AM	**310**
				SCH	**335**
				PM	**335**
		Southbound Right	180	AM	**280**
				SCH	**320**
				PM	**280**

Notes: Storage length and 95th percentile queue are expressed in feet per lane, rounded to the nearest five feet. For queue increases of less than 25 feet, no additional vehicles would appear in the lane(s).

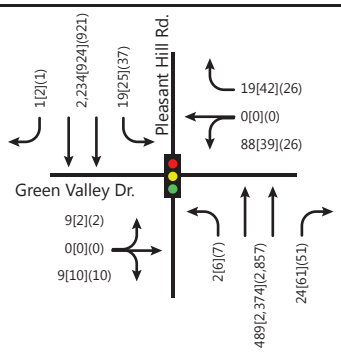
Bold indicates overflow.

Figure 8a: Cumulative Conditions Traffic Volumes, Lane Geometry, and Controls

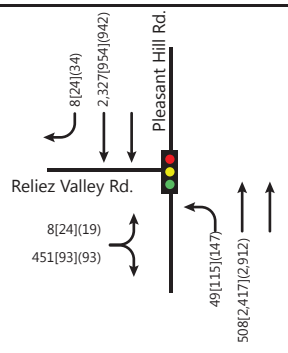
Intersection #1
Pleasant Hill Rd. / Rancho View Rd.



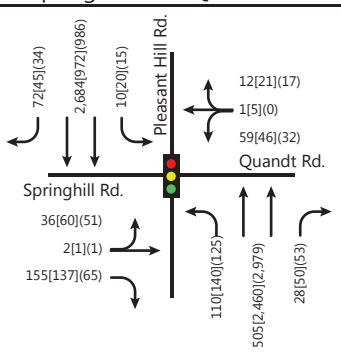
Intersection #2
Pleasant Hill Rd. / Green Valley Dr.



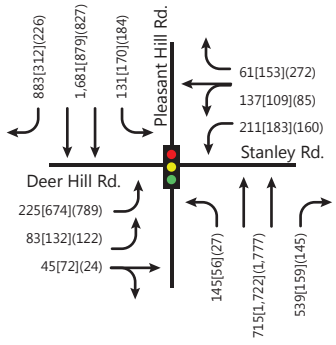
Intersection #3
Pleasant Hill Rd. / Reliez Valley Rd.



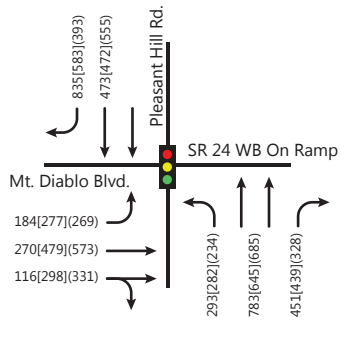
Intersection #4
Pleasant Hill Rd. / Springhill Rd. / Quandt Rd.



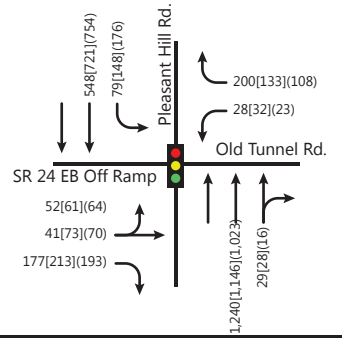
Intersection #5
Pleasant Hill Rd. / Deer Hill Rd. / Stanley Blvd.



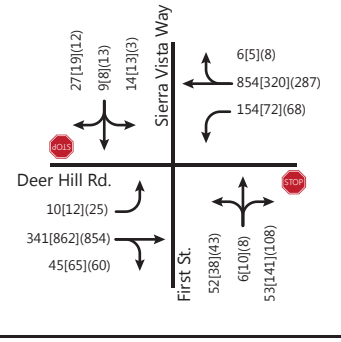
Intersection #6
Pleasant Hill Rd. / Mt. Diablo Blvd. / SR 24 WB On Ramp



Intersection #7
Pleasant Hill Rd. / Old Tunnel Rd. / SR 24 EB Off Ramp



Intersection #8
Brown Ave. / Deer Hill Rd.



LEGEND

- Stop Sign
- Study Intersection
- Project Site
- Project Driveway
- Traffic Signal
- XX — AM Peak Hour Volume
- [XX] — School PM Peak Hour Volume
- (XX) — PM Peak Hour Volume

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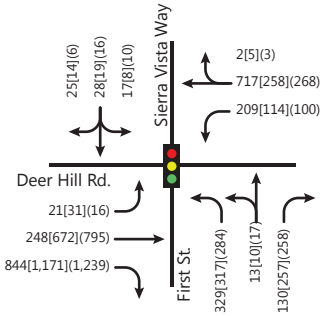
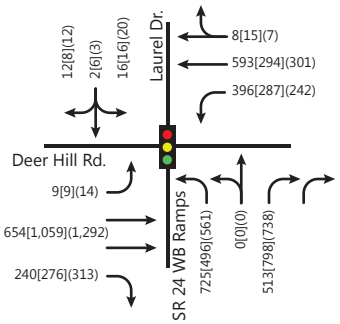
Figure 8b: Cumulative Conditions Traffic Volumes, Lane Geometry, and Controls

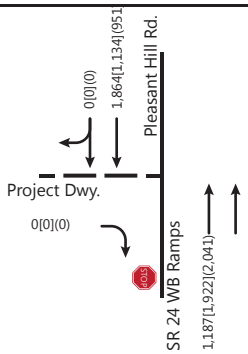
Intersection #9
First St. / Sierra Vista Wy. / Deer Hill Rd.



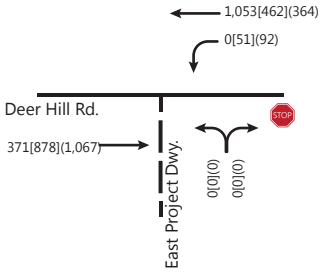
Intersection #10
SR 24 WB Ramps / Laurel Dr. / Deer Hill Rd.



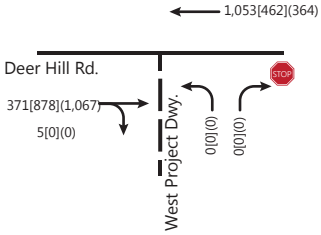
Intersection #11
Pleasant Hill Rd. / Project Dwy.



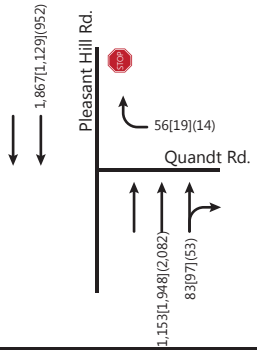
Intersection #12
Deer Hill Rd. / East Project Dwy.



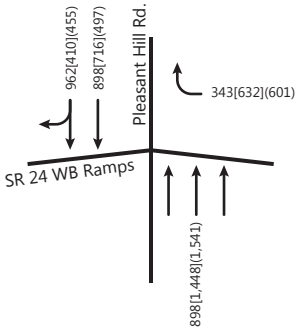
Intersection #13
Deer Hill Rd. / West Project Dwy.



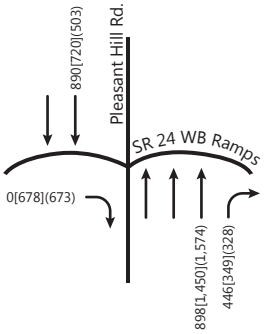
Intersection #14
Pleasant Hill Rd. / Acalanes Ave.



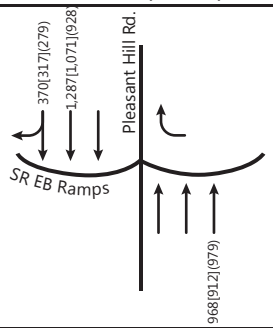
Intersection #15
Pleasant Hill Rd. / SR 24 WB Direct Ramps



Intersection #16
Pleasant Hill Rd. / SR 24 WB Loop Ramps



Intersection #17
Pleasant Hill Rd. / SR EB Loop Ramps



LEGEND

- Stop Sign
- Study Intersection
- Project Site
- Project Driveway
- Traffic Signal
- XX — AM Peak Hour Volume
- [XX] — School PM Peak Hour Volume
- (XX) — PM Peak Hour Volume

N

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7.3 Delay Index

Delay index on both Pleasant Hill Road and SR-24 was estimated for year 2040 Cumulative Conditions, using methodology based on the CCTA *Technical Procedures* and summarized in Section 4.5. This involved estimating the annual expected growth in delay index based on modeling results for 2018 and 2040, and adding the appropriate years of growth in delay index to observed values. As noted previously, this analysis utilizes the MTSO monitoring results from in 2013, as it was determined based on current speed data published on the Caltrans PeMS website that the delay index reported in the MTSO monitoring results from 2017 for SR-24 systematically overestimates the existing delay index from PeMS results. This may be due to changes in data collection and/or analysis methodology changes between monitoring cycles in 2013 and 2017, which may have resulted in anomalous increases in peak direction delay index, as described in Section 4.5. **Tables 15** and **16** include the 2017 delay index observations and 2040 projections from the Lamorinda Action Plan, for comparison purposes. It should be noted that for SR-24, the acceptable delay index threshold will be increased to 2.5, effective as of 2030.

As shown in **Table 15**, Pleasant Hill Road is projected to continue operating within the acceptable delay index threshold (2.0 maximum) in the morning peak direction – southbound in the a.m. peak – and exceed the acceptable delay index threshold in the afternoon peak direction – northbound in the p.m. peak. As shown in **Table 16**, SR-24 is projected to continue operating within the acceptable delay index threshold (2.5 maximum) in both peak directions – westbound in the a.m. peak and eastbound in the p.m. peak.

It should be noted that on both corridors, the projected peak direction delay index shown below is worse than that projected in the *Lamorinda Action Plan*. Those projections relied on the earlier baseline model year of 2010 for estimating annual growth, and future conditions were projected from the delay index observations from 2013. The projected delay index values for 2040 (no project) Conditions, as shown below, are generally similar in off-peak directions and higher than the peak directions, compared to the *Lamorinda Action Plan* projections for 2040.

Table 15. Pleasant Hill Road Delay Index – Cumulative Conditions

Direction	Peak Hour[1]	Peak Direction	2013 Observed[2]	2019 Projected[3]	2040 Projected[3]	LAP 2040 Projected[4]
Northbound	AM	No	1.2	1.20	1.21	1.3
	PM	Yes	1.4	1.74	**2.91**	1.6
Southbound	AM	Yes	1.2	1.34	1.84	1.3
	PM	No	1.3	1.40	1.77	1.9

Notes:
[1] Peak periods: AM: 7-9 a.m.; PM: 4-7 p.m.
[2] Source: *2017 MTSO Monitoring Report (Draft)*, CCTA
[3] Calculated per CCTA *Technical Guidelines*
[4] MTSO values for 2040 with Action Plan, *Lamorinda Action Plan*, 2017.
Bold indicates facility operates at unacceptable delay index.

Table 16. SR-24 Delay Index – Cumulative Conditions

Direction	Peak Hour[1]	Peak Direction	2013 Observed[2]	2019 Projected[3]	2040 Projected[3]	LAP 2040 Projected[4]
Eastbound	AM	No	1.0	1.02	1.11	1.4
	PM	Yes	1.4	1.48	1.77	1.7
Westbound	AM	Yes	1.7	1.84	2.33	1.7
	PM	No	1.5	1.54	1.68	1.7

Notes:
[1] Peak periods: AM: 7-9 a.m.; PM: 4-7 p.m.
[2] Source: *2017 MTSO Monitoring Report (Draft)*, CCTA
[3] Calculated per CCTA *Technical Guidelines*
[4] MTSO values for 2040 with Action Plan, *Lamorinda Action Plan*, 2017.
Bold indicates facility operates at unacceptable delay index: 2.5, effective 2030.

8.0 CUMULATIVE (2040) PLUS PROJECT CONDITIONS

This scenario is identical to Cumulative Conditions, but with the addition of projected traffic from the proposed project and changes in roadway geometry as shown in **Figure 2**. Traffic volumes, lane geometry, and traffic controls for this scenario are shown in **Figure 9**.

8.1 Intersection Level of Service

The results of the LOS analysis and side street waiting times using the Synchro 10 software program for Cumulative plus Project Conditions are summarized in **Table 17**. Unless otherwise noted, the analysis results described below apply to both the proposed project and project variant.

Under this scenario, all but one of the signalized intersections on Pleasant Hill Road would continue to operate at unacceptable "poor LOS D" or worse during the a.m. and p.m. peak hours. The signalized intersection of Pleasant Hill Road & SR-24 Eastbound Off-Ramp/Old Tunnel Road and the unsignalized intersection of Pleasant Hill Road & Acalanes Avenue would operate at acceptable LOS D or better during all peak hours. The signalized intersection of Pleasant Hill Road & Mt. Diablo Boulevard would operate at acceptable LOS C during the school p.m. peak hour. At all but one intersection already operating at unacceptable LOS under Existing Conditions, both the proposed project and the project variant would increase average delay by less than five seconds. At Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, the project variant would increase a.m. peak hour delay by 8.8 seconds, a **significant impact**. The proposed project would have a less-than-significant impact to level of service at this intersection. Under both the proposed project and the project variant, only the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard would continue to operate with side street wait times of more than one cycle.

On Deer Hill Road, the signalized intersection at SR-24 Westbound Ramps/Laurel Drive and the unsignalized intersection at Brown Avenue would both operate at unacceptable LOS E or F during all peak hours. The signalized intersection of Deer Hill Road & First Street/Sierra Vista Way would operate at acceptable LOS C during all peak hours. At all but one of the intersections already operating at unacceptable LOS under Cumulative Conditions, both the proposed project and the project variant would increase average delay by less than five seconds. At the unsignalized intersection of Deer Hill Road & Brown Avenue, the project would increase delay by more than 60 seconds during both the a.m. and p.m. peak hours, a **significant impact** under both the proposed project and the project variant requiring mitigation.

A peak hour signal warrant analysis was conducted at the two non-driveway, unsignalized intersections, to determine if a traffic signal may be warranted. A signal **is warranted** at Deer Hill Road & Brown Avenue but **is not warranted** at Pleasant Hill Road & Acalanes Avenue under this scenario. LOS worksheets and peak hour signal warrants are provided in **Appendix F**.

Mitigation Measures

The impacted intersection of Deer Hill Road & Brown Avenue was reanalyzed with the addition of a traffic signal, with no changes in lane geometry. As shown in **Table 17**, with signalization the intersection would operate at LOS A during all three peak hours, under both the proposed project and project variant. At the discretion of the City of Lafayette and in consultation with City of Lafayette engineering staff, a roundabout may be considered as an alternative mitigation measure.

At the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, under the project variant only, two potential mitigation approaches were evaluated: 1) restriping the southbound approach and adding a new receiving lane on Deer Hill Road, or 2) simple signal optimization for the a.m. peak period. The first option would convert the rightmost southbound through lane to a through/right lane. However, this lane geometry has the potential to generate unacceptable conflicts with bicyclists and is therefore not considered feasible. The second option would keep the cycle length unchanged while altering the amount of green time given to each movement during the a.m. peak hour, in order to reduce overall intersection delay. Signal timing during the school p.m. and p.m. peaks would be unchanged. However, this retiming has the potential to increase wait time for vehicles on the Stanley Boulevard approach to more than one cycle. This would be a new significant impact, and therefore signal retiming is also not considered feasible. In addition, retiming at any signalized intersection on Pleasant Hill Road has the potential to negatively impact the existing signal coordination and would require additional study under future traffic conditions..

Based on the impact criteria utilized for this study, with mitigation at Deer Hill Road & Brown Avenue the proposed project is expected to have a **less-than-significant impact** at all intersections. The project variant is expected to have a **significant and unavoidable impact** at the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard. LOS worksheets for the mitigated intersection are included in **Appendix F**.

Table 17. Level of Service Analysis – Cumulative plus Project Conditions

ID	Study Intersection	Control	Peak Hour[1]	Cumulative			Cumulative plus Proposed Project				Cumulative plus Project Variant			
				Delay[2]	LOS[3]	Side St. Cycles[4]	Delay	LOS	Change in Delay	Side St. Cycles	Delay	LOS	Change in Delay	Side St. Cycles
1	Pleasant Hill Road & Rancho View Drive	Signal	AM	**190.6**	**F**	0.3	**190.7**	**F**	**0.1**	0.3	**190.7**	**F**	**0.1**	0.3
			School	**109.9**	**F**	0.3	**111.5**	**F**	**1.6**	0.3	**111.5**	**F**	**1.6**	0.3
			PM	**395.3**	**F**	0.2	**396.1**	**F**	**0.8**	0.2	**396.1**	**F**	**0.8**	0.2
2	Pleasant Hill Road & Green Valley Drivel	Signal	AM	**118.6**	**F**	0.4	**119.0**	**F**	**0.4**	0.4	**119.0**	**F**	**0.4**	0.4
			School	**92.9**	**F**	0.3	**94.5**	**F**	**1.6**	0.3	**94.5**	**F**	**1.6**	0.3
			PM	**464.8**	**F**	0.2	**465.0**	**F**	**0.2**	0.2	**465.0**	**F**	**0.2**	0.2
3	Pleasant Hill Road & Reliez Valley Road	Signal	AM	**134.1**	**F**	0.3	**134.4**	**F**	**0.3**	0.3	**134.4**	**F**	**0.3**	0.3
			School	**95.2**	**F**	0.3	**96.8**	**F**	**1.6**	0.3	**96.8**	**F**	**1.6**	0.3
			PM	**150.5**	**F**	0.3	**151.1**	**F**	**0.6**	0.3	**151.1**	**F**	**0.6**	0.3
4	Pleasant Hill Road & Spring Hill Road	Signal	AM	**170.9**	**F**	0.4	**172.5**	**F**	**1.6**	0.4	**171.0**	**F**	**0.1**	0.4
			School	**50.3**	**D**	0.4	**51.4**	**D**	**1.1**	0.4	**51.4**	**D**	**1.1**	0.4
			PM	**164.3**	**F**	0.4	**166.4**	**F**	**2.1**	0.4	**164.8**	**F**	**0.5**	0.4
5	Pleasant Hill Road & Deer Hill Road/ Stanley Boulevard	Signal	AM	**182.4**	**F**	0.6	**126.3**	**F**	**-56.1**	0.6	**191.2**	**F**	**8.8**	0.4
			School	**113.4**	**F**	**2.4**	**114.3**	**F**	**0.9**	**2.5**	**116.0**	**F**	**2.6**	**2.5**
			PM	**157.0**	**F**	**3.0**	**158.5**	**F**	**1.5**	**3.0**	**159.1**	**F**	**2.1**	**3.0**
	Mitigation 1: restripe SB lanes, new receiving lane on W leg	*Signal*	*AM*								***180.6***	***F***	*-1.8*	*0.6*
			School								***115.6***	***F***	*2.2*	*2.5*
			PM								***158.9***	***F***	*1.9*	*3.0*
	Mitigation 2: retime AM	*Signal*	*AM*								***154.6***	***F***	*-27.8*	***1.4***
6	Pleasant Hill Road & Mt. Diablo Boulevard	Signal	AM	242.6	F	0.4	**239.9**	**F**	**-2.7**	0.4	**239.9**	**F**	**-2.7**	0.4
			School	31.5	C	0.2	31.8	C	0.3	0.2	31.8	C	0.3	0.2
			PM	108.6	F	0.4	**107.5**	**F**	**-1.1**	0.4	**107.5**	**F**	**-1.1**	0.4
7	Pleasant Hill Road & SR 24 EB Off Ramp	Signal	AM	10.7	B	0.2	10.7	B	0.0	0.2	10.7	B	0.0	0.2
			School	11.7	B	0.3	11.8	B	0.1	0.2	11.8	B	0.1	0.3
			PM	15.1	B	0.2	15.4	B	0.3	0.2	15.4	B	0.3	0.2
8	Deer Hill Road & Brown Avenue	Two-Way Stop Control	AM	**969.2**	**F (NB)**		**1109.5**	**F (NB)**	**140.3**		**1109.5**	**F**	**140.3**	
			School	**559.9**	**F (SB)**		**700.0**	**F (SB)**	**140.1**		**700.0**	**F**	**140.1**	
			PM	**460.1**	**F (NB)**		**528.1**	**F (NB)**	**68.0**		**528.1**	**F**	**68.0**	
	Mitigation: signalize (no widening)	*Signal*	*AM*				*6.9*	*A*	*-962.3*		*6.9*	*A*	*-962.3*	
			School				*6.7*	*A*	*-553.2*		*6.7*	*A*	*-553.2*	
			PM				*6.2*	*A*	*-453.9*		*6.2*	*A*	*-453.9*	
9	Deer Hill Road 7 First Street/Sierra Vista Way	Signal	AM	28.3	C	28.3	29.4	C	1.1	29.4	29.4	C	1.1	
			School	27.6	C	27.6	28.4	C	0.8	28.4	28.4	C	0.8	
			PM	28.5	C	28.5	29.5	C	1.0	29.5	29.5	C	1.0	
10	Deer Hill Road & SR 24 WB Ramps/Laurel Drive	Signal	AM	**93.5**	**E**	**93.5**	**96.8**	**F**	**3.3**	**96.8**	**96.8**	**F**	**3.3**	
			School	**74.5**	**E**	**74.5**	**74.7**	**E**	**0.2**	**74.7**	**74.7**	**E**	**0.2**	
			PM	**80.6**	**F**	**80.6**	**82.2**	**F**	**1.6**	**82.2**	**82.2**	**F**	**1.6**	
11	Pleasant Hill Road & Project Driveway	One-Way Stop Control	AM				36.1	E	36.1	36.1	29.5	D	29.5	
			School				16.6	C	16.6	16.6	14.7	B	14.7	
			PM				14.4	B	14.4	14.4	13.0	B	13.0	
12	Deer Hill Road & Project Driveway Northeast	One-Way Stop Control	AM				10.8	B	10.8	10.8	10.8	B	10.8	
			School				17.2	C	17.2	17.2	17.2	C	17.2	
			PM				21.9	C	21.9	21.9	24.9	C	24.9	
13	Deer Hill Road & Project Driveway Southwest	One-Way Stop Control	AM				41.2	E	41.2	41.2	41.2	E	41.2	
			School				33.6	D	33.6	33.6	33.6	D	33.6	
			PM				38.3	E	38.3	38.3	38.3	E	38.3	
14	Pleasant Hill Road & Acalanes Avenue	One-Way Stop Control	AM				26.9	D	0.6	26.9	26.9	D	0.6	
			School				30.4	D	1.1	30.4	30.4	D	1.1	
			PM				30.0	D	1.6	30.0	30.0	D	1.6	

Notes:
[1] Peak periods: AM: 7-9 a.m., School PM: 2-4 p.m.; PM: 4-7 p.m.
[2] Average delay expressed in seconds. At side-street stop controlled intersection, average delay is reported for the minor street approach.
[3] "Good LOS D" at signalized intersections is defined as delay of 35.1-45 seconds. "Poor LOS D" defined as delay of 45.1-55 seconds.
[4] At Pleasant Hill Road signals only, the wait time for side street vehicles, expressed as side street delay divided by cycle length.
Bold indicates intersection operates at unacceptable LOS. **Red** indicates a significant impact.

8.2 QUEUING

TJKM analyzed the peak hour 95th percentile queue lengths for all dedicated turn lanes and signalized study intersections, using the Synchro traffic model to generate traffic simulation in SimTraffic. Simulation can take into account the effects of cross traffic at unsignalized intersections and the interactions of closely spaced intersections on queue development. Estimated 95th percentile queue lengths for each scenario were developed using five one-hour simulation runs for each peak hour. **Table 18** summarizes the estimated 95th percentile queue lengths for Cumulative plus Project and Cumulative plus Project Variant Conditions. The results for Cumulative Conditions are included for comparison purposes. Unless otherwise noted, the analysis results described below apply to both the proposed project and project variant. Simulation analysis summary sheets are included in **Appendix F**.

At the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, the proposed project would add a new southbound through lane and corresponding receiving lane. Both the proposed project and the project variant would extend the northbound left turn lane to Acalanes Avenue, approximately doubling the available storage length. **Table 18** reflects this change: although the northbound left turn queue overflows the existing storage length under Cumulative Conditions, both the proposed project and the project variant would increase the storage length such that it could accommodate both cumulative traffic and added project trips. All other dedicated turn lanes currently overflow under Cumulative Conditions, but project traffic would add no more than one vehicle length to these overflowing queues under both the proposed project and the project variant. With the proposed new through lane increasing capacity for southbound traffic, the southbound right turn queue would be reduced by three vehicle lengths under the proposed project. The project would have a **less-than-significant impact** at Pleasant Hill Road & Deer Hill Road/Stanley Boulevard under both the proposed project and project variant.

The 95th percentile queue lengths at the project driveways were also evaluated. At the project driveway on Pleasant Hill Road, only the outbound queue length is of concern, as queues do not form in the southbound through lane at the point of the project driveway. Under Cumulative plus Project Conditions, would be 60 ft. in the school p.m. peak hour for the proposed project, or 95 ft. in the a.m. peak hour for the project variant. Both can be accommodated in the drive aisle leading to the driveway exit, with intermittent blocking of the parking area for building M. At the northeast project driveway on Deer Hill Road, both the outbound (northbound) and inbound (westbound) queue lengths were of concern, as these two movements would be affected by cross traffic and could be blocked by queuing vehicles extending back from the Pleasant Hill Road & Deer Hill Road/Stanley Boulevard intersection. The peak 95th percentile outbound queue would be 175 ft. in the p.m. peak hour for the proposed project, or 175 ft. in the school p.m. peak hour for the project variant. Both can be accommodated in the drive aisle leading to the driveway exit, with intermittent blocking of the entrance to building N. The westbound left

(inbound) queue length is expected to be 45 ft. in the p.m. peak hour for the proposed project, or 40 ft. in the school p.m. and p.m. peak hours for the project variant. Both can be accommodated in the dedicated left turn pocket proposed on Deer Hill Road, as shown in **Figure 2**. At the southwest project driveway on Deer Hill Road, only the outbound (northbound) left turn queue length is of concern, as outbound right turns are expected to be minimal. Westbound left turns into the driveway are prohibited, and eastbound queues are formed by traffic extending back from the Pleasant Hill Road & Deer Hill Road/Stanley Boulevard intersection and do not block exiting vehicles. For both the proposed project and the project variant, the highest outbound queue length is expected to be 50 ft. in the a.m. peak hour.

It should be noted that the 95th percentile queue represents the longest queue that can be expected during a typical peak hour and not a persistent congested state. Intermittent blockage of internal intersections would require vehicles on the side aisle to wait to enter the primary drive aisle, but it would not prevent their movement entirely and does not constitute a significant impact. Based on the results of this analysis, inbound and outbound driveway operations for the proposed project are expected to be adequate. The project would result in a **less-than-significant impact** to driveway queuing both on- and off-site.

Table 18. Queuing Analysis – Cumulative plus Project Conditions

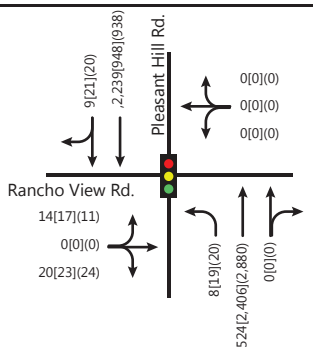
ID	Study Intersections	Lane Group	Storage Length	Peak Hour	Cumulative	Cumulative plus Project		Cumulative plus Project Variant	
					Queue Length	Queue Length	Change in Queue	Queue Length	Change in Queue
5	Pleasant Hill Rd. & Deer Hill Rd./Stanley Blvd.	Eastbound Left	100	AM	**140**	**140**	0	**135**	-5
				SCH	**130**	**125**	-5	**130**	0
				PM	**125**	**135**	10	**125**	0
	Proposed extension: 460 ft.	Westbound Left	185	AM	**290**	**285**	-5	**290**	0
				SCH	**295**	**295**	0	**295**	0
				PM	**310**	**300**	-10	**310**	0
		Westbound Right	95	AM	**220**	**210**	-10	**225**	5
				SCH	**205**	**235**	30	**230**	25
				PM	**175**	**195**	20	**195**	20
		Northbound Left	255 (460)	AM	**310**	330	20	360	50
				SCH	**395**	460	65	450	55
				PM	**260**	440	180	440	180
		Southbound Left	175	AM	**310**	**235**	-75	**300**	-10
				SCH	**335**	**325**	-10	**315**	-20
				PM	**335**	**330**	-5	**325**	-10
		Southbound Right	180	AM	**280**	**265**	-15	**270**	-10
				SCH	**320**	**205**	-115	**325**	5
				PM	**280**	160	-120	**265**	-15
11	Pleasant Hill Road & Project Driveway	Eastbound Right (out)	-	AM		45		95	
				SCH		60		65	
				PM		50		50	
12	Deer Hill Road & Project Driveway Northeast	Westbound Left	-	AM		25		25	
				SCH		35		40	
				PM		45		40	
		Northbound Left/Right (out)	-	AM		120		95	
				SCH		140		175	
				PM		175		165	
13	Deer Hill Road & Project Driveway Southwest	Northbound Left (out)	-	AM		50		50	
				SCH		40		40	
				PM		35		35	

Notes: Storage length and 95th percentile queue are expressed in feet per lane, rounded to the nearest five feet. For queue increases of less than 25 feet, no additional vehicles would appear in the lane(s).

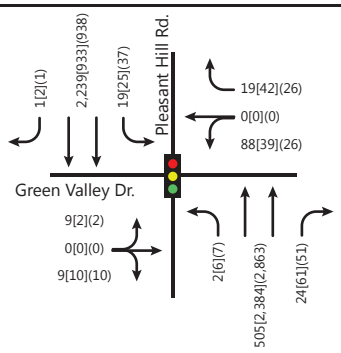
Bold indicates overflow.

Figure 9a: Cumulative plus Project Conditions Traffic Volumes, Lane Geometry, and Controls

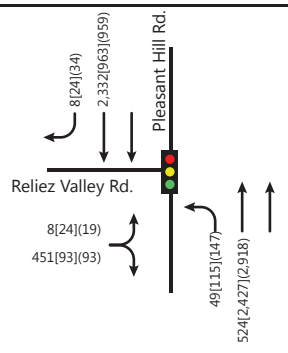
Intersection #1
Pleasant Hill Rd. / Rancho View Rd.



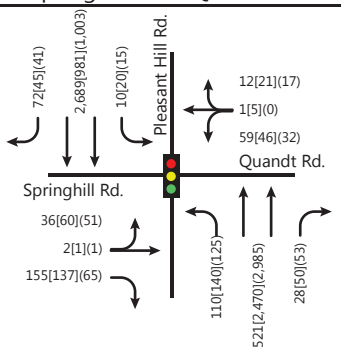
Intersection #2
Pleasant Hill Rd. / Green Valley Dr.



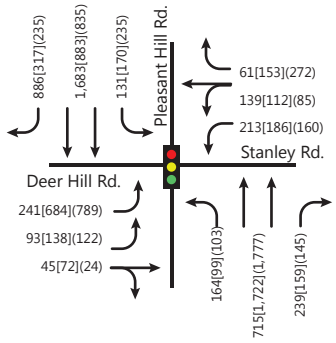
Intersection #3
Pleasant Hill Rd. / Reliez Valley Rd.



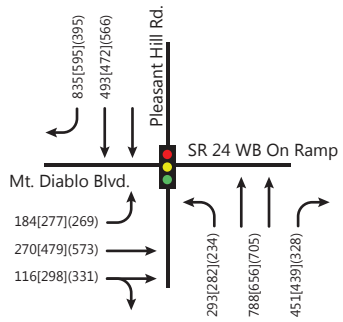
Intersection #4
Pleasant Hill Rd. / Springhill Rd. / Quandt Rd.



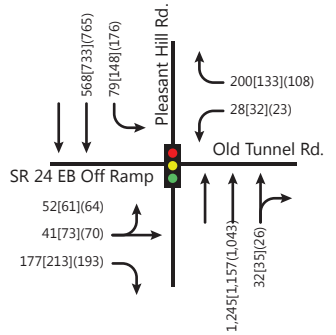
Intersection #5
Pleasant Hill Rd. / Deer Hill Rd. / Stanley Blvd.



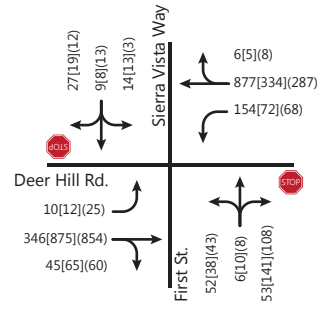
Intersection #6
Pleasant Hill Rd. / Mt. Diablo Blvd. / SR 24 WB On Ramp



Intersection #7
Pleasant Hill Rd. / Old Tunnel Rd. / SR 24 EB Off Ramp



Intersection #8
Brown Ave. / Deer Hill Rd.



LEGEND

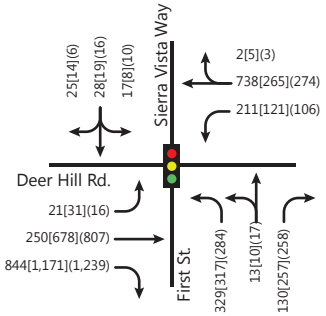
- Stop Sign
- Study Intersection
- Project Site
- Project Driveway
- Traffic Signal
- XX — AM Peak Hour Volume
- [XX] — School PM Peak Hour Volume
- (XX) — PM Peak Hour Volume

N

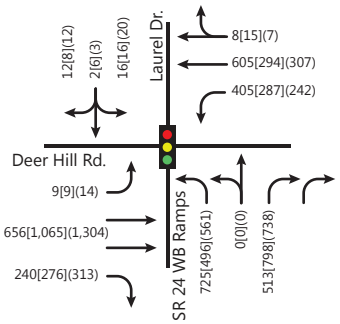
TJKM

Figure 9b: Cumulative plus Project Conditions Traffic Volumes, Lane Geometry, and Controls

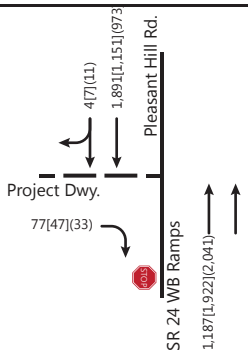
Intersection #9
First St. / Sierra Vista Wy. / Deer Hill Rd.



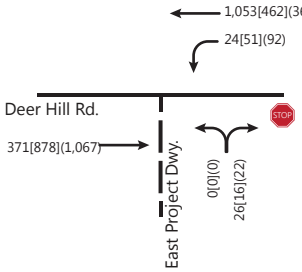
Intersection #10
SR 24 WB Ramps / Laurel Dr. / Deer Hill Rd.



Intersection #11
Pleasant Hill Rd. / Project Dwy.



Intersection #12
Deer Hill Rd. / East Project Dwy.



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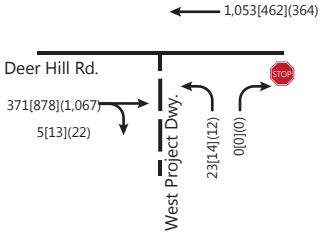
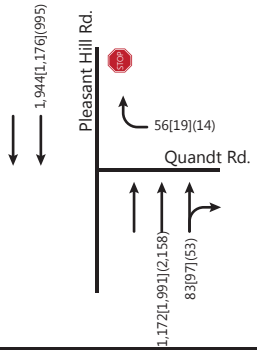
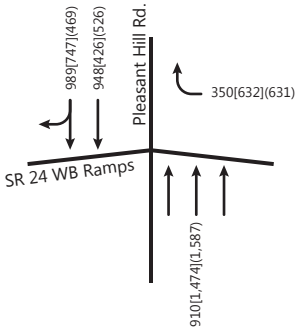
Deer Hill Rd. / West Project Dwy.



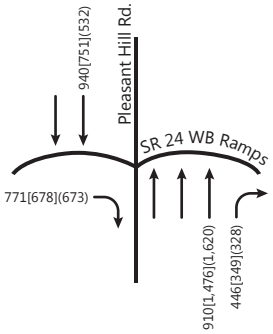
Intersection #14
Pleasant Hill Rd. / Acalanes Ave.



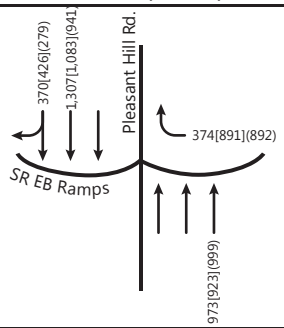
Intersection #15
Pleasant Hill Rd. / SR 24 WB Direct Ramps



Intersection #16
Pleasant Hill Rd. / SR 24 WB Loop Ramps



Intersection #17
Pleasant Hill Rd. / SR EB Loop Ramps



LEGEND

- Stop Sign
- Study Intersection
- Project Site
- Project Driveway
- Traffic Signal
- XX — AM Peak Hour Volume
- [XX] — School PM Peak Hour Volume
- (XX) — PM Peak Hour Volume

N

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8.3 Pleasant Hill Road Weaving Conditions

As with Existing plus Project Conditions, the short segment of northbound Pleasant Hill Road between SR-24 and the project driveway was analyzed to determine if the proposed project or the project variant would alter traffic speeds under Cumulative plus Project Conditions. Traffic speeds on the southbound side were also analyzed between Deer Hill Road and the SR-24 on-ramp to evaluate the impact of the new trap lane included in the proposed project.

As shown in **Table 19**, traffic simulation indicates that northbound traffic would experience negligible changes in speed under both the proposed project and the project variant. Southbound traffic would experience a large increase in speed with the addition of the proposed trap lane under the proposed project, but negligible changes in speed without it under the project variant. The project is expected to have a **less-than-significant impact** on traffic speeds and weaving on this section of Pleasant Hill Road under both the proposed project and project variant.

Table 19. Pleasant Hill Road Weaving Conditions – Cumulative plus Project Conditions

Direction	Peak Hour[1]	Cumulative		Cumulative plus Project				Cumulative plus Project Variant			
		Travel Time (sec)	Speed (mph)	Travel Time	Speed	Time Change	Speed Change	Travel Time	Speed	Time Change	Speed Change
Northbound, SR-24 to Project Driveway	AM	15.1	23.8	15.0	24.0	-0.1	0.2	15.5	23.2	0.4	-0.6
	School	272.3	1.3	243.9	1.5	-28.4	0.2	249.3	1.4	-23.0	0.1
	PM	365.6	0.98	364.8	1.0	-0.8	0.0	330.7	1.1	-34.9	0.1
Southbound, Deer Hill Rd. to SR-24	AM	34.2	19	23.2	28	-11.0	9	34.5	19	0.3	-0.2
	School	27.6	23	21.3	30	-6.3	7	27.4	23	-0.2	0.2
	PM	28.0	23	23.3	28	-4.7	5	27.7	23	-0.3	0.2

8.4 Delay Index

Delay index on both Pleasant Hill Road and SR-24 was estimated for year 2040 Cumulative plus Project conditions, using methodology based on the CCTA *Technical Procedures* and summarized in Section 4.5. This involved estimating the annual expected growth in delay index based on modeling results for 2018 (no project) and 2040 plus Project, adding the appropriate years of growth in delay index to observed values, and then comparing the resulting values to no project conditions. **Tables 20** and **21** also include the 2013 delay index observations and 2019 no project projections, for comparison purposes. As the proposed new lane on Pleasant Hill Road would have no effect on the SR-24 mainline operations, 2040 Cumulative plus Project results represent both the proposed project and project variant.

As shown in **Table 20**, Pleasant Hill Road is projected to continue operating above the acceptable delay index threshold (2.0 maximum) in the in the afternoon peak direction – northbound in the p.m. peak. With the new southbound lane under the proposed project adding southbound capacity, the southbound delay index would be reduced in the a.m. peak hour. The project variant, by contrast, would result in Pleasant Hill Road operating above the acceptable delay index in the morning peak direction – southbound in the a.m. peak. In the p.m. peak hour, the increase in delay index would be 0.17 under both the proposed project and project variant, above the 0.05 threshold of significance. As shown in **Table 21**, SR-24 is

projected to continue operating within the acceptable delay index threshold (2.5 maximum) in both peak directions – westbound in the a.m. peak and eastbound in the p.m. peak. As the capacity on Pleasant Hill Road is subject to the Gateway Constraints Policy outlined in the *Lamorinda Action Plan*, new capacity cannot be added to eliminate the significant impacts under both the proposed project and the project variant, without resulting in a conflict with the Gateway Constraints Policy. The proposed project would have a **significant and unavoidable impact** related to delay index on Pleasant Hill Road during the p.m. peak hour. The project variant would have a **significant and unavoidable impact** related to delay index on Pleasant Hill Road during both peak hours.

Table 20. Pleasant Hill Road Delay Index – Cumulative plus Project Conditions

Direction	Peak Hour[1]	Peak Direction	2013 Observed[2]	2019 Projected[3]	2040 Projected[3]	2040 plus Proposed Project		2040 plus Project Variant	
						Delay Index	Change	Delay Index	Change
Northbound	AM	No	1.2	1.20	1.21	1.22	0.00	1.22	0.00
	PM	Yes	1.4	1.74	**2.91**	**3.08**	**0.17**	**3.08**	**0.17**
Southbound	AM	Yes	1.2	1.34	1.84	1.26	-0.57	**2.04**	**0.20**
	PM	No	1.3	1.40	1.77	1.91	0.14	1.92	0.15

Notes:
[1] Peak periods: AM: 7-9 a.m.; PM: 4-7 p.m.
[2] Source: *2017 MTSO Monitoring Report (Draft)*, CCTA
[3] Calculated per CCTA *Technical Guidelines*
Bold indicates facility operates at unacceptable delay index. **Red** indicates a significant impact (increase more than 0.05)

Table 21. SR-24 Delay Index – Cumulative plus Project Conditions

Direction	Peak Hour[1]	Peak Direction	2013 Observed[2]	2019 Projected[3]	2040 Projected[3]	2040 plus Project	Change in Delay Index
Eastbound	AM	No	1.0	1.02	1.11	1.11	0.00
	PM	Yes	1.4	1.48	1.77	1.81	0.04
Westbound	AM	Yes	1.7	1.84	2.33	2.43	0.10
	PM	No	1.5	1.54	1.68	1.69	0.00

Notes:
[1] Peak periods: AM: 7-9 a.m.; PM: 4-7 p.m.
[2] Source: *2017 MTSO Monitoring Report (Draft)*, CCTA
[3] Calculated per CCTA *Technical Guidelines*
Bold indicates facility operates at unacceptable delay index: 2.5, effective 2030.

9.0 ADDITIONAL ANALYSIS

The following sections provide additional analyses of other transportation issues associated with the proposed project, including:

1. Detailed comparison of the project impacts that would occur under the published trip generation rates used in the 2012 study and under revised rates based on newer data, resulting in changes to the number of project trips.
2. Site plan evaluation, including sight distance, site access, and internal circulation.
3. Adequacy of proposed parking supply.
4. Project impacts on street parking and loading areas.
5. Effect of project traffic on emergency vehicle response times
6. Detailed discussion of proposed southbound lane on Pleasant Hill Road
7. Recommendations for construction traffic issues to be taken into consideration as part of a construction management plan

9.1 Alternative Trip Generation

As discussed in Section 4.2.3, the trip generation estimates used for this study are not based on the most recent trip generation data available. The project was studied using trip generation data from *Trip Generation (8th Edition)*, which was used in the 2012 traffic study and which has since been updated and reorganized for *Trip Generation (10th Edition)*. The purpose of this section is to summarize project impacts if the newer estimates were used instead.

The Institute of Transportation Engineers regularly reviews new trip generation surveys for a wide variety of land uses and incorporates this new data into successive editions of its published rates. With the 10th edition of *Trip Generation*, older data was removed, and residential land uses were reorganized such that land use descriptions more closely matched the available data. For example, condominiums do not have trip generation characteristics that functionally distinguish them from apartments. Therefore this land use was eliminated and its data combined with that of rental units. Simultaneously, Apartment (220) was separated into three categories of Multifamily Housing, including both rental and owner occupied units: Low-Rise (one or two stories), Mid-Rise (three to five stories), and High-Rise (more than five stories). In general, trip generation for multifamily uses decreases as the number of stories increases.

Results are presented for locations where the proposed project, using 8th edition trip generation estimates, would result in significant impacts in one or more scenarios. This analysis is provided for informational purposes only and does not supersede the primary analysis of this study.

9.1.1 Trip Generation with ITE *Trip Generation* 10th Edition

The land use Multiuse Housing (Mid-Rise) (221) was used to develop this alternative trip generation, as the majority of the proposed dwelling units would be located in three-story buildings. Based on these rates, the proposed project would be expected to generate 1,714 total daily trips, including 113 a.m. peak

hour trips (29 in, 84 out), 99 school p.m. peak hour trips (50 in, 49 out), and 139 p.m. peak hour trips (85 in, 54 out), as shown in **Table 22**.

As shown in **Table 7**, using 8th edition rates, the main analysis in this study estimated that the proposed project would generate 2,032 total daily trips, including 158 a.m. peak hour trips (32 in, 126 out), 148 school p.m. peak hour trips (71 in, 77 out), and 191 p.m. peak hour trips (117 in, 74 out). Compared to the project trips shown in **Table 7**, the alternative trip generation would result in approximately 16 percent fewer daily trips and 27-33 percent fewer peak hour trips.

As shown in **Figure 10**, the trip distribution used for this alternative analysis is identical to that used in the main analysis and shown in **Figure 6**. Proportional trip assignments at study intersections were matched as closely as possible.

Table 22. Alternative Project Trip Generation

Land Use[1]	Size	Daily		AM Peak					School PM Peak					PM Peak				
		Rate[1]	*Trips*	*Rate[1]*	*In:Out*	*In*	*Out*	*Total*	*Rate[2,3]*	*In:Out*	*In*	*Out*	*Total*	*Rate*	*In:Out[1]*	*In*	*Out*	*Total*
Multifamily Housing (Mid-Rise) (221)	315 DU	5.44	1,714	0.36	26:74	29	84	113	0.32	50:50	50	49	99	0.44	61:39	85	54	139
			1,714			**29**	**84**	**113**			**50**	**49**	**99**			**85**	**54**	**139**

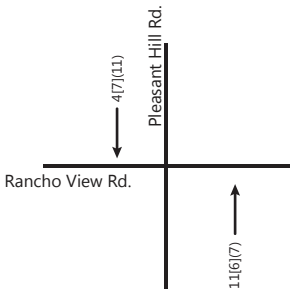
Notes

[1] Source: *Trip Generation (10th Edition)*, Institute of Transportation Engineers, 2017 - average rates

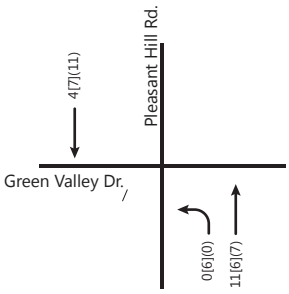
[2] School P.M. Peak: rate derived from time-of-day traffic distribution for General Urban/Suburban locations and observed peak hour of adjacent street traffic. 5.8% of daily traffic occurs from 3:00-4:00 p.m. Assumed equal In:Out distribution.

Figure 10a: Alternative Trip Assignment

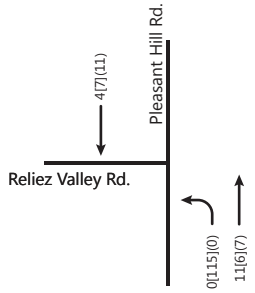
Intersection #1
Pleasant Hill Rd. / Rancho View Rd.



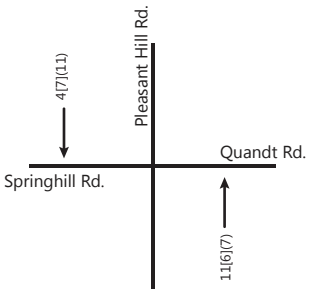
Intersection #2
Pleasant Hill Rd. / Green Valley Dr.



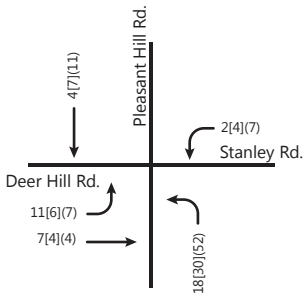
Intersection #3
Pleasant Hill Rd. / Reliez Valley Rd.



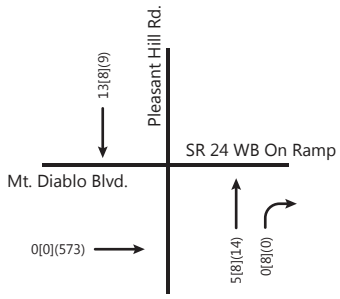
Intersection #4
Pleasant Hill Rd. / Springhill Rd. / Quandt Rd.



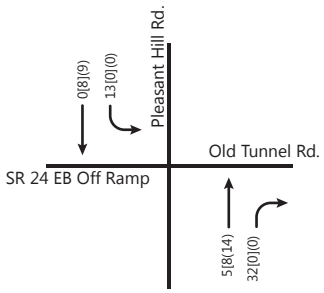
Intersection #5
Pleasant Hill Rd. / Deer Hill Rd. / Stanley Blvd.



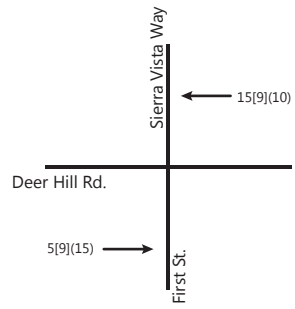
Intersection #6
Pleasant Hill Rd. / Mt. Diablo Blvd. / SR 24 WB On Ramp



Intersection #7
Pleasant Hill Rd. / Old Tunnel Rd. / SR 24 EB Off Ramp



Intersection #8
Brown Ave. / Deer Hill Rd.



LEGEND

- X — Study Intersection
- Project Site
- Project Driveway
- XX — AM Peak Hour Project Trips
- [XX] — School PM Peak Hour Project Trips
- (XX) — PM Peak Hour Project Trips

N

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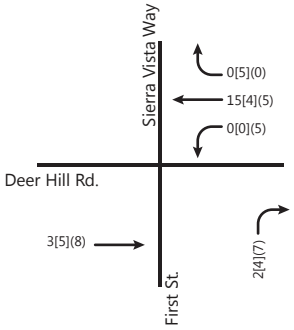
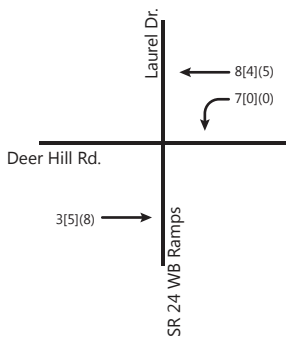
Figure 10b: Alternative Trip Assignment

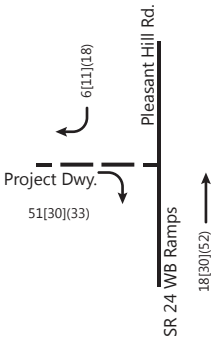
Intersection #9
First St. / Sierra Vista Wy. / Deer Hill Rd.



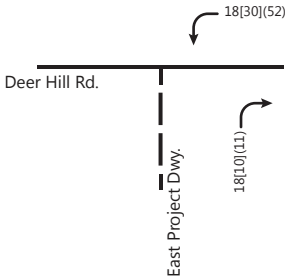
Intersection #10
SR 24 WB Ramps / Laurel Dr. / Deer Hill Rd.



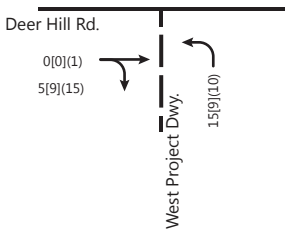
Intersection #11
Pleasant Hill Rd. / Project Dwy.



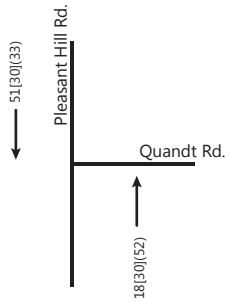
Intersection #12
Deer Hill Rd. / East Project Dwy.



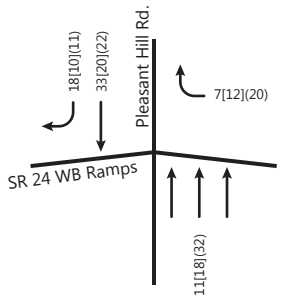
Intersection #13
Deer Hill Rd. / West Project Dwy.



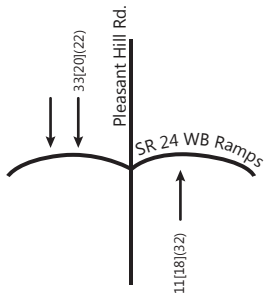
Intersection #14
Pleasant Hill Rd. / Acalanes Ave.



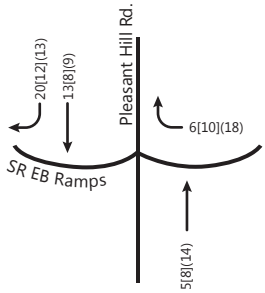
Intersection #15
Pleasant Hill Rd. / SR 24 WB Direct Ramps



Intersection #16
Pleasant Hill Rd. / SR 24 WB Loop Ramps



Intersection #17
Pleasant Hill Rd. / SR EB Loop Ramps



LEGEND

X	Study Intersection
	Project Site
- - -	Project Driveway
XX	AM Peak Hour Project Trips
[XX]	School PM Peak Hour Project Trips
(XX)	PM Peak Hour Project Trips

N

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9.1.2 LOS at Impacted Intersections

Selected results of the LOS analysis for all scenarios is below, based on the alternative trip generation rates. As shown in Table **23**, under Existing plus Project Conditions the project would continue to produce a significant impact at the unsignalized intersection of Deer Hill Road & Brown Avenue in all peak hours under both the proposed project and project variant. However, the alternative trip generation would result in a lower increase in delay at both intersections in all three peak hours. The alternative trip generation would change the amount of added delay at other study intersections, but it would not result in any new significant impacts. It is expected that signalization at Deer Hill Road & Brown Avenue would continue to adequately mitigate the significant impact and that the project would continue to have a *less-than-significant impact* under Existing plus Project Conditions with alternative trip generation.

As shown in **Table 23**, under Cumulative plus Project conditions the project would continue to produce a significant impact at the signalized intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard in the a.m. peak hour under the project variant only. The project would continue to produce a significant impact at the unsignalized intersection of Deer Hill Road & Brown Avenue in all peak hours under both the proposed project and project variant. However, the alternative trip generation would result in a lower increase in delay at both intersections in all three peak hours. The alternative trip generation would change the amount of added delay at other study intersections, but it would not result in any new significant impacts. It is expected that signalization at Deer Hill Road & Brown Avenue would continue to adequately mitigate that significant impact, but as noted in section 8.1 there is no feasible mitigation for Pleasant Hill Road & Deer Hill Road/Stanley Boulevard. Therefore, the project would continue to have a *significant and unavoidable impact* under Cumulative plus Project Conditions with alternative trip generation.

Level of service worksheets for all alternative trip generation scenarios are included in **Appendix G**.

Table 23. Level of Service at Impacted Intersections – Existing plus Alternative Project Trips

ID	Study Intersection	Control	Peak Hour[1]	Existing		*Trip Generation, 8th Edition*: Apartment						*Trip Generation, 10th Edition*: Multifamily Mid-Rise					
						Existing plus Proposed Project			Existing plus Project Variant			Existing plus Proposed Project			Existing plus Project Variant		
				Delay[2]	LOS	Delay	LOS	Change in Delay	Delay	LOS	Change in Delay	Delay	LOS	Change in Delay	Delay	LOS	Change in Delay
5	Pleasant Hill Road & Deer Hill Road/ Stanley Boulevard	Signal	AM	**112.8**	**F**	**87.1**	**F**	**-25.7**	**117.5**	**F**	**4.7**	**85.8**	**F**	**-27.0**	**116.0**	**F**	**3.2**
			School	**73.6**	**E**	**74.8**	**E**	**1.2**	**75.9**	**E**	**2.3**	**73.9**	**E**	**0.3**	**75.0**	**E**	**1.4**
			PM	**104.3**	**F**	**106.9**	**F**	**2.6**	**107.4**	**F**	**3.1**	**105.3**	**F**	**1.0**	**105.7**	**F**	**1.4**
8	Deer Hill Road & Brown Avenue	Two-Way Stop Control	AM	**318.6**	**F (NB)**	**350.5**	**F (NB)**	**31.9**	**350.5**	**F (NB)**	**31.9**	**343.9**	**F (NB)**	**25.3**	**343.9**	**F (NB)**	**25.3**
			School	**84.9**	**F (SB)**	**97.4**	**F (SB)**	**12.5**	**97.4**	**F (SB)**	**12.5**	**91.6**	**F (SB)**	**6.7**	**91.6**	**F (SB)**	**6.7**
			PM	**52.4**	**F (NB)**	**85.1**	**F (NB)**	**32.7**	**85.1**	**F (NB)**	**32.7**	**78.3**	**F (NB)**	**25.9**	**78.3**	**F (NB)**	**25.9**

Notes:
[1] Peak periods: AM: 7-9 a.m., School PM: 2-4 p.m.; PM: 4-7 p.m.
[2] Average delay expressed in seconds. At side-street stop controlled intersection, average delay is reported for the minor street approach.
Bold indicates intersection operates at unacceptable LOS. **Red** indicates a significant impact.

Table 24. Level of Service at Impacted Intersections – Cumulative plus Alternative Project Trips

ID	Study Intersection	Control	Peak Hour[1]	Cumulative		*Trip Generation, 8th Edition*: Apartment						*Trip Generation, 10th Edition*: Multifamily Mid-Rise					
						Cumulative plus Proposed Project			Cumulative plus Project Variant			Cumulative plus Proposed Project			Cumulative plus Project Variant		
				Delay[2]	LOS	Delay	LOS	Change in Delay	Delay	LOS	Change in Delay	Delay	LOS	Change in Delay	Delay	LOS	Change in Delay
5	Pleasant Hill Road & Deer Hill Road/ Stanley Boulevard	Signal	AM	**182.4**	**F**	**126.3**	**F**	**-56.1**	**191.2**	**F**	**8.8**	**124.9**	**F**	**-57.5**	**189.7**	**F**	**7.3**
			School	**113.4**	**F**	**114.3**	**F**	**0.9**	**116.0**	**F**	**2.6**	**113.4**	**F**	**0.0**	**115.1**	**F**	**1.7**
			PM	**157.0**	**F**	**158.5**	**F**	**1.5**	**159.1**	**F**	**2.1**	**157.2**	**F**	**0.2**	**157.9**	**F**	**0.9**
8	Deer Hill Road & Brown Avenue	Two-Way Stop Control	AM	**969.2**	**F (NB)**	**1109.5**	**F (NB)**	**140.3**	**1109.5**	**F**	**140.3**	**1059.7**	**F**	**90.5**	**1059.7**	**F**	**90.5**
			School	**559.9**	**F (SB)**	**700.0**	**F (SB)**	**140.1**	**700.0**	**F**	**140.1**	**610.9**	**F**	**51.0**	**610.9**	**F**	**51.0**
			PM	**460.1**	**F (NB)**	**528.1**	**F (NB)**	**68.0**	**528.1**	**F**	**68.0**	**501.3**	**F**	**41.2**	**501.3**	**F**	**41.2**

Notes:
[1] Peak periods: AM: 7-9 a.m., School PM: 2-4 p.m.; PM: 4-7 p.m.
[2] Average delay expressed in seconds. At side-street stop controlled intersection, average delay is reported for the minor street approach.
Bold indicates intersection operates at unacceptable LOS. **Red** indicates a significant impact.

9.2 Site Plan Evaluation

The evaluation of the project site was based on both the annotated site plan shown in **Figure 2** and on detailed civil engineering drawings provided to TJKM, dated April 24, 2019. It should be noted that these plans do not include full landscaping or signage details, which are generally finalized later in the project development process and are subject to review and approval by City of Lafayette staff.

9.2.1 Driveway Operations and Access

The project site would be accessed via two driveways on Deer Hill Road and one driveway on Pleasant Hill Road, as shown in **Figure 2**. On Deer Hill Road, the northeast driveway would permit full access, with a dedicated turn lane provided for vehicles on Deer Hill Road waiting to enter the site. A "Keep Clear" pavement marking in front of the driveway would prevent queuing vehicles on Deer Hill Road from blocking the driveway. The southwest driveway on Deer Hill Road would prohibit left turns in and would provide a median refuge lane for vehicles turning left out, as well as providing a "Keep Clear" pavement marking in front of the driveway. The driveway on Pleasant Hill Road would be restricted to right-in/right-out only.

The design for all three driveways has been substantially altered since the version of the project studied in 2012. Both Deer Hill Road driveways have been moved further west to improve operations and sight lines, eliminating design-related safety hazards that constituted significant impacts. The proposed median break at the Pleasant Hill Road driveway that would have permitted full access was also removed, eliminating the associated traffic and design-related safety impacts. The corners of each driveway have been widened to improve vehicle access, and surface treatments have been added to alert drivers to crossing pedestrians and bicyclists, eliminating further design-related impacts. Overall, driveway operations and access are adequate and would have a **less-than-significant impact** on adjacent street traffic.

9.2.2 Driveway Sight Distance

The portion of Deer Hill Road along the project frontage features embankments along both sides of the roadway and both horizontal and vertical curves, with a large crest in between the two Deer Hill Road driveways. The posted speed is 45 mph. At this speed, the Caltrans *Highway Design Manual (6th Edition)* states that 360 ft. of stopping sight distance is required. Stopping sight distance is measured along the centerline of the traveled roadway, between a driver 3.5 ft. above the roadway and an obstruction or conflicting vehicle. At side streets, sight distance is measured ten feet back from the edge of the main roadway.

Due to the hilly conditions, a detailed sight distance analysis was conducted in order to determine whether the driveway locations and grading plan for the proposed project allow adequate sight distance between vehicles traveling downhill and vehicles exiting the driveway. This analysis shows that the current site plan would permit lines of sight that will allow more than adequate stopping sight distance at both driveways. The stopping sight distance diagrams are included in **Appendix H**.

In order to prevent landscaping from interfering with these lines of sight, TJKM recommends that all landscaping within 15 feet of the driveways be maintained at no more than 30 inches in height, or trees with canopy foliage no less than seven feet above the ground. Landscaping plans near the project

driveways should be approved in consultation with City engineering staff. As noted in Sections 1.1 and 6.1, landscaping details are not shown on the civil engineering drawings, but this study assumes that final landscaping plans would meet these requirements. With appropriate landscaping, driveway sight distance is considered adequate and would have a **less-than-significant impact** on roadway safety. It should be noted that the sight distance impacts based on driveway locations and configurations, identified in the 2012 study, were eliminated by design changes.

9.2.3 Vehicle Circulation

For purposes of the following discussion, the term "upper loop" refers to the on-site driveway closest to Deer Hill Road that serves buildings A, B, C, and D, and connects the west project driveway on Deer Hill Road to the Pleasant Hill Road driveway. The "lower loop" refers to the on-site driveway closer to the southerly property boundary that serves buildings E through L and the Clubhouse, terminating at the east project driveway on Deer Hill Road. Minimum parking lot design standards are also specified in the City of Lafayette Municipal Code and apply to all driveways, access drives, and parking areas. Two-way aisles connecting driveways and parking areas must be at least 20 ft. wide, and two-way aisles adjacent to right-angle parking areas must be at least 26 ft. wide. All proposed parking spaces would be right-angle spaces. TJKM reviewed fully dimensioned civil engineering plans for the proposed project, dated April 24, 2019, as well as the annotated overview site plan shown in **Figure 2**.

Internal access drives are all at least 20 ft. wide, and drive aisles adjacent to parking are all 26 ft. wide. The project driveway on Pleasant Hill Road widens to 34 ft. wide, with one inbound and one outbound lane. On Deer Hill Road, the northeast driveway is 21 ft. wide with one inbound and one outbound lane, and the southwest separates inbound and outbound traffic into a 10 ft. single lane entrance and a 21 ft. two lane exit. Curb radii at the Pleasant Hill Road and northeast Deer Hill Road driveways, and at internal intersections, are all adequate to allow large vehicles to maneuver safely. Trash enclosures are provided throughout in locations that can be accessed by garbage trucks. Emergency vehicles would be able to access all parts of the project site via the driveways and internal drive aisles. As noted in Sections 1.1 and 6.1, signage details are not shown on the civil engineering drawings, but this study assumes the final signage and striping plans would include two-way stop signs at the four-way intersection of the upper loop and lower loop driveways. Overall, access and circulation for automobiles, heavy vehicles, garbage trucks, and emergency vehicles within the project site are adequate. The project site design would have **less-than-significant impact** on vehicle circulation and emergency access.

9.2.4 Pedestrian and Bicycle Access and Circulation

As shown in **Figure 2**, the project site plan includes pedestrian walkways that connect all buildings to the major common areas, including the clubhouse and leasing areas, and to the adjacent pedestrian facilities to be constructed on the Pleasant Hill Road and Deer Hill Road frontages. Due to the hilly terrain of the project site, not all walkways would be fully accessible, featuring stairs on the shortest path between two areas. However, fully accessible paths would be provided that involve switchbacks or long curves to traverse steeply sloping hillsides. The site plans show special surface treatments to designate locations wherever accessible pedestrian paths cross drive aisles, internal intersections, and driveways. Although pedestrian curb ramps are not shown on the current civil engineering drawings, these are required and

should be included in the final plans at all pedestrian crossings. It is assumed that this level of design detail will be included in the final project plans. Overall, pedestrian access and circulation are adequate.

Bicycles would access the site at the project driveways and from the connections of internal walkways to the multiuse path to be constructed on the Pleasant Hill Road frontage. Bicyclists could either use internal access drives or walk their bikes on the pedestrian walkways, as dictated by the topography. Although not shown on the site plan, bicycle parking areas should be distributed throughout the site as discussed below in Section 9.3. It is assumed that this level of design detail will be included in the final project plans. Overall, bicycle access and circulation are adequate. The project is expected to have a **less-than-significant impact** on pedestrians and bicyclists on-site.

9.3 Parking Analysis

The City of Lafayette Municipal Code specifies the amount of parking required for a variety of land uses. As noted in Section 1.3, general parking requirements detailed in section 6-604 of the Municipal Code apply to new land uses in all zoning designations. However, at the direction of City of Lafayette staff, the previous requirements specified for the M-R-B zoning district were applied. These are outlined in section 6-875 of the Municipal Code and are generally higher than the newer requirements in section 6-604.

For multifamily housing, parking requirements vary by unit size: 1.2 space per one-bedroom unit, 1.5 spaces per two-bedroom unit, 2.0 spaces per unit with three or more bedrooms, and one space for each five units. In addition, bicycle parking must be provided in enclosed or secured areas at a ratio of one space per five units. The number of accessible spaces required under the Americans with Disabilities Act (ADA) is determined by the overall size of a parking facility or lot, with parking facilities over 500 spaces requiring two percent to be accessible (including one of every six to be van accessible).

The proposed project would construct 140 one-bedroom units, 140 two-bedroom units, and 35 three-bedroom units, for 315 total dwelling units. The combined parking requirement would be 511 spaces, including 63 designated guest spaces. The civil engineering drawings for the project site show a parking supply of 557 total spaces, which is more than adequate to meet City requirements. Under ADA requirements, a parking facility of 557 spaces would require 11 accessible spaces, including two van accessible. The site plan shows 11 accessible spaces distributed throughout the site but does not distinguish which spaces provide the additional width to be van accessible. It is also unclear whether all parking spaces would satisfy City of Lafayette design standards for length and width. Bicycle parking is not shown on the current site plans. The overall parking supply is adequate, and the project would have a **less-than-significant impact** on surrounding roadways due to parking demand.

Although not required to mitigate a significant impact, TJKM recommends that, at minimum, two van accessible spaces should be located near the clubhouse. Bike parking should be distributed throughout the site. TJKM recommends that the project applicant consult with City staff to identify preferred placement for van accessible parking spaces and bike parking facilities, and to confirm that final parking lot plans satisfy minimum design standards for parking spaces.

9.4 Project Impacts to Passenger Loading and On-Street Parking Areas

On the project site's Pleasant Hill Road frontage near Deer Hill Road, the project would replace and improve the existing passenger loading area. The loading area would be doubled in length, and the turn-out lane would be widened to accommodate buses or shuttles. It would include paved sidewalks, curb ramps, and a broad accessible path to the crosswalk. The eastern portion of the project's Deer Hill Road frontage, where students are currently dropped off, would include a sidewalk and an unobstructed path to the crosswalk.

The proposed project would remove the 19 street parking spaces on Pleasant Hill Road and would not replace these lost spaces. However, these spaces are sparsely used, and it is expected that the northernmost spaces are primarily used by vehicles waiting to pick up students in the afternoon. As noted in the 2012 study, up to nine vehicles were observed in these parking spaces during the after school period. The expanded passenger loading area would provide an alternative location for those vehicles to wait. Based on the detailed civil engineering drawings, the expanded loading area would be approximately 200 feet long and could accommodate approximately eight waiting vehicles. Additional existing on-street parking spaces would remain on the east side of Pleasant Hill Road and on the west side south of the project site. It is expected that the proposed project would have a **less-than-significant impact** on passenger loading and parking.

9.5 Emergency Vehicle Response Times

The Lafayette General Plan and the Contra Costa County Fire Protection District (FPD) both state that the target response time for emergency calls within the City of Lafayette is five minutes or less. Emergency response times include both mobilization and travel time. Within the study area, fire stations 2, 5, and 15 would utilize the Pleasant Hill Road corridor for their responses. The FPD provided TJKM with statistics for response times for all three stations for the entirety of 2018. Over that year, the median response time was five minutes and 41 seconds, and the average response time was six minutes and seven seconds. At fire station 15, which is located in downtown and closest to the project site, response times were somewhat higher, with a median response time of five minutes and 51 seconds and an average response time of six minutes and 18 seconds. Under existing conditions, the target response time is not currently being met. FPD response time data is included in **Appendix I**.

As discussed in Section 8.4, the proposed project is expected to produce a significant, unavoidable impact on delay index on northbound Pleasant hill Road under Cumulative plus Project Conditions, in the p.m. peak hour. Under Cumulative (no project) Conditions, the delay index is already expected to have deteriorated from 1.74 in 2019 to 2.91 in 2040 in the northbound p.m. peak direction, and the project is expected to increase this further to 3.08. The southbound a.m. peak direction would also deteriorate from 1.84 in 2040 without the project to 2.04 with the project. The project would therefore contribute to a significant impact on emergency response times under Cumulative Conditions. To mitigate this impact, TJKM recommends that the project applicant contribute a fair share toward implementing emergency vehicle signal preemption on Pleasant Hill Road. This is the same mitigation measure identified in the Final EIR for the project (2013) as mitigation measure TRAF-5, and remains applicable to Pleasant Hill

Road. With mitigation, the project would have a **less-than significant impact** on emergency services response times.

9.6 Proposed Southbound Lane on Pleasant Hill Road

As shown in **Figure 2**, the proposed project would include construction of a new southbound lane on Pleasant Hill Road, in addition to separating the southbound right turn lane and bike lane. The new lane would begin approximately 600 ft. north of Deer Hill Road, would provide a third southbound through lane at the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard. South of Deer Hill Road, the lane would become a trap lane, leading directly into the SR-24 westbound ramp. This section discusses policy considerations and stated opinions of the staff of City of Lafayette and other responsible agencies.

9.6.1 Caltrans Policies, Considerations, and Feedback

The proposed trap lane would alter the alignment of an existing freeway on-ramp and would cross from the project site and City of Lafayette public right-of-way, into State right-of-way administered by Caltrans. Caltrans was therefore asked to provide an opinion on the proposed project, including the proposed trap lane. In their letter dated March 6, 2019, Caltrans staff did not cite any concerns regarding the proposed trap lane. This letter is included in **Appendix J**.

9.6.2 Lamorinda Action Plan and Gateway Constraints Policy

Although the added lane would begin only 600 ft. north of Deer Hill Road, the project as proposed may conflict with the specific implementation of the Gateway Constraints Policy for southbound Pleasant Hill Road, as stated in the *Lamorinda Action Plan* (2017). For the designated gateway of Pleasant Hill Road, the policy is described as follows:

> The two southbound through lanes on Pleasant Hill Road–Taylor Boulevard are proposed as a gateway constraint. The Gateway Constraint Policy would prohibit the addition of any through lanes, including short-link segments, on any portion of Pleasant Hill Road between SR-24 and the Lafayette city limits line north of the intersection with Taylor Boulevard…While the gateway policy includes physical characteristics at key intersections, gateway constraints may also be affected by varying the timing of signals, both along the corridor and at strategic entry points into the system.

In 2016, TJKM completed a traffic signal coordination project for Pleasant Hill Road, with the goal of shifting traffic congestion northward from Deer Hill Road. This was done by adjusting signal timing to meter traffic on the northern end of the corridor. Previously, the congestion and delays from the intersection at Deer Hill Road was the primary constraint on capacity within the corridor. Although that intersection no longer acts as the primary capacity constraint on this gateway, adding more capacity for southbound through movements at Deer Hill Road does have the potential to increase speeds upstream and attract more drivers onto the corridor. Initial simulations using SimTraffic suggest that this would be the case. As such, the proposed lane may violate both the letter and spirit of the Gateway Constraints Policy.

9.6.3 CCTA and City of Lafayette Staff Feedback

In detailed discussions with CCTA and City of Lafayette staff, major considerations for the proposed southbound lane include both operational characteristics and regulatory compliance. As shown in Chapters 6 and 8, the proposed project would generally have a smaller impact on intersection level of service and queuing at Pleasant Hill Road & Deer Hill Road/Stanley Boulevard than the project variant, which would not include the additional southbound lane. In the a.m. peak hour, with the addition of the proposed southbound lane, level of service and queuing on most movements would improve relative to existing conditions under both Existing plus Project and Cumulative plus Project Conditions. As shown in **Figure 2**, the new lane would require the new bike lane to cross the trap lane close to the project driveway. Under the project variant, bikes would cross the on-ramp at the point where it meets the southbound lanes at the southern end of the project frontage. This is similar to existing bike/vehicle conflicts at the other on- and off-ramps at the interchange, where bike lanes intersect the ramps. The project variant would be an improvement over existing conditions where bikes and vehicles currently share the same travel lane, and vehicles may not be aware of bicyclists . The proposed project with added lane is preferable to the project variant, as the bike/vehicle conflict would be shifted away from the freeway ramp. Both the proposed project and the project variant would improve bicycle safety on southbound Pleasant Hill Road.

9.6.4 Conclusion

However, the proposed project would unacceptably conflict with the *Lamorinda Action Plan*. The *Lamorinda Action Plan* policies, such as the Gateway Constraint Policy, implement the Countywide Growth Management Program (GMP) at the sub-regional level. Pursuant to the GMP *Implementation Guide*, the adopted MTSOs within such sub-regional plans should also be able to serve as thresholds of significance in the CEQA review of proposed development projects (pg. 3). The *Lamorinda Action Plan* states that its modeling analysis indicates that the "Gateway Constraint Policy may be key to achieving the MTSOs for Lamorinda" (pg. 56).

As such, the proposed project's conflict with the Gateway Constraints Policy would constitute a **significant impact**. The project variant, which would not include the added southbound through lane, would not conflict with the Gateway Constraints Policy and would have a **less-than-significant impact**. TJKM recommends that the applicant obtain approval of amendments to the *Lamorinda Action Plan* such that there is no longer a conflict, or proceed with the project variant instead of the proposed project.

9.7 Construction Impacts

The 2012 traffic study conducted by TJKM included a detailed discussion of transportation-related impacts associated with the construction phase of the proposed project. For many developments, construction impacts on transportation may involve minor detours or temporary closure of pedestrian and bicycle facilities, with fewer peak hour construction trips than those generated by a completed project. However, as the project is located at the intersection of two busy arterials and across the street from a high school, and because the proposed scope involves extensive frontage changes and roadway widening, potential construction impacts require additional consideration. As the project size and immediate vicinity have not substantially changed, the construction impacts and mitigation measures

identified below are similar to those identified in the 2012 study. The following elements should be included in a detailed construction traffic staging and management plan, to be developed in consultation with, and reviewed and approved by, City of Lafayette engineering staff, in order to address and mitigate potential construction impacts.

The project would construct new pedestrian facilities on Pleasant Hill Road and Deer Hill Road, however, for the duration of this construction the existing pedestrian loading operations, as detailed in Section 5.5, would be disrupted. Although it is possible that the loading area on the Pleasant Hill Road frontage could be temporarily relocated north of Deer Hill Road, there is no such equivalent temporary loading area for vehicles currently unloading passengers directly onto Deer Hill Road near the intersection. Disruption of these loading areas would constitute a **temporary significant impact**. To mitigate this impact, TJKM recommends staging construction of these frontages to occur over the summer school break, such that the existing loading zones would be demolished and new pedestrian facilities put in place prior to the following school year.

Large truck traffic during construction may result in excessive intersection delay at Pleasant Hill Road & Deer Hill Road/Stanley Boulevard during congested times of day, and large trucks maneuvering on Pleasant Hill Road and Deer Hill Road may create new traffic hazards when changing lanes or making wide turns through heavy traffic, which would constitute a **temporary significant impact**. To mitigate this impact, TJKM recommends limiting truck traffic to off-peak times, when these roadways are less congested, and avoiding school drop-off and pick-up times in particular.

The highest volume of large truck traffic is expected during the grading phase of construction, and these. trucks may be particularly heavy. Heavy trucks place substantially more strain on pavement and accelerate its degradation. Due to the truck traffic associated with the grading phase, this may constitute a **temporary significant** impact. In order to address wear and tear on the nearby roadway and mitigate this impact, a detailed engineering analysis should be conducted to assess the remaining pavement lifespan on Pleasant Hill Road and the amount that would be used by construction traffic. At the direction of City engineering staff, pavement should be repaired and pavement markings restored wherever construction traffic would produce unacceptable wear.

With development of a construction traffic staging and management plan, including the mitigation measures described above, the project would have a **less-than-significant impact** on the surrounding transportation facilities during construction.

CONCLUSIONS AND RECOMMENDATIONS

1. The proposed residential development is expected to generate 2,032 total daily trips, including 158 a.m. peak hour trips (32 in, 126 out), 148 school p.m. peak hour trips (71 in, 77 out), and 191 p.m. peak hour trips (117 in, 74 out). Project trip generation assumptions are consistent with the 2012 study.
2. Under **Existing Conditions**, analysis of study roadways and intersections indicate that the study area experiences traffic congestion and delay, above acceptable performance standards.
    a. *Level of service*: Seven of the nine signalized intersections currently operate at unacceptable level of service during two or three peak hours, including all Pleasant Hill Road intersections other than Pleasant Hill Road & SR-24 Eastbound Off-Ramps/Old Tunnel Road. The unsignalized intersection of Deer Hill Road & Brown Avenue also operates at unacceptable LOS F during all peak hours but does not satisfy the peak hour signal warrant.
    b. *Queuing*: At the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, all dedicated turn lanes currently experience 95th percentile queues that exceed the available storage capacity, under all peak periods.
    c. *Delay Index*: Projected delay index performance for 2019 Conditions shows that both Pleasant Hill Road and SR-24 both operate within acceptable delay index limits in both peak directions.
3. Under **Existing plus Project Conditions**, intersection and roadway performance would generally be similar to Existing Conditions, with impacts that can be fully mitigated for both the proposed project and project variant.
    a. *Level of service*: The project would have a significant impact at the intersection of Deer Hill Road & Brown Avenue that can be mitigated with signalization, with less-than-significant impacts at all other locations. With mitigation, the project would have a **less-than-significant impact**.
    b. *Queuing*: The project includes improvements to existing turn lanes. The project would have a **less-than-significant impact** on intersection queuing under both the proposed project and project variant. Driveway queuing operations would be adequate and have a **less-than-significant impact** both on- and off-site.
    c. *Weaving areas*: The project driveways would not create new or worsen existing weaving areas, resulting in a **less-than-significant impact**.
    d. *Delay index*: Projected delay index performance for 2019 plus Project Conditions shows that Pleasant Hill Road and SR-24 would both operate within acceptable delay index limits in both peak directions, under both the proposed project and project variant. The proposed project would reduce delay on Pleasant Hill Road in the southbound a.m. direction. The project would have a **less-than-significant impact** on both Pleasant Hill Road and SR-24.

e. *Pedestrian and bicycle impacts*: The project would expand and improve available bicycle and transit facilities and would have a **less-than-significant impact** under both the proposed project and project variant.

f. *Transit impacts*: The project would have a less-than-significant impact on BART ridership, but increased demand for parking spaces could have a significant impact on the Lafayette BART station vicinity. This can be mitigated with a fully subsidized shuttle connecting the project to the BART station. With mitigation, the project would have a **less-than-significant impact** on transit.

4. Under **Cumulative Conditions**, existing traffic patterns and delay are expected to intensify, with corresponding increases in congestion and delay.

   a. *Level of service*: Seven of the nine signalized intersections would continue to operate at unacceptable level of service during two or three peak hours, including all Pleasant Hill Road intersections other than Pleasant Hill Road & SR-24 Eastbound Off-Ramps/Old Tunnel Road. The unsignalized intersection of Deer Hill Road & Brown Avenue would also operate at unacceptable LOS F during all peak hours and would satisfy the peak hour signal warrant.

   b. *Queuing*: At the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, all dedicated turn lanes would continue to experience 95th percentile queues that exceed the available storage capacity, under all peak periods.

   c. *Delay Index*: Projected delay index performance for 2040 Conditions shows that both Pleasant Hill Road and SR-24 would continue to operate within acceptable delay index limits in the a.m. peak direction, but Pleasant Hill Road would exceed the acceptable delay index limit in the northbound p.m. peak direction. SR-24 would operate within the acceptable delay index limit in the p.m. peak direction.

5. Under **Cumulative plus Project Conditions**, intersection and roadway performance would generally be similar to Cumulative Conditions, with some impacts that can be fully mitigated. Significant impacts are noted below.

   a. *Level of service*: The proposed project and project variant would have a significant impact at the intersection of Deer Hill Road & Brown Avenue that can be mitigated with signalization, with less-than-significant impacts at all other locations. The project variant would also produce a significant impact at Pleasant Hill Road & Deer Hill Road/Stanley Boulevard that cannot be feasibly mitigated. With mitigation, the proposed project would have a **less-than-significant impact**. The project variant would have a **significant and unavoidable impact** at the Pleasant Hill Road & Deer Hill Road/Stanley Boulevard intersection.

   b. *Queuing*: The project includes improvements to existing turn lanes. Driveway queuing operations would be adequate and have a **less-than-significant impact** both on- and off-site, under both the proposed project and project variant.

c. *Weaving areas*: The project driveways would not create new or worsen existing weaving areas, resulting in a **less-than-significant** impact.

d. *Delay index*: Projected delay index performance for 2040 plus Project Conditions shows that SR-24 would continue to operate within acceptable delay index limits in both peak directions under both the proposed project and the project variant. Pleasant Hill Road would exceed the acceptable delay index limit in the northbound p.m. peak direction, under both the proposed project and project variant, with delay index increasing to a significant degree. The proposed project would reduce delay on Pleasant Hill Road in the southbound a.m. direction, but the project variant would have a significant impact on delay index in the southbound a.m. direction. The proposed project would have a **significant and unavoidable impact** on Pleasant Hill Road during the p.m. peak hour. The project variant would have a **significant and unavoidable impact** on Pleasant Hill Road during both peak hours.

6. Based on newer trip generation rates found in *Trip Generation, 10th Edition* (2017), the project would be expected to generate 1,714 total daily trips, including 113 a.m. peak hour trips (29 in, 84 out), 99 school p.m. peak hour trips (50 in, 49 out), and 139 p.m. peak hour trips (85 in, 54 out). Although the number of project trips would be smaller than those analyzed throughout this report, intersection delay and level of service results remained substantially similar. The analysis using the 10th Edition trip generation rates, conducted for informational purposes only, determined that there would be no changes in findings of significance at any of the study intersections, and the project would not generate any new impacts.

7. The project site would be accessed via two driveways on Deer Hill Road and one right-in/right-out only driveway on Pleasant Hill Road. Driveway design and sight distance are adequate. Interior access drives and drive aisles meet City of Lafayette standards for minimum width and provide adequate curb radii for large vehicles to maneuver. The project would provide adequate access and on-site circulation for vehicles, and adequate access for emergency vehicles and trucks. Overall, the project site design would have a **less-than-significant impact** on safety, access, and circulation both on- and off-site.

8. Pedestrians would access the site via connections to the proposed pedestrian facilities on the Pleasant Hill Road and Deer Hill Road frontages. The site includes walkways and accessible connecting all buildings and major common areas, with accessible paths utilizing switchbacks and curves to traverse the hilly terrain. Bicycles would access the site via driveways and walkways connecting to the proposed multiuse path on the Pleasant Hill Road frontage. Bicyclists could either use internal access drives or walk their bikes on the pedestrian walkways, as dictated by the topography. Although not shown on the current site plans, it is assumed that additional details of walkway design and bike parking locations will be included in final design plans. Pedestrian curb ramps should be shown in the final, more detailed plans at all pedestrian crossings. Overall, pedestrian and bicycle access and circulation are adequate. The project is expected to have a **less-than-significant impact** on pedestrians and bicyclists on- and off-site.

9. Under the City of Lafayette Municipal Code, the proposed project would be required to provide 511 parking spaces, based on the number of one-, two- and three-bedroom units to be constructed. The project site plans show a total parking supply of 557 spaces, including 11 accessible spaces as required by the Americans with Disabilities Act. It is also unclear whether all parking spaces meet City minimum dimensions. The overall parking supply is adequate, and the project would have a **less-than-significant impact** on surrounding roadways due to parking demand. However, the site plans do not show the locations or size of bicycle parking areas required by City standards, nor do they indicate which accessible spaces are van-accessible. Although not required to mitigate a significant impact, the project plans should be reviewed and revised in consultation with City staff to include these missing items and to ensure compliance with parking lot design standards.

10. The proposed project would expand and improve the existing designated passenger loading area on the Pleasant Hill Road frontage, immediately south of Deer Hill Road. The loading area would be approximately doubled in length, provided with sidewalks and curb ramps, and widened to accommodate a bus turn-out. The loading area would accommodate approximately eight waiting vehicles. The portion of the Deer Hill Road frontage currently used for passenger loading would also be improved with new sidewalks. However, the proposed project would remove 19 existing on-street parking spaces that are largely vacant in the morning but used in the afternoon by vehicles waiting to pick up students from the nearby high school. The expanded passenger loading area would provide some new space for these vehicles to wait, and other nearby on-street parking spaces exist to the south and on the east side of Pleasant Hill Road. It is expected that the proposed project would have a **less-than-significant impact** on passenger loading and parking.

11. Data provided by the Contra Costa County Fire Protection District (FPD) shows that in 2018, the three fire stations closest to the project site failed to meet the target response time of five minutes, set by the City of Lafayette and the FPD. All three fire stations utilize the Pleasant Hill Road corridor for emergency calls. The project's significant impact on Pleasant Hill Road delay index under Cumulative plus Project Conditions would therefore contribute to a significant impact on emergency response times. As mitigation, TJKM recommends that the project applicant contribute a fair share toward implementing emergency vehicle signal preemption on Pleasant Hill Road. With mitigation, the project would have a **less-than significant impact** on emergency services response times.

12. Although the added southbound lane on Pleasant Hill Road included in the proposed project would provide operational benefits at the intersection of Pleasant Hill Road & Deer Hill Road/Stanley Boulevard, it would conflict with the Gateway Constraints Policy outlined in the *Lamorinda Action Plan*. The policy specifies that Pleasant Hill Road should be limited to two southbound through lanes for the entire corridor, and even short-link sections of southbound through lanes are prohibited. As such, the proposed project's conflict with the Gateway Constraints Policy would constitute a **significant impact**. The project variant, which would not

include the added southbound through lane, would not conflict with the Gateway Constraints Policy and would have a **less-than-significant impact**. TJKM recommends that the applicant obtain approval of amendments to the *Lamorinda Action Plan* such that there is no longer a conflict, or proceed with the project variant instead of the proposed project.

13. Due to the project location and proposed scope, it is expected to have significant impacts on the adjacent streets and pedestrian facilities that require mitigation. Large truck traffic during construction, particularly during the grading phase, may create additional congestion and hazardous conditions due to maneuvering in heavy traffic, as well as creating excessive wear and tear on the pavement of Pleasant Hill Road. Passenger loading areas on the Pleasant Hill Road and Deer Hill Road frontages would also be disrupted by construction. These constitute significant construction-related impacts These impacts can be mitigated by implementing a detailed construction traffic staging and management plan, to be developed in consultation with, and reviewed and approved by, City of Lafayette engineering staff. With development of an adequate construction traffic staging and management plan, as described below, the project would have a **less-than-significant impact** on the surrounding streets and pedestrian facilities during construction. The construction management plan should include the following:

    a) Stage construction activities at existing passenger loading areas on the Pleasant Hill Road and Deer Hill Road frontages for the summer school break, such that new pedestrian facilities are in place prior to the following school year.

    b) Limit heavy vehicle traffic to off-peak periods, avoiding school drop-off and pick-up times.

    c) Conduct a detailed engineering analysis of the remaining pavement lifespan on Pleasant Hill Road and the amount that would be used by construction traffic. Repair pavement and restore pavement markings wherever construction traffic would produce unacceptable wear

Required Mitigation Measures

In order to mitigate the significant impacts described above, the following mitigation measures were identified. Where a mitigation measure was previously identified in the 2013 Final EIR, the associated numbered mitigation measure is noted:

- Signalize the intersection of Deer Hill Road & Brown Avenue. At the discretion of the City of Lafayette and in consultation with City of Lafayette engineering staff, a roundabout may be considered as an alternative mitigation measure (TRAF-2 and TRAF-9).
- Provide a fully subsidized shuttle connecting the project to the BART station (TRAF-14).
- Contribute a fair share toward implementing emergency vehicle signal preemption on Pleasant Hill Road (TRAF-5).
- Develop a detailed construction traffic staging and management plan, in consultation with, and reviewed and approved by, City of Lafayette engineering staff, as described above (TRAF-7).
- Obtain approval of amendments to the *Lamorinda Action Plan* such that there is no longer a conflict with the proposed project, or proceed with the project variant instead of the proposed project.

Recommendations

Although not required to mitigate specific significant impacts, TJKM recommends the following improvement measures, which should be included in the project conditions of approval[4]:

- To maintain adequate sight lines between vehicles at driveways and oncoming vehicles in the roadway, all landscaping within 15 feet of the driveways shall be maintained at no more than 30 inches in height, or trees shall be maintained with canopy foliage no less than seven feet above the ground. Landscaping plans near the project driveways should be approved in consultation with City of Lafayette engineering staff. It should be noted that the sight distance impacts based on driveway locations and configurations, identified in the 2012 study, were eliminated by design changes.
- The final project site plans should show the locations of required pedestrian curb ramps at all pedestrian crossings and stop signs at the internal intersection in the northeast corner of the site.
- The project applicant should work with City staff to identify preferred placement for the two required van accessible parking spaces and bike parking facilities, and to confirm that final parking lot plans satisfy minimum design standards for parking spaces.

[4] Improvement measures are not required to reduce, avoid, or eliminate adverse physical changes. Instead, they are identified as ways to further reduce the magnitude of less-than-significant impacts. They may be adopted by decision-makers as conditions of approval.

Appendix A – Summary of Project Impacts and Mitigation Measures

PROJECT IMPACTS AND MITIGATION MEASURES

Note: traffic impacts are numbered for consistency with the TJKM Traffic Impact Analysis dated April 19, 2012. Substantial alterations (additions and ~~deletions~~) and impact numbering changes made in the 2013 Final EIR are noted where applicable. Unless otherwise noted, the mitigation measures specified in the 2013 FEIR are also applicable to the revised project.

Category	***Description***	***2012 Findings***	***2019 Findings: Proposed Project***	***2019 Findings: Project Variant***	***Comments***
Intersection LOS	**TRAF-1**: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard: operating at LOS F, increased delay more than 5.0 seconds in the a.m. peak hour	Significant and unavoidable (Existing plus Project only; less-than-significant for Cumulative plus Project)	Less-than-significant (all scenarios)	Significant and unavoidable (Cumulative plus Project only)	E+P: change likely due to adjusted trip assignment at driveways and new signal timing C+P: 2012 study altered peak hour factors between scenarios. Updated study does not, altering C+P results..
Intersection LOS	**TRAF-2**: Deer Hill Road & Brown Avenue: operating at LOS F, increased delay more than 5.0 seconds in the a.m. and p.m. peak hours (Existing plus Project) **TRAF-10**: Deer Hill Road & Brown Avenue: operating at LOS F, increased delay more than 5.0 seconds in the a.m. and p.m. peak hours (Cumulative plus Project). (TRAF-9 in FEIR)	Less-than-significant with mitigation (signal)	Less-than-significant with mitigation (signal)	Less-than-significant with mitigation (signal)	City may choose to try a roundabout instead. Expected improvement is less than a traffic signal but still sufficient to reduce these impacts to less than significant levels.

Category	*Description*	*2012 Findings*	*2019 Findings: Proposed Project*	*2019 Findings: Project Variant*	*Comments*
Weaving Conditions	~~**TRAF-3**: would reduce northbound speed on Pleasant Hill Road between SR-24 and Acalanes Ave. from 4.6 mph to 3.8 mph (17 percent reduction) in the p.m. peak hour. (In a.m. and school p.m. peak hours, reduction <10 percent.) (Existing plus Project)~~ ~~**TRAF-14**: the Project would reduce the average speed on northbound Pleasant Hill Road between the State Route 24 westbound off-ramp and Acalanes Avenue during the p.m. peak hour from 2.7 miles per hour (mph) to 2.4 mph, an 11 percent reduction. This speed reduction of more than ten percent is considered an unacceptable weaving condition that would substantially increase hazards (Cumulative plus Project)~~	~~Significant and unavoidable~~	Less than significant	Less than significant	Deleted in FEIR by changing criteria to absolute speed reduction. Closing driveway was considered infeasible as mitigation because it would create a significant impact at Pleasant Hill Road Deer Hill Road/Stanley Boulevard. No such weaving condition with new design.
Design Feature	**TRAF-4**: inadequate sight distance at all driveways (TRAF-3 in FEIR)	Less-than-significant with mitigation (relocate/redesign driveways)	Less than significant	Less than significant	Mitigation measures identified in the 2012 study have now been included in revised design.

Category	*Description*	*2012 Findings*	*2019 Findings: Proposed Project*	*2019 Findings: Project Variant*	*Comments*
Design Feature	**TRAF-5**: Because westbound Deer Hill Road speeds increase as vehicles descend the hill east of the west Project driveway, westbound vehicles slowing or stopping in the westbound Deer Hill Road through lane before turning left into the west Project driveway would present potential safety issues. (TRAF-4 in FEIR)	Less-than-significant with mitigation (widen Deer Hill Road to provide left turn lane and/or prohibit let turns into the driveway from westbound Deer Hill Road	Less-than-significant	Less-than-significant	Revised design incorporates the second mitigation option identified in the 2012 study (i.e., prohibiting left turns from westbound Deer Hill Road)
Emergency Access	**TRAF-6**: the Project's significant impact on p.m. peak-hour traffic speeds for northbound Pleasant Hill Road, which results in a significant impact on Delay Index, ~~between the off-ramp from westbound State Route 24 and the proposed Project driveway~~ would result in inadequate emergency access to other areas of Lafayette served by Pleasant Hill Road between State Route 24 and Rancho View Drive. (TRAF-5 in FEIR)	Less-than-significant with mitigation (fair share of emergency vehicle signal preemption)	Less-than-significant with mitigation (same)	Less-than-significant with mitigation (same)	Impact modified by FEIR to apply only to Cumulative impacts. Current delay index impact is also only a Cumulative impact.
Design Feature	**TRAF-7**: The emergency vehicle access shown on the Project site plans does not comply with minimum turning radius requirements at several on-site driveway locations. The restricted turning radii would result in inadequate emergency access to the project site. (TRAF-6 in FEIR)	Less-than-significant with mitigation (redesign)	Less-than-significant	Less-than-significant	Mitigation measures identified in the 2012 study have now been included in revised design

Category	*Description*	*2012 Findings*	*2019 Findings: Proposed Project*	*2019 Findings: Project Variant*	*Comments*
Construction	**TRAF-8**: During the grading phase of construction on the Project site, large truck traffic on Pleasant Hill Road and Deer Hill Road and elimination of the existing passenger loading zone along the project frontage on Pleasant Hill Road would result in a temporary significant impact. (TRAF-7 in FEIR)	Less-than-significant with mitigation (detailed construction management/staging plan, including engineering analysis of the portion of existing pavement life used by project construction)	Less-than-significant with mitigation (same)	Less-than-significant with mitigation (same)	Recommending a similar construction management/staging plan.
Design Feature	**TRAF-9**: Project driveways would provide inadequate truck turning radii for large trucks. The resulting improper lane use and other potential unsafe maneuvers by trucks on heavily travelled public streets would substantially increase hazards due to a design feature. (TRAF-8 in FEIR)	Less-than-significant with mitigation (redesign)	Less-than-significant	Less-than-significant	Mitigation measures identified in the 2012 study have now been included in the revised design
Design Feature	**TRAF-11**: Project traffic exiting the west Project driveway on Deer Hill Road would experience an LOS E delay during the a.m. peak hour. Although LOS E is acceptable at a one-way stop control intersection such as the driveway, the amount of delay suggests that drivers turning left out of the driveway would have some difficulty finding an acceptable gap in traffic flow on Deer Hill Road, at a location where prevailing speeds are relatively high. This would pose a traffic hazard. (TRAF-10 in FEIR)	Less-than-significant with mitigation (add median refuge lane or add warning signage)	Less-than-significant	Less-than-significant	Mitigation measure identified in the 2012 study have now been included in revised design: refuge lane for left turns out of driveway

Category	*Description*	*2012 Findings*	*2019 Findings: Proposed Project*	*2019 Findings: Project Variant*	*Comments*
Intersection Queuing	**TRAF-12**: the peak estimated 95th-percentile left-turn queue length for northbound traffic on Pleasant Hill Road at Deer Hill Road would be 306 feet during the a.m. peak hour, which would exceed the capacity of the existing 250-foot storage lane. (TRAF-11 in FEIR)	Significant and unavoidable under Cumulative plus Project conditions (project driveway precludes lengthening turn lane)	Less-than-significant (queues fit within the extended turn lane)	Less-than-significant (queues fit within the extended turn lane)	Closing the project driveway and extending the northbound left turn lane were both noted as infeasible mitigation measures in 2012, but they have been determined to be feasible and are now included in the revised design.
Driveway Queuing	**TRAF-13**: the peak estimated 95th-percentile left-turn queue lengths for northbound traffic on Pleasant Hill Road at the Project driveway would be 124 feet and 177 feet during the school p.m. and commute p.m. peak hours, respectively, which would exceed the capacity of the 100-foot storage lane proposed in the Project plans. (TRAF-12 in FEIR)	~~Significant and unavoidable under Cumulative plus Project conditions~~ Less-than-significant with mitigation (extend driveway storage lane)	NA	NA	Driveway storage lane on Pleasant Hill Road has been removed in the revised design

Category	*Description*	*2012 Findings*	*2019 Findings: Proposed Project*	*2019 Findings: Project Variant*	*Comments*
Delay Index	**TRAF-15**: the addition of Project trips to Pleasant Hill Road would increase the peak hour peak direction Delay Index by approximately 0.41 for southbound traffic in the a.m. peak hour and northbound traffic in the p.m. peak hour. Because the Delay Index would increase by more than 0.05 for peak hour peak direction traffic where the Delay Index exceeds 2.0 on Pleasant Hill Road. (Cumulative plus Project). (TRAF-13 in FEIR)	Significant and unavoidable for both peak directions.	Significant and unavoidable for northbound (p.m.) peak direction only.	Significant and unavoidable for both peak directions.	Gateway constraints policy precludes adding more through lanes.
Transit	**TRAF-16**: The Project would generate an additional weekday parking demand for up to 50 spaces at the Lafayette BART station, which represents approximately three percent of the 1,526 spaces in the lot. The parking lot demand already exceeds capacity on weekdays. (TRAF-14 in FEIR)	Less-than-significant with mitigation (subsidized shuttle between project site and BART)	Less-than-significant with mitigation (subsidized shuttle between project site and BART)	Less-than-significant with mitigation (subsidized shuttle between project site and BART)	No changes, still likely an issue. BART estimates parking fill time by 7:00 a.m.
Transit	**TRAF-17**: The Project site plan does not include a loading and unloading area for school bus service, and peak hour traffic congestion on Pleasant Hill Road and Deer Hill Road would be exacerbated if all traffic would be required to stop for a school bus in the traffic lane. (TRAF-15 in FEIR)	Less-than-significant with mitigation (add bus stop and turn-out)	Less-than-significant	Less-than-significant	Mitigation measures identified in the 2012 study have now been included in the revised design.

Category	*Description*	*2012 Findings*	*2019 Findings: Proposed Project*	*2019 Findings: Project Variant*	*Comments*
Pedestrians	**TRAF-18**: The 5-foot sidewalks proposed by the Project plans would be narrower than those existing in the immediate vicinity or recently approved by the City on arterial roadways. Therefore, the Project would be inconsistent with City guidelines for pedestrian facilities. (TRAF-16 in FEIR)	Less-than-significant with mitigation (wider sidewalk and/or shared path)	Less-than-significant	Less-than-significant	Mitigation measures identified in the 2012 study have now been included in the revised design.
Pedestrians/ Bicycles	**TRAF-19**: Project driveways on Deer Hill Road and Pleasant Hill Road would interrupt the new sidewalks and would cross existing and proposed Class II bike lanes. This would present conflicting vehicle traffic for pedestrians and bicyclists. (TRAF-17 in FEIR)	Less than significant with mitigation (TRAF-4: redesign/relocate driveways)	Less-than-significant	Less-than-significant	Mitigation measures identified in the 2012 study have now been included in the revised design.
Bicycles	**TRAF-20**: Proposed widening of southbound Pleasant Hill Road to add a vehicle traffic lane includes adding a 5-foot wide Class II bike lane along the west curb north of the Project driveway. South of the Project driveway, the bike lane would be forced to shift to the left side of the additional southbound traffic lane that would become a right-turn-only lane for the on-ramp to westbound State Route 24. This configuration would cause unacceptable weaving conflicts with vehicle traffic for the planned southbound bike lane (TRAF-18 in FEIR)	Less-than-significant with mitigation (alternative widening plan for southbound Pleasant Hill Road)	Less-than-significant	Less-than-significant	Mitigation measures identified in the 2012 study have now been included in the revised design

Category	*Description*	*2012 Findings*	*2019 Findings: Proposed Project*	*2019 Findings: Project Variant*	*Comments*
Bicycles	**TRAF-21**: Project plans could preclude accommodation of a planned bike path along the Project boundary, and the plans propose a narrower facility on the west side of Pleasant Hill Road than those recently constructed by the City for shared bicycle and pedestrian use. (TRAF-19 in FEIR)	Less-than-significant with mitigation	Less-than-significant	Less-than-significant	Mitigation measures identified in the 2012 study have now been included in the revised design.
Bicycles	**TRAF-22**: Traffic entering and exiting the proposed Project driveway on Pleasant Hill Road would interfere with the shared bicycle and pedestrian path that is planned along the west side of the roadway, causing hazards to bicyclists at the driveway intersection. (TRAF-20 in FEIR)	Less-than-significant with mitigation	Less than significant	Less than significant	Mitigation measures identified in the 2012 study have now been included in the revised design.

Category	*Description*	*2012 Findings*	*2019 Findings: Proposed Project*	*2019 Findings: Project Variant*	*Comments*
Pedestrians	**TRAF-23**: Project plans propose widening southbound Pleasant Hill Road between Deer Hill and the on-ramp to westbound State Route 24 to add a vehicle traffic lane and a bike lane along the west curb, where the plans show elimination of the existing curb parking and passenger loading zone. The proposed elimination of the existing designated spaces on the west curb of Pleasant Hill Road that are currently used for school passenger loading would result in additional hazardous passenger loading activity at unsuitable locations. The loss of these designated curb spaces used for passenger loading would substantially increase hazards for school pedestrians and vehicle traffic in the immediate area. (TRAF-21 in FEIR)	Less-than-significant with mitigation (new passenger loading zone and bus turn-out)	Less than significant	Less than significant	Mitigation measures identified in the 2012 study have now been included in the revised design

Appendix B – Existing Turning Movement Counts and CCTA Model Flow Maps

Prepared by National Data & Surveying Services

Pleasant Hill Rd & Rancho View Dr

Peak Hour Turning Movement Count

ID: 19-08244-009
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS	
	07:00 AM - 08:00 AM
	03:00 PM - 04:00 PM
	04:30 PM - 05:30 PM

COUNT PERIODS	
	07:00 AM - 09:00 AM
	02:00 PM - 04:00 PM
	04:00 PM - 07:00 PM

Pleasant Hill Rd — SOUTHBOUND

AM	8	1893	0	0	442	AM
NOON	18	810	0	0	2083	NOON
PM	17	794	0	0	2482	PM

0 2 0 0

Rancho View Dr — EASTBOUND

AM	NOON	PM	
15	34	34	
0	0	0	0
12	15	11	0
0	0	0	1
17	20	24	0

Rancho View Dr — WESTBOUND

	PM	NOON	AM
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
	0	0	0

CONTROL

Signalized

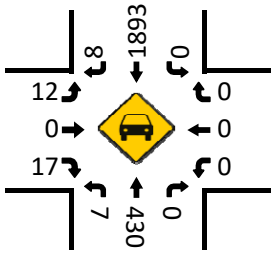
	AM	NOON	PM
TEV	2367	2947	3334
PHF	0.92	0.90	0.95

0 1 2 0

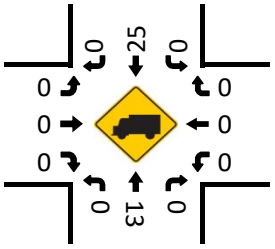
Pleasant Hill Rd — NORTHBOUND

PM	818	0	17	2471	0	PM
NOON	830	0	16	2068	0	NOON
AM	1910	0	7	430	0	AM

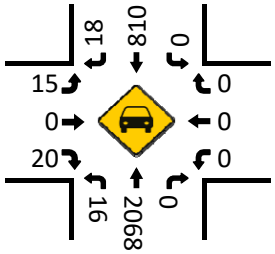
Total Vehicles (AM)



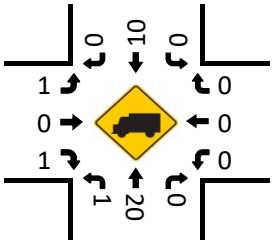
HT (AM)



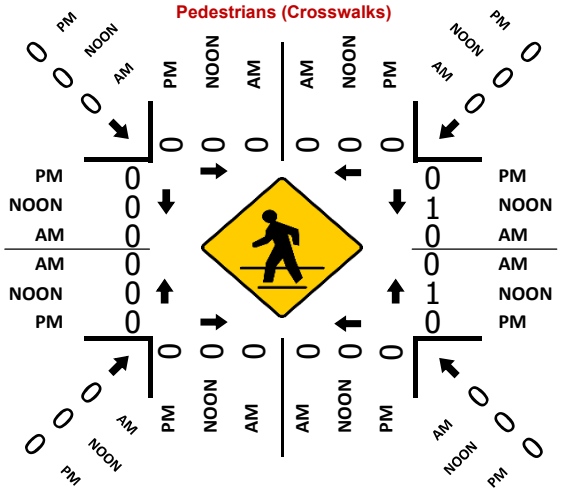
Total Vehicles (Noon)



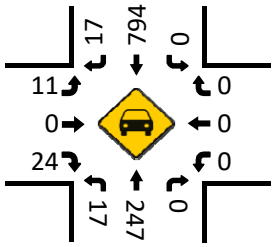
HT (NOON)



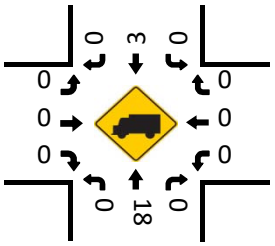
Pedestrians (Crosswalks)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Rancho View Dr
City: Lafayette
Control: Signalized

Project ID: 19-08244-009
Date: 4/30/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Rancho View Dr				Rancho View Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	83	0	0	0	556	1	0	0	0	2	0	0	0	0	0	643
7:15 AM	4	80	0	0	0	539	1	0	4	0	3	0	0	0	0	0	631
7:30 AM	1	121	0	0	0	458	6	0	4	0	7	0	0	0	0	0	597
7:45 AM	1	146	0	0	0	340	0	0	4	0	5	0	0	0	0	0	496
8:00 AM	5	152	0	0	0	351	1	0	3	0	5	0	0	0	0	0	517
8:15 AM	3	139	0	0	0	311	3	0	3	0	7	0	0	0	0	0	466
8:30 AM	2	168	0	0	0	376	1	0	2	0	2	0	0	0	0	0	551
8:45 AM	2	157	0	0	0	340	2	0	5	0	5	0	0	0	0	0	511
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	19	1046	0	0	0	3271	15	0	25	0	36	0	0	0	0	0	4412
APPROACH %'s :	1.78%	98.22%	0.00%	0.00%	0.00%	99.54%	0.46%	0.00%	40.98%	0.00%	59.02%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	7	430	0	0	0	1893	8	0	12	0	17	0	0	0	0	0	2367
PEAK HR FACTOR :	0.438	0.736	0.000	0.000	0.000	0.851	0.333	0.000	0.750	0.000	0.607	0.000	0.000	0.000	0.000	0.000	0.920
	0.743				0.853				0.659								

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	5	255	0	0	0	177	1	0	3	0	1	0	0	0	0	0	442
2:15 PM	5	320	0	0	0	194	0	0	1	0	1	0	0	0	0	0	521
2:30 PM	3	381	0	0	0	218	2	0	1	0	8	0	0	0	0	0	613
2:45 PM	5	436	0	0	0	204	5	0	5	0	6	0	0	0	0	0	661
3:00 PM	7	428	0	0	0	196	0	0	2	0	1	0	0	0	0	0	634
3:15 PM	1	468	0	0	0	218	7	0	3	0	7	0	0	0	0	0	704
3:30 PM	4	565	0	0	0	203	4	0	8	0	3	0	0	0	0	0	787
3:45 PM	4	607	0	0	0	193	7	0	2	0	9	0	0	0	0	0	822
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	34	3460	0	0	0	1603	26	0	25	0	36	0	0	0	0	0	5184
APPROACH %'s :	0.97%	99.03%	0.00%	0.00%	0.00%	98.40%	1.60%	0.00%	40.98%	0.00%	59.02%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	16	2068	0	0	0	810	18	0	15	0	20	0	0	0	0	0	2947
PEAK HR FACTOR :	0.571	0.852	0.000	0.000	0.000	0.929	0.643	0.000	0.469	0.000	0.556	0.000	0.000	0.000	0.000	0.000	0.896
	0.853				0.920				0.795								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	4	581	0	0	0	211	4	0	7	0	7	0	0	0	0	0	814
4:15 PM	1	576	0	0	0	214	3	0	3	0	8	0	0	0	0	0	805
4:30 PM	4	645	0	0	0	185	3	0	2	0	6	0	0	0	0	0	845
4:45 PM	4	559	0	0	0	217	4	0	3	0	9	0	0	0	0	0	796
5:00 PM	3	627	0	0	0	176	5	0	2	0	5	0	0	0	0	0	818
5:15 PM	6	640	0	0	0	216	5	0	4	0	4	0	0	0	0	0	875
5:30 PM	4	620	0	0	0	198	5	0	1	0	5	0	0	0	0	0	833
5:45 PM	3	577	0	0	0	179	7	0	2	0	7	0	0	0	0	0	775
6:00 PM	7	634	0	0	0	148	3	0	0	0	8	0	0	0	0	0	800
6:15 PM	8	570	0	0	0	153	2	0	3	0	5	0	0	0	0	0	741
6:30 PM	2	514	0	0	0	140	2	0	2	0	9	0	0	0	0	0	669
6:45 PM	6	431	0	0	0	140	4	0	4	0	5	0	0	0	0	0	590
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	52	6974	0	0	0	2177	47	0	33	0	78	0	0	0	0	0	9361
APPROACH %'s :	0.74%	99.26%	0.00%	0.00%	0.00%	97.89%	2.11%	0.00%	29.73%	0.00%	70.27%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	17	2471	0	0	0	794	17	0	11	0	24	0	0	0	0	0	3334
PEAK HR FACTOR :	0.708	0.958	0.000	0.000	0.000	0.915	0.850	0.000	0.688	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.953
	0.958				0.917				0.729								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Rancho View Dr
City: Lafayette
Control: Signalized

Project ID: 19-08244-009
Date: 4/30/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Rancho View Dr				Rancho View Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	82	0	0	0	549	1	0	0	0	2	0	0	0	0	0	635
7:15 AM	4	76	0	0	0	529	1	0	4	0	3	0	0	0	0	0	617
7:30 AM	1	115	0	0	0	452	6	0	4	0	7	0	0	0	0	0	585
7:45 AM	1	144	0	0	0	338	0	0	4	0	5	0	0	0	0	0	492
8:00 AM	5	146	0	0	0	347	1	0	3	0	5	0	0	0	0	0	507
8:15 AM	3	134	0	0	0	308	3	0	3	0	7	0	0	0	0	0	458
8:30 AM	2	162	0	0	0	373	1	0	2	0	2	0	0	0	0	0	542
8:45 AM	2	156	0	0	0	334	2	0	4	0	5	0	0	0	0	0	503
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	19	1015	0	0	0	3230	15	0	24	0	36	0	0	0	0	0	4339
APPROACH %'s :	1.84%	98.16%	0.00%	0.00%	0.00%	99.54%	0.46%	0.00%	40.00%	0.00%	60.00%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	7	417	0	0	0	1868	8	0	12	0	17	0	0	0	0	0	2329
PEAK HR FACTOR :	0.44	0.724	0.000	0.000	0.000	0.851	0.333	0.000	0.750	0.000	0.607	0.000	0.000	0.000	0.000	0.000	0.917
	0.731				0.853				0.659								

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	5	250	0	0	0	174	1	0	3	0	1	0	0	0	0	0	434
2:15 PM	5	315	0	0	0	193	0	0	1	0	1	0	0	0	0	0	515
2:30 PM	3	376	0	0	0	216	2	0	1	0	8	0	0	0	0	0	606
2:45 PM	5	429	0	0	0	203	5	0	5	0	6	0	0	0	0	0	653
3:00 PM	7	424	0	0	0	193	0	0	2	0	1	0	0	0	0	0	627
3:15 PM	1	463	0	0	0	218	7	0	2	0	6	0	0	0	0	0	697
3:30 PM	3	559	0	0	0	199	4	0	8	0	3	0	0	0	0	0	776
3:45 PM	4	602	0	0	0	190	7	0	2	0	9	0	0	0	0	0	814
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	33	3418	0	0	0	1586	26	0	24	0	35	0	0	0	0	0	5122
APPROACH %'s :	0.96%	99.04%	0.00%	0.00%	0.00%	98.39%	1.61%	0.00%	40.68%	0.00%	59.32%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	15	2048	0	0	0	800	18	0	14	0	19	0	0	0	0	0	2914
PEAK HR FACTOR :	0.54	0.850	0.000	0.000	0.000	0.917	0.643	0.000	0.438	0.000	0.528	0.000	0.000	0.000	0.000	0.000	0.895
	0.851				0.909				0.750								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	4	571	0	0	0	211	4	0	6	0	7	0	0	0	0	0	803
4:15 PM	1	569	0	0	0	213	3	0	3	0	8	0	0	0	0	0	797
4:30 PM	4	640	0	0	0	184	3	0	2	0	6	0	0	0	0	0	839
4:45 PM	4	555	0	0	0	217	4	0	3	0	9	0	0	0	0	0	792
5:00 PM	3	622	0	0	0	175	5	0	2	0	5	0	0	0	0	0	812
5:15 PM	6	636	0	0	0	215	5	0	4	0	4	0	0	0	0	0	870
5:30 PM	4	613	0	0	0	198	5	0	1	0	5	0	0	0	0	0	826
5:45 PM	3	575	0	0	0	178	7	0	2	0	7	0	0	0	0	0	772
6:00 PM	7	633	0	0	0	148	3	0	0	0	8	0	0	0	0	0	799
6:15 PM	8	567	0	0	0	153	2	0	3	0	5	0	0	0	0	0	738
6:30 PM	2	511	0	0	0	139	2	0	2	0	9	0	0	0	0	0	665
6:45 PM	6	431	0	0	0	140	4	0	4	0	5	0	0	0	0	0	590
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	52	6923	0	0	0	2171	47	0	32	0	78	0	0	0	0	0	9303
APPROACH %'s :	0.75%	99.25%	0.00%	0.00%	0.00%	97.88%	2.12%	0.00%	29.09%	0.00%	70.91%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	17	2453	0	0	0	791	17	0	11	0	24	0	0	0	0	0	3313
PEAK HR FACTOR :	0.71	0.958	0.000	0.000	0.000	0.911	0.850	0.000	0.688	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.952
	0.959				0.914				0.729								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Rancho View Dr
City: Lafayette
Control: Signalized

Project ID: 19-08244-009
Date: 4/30/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Rancho View Dr				Rancho View Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0	8
7:15 AM	0	4	0	0	0	10	0	0	0	0	0	0	0	0	0	0	14
7:30 AM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	12
7:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
8:00 AM	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	0	10
8:15 AM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
8:30 AM	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	0	9
8:45 AM	0	1	0	0	0	6	0	0	1	0	0	0	0	0	0	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	31	0	0	0	41	0	0	1	0	0	0	0	0	0	0	73
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	13	0	0	0	25	0	0	0	0	0	0	0	0	0	0	38
PEAK HR FACTOR :	0.000	0.542	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.679
	0.542				0.625												

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
2:15 PM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
2:30 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
2:45 PM	0	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8
3:00 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
3:15 PM	0	5	0	0	0	0	0	0	1	0	1	0	0	0	0	0	7
3:30 PM	1	6	0	0	0	4	0	0	0	0	0	0	0	0	0	0	11
3:45 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	42	0	0	0	17	0	0	1	0	1	0	0	0	0	0	62
APPROACH %'s :	2.33%	97.67%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	1	20	0	0	0	10	0	0	1	0	1	0	0	0	0	0	33
PEAK HR FACTOR :	0.25	0.833	0.000	0.000	0.000	0.625	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.750
	0.750				0.625				0.250								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	10	0	0	0	0	0	0	1	0	0	0	0	0	0	0	11
4:15 PM	0	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8
4:30 PM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
4:45 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
5:15 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
5:30 PM	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:45 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	51	0	0	0	6	0	0	1	0	0	0	0	0	0	0	58
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	18	0	0	0	3	0	0	0	0	0	0	0	0	0	0	21
PEAK HR FACTOR :	0.00	0.900	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.875
	0.900				0.750												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Rancho View Dr
City: Lafayette
Control: Signalized

Project ID: 19-08244-009
Date: 4/30/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Rancho View Dr				Rancho View Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	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	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250																

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.250				0.250												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	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	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	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	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
6:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375
	0.250				0.250												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Rancho View Dr
City: Lafayette
Project ID: 19-08244-009
Date: 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		Rancho View Dr		Rancho View Dr		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	07:00 AM - 08:00 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	1	1	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	1	0	0	2
APPROACH %'s :					50.00%	50.00%			
PEAK HR :	03:00 PM - 04:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	1	1	0	0	2
PEAK HR FACTOR :					0.250	0.250			0.250
					0.250				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Pleasant Hill Rd & Greenvalley Dr

Peak Hour Turning Movement Count

ID: 19-08244-010
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS

AM	07:00 AM - 08:00 AM
NOON	03:00 PM - 04:00 PM
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	02:00 PM - 04:00 PM
PM	04:00 PM - 07:00 PM

Pleasant Hill Rd — SOUTHBOUND

AM	1	1893	15	1	439	AM
NOON	2	797	19	3	2090	NOON
PM	1	792	28	4	2489	PM

Greenvalley Dr — EASTBOUND

AM	NOON	PM		
3	7	7	⇦	
0	0	0	↶	0
8	2	2	↱	0
0	0	0	→	1
8	9	10	↷	0
AM	NOON	PM		

WESTBOUND — Greenvalley Dr

PM	NOON	AM		
26	36	16	↶	1
0	0	0	←	0.5
26	34	75	↰	0.5
0	0	0	↷	0
72	72	36	⇨	
PM	NOON	AM		

	0	2	1	0
	0	1	2	1

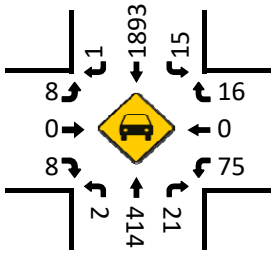
CONTROL: Signalized

TEV	2454	3009	3396
	AM	NOON	PM
PHF	0.93	0.90	0.96

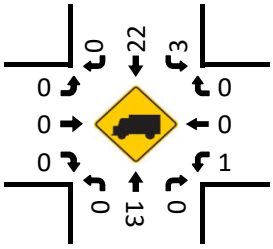
NORTHBOUND — Pleasant Hill Rd

PM	828	0	6	2457	44	PM
NOON	840	0	5	2049	53	NOON
AM	1976	0	2	414	21	AM

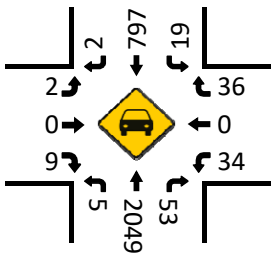
Total Vehicles (AM)



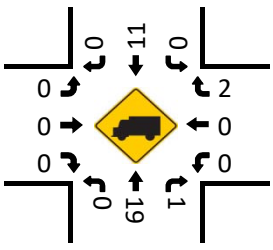
HT (AM)



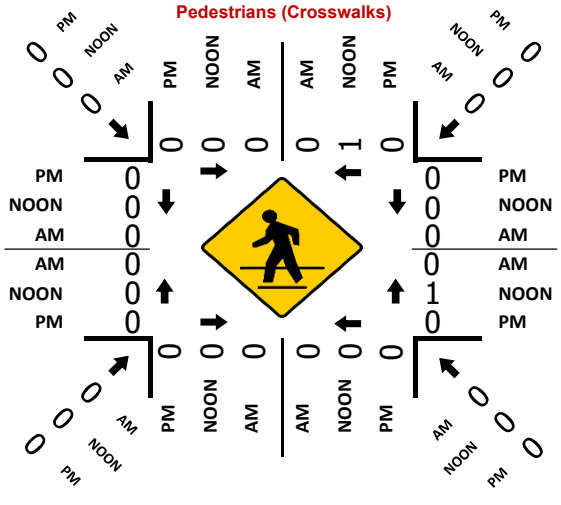
Total Vehicles (Noon)



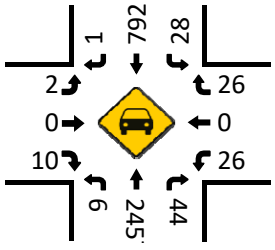
HT (NOON)



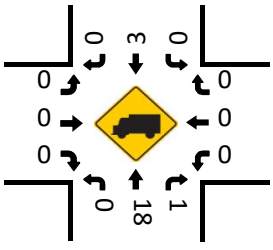
Pedestrians (Crosswalks)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Greenvalley Dr
City: Lafayette
Control: Signalized

Project ID: 19-08244-010
Date: 4/30/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Greenvalley Dr				Greenvalley Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	75	4	0	3	560	0	0	1	0	0	0	9	0	7	0	660
7:15 AM	0	87	3	0	1	536	0	0	2	0	2	0	16	0	1	0	648
7:30 AM	0	107	5	0	7	463	1	0	4	0	4	0	9	0	6	0	606
7:45 AM	1	145	9	0	4	334	0	1	1	0	2	0	41	0	2	0	540
8:00 AM	0	144	7	1	4	350	1	2	0	0	3	0	14	0	7	0	533
8:15 AM	2	139	12	0	2	313	0	2	0	0	0	0	14	0	7	0	491
8:30 AM	0	161	7	0	5	370	0	1	0	0	2	0	17	0	2	0	565
8:45 AM	0	147	10	0	2	332	1	2	0	0	3	0	14	0	6	0	517
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	1005	57	1	28	3258	3	8	8	0	16	0	134	0	38	0	4560
APPROACH %'s :	0.37%	94.19%	5.34%	0.09%	0.85%	98.82%	0.09%	0.24%	33.33%	0.00%	66.67%	0.00%	77.91%	0.00%	22.09%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	2	414	21	0	15	1893	1	1	8	0	8	0	75	0	16	0	2454
PEAK HR FACTOR :	0.500	0.714	0.583	0.000	0.536	0.845	0.250	0.250	0.500	0.000	0.500	0.000	0.457	0.000	0.571	0.000	0.930
	0.705				0.848				0.500				0.529				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	251	17	0	6	166	2	5	1	0	0	0	7	0	6	0	461
2:15 PM	1	314	11	0	3	186	1	2	0	0	0	0	7	0	8	0	533
2:30 PM	0	361	5	0	6	221	1	1	1	0	2	0	6	0	5	0	609
2:45 PM	3	448	15	1	9	197	0	2	1	0	3	0	12	0	4	0	695
3:00 PM	1	426	16	0	2	191	0	1	1	0	1	0	13	0	3	0	655
3:15 PM	1	464	16	0	6	225	1	0	0	0	2	0	4	0	9	0	728
3:30 PM	2	557	9	0	6	192	0	0	0	0	1	0	7	0	12	0	786
3:45 PM	1	602	12	0	5	189	1	2	1	0	5	0	10	0	12	0	840
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	9	3423	101	1	43	1567	6	13	5	0	14	0	66	0	59	0	5307
APPROACH %'s :	0.25%	96.86%	2.86%	0.03%	2.64%	96.19%	0.37%	0.80%	26.32%	0.00%	73.68%	0.00%	52.80%	0.00%	47.20%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	5	2049	53	0	19	797	2	3	2	0	9	0	34	0	36	0	3009
PEAK HR FACTOR :	0.625	0.851	0.828	0.000	0.792	0.886	0.500	0.375	0.500	0.000	0.450	0.000	0.654	0.000	0.750	0.000	0.896
	0.857				0.885				0.458				0.795				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	572	8	0	9	200	0	0	0	0	0	0	9	0	7	0	808
4:15 PM	3	568	13	0	4	223	1	1	2	0	1	0	7	0	7	0	830
4:30 PM	2	627	12	0	5	184	0	1	1	0	2	0	5	0	7	0	846
4:45 PM	1	570	10	0	9	215	1	0	0	0	1	0	6	0	5	0	818
5:00 PM	2	626	12	0	7	178	0	2	1	0	6	0	10	0	8	0	852
5:15 PM	1	634	10	0	7	215	0	1	0	0	1	0	5	0	6	0	880
5:30 PM	2	601	19	0	5	191	0	0	2	0	1	0	7	0	1	0	829
5:45 PM	3	594	20	0	10	180	1	0	0	0	1	0	6	0	4	0	819
6:00 PM	3	632	16	0	4	141	2	1	0	0	3	0	4	0	8	0	814
6:15 PM	1	569	19	0	7	154	1	0	2	0	3	0	8	0	3	0	767
6:30 PM	2	515	8	0	9	136	1	1	0	0	0	0	10	0	4	0	686
6:45 PM	0	411	9	0	9	143	0	1	2	0	1	0	5	0	3	0	584
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	23	6919	156	0	85	2160	7	8	10	0	20	0	82	0	63	0	9533
APPROACH %'s :	0.32%	97.48%	2.20%	0.00%	3.76%	95.58%	0.31%	0.35%	33.33%	0.00%	66.67%	0.00%	56.55%	0.00%	43.45%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	6	2457	44	0	28	792	1	4	2	0	10	0	26	0	26	0	3396
PEAK HR FACTOR :	0.750	0.969	0.917	0.000	0.778	0.921	0.250	0.500	0.500	0.000	0.417	0.000	0.650	0.000	0.813	0.000	0.965
	0.972				0.917				0.429				0.722				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Greenvalley Dr
City: Lafayette
Control: Signalized

Project ID: 19-08244-010
Date: 4/30/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Greenvalley Dr				Greenvalley Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	74	4	0	3	550	0	0	1	0	0	0	9	0	7	0	649
7:15 AM	0	83	3	0	0	530	0	0	2	0	2	0	15	0	1	0	636
7:30 AM	0	101	5	0	5	459	1	0	4	0	4	0	9	0	6	0	594
7:45 AM	1	143	9	0	4	332	0	1	1	0	2	0	41	0	2	0	536
8:00 AM	0	137	7	1	4	345	1	2	0	0	3	0	14	0	7	0	521
8:15 AM	2	135	12	0	2	311	0	2	0	0	0	0	14	0	7	0	485
8:30 AM	0	155	7	0	5	367	0	1	0	0	2	0	17	0	2	0	556
8:45 AM	0	146	10	0	2	326	1	2	0	0	3	0	14	0	6	0	510
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	974	57	1	25	3220	3	8	8	0	16	0	133	0	38	0	4487
APPROACH %'s :	0.39%	94.02%	5.50%	0.10%	0.77%	98.89%	0.09%	0.25%	33.33%	0.00%	66.67%	0.00%	77.78%	0.00%	22.22%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	2	401	21	0	12	1871	1	1	8	0	8	0	74	0	16	0	2415
PEAK HR FACTOR :	0.50	0.701	0.583	0.000	0.600	0.850	0.250	0.250	0.500	0.000	0.500	0.000	0.451	0.000	0.571	0.000	0.930
		0.693				0.852				0.500				0.523			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	246	17	0	5	164	2	5	1	0	0	0	7	0	6	0	453
2:15 PM	1	309	11	0	3	185	1	2	0	0	0	0	7	0	8	0	527
2:30 PM	0	356	5	0	6	219	1	1	1	0	2	0	6	0	5	0	602
2:45 PM	3	442	15	1	9	196	0	2	0	0	3	0	12	0	4	0	687
3:00 PM	1	421	16	0	2	188	0	1	1	0	1	0	13	0	3	0	647
3:15 PM	1	461	16	0	6	224	1	0	0	0	2	0	4	0	8	0	723
3:30 PM	2	551	8	0	6	188	0	0	0	0	1	0	7	0	11	0	774
3:45 PM	1	597	12	0	5	186	1	2	1	0	5	0	10	0	12	0	832
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	9	3383	100	1	42	1550	6	13	4	0	14	0	66	0	57	0	5245
APPROACH %'s :	0.26%	96.85%	2.86%	0.03%	2.61%	96.21%	0.37%	0.81%	22.22%	0.00%	77.78%	0.00%	53.66%	0.00%	46.34%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	5	2030	52	0	19	786	2	3	2	0	9	0	34	0	34	0	2976
PEAK HR FACTOR :	0.63	0.850	0.813	0.000	0.792	0.877	0.500	0.375	0.500	0.000	0.450	0.000	0.654	0.000	0.708	0.000	0.894
		0.855				0.877				0.458				0.773			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	562	8	0	9	200	0	0	0	0	0	0	9	0	7	0	798
4:15 PM	3	561	13	0	4	222	1	1	2	0	1	0	7	0	7	0	822
4:30 PM	2	622	12	0	5	183	0	1	1	0	2	0	5	0	7	0	840
4:45 PM	1	566	9	0	9	215	1	0	0	0	1	0	6	0	5	0	813
5:00 PM	2	621	12	0	7	177	0	2	1	0	6	0	10	0	8	0	846
5:15 PM	1	630	10	0	7	214	0	1	0	0	1	0	5	0	6	0	875
5:30 PM	2	594	19	0	5	191	0	0	2	0	1	0	7	0	1	0	822
5:45 PM	3	592	20	0	10	179	1	0	0	0	1	0	5	0	4	0	815
6:00 PM	3	631	16	0	4	141	2	1	0	0	3	0	4	0	8	0	813
6:15 PM	1	567	19	0	7	154	1	0	2	0	3	0	8	0	3	0	765
6:30 PM	2	511	8	0	9	135	1	1	0	0	0	0	10	0	4	0	681
6:45 PM	0	411	9	0	9	143	0	1	2	0	1	0	5	0	3	0	584
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	23	6868	155	0	85	2154	7	8	10	0	20	0	81	0	63	0	9474
APPROACH %'s :	0.33%	97.47%	2.20%	0.00%	3.77%	95.56%	0.31%	0.35%	33.33%	0.00%	66.67%	0.00%	56.25%	0.00%	43.75%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	6	2439	43	0	28	789	1	4	2	0	10	0	26	0	26	0	3374
PEAK HR FACTOR :	0.75	0.968	0.896	0.000	0.778	0.917	0.250	0.500	0.500	0.000	0.417	0.000	0.650	0.000	0.813	0.000	0.964
		0.970				0.913				0.429				0.722			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Greenvalley Dr
City: Lafayette
Control: Signalized

Project ID: 19-08244-010
Date: 4/30/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Greenvalley Dr				Greenvalley Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	11
7:15 AM	0	4	0	0	1	6	0	0	0	0	0	0	1	0	0	0	12
7:30 AM	0	6	0	0	2	4	0	0	0	0	0	0	0	0	0	0	12
7:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
8:00 AM	0	7	0	0	0	5	0	0	0	0	0	0	0	0	0	0	12
8:15 AM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	0	9
8:45 AM	0	1	0	0	0	6	0	0	0	0	0	0	0	0	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	31	0	0	3	38	0	0	0	0	0	0	1	0	0	0	73
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	7.32%	92.68%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	13	0	0	3	22	0	0	0	0	0	0	1	0	0	0	39
PEAK HR FACTOR :	0.000	0.542	0.000	0.000	0.375	0.550	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.813
	0.542				0.625								0.250				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	5	0	0	1	2	0	0	0	0	0	0	0	0	0	0	8
2:15 PM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
2:30 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
2:45 PM	0	6	0	0	0	1	0	0	1	0	0	0	0	0	0	0	8
3:00 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
3:15 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	1	0	5
3:30 PM	0	6	1	0	0	4	0	0	0	0	0	0	0	0	1	0	12
3:45 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	40	1	0	1	17	0	0	1	0	0	0	0	0	2	0	62
APPROACH %'s :	0.00%	97.56%	2.44%	0.00%	5.56%	94.44%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	19	1	0	0	11	0	0	0	0	0	0	0	0	2	0	33
PEAK HR FACTOR :	0.00	0.792	0.250	0.000	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.688
	0.714				0.688								0.500				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
4:15 PM	0	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8
4:30 PM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
4:45 PM	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:00 PM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
5:15 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
5:30 PM	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:45 PM	0	2	0	0	0	1	0	0	0	0	0	0	1	0	0	0	4
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:30 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	51	1	0	0	6	0	0	0	0	0	0	1	0	0	0	59
APPROACH %'s :	0.00%	98.08%	1.92%	0.00%	0.00%	100.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	18	1	0	0	3	0	0	0	0	0	0	0	0	0	0	22
PEAK HR FACTOR :	0.00	0.900	0.250	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.917
	0.950				0.750								0.000				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Greenvalley Dr
City: Lafayette
Control: Signalized

Project ID: 19-08244-010
Date: 4/30/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Greenvalley Dr				Greenvalley Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	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	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250																

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
	0.250				0.500												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	0	1	0	0	0.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	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	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	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	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375
	0.250				0.250												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Greenvalley Dr
City: Lafayette

Project ID: 19-08244-010
Date: 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		Greenvalley Dr		Greenvalley Dr						
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG CUT OUT		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
7:00 AM	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
7:30 AM	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
8:00 AM	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
8:30 AM	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
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :													
PEAK HR :	07:00 AM - 08:00 AM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :													

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG CUT OUT		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
TOTAL VOLUMES :	0	1	0	0	1	0	0	0	0	0	0	1	3
APPROACH %'s :	0.00%	100.00%			100.00%	0.00%					0.00%	100.00%	
PEAK HR :	03:00 PM - 04:00 PM												TOTAL
PEAK HR VOL :	0	1	0	0	1	0	0	0	0	0	0	1	3
PEAK HR FACTOR :		0.250			0.250							0.250	
	0.250				0.250						0.250		0.250

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG CUT OUT		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
4:00 PM	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
4:30 PM	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
5:00 PM	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
5:30 PM	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
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :													
PEAK HR :	04:30 PM - 05:30 PM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :													

Prepared by National Data & Surveying Services

Pleasant Hill Rd & Reliez Valley Rd

Peak Hour Turning Movement Count

ID: 19-08244-011
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS		COUNT PERIODS
AM	07:00 AM - 08:00 AM	07:00 AM - 09:00 AM
NOON	03:00 PM - 04:00 PM	02:00 PM - 04:00 PM
PM	04:30 PM - 05:30 PM	04:00 PM - 07:00 PM

Pleasant Hill Rd — SOUTHBOUND

	Right	Thru	Left	U-turn	Departing (NB)
AM	7	1971	0	0	437
NOON	21	823	0	0	2107
PM	29	810	0	0	2523
Lanes	1	2	0	0	

Reliez Valley Rd — EASTBOUND

	AM	NOON	PM	Lanes
Departing (WB)	46	119	156	
U-turn	0	0	0	0
Left	7	21	19	1
Thru	0	0	0	0
Right	382	80	93	1

Reliez Valley Rd — WESTBOUND

	Lanes	PM	NOON	AM
Right	0	0	0	0
Thru	0	0	0	0
Left	0	0	0	0
U-turn	0	0	0	0
Departing (EB)		0	0	0

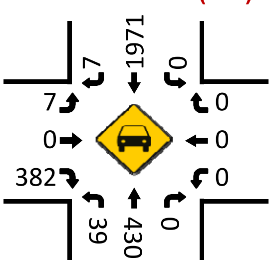
Pleasant Hill Rd — NORTHBOUND

	Departing (SB)	U-turn	Left	Thru	Right
Lanes		0	1	2	0
PM	903	0	127	2504	0
NOON	904	1	98	2086	0
AM	2355	2	39	430	0

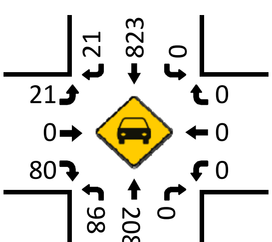
CONTROL: Signalized

	AM	NOON	PM
TEV	2838	3130	3582
PHF	0.95	0.92	0.96

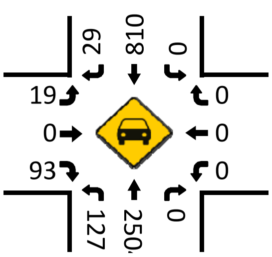
Total Vehicles (AM)



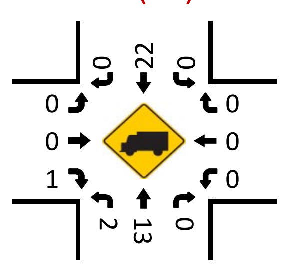
Total Vehicles (Noon)



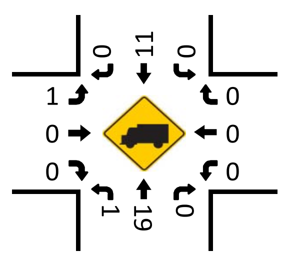
Total Vehicles (PM)



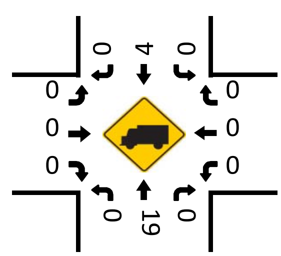
HT (AM)



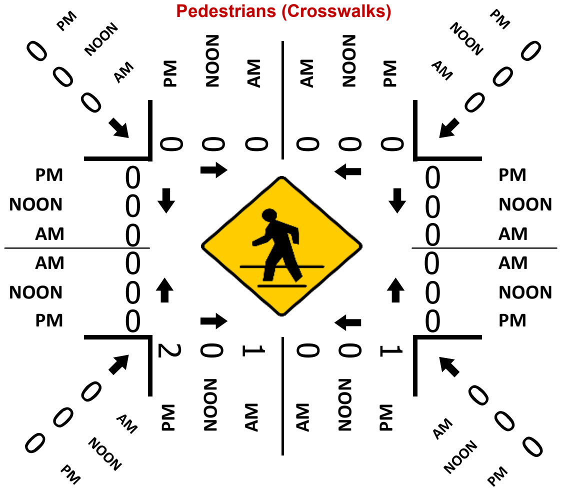
HT (NOON)



HT (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Reliez Valley Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-011
Date: 4/30/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Reliez Valley Rd				Reliez Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	8	76	0	1	0	576	0	0	2	0	54	0	0	0	0	0	717
7:15 AM	8	90	0	1	0	545	2	0	2	0	101	0	0	0	0	0	749
7:30 AM	8	104	0	0	0	467	1	0	2	0	119	0	0	0	0	0	701
7:45 AM	15	160	0	0	0	383	4	0	1	0	108	0	0	0	0	0	671
8:00 AM	12	150	0	0	0	369	2	0	5	0	83	1	0	0	0	0	622
8:15 AM	17	148	0	4	0	335	1	0	3	0	105	0	0	0	0	0	613
8:30 AM	17	164	0	1	0	382	3	0	3	0	56	0	0	0	0	0	626
8:45 AM	11	150	0	0	0	343	5	0	7	0	47	0	0	0	0	0	563
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	96	1042	0	7	0	3400	18	0	25	0	673	1	0	0	0	0	5262
APPROACH %'s :	8.38%	91.00%	0.00%	0.61%	0.00%	99.47%	0.53%	0.00%	3.58%	0.00%	96.28%	0.14%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	39	430	0	2	0	1971	7	0	7	0	382	0	0	0	0	0	2838
PEAK HR FACTOR :	0.650	0.672	0.000	0.500	0.000	0.855	0.438	0.000	0.875	0.000	0.803	0.000	0.000	0.000	0.000	0.000	0.947
	0.673				0.859				0.804								

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	28	265	0	0	0	162	6	0	2	0	20	0	0	0	0	0	483
2:15 PM	26	331	0	3	0	195	1	0	4	0	20	0	0	0	0	0	580
2:30 PM	16	357	0	0	0	220	6	0	3	0	24	0	0	0	0	0	626
2:45 PM	43	462	0	0	0	210	8	0	3	0	44	0	0	0	0	0	770
3:00 PM	28	437	0	1	0	205	4	0	4	0	22	0	0	0	0	0	701
3:15 PM	20	478	0	0	0	222	5	0	5	0	21	0	0	0	0	0	751
3:30 PM	34	570	0	0	0	195	3	0	6	0	19	0	0	0	0	0	827
3:45 PM	16	601	0	0	0	201	9	0	6	0	18	0	0	0	0	0	851
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	211	3501	0	4	0	1610	42	0	33	0	188	0	0	0	0	0	5589
APPROACH %'s :	5.68%	94.21%	0.00%	0.11%	0.00%	97.46%	2.54%	0.00%	14.93%	0.00%	85.07%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	98	2086	0	1	0	823	21	0	21	0	80	0	0	0	0	0	3130
PEAK HR FACTOR :	0.721	0.868	0.000	0.250	0.000	0.927	0.583	0.000	0.875	0.000	0.909	0.000	0.000	0.000	0.000	0.000	0.920
	0.885				0.930				0.971								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	28	573	0	0	0	201	4	0	4	0	26	0	0	0	0	0	836
4:15 PM	31	586	0	0	0	216	4	0	7	0	23	0	0	0	0	0	867
4:30 PM	23	634	0	0	0	193	9	0	4	0	25	0	0	0	0	0	888
4:45 PM	29	577	0	0	0	215	5	0	2	0	26	0	0	0	0	0	854
5:00 PM	39	634	0	0	0	197	10	0	8	0	23	0	0	0	0	0	911
5:15 PM	36	659	0	0	0	205	5	0	5	0	19	0	0	0	0	0	929
5:30 PM	40	607	0	0	0	194	9	0	2	0	13	0	0	0	0	0	865
5:45 PM	36	610	0	0	0	180	3	0	1	0	18	0	0	0	0	0	848
6:00 PM	39	637	0	0	0	138	9	0	4	0	21	0	0	0	0	0	848
6:15 PM	38	595	0	0	0	164	7	0	4	0	20	0	0	0	0	0	828
6:30 PM	43	519	0	0	0	136	3	0	1	0	21	0	0	0	0	0	723
6:45 PM	22	410	0	1	0	158	3	0	0	0	17	0	0	0	0	0	611
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	404	7041	0	1	0	2197	71	0	42	0	252	0	0	0	0	0	10008
APPROACH %'s :	5.43%	94.56%	0.00%	0.01%	0.00%	96.87%	3.13%	0.00%	14.29%	0.00%	85.71%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	127	2504	0	0	0	810	29	0	19	0	93	0	0	0	0	0	3582
PEAK HR FACTOR :	0.814	0.950	0.000	0.000	0.000	0.942	0.725	0.000	0.594	0.000	0.894	0.000	0.000	0.000	0.000	0.000	0.964
	0.946				0.953				0.903								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Reliez Valley Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-011
Date: 4/30/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Reliez Valley Rd				Reliez Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	8	75	0	1	0	566	0	0	2	0	54	0	0	0	0	0	706
7:15 AM	8	86	0	1	0	537	2	0	2	0	101	0	0	0	0	0	737
7:30 AM	6	98	0	0	0	464	1	0	2	0	118	0	0	0	0	0	689
7:45 AM	15	158	0	0	0	382	4	0	1	0	108	0	0	0	0	0	668
8:00 AM	12	143	0	0	0	363	2	0	5	0	82	1	0	0	0	0	608
8:15 AM	17	144	0	4	0	333	1	0	3	0	105	0	0	0	0	0	607
8:30 AM	17	158	0	1	0	379	3	0	3	0	56	0	0	0	0	0	617
8:45 AM	11	149	0	0	0	337	5	0	7	0	47	0	0	0	0	0	556
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	94	1011	0	7	0	3361	18	0	25	0	671	1	0	0	0	0	5188
APPROACH %'s :	8.45%	90.92%	0.00%	0.63%	0.00%	99.47%	0.53%	0.00%	3.59%	0.00%	96.27%	0.14%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	37	417	0	2	0	1949	7	0	7	0	381	0	0	0	0	0	2800
PEAK HR FACTOR :	0.62	0.660	0.000	0.500	0.000	0.861	0.438	0.000	0.875	0.000	0.807	0.000	0.000	0.000	0.000	0.000	0.950
		0.659				0.864				0.808							

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	28	260	0	0	0	160	6	0	2	0	19	0	0	0	0	0	475
2:15 PM	26	326	0	3	0	194	1	0	4	0	20	0	0	0	0	0	574
2:30 PM	16	353	0	0	0	218	6	0	3	0	24	0	0	0	0	0	620
2:45 PM	42	455	0	0	0	209	8	0	3	0	44	0	0	0	0	0	761
3:00 PM	28	432	0	1	0	202	4	0	4	0	22	0	0	0	0	0	693
3:15 PM	19	475	0	0	0	221	5	0	4	0	21	0	0	0	0	0	745
3:30 PM	34	564	0	0	0	191	3	0	6	0	19	0	0	0	0	0	817
3:45 PM	16	596	0	0	0	198	9	0	6	0	18	0	0	0	0	0	843
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	209	3461	0	4	0	1593	42	0	32	0	187	0	0	0	0	0	5528
APPROACH %'s :	5.69%	94.20%	0.00%	0.11%	0.00%	97.43%	2.57%	0.00%	14.61%	0.00%	85.39%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	97	2067	0	1	0	812	21	0	20	0	80	0	0	0	0	0	3098
PEAK HR FACTOR :	0.71	0.867	0.000	0.250	0.000	0.919	0.583	0.000	0.833	0.000	0.909	0.000	0.000	0.000	0.000	0.000	0.919
		0.884				0.921				0.962							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	28	563	0	0	0	201	4	0	4	0	26	0	0	0	0	0	826
4:15 PM	31	579	0	0	0	216	4	0	7	0	23	0	0	0	0	0	860
4:30 PM	23	629	0	0	0	191	9	0	4	0	25	0	0	0	0	0	881
4:45 PM	29	571	0	0	0	215	5	0	2	0	26	0	0	0	0	0	848
5:00 PM	39	630	0	0	0	196	10	0	8	0	23	0	0	0	0	0	906
5:15 PM	36	655	0	0	0	204	5	0	5	0	19	0	0	0	0	0	924
5:30 PM	40	600	0	0	0	194	9	0	2	0	13	0	0	0	0	0	858
5:45 PM	36	608	0	0	0	178	3	0	1	0	18	0	0	0	0	0	844
6:00 PM	39	636	0	0	0	138	9	0	4	0	21	0	0	0	0	0	847
6:15 PM	38	593	0	0	0	164	7	0	4	0	20	0	0	0	0	0	826
6:30 PM	43	515	0	0	0	135	3	0	1	0	21	0	0	0	0	0	718
6:45 PM	22	410	0	1	0	158	3	0	0	0	17	0	0	0	0	0	611
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	404	6989	0	1	0	2190	71	0	42	0	252	0	0	0	0	0	9949
APPROACH %'s :	5.46%	94.52%	0.00%	0.01%	0.00%	96.86%	3.14%	0.00%	14.29%	0.00%	85.71%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	127	2485	0	0	0	806	29	0	19	0	93	0	0	0	0	0	3559
PEAK HR FACTOR :	0.81	0.948	0.000	0.000	0.000	0.937	0.725	0.000	0.594	0.000	0.894	0.000	0.000	0.000	0.000	0.000	0.963
		0.945				0.949				0.903							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Reliez Valley Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-011
Date: 4/30/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Reliez Valley Rd				Reliez Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	11
7:15 AM	0	4	0	0	0	8	0	0	0	0	0	0	0	0	0	0	12
7:30 AM	2	6	0	0	0	3	0	0	0	0	1	0	0	0	0	0	12
7:45 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	7	0	0	0	6	0	0	0	0	1	0	0	0	0	0	14
8:15 AM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	0	9
8:45 AM	0	1	0	0	0	6	0	0	0	0	0	0	0	0	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	31	0	0	0	39	0	0	0	0	2	0	0	0	0	0	74
APPROACH %'s :	6.06%	93.94%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	2	13	0	0	0	22	0	0	0	0	1	0	0	0	0	0	38
PEAK HR FACTOR :	0.250	0.542	0.000	0.000	0.000	0.550	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.792
	0.469				0.550				0.250								

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	5	0	0	0	2	0	0	0	0	1	0	0	0	0	0	8
2:15 PM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
2:30 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
2:45 PM	1	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9
3:00 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
3:15 PM	1	3	0	0	0	1	0	0	1	0	0	0	0	0	0	0	6
3:30 PM	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	0	10
3:45 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	40	0	0	0	17	0	0	1	0	1	0	0	0	0	0	61
APPROACH %'s :	4.76%	95.24%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	1	19	0	0	0	11	0	0	1	0	0	0	0	0	0	0	32
PEAK HR FACTOR :	0.25	0.792	0.000	0.000	0.000	0.688	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.800
	0.833				0.688				0.250								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
4:15 PM	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
4:30 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
4:45 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:00 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
5:30 PM	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:30 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	52	0	0	0	7	0	0	0	0	0	0	0	0	0	0	59
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	19	0	0	0	4	0	0	0	0	0	0	0	0	0	0	23
PEAK HR FACTOR :	0.00	0.792	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.821
	0.792				0.500				0.000								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Reliez Valley Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-011
Date: 4/30/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Reliez Valley Rd				Reliez Valley Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	1	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	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	0	0	0	2	0	0	0	0	3	0	0	0	0	0	7
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.750
	0.250								0.500								

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	0	0	0	2	0	0	0	0	1	0	0	0	0	0	7
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
	0.250				0.500												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	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	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
6:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
6:30 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	4	0	0	0	1	0	0	0	0	6	0	0	0	0	0	12
APPROACH %'s :	20.00%	80.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.25	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.375				0.250												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Reliez Valley Rd
City: Lafayette
Project ID: 19-08244-011
Date: 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		Reliez Valley Rd		Reliez Valley Rd				
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
7:00 AM	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
7:30 AM	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0	1	0	2
8:00 AM	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
8:30 AM	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
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	1	0	0	0	0	0	1	0	2
APPROACH %'s :			100.00%	0.00%							
PEAK HR :	07:00 AM - 08:00 AM										TOTAL
PEAK HR VOL :	0	0	1	0	0	0	0	0	1	0	2
PEAK HR FACTOR :			0.250						0.250		0.250
			0.250						0.250		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :											
PEAK HR :	03:00 PM - 04:00 PM										TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :											

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
4:00 PM	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
4:30 PM	0	0	2	0	0	0	0	0	2	0	4
4:45 PM	0	0	0	1	0	0	0	0	0	1	2
5:00 PM	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
5:30 PM	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
6:00 PM	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	2	1	0	0	0	0	2	1	6
APPROACH %'s :			66.67%	33.33%							
PEAK HR :	04:30 PM - 05:30 PM										TOTAL
PEAK HR VOL :	0	0	2	1	0	0	0	0	2	1	6
PEAK HR FACTOR :			0.250	0.250					0.250	0.250	0.375
			0.375						0.375		

Prepared by National Data & Surveying Services

Pleasant Hill Rd & Springhill Rd/Quandt Rd

Peak Hour Turning Movement Count

ID: 19-08244-012
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS		COUNT PERIODS
07:00 AM - 08:00 AM	AM	07:00 AM - 09:00 AM
03:00 PM - 04:00 PM	NOON	02:00 PM - 04:00 PM
04:30 PM - 05:30 PM	PM	04:00 PM - 07:00 PM

Pleasant Hill Rd — SOUTHBOUND

AM	61	2274	9	0	468	AM
NOON	39	839	14	3	2196	NOON
PM	35	848	12	1	2631	PM
	1	2	1	0		

Springhill Rd/Quandt Rd — EASTBOUND

AM	NOON	PM	
135	138	126	
0	0	0	0
30	52	51	0
2	1	1	1
132	118	65	1
AM	NOON	PM	

Springhill Rd/Quandt Rd — WESTBOUND

	PM	NOON	AM
0	17	18	10
1	0	4	1
0	32	40	50
0	0	0	0
	59	58	35
	PM	NOON	AM

CONTROL

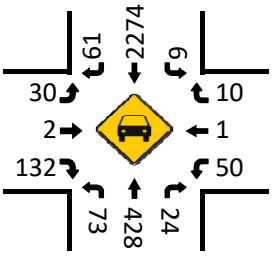
Signalized

	AM	NOON	PM
TEV	3114	3415	3778
PHF	0.97	0.94	0.97

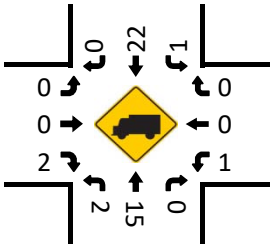
Pleasant Hill Rd — NORTHBOUND

		0	1	2	1	
PM	962	17	91	2562	46	PM
NOON	1023	26	95	2123	43	NOON
AM	2476	20	73	428	24	AM

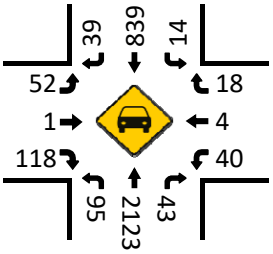
Total Vehicles (AM)



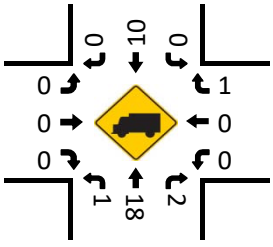
HT (AM)



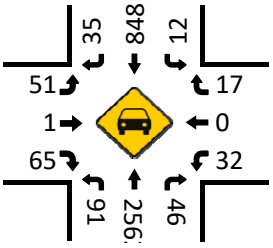
Total Vehicles (Noon)



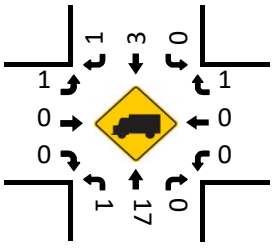
HT (NOON)



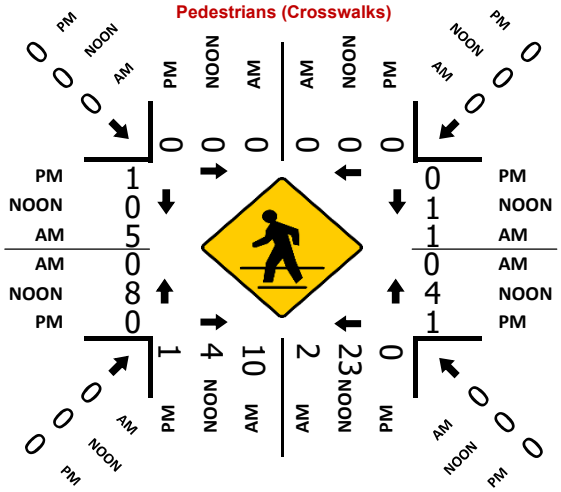
Total Vehicles (PM)



HT (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Springhill Rd/Quandt Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-012
Date: 4/30/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Springhill Rd/Quandt Rd				Springhill Rd/Quandt Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	79	3	1	1	632	9	0	3	0	20	0	8	0	3	0	768
7:15 AM	13	91	4	2	4	617	15	0	3	0	22	0	7	0	2	0	780
7:30 AM	29	110	6	2	3	557	20	0	10	1	45	0	20	0	3	0	806
7:45 AM	22	148	11	15	1	468	17	0	14	1	45	0	15	1	2	0	760
8:00 AM	28	155	14	17	5	429	26	0	9	0	33	0	16	5	0	0	737
8:15 AM	29	141	27	7	0	397	57	0	29	1	64	0	16	12	7	0	787
8:30 AM	24	157	9	8	1	423	14	0	19	1	42	0	9	2	3	0	712
8:45 AM	17	153	7	9	4	362	8	0	4	0	24	0	11	0	3	0	602
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	171	1034	81	61	19	3885	166	0	91	4	295	0	102	20	23	0	5952
APPROACH %'s :	12.69%	76.76%	6.01%	4.53%	0.47%	95.45%	4.08%	0.00%	23.33%	1.03%	75.64%	0.00%	70.34%	13.79%	15.86%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	73	428	24	20	9	2274	61	0	30	2	132	0	50	1	10	0	3114
PEAK HR FACTOR :	0.629	0.723	0.545	0.333	0.563	0.900	0.763	0.000	0.536	0.500	0.733	0.000	0.625	0.250	0.833	0.000	0.966
	0.695				0.913				0.683				0.663				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	25	274	7	6	3	178	6	0	17	1	30	0	7	0	2	0	556
2:15 PM	19	327	5	10	5	194	13	0	4	1	29	0	9	0	3	0	619
2:30 PM	33	392	8	33	4	224	14	0	4	1	27	0	5	0	4	0	749
2:45 PM	44	437	9	14	7	245	17	1	43	2	57	0	12	2	9	0	899
3:00 PM	31	461	11	10	4	207	4	0	16	0	13	0	15	1	3	0	776
3:15 PM	19	481	21	12	2	220	13	1	12	0	25	0	12	1	5	0	824
3:30 PM	26	585	5	4	3	203	14	1	12	0	47	0	4	1	5	0	910
3:45 PM	19	596	6	0	5	209	8	1	12	1	33	0	9	1	5	0	905
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	216	3553	72	89	33	1680	89	4	120	6	261	0	73	6	36	0	6238
APPROACH %'s :	5.50%	90.41%	1.83%	2.26%	1.83%	93.02%	4.93%	0.22%	31.01%	1.55%	67.44%	0.00%	63.48%	5.22%	31.30%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	95	2123	43	26	14	839	39	3	52	1	118	0	40	4	18	0	3415
PEAK HR FACTOR :	0.766	0.891	0.512	0.542	0.700	0.953	0.696	0.750	0.813	0.250	0.628	0.000	0.667	1.000	0.900	0.000	0.938
	0.921				0.948				0.725				0.816				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	25	580	13	2	6	202	8	0	14	1	23	0	12	0	11	0	897
4:15 PM	19	604	9	3	8	233	5	0	10	0	22	0	9	0	2	0	924
4:30 PM	27	624	10	3	2	202	7	0	16	1	19	0	9	0	4	0	924
4:45 PM	21	610	16	5	4	229	11	0	8	0	16	0	6	0	1	0	927
5:00 PM	24	657	12	7	3	207	7	0	14	0	14	0	5	0	6	0	956
5:15 PM	19	671	8	2	3	210	10	1	13	0	16	0	12	0	6	0	971
5:30 PM	30	627	6	8	6	195	6	0	10	1	15	0	3	0	4	0	911
5:45 PM	20	640	6	2	4	182	5	1	7	0	16	0	9	0	4	0	896
6:00 PM	13	657	11	1	5	153	6	0	15	0	11	0	7	0	1	0	880
6:15 PM	18	634	10	2	4	172	6	0	1	0	16	0	4	0	1	0	868
6:30 PM	27	543	10	4	3	156	5	0	1	0	16	0	9	0	4	0	778
6:45 PM	20	450	8	2	3	162	5	0	3	0	6	0	4	1	3	0	667
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	263	7297	119	41	51	2303	81	2	112	3	190	0	89	1	47	0	10599
APPROACH %'s :	3.41%	94.52%	1.54%	0.53%	2.09%	94.50%	3.32%	0.08%	36.72%	0.98%	62.30%	0.00%	64.96%	0.73%	34.31%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	91	2562	46	17	12	848	35	1	51	1	65	0	32	0	17	0	3778
PEAK HR FACTOR :	0.843	0.955	0.719	0.607	0.750	0.926	0.795	0.250	0.797	0.250	0.855	0.000	0.667	0.000	0.708	0.000	0.973
	0.970				0.918				0.813				0.681				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Springhill Rd/Quandt Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-012
Date: 4/30/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Springhill Rd/Quandt Rd				Springhill Rd/Quandt Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	78	3	1	1	622	9	0	3	0	19	0	8	0	3	0	756
7:15 AM	13	87	4	2	4	609	15	0	3	0	22	0	7	0	2	0	768
7:30 AM	27	102	6	2	2	554	20	0	10	1	45	0	20	0	3	0	792
7:45 AM	22	146	11	15	1	467	17	0	14	1	44	0	14	1	2	0	755
8:00 AM	28	149	14	17	5	423	25	0	8	0	33	0	16	5	0	0	723
8:15 AM	27	138	27	7	0	395	57	0	29	1	63	0	16	12	7	0	779
8:30 AM	23	150	8	8	1	420	14	0	19	1	40	0	9	2	3	0	698
8:45 AM	16	152	7	9	4	356	8	0	4	0	24	0	11	0	3	0	594
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	165	1002	80	61	18	3846	165	0	90	4	290	0	101	20	23	0	5865
APPROACH %'s :	12.61%	76.61%	6.12%	4.66%	0.45%	95.46%	4.10%	0.00%	23.44%	1.04%	75.52%	0.00%	70.14%	13.89%	15.97%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	71	413	24	20	8	2252	61	0	30	2	130	0	49	1	10	0	3071
PEAK HR FACTOR :	0.66	0.707	0.545	0.333	0.500	0.905	0.763	0.000	0.536	0.500	0.722	0.000	0.613	0.250	0.833	0.000	0.969
	0.680				0.918				0.686				0.652				

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Springhill Rd/Quandt Rd				Springhill Rd/Quandt Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	22	270	7	6	3	175	6	0	17	1	28	0	6	0	2	0	543
2:15 PM	18	321	5	10	5	193	13	0	4	1	29	0	9	0	3	0	611
2:30 PM	32	384	8	33	4	222	14	0	4	1	25	0	5	0	4	0	736
2:45 PM	43	434	9	14	7	244	17	1	42	2	56	0	12	2	9	0	892
3:00 PM	31	456	11	10	4	204	4	0	16	0	13	0	15	1	3	0	768
3:15 PM	19	479	20	12	2	219	13	1	12	0	25	0	12	1	5	0	820
3:30 PM	25	578	4	4	3	199	14	1	12	0	47	0	4	1	4	0	896
3:45 PM	19	592	6	0	5	207	8	1	12	1	33	0	9	1	5	0	899
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	209	3514	70	89	33	1663	89	4	119	6	256	0	72	6	35	0	6165
APPROACH %'s :	5.38%	90.52%	1.80%	2.29%	1.84%	92.96%	4.97%	0.22%	31.23%	1.57%	67.19%	0.00%	63.72%	5.31%	30.97%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	94	2105	41	26	14	829	39	3	52	1	118	0	40	4	17	0	3383
PEAK HR FACTOR :	0.76	0.889	0.513	0.542	0.700	0.946	0.696	0.750	0.813	0.250	0.628	0.000	0.667	1.000	0.850	0.000	0.941
	0.918				0.941				0.725				0.803				

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Springhill Rd/Quandt Rd				Springhill Rd/Quandt Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	25	571	13	2	6	201	8	0	12	1	23	0	12	0	11	0	885
4:15 PM	19	597	9	3	8	233	5	0	10	0	22	0	9	0	2	0	917
4:30 PM	27	620	10	3	2	201	6	0	16	1	19	0	9	0	3	0	917
4:45 PM	21	604	16	5	4	229	11	0	8	0	16	0	6	0	1	0	921
5:00 PM	23	654	12	7	3	206	7	0	13	0	14	0	5	0	6	0	950
5:15 PM	19	667	8	2	3	209	10	1	13	0	16	0	12	0	6	0	966
5:30 PM	30	620	6	8	6	195	6	0	10	1	15	0	3	0	4	0	904
5:45 PM	20	639	6	2	4	181	4	1	6	0	16	0	9	0	4	0	892
6:00 PM	13	656	11	1	5	153	6	0	15	0	11	0	7	0	1	0	879
6:15 PM	18	632	10	2	4	172	6	0	1	0	16	0	4	0	1	0	866
6:30 PM	27	539	10	4	3	155	5	0	1	0	16	0	9	0	4	0	773
6:45 PM	20	450	8	2	3	162	5	0	3	0	6	0	4	1	3	0	667
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	262	7249	119	41	51	2297	79	2	108	3	190	0	89	1	46	0	10537
APPROACH %'s :	3.42%	94.50%	1.55%	0.53%	2.10%	94.57%	3.25%	0.08%	35.88%	1.00%	63.12%	0.00%	65.44%	0.74%	33.82%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	90	2545	46	17	12	845	34	1	50	1	65	0	32	0	16	0	3754
PEAK HR FACTOR :	0.83	0.954	0.719	0.607	0.750	0.922	0.773	0.250	0.781	0.250	0.855	0.000	0.667	0.000	0.667	0.000	0.972
	0.969				0.914				0.806				0.667				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Springhill Rd/Quandt Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-012
Date: 4/30/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Springhill Rd/Quandt Rd				Springhill Rd/Quandt Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	10	0	0	0	0	1	0	0	0	0	0	12
7:15 AM	0	4	0	0	0	8	0	0	0	0	0	0	0	0	0	0	12
7:30 AM	2	8	0	0	1	3	0	0	0	0	0	0	0	0	0	0	14
7:45 AM	0	2	0	0	0	1	0	0	0	0	1	0	1	0	0	0	5
8:00 AM	0	6	0	0	0	6	1	0	1	0	0	0	0	0	0	0	14
8:15 AM	2	3	0	0	0	2	0	0	0	0	1	0	0	0	0	0	8
8:30 AM	1	7	1	0	0	3	0	0	0	0	2	0	0	0	0	0	14
8:45 AM	1	1	0	0	0	6	0	0	0	0	0	0	0	0	0	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	32	1	0	1	39	1	0	1	0	5	0	1	0	0	0	87
APPROACH %'s :	15.38%	82.05%	2.56%	0.00%	2.44%	95.12%	2.44%	0.00%	16.67%	0.00%	83.33%	0.00%	100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	2	15	0	0	1	22	0	0	0	0	2	0	1	0	0	0	43
PEAK HR FACTOR :	0.250	0.469	0.000	0.000	0.250	0.550	0.000	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.768
	0.425				0.575				0.500				0.250				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	3	4	0	0	0	3	0	0	0	0	2	0	1	0	0	0	13
2:15 PM	1	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8
2:30 PM	1	8	0	0	0	2	0	0	0	0	2	0	0	0	0	0	13
2:45 PM	1	3	0	0	0	1	0	0	1	0	1	0	0	0	0	0	7
3:00 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
3:15 PM	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
3:30 PM	1	7	1	0	0	4	0	0	0	0	0	0	0	0	1	0	14
3:45 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	39	2	0	0	17	0	0	1	0	5	0	1	0	1	0	73
APPROACH %'s :	14.58%	81.25%	4.17%	0.00%	0.00%	100.00%	0.00%	0.00%	16.67%	0.00%	83.33%	0.00%	50.00%	0.00%	50.00%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	1	18	2	0	0	10	0	0	0	0	0	0	0	0	1	0	32
PEAK HR FACTOR :	0.25	0.643	0.500	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.571
	0.583				0.625								0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	9	0	0	0	1	0	0	2	0	0	0	0	0	0	0	12
4:15 PM	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
4:30 PM	0	4	0	0	0	1	1	0	0	0	0	0	0	0	1	0	7
4:45 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:00 PM	1	3	0	0	0	1	0	0	1	0	0	0	0	0	0	0	6
5:15 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
5:30 PM	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:45 PM	0	1	0	0	0	1	1	0	1	0	0	0	0	0	0	0	4
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:30 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	48	0	0	0	6	2	0	4	0	0	0	0	0	1	0	62
APPROACH %'s :	2.04%	97.96%	0.00%	0.00%	0.00%	75.00%	25.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	1	17	0	0	0	3	1	0	1	0	0	0	0	0	1	0	24
PEAK HR FACTOR :	0.25	0.708	0.000	0.000	0.000	0.750	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.857
	0.750				0.500				0.250				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Springhill Rd/Quandt Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-012
Date: 4/30/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Springhill Rd/Quandt Rd				Springhill Rd/Quandt Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	2	1	0	0	0	2	0	0	0	3	0	0	8
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
8:15 AM	0	0	0	0	0	0	1	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	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3	0	0	2	3	1	0	0	2	0	0	0	5	0	0	16
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	33.33%	50.00%	16.67%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	2	0	0	2	2	0	0	0	2	0	0	0	3	0	0	11
PEAK HR FACTOR :	0.000	0.500	0.000	0.000	0.250	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.344
	0.500				0.333				0.250				0.250				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	1	5	0	0	0	0	0	0	6
3:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	2	0	0	1	1	0	0	1	5	0	0	0	0	1	0	12
APPROACH %'s :	33.33%	66.67%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	16.67%	83.33%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3
PEAK HR FACTOR :	0.25	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.375
	0.250				0.250				0.000				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	0	1	1	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	2	0	0	0	0	0	0	0	1	0	0	1	1	0	0	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4
5:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
6:15 PM	0	1	1	0	0	1	0	0	0	0	0	0	1	0	0	0	4
6:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	1	0	0	0	4
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	3	1	0	0	8	0	0	1	3	1	0	7	2	0	0	27
APPROACH %'s :	20.00%	60.00%	20.00%	0.00%	0.00%	100.00%	0.00%	0.00%	20.00%	60.00%	20.00%	0.00%	77.78%	22.22%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	1	2	0	0	0	1	0	0	0	1	0	0	5	1	0	0	11
PEAK HR FACTOR :	0.25	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.313	0.250	0.000	0.000	0.458
	0.250				0.250				0.250				0.375				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Springhill Rd/Quandt Rd
City: Lafayette
Project ID: 19-08244-012
Date: 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		Springhill Rd/Quandt Rd		Springhill Rd/Quandt Rd				
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
7:00 AM	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
7:30 AM	0	0	4	1	0	0	0	2	3	1	11
7:45 AM	0	0	6	1	0	1	0	3	3	1	15
8:00 AM	0	0	3	1	0	1	1	7	1	5	19
8:15 AM	0	0	3	19	1	4	0	3	4	22	56
8:30 AM	0	0	1	2	0	0	0	2	1	5	11
8:45 AM	0	0	1	0	0	0	0	1	1	0	3
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	18	24	1	6	1	18	13	34	115
APPROACH %'s :			42.86%	57.14%	14.29%	85.71%	5.26%	94.74%			
PEAK HR :	**07:00 AM - 08:00 AM**										TOTAL
PEAK HR VOL :	0	0	10	2	0	1	0	5	6	2	26
PEAK HR FACTOR :			0.417	0.500		0.250		0.417	0.500	0.500	0.433
			0.429		0.250		0.417		0.500		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
2:00 PM	0	0	2	1	0	0	0	0	2	1	6
2:15 PM	0	0	0	1	0	0	0	0	1	0	2
2:30 PM	0	0	0	7	0	1	0	0	1	8	17
2:45 PM	0	0	37	2	9	1	16	1	48	2	116
3:00 PM	0	0	3	6	3	0	2	0	3	2	19
3:15 PM	0	0	0	8	0	0	4	0	0	7	19
3:30 PM	0	0	0	3	0	0	2	0	2	2	9
3:45 PM	0	0	1	6	1	1	0	0	1	6	16
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	43	34	13	3	24	1	58	28	204
APPROACH %'s :			55.84%	44.16%	81.25%	18.75%	96.00%	4.00%			
PEAK HR :	**03:00 PM - 04:00 PM**										TOTAL
PEAK HR VOL :	0	0	4	23	4	1	8	0	6	17	63
PEAK HR FACTOR :			0.333	0.719	0.333	0.250	0.500		0.500	0.607	0.829
			0.750		0.417		0.500		0.821		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
4:00 PM	0	0	2	1	0	0	0	0	2	1	6
4:15 PM	0	0	4	0	0	0	2	0	6	0	12
4:30 PM	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	1	0	0	1	0	0	3
5:00 PM	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
5:30 PM	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	1	0	0	1	1	0	0	3
6:00 PM	0	0	1	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	1	0	0	1	0	0	0	2
6:30 PM	0	0	0	1	0	0	2	0	1	0	4
6:45 PM	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	8	4	1	0	6	2	9	1	31
APPROACH %'s :			66.67%	33.33%	100.00%	0.00%	75.00%	25.00%			
PEAK HR :	**04:30 PM - 05:30 PM**										TOTAL
PEAK HR VOL :	0	0	1	0	1	0	0	1	0	0	3
PEAK HR FACTOR :			0.250		0.250			0.250			0.250
			0.250		0.250		0.250				

Prepared by National Data & Surveying Services

Pleasant Hill Rd & Deer Hill Rd

Peak Hour Turning Movement Count

ID: 19-08244-001
City: Lafayette

Day: Thursday
Date: 05/02/2019

PEAK HOURS

AM	07:15 AM - 08:15 AM
NOON	03:00 PM - 04:00 PM
PM	04:45 PM - 05:45 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	02:00 PM - 04:00 PM
PM	04:00 PM - 07:00 PM

SOUTHBOUND — Pleasant Hill Rd

AM	762	1451	78	35	899	AM
NOON	240	716	136	21	2245	NOON
PM	195	714	143	16	2605	PM

EASTBOUND — Deer Hill Rd

AM	NOON	PM	
986	353	290	
0	0	0	0
194	656	783	2
72	101	116	0.5
39	59	24	0.5

WESTBOUND — Deer Hill Rd

PM	NOON	AM	
272	133	53	1
78	79	118	0.5
157	190	182	1.5
0	0	0	0
384	397	356	

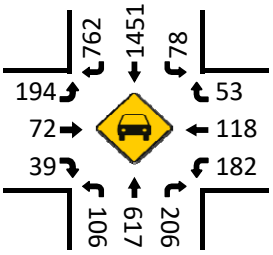
NORTHBOUND — Pleasant Hill Rd

PM	901	6	17	1534	125	PM
NOON	987	22	34	1435	160	NOON
AM	1691	19	106	617	206	AM

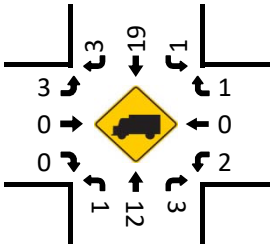
CONTROL: Signalized

TEV	3932	3982	4180
	AM	NOON	PM
PHF	0.86	0.97	0.97

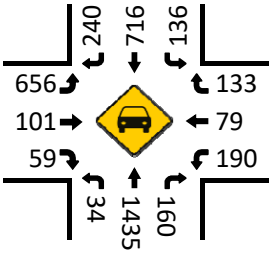
Total Vehicles (AM)



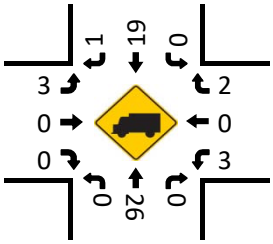
HT (AM)



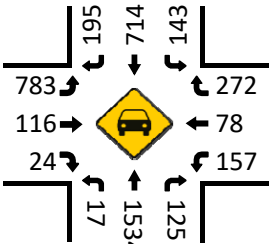
Total Vehicles (Noon)



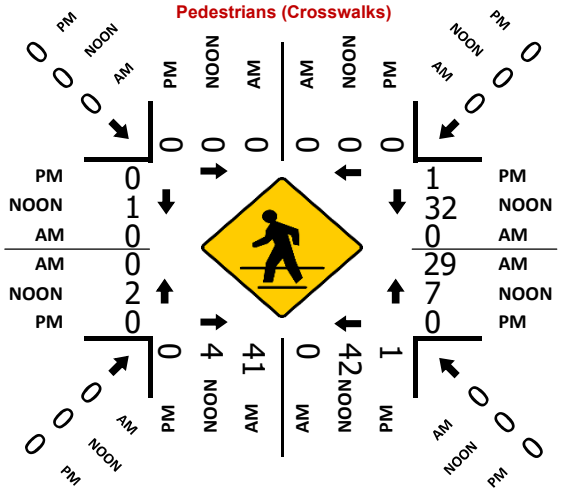
HT (NOON)



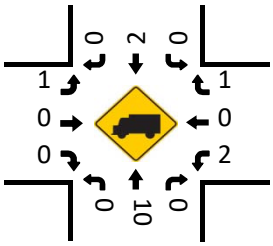
Total Vehicles (PM)



Pedestrians (Crosswalks)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-001
Date: 5/2/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	17	76	4	4	11	394	193	2	14	6	1	0	29	13	7	0	771
7:15 AM	18	83	17	2	7	447	219	2	26	3	0	0	29	12	12	0	877
7:30 AM	25	148	56	4	31	387	183	12	42	22	5	0	34	23	12	0	984
7:45 AM	25	244	100	6	21	275	204	15	81	32	25	0	67	39	10	0	1144
8:00 AM	38	142	33	7	19	342	156	6	45	15	9	0	52	44	19	0	927
8:15 AM	29	127	16	11	39	366	157	2	49	11	7	0	16	21	18	0	869
8:30 AM	30	118	12	5	18	292	141	3	42	10	8	0	23	14	13	0	729
8:45 AM	40	130	16	7	18	308	114	0	42	5	8	0	21	3	18	0	730
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	222	1068	254	46	164	2811	1367	42	341	104	63	0	271	169	109	0	7031
APPROACH %'s :	13.96%	67.17%	15.97%	2.89%	3.74%	64.12%	31.18%	0.96%	67.13%	20.47%	12.40%	0.00%	49.36%	30.78%	19.85%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	106	617	206	19	78	1451	762	35	194	72	39	0	182	118	53	0	3932
PEAK HR FACTOR :	0.697	0.632	0.515	0.679	0.629	0.812	0.870	0.583	0.599	0.563	0.390	0.000	0.679	0.670	0.697	0.000	0.859
		0.632				0.861				0.553				0.761			

1.0186528

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	5	217	14	7	18	131	43	5	71	9	6	0	25	13	16	0	580
2:15 PM	7	258	23	6	18	180	66	0	76	11	8	0	25	11	25	0	714
2:30 PM	14	322	23	12	19	172	53	3	66	5	3	0	26	13	28	0	759
2:45 PM	3	309	27	4	28	205	76	23	90	21	6	0	17	13	31	0	853
3:00 PM	10	319	45	8	47	186	64	13	120	24	15	0	51	13	33	0	948
3:15 PM	8	361	31	5	26	199	83	4	136	22	17	0	70	41	24	0	1027
3:30 PM	9	372	44	6	25	160	40	0	195	27	15	0	39	16	39	0	987
3:45 PM	7	383	40	3	38	171	53	4	205	28	12	0	30	9	37	0	1020
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	63	2541	247	51	219	1404	478	52	959	147	82	0	283	129	233	0	6888
APPROACH %'s :	2.17%	87.56%	8.51%	1.76%	10.17%	65.21%	22.20%	2.42%	80.72%	12.37%	6.90%	0.00%	43.88%	20.00%	36.12%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	34	1435	160	22	136	716	240	21	656	101	59	0	190	79	133	0	3982
PEAK HR FACTOR :	0.850	0.937	0.889	0.688	0.723	0.899	0.723	0.404	0.800	0.902	0.868	0.000	0.679	0.482	0.853	0.000	0.969
		0.953				0.892				0.833				0.744			

0.9984955

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	390	29	2	23	174	53	4	182	18	6	0	36	20	52	0	990
4:15 PM	4	342	27	0	19	161	54	1	197	29	6	0	27	19	53	0	939
4:30 PM	6	389	28	5	26	151	48	2	209	27	7	0	29	18	57	0	1002
4:45 PM	16	412	28	1	35	161	61	1	183	34	1	0	39	28	55	0	1055
5:00 PM	0	364	28	1	36	160	33	3	218	34	16	0	39	18	66	0	1016
5:15 PM	1	373	33	1	37	215	54	8	204	34	2	0	35	8	72	0	1077
5:30 PM	0	385	36	3	35	178	47	4	178	14	5	0	44	24	79	0	1032
5:45 PM	1	293	24	0	25	156	56	2	209	18	3	0	25	17	77	0	906
6:00 PM	3	412	34	1	24	150	48	2	203	26	4	0	41	13	60	0	1021
6:15 PM	2	384	20	0	20	147	56	1	174	20	6	0	22	14	46	0	912
6:30 PM	4	383	18	3	17	122	44	2	145	16	1	0	44	30	47	0	876
6:45 PM	5	336	32	5	19	125	24	3	114	22	6	0	28	12	19	0	750
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	43	4463	337	22	316	1900	578	33	2216	292	63	0	409	221	683	0	11576
APPROACH %'s :	0.88%	91.74%	6.93%	0.45%	11.18%	67.21%	20.45%	1.17%	86.19%	11.36%	2.45%	0.00%	31.15%	16.83%	52.02%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	17	1534	125	6	143	714	195	16	783	116	24	0	157	78	272	0	4180
PEAK HR FACTOR :	0.266	0.931	0.868	0.500	0.966	0.830	0.799	0.500	0.898	0.853	0.375	0.000	0.892	0.696	0.861	0.000	0.970
		0.920				0.850				0.861				0.862			

1.0036014

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-001
Date: 5/2/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	17	74	4	4	11	387	193	2	14	5	1	0	29	13	7	0	761
7:15 AM	18	80	17	2	7	442	218	2	25	3	0	0	28	12	11	0	865
7:30 AM	25	142	55	4	30	382	181	12	42	22	5	0	34	23	12	0	969
7:45 AM	24	242	100	6	21	269	204	15	81	32	25	0	66	39	10	0	1134
8:00 AM	38	141	31	7	19	339	156	6	43	15	9	0	52	44	19	0	919
8:15 AM	29	126	16	11	38	360	157	2	46	11	7	0	16	21	18	0	858
8:30 AM	30	112	12	5	18	288	140	3	41	10	8	0	23	14	13	0	717
8:45 AM	38	118	14	7	18	302	113	0	42	5	8	0	20	3	18	0	706
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	219	1035	249	46	162	2769	1362	42	334	103	63	0	268	169	108	0	6929
APPROACH %'s :	14.14%	66.82%	16.07%	2.97%	3.74%	63.88%	31.42%	0.97%	66.80%	20.60%	12.60%	0.00%	49.17%	31.01%	19.82%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	105	605	203	19	77	1432	759	35	191	72	39	0	180	118	52	0	3887
PEAK HR FACTOR :	0.69	0.625	0.508	0.679	0.642	0.810	0.870	0.583	0.590	0.563	0.390	0.000	0.682	0.670	0.684	0.000	0.857
	0.626				0.861				0.547				0.761				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	5	212	13	7	17	127	43	5	70	9	6	0	25	13	16	0	568
2:15 PM	7	253	23	6	18	174	65	0	75	11	8	0	25	11	25	0	701
2:30 PM	14	317	23	12	18	165	53	3	64	5	3	0	25	13	28	0	743
2:45 PM	3	302	27	4	28	202	74	23	89	21	6	0	16	13	31	0	839
3:00 PM	10	311	45	8	47	180	64	13	120	24	15	0	51	13	32	0	933
3:15 PM	8	356	31	5	26	191	82	4	133	22	17	0	69	41	24	0	1009
3:30 PM	9	362	44	6	25	159	40	0	195	27	15	0	37	16	38	0	973
3:45 PM	7	380	40	3	38	167	53	4	205	28	12	0	30	9	37	0	1013
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	63	2493	246	51	217	1365	474	52	951	147	82	0	278	129	231	0	6779
APPROACH %'s :	2.21%	87.38%	8.62%	1.79%	10.29%	64.75%	22.49%	2.47%	80.59%	12.46%	6.95%	0.00%	43.57%	20.22%	36.21%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	34	1409	160	22	136	697	239	21	653	101	59	0	187	79	131	0	3928
PEAK HR FACTOR :	0.85	0.927	0.889	0.688	0.723	0.912	0.729	0.404	0.796	0.902	0.868	0.000	0.678	0.482	0.862	0.000	0.969
	0.945				0.899				0.830				0.741				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	381	29	2	23	171	52	4	182	18	6	0	35	20	52	0	976
4:15 PM	4	331	27	0	19	159	54	1	196	29	6	0	27	19	53	0	925
4:30 PM	6	382	27	5	26	150	48	2	205	27	7	0	29	18	57	0	989
4:45 PM	16	411	28	1	35	160	61	1	183	34	1	0	38	28	55	0	1052
5:00 PM	0	360	28	1	36	159	33	3	218	34	16	0	39	18	66	0	1011
5:15 PM	1	371	33	1	37	215	54	8	203	34	2	0	35	8	72	0	1074
5:30 PM	0	382	36	3	35	178	47	4	178	14	5	0	43	24	78	0	1027
5:45 PM	1	292	24	0	25	155	56	2	208	18	3	0	25	17	77	0	903
6:00 PM	3	410	34	1	24	150	48	2	202	26	4	0	41	13	60	0	1018
6:15 PM	2	382	20	0	20	146	56	1	173	20	6	0	21	14	46	0	907
6:30 PM	4	382	18	3	17	120	44	2	145	16	1	0	44	30	47	0	873
6:45 PM	5	335	32	5	19	125	24	3	114	22	6	0	28	12	19	0	749
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	43	4419	336	22	316	1888	577	33	2207	292	63	0	405	221	682	0	11504
APPROACH %'s :	0.89%	91.68%	6.97%	0.46%	11.23%	67.09%	20.50%	1.17%	86.14%	11.40%	2.46%	0.00%	30.96%	16.90%	52.14%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	17	1524	125	6	143	712	195	16	782	116	24	0	155	78	271	0	4164
PEAK HR FACTOR :	0.27	0.927	0.868	0.500	0.966	0.828	0.799	0.500	0.897	0.853	0.375	0.000	0.901	0.696	0.869	0.000	0.969
	0.917				0.849				0.860				0.869				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-001
Date: 5/2/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	2	0	0	0	7	0	0	0	1	0	0	0	0	0	0	10
7:15 AM	0	3	0	0	0	5	1	0	1	0	0	0	1	0	1	0	12
7:30 AM	0	6	1	0	1	5	2	0	0	0	0	0	0	0	0	0	15
7:45 AM	1	2	0	0	0	6	0	0	0	0	0	0	1	0	0	0	10
8:00 AM	0	1	2	0	0	3	0	0	2	0	0	0	0	0	0	0	8
8:15 AM	0	1	0	0	1	6	0	0	3	0	0	0	0	0	0	0	11
8:30 AM	0	6	0	0	0	4	1	0	1	0	0	0	0	0	0	0	12
8:45 AM	2	12	2	0	0	6	1	0	0	0	0	0	1	0	0	0	24
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	33	5	0	2	42	5	0	7	1	0	0	3	0	1	0	102
APPROACH %'s :	7.32%	80.49%	12.20%	0.00%	4.08%	85.71%	10.20%	0.00%	87.50%	12.50%	0.00%	0.00%	75.00%	0.00%	25.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	1	12	3	0	1	19	3	0	3	0	0	0	2	0	1	0	45
PEAK HR FACTOR :	0.250	0.500	0.375	0.000	0.250	0.792	0.375	0.000	0.375	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.750
	0.571				0.719				0.375				0.375				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	5	1	0	1	4	0	0	1	0	0	0	0	0	0	0	12
2:15 PM	0	5	0	0	0	6	1	0	1	0	0	0	0	0	0	0	13
2:30 PM	0	5	0	0	1	7	0	0	2	0	0	0	1	0	0	0	16
2:45 PM	0	7	0	0	0	3	2	0	1	0	0	0	1	0	0	0	14
3:00 PM	0	8	0	0	0	6	0	0	0	0	0	0	0	0	1	0	15
3:15 PM	0	5	0	0	0	8	1	0	3	0	0	0	1	0	0	0	18
3:30 PM	0	10	0	0	0	1	0	0	0	0	0	0	2	0	1	0	14
3:45 PM	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	48	1	0	2	39	4	0	8	0	0	0	5	0	2	0	109
APPROACH %'s :	0.00%	97.96%	2.04%	0.00%	4.44%	86.67%	8.89%	0.00%	100.00%	0.00%	0.00%	0.00%	71.43%	0.00%	28.57%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	26	0	0	0	19	1	0	3	0	0	0	3	0	2	0	54
PEAK HR FACTOR :	0.00	0.650	0.000	0.000	0.000	0.594	0.250	0.000	0.250	0.000	0.000	0.000	0.375	0.000	0.500	0.000	0.750
	0.650				0.556				0.250				0.417				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	9	0	0	0	3	1	0	0	0	0	0	1	0	0	0	14
4:15 PM	0	11	0	0	0	2	0	0	1	0	0	0	0	0	0	0	14
4:30 PM	0	7	1	0	0	1	0	0	4	0	0	0	0	0	0	0	13
4:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	3
5:00 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
5:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	1	0	1	0	5
5:45 PM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3
6:00 PM	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
6:15 PM	0	2	0	0	0	1	0	0	1	0	0	0	1	0	0	0	5
6:30 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
6:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	44	1	0	0	12	1	0	9	0	0	0	4	0	1	0	72
APPROACH %'s :	0.00%	97.78%	2.22%	0.00%	0.00%	92.31%	7.69%	0.00%	100.00%	0.00%	0.00%	0.00%	80.00%	0.00%	20.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	10	0	0	0	2	0	0	1	0	0	0	2	0	1	0	16
PEAK HR FACTOR :	0.00	0.625	0.000	0.000	0.000	0.500	0.000	0.000	0.250	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.800
	0.625				0.500				0.250				0.375				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-001
Date: 5/2/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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	0	0	0	2	0	0	2
7:30 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	1	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	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	3	0	0	1	2	0	0	0	0	0	0	3	0	0	13
APPROACH %'s :	0.00%	57.14%	42.86%	0.00%	0.00%	33.33%	66.67%	0.00%					0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	4	3	0	0	0	1	0	0	0	0	0	0	2	0	0	10
PEAK HR FACTOR :	0.000	0.333	0.375	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.833
	0.583				0.250								0.250				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
2:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
3:30 PM	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	4
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3	0	0	1	5	1	0	1	1	1	0	2	0	1	0	16
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	14.29%	71.43%	14.29%	0.00%	33.33%	33.33%	33.33%	0.00%	66.67%	0.00%	33.33%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	3	0	0	1	3	1	0	0	1	1	0	1	0	0	0	11
PEAK HR FACTOR :	0.00	0.375	0.000	0.000	0.250	0.375	0.250	0.000	0.000	0.250	0.250	0.000	0.250	0.000	0.000	0.000	0.688
	0.375				0.417				0.500				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	3	0	0	2	0.5	0.5	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3
5:00 PM	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	3
5:30 PM	0	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	3
6:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	7	1	0	2	5	2	0	2	1	1	0	2	0	2	0	25
APPROACH %'s :	0.00%	87.50%	12.50%	0.00%	22.22%	55.56%	22.22%	0.00%	50.00%	25.00%	25.00%	0.00%	50.00%	0.00%	50.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	5	0	0	0	1	1	0	2	1	1	0	2	0	1	0	14
PEAK HR FACTOR :	0.00	0.625	0.000	0.000	0.000	0.250	0.250	0.000	0.500	0.250	0.250	0.000	0.500	0.000	0.250	0.000	0.875
	0.625				0.250				0.500				0.375				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Deer Hill Rd
City: Lafayette
Project ID: 19-08244-001
Date: 5/2/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		Deer Hill Rd		Deer Hill Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	5	0	2	0	0	0	7
7:45 AM	0	0	35	0	24	0	0	0	59
8:00 AM	0	0	1	0	3	0	0	0	4
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	1	1	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	41	1	30	0	0	0	72
APPROACH %'s :			97.62%	2.38%	100.00%	0.00%			
PEAK HR :	**07:15 AM - 08:15 AM**								TOTAL
PEAK HR VOL :	0	0	41	0	29	0	0	0	70
PEAK HR FACTOR :			0.293		0.302				0.297
			0.293		0.302				

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	1	1	1	0	0	0	3
3:00 PM	0	0	1	24	0	15	2	0	42
3:15 PM	0	0	2	16	3	17	0	0	38
3:30 PM	0	0	0	2	4	0	0	0	6
3:45 PM	0	0	1	0	0	0	0	1	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	5	43	8	32	2	1	91
APPROACH %'s :			10.42%	89.58%	20.00%	80.00%	66.67%	33.33%	
PEAK HR :	**03:00 PM - 04:00 PM**								TOTAL
PEAK HR VOL :	0	0	4	42	7	32	2	1	88
PEAK HR FACTOR :			0.500	0.438	0.438	0.471	0.250	0.250	0.524
			0.460		0.488		0.375		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	1	1	0	0	0	2
4:15 PM	0	0	0	1	0	0	1	0	2
4:30 PM	0	0	0	1	0	2	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	1	0	1	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	4	1	3	1	0	9
APPROACH %'s :			0.00%	100.00%	25.00%	75.00%	100.00%	0.00%	
PEAK HR :	**04:45 PM - 05:45 PM**								TOTAL
PEAK HR VOL :	0	0	0	1	0	1	0	0	2
PEAK HR FACTOR :				0.250		0.250			0.250
			0.250		0.250				

Prepared by National Data & Surveying Services

Pleasant Hill Rd & Mt Diablo Blvd/SR-24 EB Ramp

Peak Hour Turning Movement Count

ID: 19-08244-006
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 09:00 AM
03:00 PM - 04:00 PM	02:00 PM - 04:00 PM
04:45 PM - 05:45 PM	04:00 PM - 07:00 PM

Pleasant Hill Rd — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	708	401	0	0	820
NOON	407	503	0	0	796
PM	338	477	0	0	857
Lanes	1	2	0	0	

Mt Diablo Blvd/SR-24 EB Ramp — EASTBOUND

	AM	NOON	PM	Lanes
Departing	956	650	539	
U-Turn	0	0	0	0
Left	156	239	268	1
Thru	229	413	571	2
Right	98	257	330	0

Mt Diablo Blvd/SR-24 EB Ramp — WESTBOUND

	PM	NOON	AM	Lanes
Right	0	0	0	0
Thru	0	0	0	0
Left	0	0	0	0
U-Turn	0	0	0	0
Departing	853	792	611	

CONTROL: Signalized

	AM	NOON	PM
TEV	2886	2998	3056
PHF	0.91	0.91	0.97

Pleasant Hill Rd — NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
Lanes		0	1	2	1
PM	807	0	201	589	282
NOON	760	0	243	557	379
AM	499	0	248	664	382

Total Vehicles (AM)

Approach	Left/U	Thru	Right
Southbound	0 (U)	401	708
Eastbound	156	229	98
Westbound	0	0	0
Northbound	248	664	382

Total Vehicles (Noon)

Approach	Left/U	Thru	Right
Southbound	0 (U)	503	407
Eastbound	239	413	257
Westbound	0	0	0
Northbound	243	557	379

Total Vehicles (PM)

Approach	Left/U	Thru	Right
Southbound	0 (U)	477	338
Eastbound	268	571	330
Westbound	0	0	0
Northbound	201	589	282

HT (AM)

Approach	Left/U	Thru	Right
Southbound	0 (U)	6	17
Eastbound	2	6	3
Westbound	0	0	0
Northbound	7	6	3

HT (NOON)

Approach	Left/U	Thru	Right
Southbound	0 (U)	5	6
Eastbound	9	8	3
Westbound	0	0	0
Northbound	5	7	10

HT (PM)

Approach	Left/U	Thru	Right
Southbound	0 (U)	2	0
Eastbound	2	3	1
Westbound	0	0	0
Northbound	1	2	3

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	Eastbound (→)	0	0	0
North	Westbound (←)	0	0	0
West	Southbound (↓)	0	0	0
West	Northbound (↑)	0	1	0
East	Southbound (↓)	1	10	2
East	Northbound (↑)	3	0	0
South	Eastbound (→)	2	0	0
South	Westbound (←)	0	6	2
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Mt Diablo Blvd/SR-24 EB Ramp
City: Lafayette
Control: Signalized

Project ID: 19-08244-006
Date: 4/30/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Mt Diablo Blvd/SR-24 EB Ramp				Mt Diablo Blvd/SR-24 EB Ramp				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	34	88	69	0	0	66	113	0	7	31	15	0	0	0	0	0	423
7:15 AM	54	97	68	0	0	73	153	0	22	38	15	0	0	0	0	0	520
7:30 AM	50	167	74	0	0	84	169	0	49	51	14	0	0	0	0	0	658
7:45 AM	67	221	83	0	0	96	198	0	56	45	25	0	0	0	0	0	791
8:00 AM	69	137	105	0	0	115	170	0	24	59	32	0	0	0	0	0	711
8:15 AM	62	139	120	0	0	106	171	0	27	74	27	0	0	0	0	0	726
8:30 AM	51	110	106	0	0	109	147	0	31	71	23	0	0	0	0	0	648
8:45 AM	77	110	114	0	0	118	117	0	32	60	32	0	0	0	0	0	660
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	464	1069	739	0	0	767	1238	0	248	429	183	0	0	0	0	0	5137
APPROACH %'s :	20.42%	47.05%	32.53%	0.00%	0.00%	38.25%	61.75%	0.00%	28.84%	49.88%	21.28%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	248	664	382	0	0	401	708	0	156	229	98	0	0	0	0	0	2886
PEAK HR FACTOR :	0.899	0.751	0.796	0.000	0.000	0.872	0.894	0.000	0.696	0.774	0.766	0.000	0.000	0.000	0.000	0.000	0.912
	0.872				0.943				0.943								

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	52	99	56	0	0	97	96	0	45	78	49	1	0	0	0	0	573
2:15 PM	65	100	58	0	0	141	92	0	47	84	54	0	0	0	0	0	641
2:30 PM	51	138	86	0	0	111	76	0	38	78	56	0	0	0	0	0	634
2:45 PM	62	126	70	0	0	134	99	0	43	92	59	0	0	0	0	0	685
3:00 PM	55	134	63	0	0	119	99	0	71	90	67	0	0	0	0	0	698
3:15 PM	65	146	117	0	0	157	111	0	58	94	73	0	0	0	0	0	821
3:30 PM	65	145	114	0	0	102	103	0	57	113	56	0	0	0	0	0	755
3:45 PM	58	132	85	0	0	125	94	0	53	116	61	0	0	0	0	0	724
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	473	1020	649	0	0	986	770	0	412	745	475	1	0	0	0	0	5531
APPROACH %'s :	22.08%	47.62%	30.30%	0.00%	0.00%	56.15%	43.85%	0.00%	25.23%	45.62%	29.09%	0.06%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	243	557	379	0	0	503	407	0	239	413	257	0	0	0	0	0	2998
PEAK HR FACTOR :	0.935	0.954	0.810	0.000	0.000	0.801	0.917	0.000	0.842	0.890	0.880	0.000	0.000	0.000	0.000	0.000	0.913
	0.899				0.849				0.988								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	50	109	64	0	0	97	87	0	56	128	66	0	0	0	0	0	657
4:15 PM	45	135	76	0	0	116	87	0	68	131	73	0	0	0	0	0	731
4:30 PM	42	146	76	0	0	110	60	0	37	106	63	0	0	0	0	0	640
4:45 PM	44	152	84	0	0	109	97	0	62	137	84	0	0	0	0	0	769
5:00 PM	50	164	63	0	0	122	63	0	80	135	79	0	0	0	0	0	756
5:15 PM	65	130	65	0	0	135	89	0	62	158	80	0	0	0	0	0	784
5:30 PM	42	143	70	0	0	111	89	0	64	141	87	0	0	0	0	0	747
5:45 PM	48	150	47	0	0	105	80	0	49	96	59	0	0	0	0	0	634
6:00 PM	38	116	47	0	0	91	82	0	36	124	70	0	0	0	0	0	604
6:15 PM	36	101	52	0	0	102	87	0	48	87	67	0	0	0	0	0	580
6:30 PM	45	78	67	0	0	79	72	0	45	85	49	0	0	0	0	0	520
6:45 PM	33	80	44	0	0	66	61	0	35	73	47	0	0	0	0	0	439
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	538	1504	755	0	0	1243	954	0	642	1401	824	0	0	0	0	0	7861
APPROACH %'s :	19.23%	53.77%	26.99%	0.00%	0.00%	56.58%	43.42%	0.00%	22.39%	48.87%	28.74%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	201	589	282	0	0	477	338	0	268	571	330	0	0	0	0	0	3056
PEAK HR FACTOR :	0.773	0.898	0.839	0.000	0.000	0.883	0.871	0.000	0.838	0.903	0.948	0.000	0.000	0.000	0.000	0.000	0.974
	0.957				0.910				0.974								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Mt Diablo Blvd/SR-24 EB Ramp
City: Lafayette
Control: Signalized

Project ID: 19-08244-006
Date: 4/30/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Mt Diablo Blvd/SR-24 EB Ramp				Mt Diablo Blvd/SR-24 EB Ramp				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	33	87	69	0	0	61	110	0	7	28	15	0	0	0	0	0	410
7:15 AM	53	92	67	0	0	72	149	0	22	38	14	0	0	0	0	0	507
7:30 AM	49	166	74	0	0	81	166	0	48	49	13	0	0	0	0	0	646
7:45 AM	64	218	83	0	0	95	191	0	56	45	23	0	0	0	0	0	775
8:00 AM	69	135	104	0	0	113	165	0	23	57	32	0	0	0	0	0	698
8:15 AM	59	139	118	0	0	103	169	0	27	72	27	0	0	0	0	0	714
8:30 AM	51	108	105	0	0	104	144	0	30	66	22	0	0	0	0	0	630
8:45 AM	75	108	112	0	0	114	115	0	32	58	30	0	0	0	0	0	644
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	453	1053	732	0	0	743	1209	0	245	413	176	0	0	0	0	0	5024
APPROACH %'s :	20.24%	47.05%	32.71%	0.00%	0.00%	38.06%	61.94%	0.00%	29.38%	49.52%	21.10%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	241	658	379	0	0	392	691	0	154	223	95	0	0	0	0	0	2833
PEAK HR FACTOR :	0.87	0.755	0.803	0.000	0.000	0.867	0.904	0.000	0.688	0.774	0.742	0.000	0.000	0.000	0.000	0.000	0.914
	0.875				0.947				0.937								

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	51	97	56	0	0	95	94	0	44	78	49	1	0	0	0	0	565
2:15 PM	65	97	55	0	0	140	91	0	47	82	54	0	0	0	0	0	631
2:30 PM	49	137	85	0	0	111	74	0	38	78	55	0	0	0	0	0	627
2:45 PM	60	126	68	0	0	134	99	0	41	90	59	0	0	0	0	0	677
3:00 PM	54	134	62	0	0	117	97	0	70	90	66	0	0	0	0	0	690
3:15 PM	63	142	115	0	0	156	110	0	56	91	71	0	0	0	0	0	804
3:30 PM	64	145	110	0	0	101	101	0	53	109	56	0	0	0	0	0	739
3:45 PM	57	129	82	0	0	124	93	0	51	115	61	0	0	0	0	0	712
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	463	1007	633	0	0	978	759	0	400	733	471	1	0	0	0	0	5445
APPROACH %'s :	22.02%	47.88%	30.10%	0.00%	0.00%	56.30%	43.70%	0.00%	24.92%	45.67%	29.35%	0.06%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	238	550	369	0	0	498	401	0	230	405	254	0	0	0	0	0	2945
PEAK HR FACTOR :	0.93	0.948	0.802	0.000	0.000	0.798	0.911	0.000	0.821	0.880	0.894	0.000	0.000	0.000	0.000	0.000	0.916
	0.904				0.845				0.979								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	50	105	62	0	0	95	85	0	55	126	65	0	0	0	0	0	643
4:15 PM	44	133	73	0	0	116	87	0	67	128	73	0	0	0	0	0	721
4:30 PM	42	145	76	0	0	110	60	0	37	105	63	0	0	0	0	0	638
4:45 PM	44	151	84	0	0	109	97	0	61	135	84	0	0	0	0	0	765
5:00 PM	49	164	62	0	0	122	63	0	79	135	78	0	0	0	0	0	752
5:15 PM	65	130	64	0	0	133	89	0	62	158	80	0	0	0	0	0	781
5:30 PM	42	142	69	0	0	111	89	0	64	140	87	0	0	0	0	0	744
5:45 PM	47	150	46	0	0	105	80	0	48	96	59	0	0	0	0	0	631
6:00 PM	36	115	47	0	0	91	82	0	36	124	70	0	0	0	0	0	601
6:15 PM	36	101	51	0	0	102	87	0	48	87	67	0	0	0	0	0	579
6:30 PM	45	78	67	0	0	79	72	0	45	85	49	0	0	0	0	0	520
6:45 PM	33	79	44	0	0	66	61	0	35	73	47	0	0	0	0	0	438
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	533	1493	745	0	0	1239	952	0	637	1392	822	0	0	0	0	0	7813
APPROACH %'s :	19.23%	53.88%	26.89%	0.00%	0.00%	56.55%	43.45%	0.00%	22.34%	48.82%	28.83%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	200	587	279	0	0	475	338	0	266	568	329	0	0	0	0	0	3042
PEAK HR FACTOR :	0.77	0.895	0.830	0.000	0.000	0.893	0.871	0.000	0.842	0.899	0.945	0.000	0.000	0.000	0.000	0.000	0.974
	0.955				0.916				0.969								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Mt Diablo Blvd/SR-24 EB Ramp
City: Lafayette
Control: Signalized

Project ID: 19-08244-006
Date: 4/30/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Mt Diablo Blvd/SR-24 EB Ramp				Mt Diablo Blvd/SR-24 EB Ramp				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	1	0	0	0	5	3	0	0	3	0	0	0	0	0	0	13
7:15 AM	1	5	1	0	0	1	4	0	0	0	1	0	0	0	0	0	13
7:30 AM	1	1	0	0	0	3	3	0	1	2	1	0	0	0	0	0	12
7:45 AM	3	3	0	0	0	1	7	0	0	0	2	0	0	0	0	0	16
8:00 AM	0	2	1	0	0	2	5	0	1	2	0	0	0	0	0	0	13
8:15 AM	3	0	2	0	0	3	2	0	0	2	0	0	0	0	0	0	12
8:30 AM	0	2	1	0	0	5	3	0	1	5	1	0	0	0	0	0	18
8:45 AM	2	2	2	0	0	4	2	0	0	2	2	0	0	0	0	0	16
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	11	16	7	0	0	24	29	0	3	16	7	0	0	0	0	0	113
APPROACH %'s :	32.35%	47.06%	20.59%	0.00%	0.00%	45.28%	54.72%	0.00%	11.54%	61.54%	26.92%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	7	6	3	0	0	9	17	0	2	6	3	0	0	0	0	0	53
PEAK HR FACTOR :	0.583	0.500	0.375	0.000	0.000	0.750	0.607	0.000	0.500	0.750	0.375	0.000	0.000	0.000	0.000	0.000	0.828
	0.667				0.813				0.688								

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	1	2	0	0	0	2	2	0	1	0	0	0	0	0	0	0	8
2:15 PM	0	3	3	0	0	1	1	0	0	2	0	0	0	0	0	0	10
2:30 PM	2	1	1	0	0	0	2	0	0	0	1	0	0	0	0	0	7
2:45 PM	2	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	8
3:00 PM	1	0	1	0	0	2	2	0	1	0	1	0	0	0	0	0	8
3:15 PM	2	4	2	0	0	1	1	0	2	3	2	0	0	0	0	0	17
3:30 PM	1	0	4	0	0	1	2	0	4	4	0	0	0	0	0	0	16
3:45 PM	1	3	3	0	0	1	1	0	2	1	0	0	0	0	0	0	12
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	10	13	16	0	0	8	11	0	12	12	4	0	0	0	0	0	86
APPROACH %'s :	25.64%	33.33%	41.03%	0.00%	0.00%	42.11%	57.89%	0.00%	42.86%	42.86%	14.29%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	5	7	10	0	0	5	6	0	9	8	3	0	0	0	0	0	53
PEAK HR FACTOR :	0.63	0.438	0.625	0.000	0.000	0.625	0.750	0.000	0.563	0.500	0.375	0.000	0.000	0.000	0.000	0.000	0.779
	0.688				0.688				0.625								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	4	2	0	0	2	2	0	1	2	1	0	0	0	0	0	14
4:15 PM	1	2	3	0	0	0	0	0	1	3	0	0	0	0	0	0	10
4:30 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	4
5:00 PM	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	4
5:15 PM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	3
5:45 PM	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	3
6:00 PM	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	11	10	0	0	4	2	0	5	9	2	0	0	0	0	0	48
APPROACH %'s :	19.23%	42.31%	38.46%	0.00%	0.00%	66.67%	33.33%	0.00%	31.25%	56.25%	12.50%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	1	2	3	0	0	2	0	0	2	3	1	0	0	0	0	0	14
PEAK HR FACTOR :	0.25	0.500	0.750	0.000	0.000	0.250	0.000	0.000	0.500	0.375	0.250	0.000	0.000	0.000	0.000	0.000	0.875
	0.750				0.250				0.500								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Mt Diablo Blvd/SR-24 EB Ramp
City: Lafayette
Control: Signalized

Project ID: 19-08244-006
Date: 4/30/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Mt Diablo Blvd/SR-24 EB Ramp				Mt Diablo Blvd/SR-24 EB Ramp				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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	2	0	0	0	0	0	0	0	2
7:30 AM	3	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	6
7:45 AM	0	1	0	0	0	0	0	0	2	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
8:15 AM	0	0	0	0	0	0	1	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	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	2	0	0	0	0	1	0	6	0	1	0	0	0	0	0	13
APPROACH %'s :	60.00%	40.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	85.71%	0.00%	14.29%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	3	1	0	0	0	0	1	0	4	0	1	0	0	0	0	0	10
PEAK HR FACTOR :	0.250	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.417
	0.333				0.250				0.417								

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	4
3:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
3:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	2	5	0	1	0	1	0	0	0	0	0	10
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	0.00%	28.57%	71.43%	0.00%	50.00%	0.00%	50.00%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	1	0	0	0	0	2	4	0	1	0	1	0	0	0	0	0	9
PEAK HR FACTOR :	0.25	0.000	0.000	0.000	0.000	0.250	0.333	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.563
	0.250				0.500				0.500								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	0	2	1	0	1	2	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	2	0	0	0	1	0	0	0	0	0	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
5:15 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	1	0	0	0	0	0	0	2	0	1	0	0	0	0	0	4
6:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	3	0	0	0	6	3	0	4	0	4	0	0	0	0	0	21
APPROACH %'s :	25.00%	75.00%	0.00%	0.00%	0.00%	66.67%	33.33%	0.00%	50.00%	0.00%	50.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	2	1	0	2	0	0	0	0	0	0	0	6
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
	0.250				0.375				0.500								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Mt Diablo Blvd/SR-24 EB Ramp
City: Lafayette

Project ID: 19-08244-006
Date: 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		Mt Diablo Blvd/SR-24 EB Ramp		Mt Diablo Blvd/SR-24 EB Ramp						
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2 CUT OUT		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	1	0	2	0	0	0	0	0	0	0	3
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	3	0	4	1	0	0	0	0	#REF!	1	#REF!
APPROACH %'s :			100.00%	0.00%	80.00%	20.00%							
PEAK HR :	07:30 AM - 08:30 AM												TOTAL
PEAK HR VOL :	0	0	2	0	3	1	0	0	0	0	1	0	7
PEAK HR FACTOR :			0.500		0.375	0.250							0.583
			0.500		0.500								

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2 CUT OUT		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	1	1	1	0	0	0	0	0	0	1	4
3:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	2
3:15 PM	0	0	0	7	0	9	1	0	0	1	2	0	20
3:30 PM	0	0	0	1	0	0	0	0	0	0	0	1	2
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	1	10	1	10	1	0	0	1	#REF!	2	#REF!
APPROACH %'s :			9.09%	90.91%	9.09%	90.91%	100.00%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM												TOTAL
PEAK HR VOL :	0	0	0	9	0	10	1	0	0	1	2	1	24
PEAK HR FACTOR :				0.321		0.278	0.250			0.250		0.250	0.300
			0.321		0.278		0.250		0.250		0.750		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		NORTH LEG 2 CUT OUT		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
4:00 PM	0	0	2	0	0	0	0	0	0	0	2	0	4
4:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	2
4:30 PM	0	0	2	0	2	0	0	0	0	0	0	0	4
4:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	1	0	1	0	1	1	0	0	0	4
6:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	4
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	1	0	1	2	0	0	0	0	2	0	6
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	5	4	5	6	0	1	1	0	#REF!	2	#REF!
APPROACH %'s :			55.56%	44.44%	45.45%	54.55%	0.00%	100.00%					
PEAK HR :	04:45 PM - 05:45 PM												TOTAL
PEAK HR VOL :	0	0	0	2	0	2	0	0	0	0	0	0	4
PEAK HR FACTOR :				0.500		0.500							0.500
			0.500		0.500								

Prepared by National Data & Surveying Services

Pleasant Hill Rd & SR-24 EB Ramp/Old Tunnel Rd

Peak Hour Turning Movement Count

ID: 19-08244-007
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS

AM	07:45 AM - 08:45 AM
NOON	03:00 PM - 04:00 PM
PM	04:45 PM - 05:45 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	02:00 PM - 04:00 PM
PM	04:00 PM - 07:00 PM

Pleasant Hill Rd — SOUTHBOUND

AM	0	464	61	6	1270	AM
NOON	0	622	104	24	1181	NOON
PM	0	649	135	16	1068	PM

SR-24 EB Ramp/Old Tunnel Rd — EASTBOUND

AM	NOON	PM		
0	0	0		
0	0	0	0	
44	53	64	0.5	
34	63	70	0.5	
150	184	192	1	
AM	NOON	PM		

SR-24 EB Ramp/Old Tunnel Rd — WESTBOUND

PM	NOON	AM		
108	115	170	1	
0	0	0	0	
23	28	24	1	
0	0	0	0	
219	191	120		
PM	NOON	AM		

Pleasant Hill Rd — NORTHBOUND

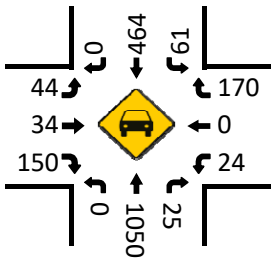
PM	864	0	0	880	14	PM
NOON	834	0	0	989	24	NOON
AM	638	0	0	1050	25	AM

	0	2	1	0
	0	0	3	0

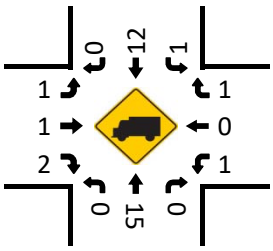
CONTROL: Signalized

	AM	NOON	PM
TEV	2028	2206	2151
PHF	0.92	0.86	0.97

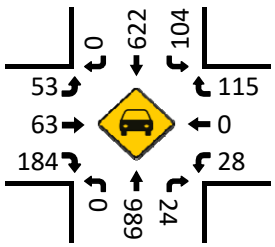
Total Vehicles (AM)



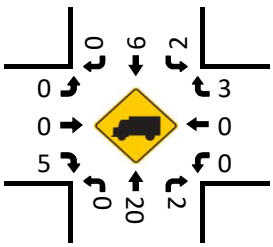
HT (AM)



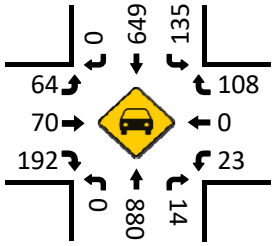
Total Vehicles (Noon)



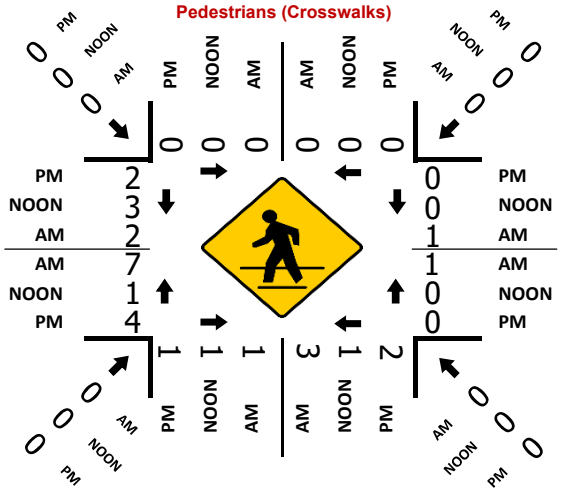
HT (NOON)



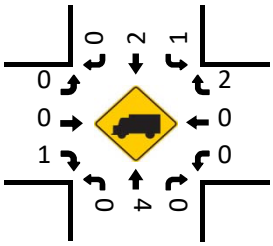
Total Vehicles (PM)



Pedestrians (Crosswalks)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 EB Ramp/Old Tunnel Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-007
Date: 4/30/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 EB Ramp/Old Tunnel Rd				SR-24 EB Ramp/Old Tunnel Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	161	1	0	9	70	0	0	3	2	17	0	0	0	25	0	288
7:15 AM	0	166	3	0	7	82	0	1	13	5	22	0	3	0	44	0	346
7:30 AM	0	229	3	0	8	88	0	1	5	7	23	0	9	0	53	0	426
7:45 AM	0	303	11	0	19	100	0	3	10	7	35	0	8	0	56	0	552
8:00 AM	0	244	7	0	13	133	0	2	11	11	28	0	9	0	53	0	511
8:15 AM	0	275	4	0	13	119	0	0	17	9	46	0	3	0	29	0	515
8:30 AM	0	228	3	0	16	112	0	1	6	7	41	0	4	0	32	0	450
8:45 AM	0	226	7	0	22	131	0	4	23	8	63	0	1	0	40	0	525
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1832	39	0	107	835	0	12	88	56	275	0	37	0	332	0	3613
APPROACH %'s :	0.00%	97.92%	2.08%	0.00%	11.22%	87.53%	0.00%	1.26%	21.00%	13.37%	65.63%	0.00%	10.03%	0.00%	89.97%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	1050	25	0	61	464	0	6	44	34	150	0	24	0	170	0	2028
PEAK HR FACTOR :	0.000	0.866	0.568	0.000	0.803	0.872	0.000	0.500	0.647	0.773	0.815	0.000	0.667	0.000	0.759	0.000	0.918
		0.856				0.897				0.792				0.758			

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 EB Ramp/Old Tunnel Rd				SR-24 EB Ramp/Old Tunnel Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	172	6	0	15	119	0	4	13	4	54	0	3	0	27	0	417
2:15 PM	0	163	3	0	13	189	0	1	18	13	53	0	7	0	31	0	491
2:30 PM	0	242	6	0	23	136	0	2	12	7	44	0	5	0	24	0	501
2:45 PM	0	208	4	0	28	165	0	4	8	10	40	0	7	0	32	0	506
3:00 PM	0	205	9	0	25	158	0	1	12	22	43	0	7	0	35	0	517
3:15 PM	0	270	7	0	27	200	0	7	14	16	47	0	18	0	35	0	641
3:30 PM	0	283	6	0	25	127	0	9	14	12	41	0	2	0	21	0	540
3:45 PM	0	231	2	0	27	137	0	7	13	13	53	0	1	0	24	0	508
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1774	43	0	183	1231	0	35	104	97	375	0	50	0	229	0	4121
APPROACH %'s :	0.00%	97.63%	2.37%	0.00%	12.63%	84.96%	0.00%	2.42%	18.06%	16.84%	65.10%	0.00%	17.92%	0.00%	82.08%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	989	24	0	104	622	0	24	53	63	184	0	28	0	115	0	2206
PEAK HR FACTOR :	0.000	0.874	0.667	0.000	0.963	0.778	0.000	0.667	0.946	0.716	0.868	0.000	0.389	0.000	0.821	0.000	0.860
		0.876				0.801				0.949				0.675			

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 EB Ramp/Old Tunnel Rd				SR-24 EB Ramp/Old Tunnel Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	188	7	0	14	160	0	5	7	13	36	0	6	0	24	0	460
4:15 PM	0	214	9	0	26	166	0	1	11	16	42	0	4	0	28	0	517
4:30 PM	0	239	7	0	27	144	0	0	6	15	53	0	3	0	25	0	519
4:45 PM	0	229	3	0	35	152	0	5	18	15	43	0	6	0	21	0	527
5:00 PM	0	233	4	0	35	159	0	2	15	16	50	0	4	0	39	0	557
5:15 PM	0	202	2	0	35	177	0	4	18	17	56	0	8	0	19	0	538
5:30 PM	0	216	5	0	30	161	0	5	13	22	43	0	5	0	29	0	529
5:45 PM	0	193	6	0	29	126	0	10	13	23	54	0	5	0	27	0	486
6:00 PM	0	156	6	0	23	136	0	4	13	19	53	0	1	0	21	0	432
6:15 PM	0	156	5	0	29	137	0	1	16	18	49	0	0	0	18	0	429
6:30 PM	0	152	4	0	25	106	0	1	15	12	59	0	3	0	21	0	398
6:45 PM	0	126	1	0	16	98	0	0	12	7	59	0	6	0	20	0	345
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2304	59	0	324	1722	0	38	157	193	597	0	51	0	292	0	5737
APPROACH %'s :	0.00%	97.50%	2.50%	0.00%	15.55%	82.63%	0.00%	1.82%	16.58%	20.38%	63.04%	0.00%	14.87%	0.00%	85.13%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	880	14	0	135	649	0	16	64	70	192	0	23	0	108	0	2151
PEAK HR FACTOR :	0.000	0.944	0.700	0.000	0.964	0.917	0.000	0.800	0.889	0.795	0.857	0.000	0.719	0.000	0.692	0.000	0.965
		0.943				0.926				0.896				0.762			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 EB Ramp/Old Tunnel Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-007
Date: 4/30/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 EB Ramp/Old Tunnel Rd				SR-24 EB Ramp/Old Tunnel Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	160	1	0	8	66	0	0	3	2	17	0	0	0	24	0	281
7:15 AM	0	161	1	0	7	80	0	1	13	5	22	0	3	0	42	0	335
7:30 AM	0	228	3	0	8	84	0	1	5	7	22	0	9	0	53	0	420
7:45 AM	0	296	11	0	18	98	0	3	10	7	35	0	7	0	56	0	541
8:00 AM	0	242	7	0	13	131	0	2	11	10	28	0	9	0	52	0	505
8:15 AM	0	271	4	0	13	116	0	0	16	9	45	0	3	0	29	0	506
8:30 AM	0	226	3	0	16	107	0	1	6	7	40	0	4	0	32	0	442
8:45 AM	0	220	7	0	22	124	0	4	22	8	61	0	1	0	40	0	509
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1804	37	0	105	806	0	12	86	55	270	0	36	0	328	0	3539
APPROACH %'s :	0.00%	97.99%	2.01%	0.00%	11.38%	87.32%	0.00%	1.30%	20.92%	13.38%	65.69%	0.00%	9.89%	0.00%	90.11%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	1035	25	0	60	452	0	6	43	33	148	0	23	0	169	0	1994
PEAK HR FACTOR :	0.00	0.874	0.568	0.000	0.833	0.863	0.000	0.500	0.672	0.825	0.822	0.000	0.639	0.000	0.754	0.000	0.921
		0.863				0.887				0.800				0.762			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	170	5	0	15	117	0	4	12	4	53	0	3	0	27	0	410
2:15 PM	0	157	3	0	13	188	0	1	18	13	51	0	7	0	31	0	482
2:30 PM	0	238	6	0	23	135	0	2	12	7	44	0	5	0	24	0	496
2:45 PM	0	206	4	0	28	165	0	4	8	10	40	0	7	0	31	0	503
3:00 PM	0	203	8	0	23	157	0	1	12	22	41	0	7	0	34	0	508
3:15 PM	0	263	6	0	27	197	0	7	14	16	46	0	18	0	34	0	628
3:30 PM	0	278	6	0	25	126	0	9	14	12	39	0	2	0	21	0	532
3:45 PM	0	225	2	0	27	136	0	7	13	13	53	0	1	0	23	0	500
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1740	40	0	181	1221	0	35	103	97	367	0	50	0	225	0	4059
APPROACH %'s :	0.00%	97.75%	2.25%	0.00%	12.60%	84.97%	0.00%	2.44%	18.17%	17.11%	64.73%	0.00%	18.18%	0.00%	81.82%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	969	22	0	102	616	0	24	53	63	179	0	28	0	112	0	2168
PEAK HR FACTOR :	0.00	0.871	0.688	0.000	0.944	0.782	0.000	0.667	0.946	0.716	0.844	0.000	0.389	0.000	0.824	0.000	0.863
		0.872				0.803				0.934				0.673			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	183	7	0	14	157	0	5	7	13	36	0	6	0	23	0	451
4:15 PM	0	209	8	0	26	166	0	1	11	16	42	0	4	0	27	0	510
4:30 PM	0	238	7	0	27	144	0	0	6	15	53	0	3	0	25	0	518
4:45 PM	0	228	3	0	35	152	0	5	18	15	43	0	6	0	21	0	526
5:00 PM	0	233	4	0	34	159	0	2	15	16	50	0	4	0	37	0	554
5:15 PM	0	201	2	0	35	175	0	4	18	17	55	0	8	0	19	0	534
5:30 PM	0	214	5	0	30	161	0	5	13	22	43	0	5	0	29	0	527
5:45 PM	0	192	6	0	29	126	0	10	13	23	53	0	5	0	26	0	483
6:00 PM	0	153	6	0	23	136	0	4	13	19	52	0	1	0	21	0	428
6:15 PM	0	155	5	0	29	137	0	1	16	18	49	0	0	0	18	0	428
6:30 PM	0	152	4	0	25	106	0	1	15	12	59	0	3	0	21	0	398
6:45 PM	0	126	1	0	16	98	0	0	11	7	59	0	6	0	20	0	344
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2284	58	0	323	1717	0	38	156	193	594	0	51	0	287	0	5701
APPROACH %'s :	0.00%	97.52%	2.48%	0.00%	15.54%	82.63%	0.00%	1.83%	16.54%	20.47%	62.99%	0.00%	15.09%	0.00%	84.91%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	876	14	0	134	647	0	16	64	70	191	0	23	0	106	0	2141
PEAK HR FACTOR :	0.00	0.940	0.700	0.000	0.957	0.924	0.000	0.800	0.889	0.795	0.868	0.000	0.719	0.000	0.716	0.000	0.966
		0.939				0.931				0.903				0.787			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 EB Ramp/Old Tunnel Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-007
Date: 4/30/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 EB Ramp/Old Tunnel Rd				SR-24 EB Ramp/Old Tunnel Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	1	4	0	0	0	0	0	0	0	0	1	0	7
7:15 AM	0	5	2	0	0	2	0	0	0	0	0	0	0	0	2	0	11
7:30 AM	0	1	0	0	0	4	0	0	0	0	1	0	0	0	0	0	6
7:45 AM	0	7	0	0	1	2	0	0	0	0	0	0	1	0	0	0	11
8:00 AM	0	2	0	0	0	2	0	0	0	1	0	0	0	0	1	0	6
8:15 AM	0	4	0	0	0	3	0	0	1	0	1	0	0	0	0	0	9
8:30 AM	0	2	0	0	0	5	0	0	0	0	1	0	0	0	0	0	8
8:45 AM	0	6	0	0	0	7	0	0	1	0	2	0	0	0	0	0	16
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	28	2	0	2	29	0	0	2	1	5	0	1	0	4	0	74
APPROACH %'s :	0.00%	93.33%	6.67%	0.00%	6.45%	93.55%	0.00%	0.00%	25.00%	12.50%	62.50%	0.00%	20.00%	0.00%	80.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	15	0	0	1	12	0	0	1	1	2	0	1	0	1	0	34
PEAK HR FACTOR :	0.000	0.536	0.000	0.000	0.250	0.600	0.000	0.000	0.250	0.250	0.500	0.000	0.250	0.000	0.250	0.000	0.773
	0.536				0.650				0.500				0.500				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	2	1	0	0	2	0	0	1	0	1	0	0	0	0	0	7
2:15 PM	0	6	0	0	0	1	0	0	0	0	2	0	0	0	0	0	9
2:30 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
2:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
3:00 PM	0	2	1	0	2	1	0	0	0	0	2	0	0	0	1	0	9
3:15 PM	0	7	1	0	0	3	0	0	0	0	1	0	0	0	1	0	13
3:30 PM	0	5	0	0	0	1	0	0	0	0	2	0	0	0	0	0	8
3:45 PM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	1	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	34	3	0	2	10	0	0	1	0	8	0	0	0	4	0	62
APPROACH %'s :	0.00%	91.89%	8.11%	0.00%	16.67%	83.33%	0.00%	0.00%	11.11%	0.00%	88.89%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	20	2	0	2	6	0	0	0	0	5	0	0	0	3	0	38
PEAK HR FACTOR :	0.00	0.714	0.500	0.000	0.250	0.500	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.750	0.000	0.731
	0.688				0.667				0.625				0.750				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	1	0	9
4:15 PM	0	5	1	0	0	0	0	0	0	0	0	0	0	0	1	0	7
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	3
5:15 PM	0	1	0	0	0	2	0	0	0	0	1	0	0	0	0	0	4
5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3
6:00 PM	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4
6:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	20	1	0	1	5	0	0	1	0	3	0	0	0	5	0	36
APPROACH %'s :	0.00%	95.24%	4.76%	0.00%	16.67%	83.33%	0.00%	0.00%	25.00%	0.00%	75.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	4	0	0	1	2	0	0	0	0	1	0	0	0	2	0	10
PEAK HR FACTOR :	0.00	0.500	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.625
	0.500				0.375				0.250				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 EB Ramp/Old Tunnel Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-007
Date: 4/30/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 EB Ramp/Old Tunnel Rd				SR-24 EB Ramp/Old Tunnel Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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	0	0	0	0	0	0	0
7:30 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	0	4
7:45 AM	0	1	0	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	0	0	0
8:15 AM	0	0	0	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	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	0	0	0	1	0	0	0	0	0	0	0	0	1	0	6
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
	0.250																

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	1	0	0	3	0	0	0	0	0	0	0	0	0	0	5
APPROACH %'s :	0.00%	50.00%	50.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333
	0.250				0.250												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	1	2	0	0	0.5	0.5	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	3
6:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	0	0	3	7	0	0	0	0	0	0	1	0	0	0	15
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	30.00%	70.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
	0.250				0.500												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 EB Ramp/Old Tunnel Rd
City: Lafayette
Project ID: 19-08244-00
Date: 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		SR-24 EB Ramp/Old Tunnel Rd		SR-24 EB Ramp/Old Tunnel Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	2	2	4
7:15 AM	0	0	2	0	0	0	0	3	5
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	2	1	3
8:00 AM	0	0	0	1	0	0	3	1	5
8:15 AM	0	0	1	0	0	1	0	0	2
8:30 AM	0	0	0	2	1	0	2	0	5
8:45 AM	0	0	0	0	0	0	0	1	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	3	3	1	1	9	8	25
APPROACH %'s :			50.00%	50.00%	50.00%	50.00%	52.94%	47.06%	
PEAK HR :	**07:45 AM - 08:45 AM**								TOTAL
PEAK HR VOL :	0	0	1	3	1	1	7	2	15
PEAK HR FACTOR :			0.250	0.375	0.250	0.250	0.583	0.500	0.750
			0.500		0.500		0.563		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	1	0	0	1	1	3
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	1	0	0	0	0	2	3
3:15 PM	0	0	0	0	0	0	0	1	1
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	1	0	0	1	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	1	2	0	0	2	4	9
APPROACH %'s :			33.33%	66.67%			33.33%	66.67%	
PEAK HR :	**03:00 PM - 04:00 PM**								TOTAL
PEAK HR VOL :	0	0	1	1	0	0	1	3	6
PEAK HR FACTOR :			0.250	0.250			0.250	0.375	0.500
			0.500				0.500		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	1	1	2
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	1
5:00 PM	0	0	0	1	0	0	2	0	3
5:15 PM	0	0	1	0	0	0	0	1	2
5:30 PM	0	0	0	1	0	0	2	0	3
5:45 PM	0	0	1	0	0	0	0	3	4
6:00 PM	0	0	0	0	2	0	0	0	2
6:15 PM	0	0	0	0	0	0	1	1	2
6:30 PM	0	0	0	0	0	1	1	0	2
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	3	2	2	1	7	7	22
APPROACH %'s :			60.00%	40.00%	66.67%	33.33%	50.00%	50.00%	
PEAK HR :	**04:45 PM - 05:45 PM**								TOTAL
PEAK HR VOL :	0	0	1	2	0	0	4	2	9
PEAK HR FACTOR :			0.250	0.500			0.500	0.500	0.750
			0.750				0.750		

National Data & Surveying Services

Intersection Turning Movement Count

Prepared by National Data & Surveying Services

Brown Ave & Deer Hill Rd

Peak Hour Turning Movement Count

ID: 19-08244-008
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	03:00 PM - 04:00 PM
PM	04:15 PM - 05:15 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	02:00 PM - 04:00 PM
PM	04:00 PM - 07:00 PM

SOUTHBOUND — Brown Ave

AM	23	8	12	0	19	AM
NOON	16	7	11	0	23	NOON
PM	10	11	3	0	40	PM

EASTBOUND — Deer Hill Rd

AM	NOON	PM	
791	325	320	⇦
0	0	0	0
9	10	25	1
289	744	829	1
38	56	60	0
AM	NOON	PM	

WESTBOUND — Deer Hill Rd

PM	NOON	AM	
8	4	5	0
274	276	724	1
68	62	131	1
0	0	0	0
PM	NOON	AM	
925	877	346	⇨

NORTHBOUND — Brown Ave

PM	140	1	36	7	93	PM
NOON	125	0	33	9	122	NOON
AM	177	0	44	5	45	AM

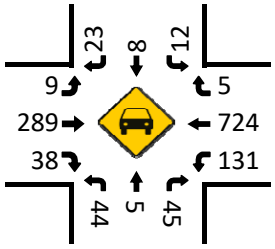
	0	1	0	0
	0	0	1	1

CONTROL

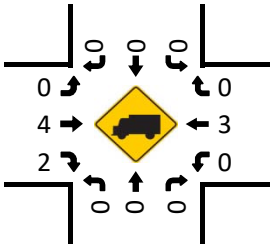
2-Way Stop (NB/SB)

	AM	NOON	PM
TEV	1333	1350	1425
PHF	0.81	0.93	0.96

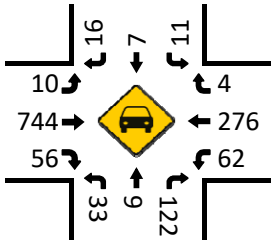
Total Vehicles (AM)



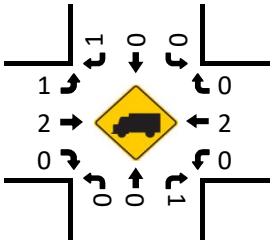
HT (AM)



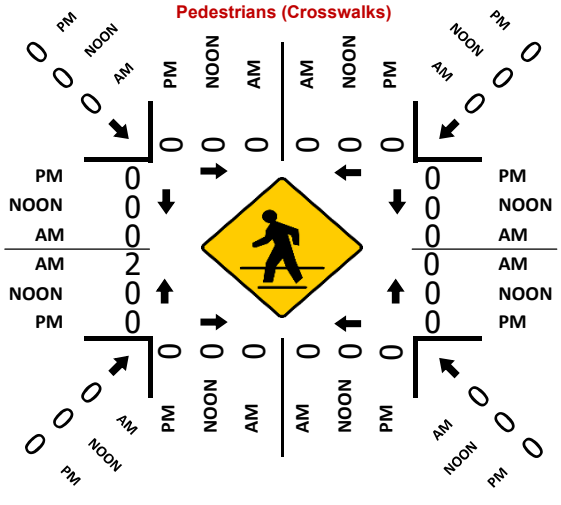
Total Vehicles (Noon)



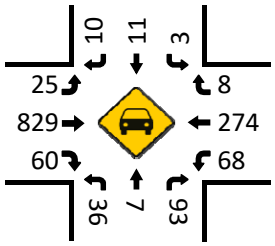
HT (NOON)



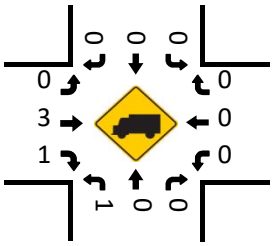
Pedestrians (Crosswalks)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Brown Ave & Deer Hill Rd
City: Lafayette
Control: 2-Way Stop (NB/SB)

Project ID: 19-08244-008
Date: 4/30/2019

Total

NS/EW Streets:	Brown Ave				Brown Ave				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	0	2	0	0	0	4	0	2	14	4	0	18	213	1	0	263
7:15 AM	10	0	4	0	0	1	4	0	3	27	1	0	18	189	5	0	262
7:30 AM	9	1	7	0	4	2	8	0	2	80	8	0	24	192	1	0	338
7:45 AM	13	2	24	0	3	2	4	0	1	102	5	0	51	201	2	0	410
8:00 AM	7	2	11	0	3	2	5	0	2	54	10	0	33	174	1	0	304
8:15 AM	15	0	3	0	2	2	6	0	4	53	15	0	23	157	1	0	281
8:30 AM	5	1	13	0	1	2	8	0	5	53	15	0	30	125	1	0	259
8:45 AM	12	2	5	0	3	1	5	0	1	32	9	0	19	139	1	0	229
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	76	8	69	0	16	12	44	0	20	415	67	0	216	1390	13	0	2346
APPROACH %'s :	49.67%	5.23%	45.10%	0.00%	22.22%	16.67%	61.11%	0.00%	3.98%	82.67%	13.35%	0.00%	13.34%	85.86%	0.80%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	44	5	45	0	12	8	23	0	9	289	38	0	131	724	5	0	1333
PEAK HR FACTOR :	0.733	0.625	0.469	0.000	0.750	1.000	0.719	0.000	0.563	0.708	0.633	0.000	0.642	0.900	0.625	0.000	0.813
	0.603				0.768				0.778				0.846				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	8	2	5	0	0	0	4	0	3	63	16	0	10	53	0	0	164
2:15 PM	14	0	20	0	1	1	2	0	5	93	16	0	7	53	0	0	212
2:30 PM	8	0	13	0	1	1	5	0	4	86	10	0	16	68	1	0	213
2:45 PM	13	1	15	0	4	1	1	0	3	121	13	0	31	82	3	0	288
3:00 PM	8	1	42	0	1	1	3	0	5	142	13	0	22	58	2	0	298
3:15 PM	10	2	37	0	4	3	6	0	3	160	21	0	16	86	1	0	349
3:30 PM	8	4	28	0	4	2	2	0	1	193	11	0	9	76	1	0	339
3:45 PM	7	2	15	0	2	1	5	0	1	249	11	0	15	56	0	0	364
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	76	12	175	0	17	10	28	0	25	1107	111	0	126	532	8	0	2227
APPROACH %'s :	28.90%	4.56%	66.54%	0.00%	30.91%	18.18%	50.91%	0.00%	2.01%	89.06%	8.93%	0.00%	18.92%	79.88%	1.20%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	33	9	122	0	11	7	16	0	10	744	56	0	62	276	4	0	1350
PEAK HR FACTOR :	0.825	0.563	0.726	0.000	0.688	0.583	0.667	0.000	0.500	0.747	0.667	0.000	0.705	0.802	0.500	0.000	0.927
	0.804				0.654				0.776				0.830				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	12	4	18	0	2	1	2	0	3	193	16	0	12	74	2	0	339
4:15 PM	5	1	26	0	0	1	2	0	2	207	14	0	20	75	3	0	356
4:30 PM	12	2	21	1	1	1	1	0	13	226	14	0	11	36	3	0	342
4:45 PM	17	1	24	0	2	4	4	0	5	204	15	0	17	80	0	0	373
5:00 PM	2	3	22	0	0	5	3	0	5	192	17	0	20	83	2	0	354
5:15 PM	3	2	20	0	0	1	1	0	2	197	13	0	20	57	0	0	316
5:30 PM	9	1	28	0	0	3	4	0	5	165	18	0	8	61	1	0	303
5:45 PM	9	1	27	0	1	1	4	0	6	219	12	0	16	68	0	0	364
6:00 PM	8	4	17	0	0	2	6	0	2	176	9	0	6	52	0	0	282
6:15 PM	10	1	18	0	2	2	2	1	7	201	10	0	11	30	2	0	297
6:30 PM	11	2	20	1	1	0	2	0	3	155	13	0	12	58	2	0	280
6:45 PM	7	1	12	1	0	1	4	0	6	103	14	0	6	51	2	0	208
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	105	23	253	3	9	22	35	1	59	2238	165	0	159	725	17	0	3814
APPROACH %'s :	27.34%	5.99%	65.89%	0.78%	13.43%	32.84%	52.24%	1.49%	2.40%	90.90%	6.70%	0.00%	17.65%	80.47%	1.89%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	36	7	93	1	3	11	10	0	25	829	60	0	68	274	8	0	1425
PEAK HR FACTOR :	0.529	0.583	0.894	0.250	0.375	0.550	0.625	0.000	0.481	0.917	0.882	0.000	0.850	0.825	0.667	0.000	0.955
	0.815				0.600				0.903				0.833				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Brown Ave & Deer Hill Rd
City: Lafayette
Control: 2-Way Stop (NB/SB)

Project ID: 19-08244-008
Date: 4/30/2019

Cars

NS/EW Streets:	Brown Ave				Brown Ave				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	0	2	0	0	0	4	0	2	14	4	0	18	213	1	0	263
7:15 AM	9	0	4	0	0	1	4	0	3	27	1	0	18	189	5	0	261
7:30 AM	9	1	7	0	4	2	8	0	2	80	8	0	24	191	1	0	337
7:45 AM	13	2	24	0	3	2	4	0	1	101	4	0	51	200	2	0	407
8:00 AM	7	2	11	0	3	2	5	0	2	54	10	0	33	174	1	0	304
8:15 AM	15	0	3	0	2	2	6	0	4	50	14	0	23	156	1	0	276
8:30 AM	5	1	13	0	1	2	8	0	5	52	15	0	30	125	1	0	258
8:45 AM	12	2	5	0	3	1	5	0	1	32	9	0	19	137	1	0	227
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	75	8	69	0	16	12	44	0	20	410	65	0	216	1385	13	0	2333
APPROACH %'s :	49.34%	5.26%	45.39%	0.00%	22.22%	16.67%	61.11%	0.00%	4.04%	82.83%	13.13%	0.00%	13.38%	85.81%	0.81%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	44	5	45	0	12	8	23	0	9	285	36	0	131	721	5	0	1324
PEAK HR FACTOR :	0.73	0.625	0.469	0.000	0.750	1.000	0.719	0.000	0.563	0.705	0.643	0.000	0.642	0.901	0.625	0.000	0.813
	0.603				0.768				0.778				0.847				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	8	2	5	0	0	0	4	0	3	62	16	0	9	53	0	0	162
2:15 PM	14	0	20	0	1	1	2	0	5	92	16	0	7	52	0	0	210
2:30 PM	8	0	13	0	1	1	5	0	4	86	10	0	16	67	1	0	212
2:45 PM	13	1	14	0	3	1	1	0	3	119	13	0	31	80	3	0	282
3:00 PM	8	1	41	0	1	1	3	0	5	141	13	0	22	57	2	0	295
3:15 PM	10	2	37	0	4	3	6	0	3	160	21	0	16	85	1	0	348
3:30 PM	8	4	28	0	4	2	2	0	1	193	11	0	9	76	1	0	339
3:45 PM	7	2	15	0	2	1	4	0	0	248	11	0	15	56	0	0	361
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	76	12	173	0	16	10	27	0	24	1101	111	0	125	526	8	0	2209
APPROACH %'s :	29.12%	4.60%	66.28%	0.00%	30.19%	18.87%	50.94%	0.00%	1.94%	89.08%	8.98%	0.00%	18.97%	79.82%	1.21%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	33	9	121	0	11	7	15	0	9	742	56	0	62	274	4	0	1343
PEAK HR FACTOR :	0.83	0.563	0.738	0.000	0.688	0.583	0.625	0.000	0.450	0.748	0.667	0.000	0.705	0.806	0.500	0.000	0.930
	0.815				0.635				0.779				0.833				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	12	4	18	0	2	1	2	0	3	192	16	0	12	74	2	0	338
4:15 PM	5	1	26	0	0	1	2	0	2	206	14	0	20	75	3	0	355
4:30 PM	12	2	21	1	1	1	1	0	13	225	13	0	11	36	3	0	340
4:45 PM	16	1	24	0	2	4	4	0	5	204	15	0	17	80	0	0	372
5:00 PM	2	3	22	0	0	5	3	0	5	191	17	0	20	83	2	0	353
5:15 PM	3	2	20	0	0	1	1	0	2	196	13	0	20	57	0	0	315
5:30 PM	9	1	28	0	0	3	4	0	5	165	18	0	8	61	1	0	303
5:45 PM	9	1	27	0	1	1	4	0	6	218	12	0	16	68	0	0	363
6:00 PM	8	4	16	0	0	2	6	0	2	175	9	0	6	52	0	0	280
6:15 PM	10	1	18	0	2	2	2	1	7	201	10	0	11	30	2	0	297
6:30 PM	11	2	20	1	1	0	2	0	3	154	13	0	12	58	2	0	279
6:45 PM	7	1	12	1	0	1	4	0	6	103	14	0	6	51	2	0	208
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	104	23	252	3	9	22	35	1	59	2230	164	0	159	725	17	0	3803
APPROACH %'s :	27.23%	6.02%	65.97%	0.79%	13.43%	32.84%	52.24%	1.49%	2.41%	90.91%	6.69%	0.00%	17.65%	80.47%	1.89%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	35	7	93	1	3	11	10	0	25	826	59	0	68	274	8	0	1420
PEAK HR FACTOR :	0.55	0.583	0.894	0.250	0.375	0.550	0.625	0.000	0.481	0.918	0.868	0.000	0.850	0.825	0.667	0.000	0.954
	0.829				0.600				0.906				0.833				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Brown Ave & Deer Hill Rd
City: Lafayette
Control: 2-Way Stop (NB/SB)

Project ID: 19-08244-008
Date: 4/30/2019

HT

NS/EW Streets:	Brown Ave				Brown Ave				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	3
8:00 AM	0	0	0	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	3	1	0	0	1	0	0	5
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	0	0	0	0	5	2	0	0	5	0	0	13
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%					0.00%	71.43%	28.57%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	4	2	0	0	3	0	0	9
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.500	0.000	0.000	0.750	0.000	0.000	0.450
										0.375				0.750			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2
2:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
2:45 PM	0	0	1	0	1	0	0	0	0	2	0	0	0	2	0	0	6
3:00 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	3
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	2	0	1	0	1	0	1	6	0	0	1	6	0	0	18
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	50.00%	0.00%	50.00%	0.00%	14.29%	85.71%	0.00%	0.00%	14.29%	85.71%	0.00%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	0	1	0	0	0	1	0	1	2	0	0	0	2	0	0	7
PEAK HR FACTOR :	0.00	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.583
		0.250				0.250				0.375				0.500			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
4:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	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	1	0	0	0	0	0	0	1
6:00 PM	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	0	1	0	0	0	0	0	0	8	1	0	0	0	0	0	11
APPROACH %'s :	50.00%	0.00%	50.00%	0.00%					0.00%	88.89%	11.11%	0.00%					
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	1	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	5
PEAK HR FACTOR :	0.25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.250	0.000	0.000	0.000	0.000	0.000	0.625
		0.250								0.500							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Brown Ave & Deer Hill Rd
City: Lafayette
Control: 2-Way Stop (NB/SB)

Project ID: 19-08244-008
Date: 4/30/2019

Bikes

NS/EW Streets:	Brown Ave				Brown Ave				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
8:30 AM	0	0	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	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	0	0	0	0	0	0	0	1	0	0	0	5	0	0	8
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%					0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	4
PEAK HR FACTOR :	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.500
	0.250													0.750			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	3
APPROACH %'s :					50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.375
					0.500				0.250								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	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	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	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	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	0	0	0	5	2	0	0	1	0	0	9
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%					0.00%	71.43%	28.57%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.333
									0.333								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Brown Ave & Deer Hill Rd
City: Lafayette
Project ID: 19-08244-008
Date: 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Brown Ave		Brown Ave		Deer Hill Rd		Deer Hill Rd				
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
7:00 AM	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
7:30 AM	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
8:00 AM	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	2	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	1	0	0	1
8:45 AM	0	1	0	0	0	0	1	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	3	1	0	0	5
APPROACH %'s :	0.00%	100.00%					75.00%	25.00%			
PEAK HR :	07:30 AM - 08:30 AM										TOTAL
PEAK HR VOL :	0	0	0	0	0	0	2	0	0	0	2
PEAK HR FACTOR :							0.250				0.250
							0.250				

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :											
PEAK HR :	03:00 PM - 04:00 PM										TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :											

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG 2 CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
4:00 PM	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
4:30 PM	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
5:00 PM	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	1
5:30 PM	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
6:00 PM	1	0	0	0	0	0	0	0	0	0	1
6:15 PM	1	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	2	0	0	0	0	0	0	1	0	0	3
APPROACH %'s :	100.00%	0.00%					0.00%	100.00%			
PEAK HR :	04:15 PM - 05:15 PM										TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :											

Prepared by National Data & Surveying Services

1st St/Sierra Vista Way & Deer Hill Rd

Peak Hour Turning Movement Count

ID: 19-08244-013
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS	
AM	07:30 AM - 08:30 AM
NOON	03:00 PM - 04:00 PM
PM	04:15 PM - 05:15 PM

COUNT PERIODS	
AM	07:00 AM - 09:00 AM
NOON	02:00 PM - 04:00 PM
PM	04:00 PM - 07:00 PM

SOUTHBOUND — 1st St/Sierra Vista Way

	Left	Thru	Right	U-Turn	Total
AM	22	24	15	0	31
NOON	12	16	7	0	40
PM	5	14	8	1	33

EASTBOUND — Deer Hill Rd

	AM	NOON	PM
Left	909	509	479
U-Turn	0	0	0
Right	18	27	14
Thru	210	580	684
Left	715	1011	1065

WESTBOUND — Deer Hill Rd

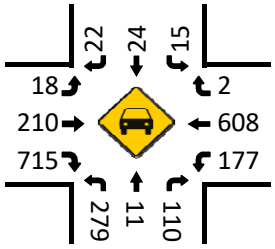
	PM	NOON	AM
U-Turn	3	4	2
Left	230	223	608
Right	86	98	177
Thru	0	0	0
Left	914	809	335

NORTHBOUND — 1st St/Sierra Vista Way

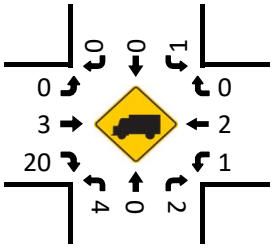
	Left	Thru	Right	U-Turn	Total
PM	1165	0	244	15	222
NOON	1125	0	274	9	222
AM	916	0	279	11	110

CONTROL			
Signalized			
TEV	2191 AM	2483 NOON	2591 PM
PHF	0.96	0.98	0.99

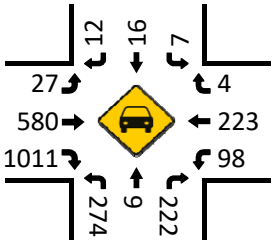
Total Vehicles (AM)



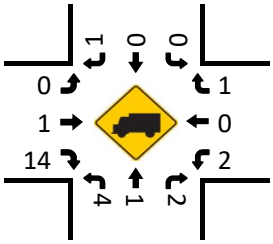
HT (AM)



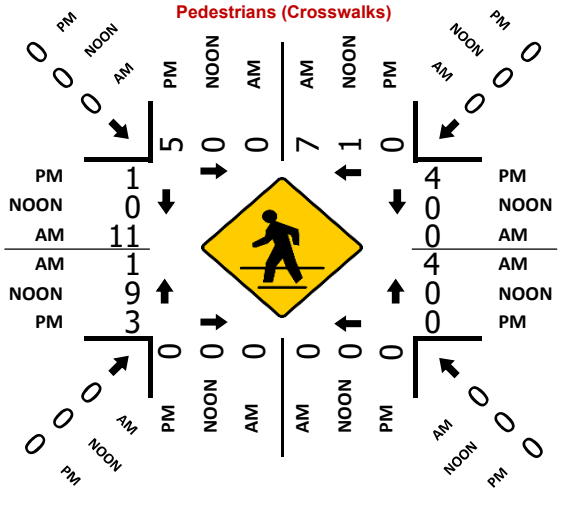
Total Vehicles (Noon)



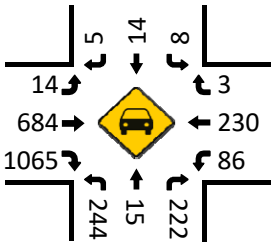
HT (NOON)



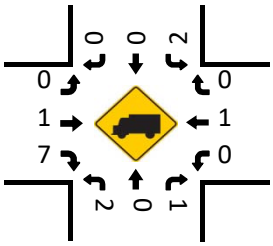
Pedestrians (Crosswalks)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: 1st St/Sierra Vista Way & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-013
Date: 4/30/2019

Total

NS/EW Streets:	1st St/Sierra Vista Way				1st St/Sierra Vista Way				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	62	0	7	0	0	5	0	0	1	15	109	0	24	199	1	0	423
7:15 AM	65	1	4	0	2	1	1	0	2	23	107	0	26	175	0	0	407
7:30 AM	63	0	26	0	7	3	3	0	1	61	148	0	54	161	1	0	528
7:45 AM	69	4	35	0	7	8	3	0	7	62	170	0	49	154	1	0	569
8:00 AM	90	5	32	0	0	6	5	0	4	40	181	0	41	158	0	0	562
8:15 AM	57	2	17	0	1	7	11	0	6	47	216	0	33	135	0	0	532
8:30 AM	54	2	16	0	4	3	9	0	8	54	207	0	41	101	0	0	499
8:45 AM	49	2	11	0	1	0	2	0	5	30	222	0	40	112	2	0	476
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	509	16	148	0	22	33	34	0	34	332	1360	0	308	1195	5	0	3996
APPROACH %'s :	75.63%	2.38%	21.99%	0.00%	24.72%	37.08%	38.20%	0.00%	1.97%	19.24%	78.79%	0.00%	20.42%	79.24%	0.33%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	279	11	110	0	15	24	22	0	18	210	715	0	177	608	2	0	2191
PEAK HR FACTOR :	0.775	0.550	0.786	0.000	0.536	0.750	0.500	0.000	0.643	0.847	0.828	0.000	0.819	0.944	0.500	0.000	0.963
	0.787				0.803				0.876				0.911				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	53	2	19	0	2	0	2	0	2	60	261	0	17	50	0	0	468
2:15 PM	52	3	34	0	3	3	1	0	4	79	270	0	14	52	1	0	516
2:30 PM	53	2	34	0	1	6	6	0	1	71	254	0	31	40	0	0	499
2:45 PM	58	1	43	0	2	2	6	1	10	86	265	0	44	60	2	0	580
3:00 PM	78	1	53	0	3	1	3	0	9	115	257	0	24	43	3	0	590
3:15 PM	81	4	56	0	1	8	3	0	5	114	252	0	31	69	1	0	625
3:30 PM	59	2	53	0	1	2	4	0	6	158	260	0	22	65	0	0	632
3:45 PM	56	2	60	0	2	5	2	0	7	193	242	0	21	46	0	0	636
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	490	17	352	0	15	27	27	1	44	876	2061	0	204	425	7	0	4546
APPROACH %'s :	57.04%	1.98%	40.98%	0.00%	21.43%	38.57%	38.57%	1.43%	1.48%	29.39%	69.14%	0.00%	32.08%	66.82%	1.10%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	274	9	222	0	7	16	12	0	27	580	1011	0	98	223	4	0	2483
PEAK HR FACTOR :	0.846	0.563	0.925	0.000	0.583	0.500	0.750	0.000	0.750	0.751	0.972	0.000	0.790	0.808	0.333	0.000	0.976
	0.895				0.729				0.915				0.804				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	56	2	52	0	0	7	1	1	2	160	245	0	27	63	1	0	617
4:15 PM	65	0	48	0	1	5	2	1	7	168	268	0	22	55	2	0	644
4:30 PM	61	4	52	0	1	3	1	0	4	206	255	0	18	38	1	0	644
4:45 PM	58	4	65	0	3	5	0	0	2	157	266	0	22	71	0	0	653
5:00 PM	60	7	57	0	3	1	2	0	1	153	276	0	24	66	0	0	650
5:15 PM	60	2	51	0	0	2	3	0	4	159	270	0	16	43	0	0	610
5:30 PM	48	7	43	0	2	2	5	0	6	145	262	0	18	60	1	0	599
5:45 PM	50	8	54	0	3	1	3	0	4	181	289	0	26	49	1	0	669
6:00 PM	77	5	45	0	0	7	1	0	9	145	292	0	15	49	1	0	646
6:15 PM	66	3	49	1	0	5	4	0	5	165	245	0	10	36	0	0	589
6:30 PM	51	4	39	1	1	1	1	0	3	131	235	0	19	47	2	0	535
6:45 PM	57	0	36	0	0	1	0	0	5	91	166	0	21	41	1	0	419
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	709	46	591	2	14	40	23	2	52	1861	3069	0	238	618	10	0	7275
APPROACH %'s :	52.60%	3.41%	43.84%	0.15%	17.72%	50.63%	29.11%	2.53%	1.04%	37.35%	61.60%	0.00%	27.48%	71.36%	1.15%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	244	15	222	0	8	14	5	1	14	684	1065	0	86	230	3	0	2591
PEAK HR FACTOR :	0.938	0.536	0.854	0.000	0.667	0.700	0.625	0.250	0.500	0.830	0.965	0.000	0.896	0.810	0.375	0.000	0.992
	0.947				0.778				0.948				0.858				

National Data & Surveying Services

Intersection Turning Movement Count

Location: 1st St/Sierra Vista Way & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-013
Date: 4/30/2019

Cars

NS/EW Streets:	1st St/Sierra Vista Way				1st St/Sierra Vista Way				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	62	0	7	0	0	5	0	0	1	15	106	0	24	199	1	0	420
7:15 AM	65	1	4	0	2	1	1	0	2	23	101	0	26	174	0	0	400
7:30 AM	63	0	26	0	7	3	3	0	1	61	146	0	53	161	1	0	525
7:45 AM	67	4	34	0	7	8	3	0	7	61	164	0	49	153	1	0	558
8:00 AM	88	5	32	0	0	6	5	0	4	40	177	0	41	158	0	0	556
8:15 AM	57	2	16	0	0	7	11	0	6	45	208	0	33	134	0	0	519
8:30 AM	53	2	15	0	4	3	9	0	8	54	202	0	41	101	0	0	492
8:45 AM	49	2	11	0	1	0	2	0	5	30	212	0	40	110	2	0	464
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	504	16	145	0	21	33	34	0	34	329	1316	0	307	1190	5	0	3934
APPROACH %'s :	75.79%	2.41%	21.80%	0.00%	23.86%	37.50%	38.64%	0.00%	2.03%	19.59%	78.38%	0.00%	20.44%	79.23%	0.33%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	275	11	108	0	14	24	22	0	18	207	695	0	176	606	2	0	2158
PEAK HR FACTOR :	0.78	0.550	0.794	0.000	0.500	0.750	0.500	0.000	0.643	0.848	0.835	0.000	0.830	0.941	0.500	0.000	0.967
	0.788				0.833				0.888				0.912				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	52	2	19	0	1	0	2	0	2	60	258	0	17	50	0	0	463
2:15 PM	49	2	34	0	3	2	1	0	4	78	267	0	14	51	1	0	506
2:30 PM	53	2	34	0	1	6	6	0	1	71	249	0	31	39	0	0	493
2:45 PM	58	1	43	0	2	2	6	1	10	84	261	0	43	59	2	0	572
3:00 PM	78	1	52	0	3	1	3	0	9	115	251	0	24	43	2	0	582
3:15 PM	80	4	56	0	1	8	3	0	5	114	249	0	30	69	1	0	620
3:30 PM	58	1	53	0	1	2	3	0	6	158	258	0	22	65	0	0	627
3:45 PM	54	2	59	0	2	5	2	0	7	192	239	0	20	46	0	0	628
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	482	15	350	0	14	26	26	1	44	872	2032	0	201	422	6	0	4491
APPROACH %'s :	56.91%	1.77%	41.32%	0.00%	20.90%	38.81%	38.81%	1.49%	1.49%	29.58%	68.93%	0.00%	31.96%	67.09%	0.95%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	270	8	220	0	7	16	11	0	27	579	997	0	96	223	3	0	2457
PEAK HR FACTOR :	0.84	0.500	0.932	0.000	0.583	0.500	0.917	0.000	0.750	0.754	0.966	0.000	0.800	0.808	0.375	0.000	0.978
	0.889				0.708				0.915				0.805				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	55	2	51	0	0	7	1	1	2	160	239	0	27	63	1	0	609
4:15 PM	65	0	48	0	1	5	2	1	7	167	264	0	22	55	2	0	639
4:30 PM	60	4	52	0	1	3	1	0	4	206	253	0	18	38	1	0	641
4:45 PM	58	4	65	0	1	5	0	0	2	157	265	0	22	70	0	0	649
5:00 PM	59	7	56	0	3	1	2	0	1	153	276	0	24	66	0	0	648
5:15 PM	60	2	50	0	0	2	3	0	4	159	266	0	16	43	0	0	605
5:30 PM	48	7	43	0	2	2	5	0	6	145	262	0	18	60	1	0	599
5:45 PM	49	8	54	0	3	1	3	0	4	180	288	0	26	49	1	0	666
6:00 PM	76	5	45	0	0	7	1	0	9	144	291	0	15	49	1	0	643
6:15 PM	66	3	49	1	0	5	4	0	5	165	242	0	10	36	0	0	586
6:30 PM	51	4	39	1	1	1	1	0	3	130	235	0	19	47	2	0	534
6:45 PM	56	0	36	0	0	1	0	0	5	91	165	0	21	41	1	0	417
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	703	46	588	2	12	40	23	2	52	1857	3046	0	238	617	10	0	7236
APPROACH %'s :	52.50%	3.44%	43.91%	0.15%	15.58%	51.95%	29.87%	2.60%	1.05%	37.48%	61.47%	0.00%	27.51%	71.33%	1.16%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	242	15	221	0	6	14	5	1	14	683	1058	0	86	229	3	0	2577
PEAK HR FACTOR :	0.93	0.536	0.850	0.000	0.500	0.700	0.625	0.250	0.500	0.829	0.958	0.000	0.896	0.818	0.375	0.000	0.993
	0.941				0.722				0.948				0.864				

National Data & Surveying Services

Intersection Turning Movement Count

Location: 1st St/Sierra Vista Way & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-013
Date: 4/30/2019

HT

NS/EW Streets:	1st St/Sierra Vista Way				1st St/Sierra Vista Way				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	1	0	0	7
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3
7:45 AM	2	0	1	0	0	0	0	0	0	1	6	0	0	1	0	0	11
8:00 AM	2	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	6
8:15 AM	0	0	1	0	1	0	0	0	0	2	8	0	0	1	0	0	13
8:30 AM	1	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	7
8:45 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	2	0	0	12
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	0	3	0	1	0	0	0	0	3	44	0	1	5	0	0	62
APPROACH %'s :	62.50%	0.00%	37.50%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	6.38%	93.62%	0.00%	16.67%	83.33%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	4	0	2	0	1	0	0	0	0	3	20	0	1	2	0	0	33
PEAK HR FACTOR :	0.500	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.000	0.375	0.625	0.000	0.250	0.500	0.000	0.000	0.635
	0.500				0.250				0.575				0.750				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	1	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0	5
2:15 PM	3	1	0	0	0	1	0	0	0	1	3	0	0	1	0	0	10
2:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	1	0	0	6
2:45 PM	0	0	0	0	0	0	0	0	0	2	4	0	1	1	0	0	8
3:00 PM	0	0	1	0	0	0	0	0	0	0	6	0	0	0	1	0	8
3:15 PM	1	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	5
3:30 PM	1	1	0	0	0	0	1	0	0	0	2	0	0	0	0	0	5
3:45 PM	2	0	1	0	0	0	0	0	0	1	3	0	1	0	0	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	2	2	0	1	1	1	0	0	4	29	0	3	3	1	0	55
APPROACH %'s :	66.67%	16.67%	16.67%	0.00%	33.33%	33.33%	33.33%	0.00%	0.00%	12.12%	87.88%	0.00%	42.86%	42.86%	14.29%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	4	1	2	0	0	0	1	0	0	1	14	0	2	0	1	0	26
PEAK HR FACTOR :	0.50	0.250	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.583	0.000	0.500	0.000	0.250	0.000	0.813
	0.583				0.250				0.625				0.750				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	1	0	0	0	0	0	0	0	6	0	0	0	0	0	8
4:15 PM	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	5
4:30 PM	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3
4:45 PM	0	0	0	0	2	0	0	0	0	0	1	0	0	1	0	0	4
5:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3
6:00 PM	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3
6:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 PM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	0	3	0	2	0	0	0	0	4	23	0	0	1	0	0	39
APPROACH %'s :	66.67%	0.00%	33.33%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	14.81%	85.19%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	2	0	1	0	2	0	0	0	0	1	7	0	0	1	0	0	14
PEAK HR FACTOR :	0.50	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.438	0.000	0.000	0.250	0.000	0.000	0.700
	0.375				0.250				0.400				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: 1st St/Sierra Vista Way & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-013
Date: 4/30/2019

Bikes

NS/EW Streets:	1st St/Sierra Vista Way				1st St/Sierra Vista Way				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:45 AM	0	0	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	0	0	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
8:30 AM	0	0	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	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	7	0	0	8
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500
														0.500			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250
										0.250							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0	1	0	0	1	1	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	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	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
5:15 PM	0	0	0	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	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
6:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	7	1	0	0	1	0	0	9
APPROACH %'s :									0.00%	87.50%	12.50%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.333
										0.333							

National Data & Surveying Services

Intersection Turning Movement Count

Location: 1st St/Sierra Vista Way & Deer Hill Rd
City: Lafayette
Project ID: 19-08244-013
Date: 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	1st St/Sierra Vista Way		1st St/Sierra Vista Way		Deer Hill Rd		Deer Hill Rd				
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	1	0	2
7:30 AM	0	0	0	0	0	0	0	3	0	2	5
7:45 AM	0	1	0	0	0	0	0	8	0	8	17
8:00 AM	0	2	0	0	1	0	1	0	1	0	5
8:15 AM	0	4	0	0	3	0	0	0	0	0	7
8:30 AM	0	2	0	1	1	0	1	2	1	3	11
8:45 AM	0	3	0	0	1	0	0	1	0	1	6
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	12	0	1	6	0	3	14	3	14	53
APPROACH %'s :	0.00%	100.00%	0.00%	100.00%	100.00%	0.00%	17.65%	82.35%			
PEAK HR :	07:30 AM - 08:30 AM										TOTAL
PEAK HR VOL :	0	7	0	0	4	0	1	11	1	10	34
PEAK HR FACTOR :		0.438			0.333		0.250	0.344	0.250	0.313	0.500
	0.438				0.333		0.375		0.344		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	4	0	4	0	8
3:15 PM	0	0	0	0	0	0	2	0	3	0	5
3:30 PM	0	0	0	0	0	0	3	0	2	0	5
3:45 PM	0	1	0	0	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	9	0	9	0	19
APPROACH %'s :	0.00%	100.00%					100.00%	0.00%			
PEAK HR :	03:00 PM - 04:00 PM										TOTAL
PEAK HR VOL :	0	1	0	0	0	0	9	0	9	0	19
PEAK HR FACTOR :		0.250					0.563		0.563		0.594
	0.250						0.563		0.563		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SOUTH LEG CUT OUT		
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
4:00 PM	0	0	0	0	0	0	1	1	1	1	4
4:15 PM	2	0	0	0	0	1	0	1	0	1	5
4:30 PM	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	2	0	0	0	0	2	1	0	1	0	6
5:00 PM	1	0	0	0	0	0	2	0	2	0	5
5:15 PM	1	0	0	0	0	0	2	0	2	0	5
5:30 PM	1	0	0	0	0	1	3	0	3	0	8
5:45 PM	1	0	0	0	0	0	0	0	0	0	1
6:00 PM	3	0	0	0	0	0	1	0	1	0	5
6:15 PM	1	0	0	0	0	0	1	0	1	0	3
6:30 PM	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	1	0	0	0	0	0	0	2	1	2	6
	EB	WB	EB	WB	NB	SB	NB	SB	EB	WB	TOTAL
TOTAL VOLUMES :	13	0	0	0	0	5	11	4	12	4	49
APPROACH %'s :	100.00%	0.00%			0.00%	100.00%	73.33%	26.67%			
PEAK HR :	04:15 PM - 05:15 PM										TOTAL
PEAK HR VOL :	5	0	0	0	0	4	3	1	3	1	17
PEAK HR FACTOR :	0.625					0.500	0.375	0.250	0.375	0.250	0.708
	0.625				0.500		0.500		0.500		

Prepared by National Data & Surveying Services

SR-24 WB Ramps/Laurel Dr & Deer Hill Rd

Peak Hour Turning Movement Count

ID: 19-08244-014
City: Lafayette

Day: Tuesday
Date: 04/30/2019

SR-24 WB Ramps/Laurel Dr — SOUTHBOUND

PEAK HOURS		COUNT PERIODS
AM	07:45 AM - 08:45 AM	07:00 AM - 09:00 AM
NOON	03:00 PM - 04:00 PM	02:00 PM - 04:00 PM
PM	04:15 PM - 05:15 PM	04:00 PM - 07:00 PM

AM	10	2	14	0	15	AM
NOON	7	5	14	0	21	NOON
PM	10	3	17	0	18	PM

EASTBOUND — Deer Hill Rd

AM	NOON	PM		
1128	683	751	⇦	
0	0	0	↶	0
8	8	12	↱	1
554	914	1111	→	2
203	238	269	↴	1
AM	NOON	PM		

WESTBOUND — Deer Hill Rd

PM	NOON	AM		
6	13	7	↰	0
259	248	503	←	2
208	248	336	↰	1
0	0	0	↰	0
1763	1617	1003	⇨	
PM	NOON	AM		

CONTROL: Signalized

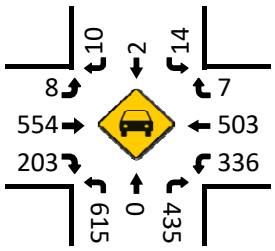
TEV	2687	2812	3012
	AM	NOON	PM
PHF	0.95	0.98	0.99

0	1	0	0	↓
0	1.5	0.5	2	↑

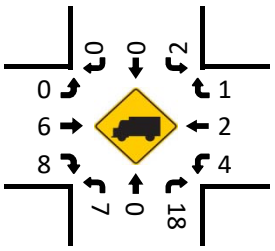
NORTHBOUND — SR-24 WB Ramps/Laurel Dr

PM	480	0	482	0	635	PM
NOON	491	0	428	0	689	NOON
AM	541	0	615	0	435	AM

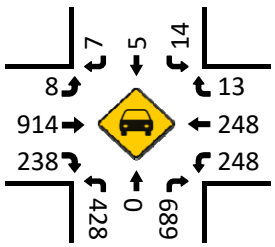
Total Vehicles (AM)



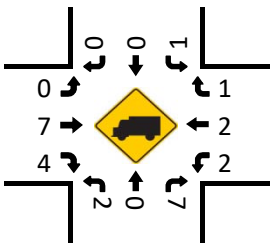
HT (AM)



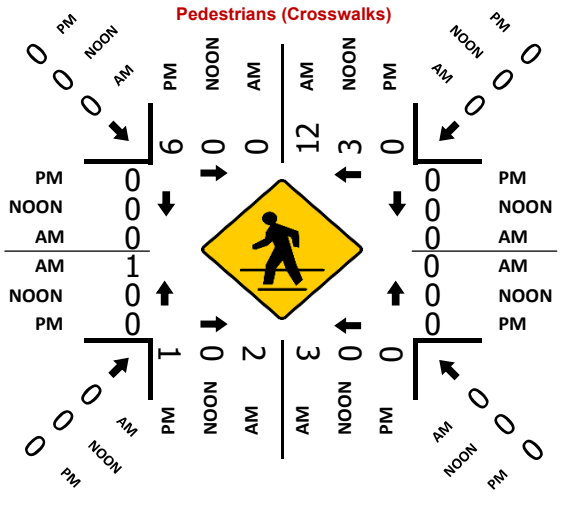
Total Vehicles (Noon)



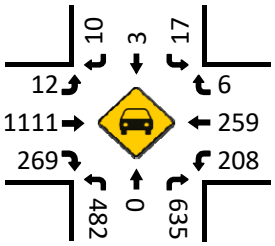
HT (NOON)



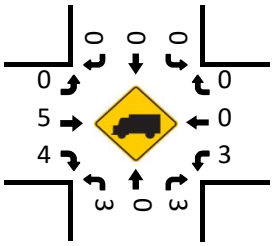
Pedestrians (Crosswalks)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-24 WB Ramps/Laurel Dr & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-014
Date: 4/30/2019

Total

NS/EW Streets:	SR-24 WB Ramps/Laurel Dr				SR-24 WB Ramps/Laurel Dr				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	117	0	73	0	5	3	1	0	2	42	53	0	131	125	3	0	555
7:15 AM	122	0	59	0	5	1	1	0	0	73	58	0	110	138	1	0	568
7:30 AM	126	0	81	0	3	1	0	0	1	125	38	0	93	126	2	0	596
7:45 AM	166	0	104	0	3	2	2	0	3	133	42	0	96	128	4	0	683
8:00 AM	162	0	90	0	2	0	3	0	1	127	52	0	86	163	2	0	688
8:15 AM	162	0	111	0	7	0	4	0	1	157	61	0	84	120	0	0	707
8:30 AM	125	0	130	0	2	0	1	0	3	137	48	0	70	92	1	0	609
8:45 AM	154	0	146	0	3	0	2	0	2	110	36	0	73	93	2	0	621
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1134	0	794	0	30	7	14	0	13	904	388	0	743	985	15	0	5027
APPROACH %'s :	58.82%	0.00%	41.18%	0.00%	58.82%	13.73%	27.45%	0.00%	1.00%	69.27%	29.73%	0.00%	42.63%	56.51%	0.86%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	615	0	435	0	14	2	10	0	8	554	203	0	336	503	7	0	2687
PEAK HR FACTOR :	0.926	0.000	0.837	0.000	0.500	0.250	0.625	0.000	0.667	0.882	0.832	0.000	0.875	0.771	0.438	0.000	0.950
	0.962				0.591				0.873				0.843				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	117	1	168	0	1	0	3	0	2	162	57	0	50	53	4	0	618
2:15 PM	106	0	184	0	5	1	4	0	2	154	63	0	43	59	1	0	622
2:30 PM	79	1	180	0	7	1	2	0	2	141	49	0	53	50	1	0	566
2:45 PM	130	0	171	0	4	1	2	0	4	184	56	0	36	81	2	0	671
3:00 PM	100	0	146	0	5	0	3	0	3	232	67	0	70	50	4	0	680
3:15 PM	114	0	175	0	5	2	3	0	2	188	74	0	71	83	3	0	720
3:30 PM	117	0	188	0	3	1	1	0	2	236	53	0	53	62	2	0	718
3:45 PM	97	0	180	0	1	2	0	0	1	258	44	0	54	53	4	0	694
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	860	2	1392	0	31	8	18	0	18	1555	463	0	430	491	21	0	5289
APPROACH %'s :	38.15%	0.09%	61.76%	0.00%	54.39%	14.04%	31.58%	0.00%	0.88%	76.38%	22.74%	0.00%	45.65%	52.12%	2.23%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	428	0	689	0	14	5	7	0	8	914	238	0	248	248	13	0	2812
PEAK HR FACTOR :	0.915	0.000	0.916	0.000	0.700	0.625	0.583	0.000	0.667	0.886	0.804	0.000	0.873	0.747	0.813	0.000	0.976
	0.916				0.650				0.957				0.811				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	90	0	143	0	3	1	1	0	1	264	74	0	43	81	1	0	702
4:15 PM	109	0	170	0	6	1	3	0	1	276	60	0	43	73	1	0	743
4:30 PM	122	0	151	0	1	1	2	0	3	304	60	0	54	51	3	0	752
4:45 PM	138	0	160	0	6	1	2	0	4	257	70	0	45	75	1	0	759
5:00 PM	113	0	154	0	4	0	3	0	4	274	79	0	66	60	1	0	758
5:15 PM	117	0	163	0	2	1	1	0	1	268	53	0	48	57	2	0	713
5:30 PM	137	0	172	0	3	0	1	0	2	236	52	0	42	69	7	0	721
5:45 PM	112	1	178	0	4	1	0	0	5	294	40	0	35	58	1	0	729
6:00 PM	87	2	175	0	4	3	1	0	3	263	37	0	63	64	3	0	705
6:15 PM	103	0	152	0	2	0	0	0	1	265	63	0	58	41	6	0	691
6:30 PM	82	0	142	0	2	1	1	0	4	219	42	0	46	51	3	0	593
6:45 PM	69	0	110	0	5	1	1	0	3	162	47	0	49	42	4	0	493
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1279	3	1870	0	42	11	16	0	32	3082	677	0	592	722	33	0	8359
APPROACH %'s :	40.58%	0.10%	59.33%	0.00%	60.87%	15.94%	23.19%	0.00%	0.84%	81.30%	17.86%	0.00%	43.95%	53.60%	2.45%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	482	0	635	0	17	3	10	0	12	1111	269	0	208	259	6	0	3012
PEAK HR FACTOR :	0.873	0.000	0.934	0.000	0.708	0.750	0.833	0.000	0.750	0.914	0.851	0.000	0.788	0.863	0.500	0.000	0.992
	0.937				0.750				0.948				0.931				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-24 WB Ramps/Laurel Dr & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-014
Date: 4/30/2019

Cars

NS/EW Streets:	SR-24 WB Ramps/Laurel Dr				SR-24 WB Ramps/Laurel Dr				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	117	0	71	0	5	3	1	0	2	42	53	0	131	125	3	0	553
7:15 AM	120	0	54	0	5	1	1	0	0	71	57	0	109	138	1	0	557
7:30 AM	122	0	80	0	3	1	0	0	1	124	37	0	93	126	2	0	589
7:45 AM	165	0	99	0	3	2	2	0	3	131	40	0	94	127	4	0	670
8:00 AM	162	0	86	0	2	0	3	0	1	127	49	0	85	163	1	0	679
8:15 AM	160	0	106	0	5	0	4	0	1	154	60	0	84	119	0	0	693
8:30 AM	121	0	126	0	2	0	1	0	3	136	46	0	69	92	1	0	597
8:45 AM	152	0	138	0	3	0	2	0	2	108	36	0	72	92	2	0	607
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1119	0	760	0	28	7	14	0	13	893	378	0	737	982	14	0	4945
APPROACH %'s :	59.55%	0.00%	40.45%	0.00%	57.14%	14.29%	28.57%	0.00%	1.01%	69.55%	29.44%	0.00%	42.53%	56.66%	0.81%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	608	0	417	0	12	2	10	0	8	548	195	0	332	501	6	0	2639
PEAK HR FACTOR :	0.92	0.000	0.827	0.000	0.600	0.250	0.625	0.000	0.667	0.890	0.813	0.000	0.883	0.768	0.375	0.000	0.952
	0.963				0.667				0.873				0.842				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	116	0	166	0	1	0	3	0	2	161	55	0	49	53	4	0	610
2:15 PM	106	0	181	0	5	1	4	0	2	153	63	0	39	59	1	0	614
2:30 PM	76	1	176	0	7	1	2	0	2	141	47	0	52	50	1	0	556
2:45 PM	129	0	167	0	4	1	2	0	4	181	51	0	36	80	2	0	657
3:00 PM	99	0	143	0	4	0	3	0	3	230	67	0	70	50	4	0	673
3:15 PM	114	0	173	0	5	2	3	0	2	187	73	0	70	83	3	0	715
3:30 PM	117	0	188	0	3	1	1	0	2	236	51	0	53	61	2	0	715
3:45 PM	96	0	178	0	1	2	0	0	1	254	43	0	53	52	3	0	683
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	853	1	1372	0	30	8	18	0	18	1543	450	0	422	488	20	0	5223
APPROACH %'s :	38.32%	0.04%	61.64%	0.00%	53.57%	14.29%	32.14%	0.00%	0.90%	76.73%	22.38%	0.00%	45.38%	52.47%	2.15%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	426	0	682	0	13	5	7	0	8	907	234	0	246	246	12	0	2786
PEAK HR FACTOR :	0.91	0.000	0.907	0.000	0.650	0.625	0.583	0.000	0.667	0.893	0.801	0.000	0.879	0.741	0.750	0.000	0.974
	0.908				0.625				0.958				0.808				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	90	0	142	0	2	1	1	0	1	260	70	0	42	81	1	0	691
4:15 PM	108	0	168	0	6	1	3	0	1	273	59	0	43	73	1	0	736
4:30 PM	120	0	150	0	1	1	2	0	3	302	59	0	53	51	3	0	745
4:45 PM	138	0	160	0	6	1	2	0	4	257	69	0	44	75	1	0	757
5:00 PM	113	0	154	0	4	0	3	0	4	274	78	0	65	60	1	0	756
5:15 PM	117	0	161	0	2	1	1	0	1	266	53	0	48	57	2	0	709
5:30 PM	137	0	172	0	3	0	1	0	2	236	52	0	42	69	7	0	721
5:45 PM	112	1	177	0	4	1	0	0	5	293	38	0	34	58	1	0	724
6:00 PM	87	2	174	0	4	3	1	0	3	262	36	0	62	64	3	0	701
6:15 PM	103	0	152	0	2	0	0	0	1	262	62	0	58	41	6	0	687
6:30 PM	82	0	142	0	2	1	1	0	4	218	42	0	46	51	3	0	592
6:45 PM	69	0	109	0	5	1	1	0	3	162	47	0	48	42	4	0	491
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1276	3	1861	0	41	11	16	0	32	3065	665	0	585	722	33	0	8310
APPROACH %'s :	40.64%	0.10%	59.27%	0.00%	60.29%	16.18%	23.53%	0.00%	0.85%	81.47%	17.68%	0.00%	43.66%	53.88%	2.46%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	479	0	632	0	17	3	10	0	12	1106	265	0	205	259	6	0	2994
PEAK HR FACTOR :	0.87	0.000	0.940	0.000	0.708	0.750	0.833	0.000	0.750	0.916	0.849	0.000	0.788	0.863	0.500	0.000	0.989
	0.932				0.750				0.950				0.933				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-24 WB Ramps/Laurel Dr & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-014
Date: 4/30/2019

HT

NS/EW Streets:	SR-24 WB Ramps/Laurel Dr				SR-24 WB Ramps/Laurel Dr				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	2	0	5	0	0	0	0	0	0	2	1	0	1	0	0	0	11
7:30 AM	4	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	7
7:45 AM	1	0	5	0	0	0	0	0	0	2	2	0	2	1	0	0	13
8:00 AM	0	0	4	0	0	0	0	0	0	0	3	0	1	0	1	0	9
8:15 AM	2	0	5	0	2	0	0	0	0	3	1	0	0	1	0	0	14
8:30 AM	4	0	4	0	0	0	0	0	0	1	2	0	1	0	0	0	12
8:45 AM	2	0	8	0	0	0	0	0	0	2	0	0	1	1	0	0	14
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	15	0	34	0	2	0	0	0	0	11	10	0	6	3	1	0	82
APPROACH %'s :	30.61%	0.00%	69.39%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	52.38%	47.62%	0.00%	60.00%	30.00%	10.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	7	0	18	0	2	0	0	0	0	6	8	0	4	2	1	0	48
PEAK HR FACTOR :	0.438	0.000	0.900	0.000	0.250	0.000	0.000	0.000	0.000	0.500	0.667	0.000	0.500	0.500	0.250	0.000	0.857
	0.781				0.250				0.875				0.583				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	1	1	2	0	0	0	0	0	0	1	2	0	1	0	0	0	8
2:15 PM	0	0	3	0	0	0	0	0	0	1	0	0	4	0	0	0	8
2:30 PM	3	0	4	0	0	0	0	0	0	0	2	0	1	0	0	0	10
2:45 PM	1	0	4	0	0	0	0	0	0	3	5	0	0	1	0	0	14
3:00 PM	1	0	3	0	1	0	0	0	0	2	0	0	0	0	0	0	7
3:15 PM	0	0	2	0	0	0	0	0	0	1	1	0	1	0	0	0	5
3:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	3
3:45 PM	1	0	2	0	0	0	0	0	0	4	1	0	1	1	1	0	11
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	1	20	0	1	0	0	0	0	12	13	0	8	3	1	0	66
APPROACH %'s :	25.00%	3.57%	71.43%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	48.00%	52.00%	0.00%	66.67%	25.00%	8.33%	0.00%	
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	2	0	7	0	1	0	0	0	0	7	4	0	2	2	1	0	26
PEAK HR FACTOR :	0.50	0.000	0.583	0.000	0.250	0.000	0.000	0.000	0.000	0.438	0.500	0.000	0.500	0.500	0.250	0.000	0.591
	0.563				0.250				0.550				0.417				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	1	0	1	0	0	0	0	4	4	0	1	0	0	0	11
4:15 PM	1	0	2	0	0	0	0	0	0	3	1	0	0	0	0	0	7
4:30 PM	2	0	1	0	0	0	0	0	0	2	1	0	1	0	0	0	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
5:15 PM	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	0	0	0	1	2	0	1	0	0	0	5
6:00 PM	0	0	1	0	0	0	0	0	0	1	1	0	1	0	0	0	4
6:15 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	0	9	0	1	0	0	0	0	17	12	0	7	0	0	0	49
APPROACH %'s :	25.00%	0.00%	75.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	58.62%	41.38%	0.00%	100.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	3	0	3	0	0	0	0	0	0	5	4	0	3	0	0	0	18
PEAK HR FACTOR :	0.38	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.417	1.000	0.000	0.750	0.000	0.000	0.000	0.643
	0.500								0.563				0.750				

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-24 WB Ramps/Laurel Dr & Deer Hill Rd
City: Lafayette
Control: Signalized

Project ID: 19-08244-014
Date: 4/30/2019

Bikes

NS/EW Streets:	SR-24 WB Ramps/Laurel Dr				SR-24 WB Ramps/Laurel Dr				Deer Hill Rd				Deer Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:45 AM	0	0	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	0	0	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	7	0	0	8
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750
														0.750			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%					
PEAK HR :	03:00 PM - 04:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250
										0.250							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	2	0	0	1	0	0	1	2	1	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	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	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
5:15 PM	0	0	0	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	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
6:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	1	8	0	0	0	1	0	0	10
APPROACH %'s :									11.11%	88.89%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.333
										0.333							

National Data & Surveying Services

Intersection Turning Movement Count

Location: SR-24 WB Ramps/Laurel Dr & Deer Hill Rd **Project ID:** 19-08244-014
City: Lafayette **Date:** 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	SR-24 WB Ramps/Laurel Dr		SR-24 WB Ramps/Laurel Dr		Deer Hill Rd		Deer Hill Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	1	0	0	0	0	0	0	1
7:15 AM	1	0	0	0	0	0	0	0	1
7:30 AM	1	1	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	3	0	0	0	0	1	0	4
8:15 AM	0	7	0	1	0	0	0	0	8
8:30 AM	0	2	2	2	0	0	0	0	6
8:45 AM	0	3	0	0	0	0	0	0	3
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	17	2	3	0	0	1	0	25
APPROACH %'s :	10.53%	89.47%	40.00%	60.00%			100.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	12	2	3	0	0	1	0	18
PEAK HR FACTOR :		0.429	0.250	0.375			0.250		0.563
	0.429		0.313				0.250		

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	1	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	2	0	0	0	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	3	0	0	0	0	0	0	4
APPROACH %'s :	25.00%	75.00%							
PEAK HR :	03:00 PM - 04:00 PM								TOTAL
PEAK HR VOL :	0	3	0	0	0	0	0	0	3
PEAK HR FACTOR :		0.375							0.375
	0.375								

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	1
4:15 PM	2	0	0	0	0	0	0	0	2
4:30 PM	1	0	0	0	0	0	0	0	1
4:45 PM	1	0	1	0	0	0	0	0	2
5:00 PM	2	0	0	0	0	0	0	0	2
5:15 PM	0	0	3	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	1	1	0	0	0	0	0	0	2
6:00 PM	2	0	2	0	0	0	0	0	4
6:15 PM	0	0	1	0	0	0	0	0	1
6:30 PM	0	1	1	0	0	0	0	0	2
6:45 PM	3	0	0	0	0	0	0	0	3
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	12	3	8	0	0	0	0	0	23
APPROACH %'s :	80.00%	20.00%	100.00%	0.00%					
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	6	0	1	0	0	0	0	0	7
PEAK HR FACTOR :	0.750		0.250						0.875
	0.750		0.250						

Prepared by National Data & Surveying Services

Pleasant Hill Rd & Acalanes Ave

Peak Hour Turning Movement Count

ID: 19-08244-002
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	02:45 PM - 03:45 PM
PM	04:15 PM - 05:15 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	02:00 PM - 04:00 PM
PM	04:00 PM - 07:00 PM

Pleasant Hill Rd — SOUTHBOUND

AM	0	1582	0	0	1024	AM
NOON	0	974	0	0	1697	NOON
PM	0	819	0	0	1803	PM

Acalanes Ave — EASTBOUND

AM	NOON	PM		
0	0	0	⇦	
0	0	0	↶	0
0	0	0	→	0
0	0	0	↷	0
0	0	0	↓	0
AM	NOON	PM		

Acalanes Ave — WESTBOUND

PM	NOON	AM		
12	16	47	↷	0
0	0	0	←	1
0	0	0	↶	0
0	0	0	↶	0
46	84	71	⇨	
PM	NOON	AM		

CONTROL: 1-Way Stop (WB)

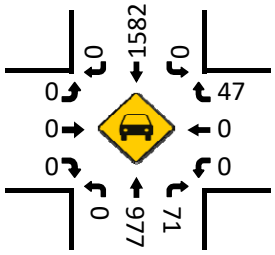
TEV	2677	2755	2668
	AM	NOON	PM
PHF	0.87	0.95	0.94

Pleasant Hill Rd — NORTHBOUND

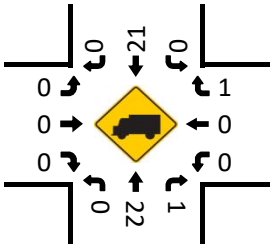
PM	819	0	0	1791	46	PM
NOON	974	0	0	1681	84	NOON
AM	1582	0	0	977	71	AM

Pleasant Hill Rd

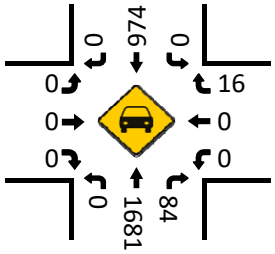
Total Vehicles (AM)



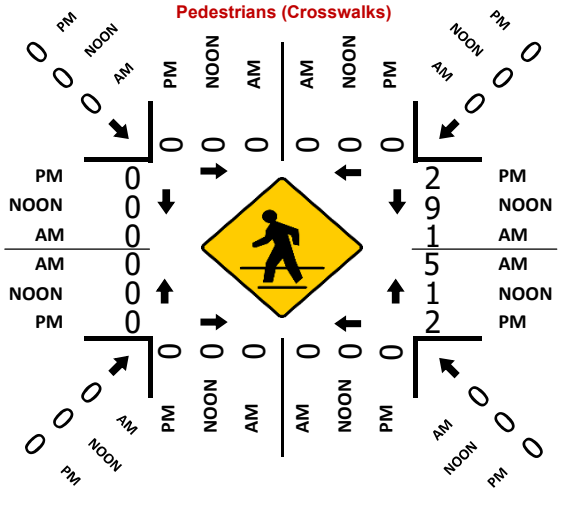
HT (AM)



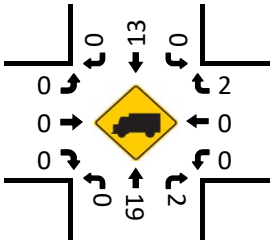
Total Vehicles (Noon)



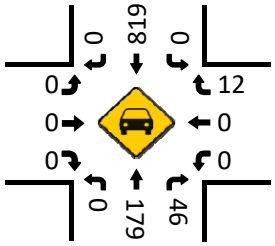
Pedestrians (Crosswalks)



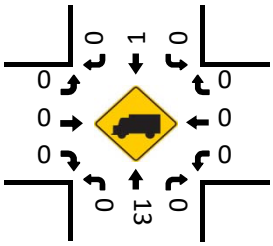
HT (NOON)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Acalanes Ave
City: Lafayette
Control: 1-Way Stop (WB)

Project ID: 19-08244-002
Date: 4/30/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Acalanes Ave				Acalanes Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	98	2	0	0	451	0	0	0	0	0	0	0	0	4	0	555
7:15 AM	0	152	4	0	0	431	0	0	0	0	0	0	0	0	7	0	594
7:30 AM	0	262	26	0	0	411	0	0	0	0	0	0	0	0	8	0	707
7:45 AM	0	337	33	0	0	389	0	0	0	0	0	0	0	0	13	0	772
8:00 AM	0	183	9	0	0	393	0	0	0	0	0	0	0	0	16	0	601
8:15 AM	0	195	3	0	0	389	0	0	0	0	0	0	0	0	10	0	597
8:30 AM	0	177	12	0	0	349	0	0	0	0	0	0	0	0	6	0	544
8:45 AM	0	185	12	0	0	334	0	0	0	0	0	0	0	0	9	0	540
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1589	101	0	0	3147	0	0	0	0	0	0	0	0	73	0	4910
APPROACH %'s :	0.00%	94.02%	5.98%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	977	71	0	0	1582	0	0	0	0	0	0	0	0	47	0	2677
PEAK HR FACTOR :	0.000	0.725	0.538	0.000	0.000	0.962	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.734	0.000	0.867
		0.708				0.962								0.734			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	286	8	0	0	192	0	0	0	0	0	0	0	0	12	0	498
2:15 PM	0	327	6	0	0	214	0	0	0	0	0	0	0	0	12	0	559
2:30 PM	0	386	8	0	0	206	0	0	0	0	0	0	0	0	7	0	607
2:45 PM	0	411	20	0	0	232	0	0	0	0	0	0	0	0	5	0	668
3:00 PM	0	440	32	0	0	249	0	0	0	0	0	0	0	0	1	0	722
3:15 PM	0	411	20	0	0	264	0	0	0	0	0	0	0	0	6	0	701
3:30 PM	0	419	12	0	0	229	0	0	0	0	0	0	0	0	4	0	664
3:45 PM	0	434	14	0	0	194	0	0	0	0	0	0	0	0	2	0	644
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3114	120	0	0	1780	0	0	0	0	0	0	0	0	49	0	5063
APPROACH %'s :	0.00%	96.29%	3.71%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	1681	84	0	0	974	0	0	0	0	0	0	0	0	16	0	2755
PEAK HR FACTOR :	0.000	0.955	0.656	0.000	0.000	0.922	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.954
		0.935				0.922								0.667			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	373	15	0	0	224	0	0	0	0	0	0	0	0	3	0	615
4:15 PM	0	454	16	0	0	239	0	0	0	0	0	0	0	0	4	0	713
4:30 PM	0	437	11	0	0	171	0	0	0	0	0	0	0	0	5	0	624
4:45 PM	0	462	9	0	0	228	0	0	0	0	0	0	0	0	1	0	700
5:00 PM	0	438	10	0	0	181	0	0	0	0	0	0	0	0	2	0	631
5:15 PM	0	443	14	0	0	183	0	0	0	0	0	0	0	0	4	0	644
5:30 PM	0	416	5	0	0	238	0	0	0	0	0	0	0	0	4	0	663
5:45 PM	0	408	9	0	0	188	0	0	0	0	0	0	0	0	0	0	605
6:00 PM	0	414	12	0	0	144	0	0	0	0	0	0	0	0	2	0	572
6:15 PM	0	418	6	0	0	189	0	0	0	0	0	0	0	0	2	0	615
6:30 PM	0	393	11	0	0	147	0	0	0	0	0	0	0	0	0	0	551
6:45 PM	0	323	8	0	0	151	0	0	0	0	0	0	0	0	4	0	486
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4979	126	0	0	2283	0	0	0	0	0	0	0	0	31	0	7419
APPROACH %'s :	0.00%	97.53%	2.47%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	1791	46	0	0	819	0	0	0	0	0	0	0	0	12	0	2668
PEAK HR FACTOR :	0.000	0.969	0.719	0.000	0.000	0.857	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.600	0.000	0.935
		0.975				0.857								0.600			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Acalanes Ave
City: Lafayette
Control: 1-Way Stop (WB)

Project ID: 19-08244-002
Date: 4/30/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Acalanes Ave				Acalanes Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	97	2	0	0	442	0	0	0	0	0	0	0	0	4	0	545
7:15 AM	0	147	4	0	0	427	0	0	0	0	0	0	0	0	7	0	585
7:30 AM	0	255	25	0	0	407	0	0	0	0	0	0	0	0	7	0	694
7:45 AM	0	335	33	0	0	384	0	0	0	0	0	0	0	0	13	0	765
8:00 AM	0	175	9	0	0	386	0	0	0	0	0	0	0	0	16	0	586
8:15 AM	0	190	3	0	0	384	0	0	0	0	0	0	0	0	10	0	587
8:30 AM	0	167	12	0	0	345	0	0	0	0	0	0	0	0	6	0	530
8:45 AM	0	185	12	0	0	327	0	0	0	0	0	0	0	0	9	0	533
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1551	100	0	0	3102	0	0	0	0	0	0	0	0	72	0	4825
APPROACH %'s :	0.00%	93.94%	6.06%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	955	70	0	0	1561	0	0	0	0	0	0	0	0	46	0	2632
PEAK HR FACTOR :	0.00	0.713	0.530	0.000	0.000	0.959	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.719	0.000	0.860
		0.696				0.959								0.719			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	280	8	0	0	186	0	0	0	0	0	0	0	0	12	0	486
2:15 PM	0	320	6	0	0	213	0	0	0	0	0	0	0	0	12	0	551
2:30 PM	0	376	7	0	0	203	0	0	0	0	0	0	0	0	7	0	593
2:45 PM	0	407	19	0	0	230	0	0	0	0	0	0	0	0	4	0	660
3:00 PM	0	436	32	0	0	247	0	0	0	0	0	0	0	0	1	0	716
3:15 PM	0	407	19	0	0	261	0	0	0	0	0	0	0	0	5	0	692
3:30 PM	0	412	12	0	0	223	0	0	0	0	0	0	0	0	4	0	651
3:45 PM	0	430	13	0	0	193	0	0	0	0	0	0	0	0	2	0	638
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3068	116	0	0	1756	0	0	0	0	0	0	0	0	47	0	4987
APPROACH %'s :	0.00%	96.36%	3.64%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	1662	82	0	0	961	0	0	0	0	0	0	0	0	14	0	2719
PEAK HR FACTOR :	0.00	0.953	0.641	0.000	0.000	0.920	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.700	0.000	0.949
		0.932				0.920								0.700			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	367	15	0	0	223	0	0	0	0	0	0	0	0	3	0	608
4:15 PM	0	448	16	0	0	239	0	0	0	0	0	0	0	0	4	0	707
4:30 PM	0	435	11	0	0	170	0	0	0	0	0	0	0	0	5	0	621
4:45 PM	0	459	9	0	0	228	0	0	0	0	0	0	0	0	1	0	697
5:00 PM	0	436	10	0	0	181	0	0	0	0	0	0	0	0	2	0	629
5:15 PM	0	438	14	0	0	182	0	0	0	0	0	0	0	0	4	0	638
5:30 PM	0	415	5	0	0	238	0	0	0	0	0	0	0	0	4	0	662
5:45 PM	0	407	9	0	0	188	0	0	0	0	0	0	0	0	0	0	604
6:00 PM	0	413	12	0	0	144	0	0	0	0	0	0	0	0	2	0	571
6:15 PM	0	418	6	0	0	189	0	0	0	0	0	0	0	0	2	0	615
6:30 PM	0	390	11	0	0	147	0	0	0	0	0	0	0	0	0	0	548
6:45 PM	0	322	8	0	0	151	0	0	0	0	0	0	0	0	4	0	485
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4948	126	0	0	2280	0	0	0	0	0	0	0	0	31	0	7385
APPROACH %'s :	0.00%	97.52%	2.48%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	1778	46	0	0	818	0	0	0	0	0	0	0	0	12	0	2654
PEAK HR FACTOR :	0.00	0.968	0.719	0.000	0.000	0.856	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.600	0.000	0.938
		0.974				0.856								0.600			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Acalanes Ave
City: Lafayette
Control: 1-Way Stop (WB)

Project ID: 19-08244-002
Date: 4/30/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Acalanes Ave				Acalanes Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	9	0	0	0	0	0	0	0	0	0	0	10
7:15 AM	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	9
7:30 AM	0	7	1	0	0	4	0	0	0	0	0	0	0	0	1	0	13
7:45 AM	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	0	7
8:00 AM	0	8	0	0	0	7	0	0	0	0	0	0	0	0	0	0	15
8:15 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	10
8:30 AM	0	10	0	0	0	4	0	0	0	0	0	0	0	0	0	0	14
8:45 AM	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	38	1	0	0	45	0	0	0	0	0	0	0	0	1	0	85
APPROACH %'s :	0.00%	97.44%	2.56%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	**07:30 AM - 08:30 AM**																TOTAL
PEAK HR VOL :	0	22	1	0	0	21	0	0	0	0	0	0	0	0	1	0	45
PEAK HR FACTOR :	0.000	0.688	0.250	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.750
		0.719				0.750								0.250			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	12
2:15 PM	0	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	8
2:30 PM	0	10	1	0	0	3	0	0	0	0	0	0	0	0	0	0	14
2:45 PM	0	4	1	0	0	2	0	0	0	0	0	0	0	0	1	0	8
3:00 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
3:15 PM	0	4	1	0	0	3	0	0	0	0	0	0	0	0	1	0	9
3:30 PM	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	13
3:45 PM	0	4	1	0	0	1	0	0	0	0	0	0	0	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	46	4	0	0	24	0	0	0	0	0	0	0	0	2	0	76
APPROACH %'s :	0.00%	92.00%	8.00%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	**02:45 PM - 03:45 PM**																TOTAL
PEAK HR VOL :	0	19	2	0	0	13	0	0	0	0	0	0	0	0	2	0	36
PEAK HR FACTOR :	0.00	0.679	0.500	0.000	0.000	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.692
		0.750				0.542								0.500			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
4:15 PM	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
4:30 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	31	0	0	0	3	0	0	0	0	0	0	0	0	0	0	34
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	**04:15 PM - 05:15 PM**																TOTAL
PEAK HR VOL :	0	13	0	0	0	1	0	0	0	0	0	0	0	0	0	0	14
PEAK HR FACTOR :	0.00	0.542	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583
		0.542				0.250											

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Acalanes Ave
City: Lafayette
Control: 1-Way Stop (WB)

Project ID: 19-08244-002
Date: 4/30/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				Acalanes Ave				Acalanes Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	2	1	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
8:15 AM	0	0	0	0	0	1	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	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	7	1	0	0	1	0	0	0	0	0	0	0	0	0	0	9
APPROACH %'s :	0.00%	87.50%	12.50%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	4	1	0	0	1	0	0	0	0	0	0	0	0	0	0	6
PEAK HR FACTOR :	0.000	0.500	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.417				0.250												

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	5	0	0	0	0	0	0	2	0	0	0	8
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.313
	0.250				0.333												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	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	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	6	2	0	0	9	0	0	0	0	0	0	0	0	1	0	18
APPROACH %'s :	0.00%	75.00%	25.00%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
	0.250				0.500												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & Acalanes Ave
City: Lafayette
Project ID: 19-08244-002
Date: 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		Acalanes Ave		Acalanes Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	1
7:45 AM	0	0	0	0	4	0	0	0	4
8:00 AM	0	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	6	1	0	0	7
APPROACH %'s :					85.71%	14.29%			
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	5	1	0	0	6
PEAK HR FACTOR :					0.313	0.250			0.375
					0.375				

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	1	0	0	0	1
3:00 PM	0	0	0	0	0	7	0	0	7
3:15 PM	0	0	0	0	0	2	0	0	2
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	9	0	0	10
APPROACH %'s :					10.00%	90.00%			
PEAK HR :	02:45 PM - 03:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	1	9	0	0	10
PEAK HR FACTOR :					0.250	0.321			0.357
					0.357				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	1	1	0	0	0	1	0	0	3
4:15 PM	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	0	0	2	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	2	0	0	0	2
6:30 PM	0	0	0	0	1	1	0	0	2
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	1	0	0	5	6	0	0	13
APPROACH %'s :	50.00%	50.00%			45.45%	54.55%			
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	0	0	0	2	2	0	0	4
PEAK HR FACTOR :					0.250	0.500			0.500
					0.500				

Prepared by National Data & Surveying Services

Pleasant Hill Rd & SR-24 WB direct Ramps

Peak Hour Turning Movement Count

ID: 19-08244-003
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS	
AM	07:30 AM - 08:30 AM
NOON	02:45 PM - 03:45 PM
PM	04:15 PM - 05:15 PM

COUNT PERIODS	
AM	07:00 AM - 09:00 AM
NOON	02:00 PM - 04:00 PM
PM	04:00 PM - 07:00 PM

Pleasant Hill Rd — SOUTHBOUND

AM	815	761	0	0	1052	AM
NOON	354	618	0	0	1781	NOON
PM	392	427	0	0	1842	PM

EASTBOUND — SR-24 WB direct Ramps

AM	NOON	PM		
815	354	392		
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
AM	NOON	PM		

WESTBOUND — SR-24 WB direct Ramps

PM	NOON	AM	
517	531	291	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

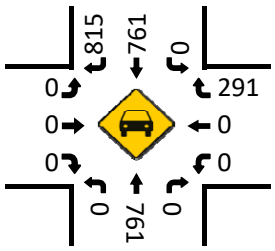
NORTHBOUND — Pleasant Hill Rd

PM	427	0	0	1325	0	PM
NOON	618	0	0	1250	0	NOON
AM	761	0	0	761	0	AM

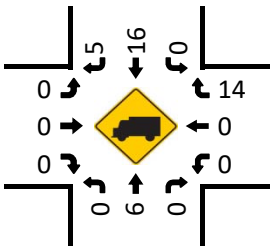
1	2	0	0
		0	0
		3	1

CONTROL			
No Control			
TEV	2628	2753	2661
	AM	NOON	PM
PHF	0.87	0.95	0.93

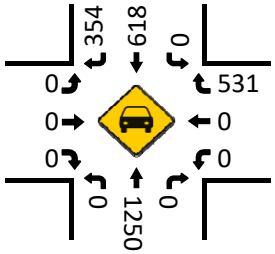
Total Vehicles (AM)



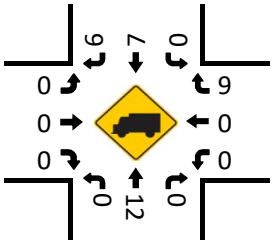
HT (AM)



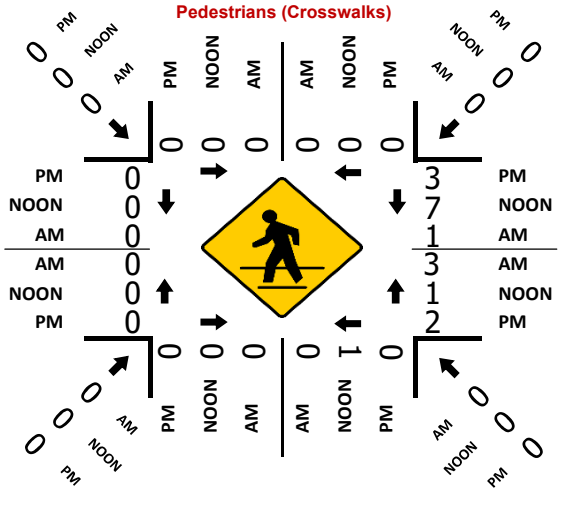
Total Vehicles (Noon)



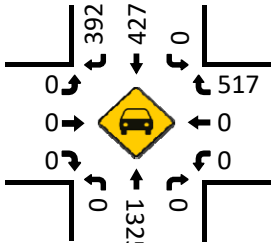
HT (NOON)



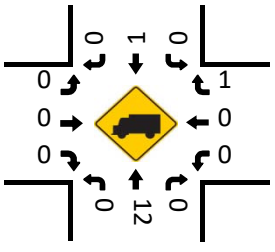
Pedestrians (Crosswalks)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 WB direct Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-003
Date: 4/30/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 WB direct Ramps				SR-24 WB direct Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	67	0	0	0	161	298	0	0	0	0	0	0	0	33	0	559
7:15 AM	0	96	0	0	0	171	262	0	0	0	0	0	0	0	56	0	585
7:30 AM	0	243	0	0	0	167	238	0	0	0	0	0	0	0	54	0	702
7:45 AM	0	276	0	0	0	208	180	0	0	0	0	0	0	0	89	0	753
8:00 AM	0	117	0	0	0	196	196	0	0	0	0	0	0	0	73	0	582
8:15 AM	0	125	0	0	0	190	201	0	0	0	0	0	0	0	75	0	591
8:30 AM	0	138	0	0	0	186	164	0	0	0	0	0	0	0	51	0	539
8:45 AM	0	142	0	0	0	180	148	0	0	0	0	0	0	0	62	0	532
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1204	0	0	0	1459	1687	0	0	0	0	0	0	0	493	0	4843
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	46.38%	53.62%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	761	0	0	0	761	815	0	0	0	0	0	0	0	291	0	2628
PEAK HR FACTOR :	0.000	0.689	0.000	0.000	0.000	0.915	0.856	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.817	0.000	0.873
		0.689				0.973								0.817			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	200	0	0	0	121	70	0	0	0	0	0	0	0	88	0	479
2:15 PM	0	235	0	0	0	139	76	0	0	0	0	0	0	0	104	0	554
2:30 PM	0	251	0	0	0	123	83	0	0	0	0	0	0	0	135	0	592
2:45 PM	0	265	0	0	0	161	73	0	0	0	0	0	0	0	174	0	673
3:00 PM	0	340	0	0	0	158	90	0	0	0	0	0	0	0	137	0	725
3:15 PM	0	325	0	0	0	173	95	0	0	0	0	0	0	0	98	0	691
3:30 PM	0	320	0	0	0	126	96	0	0	0	0	0	0	0	122	0	664
3:45 PM	0	269	0	0	0	130	73	0	0	0	0	0	0	0	171	0	643
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2205	0	0	0	1131	656	0	0	0	0	0	0	0	1029	0	5021
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	63.29%	36.71%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	1250	0	0	0	618	354	0	0	0	0	0	0	0	531	0	2753
PEAK HR FACTOR :	0.000	0.919	0.000	0.000	0.000	0.893	0.922	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.763	0.000	0.949
		0.919				0.907								0.763			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	247	0	0	0	132	85	0	0	0	0	0	0	0	132	0	596
4:15 PM	0	328	0	0	0	139	101	0	0	0	0	0	0	0	151	0	719
4:30 PM	0	319	0	0	0	85	85	0	0	0	0	0	0	0	121	0	610
4:45 PM	0	343	0	0	0	113	124	0	0	0	0	0	0	0	136	0	716
5:00 PM	0	335	0	0	0	90	82	0	0	0	0	0	0	0	109	0	616
5:15 PM	0	365	0	0	0	105	80	0	0	0	0	0	0	0	96	0	646
5:30 PM	0	319	0	0	0	124	108	0	0	0	0	0	0	0	96	0	647
5:45 PM	0	312	0	0	0	122	70	0	0	0	0	0	0	0	117	0	621
6:00 PM	0	271	0	0	0	80	69	0	0	0	0	0	0	0	149	0	569
6:15 PM	0	299	0	0	0	101	83	0	0	0	0	0	0	0	134	0	617
6:30 PM	0	253	0	0	0	81	68	0	0	0	0	0	0	0	141	0	543
6:45 PM	0	247	0	0	0	82	60	0	0	0	0	0	0	0	80	0	469
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3638	0	0	0	1254	1015	0	0	0	0	0	0	0	1462	0	7369
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	55.27%	44.73%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	1325	0	0	0	427	392	0	0	0	0	0	0	0	517	0	2661
PEAK HR FACTOR :	0.000	0.966	0.000	0.000	0.000	0.768	0.790	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.856	0.000	0.925
		0.966				0.853								0.856			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 WB direct Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-003
Date: 4/30/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 WB direct Ramps				SR-24 WB direct Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	66	0	0	0	155	295	0	0	0	0	0	0	0	33	0	549
7:15 AM	0	91	0	0	0	168	261	0	0	0	0	0	0	0	56	0	576
7:30 AM	0	240	0	0	0	165	236	0	0	0	0	0	0	0	49	0	690
7:45 AM	0	276	0	0	0	203	180	0	0	0	0	0	0	0	87	0	746
8:00 AM	0	113	0	0	0	191	194	0	0	0	0	0	0	0	69	0	567
8:15 AM	0	123	0	0	0	186	200	0	0	0	0	0	0	0	72	0	581
8:30 AM	0	132	0	0	0	182	164	0	0	0	0	0	0	0	47	0	525
8:45 AM	0	142	0	0	0	174	147	0	0	0	0	0	0	0	62	0	525
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1183	0	0	0	1424	1677	0	0	0	0	0	0	0	475	0	4759
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	45.92%	54.08%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	752	0	0	0	745	810	0	0	0	0	0	0	0	277	0	2584
PEAK HR FACTOR :	0.00	0.681	0.000	0.000	0.000	0.917	0.858	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.796	0.000	0.866
		0.681				0.969								0.796			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	194	0	0	0	117	68	0	0	0	0	0	0	0	88	0	467
2:15 PM	0	230	0	0	0	138	76	0	0	0	0	0	0	0	102	0	546
2:30 PM	0	247	0	0	0	120	83	0	0	0	0	0	0	0	128	0	578
2:45 PM	0	264	0	0	0	160	72	0	0	0	0	0	0	0	170	0	666
3:00 PM	0	339	0	0	0	157	89	0	0	0	0	0	0	0	134	0	719
3:15 PM	0	320	0	0	0	171	94	0	0	0	0	0	0	0	98	0	683
3:30 PM	0	315	0	0	0	123	93	0	0	0	0	0	0	0	120	0	651
3:45 PM	0	265	0	0	0	130	72	0	0	0	0	0	0	0	170	0	637
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2174	0	0	0	1116	647	0	0	0	0	0	0	0	1010	0	4947
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	63.30%	36.70%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	1238	0	0	0	611	348	0	0	0	0	0	0	0	522	0	2719
PEAK HR FACTOR :	0.00	0.913	0.000	0.000	0.000	0.893	0.926	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.768	0.000	0.945
		0.913				0.905								0.768			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	241	0	0	0	131	85	0	0	0	0	0	0	0	132	0	589
4:15 PM	0	325	0	0	0	139	101	0	0	0	0	0	0	0	150	0	715
4:30 PM	0	315	0	0	0	84	85	0	0	0	0	0	0	0	121	0	605
4:45 PM	0	340	0	0	0	113	124	0	0	0	0	0	0	0	136	0	713
5:00 PM	0	333	0	0	0	90	82	0	0	0	0	0	0	0	109	0	614
5:15 PM	0	362	0	0	0	105	79	0	0	0	0	0	0	0	94	0	640
5:30 PM	0	318	0	0	0	124	108	0	0	0	0	0	0	0	96	0	646
5:45 PM	0	311	0	0	0	122	70	0	0	0	0	0	0	0	117	0	620
6:00 PM	0	271	0	0	0	80	69	0	0	0	0	0	0	0	148	0	568
6:15 PM	0	299	0	0	0	101	83	0	0	0	0	0	0	0	133	0	616
6:30 PM	0	252	0	0	0	81	68	0	0	0	0	0	0	0	140	0	541
6:45 PM	0	246	0	0	0	82	60	0	0	0	0	0	0	0	80	0	468
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3613	0	0	0	1252	1014	0	0	0	0	0	0	0	1456	0	7335
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	55.25%	44.75%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	1313	0	0	0	426	392	0	0	0	0	0	0	0	516	0	2647
PEAK HR FACTOR :	0.00	0.965	0.000	0.000	0.000	0.766	0.790	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.860	0.000	0.926
		0.965				0.852								0.860			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 WB direct Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-003
Date: 4/30/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 WB direct Ramps				SR-24 WB direct Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	6	3	0	0	0	0	0	0	0	0	0	10
7:15 AM	0	5	0	0	0	3	1	0	0	0	0	0	0	0	0	0	9
7:30 AM	0	3	0	0	0	2	2	0	0	0	0	0	0	0	5	0	12
7:45 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	2	0	7
8:00 AM	0	4	0	0	0	5	2	0	0	0	0	0	0	0	4	0	15
8:15 AM	0	2	0	0	0	4	1	0	0	0	0	0	0	0	3	0	10
8:30 AM	0	6	0	0	0	4	0	0	0	0	0	0	0	0	4	0	14
8:45 AM	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	21	0	0	0	35	10	0	0	0	0	0	0	0	18	0	84
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	77.78%	22.22%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	**07:30 AM - 08:30 AM**																TOTAL
PEAK HR VOL :	0	9	0	0	0	16	5	0	0	0	0	0	0	0	14	0	44
PEAK HR FACTOR :	0.000	0.563	0.000	0.000	0.000	0.800	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.700	0.000	0.733
		0.563				0.750								0.700			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	6	0	0	0	4	2	0	0	0	0	0	0	0	0	0	12
2:15 PM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	2	0	8
2:30 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	7	0	14
2:45 PM	0	1	0	0	0	1	1	0	0	0	0	0	0	0	4	0	7
3:00 PM	0	1	0	0	0	1	1	0	0	0	0	0	0	0	3	0	6
3:15 PM	0	5	0	0	0	2	1	0	0	0	0	0	0	0	0	0	8
3:30 PM	0	5	0	0	0	3	3	0	0	0	0	0	0	0	2	0	13
3:45 PM	0	4	0	0	0	0	1	0	0	0	0	0	0	0	1	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	31	0	0	0	15	9	0	0	0	0	0	0	0	19	0	74
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	62.50%	37.50%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	**02:45 PM - 03:45 PM**																TOTAL
PEAK HR VOL :	0	12	0	0	0	7	6	0	0	0	0	0	0	0	9	0	34
PEAK HR FACTOR :	0.00	0.600	0.000	0.000	0.000	0.583	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.563	0.000	0.654
		0.600				0.542								0.563			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
4:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4
4:30 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
4:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	3	0	0	0	0	1	0	0	0	0	0	0	0	2	0	6
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
6:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	25	0	0	0	2	1	0	0	0	0	0	0	0	6	0	34
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	66.67%	33.33%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	**04:15 PM - 05:15 PM**																TOTAL
PEAK HR VOL :	0	12	0	0	0	1	0	0	0	0	0	0	0	0	1	0	14
PEAK HR FACTOR :	0.00	0.750	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.700
		0.750				0.250								0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 WB direct Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-003
Date: 4/30/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 WB direct Ramps				SR-24 WB direct Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	3	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
8:15 AM	0	0	0	0	0	1	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	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
PEAK HR FACTOR :	0.000	0.417	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.417				0.250												

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0	8
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.313
	0.250				0.333												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	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	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	7	0	0	0	9	0	0	0	0	0	0	0	0	1	0	17
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
	0.250				0.500												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 WB direct Ramps **Project ID:** 19-08244-003
City: Lafayette **Date:** 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		SR-24 WB direct Ramps		SR-24 WB direct Ramps		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	3	0	0	0	3
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	4	1	0	0	5
APPROACH %'s :					80.00%	20.00%			
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	3	1	0	0	4
PEAK HR FACTOR :					0.250	0.250			0.333
					0.333				

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	1	0	0	0	1
3:00 PM	0	0	0	0	0	5	0	0	5
3:15 PM	0	0	0	1	0	2	0	0	3
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	1	1	7	0	0	9
APPROACH %'s :			0.00%	100.00%	12.50%	87.50%			
PEAK HR :	02:45 PM - 03:45 PM								TOTAL
PEAK HR VOL :	0	0	0	1	1	7	0	0	9
PEAK HR FACTOR :				0.250	0.250	0.350			0.450
			0.250		0.400				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	2	2	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	0	0	1	1
6:15 PM	0	0	0	0	2	1	0	0	3
6:30 PM	0	0	0	0	1	1	0	0	2
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	5	7	0	1	13
APPROACH %'s :					41.67%	58.33%	0.00%	100.00%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	0	0	0	2	3	0	0	5
PEAK HR FACTOR :					0.250	0.375			0.313
					0.313				

Prepared by National Data & Surveying Services

Pleasant Hill Rd & SR-24 WB Loop Ramps

Peak Hour Turning Movement Count

ID: 19-08244-004
City: Lafayette

Day: Tuesday
Date: 04/30/2019

Pleasant Hill Rd — SOUTHBOUND

PEAK HOURS								COUNT PERIODS
07:30 AM - 08:30 AM	AM	0	754	0	0	761	AM	07:00 AM - 09:00 AM
02:45 PM - 03:45 PM	NOON	0	621	0	0	1251	NOON	02:00 PM - 04:00 PM
04:45 PM - 05:45 PM	PM	0	432	0	0	1353	PM	04:00 PM - 07:00 PM

EASTBOUND — SR-24 WB Loop Ramps

AM	NOON	PM		
0	0	0	⇦	
0	0	0	↶	0
0	0	0	↱	0
0	0	0	→	0
653	585	579	↴	1
AM	NOON	PM		

WESTBOUND — SR-24 WB Loop Ramps

PM	NOON	AM		
0	0	0	↰	0
0	0	0	←	0
0	0	0	↰	0
0	0	0	↶	0
282	301	378	⇨	
PM	NOON	AM		

	0	2	0	0
	0	0	3	1

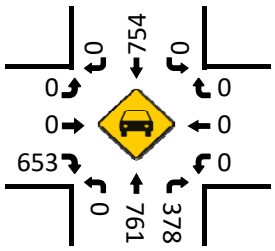
CONTROL: No Control

TEV	2546 AM	2758 NOON	2646 PM
PHF	0.86	0.92	0.95

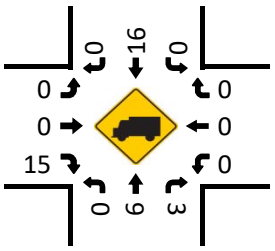
NORTHBOUND — Pleasant Hill Rd

PM	1011	0	0	1353	282	PM
NOON	1206	0	0	1251	301	NOON
AM	1407	0	0	761	378	AM

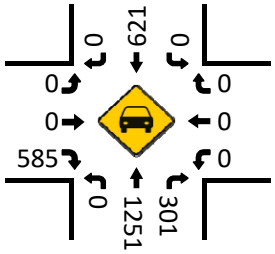
Total Vehicles (AM)



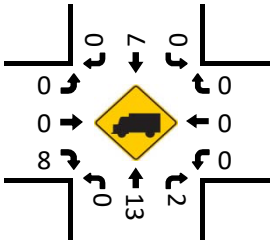
HT (AM)



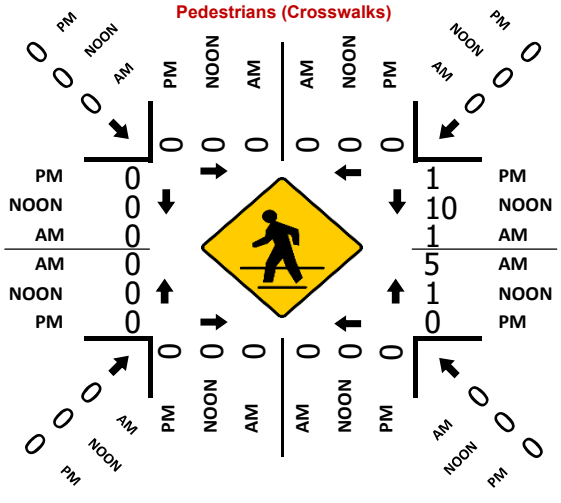
Total Vehicles (Noon)



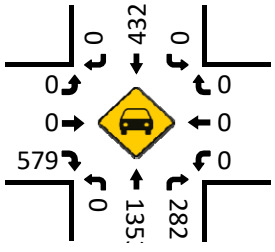
HT (NOON)



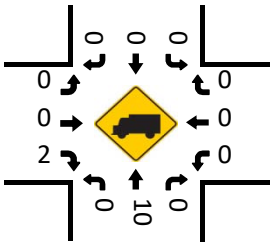
Pedestrians (Crosswalks)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 WB Loop Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-004
Date: 4/30/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 WB Loop Ramps				SR-24 WB Loop Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	67	74	0	0	164	0	0	0	0	111	0	0	0	0	0	416
7:15 AM	0	95	77	0	0	169	0	0	0	0	139	0	0	0	0	0	480
7:30 AM	0	244	94	0	0	162	0	0	0	0	156	0	0	0	0	0	656
7:45 AM	0	268	103	0	0	210	0	0	0	0	160	0	0	0	0	0	741
8:00 AM	0	125	88	0	0	193	0	0	0	0	170	0	0	0	0	0	576
8:15 AM	0	124	93	0	0	189	0	0	0	0	167	0	0	0	0	0	573
8:30 AM	0	139	75	0	0	182	0	0	0	0	173	0	0	0	0	0	569
8:45 AM	0	135	66	0	0	188	0	0	0	0	140	0	0	0	0	0	529
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1197	670	0	0	1457	0	0	0	0	1216	0	0	0	0	0	4540
APPROACH %'s :	0.00%	64.11%	35.89%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	761	378	0	0	754	0	0	0	0	653	0	0	0	0	0	2546
PEAK HR FACTOR :	0.000	0.710	0.917	0.000	0.000	0.898	0.000	0.000	0.000	0.000	0.960	0.000	0.000	0.000	0.000	0.000	0.859
		0.768				0.898				0.960							

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	197	70	0	0	112	0	0	0	0	128	0	0	0	0	0	507
2:15 PM	0	238	64	0	0	145	0	0	0	0	160	0	0	0	0	0	607
2:30 PM	0	250	86	0	0	118	0	0	0	0	125	0	0	0	0	0	579
2:45 PM	0	266	70	0	0	169	0	0	0	0	129	0	0	0	0	0	634
3:00 PM	0	340	76	0	0	151	0	0	0	0	138	0	0	0	0	0	705
3:15 PM	0	336	71	0	0	187	0	0	0	0	153	0	0	0	0	0	747
3:30 PM	0	309	84	0	0	114	0	0	0	0	165	0	0	0	0	0	672
3:45 PM	0	269	66	0	0	136	0	0	0	0	138	0	0	0	0	0	609
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2205	587	0	0	1132	0	0	0	0	1136	0	0	0	0	0	5060
APPROACH %'s :	0.00%	78.98%	21.02%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	1251	301	0	0	621	0	0	0	0	585	0	0	0	0	0	2758
PEAK HR FACTOR :	0.000	0.920	0.896	0.000	0.000	0.830	0.000	0.000	0.000	0.000	0.886	0.000	0.000	0.000	0.000	0.000	0.923
		0.933				0.830				0.886							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	247	63	0	0	131	0	0	0	0	117	0	0	0	0	0	558
4:15 PM	0	336	72	0	0	139	0	0	0	0	110	0	0	0	0	0	657
4:30 PM	0	311	63	0	0	86	0	0	0	0	128	0	0	0	0	0	588
4:45 PM	0	337	77	0	0	112	0	0	0	0	137	0	0	0	0	0	663
5:00 PM	0	350	82	0	0	96	0	0	0	0	123	0	0	0	0	0	651
5:15 PM	0	356	62	0	0	99	0	0	0	0	183	0	0	0	0	0	700
5:30 PM	0	310	61	0	0	125	0	0	0	0	136	0	0	0	0	0	632
5:45 PM	0	321	68	0	0	121	0	0	0	0	144	0	0	0	0	0	654
6:00 PM	0	268	60	0	0	94	0	0	0	0	134	0	0	0	0	0	556
6:15 PM	0	302	47	0	0	88	0	0	0	0	119	0	0	0	0	0	556
6:30 PM	0	255	54	0	0	85	0	0	0	0	111	0	0	0	0	0	505
6:45 PM	0	239	43	0	0	81	0	0	0	0	79	0	0	0	0	0	442
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3632	752	0	0	1257	0	0	0	0	1521	0	0	0	0	0	7162
APPROACH %'s :	0.00%	82.85%	17.15%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	1353	282	0	0	432	0	0	0	0	579	0	0	0	0	0	2646
PEAK HR FACTOR :	0.000	0.950	0.860	0.000	0.000	0.864	0.000	0.000	0.000	0.000	0.791	0.000	0.000	0.000	0.000	0.000	0.945
		0.946				0.864				0.791							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 WB Loop Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-004
Date: 4/30/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 WB Loop Ramps				SR-24 WB Loop Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	66	73	0	0	158	0	0	0	0	108	0	0	0	0	0	405
7:15 AM	0	90	76	0	0	166	0	0	0	0	137	0	0	0	0	0	469
7:30 AM	0	241	94	0	0	160	0	0	0	0	152	0	0	0	0	0	647
7:45 AM	0	268	100	0	0	205	0	0	0	0	156	0	0	0	0	0	729
8:00 AM	0	121	88	0	0	188	0	0	0	0	166	0	0	0	0	0	563
8:15 AM	0	122	93	0	0	185	0	0	0	0	164	0	0	0	0	0	564
8:30 AM	0	133	73	0	0	178	0	0	0	0	167	0	0	0	0	0	551
8:45 AM	0	135	65	0	0	182	0	0	0	0	136	0	0	0	0	0	518
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1176	662	0	0	1422	0	0	0	0	1186	0	0	0	0	0	4446
APPROACH %'s :	0.00%	63.98%	36.02%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	752	375	0	0	738	0	0	0	0	638	0	0	0	0	0	2503
PEAK HR FACTOR :	0.00	0.701	0.938	0.000	0.000	0.900	0.000	0.000	0.000	0.000	0.961	0.000	0.000	0.000	0.000	0.000	0.858
		0.766				0.900				0.961							

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	191	69	0	0	108	0	0	0	0	124	0	0	0	0	0	492
2:15 PM	0	233	62	0	0	144	0	0	0	0	159	0	0	0	0	0	598
2:30 PM	0	247	86	0	0	115	0	0	0	0	124	0	0	0	0	0	572
2:45 PM	0	264	70	0	0	168	0	0	0	0	128	0	0	0	0	0	630
3:00 PM	0	339	76	0	0	150	0	0	0	0	134	0	0	0	0	0	699
3:15 PM	0	329	69	0	0	185	0	0	0	0	152	0	0	0	0	0	735
3:30 PM	0	306	84	0	0	111	0	0	0	0	163	0	0	0	0	0	664
3:45 PM	0	265	65	0	0	136	0	0	0	0	137	0	0	0	0	0	603
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2174	581	0	0	1117	0	0	0	0	1121	0	0	0	0	0	4993
APPROACH %'s :	0.00%	78.91%	21.09%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	1238	299	0	0	614	0	0	0	0	577	0	0	0	0	0	2728
PEAK HR FACTOR :	0.00	0.913	0.890	0.000	0.000	0.830	0.000	0.000	0.000	0.000	0.885	0.000	0.000	0.000	0.000	0.000	0.928
		0.926				0.830				0.885							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	241	63	0	0	130	0	0	0	0	114	0	0	0	0	0	548
4:15 PM	0	333	72	0	0	139	0	0	0	0	110	0	0	0	0	0	654
4:30 PM	0	308	63	0	0	85	0	0	0	0	128	0	0	0	0	0	584
4:45 PM	0	333	77	0	0	112	0	0	0	0	137	0	0	0	0	0	659
5:00 PM	0	348	82	0	0	96	0	0	0	0	123	0	0	0	0	0	649
5:15 PM	0	353	62	0	0	99	0	0	0	0	181	0	0	0	0	0	695
5:30 PM	0	309	61	0	0	125	0	0	0	0	136	0	0	0	0	0	631
5:45 PM	0	320	68	0	0	121	0	0	0	0	144	0	0	0	0	0	653
6:00 PM	0	268	59	0	0	94	0	0	0	0	134	0	0	0	0	0	555
6:15 PM	0	302	47	0	0	88	0	0	0	0	119	0	0	0	0	0	556
6:30 PM	0	254	54	0	0	85	0	0	0	0	111	0	0	0	0	0	504
6:45 PM	0	238	43	0	0	81	0	0	0	0	79	0	0	0	0	0	441
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3607	751	0	0	1255	0	0	0	0	1516	0	0	0	0	0	7129
APPROACH %'s :	0.00%	82.77%	17.23%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	1343	282	0	0	432	0	0	0	0	577	0	0	0	0	0	2634
PEAK HR FACTOR :	0.00	0.951	0.860	0.000	0.000	0.864	0.000	0.000	0.000	0.000	0.797	0.000	0.000	0.000	0.000	0.000	0.947
		0.945				0.864				0.797							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 WB Loop Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-004
Date: 4/30/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 WB Loop Ramps				SR-24 WB Loop Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	1	0	0	6	0	0	0	0	3	0	0	0	0	0	11
7:15 AM	0	5	1	0	0	3	0	0	0	0	2	0	0	0	0	0	11
7:30 AM	0	3	0	0	0	2	0	0	0	0	4	0	0	0	0	0	9
7:45 AM	0	0	3	0	0	5	0	0	0	0	4	0	0	0	0	0	12
8:00 AM	0	4	0	0	0	5	0	0	0	0	4	0	0	0	0	0	13
8:15 AM	0	2	0	0	0	4	0	0	0	0	3	0	0	0	0	0	9
8:30 AM	0	6	2	0	0	4	0	0	0	0	6	0	0	0	0	0	18
8:45 AM	0	0	1	0	0	6	0	0	0	0	4	0	0	0	0	0	11
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	21	8	0	0	35	0	0	0	0	30	0	0	0	0	0	94
APPROACH %'s :	0.00%	72.41%	27.59%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	9	3	0	0	16	0	0	0	0	15	0	0	0	0	0	43
PEAK HR FACTOR :	0.000	0.563	0.250	0.000	0.000	0.800	0.000	0.000	0.000	0.000	0.938	0.000	0.000	0.000	0.000	0.000	0.827
		0.750				0.800				0.938							

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	6	1	0	0	4	0	0	0	0	4	0	0	0	0	0	15
2:15 PM	0	5	2	0	0	1	0	0	0	0	1	0	0	0	0	0	9
2:30 PM	0	3	0	0	0	3	0	0	0	0	1	0	0	0	0	0	7
2:45 PM	0	2	0	0	0	1	0	0	0	0	1	0	0	0	0	0	4
3:00 PM	0	1	0	0	0	1	0	0	0	0	4	0	0	0	0	0	6
3:15 PM	0	7	2	0	0	2	0	0	0	0	1	0	0	0	0	0	12
3:30 PM	0	3	0	0	0	3	0	0	0	0	2	0	0	0	0	0	8
3:45 PM	0	4	1	0	0	0	0	0	0	0	1	0	0	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	31	6	0	0	15	0	0	0	0	15	0	0	0	0	0	67
APPROACH %'s :	0.00%	83.78%	16.22%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	13	2	0	0	7	0	0	0	0	8	0	0	0	0	0	30
PEAK HR FACTOR :	0.00	0.464	0.250	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.625
		0.417				0.583				0.500							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	6	0	0	0	1	0	0	0	0	3	0	0	0	0	0	10
4:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	25	1	0	0	2	0	0	0	0	5	0	0	0	0	0	33
APPROACH %'s :	0.00%	96.15%	3.85%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	10	0	0	0	0	0	0	0	0	2	0	0	0	0	0	12
PEAK HR FACTOR :	0.00	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.600
		0.625				0.000				0.250							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 WB Loop Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-004
Date: 4/30/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 WB Loop Ramps				SR-24 WB Loop Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	3	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
8:15 AM	0	0	0	0	0	1	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	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
PEAK HR FACTOR :	0.000	0.417	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.417				0.250												

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
3:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0	8
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.313
	0.250				0.333												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	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	3	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	7	0	0	0	9	0	0	0	0	0	0	0	0	0	0	16
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.00	0.375	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.375				0.250												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 WB Loop Ramps
City: Lafayette

Project ID: 19-08244-00
Date: 4/30/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		SR-24 WB Loop Ramps		SR-24 WB Loop Ramps		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	2	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	3	0	0	0	3
7:45 AM	0	0	0	0	2	0	0	0	2
8:00 AM	0	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	6	1	0	0	7
APPROACH %'s :					85.71%	14.29%			
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	5	1	0	0	6
PEAK HR FACTOR :					0.417	0.250			0.500
					0.500				

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	1	0	0	0	1
3:00 PM	0	0	0	0	0	4	0	0	4
3:15 PM	0	0	0	0	0	6	0	0	6
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	10	0	0	11
APPROACH %'s :					9.09%	90.91%			
PEAK HR :	02:45 PM - 03:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	1	10	0	0	11
PEAK HR FACTOR :					0.250	0.417			0.458
					0.458				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	2	0	0	2
4:30 PM	0	0	0	0	2	1	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	2	1	0	1	4
6:30 PM	0	0	0	0	1	1	0	0	2
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	5	7	0	1	13
APPROACH %'s :					41.67%	58.33%	0.00%	100.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :						0.250			0.250
					0.250				

National Data & Surveying Services

Intersection Turning Movement Count

4

Prepared by National Data & Surveying Services

Pleasant Hill Rd & SR-24 EB Loop Ramps

Peak Hour Turning Movement Count

ID: 19-08244-005
City: Lafayette

Day: Tuesday
Date: 04/30/2019

PEAK HOURS	
AM	07:30 AM - 08:30 AM
NOON	02:45 PM - 03:45 PM
PM	05:00 PM - 06:00 PM

COUNT PERIODS	
AM	07:00 AM - 09:00 AM
NOON	02:00 PM - 04:00 PM
PM	04:00 PM - 07:00 PM

Pleasant Hill Rd — SOUTHBOUND

AM	313	1091	0	0	1137	AM
NOON	274	924	0	0	1556	NOON
PM	240	798	0	0	1609	PM

SR-24 EB Loop Ramps — EASTBOUND

AM	NOON	PM		
313	274	240	⇦	
0	0	0	↶	0
0	0	0	↱	0
0	0	0	→	0
0	0	0	↴	0
AM	NOON	PM		

SR-24 EB Loop Ramps — WESTBOUND

PM	NOON	AM		
767	769	317	↰	1
0	0	0	←	0
0	0	0	↰	0
0	0	0	↶	0
0	0	0	⇨	
PM	NOON	AM		

1	3	0	0	
			0	0	2	0

CONTROL

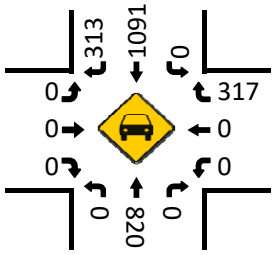
No Control

TEV	2541	2754	2647
	AM	NOON	PM
PHF	0.85	0.89	0.95

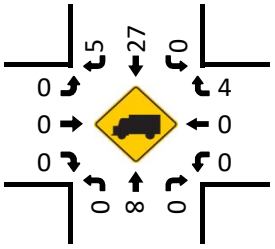
Pleasant Hill Rd — NORTHBOUND

PM	798	0	0	842	0	PM
NOON	924	0	0	787	0	NOON
AM	1091	0	0	820	0	AM

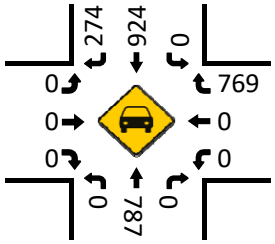
Total Vehicles (AM)



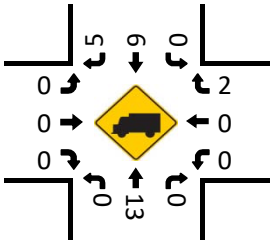
HT (AM)



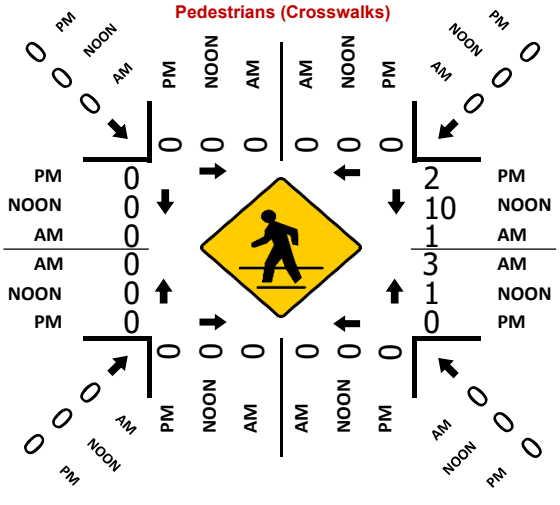
Total Vehicles (Noon)



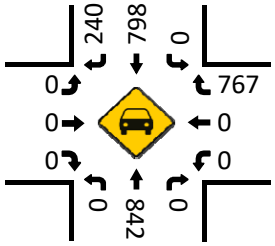
HT (NOON)



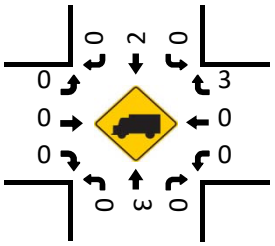
Pedestrians (Crosswalks)



Total Vehicles (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 EB Loop Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-005
Date: 4/30/2019

Total

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 EB Loop Ramps				SR-24 EB Loop Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	100	0	0	0	179	90	0	0	0	0	0	0	0	45	0	414
7:15 AM	0	114	0	0	0	237	80	0	0	0	0	0	0	0	56	0	487
7:30 AM	0	216	0	0	0	242	68	0	0	0	0	0	0	0	102	0	628
7:45 AM	0	290	0	0	0	289	68	0	0	0	0	0	0	0	99	0	746
8:00 AM	0	150	0	0	0	291	82	0	0	0	0	0	0	0	63	0	586
8:15 AM	0	164	0	0	0	269	95	0	0	0	0	0	0	0	53	0	581
8:30 AM	0	141	0	0	0	266	89	0	0	0	0	0	0	0	65	0	561
8:45 AM	0	145	0	0	0	238	98	0	0	0	0	0	0	0	63	0	544
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1320	0	0	0	2011	670	0	0	0	0	0	0	0	546	0	4547
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	75.01%	24.99%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	820	0	0	0	1091	313	0	0	0	0	0	0	0	317	0	2541
PEAK HR FACTOR :	0.000	0.707	0.000	0.000	0.000	0.937	0.824	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.777	0.000	0.852
		0.707				0.941								0.777			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	137	0	0	0	183	56	0	0	0	0	0	0	0	131	0	507
2:15 PM	0	152	0	0	0	246	60	0	0	0	0	0	0	0	149	0	607
2:30 PM	0	173	0	0	0	184	58	0	0	0	0	0	0	0	159	0	574
2:45 PM	0	173	0	0	0	228	71	0	0	0	0	0	0	0	172	0	644
3:00 PM	0	199	0	0	0	223	56	0	0	0	0	0	0	0	212	0	690
3:15 PM	0	211	0	0	0	271	80	0	0	0	0	0	0	0	215	0	777
3:30 PM	0	204	0	0	0	202	67	0	0	0	0	0	0	0	170	0	643
3:45 PM	0	181	0	0	0	224	59	0	0	0	0	0	0	0	145	0	609
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1430	0	0	0	1761	507	0	0	0	0	0	0	0	1353	0	5051
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	77.65%	22.35%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	787	0	0	0	924	274	0	0	0	0	0	0	0	769	0	2754
PEAK HR FACTOR :	0.000	0.932	0.000	0.000	0.000	0.852	0.856	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.894	0.000	0.886
		0.932				0.853								0.894			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	167	0	0	0	180	52	0	0	0	0	0	0	0	151	0	550
4:15 PM	0	200	0	0	0	212	60	0	0	0	0	0	0	0	190	0	662
4:30 PM	0	186	0	0	0	160	47	0	0	0	0	0	0	0	207	0	600
4:45 PM	0	214	0	0	0	207	36	0	0	0	0	0	0	0	200	0	657
5:00 PM	0	244	0	0	0	184	41	0	0	0	0	0	0	0	188	0	657
5:15 PM	0	192	0	0	0	222	62	0	0	0	0	0	0	0	224	0	700
5:30 PM	0	196	0	0	0	205	54	0	0	0	0	0	0	0	177	0	632
5:45 PM	0	210	0	0	0	187	83	0	0	0	0	0	0	0	178	0	658
6:00 PM	0	159	0	0	0	179	44	0	0	0	0	0	0	0	170	0	552
6:15 PM	0	140	0	0	0	176	26	0	0	0	0	0	0	0	207	0	549
6:30 PM	0	125	0	0	0	165	39	0	0	0	0	0	0	0	190	0	519
6:45 PM	0	116	0	0	0	123	43	0	0	0	0	0	0	0	155	0	437
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2149	0	0	0	2200	587	0	0	0	0	0	0	0	2237	0	7173
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	78.94%	21.06%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	842	0	0	0	798	240	0	0	0	0	0	0	0	767	0	2647
PEAK HR FACTOR :	0.000	0.863	0.000	0.000	0.000	0.899	0.723	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.856	0.000	0.945
		0.863				0.914								0.856			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 EB Loop Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-005
Date: 4/30/2019

Cars

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 EB Loop Ramps				SR-24 EB Loop Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	99	0	0	0	171	89	0	0	0	0	0	0	0	44	0	403
7:15 AM	0	109	0	0	0	232	80	0	0	0	0	0	0	0	55	0	476
7:30 AM	0	214	0	0	0	236	68	0	0	0	0	0	0	0	101	0	619
7:45 AM	0	287	0	0	0	281	67	0	0	0	0	0	0	0	99	0	734
8:00 AM	0	147	0	0	0	284	80	0	0	0	0	0	0	0	62	0	573
8:15 AM	0	164	0	0	0	263	93	0	0	0	0	0	0	0	51	0	571
8:30 AM	0	138	0	0	0	259	87	0	0	0	0	0	0	0	61	0	545
8:45 AM	0	143	0	0	0	232	94	0	0	0	0	0	0	0	63	0	532
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1301	0	0	0	1958	658	0	0	0	0	0	0	0	536	0	4453
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	74.85%	25.15%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	812	0	0	0	1064	308	0	0	0	0	0	0	0	313	0	2497
PEAK HR FACTOR :	0.00	0.707	0.000	0.000	0.000	0.937	0.828	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.775	0.000	0.850
		0.707				0.942								0.775			

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	134	0	0	0	178	53	0	0	0	0	0	0	0	127	0	492
2:15 PM	0	149	0	0	0	245	59	0	0	0	0	0	0	0	145	0	598
2:30 PM	0	172	0	0	0	182	56	0	0	0	0	0	0	0	157	0	567
2:45 PM	0	171	0	0	0	228	69	0	0	0	0	0	0	0	172	0	640
3:00 PM	0	198	0	0	0	219	55	0	0	0	0	0	0	0	212	0	684
3:15 PM	0	205	0	0	0	269	79	0	0	0	0	0	0	0	213	0	766
3:30 PM	0	200	0	0	0	199	66	0	0	0	0	0	0	0	170	0	635
3:45 PM	0	176	0	0	0	222	59	0	0	0	0	0	0	0	145	0	602
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1405	0	0	0	1742	496	0	0	0	0	0	0	0	1341	0	4984
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	77.84%	22.16%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	774	0	0	0	915	269	0	0	0	0	0	0	0	767	0	2725
PEAK HR FACTOR :	0.00	0.944	0.000	0.000	0.000	0.850	0.851	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.000	0.889
		0.944				0.851								0.900			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	163	0	0	0	176	52	0	0	0	0	0	0	0	149	0	540
4:15 PM	0	196	0	0	0	212	60	0	0	0	0	0	0	0	190	0	658
4:30 PM	0	185	0	0	0	160	46	0	0	0	0	0	0	0	206	0	597
4:45 PM	0	212	0	0	0	207	36	0	0	0	0	0	0	0	197	0	652
5:00 PM	0	244	0	0	0	184	41	0	0	0	0	0	0	0	187	0	656
5:15 PM	0	191	0	0	0	220	62	0	0	0	0	0	0	0	222	0	695
5:30 PM	0	195	0	0	0	205	54	0	0	0	0	0	0	0	177	0	631
5:45 PM	0	209	0	0	0	187	83	0	0	0	0	0	0	0	178	0	657
6:00 PM	0	158	0	0	0	179	44	0	0	0	0	0	0	0	170	0	551
6:15 PM	0	140	0	0	0	176	26	0	0	0	0	0	0	0	207	0	549
6:30 PM	0	125	0	0	0	165	39	0	0	0	0	0	0	0	189	0	518
6:45 PM	0	115	0	0	0	123	43	0	0	0	0	0	0	0	155	0	436
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2133	0	0	0	2194	586	0	0	0	0	0	0	0	2227	0	7140
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	78.92%	21.08%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	839	0	0	0	796	240	0	0	0	0	0	0	0	764	0	2639
PEAK HR FACTOR :	0.00	0.860	0.000	0.000	0.000	0.905	0.723	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.860	0.000	0.949
		0.860				0.918								0.860			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 EB Loop Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-005
Date: 4/30/2019

HT

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 EB Loop Ramps				SR-24 EB Loop Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	8	1	0	0	0	0	0	0	0	1	0	11
7:15 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	1	0	11
7:30 AM	0	2	0	0	0	6	0	0	0	0	0	0	0	0	1	0	9
7:45 AM	0	3	0	0	0	8	1	0	0	0	0	0	0	0	0	0	12
8:00 AM	0	3	0	0	0	7	2	0	0	0	0	0	0	0	1	0	13
8:15 AM	0	0	0	0	0	6	2	0	0	0	0	0	0	0	2	0	10
8:30 AM	0	3	0	0	0	7	2	0	0	0	0	0	0	0	4	0	16
8:45 AM	0	2	0	0	0	6	4	0	0	0	0	0	0	0	0	0	12
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	19	0	0	0	53	12	0	0	0	0	0	0	0	10	0	94
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	81.54%	18.46%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	8	0	0	0	27	5	0	0	0	0	0	0	0	4	0	44
PEAK HR FACTOR :	0.000	0.667	0.000	0.000	0.000	0.844	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.846
	0.667				0.889								0.500				

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	3	0	0	0	5	3	0	0	0	0	0	0	0	4	0	15
2:15 PM	0	3	0	0	0	1	1	0	0	0	0	0	0	0	4	0	9
2:30 PM	0	1	0	0	0	2	2	0	0	0	0	0	0	0	2	0	7
2:45 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	4
3:00 PM	0	1	0	0	0	4	1	0	0	0	0	0	0	0	0	0	6
3:15 PM	0	6	0	0	0	2	1	0	0	0	0	0	0	0	2	0	11
3:30 PM	0	4	0	0	0	3	1	0	0	0	0	0	0	0	0	0	8
3:45 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	25	0	0	0	19	11	0	0	0	0	0	0	0	12	0	67
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	63.33%	36.67%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	13	0	0	0	9	5	0	0	0	0	0	0	0	2	0	29
PEAK HR FACTOR :	0.00	0.542	0.000	0.000	0.000	0.563	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.659
	0.542				0.700								0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	2	0	10
4:15 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	3
4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:15 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	2	0	5
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	16	0	0	0	6	1	0	0	0	0	0	0	0	10	0	33
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	85.71%	14.29%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	3	0	0	0	2	0	0	0	0	0	0	0	0	3	0	8
PEAK HR FACTOR :	0.00	0.750	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.400
	0.750				0.250								0.375				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 EB Loop Ramps
City: Lafayette
Control: No Control

Project ID: 19-08244-005
Date: 4/30/2019

Bikes

NS/EW Streets:	Pleasant Hill Rd				Pleasant Hill Rd				SR-24 EB Loop Ramps				SR-24 EB Loop Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	3	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
8:15 AM	0	0	0	0	0	1	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	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
PEAK HR FACTOR :	0.000	0.417	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
	0.417				0.250												

NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
3:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0	8
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	02:45 PM - 03:45 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417
	0.250				0.500												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	3	1	0	0	0	0	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	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	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	7	0	0	0	9	0	0	0	0	0	0	0	0	0	0	16
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
PEAK HR FACTOR :	0.00	0.375	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
	0.375				0.500												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pleasant Hill Rd & SR-24 EB Loop Ramps **Project ID:** 19-08244-005
City: Lafayette **Date:** 4/30/2019

Pedestrians (Crosswalks)

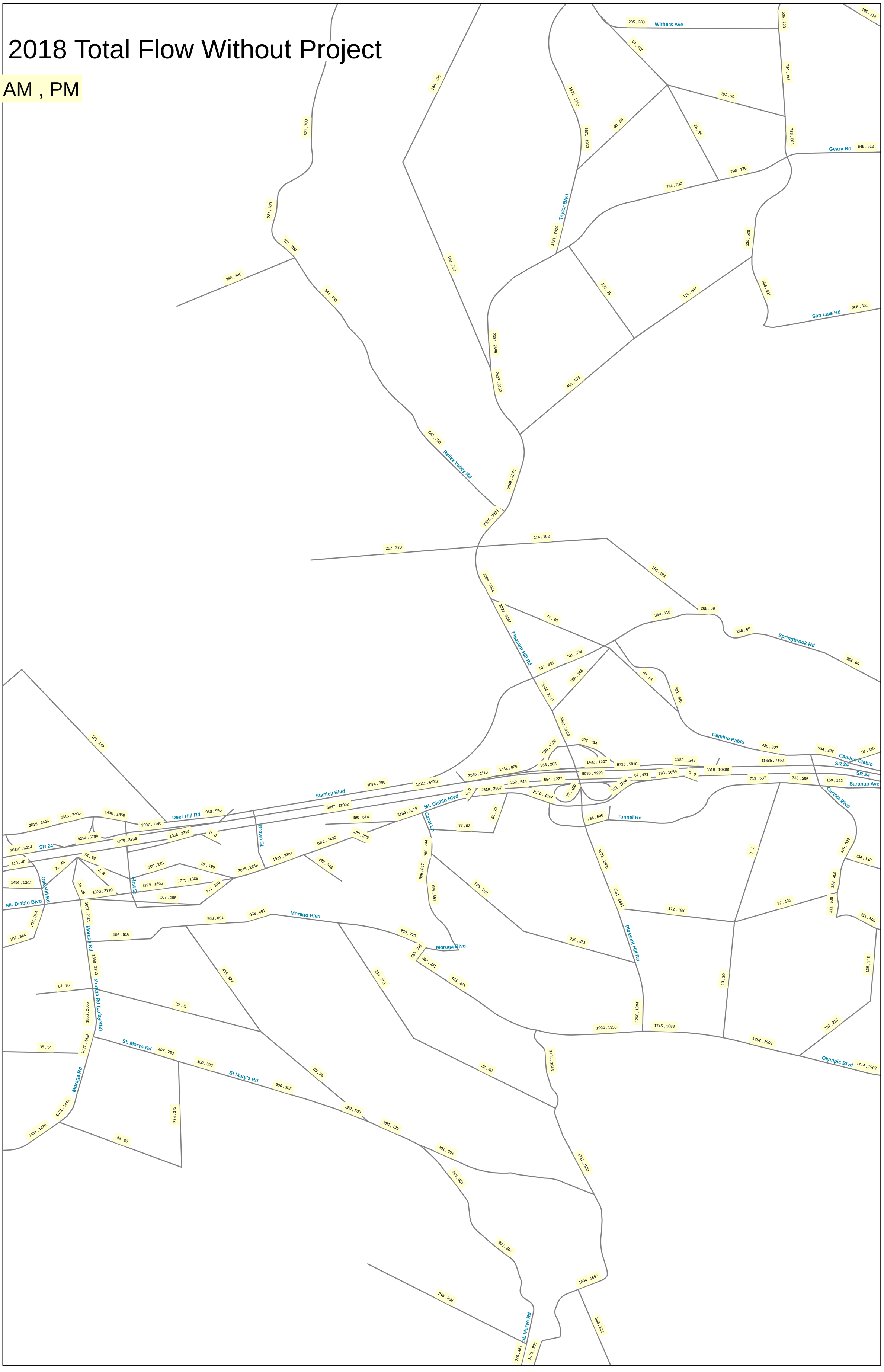
NS/EW Streets:	Pleasant Hill Rd		Pleasant Hill Rd		SR-24 EB Loop Ramps		SR-24 EB Loop Ramps		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	1
7:45 AM	0	0	0	0	2	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	1
8:30 AM	0	0	0	0	1	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	4	1	0	0	5
APPROACH %'s :					80.00%	20.00%			
PEAK HR :	**07:30 AM - 08:30 AM**								TOTAL
PEAK HR VOL :	0	0	0	0	3	1	0	0	4
PEAK HR FACTOR :					0.375	0.250			0.500
					0.500				

NOON	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:00 PM	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	1	0	0	0	1
3:00 PM	0	0	0	0	0	1	0	0	1
3:15 PM	0	0	0	0	0	9	0	0	9
3:30 PM	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	10	0	0	11
APPROACH %'s :					9.09%	90.91%			
PEAK HR :	**02:45 PM - 03:45 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	1	10	0	0	11
PEAK HR FACTOR :					0.250	0.278			0.306
					0.306				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	2	0	0	0	2
4:45 PM	0	0	0	0	0	1	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	2	0	0	0	2
6:30 PM	0	0	0	0	1	2	0	0	3
6:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	5	6	0	0	11
APPROACH %'s :					45.45%	54.55%			
PEAK HR :	**05:00 PM - 06:00 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	0	2	0	0	2
PEAK HR FACTOR :						0.500			0.500
					0.500				

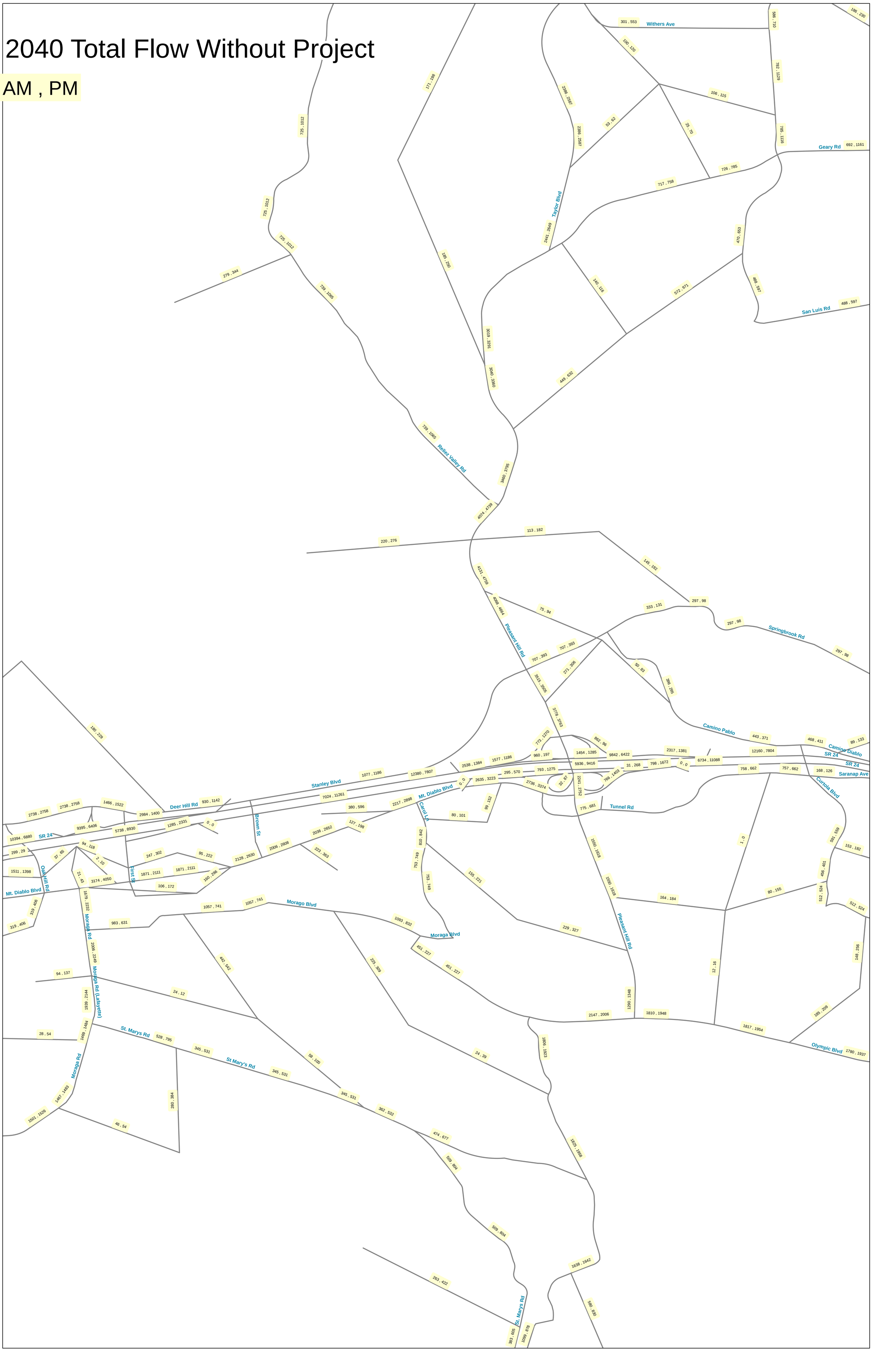
2018 Total Flow Without Project

AM , PM



2040 Total Flow Without Project

AM , PM



Appendix C – Existing Conditions Level of Service Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	0	17	0	0	0	7	438	0	0	1928	8
Future Volume (veh/h)	12	0	17	0	0	0	7	438	0	0	1928	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	18	0	26	0	0	0	9	592	0	0	2268	9
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	226	26	267	0	551	0	28	1991	0	0	1786	7
Arrive On Green	0.30	0.00	0.30	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.50	0.50
Sat Flow, veh/h	531	88	895	0	1845	0	1757	3597	0	0	3673	14
Grp Volume(v), veh/h	44	0	0	0	0	0	9	592	0	0	1109	1168
Grp Sat Flow(s),veh/h/ln	1514	0	0	0	1845	0	1757	1752	0	0	1752	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.4	6.6	0.0	0.0	37.4	37.4
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.0	0.0	0.0	0.4	6.6	0.0	0.0	37.4	37.4
Prop In Lane	0.41		0.59	0.00		0.00	1.00		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	520	0	0	0	551	0	28	1991	0	0	874	919
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.32	0.30	0.00	0.00	1.27	1.27
Avail Cap(c_a), veh/h	520	0	0	0	551	0	187	1991	0	0	874	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	0.0	0.0	0.0	0.0	36.5	8.4	0.0	0.0	18.8	18.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.0	2.4	0.4	0.0	0.0	130.2	130.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	0.2	3.2	0.0	0.0	49.6	52.2
LnGrp Delay(d),s/veh	19.3	0.0	0.0	0.0	0.0	0.0	38.9	8.8	0.0	0.0	149.0	149.3
LnGrp LOS	B						D	A			F	F
Approach Vol, veh/h		44			0			601			2277	
Approach Delay, s/veh		19.3			0.0			9.3			149.2	
Approach LOS		B						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		48.0		27.0	5.2	42.8		27.0
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		42.6		22.4	8.0	* 31		22.4
Max Q Clear Time (g_c+I1), s		8.6		3.4	2.4	39.4		0.0
Green Ext Time (p_c), s		6.0		0.2	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		118.4
HCM 2010 LOS		F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	8	76	0	16	2	422	21	16	1928	1
Future Volume (veh/h)	8	0	8	76	0	16	2	422	21	16	1928	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	16	0	16	143	0	0	3	594	0	19	2268	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	233	23	183	421	0	364	13	1915	857	61	2012	0
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.00	0.01	1.00	0.00	0.03	0.57	0.00
Sat Flow, veh/h	693	97	791	1402	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	32	0	0	143	0	0	3	594	0	19	2268	0
Grp Sat Flow(s),veh/h/ln	1581	0	0	1402	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	0.0	0.1	0.0	0.0	0.8	43.1	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.0	0.8	43.1	0.0
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	439	0	0	421	0	364	13	1915	857	61	2012	0
V/C Ratio(X)	0.07	0.00	0.00	0.34	0.00	0.00	0.23	0.31	0.00	0.31	1.13	0.00
Avail Cap(c_a), veh/h	439	0	0	421	0	364	211	1915	857	187	2012	0
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	0.00	1.00	0.00	0.00	0.97	0.97	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	24.4	0.0	0.0	36.7	0.0	0.0	35.3	16.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	2.2	0.0	0.0	3.3	0.4	0.0	1.1	64.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.8	0.0	0.0	0.1	0.1	0.0	0.4	38.4	0.0
LnGrp Delay(d),s/veh	22.9	0.0	0.0	26.6	0.0	0.0	40.1	0.4	0.0	36.4	80.3	0.0
LnGrp LOS	C			C			D	A		D	F	
Approach Vol, veh/h		32			143			597			2287	
Approach Delay, s/veh		22.9			26.6			0.6			79.9	
Approach LOS		C			C			A			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	48.5		22.0	6.6	46.4		22.0
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 35		17.4	8.0	35.6		17.4
Max Q Clear Time (g_c+I1), s	2.1	45.1		3.1	2.8	2.0		8.3
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	61.4
HCM 2010 LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	389	42	438	2008	7
Future Volume (veh/h)	7	389	42	438	2008	7
Number	3	18	1	6	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	9	0	63	654	2335	8
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.80	0.80	0.67	0.67	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	507	453	98	2257	1969	881
Arrive On Green	0.29	0.00	0.06	0.64	1.00	1.00
Sat Flow, veh/h	1757	1568	1757	3597	3597	1568
Grp Volume(v), veh/h	9	0	63	654	2335	8
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1568
Q Serve(g_s), s	0.5	0.0	5.3	12.3	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	5.3	12.3	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	453	98	2257	1969	881
V/C Ratio(X)	0.02	0.00	0.64	0.29	1.19	0.01
Avail Cap(c_a), veh/h	507	453	141	2257	1969	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.1	0.0	69.4	11.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.6	0.3	84.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.6	6.0	23.0	0.0
LnGrp Delay(d),s/veh	38.2	0.0	72.0	12.0	84.3	0.0
LnGrp LOS	D		E	B	F	A
Approach Vol, veh/h	9			717	2343	
Approach Delay, s/veh	38.2			17.3	84.0	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.3	89.7				102.0		48.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	12.6	* 81				96.6		43.3
Max Q Clear Time (g_c+I1), s	7.3	2.0				14.3		2.5
Green Ext Time (p_c), s	0.0	62.9				7.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	68.3
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	2	134	51	1	10	95	436	24	9	2316	62
Future Volume (veh/h)	31	2	134	51	1	10	95	436	24	9	2316	62
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.97		0.92	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	46	3	0	77	2	15	136	623	34	10	2545	68
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.68	0.68	0.66	0.66	0.66	0.70	0.70	0.70	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	196	11	0	176	8	27	140	2736	1195	26	2036	889
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.17	1.00	1.00	0.02	0.71	0.71
Sat Flow, veh/h	1325	101	0	1167	69	235	1616	3505	1530	1433	2859	1248
Grp Volume(v), veh/h	49	0	0	94	0	0	136	623	34	10	2545	68
Grp Sat Flow(s),veh/h/ln	1425	0	0	1471	0	0	1616	1752	1530	1433	1430	1248
Q Serve(g_s), s	0.0	0.0	0.0	4.0	0.0	0.0	12.5	0.0	0.0	1.0	106.8	2.5
Cycle Q Clear(g_c), s	4.5	0.0	0.0	8.5	0.0	0.0	12.5	0.0	0.0	1.0	106.8	2.5
Prop In Lane	0.94		0.00	0.82		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	0	210	0	0	140	2736	1195	26	2036	889
V/C Ratio(X)	0.24	0.00	0.00	0.45	0.00	0.00	0.97	0.23	0.03	0.38	1.25	0.08
Avail Cap(c_a), veh/h	306	0	0	310	0	0	140	2736	1195	124	2036	889
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	0.00	1.00	0.00	0.00	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	0.0	0.0	62.5	0.0	0.0	61.8	0.0	0.0	72.8	21.6	6.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.6	0.0	0.0	60.5	0.2	0.0	3.4	116.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	3.7	0.0	0.0	7.9	0.1	0.0	0.4	74.6	0.9
LnGrp Delay(d),s/veh	61.2	0.0	0.0	63.1	0.0	0.0	122.3	0.2	0.0	76.2	138.3	6.7
LnGrp LOS	E			E			F	A	A	E	F	A
Approach Vol, veh/h		49			94			793			2623	
Approach Delay, s/veh		61.2			63.1			21.1			134.6	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	111.9		21.1	6.7	122.2		21.1
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	13.0	95.9		27.9	13.0	95.9		27.9
Max Q Clear Time (g_c+I1), s	14.5	108.8		10.5	3.0	2.0		6.5
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	7.1		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	106.4	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	72	39	182	118	53	125	617	206	113	1451	762
Future Volume (veh/h)	194	72	39	182	118	53	125	617	206	113	1451	762
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.89	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	323	120	65	202	220	72	174	857	286	124	1595	837
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	525	167	91	236	247	188	195	1715	732	141	1327	566
Arrive On Green	0.15	0.15	0.15	0.13	0.13	0.13	0.11	0.49	0.49	0.10	0.48	0.48
Sat Flow, veh/h	3408	1088	589	1757	1845	1399	1757	3505	1496	1387	2767	1181
Grp Volume(v), veh/h	323	0	185	202	220	72	174	857	286	124	1595	837
Grp Sat Flow(s),veh/h/ln	1704	0	1677	1757	1845	1399	1757	1752	1496	1387	1383	1181
Q Serve(g_s), s	13.3	0.0	15.7	16.9	17.6	7.0	14.7	24.8	18.1	13.2	71.9	71.9
Cycle Q Clear(g_c), s	13.3	0.0	15.7	16.9	17.6	7.0	14.7	24.8	18.1	13.2	71.9	71.9
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	525	0	258	236	247	188	195	1715	732	141	1327	566
V/C Ratio(X)	0.62	0.00	0.72	0.86	0.89	0.38	0.89	0.50	0.39	0.88	1.20	1.48
Avail Cap(c_a), veh/h	611	0	301	269	283	215	199	1715	732	185	1327	566
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	59.3	0.0	60.3	63.5	63.9	59.3	65.8	25.9	24.2	66.5	39.0	39.0
Incr Delay (d2), s/veh	0.7	0.0	4.9	19.1	23.5	0.5	34.3	1.0	1.6	3.2	91.6	216.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	7.7	9.4	10.6	2.7	9.0	12.3	7.8	5.2	44.3	57.4
LnGrp Delay(d),s/veh	60.0	0.0	65.3	82.7	87.4	59.8	100.1	26.9	25.8	69.7	130.6	255.1
LnGrp LOS	E		E	F	F	E	F	C	C	E	F	F
Approach Vol, veh/h		508			494			1317			2556	
Approach Delay, s/veh		61.9			81.4			36.3			168.4	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.7	77.0		24.1	19.2	78.5		28.2
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	16.7	73.9		19.6	15.2	26.8		17.7
Green Ext Time (p_c), s	0.0	0.0		0.5	0.1	12.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	112.8
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	233	100	0	0	0	253	676	389	0	408	721
Future Volume (veh/h)	159	233	100	0	0	0	253	676	389	0	408	721
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	169	248	106				291	777	0	0	434	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.94	0.94	0.94				0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	247	339	141				75	2437	1090	0	2051	918
Arrive On Green	0.14	0.14	0.14				0.04	0.70	0.00	0.00	0.59	0.00
Sat Flow, veh/h	1757	2414	1002				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	169	178	176				291	777	0	0	434	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1663				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	6.4	6.8	7.1				3.0	6.1	0.0	0.0	4.1	0.0
Cycle Q Clear(g_c), s	6.4	6.8	7.1				3.0	6.1	0.0	0.0	4.1	0.0
Prop In Lane	1.00		0.60				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	247	246	234				75	2437	1090	0	2051	918
V/C Ratio(X)	0.68	0.72	0.75				3.86	0.32	0.00	0.00	0.21	0.00
Avail Cap(c_a), veh/h	753	751	713				75	2437	1090	0	2051	918
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.67	0.67	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.6	28.8	28.9				33.5	4.2	0.0	0.0	6.9	0.0
Incr Delay (d2), s/veh	1.3	1.5	1.8				1310.5	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.4	3.4				28.9	3.0	0.0	0.0	2.1	0.0
LnGrp Delay(d),s/veh	29.9	30.3	30.8				1344.0	4.4	0.0	0.0	7.1	0.0
LnGrp LOS	C	C	C				F	A			A	
Approach Vol, veh/h		523						1068			434	
Approach Delay, s/veh		30.3						369.4			7.1	
Approach LOS		C						F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		54.1		15.9	7.7	46.4		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		8.1		9.1	5.0	6.1		
Green Ext Time (p_c), s		3.5		0.3	0.0	1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	204.2
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	35	153	24	0	173	0	1070	25	68	473	0
Future Volume (veh/h)	45	35	153	24	0	173	0	1070	25	68	473	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	57	44	194	32	0	228	0	1244	29	76	526	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.76	0.76	0.76	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	197	152	303	0	0	0	0	1975	46	106	1995	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.57	0.00
Sat Flow, veh/h	1012	782	1558		0		0	5226	118	1757	3597	0
Grp Volume(v), veh/h	101	0	194		0.0		0	825	448	76	526	0
Grp Sat Flow(s),veh/h/ln	1794	0	1558				0	1679	1821	1757	1752	0
Q Serve(g_s), s	1.6	0.0	3.9				0.0	6.7	6.7	1.4	2.6	0.0
Cycle Q Clear(g_c), s	1.6	0.0	3.9				0.0	6.7	6.7	1.4	2.6	0.0
Prop In Lane	0.56		1.00				0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	349	0	303				0	1311	711	106	1995	0
V/C Ratio(X)	0.29	0.00	0.64				0.00	0.63	0.63	0.72	0.26	0.00
Avail Cap(c_a), veh/h	955	0	830				0	1589	862	208	2488	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.6	0.0	12.5				0.0	8.3	8.3	15.6	3.7	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.3				0.0	0.6	1.1	8.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.9				0.0	3.2	3.6	0.9	1.3	0.0
LnGrp Delay(d),s/veh	12.1	0.0	14.8				0.0	8.9	9.4	24.3	3.8	0.0
LnGrp LOS	B		B					A	A	C	A	
Approach Vol, veh/h		295						1273			602	
Approach Delay, s/veh		13.9						9.1			6.4	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		10.6		23.2			6.0	17.2
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		18.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		5.9		4.6			3.4	8.7
Green Ext Time (p_c), s		0.9		3.3			0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	33.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	294	39	133	737	5	45	5	46	12	8	23
Future Vol, veh/h	9	294	39	133	737	5	45	5	46	12	8	23
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	60	60	60	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	377	50	156	867	6	75	8	77	16	10	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	873	0	0	427	0	0	1630	1611	402	1612	1633	872
Stage 1	-	-	-	-	-	-	426	426	-	1182	1182	-
Stage 2	-	-	-	-	-	-	1204	1185	-	430	451	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	768	-	-	1127	-	-	81	104	646	83	101	348
Stage 1	-	-	-	-	-	-	604	584	-	230	262	-
Stage 2	-	-	-	-	-	-	224	261	-	601	569	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	768	-	-	1127	-	-	~ 59	88	646	60	86	347
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 59	88	-	60	86	-
Stage 1	-	-	-	-	-	-	594	575	-	226	226	-
Stage 2	-	-	-	-	-	-	168	225	-	514	560	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.3	$ 318.6	58.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	110	768	-	-	1127	-	-	120
HCM Lane V/C Ratio	1.455	0.015	-	-	0.139	-	-	0.465
HCM Control Delay (s)	$ 318.6	9.8	-	-	8.7	-	-	58.8
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	11.5	0	-	-	0.5	-	-	2.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	214	728	180	619	2	284	11	112	15	24	22
Future Volume (veh/h)	18	214	728	180	619	2	284	11	112	15	24	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	20	243	0	198	680	2	369	0	0	19	30	28
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.79	0.79	0.79	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	34	557	473	249	780	2	574	0	256	42	67	63
Arrive On Green	0.02	0.30	0.00	0.14	0.42	0.42	0.16	0.00	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1757	1845	1568	1757	1838	5	3514	0	1568	417	658	614
Grp Volume(v), veh/h	20	243	0	198	0	682	369	0	0	77	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1843	1757	0	1568	1689	0	0
Q Serve(g_s), s	0.6	5.8	0.0	6.0	0.0	18.6	5.4	0.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	0.6	5.8	0.0	6.0	0.0	18.6	5.4	0.0	0.0	2.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.25		0.36
Lane Grp Cap(c), veh/h	34	557	473	249	0	782	574	0	256	172	0	0
V/C Ratio(X)	0.59	0.44	0.00	0.80	0.00	0.87	0.64	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	128	672	571	384	0	940	1023	0	457	492	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.7	15.4	0.0	22.8	0.0	14.4	21.5	0.0	0.0	23.2	0.0	0.0
Incr Delay (d2), s/veh	15.6	0.5	0.0	6.3	0.0	7.8	1.2	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.1	0.0	3.4	0.0	11.0	2.7	0.0	0.0	1.2	0.0	0.0
LnGrp Delay(d),s/veh	42.3	16.0	0.0	29.1	0.0	22.3	22.7	0.0	0.0	25.0	0.0	0.0
LnGrp LOS	D	B		C		C	C			C		
Approach Vol, veh/h		263			880			369			77	
Approach Delay, s/veh		18.0			23.8			22.7			25.0	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.0	11.8	20.6		9.6	5.1	27.3
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		16.0	12.0	20.0		16.0	4.0	28.0
Max Q Clear Time (g_c+I1), s		7.4	8.0	7.8		4.4	2.6	20.6
Green Ext Time (p_c), s		0.9	0.2	1.0		0.2	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	564	207	342	512	7	626	0	443	14	2	10
Future Volume (veh/h)	8	564	207	342	512	7	626	0	443	14	2	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	9	648	238	407	610	8	652	0	461	24	3	17
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.96	0.96	0.96	0.59	0.59	0.59
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	16	623	269	390	1384	18	859	0	1462	163	20	116
Arrive On Green	0.01	0.18	0.18	0.22	0.39	0.39	0.24	0.00	0.24	0.18	0.18	0.18
Sat Flow, veh/h	1757	3505	1515	1757	3540	46	3514	0	3130	918	115	650
Grp Volume(v), veh/h	9	648	238	407	302	316	652	0	461	44	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1515	1757	1752	1834	1757	0	1565	1683	0	0
Q Serve(g_s), s	0.5	16.0	13.8	20.0	11.4	11.4	15.5	0.0	8.3	2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	16.0	13.8	20.0	11.4	11.4	15.5	0.0	8.3	2.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.55		0.39
Lane Grp Cap(c), veh/h	16	623	269	390	685	717	859	0	1462	299	0	0
V/C Ratio(X)	0.57	1.04	0.88	1.04	0.44	0.44	0.76	0.00	0.32	0.15	0.00	0.00
Avail Cap(c_a), veh/h	78	623	269	390	685	717	859	0	1462	299	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.4	37.0	36.1	35.0	20.2	20.2	31.5	0.0	15.0	31.2	0.0	0.0
Incr Delay (d2), s/veh	28.8	46.9	27.3	57.0	0.4	0.4	6.2	0.0	0.6	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	11.8	7.8	15.8	5.6	5.9	8.3	0.0	3.7	1.0	0.0	0.0
LnGrp Delay(d),s/veh	73.2	83.9	63.4	92.0	20.6	20.6	37.8	0.0	15.6	32.3	0.0	0.0
LnGrp LOS	E	F	E	F	C	C	D		B	C		
Approach Vol, veh/h		895			1025			1113			44	
Approach Delay, s/veh		78.3			49.0			28.6			32.3	
Approach LOS		E			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		26.0	24.0	20.0		20.0	4.8	39.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		22.0	20.0	16.0		16.0	4.0	32.0
Max Q Clear Time (g_c+I1), s		17.5	22.0	18.0		4.0	2.5	13.4
Green Ext Time (p_c), s		2.0	0.0	0.0		0.1	0.0	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	49.9
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	48	995	72	0	1611
Future Vol, veh/h	0	48	995	72	0	1611
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	71	71	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	66	1401	101	0	1678

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	761	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	297	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	295	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	295	-
HCM Lane V/C Ratio	-	-	0.223	-
HCM Control Delay (s)	-	-	20.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.8	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	20	0	0	0	16	2068	0	0	810	18
Future Volume (veh/h)	15	0	20	0	0	0	16	2068	0	0	810	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	19	0	25	0	0	0	19	2433	0	0	880	20
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	208	19	231	0	498	0	50	2208	0	0	1965	45
Arrive On Green	0.27	0.00	0.27	0.00	0.00	0.00	0.03	0.63	0.00	0.00	0.56	0.56
Sat Flow, veh/h	580	71	855	0	1845	0	1757	3597	0	0	3594	80
Grp Volume(v), veh/h	44	0	0	0	0	0	19	2433	0	0	440	460
Grp Sat Flow(s),veh/h/ln	1505	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	63.0	0.0	0.0	14.7	14.7
Cycle Q Clear(g_c), s	2.0	0.0	0.0	0.0	0.0	0.0	1.1	63.0	0.0	0.0	14.7	14.7
Prop In Lane	0.43		0.57	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	458	0	0	0	498	0	50	2208	0	0	984	1026
V/C Ratio(X)	0.10	0.00	0.00	0.00	0.00	0.00	0.38	1.10	0.00	0.00	0.45	0.45
Avail Cap(c_a), veh/h	458	0	0	0	498	0	123	2208	0	0	984	1026
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	0.0	0.0	0.0	0.0	0.0	47.7	18.5	0.0	0.0	12.9	12.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	1.7	53.4	0.0	0.0	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.0	0.0	0.0	0.5	46.4	0.0	0.0	7.5	7.8
LnGrp Delay(d),s/veh	27.8	0.0	0.0	0.0	0.0	0.0	49.4	71.9	0.0	0.0	14.3	14.3
LnGrp LOS	C						D	F			B	B
Approach Vol, veh/h		44			0			2452			900	
Approach Delay, s/veh		27.8			0.0			71.7			14.3	
Approach LOS		C						E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		68.4		31.6	6.9	61.5		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		63.0		27.0	7.0	* 52		27.0
Max Q Clear Time (g_c+I1), s		65.0		4.0	3.1	16.7		0.0
Green Ext Time (p_c), s		0.0		0.2	0.0	9.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.9
HCM 2010 LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	9	34	0	36	5	2049	53	22	797	2
Future Volume (veh/h)	2	0	9	34	0	36	5	2049	53	22	797	2
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	4	0	16	42	0	0	6	2383	0	25	896	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	79	19	255	343	0	322	24	2269	1015	65	2351	0
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.00	0.01	0.65	0.00	0.04	0.67	0.00
Sat Flow, veh/h	217	94	1242	1394	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	20	0	0	42	0	0	6	2383	0	25	896	0
Grp Sat Flow(s),veh/h/ln	1552	0	0	1394	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	0.4	82.0	0.0	1.8	14.3	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	2.8	0.0	0.0	0.4	82.0	0.0	1.8	14.3	0.0
Prop In Lane	0.20		0.80	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	353	0	0	343	0	322	24	2269	1015	65	2351	0
V/C Ratio(X)	0.06	0.00	0.00	0.12	0.00	0.00	0.25	1.05	0.00	0.39	0.38	0.00
Avail Cap(c_a), veh/h	353	0	0	343	0	322	125	2269	1015	111	2351	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.5	0.0	0.0	41.1	0.0	0.0	61.9	22.3	0.0	59.6	9.2	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	2.0	33.8	0.0	1.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.3	0.0	0.0	0.2	49.7	0.0	0.9	7.0	0.0
LnGrp Delay(d),s/veh	40.8	0.0	0.0	41.8	0.0	0.0	63.9	56.1	0.0	61.0	9.7	0.0
LnGrp LOS	D			D			E	F		E	A	
Approach Vol, veh/h		20			42			2389			921	
Approach Delay, s/veh		40.8			41.8			56.1			11.1	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	90.4		30.6	8.7	87.4		30.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 81		26.0	8.0	82.0		26.0
Max Q Clear Time (g_c+I1), s	2.4	16.3		3.3	3.8	84.0		4.8
Green Ext Time (p_c), s	0.0	11.7		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	43.6
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	80	99	2086	823	21
Future Volume (veh/h)	21	80	99	2086	823	21
Number	3	18	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	22	0	115	2426	885	23
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.86	0.86	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	438	391	143	2278	1854	812
Arrive On Green	0.25	0.00	0.08	0.65	0.53	0.53
Sat Flow, veh/h	1757	1568	1757	3597	3597	1534
Grp Volume(v), veh/h	22	0	115	2426	885	23
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1534
Q Serve(g_s), s	1.0	0.0	6.5	65.2	16.0	0.7
Cycle Q Clear(g_c), s	1.0	0.0	6.5	65.2	16.0	0.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	438	391	143	2278	1854	812
V/C Ratio(X)	0.05	0.00	0.81	1.06	0.48	0.03
Avail Cap(c_a), veh/h	438	391	210	2278	1854	812
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	1.00
Uniform Delay (d), s/veh	28.6	0.0	45.3	17.5	14.9	11.3
Incr Delay (d2), s/veh	0.2	0.0	8.0	38.9	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	3.4	43.3	7.8	0.3
LnGrp Delay(d),s/veh	28.8	0.0	53.3	56.4	15.8	11.4
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	22			2541	908	
Approach Delay, s/veh	28.8			56.3	15.7	
Approach LOS	C			E	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		70.6			12.1	58.5		29.7
Change Period (Y+Rc), s		* 5.4			4.0	5.4		4.7
Max Green Setting (Gmax), s		* 65			12.0	48.9		25.0
Max Q Clear Time (g_c+I1), s		67.2			8.5	18.0		3.0
Green Ext Time (p_c), s		0.0			0.0	10.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1	118	40	4	18	121	2123	43	17	839	39
Future Volume (veh/h)	52	1	118	40	4	18	121	2123	43	17	839	39
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.93		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	71	1	0	49	5	22	132	2308	47	18	883	41
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	265	3	247	185	25	67	154	2480	1103	47	1846	804
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.10	0.71	0.71	0.03	0.65	0.65
Sat Flow, veh/h	1334	21	1568	884	156	424	1616	3505	1559	1433	2859	1245
Grp Volume(v), veh/h	72	0	0	76	0	0	132	2308	47	18	883	41
Grp Sat Flow(s),veh/h/ln	1355	0	1568	1463	0	0	1616	1752	1559	1433	1430	1245
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.0	10.4	73.1	1.2	1.6	20.5	1.6
Cycle Q Clear(g_c), s	5.6	0.0	0.0	5.1	0.0	0.0	10.4	73.1	1.2	1.6	20.5	1.6
Prop In Lane	0.99		1.00	0.64		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	0	247	276	0	0	154	2480	1103	47	1846	804
V/C Ratio(X)	0.27	0.00	0.00	0.28	0.00	0.00	0.86	0.93	0.04	0.38	0.48	0.05
Avail Cap(c_a), veh/h	325	0	314	335	0	0	249	2480	1103	99	1846	804
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	0.0	0.0	48.2	0.0	0.0	57.8	16.2	5.7	61.4	11.8	8.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	8.4	7.8	0.1	1.8	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	2.4	0.0	0.0	5.0	37.6	0.5	0.7	8.3	0.6
LnGrp Delay(d),s/veh	48.6	0.0	0.0	48.4	0.0	0.0	66.2	24.0	5.8	63.2	12.7	8.5
LnGrp LOS	D			D			E	C	A	E	B	A
Approach Vol, veh/h		72			76			2487			942	
Approach Delay, s/veh		48.6			48.4			25.9			13.5	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	96.9		24.5	16.4	88.8		24.5
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	91.8		26.0	20.0	80.8		26.0
Max Q Clear Time (g_c+I1), s	12.6	75.1		7.1	12.4	22.5		7.6
Green Ext Time (p_c), s	0.0	15.6		0.2	0.0	11.7		0.2

Intersection Summary			
HCM 2010 Ctrl Delay		23.6	
HCM 2010 LOS		C	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	582	114	62	158	94	132	48	1486	137	147	759	269
Future Volume (veh/h)	582	114	62	158	94	132	48	1486	137	147	759	269
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.94	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	710	139	76	156	171	163	52	1598	147	184	949	336
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	228	125	142	149	107	94	1590	668	155	1417	597
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.05	0.45	0.45	0.11	0.51	0.51
Sat Flow, veh/h	3408	1096	599	1757	1845	1329	1757	3505	1473	1387	2767	1167
Grp Volume(v), veh/h	710	0	215	156	171	163	52	1598	147	184	949	336
Grp Sat Flow(s),veh/h/ln	1704	0	1695	1757	1845	1329	1757	1752	1473	1387	1383	1167
Q Serve(g_s), s	26.0	0.0	14.4	10.1	10.1	10.1	3.6	56.7	7.6	14.0	31.8	24.7
Cycle Q Clear(g_c), s	26.0	0.0	14.4	10.1	10.1	10.1	3.6	56.7	7.6	14.0	31.8	24.7
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	352	142	149	107	94	1590	668	155	1417	597
V/C Ratio(X)	1.00	0.00	0.61	1.10	1.15	1.52	0.55	1.01	0.22	1.18	0.67	0.56
Avail Cap(c_a), veh/h	709	0	352	142	149	107	126	1590	668	155	1417	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	44.9	57.5	57.5	57.4	57.7	34.1	20.7	55.5	22.6	20.9
Incr Delay (d2), s/veh	34.2	0.0	2.2	104.5	118.8	274.6	1.9	23.8	0.8	130.4	2.5	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.6	0.0	7.0	9.0	10.1	11.9	1.8	32.6	3.2	11.0	12.6	8.6
LnGrp Delay(d),s/veh	83.7	0.0	47.1	162.0	176.2	332.1	59.6	58.0	21.5	185.9	25.2	24.7
LnGrp LOS	F		D	F	F	F	E	F	C	F	C	C
Approach Vol, veh/h		925			490			1797			1469	
Approach Delay, s/veh		75.2			223.5			55.0			45.2	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	10.7	69.1		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	16.0	58.7		12.1	5.6	33.8		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	12.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	73.6
HCM 2010 LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	413	257	0	0	0	243	557	379	0	503	407
Future Volume (veh/h)	239	413	257	0	0	0	243	557	379	0	503	407
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	241	417	260				270	619	0	0	529	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.99	0.99	0.99				0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	475	561	346				276	1688	755	0	781	350
Arrive On Green	0.27	0.27	0.27				0.16	0.48	0.00	0.00	0.22	0.00
Sat Flow, veh/h	1757	2075	1281				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	241	351	326				270	619	0	0	529	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1603				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	5.4	8.5	8.6				7.1	5.2	0.0	0.0	6.4	0.0
Cycle Q Clear(g_c), s	5.4	8.5	8.6				7.1	5.2	0.0	0.0	6.4	0.0
Prop In Lane	1.00		0.80				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	475	474	434				276	1688	755	0	781	350
V/C Ratio(X)	0.51	0.74	0.75				0.98	0.37	0.00	0.00	0.68	0.00
Avail Cap(c_a), veh/h	1250	1247	1141				276	2682	1200	0	1776	794
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	14.3	15.4	15.5				19.5	7.6	0.0	0.0	16.5	0.0
Incr Delay (d2), s/veh	0.3	0.9	1.0				47.3	0.0	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.2	3.9				7.0	2.5	0.0	0.0	3.1	0.0
LnGrp Delay(d),s/veh	14.6	16.3	16.5				66.8	7.6	0.0	0.0	16.9	0.0
LnGrp LOS	B	B	B				E	A			B	
Approach Vol, veh/h		918						889			529	
Approach Delay, s/veh		15.9						25.6			16.9	
Approach LOS		B						C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		27.7		18.6	12.0	15.7		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		35.5		33.0	* 7.3	23.5		
Max Q Clear Time (g_c+I1), s		7.2		10.6	9.1	8.4		
Green Ext Time (p_c), s		2.8		0.7	0.0	1.9		

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	63	184	28	0	115	0	989	24	128	622	0
Future Volume (veh/h)	53	63	184	28	0	115	0	989	24	128	622	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	56	66	194	41	0	169	0	1124	27	160	778	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.68	0.68	0.68	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	159	187	300	0	0	0	0	1798	43	205	2047	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.36	0.36	0.12	0.58	0.00
Sat Flow, veh/h	828	976	1563		0		0	5222	121	1757	3597	0
Grp Volume(v), veh/h	122	0	194		0.0		0	746	405	160	778	0
Grp Sat Flow(s),veh/h/ln	1803	0	1563				0	1679	1820	1757	1752	0
Q Serve(g_s), s	2.1	0.0	4.1				0.0	6.6	6.6	3.2	4.2	0.0
Cycle Q Clear(g_c), s	2.1	0.0	4.1				0.0	6.6	6.6	3.2	4.2	0.0
Prop In Lane	0.46		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	346	0	300				0	1194	647	205	2047	0
V/C Ratio(X)	0.35	0.00	0.65				0.00	0.63	0.63	0.78	0.38	0.00
Avail Cap(c_a), veh/h	858	0	744				0	1503	815	344	2648	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.5	0.0	13.3				0.0	9.5	9.5	15.3	4.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.3				0.0	0.5	1.0	6.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.9				0.0	3.1	3.4	1.9	2.0	0.0
LnGrp Delay(d),s/veh	13.1	0.0	15.6				0.0	10.1	10.5	21.7	4.1	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		316						1151			938	
Approach Delay, s/veh		14.7						10.2			7.1	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		10.9		24.9			8.2	16.7
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		27.0			7.0	16.0
Max Q Clear Time (g_c+I1), s		6.1		6.2			5.2	8.6
Green Ext Time (p_c), s		1.0		5.3			0.1	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	744	56	62	276	4	33	9	122	11	7	16
Future Vol, veh/h	10	744	56	62	276	4	33	9	122	11	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	83	83	83	80	80	80	65	65	65
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	954	72	75	333	5	41	11	153	17	11	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	338	0	0	1026	0	0	1520	1504	990	1508	1538	336
Stage 1	-	-	-	-	-	-	1016	1016	-	486	486	-
Stage 2	-	-	-	-	-	-	504	488	-	1022	1052	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1216	-	-	673	-	-	97	121	298	99	115	704
Stage 1	-	-	-	-	-	-	286	314	-	561	549	-
Stage 2	-	-	-	-	-	-	548	548	-	283	302	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1216	-	-	673	-	-	78	106	298	40	101	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	106	-	40	101	-
Stage 1	-	-	-	-	-	-	283	311	-	555	488	-
Stage 2	-	-	-	-	-	-	460	487	-	132	299	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2	33.6	84.9
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	323	1216	-	-	673	-	-	93
HCM Lane V/C Ratio	0.635	0.011	-	-	0.111	-	-	0.562
HCM Control Delay (s)	33.6	8	-	-	11	-	-	84.9
HCM Lane LOS	D	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	4.1	0	-	-	0.4	-	-	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	580	1011	98	223	4	274	9	222	7	16	12
Future Volume (veh/h)	27	580	1011	98	223	4	274	9	222	7	16	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	29	630	0	122	279	5	311	0	0	10	22	16
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.90	0.90	0.90	0.73	0.73	0.73
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	46	728	619	155	826	15	503	0	225	31	68	49
Arrive On Green	0.03	0.39	0.00	0.09	0.46	0.46	0.14	0.00	0.00	0.09	0.09	0.09
Sat Flow, veh/h	1757	1845	1568	1757	1807	32	3514	0	1568	355	781	568
Grp Volume(v), veh/h	29	630	0	122	0	284	311	0	0	48	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1839	1757	0	1568	1705	0	0
Q Serve(g_s), s	0.9	17.5	0.0	3.8	0.0	5.5	4.6	0.0	0.0	1.5	0.0	0.0
Cycle Q Clear(g_c), s	0.9	17.5	0.0	3.8	0.0	5.5	4.6	0.0	0.0	1.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.21		0.33
Lane Grp Cap(c), veh/h	46	728	619	155	0	841	503	0	225	148	0	0
V/C Ratio(X)	0.64	0.86	0.00	0.79	0.00	0.34	0.62	0.00	0.00	0.33	0.00	0.00
Avail Cap(c_a), veh/h	158	894	760	158	0	891	1009	0	450	490	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.9	15.5	0.0	24.9	0.0	9.7	22.4	0.0	0.0	23.9	0.0	0.0
Incr Delay (d2), s/veh	13.7	7.6	0.0	22.5	0.0	0.2	1.2	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	10.3	0.0	2.8	0.0	2.8	2.3	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d),s/veh	40.6	23.0	0.0	47.4	0.0	9.9	23.7	0.0	0.0	25.2	0.0	0.0
LnGrp LOS	D	C		D		A	C			C		
Approach Vol, veh/h		659			406			311			48	
Approach Delay, s/veh		23.8			21.2			23.7			25.2	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.0	8.9	26.0		8.8	5.4	29.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		16.0	5.0	27.0		16.0	5.0	27.0
Max Q Clear Time (g_c+I1), s		6.6	5.8	19.5		3.5	2.9	7.5
Green Ext Time (p_c), s		0.8	0.0	2.5		0.1	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	914	238	248	248	13	428	0	689	14	5	7
Future Volume (veh/h)	8	914	238	248	248	13	428	0	689	14	5	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	8	952	248	306	306	16	465	0	749	22	8	11
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	14	1012	441	293	1516	79	664	0	1115	164	60	82
Arrive On Green	0.01	0.29	0.29	0.17	0.45	0.45	0.19	0.00	0.19	0.18	0.18	0.18
Sat Flow, veh/h	1757	3505	1527	1757	3389	176	3514	0	3136	921	335	461
Grp Volume(v), veh/h	8	952	248	306	158	164	465	0	749	41	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1527	1757	1752	1813	1757	0	1568	1717	0	0
Q Serve(g_s), s	0.4	23.9	12.4	15.0	4.9	5.0	11.1	0.0	17.0	1.8	0.0	0.0
Cycle Q Clear(g_c), s	0.4	23.9	12.4	15.0	4.9	5.0	11.1	0.0	17.0	1.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	0.54		0.27
Lane Grp Cap(c), veh/h	14	1012	441	293	784	811	664	0	1115	305	0	0
V/C Ratio(X)	0.57	0.94	0.56	1.04	0.20	0.20	0.70	0.00	0.67	0.13	0.00	0.00
Avail Cap(c_a), veh/h	78	1013	441	293	784	811	664	0	1115	305	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.5	31.3	27.2	37.5	15.1	15.1	34.1	0.0	24.5	31.1	0.0	0.0
Incr Delay (d2), s/veh	30.9	16.1	1.6	64.7	0.1	0.1	6.1	0.0	3.2	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	13.8	5.4	12.5	2.4	2.5	5.9	0.0	8.3	0.9	0.0	0.0
LnGrp Delay(d),s/veh	75.3	47.3	28.8	102.2	15.2	15.2	40.2	0.0	27.8	32.1	0.0	0.0
LnGrp LOS	E	D	C	F	B	B	D		C	C		
Approach Vol, veh/h		1208			628			1214			41	
Approach Delay, s/veh		43.7			57.6			32.5			32.1	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		21.0	19.0	30.0		20.0	4.7	44.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		17.0	15.0	26.0		16.0	4.0	37.0
Max Q Clear Time (g_c+I1), s		19.0	17.0	25.9		3.8	2.4	7.0
Green Ext Time (p_c), s		0.0	0.0	0.1		0.1	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	42.0
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	1681	84	0	974
Future Vol, veh/h	0	16	1681	84	0	974
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	94	94	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	24	1788	89	0	1059

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	949	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	223	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	221	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	221	-
HCM Lane V/C Ratio	-	-	0.108	-
HCM Control Delay (s)	-	-	23.3	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	24	0	0	0	17	2480	0	0	797	17
Future Volume (veh/h)	11	0	24	0	0	0	17	2480	0	0	797	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	15	0	33	0	0	0	18	2583	0	0	866	18
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.73	0.73	0.73	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	248	36	458	0	803	0	53	1413	0	0	1083	23
Arrive On Green	0.44	0.00	0.44	0.00	0.00	0.00	0.03	0.40	0.00	0.00	0.31	0.31
Sat Flow, veh/h	395	83	1052	0	1845	0	1757	3597	0	0	3602	73
Grp Volume(v), veh/h	48	0	0	0	0	0	18	2583	0	0	432	452
Grp Sat Flow(s),veh/h/ln	1531	0	0	0	1845	0	1757	1752	0	0	1752	1830
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.6	25.0	0.0	0.0	14.0	14.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	0.0	0.0	0.6	25.0	0.0	0.0	14.0	14.0
Prop In Lane	0.31		0.69	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	743	0	0	0	803	0	53	1413	0	0	541	565
V/C Ratio(X)	0.06	0.00	0.00	0.00	0.00	0.00	0.34	1.83	0.00	0.00	0.80	0.80
Avail Cap(c_a), veh/h	743	0	0	0	803	0	198	1413	0	0	541	565
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	29.5	18.5	0.0	0.0	19.7	19.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	1.4	375.3	0.0	0.0	11.7	11.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	0.3	85.6	0.0	0.0	8.5	8.8
LnGrp Delay(d),s/veh	10.3	0.0	0.0	0.0	0.0	0.0	30.9	393.8	0.0	0.0	31.4	31.0
LnGrp LOS	B						C	F			C	C
Approach Vol, veh/h		48			0			2601			884	
Approach Delay, s/veh		10.3			0.0			391.2			31.2	
Approach LOS		B						F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		30.4		31.6	5.9	24.5		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		25.0		27.0	7.0	* 14		27.0
Max Q Clear Time (g_c+I1), s		27.0		3.1	2.6	16.0		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	296.0
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	26	0	26	6	2466	44	32	795	1
Future Volume (veh/h)	2	0	10	26	0	26	6	2466	44	32	795	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	5	0	23	36	0	0	6	2542	0	35	864	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.43	0.43	0.43	0.72	0.72	0.72	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	130	38	455	606	0	556	25	1265	566	103	1420	0
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.00	0.01	0.36	0.00	0.06	0.41	0.00
Sat Flow, veh/h	172	106	1283	1382	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	28	0	0	36	0	0	6	2542	0	35	864	0
Grp Sat Flow(s),veh/h/ln	1562	0	0	1382	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22.4	0.0	1.2	12.1	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.9	0.0	0.0	0.2	22.4	0.0	1.2	12.1	0.0
Prop In Lane	0.18		0.82	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	623	0	0	606	0	556	25	1265	566	103	1420	0
V/C Ratio(X)	0.04	0.00	0.00	0.06	0.00	0.00	0.24	2.01	0.00	0.34	0.61	0.00
Avail Cap(c_a), veh/h	623	0	0	606	0	556	255	1265	566	227	1420	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	13.2	0.0	0.0	30.2	19.8	0.0	28.0	14.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	0.0	0.2	454.5	0.0	0.7	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.4	0.0	0.0	0.1	90.6	0.0	0.6	6.1	0.0
LnGrp Delay(d),s/veh	13.3	0.0	0.0	13.4	0.0	0.0	30.4	474.3	0.0	28.8	16.5	0.0
LnGrp LOS	B			B			C	F		C	B	
Approach Vol, veh/h		28			36			2548			899	
Approach Delay, s/veh		13.3			13.4			473.3			17.0	
Approach LOS		B			B			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	30.5		26.6	7.6	27.8		26.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 17		22.0	8.0	18.0		22.0
Max Q Clear Time (g_c+I1), s	2.2	14.1		2.7	3.2	24.4		2.9
Green Ext Time (p_c), s	0.0	2.0		0.0	0.0	0.0		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	348.0	
HCM 2010 LOS	F	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	93	127	2513	813	29
Future Volume (veh/h)	19	93	127	2513	813	29
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	21	0	134	2645	856	31
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	480	428	164	2194	1727	757
Arrive On Green	0.27	0.00	0.09	0.63	0.49	0.49
Sat Flow, veh/h	1757	1568	1757	3597	3597	1535
Grp Volume(v), veh/h	21	0	134	2645	856	31
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1535
Q Serve(g_s), s	0.9	0.0	7.5	62.6	16.4	1.0
Cycle Q Clear(g_c), s	0.9	0.0	7.5	62.6	16.4	1.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	480	428	164	2194	1727	757
V/C Ratio(X)	0.04	0.00	0.82	1.21	0.50	0.04
Avail Cap(c_a), veh/h	480	428	264	2194	1727	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.81	0.81
Uniform Delay (d), s/veh	26.7	0.0	44.5	18.7	17.0	13.1
Incr Delay (d2), s/veh	0.2	0.0	4.5	97.1	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	3.9	59.4	8.0	0.5
LnGrp Delay(d),s/veh	26.9	0.0	49.0	115.8	17.9	13.2
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	21			2779	887	
Approach Delay, s/veh	26.9			112.6	17.7	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.3	54.7				68.0		32.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	15.6	* 44				62.6		27.3
Max Q Clear Time (g_c+I1), s	9.5	18.4				64.6		2.9
Green Ext Time (p_c), s	0.1	9.0				0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	89.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1	65	32	0	17	108	2571	46	13	851	35
Future Volume (veh/h)	51	1	65	32	0	17	108	2571	46	13	851	35
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	63	1	0	47	0	25	111	2651	47	14	925	38
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.81	0.81	0.81	0.68	0.68	0.68	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	349	5	257	237	19	85	200	2088	913	40	1429	625
Arrive On Green	0.16	0.16	0.00	0.16	0.00	0.16	0.12	0.60	0.60	0.03	0.50	0.50
Sat Flow, veh/h	1427	28	1568	861	117	520	1616	3505	1533	1433	2859	1251
Grp Volume(v), veh/h	64	0	0	72	0	0	111	2651	47	14	925	38
Grp Sat Flow(s),veh/h/ln	1456	0	1568	1499	0	0	1616	1752	1533	1433	1430	1251
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.0	4.0	36.9	0.8	0.6	14.8	1.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0	2.3	0.0	0.0	4.0	36.9	0.8	0.6	14.8	1.0
Prop In Lane	0.98		1.00	0.65		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	0	257	341	0	0	200	2088	913	40	1429	625
V/C Ratio(X)	0.18	0.00	0.00	0.21	0.00	0.00	0.56	1.27	0.05	0.35	0.65	0.06
Avail Cap(c_a), veh/h	615	0	556	616	0	0	235	2088	913	185	1429	625
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	22.6	0.0	0.0	25.6	12.5	5.2	29.6	11.5	8.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.1	121.7	0.0	2.0	2.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.1	0.0	0.0	1.8	52.7	0.3	0.3	6.2	0.4
LnGrp Delay(d),s/veh	22.6	0.0	0.0	22.7	0.0	0.0	25.6	134.3	5.2	31.6	13.8	8.2
LnGrp LOS	C			C			C	F	A	C	B	A
Approach Vol, veh/h		64			72			2809			977	
Approach Delay, s/veh		22.6			22.7			127.8			13.8	
Approach LOS		C			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.7	36.1		14.3	5.7	42.0		14.3
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	17.8		22.0	8.0	18.8		22.0
Max Q Clear Time (g_c+I1), s	10.3	16.8		4.3	2.6	38.9		4.0
Green Ext Time (p_c), s	0.0	0.7		0.2	0.0	0.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	95.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	783	116	24	157	78	272	23	1534	125	159	714	195
Future Volume (veh/h)	783	116	24	157	78	272	23	1534	125	159	714	195
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	842	125	26	130	147	299	24	1581	129	175	785	214
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	899	390	81	169	178	148	54	1458	637	123	1312	573
Arrive On Green	0.26	0.26	0.26	0.10	0.10	0.10	0.03	0.42	0.42	0.09	0.47	0.47
Sat Flow, veh/h	3408	1476	307	1757	1845	1539	1757	3505	1530	1387	2767	1209
Grp Volume(v), veh/h	842	0	151	130	147	299	24	1581	129	175	785	214
Grp Sat Flow(s),veh/h/ln	1704	0	1783	1757	1845	1539	1757	1752	1530	1387	1383	1209
Q Serve(g_s), s	32.6	0.0	9.2	9.7	10.6	13.0	1.8	56.2	7.3	12.0	28.1	15.3
Cycle Q Clear(g_c), s	32.6	0.0	9.2	9.7	10.6	13.0	1.8	56.2	7.3	12.0	28.1	15.3
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	899	0	471	169	178	148	54	1458	637	123	1312	573
V/C Ratio(X)	0.94	0.00	0.32	0.77	0.83	2.02	0.44	1.08	0.20	1.42	0.60	0.37
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1458	637	123	1312	573
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	48.6	0.0	40.0	59.5	59.9	61.0	64.3	39.4	25.1	61.5	26.0	22.7
Incr Delay (d2), s/veh	15.0	0.0	0.1	17.4	25.1	481.0	2.1	49.9	0.7	222.1	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.2	0.0	4.5	5.5	6.6	25.3	0.9	37.2	3.2	12.2	11.0	5.3
LnGrp Delay(d),s/veh	63.6	0.0	40.1	76.9	85.0	542.0	66.4	89.3	25.8	283.6	27.7	24.2
LnGrp LOS	E		D	E	F	F	E	F	C	F	C	C
Approach Vol, veh/h		993			576			1734			1174	
Approach Delay, s/veh		60.0			320.4			84.2			65.2	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.2	69.1		17.0	16.0	61.3		40.7
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.6	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	13.8	30.1		15.0	14.0	58.2		34.6
Green Ext Time (p_c), s	0.0	9.8		0.0	0.0	0.0		1.0

Intersection Summary		
HCM 2010 Ctrl Delay	104.3	
HCM 2010 LOS	F	

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	573	331	0	0	0	202	591	283	0	479	339
Future Volume (veh/h)	269	573	331	0	0	0	202	591	283	0	479	339
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	277	591	341				210	616	0	0	526	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	541	659	380				75	1850	827	0	1464	655
Arrive On Green	0.31	0.31	0.31				0.04	0.53	0.00	0.00	0.42	0.00
Sat Flow, veh/h	1757	2141	1235				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	277	484	448				210	616	0	0	526	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1624				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	9.1	18.5	18.5				3.0	7.0	0.0	0.0	7.2	0.0
Cycle Q Clear(g_c), s	9.1	18.5	18.5				3.0	7.0	0.0	0.0	7.2	0.0
Prop In Lane	1.00		0.76				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	541	540	500				75	1850	827	0	1464	655
V/C Ratio(X)	0.51	0.90	0.90				2.79	0.33	0.00	0.00	0.36	0.00
Avail Cap(c_a), veh/h	753	751	696				75	1850	827	0	1464	655
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.76	0.76	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.9	23.1	23.2				33.5	9.5	0.0	0.0	14.0	0.0
Incr Delay (d2), s/veh	0.3	8.4	9.0				832.6	0.4	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	10.1	9.5				18.9	3.4	0.0	0.0	3.6	0.0
LnGrp Delay(d),s/veh	20.2	31.6	32.2				866.1	9.8	0.0	0.0	14.7	0.0
LnGrp LOS	C	C	C				F	A			B	
Approach Vol, veh/h		1209						826			526	
Approach Delay, s/veh		29.2						227.5			14.7	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		42.3		27.7	7.7	34.6		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		9.0		20.5	5.0	9.2		
Green Ext Time (p_c), s		2.6		0.9	0.0	1.7		

Intersection Summary	
HCM 2010 Ctrl Delay	90.2
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	70	193	23	0	108	0	883	14	152	651	0
Future Volume (veh/h)	64	70	193	23	0	108	0	883	14	152	651	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	71	78	214	30	0	140	0	939	15	163	700	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	183	202	334	0	0	0	0	1650	26	203	1944	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.32	0.32	0.12	0.55	0.00
Sat Flow, veh/h	859	943	1561		0		0	5270	81	1757	3597	0
Grp Volume(v), veh/h	149	0	214		0.0		0	617	337	163	700	0
Grp Sat Flow(s),veh/h/ln	1802	0	1561				0	1679	1828	1757	1752	0
Q Serve(g_s), s	2.4	0.0	4.3				0.0	5.3	5.3	3.1	3.8	0.0
Cycle Q Clear(g_c), s	2.4	0.0	4.3				0.0	5.3	5.3	3.1	3.8	0.0
Prop In Lane	0.48		1.00				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	385	0	334				0	1085	591	203	1944	0
V/C Ratio(X)	0.39	0.00	0.64				0.00	0.57	0.57	0.80	0.36	0.00
Avail Cap(c_a), veh/h	887	0	768				0	1555	847	203	2435	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.6	0.0	12.4				0.0	9.7	9.7	14.9	4.3	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.1				0.0	0.5	0.9	20.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.0				0.0	2.5	2.8	2.6	1.8	0.0
LnGrp Delay(d),s/veh	12.3	0.0	14.4				0.0	10.2	10.6	35.0	4.4	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		363						954			863	
Approach Delay, s/veh		13.6						10.3			10.2	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		11.4		23.2			8.0	15.2
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		6.3		5.8			5.1	7.3
Green Ext Time (p_c), s		1.2		4.5			0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	10.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	832	60	68	275	8	37	7	93	3	11	10
Future Vol, veh/h	25	832	60	68	275	8	37	7	93	3	11	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	83	83	83	82	82	82	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	28	924	67	82	331	10	45	9	113	5	18	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	341	0	0	991	0	0	1532	1519	958	1518	1547	336
Stage 1	-	-	-	-	-	-	1014	1014	-	500	500	-
Stage 2	-	-	-	-	-	-	518	505	-	1018	1047	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1213	-	-	694	-	-	95	118	311	97	114	704
Stage 1	-	-	-	-	-	-	286	315	-	551	541	-
Stage 2	-	-	-	-	-	-	539	539	-	285	304	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1213	-	-	694	-	-	71	102	311	52	98	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	71	102	-	52	98	-
Stage 1	-	-	-	-	-	-	279	308	-	538	477	-
Stage 2	-	-	-	-	-	-	446	475	-	172	297	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.1	52.4	44.5
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	232	1213	-	-	694	-	-	130
HCM Lane V/C Ratio	0.72	0.023	-	-	0.118	-	-	0.308
HCM Control Delay (s)	52.4	8	-	-	10.9	-	-	44.5
HCM Lane LOS	F	A	-	-	B	-	-	E
HCM 95th %tile Q(veh)	4.8	0.1	-	-	0.4	-	-	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	686	1069	86	231	3	245	15	223	9	14	5
Future Volume (veh/h)	14	686	1069	86	231	3	245	15	223	9	14	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	15	722	0	100	269	3	269	0	0	12	18	6
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.95	0.95	0.95	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	27	665	566	130	764	9	471	0	210	54	81	27
Arrive On Green	0.02	0.36	0.00	0.07	0.42	0.42	0.13	0.00	0.00	0.09	0.09	0.09
Sat Flow, veh/h	1757	1845	1568	1757	1821	20	3514	0	1568	586	880	293
Grp Volume(v), veh/h	15	722	0	100	0	272	269	0	0	36	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1841	1757	0	1568	1759	0	0
Q Serve(g_s), s	0.4	17.0	0.0	2.6	0.0	4.7	3.4	0.0	0.0	0.9	0.0	0.0
Cycle Q Clear(g_c), s	0.4	17.0	0.0	2.6	0.0	4.7	3.4	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.33		0.17
Lane Grp Cap(c), veh/h	27	665	566	130	0	773	471	0	210	161	0	0
V/C Ratio(X)	0.56	1.08	0.00	0.77	0.00	0.35	0.57	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	149	665	566	559	0	1094	1193	0	532	597	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.1	15.1	0.0	21.4	0.0	9.3	19.1	0.0	0.0	19.9	0.0	0.0
Incr Delay (d2), s/veh	17.4	60.2	0.0	9.1	0.0	0.3	1.1	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	19.6	0.0	1.6	0.0	2.4	1.7	0.0	0.0	0.5	0.0	0.0
LnGrp Delay(d),s/veh	40.4	75.3	0.0	30.5	0.0	9.6	20.2	0.0	0.0	20.5	0.0	0.0
LnGrp LOS	D	F		C		A	C			C		
Approach Vol, veh/h		737			372			269			36	
Approach Delay, s/veh		74.5			15.2			20.2			20.5	
Approach LOS		E			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		10.3	7.5	21.0		8.3	4.7	23.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		16.0	15.0	17.0		16.0	4.0	28.0
Max Q Clear Time (g_c+I1), s		5.4	4.6	19.0		2.9	2.4	6.7
Green Ext Time (p_c), s		0.7	0.1	0.0		0.1	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	47.2
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1115	270	209	260	6	484	0	637	17	3	10
Future Volume (veh/h)	12	1115	270	209	260	6	484	0	637	17	3	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	13	1174	284	225	280	6	515	0	678	23	4	13
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.94	0.94	0.94	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	22	731	314	269	1225	26	863	0	1250	192	33	108
Arrive On Green	0.01	0.21	0.21	0.15	0.35	0.35	0.25	0.00	0.25	0.20	0.20	0.20
Sat Flow, veh/h	1757	3505	1504	1757	3508	75	3514	0	3136	977	170	552
Grp Volume(v), veh/h	13	1174	284	225	140	146	515	0	678	40	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1504	1757	1752	1831	1757	0	1568	1698	0	0
Q Serve(g_s), s	0.6	17.0	15.0	10.1	4.6	4.6	10.6	0.0	13.5	1.6	0.0	0.0
Cycle Q Clear(g_c), s	0.6	17.0	15.0	10.1	4.6	4.6	10.6	0.0	13.5	1.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.57		0.32
Lane Grp Cap(c), veh/h	22	731	314	269	612	639	863	0	1250	334	0	0
V/C Ratio(X)	0.59	1.61	0.91	0.84	0.23	0.23	0.60	0.00	0.54	0.12	0.00	0.00
Avail Cap(c_a), veh/h	86	731	314	453	731	764	863	0	1250	334	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.0	32.2	31.5	33.5	18.7	18.8	27.2	0.0	18.8	26.9	0.0	0.0
Incr Delay (d2), s/veh	22.8	278.8	28.1	6.8	0.2	0.2	3.0	0.0	1.7	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	36.4	8.7	5.4	2.2	2.3	5.4	0.0	6.1	0.8	0.0	0.0
LnGrp Delay(d),s/veh	62.8	311.0	59.6	40.3	18.9	18.9	30.2	0.0	20.5	27.7	0.0	0.0
LnGrp LOS	E	F	E	D	B	B	C		C	C		
Approach Vol, veh/h		1471			511			1193			40	
Approach Delay, s/veh		260.3			28.3			24.7			27.7	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		24.0	16.5	21.0		20.0	5.0	32.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		20.0	21.0	17.0		16.0	4.0	34.0
Max Q Clear Time (g_c+I1), s		15.5	12.1	19.0		3.6	2.6	6.6
Green Ext Time (p_c), s		2.2	0.4	0.0		0.1	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	133.1
HCM 2010 LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	1797	46	0	822
Future Vol, veh/h	0	12	1797	46	0	822
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	98	98	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	20	1834	47	0	956

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	945	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	224	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	223	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	223	-
HCM Lane V/C Ratio	-	-	0.09	-
HCM Control Delay (s)	-	-	22.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.3	-

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	9703	9691	9585	9764	9711	9690
Vehs Exited	9383	9350	9220	9432	9414	9359
Starting Vehs	516	449	483	421	501	472
Ending Vehs	836	790	848	753	798	796
Travel Distance (mi)	6554	6529	6491	6572	6543	6538
Travel Time (hr)	1379.3	1386.8	1412.0	1347.1	1406.2	1386.3
Total Delay (hr)	1163.6	1171.7	1198.0	1130.2	1190.9	1170.9
Total Stops	21426	21351	21308	22131	21816	21611
Fuel Used (gal)	495.2	497.0	500.3	488.7	500.9	496.4

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	9703	9691	9585	9764	9711	9690
Vehs Exited	9383	9350	9220	9432	9414	9359
Starting Vehs	516	449	483	421	501	472
Ending Vehs	836	790	848	753	798	796
Travel Distance (mi)	6554	6529	6491	6572	6543	6538
Travel Time (hr)	1379.3	1386.8	1412.0	1347.1	1406.2	1386.3
Total Delay (hr)	1163.6	1171.7	1198.0	1130.2	1190.9	1170.9
Total Stops	21426	21351	21308	22131	21816	21611
Fuel Used (gal)	495.2	497.0	500.3	488.7	500.9	496.4

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	49.4	110.4	0.1	6
SR 24 EB On Ramp	6	8.5	14.5	0.1	15
	17	1.3	6.2	0.1	40
	16	0.5	9.1	0.1	28
	15	0.7	9.7	0.1	40
Acalanes Avenue	14	1.4	9.4	0.1	24
	11	1.0	4.9	0.0	28
Stanley Boulevard	5	21.6	28.9	0.1	10
Quandt Road	4	5.8	37.3	0.4	43
	20	2.9	11.8	0.1	30
Reliez Valle Road	3	7.5	10.7	0.0	11
Greenvalley Drive	2	5.1	27.2	0.3	33
	19	1.1	7.6	0.1	34
Rancho View Drive	1	15.0	27.9	0.1	19
Total		121.6	315.4	1.6	22

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	140.9	1186.4	0.2	4
	19	109.2	124.4	0.1	4
Greenvalley Drive	2	64.8	71.6	0.1	4
Reliez Valle Road	3	200.2	224.1	0.3	4
	20	13.0	16.7	0.0	7
Springhill Road	4	56.2	65.4	0.1	5
Deer Hill Road	5	203.1	242.7	0.4	7
	11	5.4	14.0	0.1	20
Acalanes Avenue	14	2.8	6.7	0.0	21
	15	7.9	14.0	0.1	16
	16	6.6	15.4	0.1	25
	17	5.3	14.4	0.1	18
Mt. Diablo Boulevard	6	14.2	20.8	0.1	12
SR 24 EB Off Ramp	7	9.5	15.5	0.1	14
Total		839.0	2032.1	1.7	6

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	143.4	919.1	0.1	2
First Street	9	19.5	28.1	0.1	10
Brown Avenue	8	4.4	40.8	0.3	29
	13	3.0	45.0	0.5	41
	12	18.5	42.9	0.3	26
Pleasant Hill Road	5	80.1	103.0	0.1	2
Total		268.8	1178.8	1.4	13

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	12	2.4	9.6	0.1	22
	13	2.6	27.3	0.3	40
Miller Drive	8	5.4	62.3	0.5	30
Sierra Vista Way	9	16.8	53.4	0.3	22
Laurel Drive	10	16.9	25.8	0.1	11
Total		44.0	178.4	1.3	26

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	71	46	193	182	830	823
Average Queue (ft)	29	9	103	118	789	785
95th Queue (ft)	61	32	165	169	866	875
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)					78	79
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			1			
Queuing Penalty (veh)			0			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	R	L	T	T	L	T	TR	T	T
Maximum Queue (ft)	49	223	90	28	114	124	119	398	398	756	750
Average Queue (ft)	13	94	5	2	26	44	18	341	346	615	619
95th Queue (ft)	39	179	49	14	74	93	82	469	467	1040	1037
Link Distance (ft)	333	494			1259	1259		288	288	725	725
Upstream Blk Time (%)								68	73	13	15
Queuing Penalty (veh)								782	837	146	175
Storage Bay Dist (ft)			125	76			95				
Storage Blk Time (%)		7	0		1	0		67			
Queuing Penalty (veh)		2	0		0	0		13			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	457	478	105	126	205	293	1291	1302	155
Average Queue (ft)	175	438	55	55	92	16	1226	1230	12
95th Queue (ft)	530	524	96	125	177	136	1467	1468	81
Link Distance (ft)	438	438			127	414	1259	1259	
Upstream Blk Time (%)	16	70	0	1	4		20	25	
Queuing Penalty (veh)	0	0	0	0	26		248	306	
Storage Bay Dist (ft)			230	230					130
Storage Blk Time (%)			0	1	4			71	0
Queuing Penalty (veh)			0	2	15			6	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20	B20
Directions Served	LTR	LTR	L	T	T	R	L	T	T	R	T	T
Maximum Queue (ft)	332	160	209	138	115	44	110	516	523	96	222	229
Average Queue (ft)	160	73	113	13	21	3	9	478	485	26	171	194
95th Queue (ft)	345	136	194	68	70	23	51	539	538	96	261	243
Link Distance (ft)	318	213		2220	2220			414	414		127	127
Upstream Blk Time (%)	7	0						39	49		15	68
Queuing Penalty (veh)	0	0						553	691		207	966
Storage Bay Dist (ft)			200			100	105			71		
Storage Blk Time (%)			3		0	0		48	50	0		
Queuing Penalty (veh)			10		0	0		5	34	0		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	B12	B13	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	TR	T	T	L	LT	R	L	T	T	R
Maximum Queue (ft)	113	126	304	321	547	225	551	175	298	337	332	128
Average Queue (ft)	89	118	238	92	18	194	478	103	179	209	212	58
95th Queue (ft)	138	143	359	349	386	286	634	229	293	324	322	104
Link Distance (ft)			225	1548	2662		504			347	347	347
Upstream Blk Time (%)			26		0		51		0	1	0	
Queuing Penalty (veh)			123		0		0		0	4	1	
Storage Bay Dist (ft)	101	101				185		95	255			
Storage Blk Time (%)	6	26	33			3	82	0	6	2		
Queuing Penalty (veh)	11	49	106			11	159	1	26	4		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	B11	SB	SB	SB	SB
Directions Served	T	L	T	T	R
Maximum Queue (ft)	14	275	2267	2396	240
Average Queue (ft)	0	118	2109	2223	237
95th Queue (ft)	10	275	2637	2754	269
Link Distance (ft)	147		2220	2220	
Upstream Blk Time (%)			8	46	
Queuing Penalty (veh)			109	647	
Storage Bay Dist (ft)		175			180
Storage Blk Time (%)		1	34	47	11
Queuing Penalty (veh)		4	43	391	88

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	185	151	160	257	231	238	105	129	140	218
Average Queue (ft)	93	83	69	152	68	110	58	63	64	99
95th Queue (ft)	154	137	128	245	163	212	140	114	119	198
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)				1	0	0			0	1
Queuing Penalty (veh)				7	1	1			0	4
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	0					7	1			
Queuing Penalty (veh)	0					32	3			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	90	92	56	276	490	505	532	89	122	132
Average Queue (ft)	48	48	19	148	136	312	450	30	42	47
95th Queue (ft)	85	79	47	278	376	590	626	67	94	103
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)				0	1	4	60			
Queuing Penalty (veh)				0	0	0	0			
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								0	1	
Queuing Penalty (veh)								1	1	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	27	11	78	22	163	76
Average Queue (ft)	4	0	32	1	63	30
95th Queue (ft)	20	5	67	20	124	59
Link Distance (ft)		1650		2662	471	384
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)			2	0		
Queuing Penalty (veh)			15	0		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	100	196	278	199	322	253	178	7	103
Average Queue (ft)	15	84	123	91	161	135	52	0	44
95th Queue (ft)	57	158	258	175	267	219	137	5	88
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)			0			0			0
Queuing Penalty (veh)			0			0			0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)	0	9		0	9		0		
Queuing Penalty (veh)	0	2		2	17		0		

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	86	528	534	165	219	316	261	294	261	68	151	87
Average Queue (ft)	9	484	492	147	172	128	99	230	168	26	60	30
95th Queue (ft)	47	595	589	217	240	278	194	306	253	52	116	67
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		53	88			1	0	3	0			
Queuing Penalty (veh)		0	0			4	0	0	0			
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		17	77	1	15	0						
Queuing Penalty (veh)		2	183	3	45	0						

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	SB	SB	B11	B11
Directions Served	R	T	TR	T	T	T	T
Maximum Queue (ft)	82	22	101	49	107	17	27
Average Queue (ft)	28	1	4	2	11	1	2
95th Queue (ft)	60	11	64	19	56	9	20
Link Distance (ft)	178	266	266	147	147	347	347
Upstream Blk Time (%)					0		
Queuing Penalty (veh)					1		
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 15: Pleasant Hill Road

Movement	WB	SB
Directions Served	R	TR
Maximum Queue (ft)	215	252
Average Queue (ft)	93	34
95th Queue (ft)	169	133
Link Distance (ft)	597	266
Upstream Blk Time (%)		0
Queuing Penalty (veh)		1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	SB
Directions Served	R	R	T
Maximum Queue (ft)	588	108	137
Average Queue (ft)	534	15	43
95th Queue (ft)	662	63	113
Link Distance (ft)	535	314	302
Upstream Blk Time (%)	67		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Pleasant Hill Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	49
Average Queue (ft)	3
95th Queue (ft)	21
Link Distance (ft)	314
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 7121

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	1:50	1:50	1:50	1:50	1:50	1:50
End Time	3:00	3:00	3:00	3:00	3:00	3:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	8909	9064	9123	9060	8795	8990
Vehs Exited	8138	8325	8466	8316	8167	8283
Starting Vehs	449	468	468	454	496	463
Ending Vehs	1220	1207	1125	1198	1124	1170
Travel Distance (mi)	5972	5993	5986	5949	5801	5940
Travel Time (hr)	2045.4	1871.7	1770.8	1923.4	1932.8	1908.8
Total Delay (hr)	1855.7	1680.7	1579.2	1733.4	1747.6	1719.3
Total Stops	17254	16749	16990	17432	16726	17031
Fuel Used (gal)	623.8	584.2	563.7	596.7	594.5	592.6

Interval #0 Information Seeding

Start Time	1:50
End Time	2:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	2:00
End Time	3:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	8909	9064	9123	9060	8795	8990
Vehs Exited	8138	8325	8466	8316	8167	8283
Starting Vehs	449	468	468	454	496	463
Ending Vehs	1220	1207	1125	1198	1124	1170
Travel Distance (mi)	5972	5993	5986	5949	5801	5940
Travel Time (hr)	2045.4	1871.7	1770.8	1923.4	1932.8	1908.8
Total Delay (hr)	1855.7	1680.7	1579.2	1733.4	1747.6	1719.3
Total Stops	17254	16749	16990	17432	16726	17031
Fuel Used (gal)	623.8	584.2	563.7	596.7	594.5	592.6

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	73.0	120.3	0.1	4
SR 24 EB On Ramp	6	16.2	22.2	0.1	10
	17	19.0	48.5	0.1	10
	16	94.8	102.6	0.1	2
	15	170.9	191.8	0.1	2
Acalanes Avenue	14	169.8	177.5	0.1	1
	11	65.0	68.9	0.0	2
Stanley Boulevard	5	151.2	158.9	0.1	2
Quandt Road	4	424.1	487.5	0.4	3
	20	10.1	19.0	0.1	19
Reliez Valle Road	3	7.6	10.7	0.0	11
Greenvalley Drive	2	13.4	36.1	0.3	25
	19	2.4	8.9	0.1	29
Rancho View Drive	1	14.6	27.8	0.1	19
Total		1232.3	1480.6	1.6	4

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	10.8	26.1	0.2	21
	19	3.1	18.4	0.1	29
Greenvalley Drive	2	22.3	29.2	0.1	9
Reliez Valle Road	3	19.6	44.7	0.3	20
	20	1.8	5.4	0.0	22
Springhill Road	4	11.2	20.9	0.1	17
Deer Hill Road	5	30.9	69.5	0.4	23
	11	2.9	11.4	0.1	25
Acalanes Avenue	14	1.1	4.9	0.0	28
	15	3.9	10.0	0.1	22
	16	5.0	13.8	0.1	28
	17	3.5	12.3	0.1	21
Mt. Diablo Boulevard	6	17.1	23.7	0.1	10
SR 24 EB Off Ramp	7	10.6	16.5	0.1	13
Total		143.7	306.9	1.7	20

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	207.3	1867.3	0.1	2
First Street	9	87.0	153.6	0.1	3
Brown Avenue	8	161.7	434.8	0.3	6
	13	377.6	414.0	0.5	4
	12	355.9	378.5	0.3	3
Pleasant Hill Road	5	58.6	63.5	0.1	3
Total		1248.1	3311.7	1.4	4

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	12	2.0	9.3	0.1	23
	13	1.6	26.4	0.3	41
Miller Drive	8	3.4	58.2	0.5	32
Sierra Vista Way	9	13.9	52.1	0.3	23
Laurel Drive	10	11.8	20.5	0.1	14
Total		32.7	166.5	1.3	28

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	65	124	350	368	240	223
Average Queue (ft)	23	16	182	197	146	101
95th Queue (ft)	58	66	340	353	221	191
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			10			
Queuing Penalty (veh)			2			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T
Maximum Queue (ft)	32	114	75	334	336	113	120	319	308	8
Average Queue (ft)	8	34	7	148	154	8	35	152	152	0
95th Queue (ft)	24	85	35	298	302	69	110	282	279	5
Link Distance (ft)	333	494		1259	1259			288	288	725
Upstream Blk Time (%)								1	1	
Queuing Penalty (veh)								4	3	
Storage Bay Dist (ft)			76			168	95			
Storage Blk Time (%)		0		15	7	0	0	30		
Queuing Penalty (veh)		0		1	4	0	0	7		

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	L	T	T	T	T	T	R
Maximum Queue (ft)	29	111	127	219	276	427	155	84
Average Queue (ft)	5	54	110	171	57	188	124	10
95th Queue (ft)	19	99	157	243	196	361	192	50
Link Distance (ft)	438			127	414	1259		
Upstream Blk Time (%)		0	1	9	0			
Queuing Penalty (veh)		0	0	215	0			
Storage Bay Dist (ft)		230	230				130	130
Storage Blk Time (%)		0	1	9		9	5	0
Queuing Penalty (veh)		0	15	119		41	24	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20
Directions Served	LT	R	LTR	L	T	T	R	L	T	T	R	T
Maximum Queue (ft)	121	23	106	225	2254	2256	125	96	258	303	96	29
Average Queue (ft)	43	1	49	181	2191	2196	65	13	89	105	10	1
95th Queue (ft)	93	16	94	324	2441	2441	168	51	221	257	57	12
Link Distance (ft)	318		213		2220	2220			414	414		127
Upstream Blk Time (%)					12	19						
Queuing Penalty (veh)					145	236						
Storage Bay Dist (ft)		100		200			100	105			71	
Storage Blk Time (%)	1	0		0	98	99	0	0	6	10	0	
Queuing Penalty (veh)	2	0		0	129	46	1	0	1	4	0	

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	B12	B13	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	TR	T	T	L	LT	R	L	T	T	R
Maximum Queue (ft)	113	126	331	1666	2750	225	556	175	330	457	449	349
Average Queue (ft)	110	124	299	1521	2167	193	501	168	128	417	417	26
95th Queue (ft)	120	128	317	2061	3778	290	617	211	378	468	459	151
Link Distance (ft)			225	1548	2662		504			347	347	347
Upstream Blk Time (%)			73	83	37		69		0	86	87	
Queuing Penalty (veh)			823	935	414		0		0	518	527	
Storage Bay Dist (ft)	101	101				185		95	255			
Storage Blk Time (%)	13	73	7			4	88	42		88		
Queuing Penalty (veh)	28	157	52			13	230	131		46		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	B11	B11	SB	SB	SB	SB
Directions Served	T	T	L	T	T	R
Maximum Queue (ft)	254	253	266	689	726	240
Average Queue (ft)	199	206	191	294	320	124
95th Queue (ft)	312	317	304	668	691	275
Link Distance (ft)	147	147		2220	2220	
Upstream Blk Time (%)	85	85				
Queuing Penalty (veh)	769	770				
Storage Bay Dist (ft)			175			180
Storage Blk Time (%)			36	5	12	0
Queuing Penalty (veh)			170	10	40	0

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	199	178	266	270	251	246	105	175	176	143
Average Queue (ft)	102	92	124	237	107	134	78	95	95	43
95th Queue (ft)	176	148	215	309	213	245	147	158	154	109
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)			0	42	2	2		0	0	
Queuing Penalty (veh)			0	190	7	9		0	0	
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	0					16	4			
Queuing Penalty (veh)	0					67	11			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	159	116	307	354	518	508	525	124	184	167
Average Queue (ft)	60	57	116	215	298	307	318	68	71	78
95th Queue (ft)	117	101	363	410	605	606	577	123	144	146
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)			20	31	23	21	20			
Queuing Penalty (veh)			0	0	0	0	0			
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								4	3	
Queuing Penalty (veh)								16	4	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	114	1733	66	85	250	250
Average Queue (ft)	8	1085	21	5	99	78
95th Queue (ft)	56	2388	54	35	210	219
Link Distance (ft)		1650		2662	471	384
Upstream Blk Time (%)		55				1
Queuing Penalty (veh)		487				0
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		64	2	0		
Queuing Penalty (veh)		8	6	0		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	114	327	285	173	210	292	322	145	85
Average Queue (ft)	24	266	111	81	88	138	164	85	31
95th Queue (ft)	91	396	282	149	168	259	386	198	70
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		50	0			2	35		0
Queuing Penalty (veh)		435	1			0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)	0	69		2	1		2	46	
Queuing Penalty (veh)	0	20		5	1		5	74	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	105	534	521	165	219	278	257	268	292	304	296	204
Average Queue (ft)	8	492	496	97	170	92	52	130	191	187	189	56
95th Queue (ft)	48	538	513	223	249	274	157	269	339	367	352	156
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		65	90			2	0	0	29	48	37	0
Queuing Penalty (veh)		0	0			7	0	0	0	0	0	0
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		70	59	1	22	0						
Queuing Penalty (veh)		6	147	3	33	1						

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	184	457	465	487	13	25
Average Queue (ft)	127	363	379	395	0	1
95th Queue (ft)	228	602	618	640	9	14
Link Distance (ft)	178	266	266	266	147	147
Upstream Blk Time (%)	56	80	83	84		
Queuing Penalty (veh)	0	550	569	577		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	639	516	510	520	49
Average Queue (ft)	596	371	377	383	2
95th Queue (ft)	668	692	692	700	22
Link Distance (ft)	597	302	302	302	266
Upstream Blk Time (%)	95	72	74	75	
Queuing Penalty (veh)	0	322	330	334	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	586	490	491	494	502	145
Average Queue (ft)	423	292	297	314	317	50
95th Queue (ft)	689	630	628	657	674	109
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	32	48	50	60	58	
Queuing Penalty (veh)	0	251	261	317	306	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	505	220	212	200	40
Average Queue (ft)	311	53	60	75	2
95th Queue (ft)	674	185	192	217	20
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	63	4	3	10	
Queuing Penalty (veh)	0	12	9	29	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 12046

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	8133	7881	7972	7930	8181	8018
Vehs Exited	7349	7074	7210	7208	7400	7251
Starting Vehs	539	521	526	549	534	527
Ending Vehs	1323	1328	1288	1271	1315	1297
Travel Distance (mi)	5247	5158	5133	5203	5277	5204
Travel Time (hr)	2230.6	2462.6	2265.0	2253.3	2241.5	2290.6
Total Delay (hr)	2062.0	2296.9	2100.0	2086.0	2071.7	2123.3
Total Stops	16692	16488	16434	16245	16600	16492
Fuel Used (gal)	648.4	696.2	652.8	651.7	651.9	660.2

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	8133	7881	7972	7930	8181	8018
Vehs Exited	7349	7074	7210	7208	7400	7251
Starting Vehs	539	521	526	549	534	527
Ending Vehs	1323	1328	1288	1271	1315	1297
Travel Distance (mi)	5247	5158	5133	5203	5277	5204
Travel Time (hr)	2230.6	2462.6	2265.0	2253.3	2241.5	2290.6
Total Delay (hr)	2062.0	2296.9	2100.0	2086.0	2071.7	2123.3
Total Stops	16692	16488	16434	16245	16600	16492
Fuel Used (gal)	648.4	696.2	652.8	651.7	651.9	660.2

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	92.9	316.0	0.1	3
SR 24 EB On Ramp	6	55.0	61.0	0.1	4
	17	71.4	156.1	0.1	3
	16	181.1	189.2	0.1	1
	15	241.2	250.3	0.1	2
Acalanes Avenue	14	249.1	256.8	0.1	1
	11	91.5	95.4	0.0	1
Stanley Boulevard	5	198.2	205.5	0.1	1
Quandt Road	4	433.0	684.5	0.4	3
	20	9.2	18.1	0.1	19
Reliez Valle Road	3	8.2	11.3	0.0	11
Greenvalley Drive	2	21.6	43.9	0.3	21
	19	3.4	9.9	0.1	26
Rancho View Drive	1	27.2	40.5	0.1	13
Total		1683.2	2338.5	1.6	3

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	65.7	82.4	0.2	7
	19	136.9	151.6	0.1	4
Greenvalley Drive	2	114.6	123.5	0.1	2
Reliez Valle Road	3	18.6	44.0	0.3	21
	20	1.8	5.4	0.0	22
Springhill Road	4	9.6	19.2	0.1	18
Deer Hill Road	5	37.5	79.6	0.4	20
	11	3.4	11.9	0.1	24
Acalanes Avenue	14	1.4	5.3	0.0	26
	15	4.3	10.4	0.1	21
	16	5.2	14.8	0.1	26
	17	3.3	12.2	0.1	21
Mt. Diablo Boulevard	6	21.2	27.8	0.1	9
SR 24 EB Off Ramp	7	12.8	19.3	0.1	11
Total		436.1	607.6	1.7	10

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	204.2	3427.3	0.1	2
First Street	9	54.2	62.8	0.1	4
Brown Avenue	8	142.5	222.7	0.3	7
	13	397.7	433.9	0.5	4
	12	415.5	438.2	0.3	2
Pleasant Hill Road	5	74.9	80.7	0.1	3
Total		1289.0	4665.6	1.4	4

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	12	1.9	9.5	0.1	22
	13	1.2	26.0	0.3	42
Miller Drive	8	4.6	57.4	0.5	32
Sierra Vista Way	9	11.9	49.2	0.3	24
Laurel Drive	10	13.9	22.8	0.1	12
Total		33.5	164.9	1.3	28

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	61	148	289	301	721	681
Average Queue (ft)	21	11	209	222	332	288
95th Queue (ft)	52	61	275	289	665	627
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)					4	4
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			23			
Queuing Penalty (veh)			4			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	37	55	41	288	311	193	120	404	405	755	761
Average Queue (ft)	9	15	2	171	185	13	77	352	353	484	479
95th Queue (ft)	27	44	18	258	270	91	169	439	432	973	964
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								84	84	5	5
Queuing Penalty (veh)								380	380	23	21
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)				28	10	0	0	96			
Queuing Penalty (veh)				2	4	0	0	34			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	L	T	T	T	T	T	R
Maximum Queue (ft)	32	107	127	220	214	482	155	100
Average Queue (ft)	6	46	113	166	35	143	117	12
95th Queue (ft)	21	91	156	237	124	325	179	53
Link Distance (ft)	438			127	414	1259		
Upstream Blk Time (%)		0	1	8		0		
Queuing Penalty (veh)		0	0	217		0		
Storage Bay Dist (ft)		230	230				130	130
Storage Blk Time (%)		0	1	8		6	3	0
Queuing Penalty (veh)		0	18	115		27	12	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20	B20
Directions Served	LT	LTR	L	T	T	R	L	T	T	R	T	T
Maximum Queue (ft)	80	93	225	2257	2263	125	50	228	250	94	4	18
Average Queue (ft)	29	33	164	2229	2231	62	6	68	75	10	0	1
95th Queue (ft)	63	71	326	2276	2273	164	28	170	189	55	3	8
Link Distance (ft)	318	213		2220	2220			414	414		127	127
Upstream Blk Time (%)				17	23							
Queuing Penalty (veh)				227	307							
Storage Bay Dist (ft)			200			100	105			71		
Storage Blk Time (%)	0		0	99	99	0		3	6	0		
Queuing Penalty (veh)	0		0	110	47	1		0	2	0		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	B12	B13	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	TR	T	T	L	LT	R	L	T	T	R
Maximum Queue (ft)	113	126	333	1662	2736	225	562	175	330	455	449	207
Average Queue (ft)	111	124	300	1471	1836	188	526	174	70	424	421	20
95th Queue (ft)	124	127	320	2109	3690	312	550	184	289	446	443	119
Link Distance (ft)			225	1548	2662		504			347	347	347
Upstream Blk Time (%)			80	78	30		91		0	95	96	
Queuing Penalty (veh)			834	818	312		0		0	588	594	
Storage Bay Dist (ft)	101	101				185		95	255			
Storage Blk Time (%)	14	78	5			0	42	96		95		
Queuing Penalty (veh)	21	118	44			0	162	248		23		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	B11	B11	SB	SB	SB	SB
Directions Served	T	T	L	T	T	R
Maximum Queue (ft)	255	253	275	791	816	240
Average Queue (ft)	218	222	233	381	371	81
95th Queue (ft)	265	261	331	824	798	230
Link Distance (ft)	147	147		2220	2220	
Upstream Blk Time (%)	93	94				
Queuing Penalty (veh)	861	874				
Storage Bay Dist (ft)			175			180
Storage Blk Time (%)			68	3	13	0
Queuing Penalty (veh)			268	5	27	0

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	307	369	364	268	264	266	105	188	176	131
Average Queue (ft)	208	233	240	181	181	198	86	101	103	30
95th Queue (ft)	365	408	388	295	302	315	150	155	158	92
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)	0	23	9	20	14	29		0	0	0
Queuing Penalty (veh)	0	0	0	77	53	111		1	0	0
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	26	3				56	2			
Queuing Penalty (veh)	76	8				165	5			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	315	134	253	373	500	504	533	124	226	199
Average Queue (ft)	110	60	80	179	169	264	338	81	92	91
95th Queue (ft)	264	104	300	388	439	555	632	134	197	173
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)	0		14	22	3	10	45		0	0
Queuing Penalty (veh)	0		0	0	0	0	0		1	0
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								15	2	
Queuing Penalty (veh)								52	4	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	97	1727	73	195	235	126
Average Queue (ft)	14	778	23	12	71	46
95th Queue (ft)	71	2085	57	98	174	172
Link Distance (ft)		1650		2662	471	384
Upstream Blk Time (%)		31				0
Queuing Penalty (veh)		302				0
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		52	2	2		
Queuing Penalty (veh)		15	7	2		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	96	326	245	119	187	231	305	145	74
Average Queue (ft)	8	239	78	51	76	94	69	42	23
95th Queue (ft)	46	379	212	93	145	168	232	144	57
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		32	0			0	8		0
Queuing Penalty (veh)		296	0			0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)		58			1		0	17	
Queuing Penalty (veh)		9			1		0	25	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	105	522	532	165	204	100	109	294	278	295	305	169
Average Queue (ft)	6	494	499	108	108	35	39	169	149	125	138	41
95th Queue (ft)	40	516	519	226	186	76	86	290	287	312	304	128
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		75	92					1	12	28	21	0
Queuing Penalty (veh)		0	0					0	0	0	0	0
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		59	63	0	2							
Queuing Penalty (veh)		8	178	2	3							

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	TR	T
Maximum Queue (ft)	176	457	468	483	24
Average Queue (ft)	133	400	415	431	2
95th Queue (ft)	222	555	559	575	14
Link Distance (ft)	178	266	266	266	147
Upstream Blk Time (%)	42	90	92	93	
Queuing Penalty (veh)	0	594	607	609	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	626	515	515	518	56
Average Queue (ft)	595	421	427	431	5
95th Queue (ft)	629	678	674	677	32
Link Distance (ft)	597	302	302	302	266
Upstream Blk Time (%)	96	84	85	86	
Queuing Penalty (veh)	0	398	403	408	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	564	501	496	497	487	102
Average Queue (ft)	309	375	374	377	373	32
95th Queue (ft)	590	673	664	664	672	79
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	11	75	75	76	74	
Queuing Penalty (veh)	0	351	351	356	347	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	489	271	237	220	24
Average Queue (ft)	362	144	140	143	2
95th Queue (ft)	673	305	294	296	14
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	75	31	27	48	
Queuing Penalty (veh)	0	93	80	144	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 13867

Appendix D – Existing plus Project Conditions Level of Service Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	0	17	0	0	0	7	454	0	0	1933	8
Future Volume (veh/h)	12	0	17	0	0	0	7	454	0	0	1933	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	18	0	26	0	0	0	9	614	0	0	2274	9
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	226	26	267	0	551	0	28	1991	0	0	1786	7
Arrive On Green	0.30	0.00	0.30	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.50	0.50
Sat Flow, veh/h	531	88	895	0	1845	0	1757	3597	0	0	3673	14
Grp Volume(v), veh/h	44	0	0	0	0	0	9	614	0	0	1112	1171
Grp Sat Flow(s),veh/h/ln	1514	0	0	0	1845	0	1757	1752	0	0	1752	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.4	6.9	0.0	0.0	37.4	37.4
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.0	0.0	0.0	0.4	6.9	0.0	0.0	37.4	37.4
Prop In Lane	0.41		0.59	0.00		0.00	1.00		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	520	0	0	0	551	0	28	1991	0	0	874	919
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.32	0.31	0.00	0.00	1.27	1.27
Avail Cap(c_a), veh/h	520	0	0	0	551	0	187	1991	0	0	874	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	0.0	0.0	0.0	0.0	36.5	8.5	0.0	0.0	18.8	18.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.0	2.4	0.4	0.0	0.0	131.6	132.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	0.2	3.4	0.0	0.0	49.9	52.6
LnGrp Delay(d),s/veh	19.3	0.0	0.0	0.0	0.0	0.0	38.9	8.9	0.0	0.0	150.4	150.8
LnGrp LOS	B						D	A			F	F
Approach Vol, veh/h		44			0			623			2283	
Approach Delay, s/veh		19.3			0.0			9.3			150.6	
Approach LOS		B						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		48.0		27.0	5.2	42.8		27.0
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		42.6		22.4	8.0	* 31		22.4
Max Q Clear Time (g_c+I1), s		8.9		3.4	2.4	39.4		0.0
Green Ext Time (p_c), s		6.2		0.2	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		118.8
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	8	76	0	16	2	438	21	16	1933	1
Future Volume (veh/h)	8	0	8	76	0	16	2	438	21	16	1933	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	16	0	16	143	0	0	3	617	0	19	2274	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	233	23	183	421	0	364	13	1915	857	61	2012	0
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.00	0.01	1.00	0.00	0.03	0.57	0.00
Sat Flow, veh/h	693	97	791	1402	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	32	0	0	143	0	0	3	617	0	19	2274	0
Grp Sat Flow(s),veh/h/ln	1581	0	0	1402	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	0.0	0.1	0.0	0.0	0.8	43.1	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.0	0.8	43.1	0.0
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	439	0	0	421	0	364	13	1915	857	61	2012	0
V/C Ratio(X)	0.07	0.00	0.00	0.34	0.00	0.00	0.23	0.32	0.00	0.31	1.13	0.00
Avail Cap(c_a), veh/h	439	0	0	421	0	364	211	1915	857	187	2012	0
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	0.00	1.00	0.00	0.00	0.96	0.96	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	24.4	0.0	0.0	36.7	0.0	0.0	35.3	16.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	2.2	0.0	0.0	3.3	0.4	0.0	1.1	65.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.8	0.0	0.0	0.1	0.1	0.0	0.4	38.7	0.0
LnGrp Delay(d),s/veh	22.9	0.0	0.0	26.6	0.0	0.0	40.1	0.4	0.0	36.4	81.5	0.0
LnGrp LOS	C			C			D	A		D	F	
Approach Vol, veh/h		32			143			620			2293	
Approach Delay, s/veh		22.9			26.6			0.6			81.1	
Approach LOS		C			C			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	48.5		22.0	6.6	46.4		22.0
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 35		17.4	8.0	35.6		17.4
Max Q Clear Time (g_c+I1), s	2.1	45.1		3.1	2.8	2.0		8.3
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	61.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	389	42	454	2013	7
Future Volume (veh/h)	7	389	42	454	2013	7
Number	3	18	1	6	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	9	0	63	678	2341	8
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.80	0.80	0.67	0.67	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	507	453	98	2257	1969	881
Arrive On Green	0.29	0.00	0.06	0.64	1.00	1.00
Sat Flow, veh/h	1757	1568	1757	3597	3597	1568
Grp Volume(v), veh/h	9	0	63	678	2341	8
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1568
Q Serve(g_s), s	0.5	0.0	5.3	12.8	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	5.3	12.8	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	453	98	2257	1969	881
V/C Ratio(X)	0.02	0.00	0.64	0.30	1.19	0.01
Avail Cap(c_a), veh/h	507	453	141	2257	1969	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.1	0.0	69.4	11.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.6	0.3	85.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.6	6.2	23.4	0.0
LnGrp Delay(d),s/veh	38.2	0.0	72.0	12.1	85.6	0.0
LnGrp LOS	D		E	B	F	A
Approach Vol, veh/h	9			741	2349	
Approach Delay, s/veh	38.2			17.2	85.3	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.3	89.7				102.0		48.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	12.6	* 81				96.6		43.3
Max Q Clear Time (g_c+I1), s	7.3	2.0				14.8		2.5
Green Ext Time (p_c), s	0.0	63.1				7.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	68.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	2	134	51	1	10	95	452	24	9	2321	62
Future Volume (veh/h)	31	2	134	51	1	10	95	452	24	9	2321	62
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.97		0.92	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	46	3	0	77	2	15	136	646	34	10	2551	68
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.68	0.68	0.66	0.66	0.66	0.70	0.70	0.70	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	196	11	0	176	8	27	140	2736	1195	26	2036	889
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.09	0.78	0.78	0.02	0.71	0.71
Sat Flow, veh/h	1325	101	0	1167	69	235	1616	3505	1530	1433	2859	1248
Grp Volume(v), veh/h	49	0	0	94	0	0	136	646	34	10	2551	68
Grp Sat Flow(s),veh/h/ln	1425	0	0	1471	0	0	1616	1752	1530	1433	1430	1248
Q Serve(g_s), s	0.0	0.0	0.0	4.0	0.0	0.0	12.6	7.4	0.7	1.0	106.8	2.5
Cycle Q Clear(g_c), s	4.5	0.0	0.0	8.5	0.0	0.0	12.6	7.4	0.7	1.0	106.8	2.5
Prop In Lane	0.94		0.00	0.82		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	0	210	0	0	140	2736	1195	26	2036	889
V/C Ratio(X)	0.24	0.00	0.00	0.45	0.00	0.00	0.97	0.24	0.03	0.38	1.25	0.08
Avail Cap(c_a), veh/h	306	0	0	310	0	0	140	2736	1195	124	2036	889
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	0.0	0.0	62.5	0.0	0.0	68.3	4.4	3.7	72.8	21.6	6.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.6	0.0	0.0	66.6	0.2	0.0	3.4	118.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	3.7	0.0	0.0	8.2	3.7	0.3	0.4	74.9	0.9
LnGrp Delay(d),s/veh	61.2	0.0	0.0	63.1	0.0	0.0	135.0	4.6	3.7	76.2	139.6	6.7
LnGrp LOS	E			E			F	A	A	E	F	A
Approach Vol, veh/h		49			94			816			2629	
Approach Delay, s/veh		61.2			63.1			26.3			135.9	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	111.9		21.1	6.7	122.2		21.1
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	13.0	95.9		27.9	13.0	95.9		27.9
Max Q Clear Time (g_c+I1), s	14.6	108.8		10.5	3.0	9.4		6.5
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	7.4		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	108.0	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	82	39	184	120	53	144	617	206	113	1453	765
Future Volume (veh/h)	210	82	39	184	120	53	144	617	206	113	1453	765
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.89	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	350	137	65	206	223	72	200	857	286	124	1597	841
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	538	181	86	238	250	190	199	1696	724	141	1877	568
Arrive On Green	0.16	0.16	0.16	0.14	0.14	0.14	0.11	0.48	0.48	0.10	0.47	0.47
Sat Flow, veh/h	3408	1147	544	1757	1845	1401	1757	3505	1496	1387	3976	1203
Grp Volume(v), veh/h	350	0	202	206	223	72	200	857	286	124	1597	841
Grp Sat Flow(s),veh/h/ln	1704	0	1692	1757	1845	1401	1757	1752	1496	1387	1325	1203
Q Serve(g_s), s	14.5	0.0	17.1	17.2	17.8	7.0	17.0	25.0	18.3	13.2	53.2	70.8
Cycle Q Clear(g_c), s	14.5	0.0	17.1	17.2	17.8	7.0	17.0	25.0	18.3	13.2	53.2	70.8
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	538	0	267	238	250	190	199	1696	724	141	1877	568
V/C Ratio(X)	0.65	0.00	0.76	0.87	0.89	0.38	1.00	0.51	0.40	0.88	0.85	1.48
Avail Cap(c_a), veh/h	611	0	303	269	283	215	199	1696	724	185	1877	568
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	0.0	60.4	63.5	63.8	59.1	66.5	26.4	24.7	66.5	34.9	39.6
Incr Delay (d2), s/veh	1.3	0.0	7.6	20.5	24.2	0.5	64.9	1.1	1.6	25.5	5.1	225.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	8.6	9.7	10.8	2.7	11.8	12.4	7.9	6.1	20.3	59.1
LnGrp Delay(d),s/veh	60.6	0.0	68.0	84.0	88.0	59.5	131.5	27.5	26.3	92.0	40.0	265.3
LnGrp LOS	E		E	F	F	E	F	C	C	F	D	F
Approach Vol, veh/h		552			501			1343			2562	
Approach Delay, s/veh		63.3			82.3			42.7			116.5	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	75.9		24.3	19.2	77.7		28.8
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	19.0	72.8		19.8	15.2	27.0		19.1
Green Ext Time (p_c), s	0.0	0.0		0.5	0.1	12.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	87.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	233	100	0	0	0	253	681	389	0	428	721
Future Volume (veh/h)	159	233	100	0	0	0	253	681	389	0	428	721
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	169	248	106				291	783	0	0	455	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.94	0.94	0.94				0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	247	339	141				75	2437	1090	0	2051	918
Arrive On Green	0.14	0.14	0.14				0.04	0.70	0.00	0.00	0.59	0.00
Sat Flow, veh/h	1757	2414	1002				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	169	178	176				291	783	0	0	455	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1663				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	6.4	6.8	7.1				3.0	6.1	0.0	0.0	4.3	0.0
Cycle Q Clear(g_c), s	6.4	6.8	7.1				3.0	6.1	0.0	0.0	4.3	0.0
Prop In Lane	1.00		0.60				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	247	246	234				75	2437	1090	0	2051	918
V/C Ratio(X)	0.68	0.72	0.75				3.86	0.32	0.00	0.00	0.22	0.00
Avail Cap(c_a), veh/h	753	751	713				75	2437	1090	0	2051	918
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.66	0.66	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.6	28.8	28.9				33.5	4.2	0.0	0.0	6.9	0.0
Incr Delay (d2), s/veh	1.3	1.5	1.8				1310.3	0.2	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.4	3.4				28.8	3.0	0.0	0.0	2.2	0.0
LnGrp Delay(d),s/veh	29.9	30.3	30.8				1343.8	4.4	0.0	0.0	7.2	0.0
LnGrp LOS	C	C	C				F	A			A	
Approach Vol, veh/h		523						1074			455	
Approach Delay, s/veh		30.3						367.3			7.2	
Approach LOS		C						F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		54.1		15.9	7.7	46.4		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		8.1		9.1	5.0	6.3		
Green Ext Time (p_c), s		3.5		0.3	0.0	1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	201.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	35	153	24	0	173	0	1075	28	68	493	0
Future Volume (veh/h)	45	35	153	24	0	173	0	1075	28	68	493	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	57	44	194	32	0	228	0	1250	33	76	548	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.76	0.76	0.76	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	197	152	303	0	0	0	0	1974	52	106	1997	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.57	0.00
Sat Flow, veh/h	1012	782	1558		0		0	5208	133	1757	3597	0
Grp Volume(v), veh/h	101	0	194		0.0		0	832	451	76	548	0
Grp Sat Flow(s),veh/h/ln	1794	0	1558				0	1679	1817	1757	1752	0
Q Serve(g_s), s	1.6	0.0	3.9				0.0	6.8	6.8	1.4	2.7	0.0
Cycle Q Clear(g_c), s	1.6	0.0	3.9				0.0	6.8	6.8	1.4	2.7	0.0
Prop In Lane	0.56		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	348	0	303				0	1314	712	106	1997	0
V/C Ratio(X)	0.29	0.00	0.64				0.00	0.63	0.63	0.72	0.27	0.00
Avail Cap(c_a), veh/h	953	0	828				0	1585	858	207	2482	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.7	0.0	12.6				0.0	8.3	8.3	15.6	3.7	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.3				0.0	0.6	1.1	8.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.9				0.0	3.2	3.6	0.9	1.3	0.0
LnGrp Delay(d),s/veh	12.1	0.0	14.8				0.0	8.9	9.5	24.4	3.8	0.0
LnGrp LOS	B		B					A	A	C	A	
Approach Vol, veh/h		295						1283			624	
Approach Delay, s/veh		13.9						9.1			6.3	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		10.6		23.3			6.0	17.3
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		18.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		5.9		4.7			3.4	8.8
Green Ext Time (p_c), s		0.9		3.4			0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	35.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	299	39	133	760	5	45	5	46	12	8	23
Future Vol, veh/h	9	299	39	133	760	5	45	5	46	12	8	23
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	60	60	60	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	383	50	156	894	6	75	8	77	16	10	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	900	0	0	433	0	0	1663	1644	408	1645	1666	899
Stage 1	-	-	-	-	-	-	432	432	-	1209	1209	-
Stage 2	-	-	-	-	-	-	1231	1212	-	436	457	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	751	-	-	1121	-	-	77	99	641	79	96	336
Stage 1	-	-	-	-	-	-	600	581	-	222	255	-
Stage 2	-	-	-	-	-	-	216	254	-	597	566	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	751	-	-	1121	-	-	~ 56	84	641	57	81	335
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 56	84	-	57	81	-
Stage 1	-	-	-	-	-	-	590	572	-	218	220	-
Stage 2	-	-	-	-	-	-	161	219	-	510	557	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.3	$ 350.5	63.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	105	751	-	-	1121	-	-	114
HCM Lane V/C Ratio	1.524	0.015	-	-	0.14	-	-	0.49
HCM Control Delay (s)	$ 350.5	9.9	-	-	8.7	-	-	63.7
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	11.9	0	-	-	0.5	-	-	2.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	216	728	182	640	2	284	11	112	15	24	22
Future Volume (veh/h)	18	216	728	182	640	2	284	11	112	15	24	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	20	245	0	200	703	2	369	0	0	19	30	28
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.79	0.79	0.79	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	49	618	525	250	826	2	551	0	246	55	86	80
Arrive On Green	0.03	0.34	0.00	0.14	0.45	0.45	0.16	0.00	0.00	0.13	0.13	0.13
Sat Flow, veh/h	1757	1845	1568	1757	1838	5	3514	0	1568	418	660	616
Grp Volume(v), veh/h	20	245	0	200	0	705	369	0	0	77	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1844	1757	0	1568	1694	0	0
Q Serve(g_s), s	0.8	6.9	0.0	7.5	0.0	23.2	6.7	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	0.8	6.9	0.0	7.5	0.0	23.2	6.7	0.0	0.0	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.25		0.36
Lane Grp Cap(c), veh/h	49	618	525	250	0	829	551	0	246	221	0	0
V/C Ratio(X)	0.41	0.40	0.00	0.80	0.00	0.85	0.67	0.00	0.00	0.35	0.00	0.00
Avail Cap(c_a), veh/h	517	1357	1154	517	0	1356	1551	0	692	748	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.5	17.3	0.0	28.2	0.0	16.7	27.0	0.0	0.0	26.9	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.4	0.0	5.9	0.0	2.9	1.4	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.5	0.0	4.0	0.0	12.4	3.4	0.0	0.0	1.4	0.0	0.0
LnGrp Delay(d),s/veh	37.9	17.7	0.0	34.1	0.0	19.6	28.4	0.0	0.0	27.8	0.0	0.0
LnGrp LOS	D	B		C		B	C			C		
Approach Vol, veh/h		265			905			369			77	
Approach Delay, s/veh		19.3			22.8			28.4			27.8	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.7	13.7	26.8		12.9	5.9	34.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		8.7	9.5	8.9		4.8	2.8	25.2
Green Ext Time (p_c), s		1.3	0.4	1.6		0.4	0.0	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	23.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	566	207	351	524	7	626	0	443	14	2	10
Future Volume (veh/h)	8	566	207	351	524	7	626	0	443	14	2	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	9	651	238	418	624	8	652	0	461	24	3	17
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.96	0.96	0.96	0.59	0.59	0.59
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	23	828	361	280	1355	17	839	0	1246	219	27	155
Arrive On Green	0.01	0.24	0.24	0.16	0.38	0.38	0.24	0.00	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1757	3505	1528	1757	3542	45	3514	0	3129	918	115	650
Grp Volume(v), veh/h	9	651	238	418	309	323	652	0	461	44	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1528	1757	1752	1835	1757	0	1565	1683	0	0
Q Serve(g_s), s	0.6	21.9	17.7	20.0	16.6	16.6	21.8	0.0	13.1	2.6	0.0	0.0
Cycle Q Clear(g_c), s	0.6	21.9	17.7	20.0	16.6	16.6	21.8	0.0	13.1	2.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.55		0.39
Lane Grp Cap(c), veh/h	23	828	361	280	670	702	839	0	1246	402	0	0
V/C Ratio(X)	0.40	0.79	0.66	1.50	0.46	0.46	0.78	0.00	0.37	0.11	0.00	0.00
Avail Cap(c_a), veh/h	280	1394	608	280	697	730	839	0	1246	402	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	61.6	45.0	43.4	52.8	29.1	29.1	44.7	0.0	26.7	37.4	0.0	0.0
Incr Delay (d2), s/veh	10.9	1.7	2.1	240.9	0.5	0.5	7.0	0.0	0.8	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	10.8	7.7	28.3	8.2	8.5	11.4	0.0	5.8	1.3	0.0	0.0
LnGrp Delay(d),s/veh	72.5	46.7	45.5	293.7	29.6	29.6	51.7	0.0	27.6	38.0	0.0	0.0
LnGrp LOS	E	D	D	F	C	C	D		C	D		
Approach Vol, veh/h		898			1050			1113			44	
Approach Delay, s/veh		46.7			134.7			41.7			38.0	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	33.7		34.0	5.6	52.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		23.8	22.0	23.9		4.6	2.6	18.6
Green Ext Time (p_c), s		2.5	0.0	5.8		0.2	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	74.5
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	77	0	1024	1636	4
Future Vol, veh/h	0	77	0	1024	1636	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	84	0	1113	1778	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	891	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	244	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	244	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	27.3	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	244	-	-
HCM Lane V/C Ratio	-	0.343	-	-
HCM Control Delay (s)	-	27.3	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	1.5	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	0	24	909	0	26
Future Vol, veh/h	320	0	24	909	0	26
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	348	0	26	988	0	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	348	0	1388	348
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	1040	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1205	-	157	693
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	339	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1205	-	154	693
Mov Cap-2 Maneuver	-	-	-	-	154	-
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	332	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	693	-	-	1205	-
HCM Lane V/C Ratio	0.041	-	-	0.022	-
HCM Control Delay (s)	10.4	-	-	8.1	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	5	0	909	23	0
Future Vol, veh/h	320	5	0	909	23	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	348	5	0	988	25	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1339	351
Stage 1	-	-	-	-	351	-
Stage 2	-	-	-	-	988	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	168	690
Stage 1	-	-	0	-	710	-
Stage 2	-	-	0	-	359	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	168	690
Mov Cap-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	359	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	30.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	168	-	-	-	-
HCM Lane V/C Ratio	0.149	-	-	-	-
HCM Control Delay (s)	30.1	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	48	1014	72	0	1688
Future Vol, veh/h	0	48	1014	72	0	1688
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	71	71	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	66	1428	101	0	1758

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	775	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	291	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	289	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	289	-
HCM Lane V/C Ratio	-	-	0.228	-
HCM Control Delay (s)	-	-	21.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.9	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	20	0	0	0	16	2078	0	0	819	18
Future Volume (veh/h)	15	0	20	0	0	0	16	2078	0	0	819	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	19	0	25	0	0	0	19	2445	0	0	890	20
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	208	19	231	0	498	0	50	2208	0	0	1966	44
Arrive On Green	0.27	0.00	0.27	0.00	0.00	0.00	0.03	0.63	0.00	0.00	0.56	0.56
Sat Flow, veh/h	580	71	855	0	1845	0	1757	3597	0	0	3595	79
Grp Volume(v), veh/h	44	0	0	0	0	0	19	2445	0	0	445	465
Grp Sat Flow(s),veh/h/ln	1505	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	63.0	0.0	0.0	14.9	14.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	0.0	0.0	0.0	1.1	63.0	0.0	0.0	14.9	14.9
Prop In Lane	0.43		0.57	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	458	0	0	0	498	0	50	2208	0	0	984	1027
V/C Ratio(X)	0.10	0.00	0.00	0.00	0.00	0.00	0.38	1.11	0.00	0.00	0.45	0.45
Avail Cap(c_a), veh/h	458	0	0	0	498	0	123	2208	0	0	984	1027
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	0.0	0.0	0.0	0.0	0.0	47.7	18.5	0.0	0.0	12.9	12.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	1.7	55.6	0.0	0.0	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.0	0.0	0.0	0.5	47.1	0.0	0.0	7.6	7.9
LnGrp Delay(d),s/veh	27.8	0.0	0.0	0.0	0.0	0.0	49.4	74.1	0.0	0.0	14.4	14.3
LnGrp LOS	C						D	F			B	B
Approach Vol, veh/h		44			0			2464			910	
Approach Delay, s/veh		27.8			0.0			73.9			14.4	
Approach LOS		C						E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		68.4		31.6	6.9	61.5		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		63.0		27.0	7.0	* 52		27.0
Max Q Clear Time (g_c+I1), s		65.0		4.0	3.1	16.9		0.0
Green Ext Time (p_c), s		0.0		0.2	0.0	9.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	9	34	0	36	5	2059	53	22	806	2
Future Volume (veh/h)	2	0	9	34	0	36	5	2059	53	22	806	2
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	4	0	16	42	0	0	6	2394	0	25	906	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	79	19	255	343	0	322	24	2269	1015	65	2351	0
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.00	0.01	0.65	0.00	0.04	0.67	0.00
Sat Flow, veh/h	217	94	1242	1394	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	20	0	0	42	0	0	6	2394	0	25	906	0
Grp Sat Flow(s),veh/h/ln	1552	0	0	1394	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	0.4	82.0	0.0	1.8	14.5	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	2.8	0.0	0.0	0.4	82.0	0.0	1.8	14.5	0.0
Prop In Lane	0.20		0.80	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	353	0	0	343	0	322	24	2269	1015	65	2351	0
V/C Ratio(X)	0.06	0.00	0.00	0.12	0.00	0.00	0.25	1.06	0.00	0.39	0.39	0.00
Avail Cap(c_a), veh/h	353	0	0	343	0	322	125	2269	1015	111	2351	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.5	0.0	0.0	41.1	0.0	0.0	61.9	22.3	0.0	59.6	9.3	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	2.0	35.5	0.0	1.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.3	0.0	0.0	0.2	50.3	0.0	0.9	7.2	0.0
LnGrp Delay(d),s/veh	40.8	0.0	0.0	41.8	0.0	0.0	63.9	57.8	0.0	61.0	9.7	0.0
LnGrp LOS	D			D			E	F		E	A	
Approach Vol, veh/h		20			42			2400			931	
Approach Delay, s/veh		40.8			41.8			57.8			11.1	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	90.4		30.6	8.7	87.4		30.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 81		26.0	8.0	82.0		26.0
Max Q Clear Time (g_c+I1), s	2.4	16.5		3.3	3.8	84.0		4.8
Green Ext Time (p_c), s	0.0	11.9		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	44.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	80	99	2096	832	21
Future Volume (veh/h)	21	80	99	2096	832	21
Number	3	18	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	22	0	115	2437	895	23
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.86	0.86	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	438	391	143	2278	1854	812
Arrive On Green	0.25	0.00	0.08	0.65	0.53	0.53
Sat Flow, veh/h	1757	1568	1757	3597	3597	1534
Grp Volume(v), veh/h	22	0	115	2437	895	23
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1534
Q Serve(g_s), s	1.0	0.0	6.5	65.2	16.2	0.7
Cycle Q Clear(g_c), s	1.0	0.0	6.5	65.2	16.2	0.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	438	391	143	2278	1854	812
V/C Ratio(X)	0.05	0.00	0.81	1.07	0.48	0.03
Avail Cap(c_a), veh/h	438	391	210	2278	1854	812
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	1.00
Uniform Delay (d), s/veh	28.6	0.0	45.3	17.5	14.9	11.3
Incr Delay (d2), s/veh	0.2	0.0	8.0	40.7	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	3.4	43.9	8.1	0.3
LnGrp Delay(d),s/veh	28.8	0.0	53.3	58.2	15.8	11.4
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	22			2552	918	
Approach Delay, s/veh	28.8			58.0	15.7	
Approach LOS	C			E	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		70.6			12.1	58.5		29.7
Change Period (Y+Rc), s		* 5.4			4.0	5.4		4.7
Max Green Setting (Gmax), s		* 65			12.0	48.9		25.0
Max Q Clear Time (g_c+I1), s		67.2			8.5	18.2		3.0
Green Ext Time (p_c), s		0.0			0.0	10.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1	118	40	4	18	121	2133	43	17	848	39
Future Volume (veh/h)	52	1	118	40	4	18	121	2133	43	17	848	39
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.93		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	71	1	0	49	5	22	132	2318	47	18	893	41
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	265	3	247	185	25	67	154	2480	1103	47	1846	804
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.10	0.71	0.71	0.03	0.65	0.65
Sat Flow, veh/h	1334	21	1568	884	156	424	1616	3505	1559	1433	2859	1245
Grp Volume(v), veh/h	72	0	0	76	0	0	132	2318	47	18	893	41
Grp Sat Flow(s),veh/h/ln	1355	0	1568	1463	0	0	1616	1752	1559	1433	1430	1245
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.0	10.4	74.0	1.2	1.6	20.9	1.6
Cycle Q Clear(g_c), s	5.6	0.0	0.0	5.1	0.0	0.0	10.4	74.0	1.2	1.6	20.9	1.6
Prop In Lane	0.99		1.00	0.64		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	0	247	276	0	0	154	2480	1103	47	1846	804
V/C Ratio(X)	0.27	0.00	0.00	0.28	0.00	0.00	0.86	0.93	0.04	0.38	0.48	0.05
Avail Cap(c_a), veh/h	325	0	314	335	0	0	249	2480	1103	99	1846	804
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	0.0	0.0	48.2	0.0	0.0	57.8	16.4	5.7	61.4	11.8	8.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	8.4	8.1	0.1	1.8	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	2.4	0.0	0.0	5.0	38.2	0.5	0.7	8.4	0.6
LnGrp Delay(d),s/veh	48.6	0.0	0.0	48.4	0.0	0.0	66.2	24.5	5.8	63.2	12.8	8.5
LnGrp LOS	D			D			E	C	A	E	B	A
Approach Vol, veh/h		72			76			2497			952	
Approach Delay, s/veh		48.6			48.4			26.3			13.5	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	96.9		24.5	16.4	88.8		24.5
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	91.8		26.0	20.0	80.8		26.0
Max Q Clear Time (g_c+I1), s	12.6	76.0		7.1	12.4	22.9		7.6
Green Ext Time (p_c), s	0.0	14.8		0.2	0.0	11.9		0.2

Intersection Summary			
HCM 2010 Ctrl Delay		23.9	
HCM 2010 LOS		C	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	592	120	62	161	97	132	91	1486	137	147	763	274
Future Volume (veh/h)	592	120	62	161	97	132	91	1486	137	147	763	274
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	722	146	76	160	175	163	98	1598	147	184	954	342
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	232	121	142	149	107	121	1590	685	155	1976	579
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.07	0.45	0.45	0.11	0.50	0.50
Sat Flow, veh/h	3408	1117	582	1757	1845	1329	1757	3505	1511	1387	3976	1165
Grp Volume(v), veh/h	722	0	222	160	175	163	98	1598	147	184	954	342
Grp Sat Flow(s),veh/h/ln	1704	0	1699	1757	1845	1329	1757	1752	1511	1387	1325	1165
Q Serve(g_s), s	26.0	0.0	14.9	10.1	10.1	10.1	6.9	56.7	7.4	14.0	19.9	26.1
Cycle Q Clear(g_c), s	26.0	0.0	14.9	10.1	10.1	10.1	6.9	56.7	7.4	14.0	19.9	26.1
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	353	142	149	107	121	1590	685	155	1976	579
V/C Ratio(X)	1.02	0.00	0.63	1.13	1.17	1.52	0.81	1.01	0.21	1.18	0.48	0.59
Avail Cap(c_a), veh/h	709	0	353	142	149	107	126	1590	685	155	1976	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	45.1	57.5	57.5	57.4	57.4	34.1	20.7	55.5	20.8	22.4
Incr Delay (d2), s/veh	38.5	0.0	2.7	113.8	128.1	274.6	28.3	23.8	0.7	130.4	0.8	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	0.0	7.2	9.4	10.4	11.9	4.3	32.6	3.2	11.0	7.4	9.1
LnGrp Delay(d),s/veh	88.0	0.0	47.8	171.2	185.6	332.1	85.7	58.0	21.4	185.9	21.7	26.8
LnGrp LOS	F		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		944			498			1843			1480	
Approach Delay, s/veh		78.6			228.9			56.5			43.3	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	12.6	67.2		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	16.0	58.7		12.1	8.9	28.1		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	13.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	413	257	0	0	0	243	568	379	0	515	407
Future Volume (veh/h)	239	413	257	0	0	0	243	568	379	0	515	407
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	241	417	260				270	631	0	0	542	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.99	0.99	0.99				0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	474	560	346				275	1695	758	0	794	355
Arrive On Green	0.27	0.27	0.27				0.16	0.48	0.00	0.00	0.23	0.00
Sat Flow, veh/h	1757	2075	1281				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	241	351	326				270	631	0	0	542	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1603				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	5.4	8.6	8.7				7.2	5.3	0.0	0.0	6.6	0.0
Cycle Q Clear(g_c), s	5.4	8.6	8.7				7.2	5.3	0.0	0.0	6.6	0.0
Prop In Lane	1.00		0.80				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	474	473	433				275	1695	758	0	794	355
V/C Ratio(X)	0.51	0.74	0.75				0.98	0.37	0.00	0.00	0.68	0.00
Avail Cap(c_a), veh/h	1242	1238	1133				275	2665	1192	0	1764	789
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	14.4	15.6	15.6				19.6	7.6	0.0	0.0	16.5	0.0
Incr Delay (d2), s/veh	0.3	0.9	1.0				49.3	0.1	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.2	3.9				7.1	2.6	0.0	0.0	3.2	0.0
LnGrp Delay(d),s/veh	14.7	16.4	16.6				69.0	7.6	0.0	0.0	16.9	0.0
LnGrp LOS	B	B	B				E	A			B	
Approach Vol, veh/h		918						901			542	
Approach Delay, s/veh		16.0						26.0			16.9	
Approach LOS		B						C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		28.0		18.7	12.0	16.0		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		35.5		33.0	* 7.3	23.5		
Max Q Clear Time (g_c+I1), s		7.3		10.7	9.2	8.6		
Green Ext Time (p_c), s		2.9		0.7	0.0	1.9		

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	63	184	28	0	115	0	1000	31	128	634	0
Future Volume (veh/h)	53	63	184	28	0	115	0	1000	31	128	634	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	56	66	194	41	0	169	0	1136	35	160	792	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.68	0.68	0.68	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	159	187	300	0	0	0	0	1796	55	205	2053	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.36	0.36	0.12	0.59	0.00
Sat Flow, veh/h	828	976	1563		0		0	5182	154	1757	3597	0
Grp Volume(v), veh/h	122	0	194		0.0		0	760	411	160	792	0
Grp Sat Flow(s),veh/h/ln	1803	0	1563				0	1679	1813	1757	1752	0
Q Serve(g_s), s	2.1	0.0	4.1				0.0	6.8	6.8	3.2	4.3	0.0
Cycle Q Clear(g_c), s	2.1	0.0	4.1				0.0	6.8	6.8	3.2	4.3	0.0
Prop In Lane	0.46		1.00				0.00		0.09	1.00		0.00
Lane Grp Cap(c), veh/h	346	0	300				0	1202	649	205	2053	0
V/C Ratio(X)	0.35	0.00	0.65				0.00	0.63	0.63	0.78	0.39	0.00
Avail Cap(c_a), veh/h	853	0	739				0	1494	807	342	2632	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.6	0.0	13.4				0.0	9.6	9.6	15.4	4.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.3				0.0	0.6	1.1	6.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.0				0.0	3.2	3.5	1.9	2.0	0.0
LnGrp Delay(d),s/veh	13.2	0.0	15.8				0.0	10.2	10.7	21.8	4.1	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		316						1171			952	
Approach Delay, s/veh		14.8						10.3			7.1	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		10.9		25.1			8.2	16.9
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		27.0			7.0	16.0
Max Q Clear Time (g_c+I1), s		6.1		6.3			5.2	8.8
Green Ext Time (p_c), s		1.0		5.4			0.1	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	757	56	62	290	4	33	9	122	11	7	16
Future Vol, veh/h	10	757	56	62	290	4	33	9	122	11	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	83	83	83	80	80	80	65	65	65
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	971	72	75	349	5	41	11	153	17	11	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	354	0	0	1043	0	0	1553	1537	1007	1541	1571	352
Stage 1	-	-	-	-	-	-	1033	1033	-	502	502	-
Stage 2	-	-	-	-	-	-	520	504	-	1039	1069	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1199	-	-	663	-	-	92	115	291	93	110	689
Stage 1	-	-	-	-	-	-	279	308	-	550	540	-
Stage 2	-	-	-	-	-	-	537	539	-	277	297	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1199	-	-	663	-	-	74	101	291	37	96	689
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	101	-	37	96	-
Stage 1	-	-	-	-	-	-	276	305	-	544	479	-
Stage 2	-	-	-	-	-	-	449	478	-	126	294	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.9	37.4	97.4
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	307	1199	-	-	663	-	-	86
HCM Lane V/C Ratio	0.668	0.011	-	-	0.113	-	-	0.608
HCM Control Delay (s)	37.4	8	-	-	11.1	-	-	97.4
HCM Lane LOS	E	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	4.5	0	-	-	0.4	-	-	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	586	1011	105	230	4	274	9	222	7	16	12
Future Volume (veh/h)	27	586	1011	105	230	4	274	9	222	7	16	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	29	637	0	131	288	5	311	0	0	10	22	16
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.90	0.90	0.90	0.73	0.73	0.73
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	65	755	642	170	848	15	481	0	215	45	99	72
Arrive On Green	0.04	0.41	0.00	0.10	0.47	0.47	0.14	0.00	0.00	0.13	0.13	0.13
Sat Flow, veh/h	1757	1845	1568	1757	1808	31	3514	0	1568	357	784	570
Grp Volume(v), veh/h	29	637	0	131	0	293	311	0	0	48	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1839	1757	0	1568	1711	0	0
Q Serve(g_s), s	1.1	21.5	0.0	5.0	0.0	7.0	5.8	0.0	0.0	1.7	0.0	0.0
Cycle Q Clear(g_c), s	1.1	21.5	0.0	5.0	0.0	7.0	5.8	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.21		0.33
Lane Grp Cap(c), veh/h	65	755	642	170	0	862	481	0	215	215	0	0
V/C Ratio(X)	0.45	0.84	0.00	0.77	0.00	0.34	0.65	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	509	1335	1135	509	0	1331	1526	0	681	743	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.6	18.4	0.0	30.4	0.0	11.6	28.2	0.0	0.0	27.2	0.0	0.0
Incr Delay (d2), s/veh	4.7	2.7	0.0	7.2	0.0	0.2	1.5	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.4	0.0	2.8	0.0	3.6	2.9	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	37.3	21.1	0.0	37.6	0.0	11.8	29.7	0.0	0.0	27.7	0.0	0.0
LnGrp LOS	D	C		D		B	C			C		
Approach Vol, veh/h		666			424			311			48	
Approach Delay, s/veh		21.8			19.8			29.7			27.7	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.5	10.7	32.3		12.7	6.6	36.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		7.8	7.0	23.5		3.7	3.1	9.0
Green Ext Time (p_c), s		1.1	0.3	4.7		0.2	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	920	238	248	255	13	428	0	689	14	5	7
Future Volume (veh/h)	8	920	238	248	255	13	428	0	689	14	5	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	8	958	248	306	315	16	465	0	749	22	8	11
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	20	1102	480	251	1513	77	753	0	1120	197	72	99
Arrive On Green	0.01	0.31	0.31	0.14	0.45	0.45	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1527	1757	3394	172	3514	0	3136	921	335	461
Grp Volume(v), veh/h	8	958	248	306	162	169	465	0	749	41	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1527	1757	1752	1814	1757	0	1568	1717	0	0
Q Serve(g_s), s	0.6	36.1	18.6	20.0	7.9	8.0	16.8	0.0	28.3	2.7	0.0	0.0
Cycle Q Clear(g_c), s	0.6	36.1	18.6	20.0	7.9	8.0	16.8	0.0	28.3	2.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	0.54		0.27
Lane Grp Cap(c), veh/h	20	1102	480	251	781	809	753	0	1120	368	0	0
V/C Ratio(X)	0.40	0.87	0.52	1.22	0.21	0.21	0.62	0.00	0.67	0.11	0.00	0.00
Avail Cap(c_a), veh/h	251	1251	545	251	781	809	753	0	1120	368	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	68.7	45.3	39.3	60.0	23.7	23.7	49.8	0.0	38.0	44.3	0.0	0.0
Incr Delay (d2), s/veh	12.2	6.2	0.9	129.3	0.1	0.1	3.8	0.0	3.2	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	18.4	8.0	18.7	3.9	4.0	8.5	0.0	12.7	1.3	0.0	0.0
LnGrp Delay(d),s/veh	80.9	51.5	40.1	189.3	23.8	23.8	53.6	0.0	41.2	44.9	0.0	0.0
LnGrp LOS	F	D	D	F	C	C	D		D	D		
Approach Vol, veh/h		1214			637			1214			41	
Approach Delay, s/veh		49.4			103.3			46.0			44.9	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	48.0		34.0	5.6	66.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		30.3	22.0	38.1		4.7	2.6	10.0
Green Ext Time (p_c), s		0.0	0.0	5.9		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	59.0
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	47	0	1659	996	7
Future Vol, veh/h	0	47	0	1659	996	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	51	0	1803	1083	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	546	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	411	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	411	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	411	-	-
HCM Lane V/C Ratio	-	0.124	-	-
HCM Control Delay (s)	-	15	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	758	0	51	399	0	16
Future Vol, veh/h	758	0	51	399	0	16
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	824	0	55	434	0	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	824	0	1368	824
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	544	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	802	-	161	371
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	580	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	802	-	150	371
Mov Cap-2 Maneuver	-	-	-	-	150	-
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	540	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	15.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	371	-	-	802	-
HCM Lane V/C Ratio	0.047	-	-	0.069	-
HCM Control Delay (s)	15.2	-	-	9.8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	758	13	0	399	14	0
Future Vol, veh/h	758	13	0	399	14	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	824	14	0	434	15	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1265	831
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	434	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	186	368
Stage 1	-	-	0	-	426	-
Stage 2	-	-	0	-	651	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	186	368
Mov Cap-2 Maneuver	-	-	-	-	186	-
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	26.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	186	-	-	-	-
HCM Lane V/C Ratio	0.082	-	-	-	-
HCM Control Delay (s)	26.1	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	1724	84	0	1021
Future Vol, veh/h	0	16	1724	84	0	1021
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	94	94	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	24	1834	89	0	1110

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	972	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	215	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	213	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	213	-
HCM Lane V/C Ratio	-	-	0.112	-
HCM Control Delay (s)	-	-	24	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	24	0	0	0	17	2486	0	0	814	17
Future Volume (veh/h)	11	0	24	0	0	0	17	2486	0	0	814	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	15	0	33	0	0	0	18	2590	0	0	885	18
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.73	0.73	0.73	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	248	36	458	0	803	0	53	1413	0	0	1084	22
Arrive On Green	0.44	0.00	0.44	0.00	0.00	0.00	0.03	0.40	0.00	0.00	0.31	0.31
Sat Flow, veh/h	395	83	1052	0	1845	0	1757	3597	0	0	3603	71
Grp Volume(v), veh/h	48	0	0	0	0	0	18	2590	0	0	442	461
Grp Sat Flow(s),veh/h/ln	1531	0	0	0	1845	0	1757	1752	0	0	1752	1830
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.6	25.0	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	0.0	0.0	0.6	25.0	0.0	0.0	14.4	14.4
Prop In Lane	0.31		0.69	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	743	0	0	0	803	0	53	1413	0	0	541	565
V/C Ratio(X)	0.06	0.00	0.00	0.00	0.00	0.00	0.34	1.83	0.00	0.00	0.82	0.82
Avail Cap(c_a), veh/h	743	0	0	0	803	0	198	1413	0	0	541	565
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	29.5	18.5	0.0	0.0	19.8	19.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	1.4	377.5	0.0	0.0	12.8	12.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	0.3	86.1	0.0	0.0	8.9	9.2
LnGrp Delay(d),s/veh	10.3	0.0	0.0	0.0	0.0	0.0	30.9	396.0	0.0	0.0	32.6	32.2
LnGrp LOS	B						C	F			C	C
Approach Vol, veh/h		48			0			2608			903	
Approach Delay, s/veh		10.3			0.0			393.5			32.4	
Approach LOS		B						F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		30.4		31.6	5.9	24.5		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		25.0		27.0	7.0	* 14		27.0
Max Q Clear Time (g_c+I1), s		27.0		3.1	2.6	16.4		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	296.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	26	0	26	6	2472	44	32	812	1
Future Volume (veh/h)	2	0	10	26	0	26	6	2472	44	32	812	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	5	0	23	36	0	0	6	2548	0	35	883	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.43	0.43	0.43	0.72	0.72	0.72	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	130	38	455	606	0	556	25	1265	566	103	1420	0
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.00	0.01	0.36	0.00	0.06	0.41	0.00
Sat Flow, veh/h	172	106	1283	1382	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	28	0	0	36	0	0	6	2548	0	35	883	0
Grp Sat Flow(s),veh/h/ln	1562	0	0	1382	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22.4	0.0	1.2	12.4	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.9	0.0	0.0	0.2	22.4	0.0	1.2	12.4	0.0
Prop In Lane	0.18		0.82	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	623	0	0	606	0	556	25	1265	566	103	1420	0
V/C Ratio(X)	0.04	0.00	0.00	0.06	0.00	0.00	0.24	2.01	0.00	0.34	0.62	0.00
Avail Cap(c_a), veh/h	623	0	0	606	0	556	255	1265	566	227	1420	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	13.2	0.0	0.0	30.2	19.8	0.0	28.0	14.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	0.0	0.2	456.6	0.0	0.7	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.4	0.0	0.0	0.1	90.9	0.0	0.6	6.3	0.0
LnGrp Delay(d),s/veh	13.3	0.0	0.0	13.4	0.0	0.0	30.4	476.4	0.0	28.8	16.7	0.0
LnGrp LOS	B			B			C	F		C	B	
Approach Vol, veh/h		28			36			2554			918	
Approach Delay, s/veh		13.3			13.4			475.4			17.2	
Approach LOS		B			B			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	30.5		26.6	7.6	27.8		26.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 17		22.0	8.0	18.0		22.0
Max Q Clear Time (g_c+I1), s	2.2	14.4		2.7	3.2	24.4		2.9
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	348.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	93	127	2519	830	29
Future Volume (veh/h)	19	93	127	2519	830	29
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	21	0	134	2652	874	31
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	480	428	164	2194	1727	757
Arrive On Green	0.27	0.00	0.09	0.63	0.49	0.49
Sat Flow, veh/h	1757	1568	1757	3597	3597	1535
Grp Volume(v), veh/h	21	0	134	2652	874	31
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1535
Q Serve(g_s), s	0.9	0.0	7.5	62.6	16.9	1.0
Cycle Q Clear(g_c), s	0.9	0.0	7.5	62.6	16.9	1.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	480	428	164	2194	1727	757
V/C Ratio(X)	0.04	0.00	0.82	1.21	0.51	0.04
Avail Cap(c_a), veh/h	480	428	264	2194	1727	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.80	0.80
Uniform Delay (d), s/veh	26.7	0.0	44.5	18.7	17.1	13.1
Incr Delay (d2), s/veh	0.2	0.0	4.5	98.5	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	3.9	59.9	8.3	0.5
LnGrp Delay(d),s/veh	26.9	0.0	49.0	117.2	18.0	13.2
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	21			2786	905	
Approach Delay, s/veh	26.9			113.9	17.8	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.3	54.7				68.0		32.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	15.0	* 44				62.6		27.3
Max Q Clear Time (g_c+I1), s	9.5	18.9				64.6		2.9
Green Ext Time (p_c), s	0.1	9.1				0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	90.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1	65	32	0	17	108	2577	46	13	868	35
Future Volume (veh/h)	51	1	65	32	0	17	108	2577	46	13	868	35
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	63	1	0	47	0	25	111	2657	47	14	943	38
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.81	0.81	0.81	0.68	0.68	0.68	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	349	5	257	237	19	85	200	2088	913	40	1429	625
Arrive On Green	0.16	0.16	0.00	0.16	0.00	0.16	0.12	0.60	0.60	0.03	0.50	0.50
Sat Flow, veh/h	1427	28	1568	861	117	520	1616	3505	1533	1433	2859	1251
Grp Volume(v), veh/h	64	0	0	72	0	0	111	2657	47	14	943	38
Grp Sat Flow(s),veh/h/ln	1456	0	1568	1499	0	0	1616	1752	1533	1433	1430	1251
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.0	4.0	36.9	0.8	0.6	15.3	1.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0	2.3	0.0	0.0	4.0	36.9	0.8	0.6	15.3	1.0
Prop In Lane	0.98		1.00	0.65		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	0	257	341	0	0	200	2088	913	40	1429	625
V/C Ratio(X)	0.18	0.00	0.00	0.21	0.00	0.00	0.56	1.27	0.05	0.35	0.66	0.06
Avail Cap(c_a), veh/h	615	0	556	616	0	0	235	2088	913	185	1429	625
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	22.6	0.0	0.0	25.6	12.5	5.2	29.6	11.6	8.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.9	126.6	0.1	2.0	2.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.1	0.0	0.0	1.8	54.1	0.4	0.3	6.4	0.4
LnGrp Delay(d),s/veh	22.6	0.0	0.0	22.7	0.0	0.0	26.5	139.1	5.3	31.6	14.0	8.2
LnGrp LOS	C			C			C	F	A	C	B	A
Approach Vol, veh/h		64			72			2815			995	
Approach Delay, s/veh		22.6			22.7			132.4			14.0	
Approach LOS		C			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.7	36.1		14.3	5.7	42.0		14.3
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	17.8		22.0	8.0	18.8		22.0
Max Q Clear Time (g_c+I1), s	10.3	17.3		4.3	2.6	38.9		4.0
Green Ext Time (p_c), s	0.0	0.4		0.2	0.0	0.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	98.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	789	122	24	160	85	272	99	1534	125	159	722	204
Future Volume (veh/h)	789	122	24	160	85	272	99	1534	125	159	722	204
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	848	131	26	134	151	299	102	1581	129	175	793	224
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	904	395	78	169	178	148	91	1453	634	123	1796	551
Arrive On Green	0.27	0.27	0.27	0.10	0.10	0.10	0.05	0.41	0.41	0.09	0.45	0.45
Sat Flow, veh/h	3408	1490	296	1757	1845	1539	1757	3505	1530	1387	3976	1220
Grp Volume(v), veh/h	848	0	157	134	151	299	102	1581	129	175	793	224
Grp Sat Flow(s),veh/h/ln	1704	0	1786	1757	1845	1539	1757	1752	1530	1387	1325	1220
Q Serve(g_s), s	32.8	0.0	9.6	10.1	10.9	13.0	7.0	56.0	7.3	12.0	18.4	16.6
Cycle Q Clear(g_c), s	32.8	0.0	9.6	10.1	10.9	13.0	7.0	56.0	7.3	12.0	18.4	16.6
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	904	0	474	169	178	148	91	1453	634	123	1796	551
V/C Ratio(X)	0.94	0.00	0.33	0.79	0.85	2.02	1.12	1.09	0.20	1.42	0.44	0.41
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1453	634	123	1796	551
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	0.0	39.9	59.7	60.0	61.0	64.0	39.5	25.3	61.5	25.3	24.9
Incr Delay (d2), s/veh	15.3	0.0	0.2	20.5	29.1	481.0	130.3	51.4	0.7	229.4	0.8	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.4	0.0	4.7	5.8	7.0	25.3	6.7	37.4	3.2	12.4	6.9	5.9
LnGrp Delay(d),s/veh	63.8	0.0	40.1	80.2	89.1	542.0	194.3	90.9	26.0	290.9	26.1	27.1
LnGrp LOS	E		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1005			584			1812			1192	
Approach Delay, s/veh		60.1			319.0			92.1			65.2	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	66.1		17.0	16.0	61.1		40.9
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.0	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	9.0	20.4		15.0	14.0	58.0		34.8
Green Ext Time (p_c), s	0.0	10.8		0.0	0.0	0.0		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	106.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	573	331	0	0	0	202	611	283	0	490	341
Future Volume (veh/h)	269	573	331	0	0	0	202	611	283	0	490	341
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	277	591	341				210	636	0	0	538	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	541	659	380				75	1850	827	0	1464	655
Arrive On Green	0.31	0.31	0.31				0.04	0.53	0.00	0.00	0.42	0.00
Sat Flow, veh/h	1757	2141	1235				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	277	484	448				210	636	0	0	538	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1624				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	9.1	18.5	18.5				3.0	7.3	0.0	0.0	7.4	0.0
Cycle Q Clear(g_c), s	9.1	18.5	18.5				3.0	7.3	0.0	0.0	7.4	0.0
Prop In Lane	1.00		0.76				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	541	540	500				75	1850	827	0	1464	655
V/C Ratio(X)	0.51	0.90	0.90				2.79	0.34	0.00	0.00	0.37	0.00
Avail Cap(c_a), veh/h	753	751	696				75	1850	827	0	1464	655
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.75	0.75	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.9	23.1	23.2				33.5	9.5	0.0	0.0	14.0	0.0
Incr Delay (d2), s/veh	0.3	8.4	9.0				832.2	0.4	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	10.1	9.5				18.8	3.6	0.0	0.0	3.7	0.0
LnGrp Delay(d),s/veh	20.2	31.6	32.2				865.7	9.9	0.0	0.0	14.7	0.0
LnGrp LOS	C	C	C				F	A			B	
Approach Vol, veh/h		1209						846			538	
Approach Delay, s/veh		29.2						222.3			14.7	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		42.3		27.7	7.7	34.6		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		9.3		20.5	5.0	9.4		
Green Ext Time (p_c), s		2.7		0.9	0.0	1.7		

Intersection Summary	
HCM 2010 Ctrl Delay	89.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	70	193	23	0	108	0	903	24	152	662	0
Future Volume (veh/h)	64	70	193	23	0	108	0	903	24	152	662	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	71	78	214	30	0	140	0	961	26	163	712	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	183	201	333	0	0	0	0	1656	45	201	1955	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.33	0.33	0.11	0.56	0.00
Sat Flow, veh/h	859	943	1561		0		0	5204	136	1757	3597	0
Grp Volume(v), veh/h	149	0	214		0.0		0	640	347	163	712	0
Grp Sat Flow(s),veh/h/ln	1802	0	1561				0	1679	1817	1757	1752	0
Q Serve(g_s), s	2.5	0.0	4.4				0.0	5.5	5.5	3.2	3.9	0.0
Cycle Q Clear(g_c), s	2.5	0.0	4.4				0.0	5.5	5.5	3.2	3.9	0.0
Prop In Lane	0.48		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	384	0	333				0	1103	597	201	1955	0
V/C Ratio(X)	0.39	0.00	0.64				0.00	0.58	0.58	0.81	0.36	0.00
Avail Cap(c_a), veh/h	877	0	760				0	1539	833	201	2410	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.8	0.0	12.5				0.0	9.7	9.7	15.1	4.3	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.1				0.0	0.5	0.9	21.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.0				0.0	2.6	2.8	2.7	1.9	0.0
LnGrp Delay(d),s/veh	12.4	0.0	14.6				0.0	10.2	10.6	36.5	4.4	0.0
LnGrp LOS	B		B					B	B	D	A	
Approach Vol, veh/h		363						987			875	
Approach Delay, s/veh		13.7						10.4			10.4	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		11.4		23.5			8.0	15.5
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		6.4		5.9			5.2	7.5
Green Ext Time (p_c), s		1.2		4.5			0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	10.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	854	60	68	287	8	37	7	93	3	11	10
Future Vol, veh/h	25	854	60	68	287	8	37	7	93	3	11	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	83	83	83	82	82	82	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	28	949	67	82	346	10	45	9	113	5	18	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	356	0	0	1016	0	0	1572	1559	983	1558	1587	351
Stage 1	-	-	-	-	-	-	1039	1039	-	515	515	-
Stage 2	-	-	-	-	-	-	533	520	-	1043	1072	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1197	-	-	679	-	-	89	112	301	91	107	690
Stage 1	-	-	-	-	-	-	277	306	-	541	533	-
Stage 2	-	-	-	-	-	-	529	530	-	276	296	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1197	-	-	679	-	-	66	96	301	47	92	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	96	-	47	92	-
Stage 1	-	-	-	-	-	-	271	299	-	529	469	-
Stage 2	-	-	-	-	-	-	436	466	-	163	289	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.1	85.1	48.8
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	192	1197	-	-	679	-	-	121
HCM Lane V/C Ratio	0.87	0.023	-	-	0.121	-	-	0.331
HCM Control Delay (s)	85.1	8.1	-	-	11	-	-	48.8
HCM Lane LOS	F	A	-	-	B	-	-	E
HCM 95th %tile Q(veh)	6.5	0.1	-	-	0.4	-	-	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	698	1069	92	237	3	245	15	223	9	14	5
Future Volume (veh/h)	14	698	1069	92	237	3	245	15	223	9	14	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	15	735	0	107	276	3	269	0	0	12	18	6
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.95	0.95	0.95	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	38	852	724	140	947	10	415	0	185	68	102	34
Arrive On Green	0.02	0.46	0.00	0.08	0.52	0.52	0.12	0.00	0.00	0.12	0.12	0.12
Sat Flow, veh/h	1757	1845	1568	1757	1821	20	3514	0	1568	587	880	293
Grp Volume(v), veh/h	15	735	0	107	0	279	269	0	0	36	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1841	1757	0	1568	1760	0	0
Q Serve(g_s), s	0.6	25.5	0.0	4.3	0.0	6.1	5.2	0.0	0.0	1.3	0.0	0.0
Cycle Q Clear(g_c), s	0.6	25.5	0.0	4.3	0.0	6.1	5.2	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.33		0.17
Lane Grp Cap(c), veh/h	38	852	724	140	0	957	415	0	185	205	0	0
V/C Ratio(X)	0.39	0.86	0.00	0.76	0.00	0.29	0.65	0.00	0.00	0.18	0.00	0.00
Avail Cap(c_a), veh/h	492	1291	1097	492	0	1288	1475	0	658	739	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.5	17.2	0.0	32.2	0.0	9.7	30.1	0.0	0.0	28.5	0.0	0.0
Incr Delay (d2), s/veh	6.5	4.0	0.0	8.4	0.0	0.2	1.7	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.8	0.0	2.4	0.0	3.1	2.6	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d),s/veh	41.0	21.2	0.0	40.6	0.0	9.9	31.8	0.0	0.0	28.9	0.0	0.0
LnGrp LOS	D	C		D		A	C			C		
Approach Vol, veh/h		750			386			269			36	
Approach Delay, s/veh		21.6			18.4			31.8			28.9	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.4	9.7	37.0		12.3	5.5	41.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		7.2	6.3	27.5		3.3	2.6	8.1
Green Ext Time (p_c), s		0.9	0.2	5.5		0.1	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1127	270	209	266	6	484	0	637	17	3	10
Future Volume (veh/h)	12	1127	270	209	266	6	484	0	637	17	3	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	13	1186	284	225	286	6	515	0	678	23	4	13
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.94	0.94	0.94	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	30	1200	519	241	1624	34	722	0	1074	201	35	113
Arrive On Green	0.02	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1516	1757	3510	74	3514	0	3136	977	170	552
Grp Volume(v), veh/h	13	1186	284	225	143	149	515	0	678	40	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1516	1757	1752	1831	1757	0	1568	1698	0	0
Q Serve(g_s), s	1.1	49.1	22.1	18.5	6.9	7.0	19.9	0.0	26.5	2.8	0.0	0.0
Cycle Q Clear(g_c), s	1.1	49.1	22.1	18.5	6.9	7.0	19.9	0.0	26.5	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.57		0.32
Lane Grp Cap(c), veh/h	30	1200	519	241	811	847	722	0	1074	349	0	0
V/C Ratio(X)	0.44	0.99	0.55	0.93	0.18	0.18	0.71	0.00	0.63	0.11	0.00	0.00
Avail Cap(c_a), veh/h	241	1200	519	241	811	847	722	0	1074	349	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.1	47.7	38.8	62.4	22.9	23.0	54.0	0.0	40.3	47.2	0.0	0.0
Incr Delay (d2), s/veh	9.9	23.0	1.2	40.5	0.1	0.1	5.9	0.0	2.8	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	27.6	9.4	11.7	3.4	3.6	10.3	0.0	11.9	1.4	0.0	0.0
LnGrp Delay(d),s/veh	81.0	70.7	40.0	102.9	23.1	23.1	59.9	0.0	43.1	47.9	0.0	0.0
LnGrp LOS	F	E	D	F	C	C	E		D	D		
Approach Vol, veh/h		1483			517			1193			40	
Approach Delay, s/veh		65.0			57.8			50.4			47.9	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	54.0		34.0	6.5	71.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		28.5	20.5	51.1		4.8	3.1	9.0
Green Ext Time (p_c), s		0.9	0.0	0.0		0.1	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	58.2
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	1761	843	11
Future Vol, veh/h	0	33	0	1761	843	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	36	0	1914	916	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	464	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	464	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	464	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	464	-	-
HCM Lane V/C Ratio	-	0.077	-	-
HCM Control Delay (s)	-	13.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	921	0	92	314	0	22
Future Vol, veh/h	921	0	92	314	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1001	0	100	341	0	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1001	0	1542	1001
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	541	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	688	-	126	293
Stage 1	-	-	-	-	354	-
Stage 2	-	-	-	-	581	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	688	-	108	293
Mov Cap-2 Maneuver	-	-	-	-	108	-
Stage 1	-	-	-	-	354	-
Stage 2	-	-	-	-	497	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	18.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	293	-	-	688	-
HCM Lane V/C Ratio	0.082	-	-	0.145	-
HCM Control Delay (s)	18.4	-	-	11.1	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	921	22	0	314	12	0
Future Vol, veh/h	921	22	0	314	12	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1001	24	0	341	13	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1354	1013
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	341	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	164	289
Stage 1	-	-	0	-	349	-
Stage 2	-	-	0	-	718	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	164	289
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	718	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	28.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	164	-	-	-	-
HCM Lane V/C Ratio	0.08	-	-	-	-
HCM Control Delay (s)	28.8	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	1873	46	0	865
Future Vol, veh/h	0	12	1873	46	0	865
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	98	98	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	20	1911	47	0	1006

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	983	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	211	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	210	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	210	-
HCM Lane V/C Ratio	-	-	0.095	-
HCM Control Delay (s)	-	-	23.9	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	299	39	133	760	5	45	5	46	12	8	23
Future Volume (veh/h)	9	299	39	133	760	5	45	5	46	12	8	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	0.99		1.00	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	12	383	50	156	894	6	75	8	0	16	10	30
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.78	0.78	0.78	0.85	0.85	0.85	0.60	0.60	0.60	0.77	0.77	0.77
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	395	1030	134	711	1179	8	358	23	0	174	53	106
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.12	0.12	0.00	0.12	0.12	0.12
Sat Flow, veh/h	610	1599	209	942	1830	12	1287	184	0	317	428	860
Grp Volume(v), veh/h	12	0	433	156	0	900	83	0	0	56	0	0
Grp Sat Flow(s),veh/h/ln	610	0	1808	942	0	1842	1471	0	0	1606	0	0
Q Serve(g_s), s	0.5	0.0	3.9	3.2	0.0	11.7	0.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.2	0.0	3.9	7.0	0.0	11.7	1.6	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.01	0.90		0.00	0.29		0.54
Lane Grp Cap(c), veh/h	395	0	1164	711	0	1187	381	0	0	332	0	0
V/C Ratio(X)	0.03	0.00	0.37	0.22	0.00	0.76	0.22	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	641	0	1894	1091	0	1930	852	0	0	860	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	2.9	4.5	0.0	4.3	13.9	0.0	0.0	13.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.2	0.0	1.0	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.9	0.9	0.0	6.1	0.7	0.0	0.0	0.5	0.0	0.0
LnGrp Delay(d),s/veh	8.5	0.0	3.1	4.7	0.0	5.3	14.2	0.0	0.0	13.9	0.0	0.0
LnGrp LOS	A		A	A		A	B			B		
Approach Vol, veh/h		445			1056			83			56	
Approach Delay, s/veh		3.2			5.2			14.2			13.9	
Approach LOS		A			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.2		26.1		8.2		26.1
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		36.0		16.0		36.0
Max Q Clear Time (g_c+I1), s		3.6		14.2		3.0		13.7
Green Ext Time (p_c), s		0.3		2.9		0.2		8.5

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	757	56	62	290	4	33	9	122	11	7	16
Future Volume (veh/h)	10	757	56	62	290	4	33	9	122	11	7	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	13	971	72	75	349	5	41	11	0	17	11	25
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.78	0.78	0.78	0.83	0.83	0.83	0.80	0.80	0.80	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	816	1185	88	338	1269	18	270	46	0	157	46	75
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.10	0.10	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1013	1694	126	534	1814	26	1080	460	0	376	457	744
Grp Volume(v), veh/h	13	0	1043	75	0	354	52	0	0	53	0	0
Grp Sat Flow(s),veh/h/ln	1013	0	1819	534	0	1840	1540	0	0	1576	0	0
Q Serve(g_s), s	0.2	0.0	16.1	4.6	0.0	2.9	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	3.1	0.0	16.1	20.7	0.0	2.9	1.1	0.0	0.0	1.2	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.01	0.79		0.00	0.32		0.47
Lane Grp Cap(c), veh/h	816	0	1272	338	0	1287	316	0	0	277	0	0
V/C Ratio(X)	0.02	0.00	0.82	0.22	0.00	0.28	0.16	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	1148	0	1869	513	0	1890	747	0	0	738	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.8	0.0	4.2	11.5	0.0	2.2	16.6	0.0	0.0	16.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.9	0.3	0.0	0.1	0.2	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	8.2	0.7	0.0	1.4	0.6	0.0	0.0	0.6	0.0	0.0
LnGrp Delay(d),s/veh	2.8	0.0	6.2	11.9	0.0	2.3	16.9	0.0	0.0	17.0	0.0	0.0
LnGrp LOS	A		A	B		A	B			B		
Approach Vol, veh/h		1056			429			52			53	
Approach Delay, s/veh		6.1			4.0			16.9			17.0	
Approach LOS		A			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.0		31.9		8.0		31.9
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		41.0		16.0		41.0
Max Q Clear Time (g_c+I1), s		3.1		18.1		3.2		22.7
Green Ext Time (p_c), s		0.1		9.8		0.1		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	6.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	854	60	68	287	8	37	7	93	3	11	10
Future Volume (veh/h)	25	854	60	68	287	8	37	7	93	3	11	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	28	949	67	82	346	10	45	9	0	5	18	17
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.83	0.83	0.83	0.82	0.82	0.82	0.60	0.60	0.60
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	803	1159	82	344	1216	35	293	40	0	121	89	76
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.11	0.11	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1011	1700	120	547	1784	52	1115	380	0	129	835	712
Grp Volume(v), veh/h	28	0	1016	82	0	356	54	0	0	40	0	0
Grp Sat Flow(s),veh/h/ln	1011	0	1820	547	0	1836	1495	0	0	1676	0	0
Q Serve(g_s), s	0.4	0.0	15.2	4.8	0.0	2.9	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	15.2	19.9	0.0	2.9	1.1	0.0	0.0	0.8	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.03	0.83		0.00	0.12		0.42
Lane Grp Cap(c), veh/h	803	0	1241	344	0	1251	334	0	0	285	0	0
V/C Ratio(X)	0.03	0.00	0.82	0.24	0.00	0.28	0.16	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h	1079	0	1738	493	0	1753	785	0	0	811	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.0	0.0	4.3	11.5	0.0	2.4	15.5	0.0	0.0	15.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.2	0.4	0.0	0.1	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	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	7.8	0.7	0.0	1.4	0.5	0.0	0.0	0.4	0.0	0.0
LnGrp Delay(d),s/veh	3.0	0.0	6.5	11.9	0.0	2.5	15.8	0.0	0.0	15.6	0.0	0.0
LnGrp LOS	A		A	B		A	B			B		
Approach Vol, veh/h		1044			438			54			40	
Approach Delay, s/veh		6.5			4.2			15.8			15.6	
Approach LOS		A			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.0		29.7		8.0		29.7
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		36.0		16.0		36.0
Max Q Clear Time (g_c+I1), s		3.1		17.2		2.8		21.9
Green Ext Time (p_c), s		0.1		8.5		0.1		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	0	17	0	0	0	7	454	0	0	1933	8
Future Volume (veh/h)	12	0	17	0	0	0	7	454	0	0	1933	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	18	0	26	0	0	0	9	614	0	0	2274	9
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	226	26	267	0	551	0	28	1991	0	0	1786	7
Arrive On Green	0.30	0.00	0.30	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.50	0.50
Sat Flow, veh/h	531	88	895	0	1845	0	1757	3597	0	0	3673	14
Grp Volume(v), veh/h	44	0	0	0	0	0	9	614	0	0	1112	1171
Grp Sat Flow(s),veh/h/ln	1514	0	0	0	1845	0	1757	1752	0	0	1752	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.4	6.9	0.0	0.0	37.4	37.4
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.0	0.0	0.0	0.4	6.9	0.0	0.0	37.4	37.4
Prop In Lane	0.41		0.59	0.00		0.00	1.00		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	520	0	0	0	551	0	28	1991	0	0	874	919
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.32	0.31	0.00	0.00	1.27	1.27
Avail Cap(c_a), veh/h	520	0	0	0	551	0	187	1991	0	0	874	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	0.0	0.0	0.0	0.0	36.5	8.5	0.0	0.0	18.8	18.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.0	2.4	0.4	0.0	0.0	131.6	132.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	0.2	3.4	0.0	0.0	49.9	52.6
LnGrp Delay(d),s/veh	19.3	0.0	0.0	0.0	0.0	0.0	38.9	8.9	0.0	0.0	150.4	150.8
LnGrp LOS	B						D	A			F	F
Approach Vol, veh/h		44			0			623			2283	
Approach Delay, s/veh		19.3			0.0			9.3			150.6	
Approach LOS		B						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		48.0		27.0	5.2	42.8		27.0
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		42.6		22.4	8.0	* 31		22.4
Max Q Clear Time (g_c+I1), s		8.9		3.4	2.4	39.4		0.0
Green Ext Time (p_c), s		6.2		0.2	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	118.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	8	76	0	16	2	438	21	16	1933	1
Future Volume (veh/h)	8	0	8	76	0	16	2	438	21	16	1933	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	16	0	16	143	0	0	3	617	0	19	2274	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	233	23	183	421	0	364	13	1915	857	61	2012	0
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.00	0.01	1.00	0.00	0.03	0.57	0.00
Sat Flow, veh/h	693	97	791	1402	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	32	0	0	143	0	0	3	617	0	19	2274	0
Grp Sat Flow(s),veh/h/ln	1581	0	0	1402	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	0.0	0.1	0.0	0.0	0.8	43.1	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.0	0.8	43.1	0.0
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	439	0	0	421	0	364	13	1915	857	61	2012	0
V/C Ratio(X)	0.07	0.00	0.00	0.34	0.00	0.00	0.23	0.32	0.00	0.31	1.13	0.00
Avail Cap(c_a), veh/h	439	0	0	421	0	364	211	1915	857	187	2012	0
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	0.00	1.00	0.00	0.00	0.96	0.96	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	24.4	0.0	0.0	36.7	0.0	0.0	35.3	16.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	2.2	0.0	0.0	3.3	0.4	0.0	1.1	65.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.8	0.0	0.0	0.1	0.1	0.0	0.4	38.7	0.0
LnGrp Delay(d),s/veh	22.9	0.0	0.0	26.6	0.0	0.0	40.1	0.4	0.0	36.4	81.5	0.0
LnGrp LOS	C			C			D	A		D	F	
Approach Vol, veh/h		32			143			620			2293	
Approach Delay, s/veh		22.9			26.6			0.6			81.1	
Approach LOS		C			C			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	48.5		22.0	6.6	46.4		22.0
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 35		17.4	8.0	35.6		17.4
Max Q Clear Time (g_c+I1), s	2.1	45.1		3.1	2.8	2.0		8.3
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	61.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	389	42	454	2013	7
Future Volume (veh/h)	7	389	42	454	2013	7
Number	3	18	1	6	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	9	0	63	678	2341	8
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.80	0.80	0.67	0.67	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	507	453	98	2257	1969	881
Arrive On Green	0.29	0.00	0.06	0.64	1.00	1.00
Sat Flow, veh/h	1757	1568	1757	3597	3597	1568
Grp Volume(v), veh/h	9	0	63	678	2341	8
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1568
Q Serve(g_s), s	0.5	0.0	5.3	12.8	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	5.3	12.8	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	453	98	2257	1969	881
V/C Ratio(X)	0.02	0.00	0.64	0.30	1.19	0.01
Avail Cap(c_a), veh/h	507	453	141	2257	1969	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.1	0.0	69.4	11.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.6	0.3	85.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.6	6.2	23.4	0.0
LnGrp Delay(d),s/veh	38.2	0.0	72.0	12.1	85.6	0.0
LnGrp LOS	D		E	B	F	A
Approach Vol, veh/h	9			741	2349	
Approach Delay, s/veh	38.2			17.2	85.3	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.3	89.7				102.0		48.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	12.6	* 81				96.6		43.3
Max Q Clear Time (g_c+I1), s	7.3	2.0				14.8		2.5
Green Ext Time (p_c), s	0.0	63.1				7.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	68.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	2	134	51	1	10	95	452	24	9	2321	62
Future Volume (veh/h)	31	2	134	51	1	10	95	452	24	9	2321	62
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.97		0.92	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	46	3	0	77	2	15	136	646	34	10	2551	68
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.68	0.68	0.66	0.66	0.66	0.70	0.70	0.70	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	196	11	0	176	8	27	140	2736	1195	26	2036	889
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.17	1.00	1.00	0.02	0.71	0.71
Sat Flow, veh/h	1325	101	0	1167	69	235	1616	3505	1530	1433	2859	1248
Grp Volume(v), veh/h	49	0	0	94	0	0	136	646	34	10	2551	68
Grp Sat Flow(s),veh/h/ln	1425	0	0	1471	0	0	1616	1752	1530	1433	1430	1248
Q Serve(g_s), s	0.0	0.0	0.0	4.0	0.0	0.0	12.5	0.0	0.0	1.0	106.8	2.5
Cycle Q Clear(g_c), s	4.5	0.0	0.0	8.5	0.0	0.0	12.5	0.0	0.0	1.0	106.8	2.5
Prop In Lane	0.94		0.00	0.82		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	0	210	0	0	140	2736	1195	26	2036	889
V/C Ratio(X)	0.24	0.00	0.00	0.45	0.00	0.00	0.97	0.24	0.03	0.38	1.25	0.08
Avail Cap(c_a), veh/h	306	0	0	310	0	0	140	2736	1195	124	2036	889
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	0.00	1.00	0.00	0.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	0.0	0.0	62.5	0.0	0.0	61.8	0.0	0.0	72.8	21.6	6.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.6	0.0	0.0	60.0	0.2	0.0	3.4	118.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	3.7	0.0	0.0	7.9	0.1	0.0	0.4	74.9	0.9
LnGrp Delay(d),s/veh	61.2	0.0	0.0	63.1	0.0	0.0	121.8	0.2	0.0	76.2	139.6	6.7
LnGrp LOS	E			E			F	A	A	E	F	A
Approach Vol, veh/h		49			94			816			2629	
Approach Delay, s/veh		61.2			63.1			20.4			135.9	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	111.9		21.1	6.7	122.2		21.1
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	13.0	95.9		27.9	13.0	95.9		27.9
Max Q Clear Time (g_c+I1), s	14.5	108.8		10.5	3.0	2.0		6.5
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	7.4		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	106.7	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	82	39	184	120	53	144	617	206	113	1453	765
Future Volume (veh/h)	210	82	39	184	120	53	144	617	206	113	1453	765
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.89	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	350	137	65	206	223	72	200	857	286	124	1597	841
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	538	181	86	238	250	190	199	1696	724	141	1306	568
Arrive On Green	0.16	0.16	0.16	0.14	0.14	0.14	0.11	0.48	0.48	0.10	0.47	0.47
Sat Flow, veh/h	3408	1147	544	1757	1845	1401	1757	3505	1496	1387	2767	1203
Grp Volume(v), veh/h	350	0	202	206	223	72	200	857	286	124	1597	841
Grp Sat Flow(s),veh/h/ln	1704	0	1692	1757	1845	1401	1757	1752	1496	1387	1383	1203
Q Serve(g_s), s	14.5	0.0	17.1	17.2	17.8	7.0	17.0	25.0	18.3	13.2	70.8	70.8
Cycle Q Clear(g_c), s	14.5	0.0	17.1	17.2	17.8	7.0	17.0	25.0	18.3	13.2	70.8	70.8
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	538	0	267	238	250	190	199	1696	724	141	1306	568
V/C Ratio(X)	0.65	0.00	0.76	0.87	0.89	0.38	1.00	0.51	0.40	0.88	1.22	1.48
Avail Cap(c_a), veh/h	611	0	303	269	283	215	199	1696	724	185	1306	568
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	59.3	0.0	60.4	63.5	63.8	59.1	66.5	26.4	24.7	66.5	39.6	39.6
Incr Delay (d2), s/veh	1.3	0.0	7.6	20.5	24.2	0.5	64.9	1.1	1.6	3.2	100.9	217.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	8.6	9.7	10.8	2.7	11.8	12.4	7.9	5.2	45.3	57.8
LnGrp Delay(d),s/veh	60.6	0.0	68.0	84.0	88.0	59.5	131.5	27.5	26.3	69.7	140.5	256.8
LnGrp LOS	E		E	F	F	E	F	C	C	E	F	F
Approach Vol, veh/h		552			501			1343			2562	
Approach Delay, s/veh		63.3			82.3			42.7			175.2	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	75.9		24.3	19.2	77.7		28.8
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	19.0	72.8		19.8	15.2	27.0		19.1
Green Ext Time (p_c), s	0.0	0.0		0.5	0.1	12.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	117.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	233	100	0	0	0	253	681	389	0	428	721
Future Volume (veh/h)	159	233	100	0	0	0	253	681	389	0	428	721
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	169	248	106				291	783	0	0	455	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.94	0.94	0.94				0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	247	339	141				75	2437	1090	0	2051	918
Arrive On Green	0.14	0.14	0.14				0.04	0.70	0.00	0.00	0.59	0.00
Sat Flow, veh/h	1757	2414	1002				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	169	178	176				291	783	0	0	455	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1663				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	6.4	6.8	7.1				3.0	6.1	0.0	0.0	4.3	0.0
Cycle Q Clear(g_c), s	6.4	6.8	7.1				3.0	6.1	0.0	0.0	4.3	0.0
Prop In Lane	1.00		0.60				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	247	246	234				75	2437	1090	0	2051	918
V/C Ratio(X)	0.68	0.72	0.75				3.86	0.32	0.00	0.00	0.22	0.00
Avail Cap(c_a), veh/h	753	751	713				75	2437	1090	0	2051	918
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.66	0.66	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.6	28.8	28.9				33.5	4.2	0.0	0.0	6.9	0.0
Incr Delay (d2), s/veh	1.3	1.5	1.8				1310.3	0.2	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.4	3.4				28.8	3.0	0.0	0.0	2.2	0.0
LnGrp Delay(d),s/veh	29.9	30.3	30.8				1343.8	4.4	0.0	0.0	7.2	0.0
LnGrp LOS	C	C	C				F	A			A	
Approach Vol, veh/h		523						1074			455	
Approach Delay, s/veh		30.3						367.3			7.2	
Approach LOS		C						F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		54.1		15.9	7.7	46.4		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		8.1		9.1	5.0	6.3		
Green Ext Time (p_c), s		3.5		0.3	0.0	1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	201.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	35	153	24	0	173	0	1075	28	68	493	0
Future Volume (veh/h)	45	35	153	24	0	173	0	1075	28	68	493	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	57	44	194	32	0	228	0	1250	33	76	548	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.76	0.76	0.76	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	197	152	303	0	0	0	0	1974	52	106	1997	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.57	0.00
Sat Flow, veh/h	1012	782	1558		0		0	5208	133	1757	3597	0
Grp Volume(v), veh/h	101	0	194		0.0		0	832	451	76	548	0
Grp Sat Flow(s),veh/h/ln	1794	0	1558				0	1679	1817	1757	1752	0
Q Serve(g_s), s	1.6	0.0	3.9				0.0	6.8	6.8	1.4	2.7	0.0
Cycle Q Clear(g_c), s	1.6	0.0	3.9				0.0	6.8	6.8	1.4	2.7	0.0
Prop In Lane	0.56		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	348	0	303				0	1314	712	106	1997	0
V/C Ratio(X)	0.29	0.00	0.64				0.00	0.63	0.63	0.72	0.27	0.00
Avail Cap(c_a), veh/h	953	0	828				0	1585	858	207	2482	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.7	0.0	12.6				0.0	8.3	8.3	15.6	3.7	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.3				0.0	0.6	1.1	8.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.9				0.0	3.2	3.6	0.9	1.3	0.0
LnGrp Delay(d),s/veh	12.1	0.0	14.8				0.0	8.9	9.5	24.4	3.8	0.0
LnGrp LOS	B		B					A	A	C	A	
Approach Vol, veh/h		295						1283			624	
Approach Delay, s/veh		13.9						9.1			6.3	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		10.6		23.3			6.0	17.3
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		18.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		5.9		4.7			3.4	8.8
Green Ext Time (p_c), s		0.9		3.4			0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	35.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	299	39	133	760	5	45	5	46	12	8	23
Future Vol, veh/h	9	299	39	133	760	5	45	5	46	12	8	23
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	60	60	60	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	383	50	156	894	6	75	8	77	16	10	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	900	0	0	433	0	0	1663	1644	408	1645	1666	899
Stage 1	-	-	-	-	-	-	432	432	-	1209	1209	-
Stage 2	-	-	-	-	-	-	1231	1212	-	436	457	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	751	-	-	1121	-	-	77	99	641	79	96	336
Stage 1	-	-	-	-	-	-	600	581	-	222	255	-
Stage 2	-	-	-	-	-	-	216	254	-	597	566	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	751	-	-	1121	-	-	~ 56	84	641	57	81	335
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 56	84	-	57	81	-
Stage 1	-	-	-	-	-	-	590	572	-	218	220	-
Stage 2	-	-	-	-	-	-	161	219	-	510	557	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.3	$ 350.5	63.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	105	751	-	-	1121	-	-	114
HCM Lane V/C Ratio	1.524	0.015	-	-	0.14	-	-	0.49
HCM Control Delay (s)	$ 350.5	9.9	-	-	8.7	-	-	63.7
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	11.9	0	-	-	0.5	-	-	2.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	216	728	182	640	2	284	11	112	15	24	22
Future Volume (veh/h)	18	216	728	182	640	2	284	11	112	15	24	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	20	245	0	200	703	2	369	0	0	19	30	28
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.79	0.79	0.79	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	49	618	525	250	826	2	551	0	246	55	86	80
Arrive On Green	0.03	0.34	0.00	0.14	0.45	0.45	0.16	0.00	0.00	0.13	0.13	0.13
Sat Flow, veh/h	1757	1845	1568	1757	1838	5	3514	0	1568	418	660	616
Grp Volume(v), veh/h	20	245	0	200	0	705	369	0	0	77	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1844	1757	0	1568	1694	0	0
Q Serve(g_s), s	0.8	6.9	0.0	7.5	0.0	23.2	6.7	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	0.8	6.9	0.0	7.5	0.0	23.2	6.7	0.0	0.0	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.25		0.36
Lane Grp Cap(c), veh/h	49	618	525	250	0	829	551	0	246	221	0	0
V/C Ratio(X)	0.41	0.40	0.00	0.80	0.00	0.85	0.67	0.00	0.00	0.35	0.00	0.00
Avail Cap(c_a), veh/h	517	1357	1154	517	0	1356	1551	0	692	748	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.5	17.3	0.0	28.2	0.0	16.7	27.0	0.0	0.0	26.9	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.4	0.0	5.9	0.0	2.9	1.4	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.5	0.0	4.0	0.0	12.4	3.4	0.0	0.0	1.4	0.0	0.0
LnGrp Delay(d),s/veh	37.9	17.7	0.0	34.1	0.0	19.6	28.4	0.0	0.0	27.8	0.0	0.0
LnGrp LOS	D	B		C		B	C			C		
Approach Vol, veh/h		265			905			369			77	
Approach Delay, s/veh		19.3			22.8			28.4			27.8	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.7	13.7	26.8		12.9	5.9	34.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		8.7	9.5	8.9		4.8	2.8	25.2
Green Ext Time (p_c), s		1.3	0.4	1.6		0.4	0.0	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	23.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	566	207	351	524	7	626	0	443	14	2	10
Future Volume (veh/h)	8	566	207	351	524	7	626	0	443	14	2	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	9	651	238	418	624	8	652	0	461	24	3	17
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.96	0.96	0.96	0.59	0.59	0.59
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	23	828	361	280	1355	17	839	0	1246	219	27	155
Arrive On Green	0.01	0.24	0.24	0.16	0.38	0.38	0.24	0.00	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1757	3505	1528	1757	3542	45	3514	0	3129	918	115	650
Grp Volume(v), veh/h	9	651	238	418	309	323	652	0	461	44	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1528	1757	1752	1835	1757	0	1565	1683	0	0
Q Serve(g_s), s	0.6	21.9	17.7	20.0	16.6	16.6	21.8	0.0	13.1	2.6	0.0	0.0
Cycle Q Clear(g_c), s	0.6	21.9	17.7	20.0	16.6	16.6	21.8	0.0	13.1	2.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.55		0.39
Lane Grp Cap(c), veh/h	23	828	361	280	670	702	839	0	1246	402	0	0
V/C Ratio(X)	0.40	0.79	0.66	1.50	0.46	0.46	0.78	0.00	0.37	0.11	0.00	0.00
Avail Cap(c_a), veh/h	280	1394	608	280	697	730	839	0	1246	402	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	61.6	45.0	43.4	52.8	29.1	29.1	44.7	0.0	26.7	37.4	0.0	0.0
Incr Delay (d2), s/veh	10.9	1.7	2.1	240.9	0.5	0.5	7.0	0.0	0.8	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	10.8	7.7	28.3	8.2	8.5	11.4	0.0	5.8	1.3	0.0	0.0
LnGrp Delay(d),s/veh	72.5	46.7	45.5	293.7	29.6	29.6	51.7	0.0	27.6	38.0	0.0	0.0
LnGrp LOS	E	D	D	F	C	C	D		C	D		
Approach Vol, veh/h		898			1050			1113			44	
Approach Delay, s/veh		46.7			134.7			41.7			38.0	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	33.7		34.0	5.6	52.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		23.8	22.0	23.9		4.6	2.6	18.6
Green Ext Time (p_c), s		2.5	0.0	5.8		0.2	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	74.5
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	77	0	1024	1636	4
Future Vol, veh/h	0	77	0	1024	1636	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	84	0	1113	1778	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	891	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	283	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	283	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	283	-	-
HCM Lane V/C Ratio	-	0.296	-	-
HCM Control Delay (s)	-	23	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	1.2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	0	24	909	0	26
Future Vol, veh/h	320	0	24	909	0	26
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	348	0	26	988	0	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	348	0	1388	348
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	1040	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1205	-	157	693
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	339	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1205	-	154	693
Mov Cap-2 Maneuver	-	-	-	-	154	-
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	332	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	693	-	-	1205	-
HCM Lane V/C Ratio	0.041	-	-	0.022	-
HCM Control Delay (s)	10.4	-	-	8.1	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	5	0	909	23	0
Future Vol, veh/h	320	5	0	909	23	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	348	5	0	988	25	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1339	351
Stage 1	-	-	-	-	351	-
Stage 2	-	-	-	-	988	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	168	690
Stage 1	-	-	0	-	710	-
Stage 2	-	-	0	-	359	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	168	690
Mov Cap-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	359	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	30.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	168	-	-	-	-
HCM Lane V/C Ratio	0.149	-	-	-	-
HCM Control Delay (s)	30.1	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	48	1014	72	0	1688
Future Vol, veh/h	0	48	1014	72	0	1688
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	71	71	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	66	1428	101	0	1758

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	775	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	291	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	289	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	289	-
HCM Lane V/C Ratio	-	-	0.228	-
HCM Control Delay (s)	-	-	21.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.9	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	20	0	0	0	16	2078	0	0	819	18
Future Volume (veh/h)	15	0	20	0	0	0	16	2078	0	0	819	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	19	0	25	0	0	0	19	2445	0	0	890	20
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	208	19	231	0	498	0	50	2208	0	0	1966	44
Arrive On Green	0.27	0.00	0.27	0.00	0.00	0.00	0.03	0.63	0.00	0.00	0.56	0.56
Sat Flow, veh/h	580	71	855	0	1845	0	1757	3597	0	0	3595	79
Grp Volume(v), veh/h	44	0	0	0	0	0	19	2445	0	0	445	465
Grp Sat Flow(s),veh/h/ln	1505	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	63.0	0.0	0.0	14.9	14.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	0.0	0.0	0.0	1.1	63.0	0.0	0.0	14.9	14.9
Prop In Lane	0.43		0.57	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	458	0	0	0	498	0	50	2208	0	0	984	1027
V/C Ratio(X)	0.10	0.00	0.00	0.00	0.00	0.00	0.38	1.11	0.00	0.00	0.45	0.45
Avail Cap(c_a), veh/h	458	0	0	0	498	0	123	2208	0	0	984	1027
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	0.0	0.0	0.0	0.0	0.0	47.7	18.5	0.0	0.0	12.9	12.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	1.7	55.6	0.0	0.0	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.0	0.0	0.0	0.5	47.1	0.0	0.0	7.6	7.9
LnGrp Delay(d),s/veh	27.8	0.0	0.0	0.0	0.0	0.0	49.4	74.1	0.0	0.0	14.4	14.3
LnGrp LOS	C						D	F			B	B
Approach Vol, veh/h		44			0			2464			910	
Approach Delay, s/veh		27.8			0.0			73.9			14.4	
Approach LOS		C						E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		68.4		31.6	6.9	61.5		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		63.0		27.0	7.0	* 52		27.0
Max Q Clear Time (g_c+I1), s		65.0		4.0	3.1	16.9		0.0
Green Ext Time (p_c), s		0.0		0.2	0.0	9.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.5
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	9	34	0	36	5	2059	53	22	806	2
Future Volume (veh/h)	2	0	9	34	0	36	5	2059	53	22	806	2
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	4	0	16	42	0	0	6	2394	0	25	906	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	79	19	255	343	0	322	24	2269	1015	65	2351	0
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.00	0.01	0.65	0.00	0.04	0.67	0.00
Sat Flow, veh/h	217	94	1242	1394	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	20	0	0	42	0	0	6	2394	0	25	906	0
Grp Sat Flow(s),veh/h/ln	1552	0	0	1394	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	0.4	82.0	0.0	1.8	14.5	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	2.8	0.0	0.0	0.4	82.0	0.0	1.8	14.5	0.0
Prop In Lane	0.20		0.80	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	353	0	0	343	0	322	24	2269	1015	65	2351	0
V/C Ratio(X)	0.06	0.00	0.00	0.12	0.00	0.00	0.25	1.06	0.00	0.39	0.39	0.00
Avail Cap(c_a), veh/h	353	0	0	343	0	322	125	2269	1015	111	2351	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.5	0.0	0.0	41.1	0.0	0.0	61.9	22.3	0.0	59.6	9.3	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	2.0	35.5	0.0	1.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.3	0.0	0.0	0.2	50.3	0.0	0.9	7.2	0.0
LnGrp Delay(d),s/veh	40.8	0.0	0.0	41.8	0.0	0.0	63.9	57.8	0.0	61.0	9.7	0.0
LnGrp LOS	D			D			E	F		E	A	
Approach Vol, veh/h		20			42			2400			931	
Approach Delay, s/veh		40.8			41.8			57.8			11.1	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	90.4		30.6	8.7	87.4		30.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 81		26.0	8.0	82.0		26.0
Max Q Clear Time (g_c+I1), s	2.4	16.5		3.3	3.8	84.0		4.8
Green Ext Time (p_c), s	0.0	11.9		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	44.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	80	99	2096	832	21
Future Volume (veh/h)	21	80	99	2096	832	21
Number	3	18	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	22	0	115	2437	895	23
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.86	0.86	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	438	391	143	2278	1854	812
Arrive On Green	0.25	0.00	0.08	0.65	0.53	0.53
Sat Flow, veh/h	1757	1568	1757	3597	3597	1534
Grp Volume(v), veh/h	22	0	115	2437	895	23
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1534
Q Serve(g_s), s	1.0	0.0	6.5	65.2	16.2	0.7
Cycle Q Clear(g_c), s	1.0	0.0	6.5	65.2	16.2	0.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	438	391	143	2278	1854	812
V/C Ratio(X)	0.05	0.00	0.81	1.07	0.48	0.03
Avail Cap(c_a), veh/h	438	391	210	2278	1854	812
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	1.00
Uniform Delay (d), s/veh	28.6	0.0	45.3	17.5	14.9	11.3
Incr Delay (d2), s/veh	0.2	0.0	8.0	40.7	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	3.4	43.9	8.1	0.3
LnGrp Delay(d),s/veh	28.8	0.0	53.3	58.2	15.8	11.4
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	22			2552	918	
Approach Delay, s/veh	28.8			58.0	15.7	
Approach LOS	C			E	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		70.6			12.1	58.5		29.7
Change Period (Y+Rc), s		* 5.4			4.0	5.4		4.7
Max Green Setting (Gmax), s		* 65			12.0	48.9		25.0
Max Q Clear Time (g_c+I1), s		67.2			8.5	18.2		3.0
Green Ext Time (p_c), s		0.0			0.0	10.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1	118	40	4	18	121	2133	43	17	848	39
Future Volume (veh/h)	52	1	118	40	4	18	121	2133	43	17	848	39
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.93		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	71	1	0	49	5	22	132	2318	47	18	893	41
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	265	3	247	185	25	67	154	2480	1103	47	1846	804
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.10	0.71	0.71	0.03	0.65	0.65
Sat Flow, veh/h	1334	21	1568	884	156	424	1616	3505	1559	1433	2859	1245
Grp Volume(v), veh/h	72	0	0	76	0	0	132	2318	47	18	893	41
Grp Sat Flow(s),veh/h/ln	1355	0	1568	1463	0	0	1616	1752	1559	1433	1430	1245
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.0	10.4	74.0	1.2	1.6	20.9	1.6
Cycle Q Clear(g_c), s	5.6	0.0	0.0	5.1	0.0	0.0	10.4	74.0	1.2	1.6	20.9	1.6
Prop In Lane	0.99		1.00	0.64		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	0	247	276	0	0	154	2480	1103	47	1846	804
V/C Ratio(X)	0.27	0.00	0.00	0.28	0.00	0.00	0.86	0.93	0.04	0.38	0.48	0.05
Avail Cap(c_a), veh/h	325	0	314	335	0	0	249	2480	1103	99	1846	804
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	0.0	0.0	48.2	0.0	0.0	57.8	16.4	5.7	61.4	11.8	8.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	8.4	8.1	0.1	1.8	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	2.4	0.0	0.0	5.0	38.2	0.5	0.7	8.4	0.6
LnGrp Delay(d),s/veh	48.6	0.0	0.0	48.4	0.0	0.0	66.2	24.5	5.8	63.2	12.8	8.5
LnGrp LOS	D			D			E	C	A	E	B	A
Approach Vol, veh/h		72			76			2497			952	
Approach Delay, s/veh		48.6			48.4			26.3			13.5	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	96.9		24.5	16.4	88.8		24.5
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	91.8		26.0	20.0	80.8		26.0
Max Q Clear Time (g_c+I1), s	12.6	76.0		7.1	12.4	22.9		7.6
Green Ext Time (p_c), s	0.0	14.8		0.2	0.0	11.9		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	592	120	62	161	97	132	91	1486	137	147	763	274
Future Volume (veh/h)	592	120	62	161	97	132	91	1486	137	147	763	274
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	722	146	76	160	175	163	98	1598	147	184	954	342
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	232	121	142	149	107	121	1590	685	155	1375	579
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.07	0.45	0.45	0.11	0.50	0.50
Sat Flow, veh/h	3408	1117	582	1757	1845	1329	1757	3505	1511	1387	2767	1165
Grp Volume(v), veh/h	722	0	222	160	175	163	98	1598	147	184	954	342
Grp Sat Flow(s),veh/h/ln	1704	0	1699	1757	1845	1329	1757	1752	1511	1387	1383	1165
Q Serve(g_s), s	26.0	0.0	14.9	10.1	10.1	10.1	6.9	56.7	7.4	14.0	33.1	26.1
Cycle Q Clear(g_c), s	26.0	0.0	14.9	10.1	10.1	10.1	6.9	56.7	7.4	14.0	33.1	26.1
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	353	142	149	107	121	1590	685	155	1375	579
V/C Ratio(X)	1.02	0.00	0.63	1.13	1.17	1.52	0.81	1.01	0.21	1.18	0.69	0.59
Avail Cap(c_a), veh/h	709	0	353	142	149	107	126	1590	685	155	1375	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	45.1	57.5	57.5	57.4	57.4	34.1	20.7	55.5	24.1	22.4
Incr Delay (d2), s/veh	38.5	0.0	2.7	113.8	128.1	274.6	28.3	23.8	0.7	130.4	2.9	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	0.0	7.2	9.4	10.4	11.9	4.3	32.6	3.2	11.0	13.1	9.1
LnGrp Delay(d),s/veh	88.0	0.0	47.8	171.2	185.6	332.1	85.7	58.0	21.4	185.9	27.0	26.8
LnGrp LOS	F		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		944			498			1843			1480	
Approach Delay, s/veh		78.6			228.9			56.5			46.7	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	12.6	67.2		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	16.0	58.7		12.1	8.9	35.1		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	12.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	75.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	413	257	0	0	0	243	568	379	0	515	407
Future Volume (veh/h)	239	413	257	0	0	0	243	568	379	0	515	407
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	241	417	260				270	631	0	0	542	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.99	0.99	0.99				0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	474	560	346				275	1695	758	0	794	355
Arrive On Green	0.27	0.27	0.27				0.16	0.48	0.00	0.00	0.23	0.00
Sat Flow, veh/h	1757	2075	1281				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	241	351	326				270	631	0	0	542	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1603				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	5.4	8.6	8.7				7.2	5.3	0.0	0.0	6.6	0.0
Cycle Q Clear(g_c), s	5.4	8.6	8.7				7.2	5.3	0.0	0.0	6.6	0.0
Prop In Lane	1.00		0.80				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	474	473	433				275	1695	758	0	794	355
V/C Ratio(X)	0.51	0.74	0.75				0.98	0.37	0.00	0.00	0.68	0.00
Avail Cap(c_a), veh/h	1242	1238	1133				275	2665	1192	0	1764	789
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	14.4	15.6	15.6				19.6	7.6	0.0	0.0	16.5	0.0
Incr Delay (d2), s/veh	0.3	0.9	1.0				49.3	0.1	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.2	3.9				7.1	2.6	0.0	0.0	3.2	0.0
LnGrp Delay(d),s/veh	14.7	16.4	16.6				69.0	7.6	0.0	0.0	16.9	0.0
LnGrp LOS	B	B	B				E	A			B	
Approach Vol, veh/h		918						901			542	
Approach Delay, s/veh		16.0						26.0			16.9	
Approach LOS		B						C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		28.0		18.7	12.0	16.0		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		35.5		33.0	* 7.3	23.5		
Max Q Clear Time (g_c+I1), s		7.3		10.7	9.2	8.6		
Green Ext Time (p_c), s		2.9		0.7	0.0	1.9		

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	63	184	28	0	115	0	1000	31	128	634	0
Future Volume (veh/h)	53	63	184	28	0	115	0	1000	31	128	634	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	56	66	194	41	0	169	0	1136	35	160	792	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.68	0.68	0.68	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	159	187	300	0	0	0	0	1796	55	205	2053	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.36	0.36	0.12	0.59	0.00
Sat Flow, veh/h	828	976	1563		0		0	5182	154	1757	3597	0
Grp Volume(v), veh/h	122	0	194		0.0		0	760	411	160	792	0
Grp Sat Flow(s),veh/h/ln	1803	0	1563				0	1679	1813	1757	1752	0
Q Serve(g_s), s	2.1	0.0	4.1				0.0	6.8	6.8	3.2	4.3	0.0
Cycle Q Clear(g_c), s	2.1	0.0	4.1				0.0	6.8	6.8	3.2	4.3	0.0
Prop In Lane	0.46		1.00				0.00		0.09	1.00		0.00
Lane Grp Cap(c), veh/h	346	0	300				0	1202	649	205	2053	0
V/C Ratio(X)	0.35	0.00	0.65				0.00	0.63	0.63	0.78	0.39	0.00
Avail Cap(c_a), veh/h	853	0	739				0	1494	807	342	2632	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.6	0.0	13.4				0.0	9.6	9.6	15.4	4.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.3				0.0	0.6	1.1	6.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.0				0.0	3.2	3.5	1.9	2.0	0.0
LnGrp Delay(d),s/veh	13.2	0.0	15.8				0.0	10.2	10.7	21.8	4.1	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		316						1171			952	
Approach Delay, s/veh		14.8						10.3			7.1	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		10.9		25.1			8.2	16.9
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		27.0			7.0	16.0
Max Q Clear Time (g_c+I1), s		6.1		6.3			5.2	8.8
Green Ext Time (p_c), s		1.0		5.4			0.1	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	757	56	62	290	4	33	9	122	11	7	16
Future Vol, veh/h	10	757	56	62	290	4	33	9	122	11	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	83	83	83	80	80	80	65	65	65
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	971	72	75	349	5	41	11	153	17	11	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	354	0	0	1043	0	0	1553	1537	1007	1541	1571	352
Stage 1	-	-	-	-	-	-	1033	1033	-	502	502	-
Stage 2	-	-	-	-	-	-	520	504	-	1039	1069	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1199	-	-	663	-	-	92	115	291	93	110	689
Stage 1	-	-	-	-	-	-	279	308	-	550	540	-
Stage 2	-	-	-	-	-	-	537	539	-	277	297	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1199	-	-	663	-	-	74	101	291	37	96	689
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	101	-	37	96	-
Stage 1	-	-	-	-	-	-	276	305	-	544	479	-
Stage 2	-	-	-	-	-	-	449	478	-	126	294	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.9	37.4	97.4
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	307	1199	-	-	663	-	-	86
HCM Lane V/C Ratio	0.668	0.011	-	-	0.113	-	-	0.608
HCM Control Delay (s)	37.4	8	-	-	11.1	-	-	97.4
HCM Lane LOS	E	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	4.5	0	-	-	0.4	-	-	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	586	1011	105	230	4	274	9	222	7	16	12
Future Volume (veh/h)	27	586	1011	105	230	4	274	9	222	7	16	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	29	637	0	131	288	5	311	0	0	10	22	16
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.90	0.90	0.90	0.73	0.73	0.73
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	65	755	642	170	848	15	481	0	215	45	99	72
Arrive On Green	0.04	0.41	0.00	0.10	0.47	0.47	0.14	0.00	0.00	0.13	0.13	0.13
Sat Flow, veh/h	1757	1845	1568	1757	1808	31	3514	0	1568	357	784	570
Grp Volume(v), veh/h	29	637	0	131	0	293	311	0	0	48	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1839	1757	0	1568	1711	0	0
Q Serve(g_s), s	1.1	21.5	0.0	5.0	0.0	7.0	5.8	0.0	0.0	1.7	0.0	0.0
Cycle Q Clear(g_c), s	1.1	21.5	0.0	5.0	0.0	7.0	5.8	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.21		0.33
Lane Grp Cap(c), veh/h	65	755	642	170	0	862	481	0	215	215	0	0
V/C Ratio(X)	0.45	0.84	0.00	0.77	0.00	0.34	0.65	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	509	1335	1135	509	0	1331	1526	0	681	743	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.6	18.4	0.0	30.4	0.0	11.6	28.2	0.0	0.0	27.2	0.0	0.0
Incr Delay (d2), s/veh	4.7	2.7	0.0	7.2	0.0	0.2	1.5	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.4	0.0	2.8	0.0	3.6	2.9	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	37.3	21.1	0.0	37.6	0.0	11.8	29.7	0.0	0.0	27.7	0.0	0.0
LnGrp LOS	D	C		D		B	C			C		
Approach Vol, veh/h		666			424			311			48	
Approach Delay, s/veh		21.8			19.8			29.7			27.7	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.5	10.7	32.3		12.7	6.6	36.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		7.8	7.0	23.5		3.7	3.1	9.0
Green Ext Time (p_c), s		1.1	0.3	4.7		0.2	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	920	238	248	255	13	428	0	689	14	5	7
Future Volume (veh/h)	8	920	238	248	255	13	428	0	689	14	5	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	8	958	248	306	315	16	465	0	749	22	8	11
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	20	1102	480	251	1513	77	753	0	1120	197	72	99
Arrive On Green	0.01	0.31	0.31	0.14	0.45	0.45	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1527	1757	3394	172	3514	0	3136	921	335	461
Grp Volume(v), veh/h	8	958	248	306	162	169	465	0	749	41	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1527	1757	1752	1814	1757	0	1568	1717	0	0
Q Serve(g_s), s	0.6	36.1	18.6	20.0	7.9	8.0	16.8	0.0	28.3	2.7	0.0	0.0
Cycle Q Clear(g_c), s	0.6	36.1	18.6	20.0	7.9	8.0	16.8	0.0	28.3	2.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	0.54		0.27
Lane Grp Cap(c), veh/h	20	1102	480	251	781	809	753	0	1120	368	0	0
V/C Ratio(X)	0.40	0.87	0.52	1.22	0.21	0.21	0.62	0.00	0.67	0.11	0.00	0.00
Avail Cap(c_a), veh/h	251	1251	545	251	781	809	753	0	1120	368	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	68.7	45.3	39.3	60.0	23.7	23.7	49.8	0.0	38.0	44.3	0.0	0.0
Incr Delay (d2), s/veh	12.2	6.2	0.9	129.3	0.1	0.1	3.8	0.0	3.2	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	18.4	8.0	18.7	3.9	4.0	8.5	0.0	12.7	1.3	0.0	0.0
LnGrp Delay(d),s/veh	80.9	51.5	40.1	189.3	23.8	23.8	53.6	0.0	41.2	44.9	0.0	0.0
LnGrp LOS	F	D	D	F	C	C	D		D	D		
Approach Vol, veh/h		1214			637			1214			41	
Approach Delay, s/veh		49.4			103.3			46.0			44.9	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	48.0		34.0	5.6	66.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		30.3	22.0	38.1		4.7	2.6	10.0
Green Ext Time (p_c), s		0.0	0.0	5.9		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	59.0
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	47	0	1659	996	7
Future Vol, veh/h	0	47	0	1659	996	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	51	0	1803	1083	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	546	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	479	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	479	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	479	-	-
HCM Lane V/C Ratio	-	0.107	-	-
HCM Control Delay (s)	-	13.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	758	0	51	399	0	16
Future Vol, veh/h	758	0	51	399	0	16
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	824	0	55	434	0	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	824	0	1368	824
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	544	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	802	-	161	371
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	580	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	802	-	150	371
Mov Cap-2 Maneuver	-	-	-	-	150	-
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	540	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	15.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	371	-	-	802	-
HCM Lane V/C Ratio	0.047	-	-	0.069	-
HCM Control Delay (s)	15.2	-	-	9.8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	758	13	0	399	14	0
Future Vol, veh/h	758	13	0	399	14	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	824	14	0	434	15	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1265	831
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	434	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	186	368
Stage 1	-	-	0	-	426	-
Stage 2	-	-	0	-	651	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	186	368
Mov Cap-2 Maneuver	-	-	-	-	186	-
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	26.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	186	-	-	-	-
HCM Lane V/C Ratio	0.082	-	-	-	-
HCM Control Delay (s)	26.1	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	1724	84	0	1021
Future Vol, veh/h	0	16	1724	84	0	1021
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	94	94	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	24	1834	89	0	1110

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	972	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	215	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	213	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	213	-
HCM Lane V/C Ratio	-	-	0.112	-
HCM Control Delay (s)	-	-	24	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	24	0	0	0	17	2486	0	0	814	17
Future Volume (veh/h)	11	0	24	0	0	0	17	2486	0	0	814	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	15	0	33	0	0	0	18	2590	0	0	885	18
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.73	0.73	0.73	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	248	36	458	0	803	0	53	1413	0	0	1084	22
Arrive On Green	0.44	0.00	0.44	0.00	0.00	0.00	0.03	0.40	0.00	0.00	0.31	0.31
Sat Flow, veh/h	395	83	1052	0	1845	0	1757	3597	0	0	3603	71
Grp Volume(v), veh/h	48	0	0	0	0	0	18	2590	0	0	442	461
Grp Sat Flow(s),veh/h/ln	1531	0	0	0	1845	0	1757	1752	0	0	1752	1830
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.6	25.0	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	0.0	0.0	0.6	25.0	0.0	0.0	14.4	14.4
Prop In Lane	0.31		0.69	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	743	0	0	0	803	0	53	1413	0	0	541	565
V/C Ratio(X)	0.06	0.00	0.00	0.00	0.00	0.00	0.34	1.83	0.00	0.00	0.82	0.82
Avail Cap(c_a), veh/h	743	0	0	0	803	0	198	1413	0	0	541	565
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	29.5	18.5	0.0	0.0	19.8	19.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	1.4	377.5	0.0	0.0	12.8	12.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	0.3	86.1	0.0	0.0	8.9	9.2
LnGrp Delay(d),s/veh	10.3	0.0	0.0	0.0	0.0	0.0	30.9	396.0	0.0	0.0	32.6	32.2
LnGrp LOS	B						C	F			C	C
Approach Vol, veh/h		48			0			2608			903	
Approach Delay, s/veh		10.3			0.0			393.5			32.4	
Approach LOS		B						F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		30.4		31.6	5.9	24.5		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		25.0		27.0	7.0	* 14		27.0
Max Q Clear Time (g_c+I1), s		27.0		3.1	2.6	16.4		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	296.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	26	0	26	6	2472	44	32	812	1
Future Volume (veh/h)	2	0	10	26	0	26	6	2472	44	32	812	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	5	0	23	36	0	0	6	2548	0	35	883	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.43	0.43	0.43	0.72	0.72	0.72	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	130	38	455	606	0	556	25	1265	566	103	1420	0
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.00	0.01	0.36	0.00	0.06	0.41	0.00
Sat Flow, veh/h	172	106	1283	1382	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	28	0	0	36	0	0	6	2548	0	35	883	0
Grp Sat Flow(s),veh/h/ln	1562	0	0	1382	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22.4	0.0	1.2	12.4	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.9	0.0	0.0	0.2	22.4	0.0	1.2	12.4	0.0
Prop In Lane	0.18		0.82	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	623	0	0	606	0	556	25	1265	566	103	1420	0
V/C Ratio(X)	0.04	0.00	0.00	0.06	0.00	0.00	0.24	2.01	0.00	0.34	0.62	0.00
Avail Cap(c_a), veh/h	623	0	0	606	0	556	255	1265	566	227	1420	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	13.2	0.0	0.0	30.2	19.8	0.0	28.0	14.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	0.0	0.2	456.6	0.0	0.7	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.4	0.0	0.0	0.1	90.9	0.0	0.6	6.3	0.0
LnGrp Delay(d),s/veh	13.3	0.0	0.0	13.4	0.0	0.0	30.4	476.4	0.0	28.8	16.7	0.0
LnGrp LOS	B			B			C	F		C	B	
Approach Vol, veh/h		28			36			2554			918	
Approach Delay, s/veh		13.3			13.4			475.4			17.2	
Approach LOS		B			B			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	30.5		26.6	7.6	27.8		26.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 17		22.0	8.0	18.0		22.0
Max Q Clear Time (g_c+I1), s	2.2	14.4		2.7	3.2	24.4		2.9
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	348.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	93	127	2519	830	29
Future Volume (veh/h)	19	93	127	2519	830	29
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	21	0	134	2652	874	31
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	480	428	164	2194	1727	757
Arrive On Green	0.27	0.00	0.09	0.63	0.49	0.49
Sat Flow, veh/h	1757	1568	1757	3597	3597	1535
Grp Volume(v), veh/h	21	0	134	2652	874	31
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1535
Q Serve(g_s), s	0.9	0.0	7.5	62.6	16.9	1.0
Cycle Q Clear(g_c), s	0.9	0.0	7.5	62.6	16.9	1.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	480	428	164	2194	1727	757
V/C Ratio(X)	0.04	0.00	0.82	1.21	0.51	0.04
Avail Cap(c_a), veh/h	480	428	264	2194	1727	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.80	0.80
Uniform Delay (d), s/veh	26.7	0.0	44.5	18.7	17.1	13.1
Incr Delay (d2), s/veh	0.2	0.0	4.5	98.5	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	3.9	59.9	8.3	0.5
LnGrp Delay(d),s/veh	26.9	0.0	49.0	117.2	18.0	13.2
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	21			2786	905	
Approach Delay, s/veh	26.9			113.9	17.8	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.3	54.7				68.0		32.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	15.6	* 44				62.6		27.3
Max Q Clear Time (g_c+I1), s	9.5	18.9				64.6		2.9
Green Ext Time (p_c), s	0.1	9.1				0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	90.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1	65	32	0	17	108	2577	46	13	868	35
Future Volume (veh/h)	51	1	65	32	0	17	108	2577	46	13	868	35
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	63	1	0	47	0	25	111	2657	47	14	943	38
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.81	0.81	0.81	0.68	0.68	0.68	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	349	5	257	237	19	85	200	2088	913	40	1429	625
Arrive On Green	0.16	0.16	0.00	0.16	0.00	0.16	0.12	0.60	0.60	0.03	0.50	0.50
Sat Flow, veh/h	1427	28	1568	861	117	520	1616	3505	1533	1433	2859	1251
Grp Volume(v), veh/h	64	0	0	72	0	0	111	2657	47	14	943	38
Grp Sat Flow(s),veh/h/ln	1456	0	1568	1499	0	0	1616	1752	1533	1433	1430	1251
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.0	4.0	36.9	0.8	0.6	15.3	1.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0	2.3	0.0	0.0	4.0	36.9	0.8	0.6	15.3	1.0
Prop In Lane	0.98		1.00	0.65		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	0	257	341	0	0	200	2088	913	40	1429	625
V/C Ratio(X)	0.18	0.00	0.00	0.21	0.00	0.00	0.56	1.27	0.05	0.35	0.66	0.06
Avail Cap(c_a), veh/h	615	0	556	616	0	0	235	2088	913	185	1429	625
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	22.6	0.0	0.0	25.6	12.5	5.2	29.6	11.6	8.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.1	123.0	0.0	2.0	2.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.1	0.0	0.0	1.8	53.1	0.3	0.3	6.4	0.4
LnGrp Delay(d),s/veh	22.6	0.0	0.0	22.7	0.0	0.0	25.6	135.6	5.2	31.6	14.0	8.2
LnGrp LOS	C			C			C	F	A	C	B	A
Approach Vol, veh/h		64			72			2815			995	
Approach Delay, s/veh		22.6			22.7			129.1			14.0	
Approach LOS		C			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.7	36.1		14.3	5.7	42.0		14.3
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	17.8		22.0	8.0	18.8		22.0
Max Q Clear Time (g_c+I1), s	10.3	17.3		4.3	2.6	38.9		4.0
Green Ext Time (p_c), s	0.0	0.4		0.2	0.0	0.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	96.4
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	789	122	24	160	85	272	99	1534	125	159	722	204
Future Volume (veh/h)	789	122	24	160	85	272	99	1534	125	159	722	204
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	848	131	26	134	151	299	102	1581	129	175	793	224
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	904	395	78	169	178	148	91	1453	634	123	1250	551
Arrive On Green	0.27	0.27	0.27	0.10	0.10	0.10	0.05	0.41	0.41	0.09	0.45	0.45
Sat Flow, veh/h	3408	1490	296	1757	1845	1539	1757	3505	1530	1387	2767	1220
Grp Volume(v), veh/h	848	0	157	134	151	299	102	1581	129	175	793	224
Grp Sat Flow(s),veh/h/ln	1704	0	1786	1757	1845	1539	1757	1752	1530	1387	1383	1220
Q Serve(g_s), s	32.8	0.0	9.6	10.1	10.9	13.0	7.0	56.0	7.3	12.0	29.7	16.6
Cycle Q Clear(g_c), s	32.8	0.0	9.6	10.1	10.9	13.0	7.0	56.0	7.3	12.0	29.7	16.6
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	904	0	474	169	178	148	91	1453	634	123	1250	551
V/C Ratio(X)	0.94	0.00	0.33	0.79	0.85	2.02	1.12	1.09	0.20	1.42	0.63	0.41
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1453	634	123	1250	551
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	48.5	0.0	39.9	59.7	60.0	61.0	64.0	39.5	25.3	61.5	28.4	24.9
Incr Delay (d2), s/veh	15.3	0.0	0.2	20.5	29.1	481.0	130.3	51.4	0.7	221.7	1.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.4	0.0	4.7	5.8	7.0	25.3	6.7	37.4	3.2	12.2	11.7	5.9
LnGrp Delay(d),s/veh	63.8	0.0	40.1	80.2	89.1	542.0	194.3	90.9	26.0	283.2	30.4	26.6
LnGrp LOS	E		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1005			584			1812			1192	
Approach Delay, s/veh		60.1			319.0			92.1			66.8	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	66.1		17.0	16.0	61.1		40.9
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.0	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	9.0	31.7		15.0	14.0	58.0		34.8
Green Ext Time (p_c), s	0.0	9.8		0.0	0.0	0.0		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	107.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	573	331	0	0	0	202	611	283	0	490	341
Future Volume (veh/h)	269	573	331	0	0	0	202	611	283	0	490	341
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	277	591	341				210	636	0	0	538	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	541	659	380				75	1850	827	0	1464	655
Arrive On Green	0.31	0.31	0.31				0.04	0.53	0.00	0.00	0.42	0.00
Sat Flow, veh/h	1757	2141	1235				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	277	484	448				210	636	0	0	538	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1624				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	9.1	18.5	18.5				3.0	7.3	0.0	0.0	7.4	0.0
Cycle Q Clear(g_c), s	9.1	18.5	18.5				3.0	7.3	0.0	0.0	7.4	0.0
Prop In Lane	1.00		0.76				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	541	540	500				75	1850	827	0	1464	655
V/C Ratio(X)	0.51	0.90	0.90				2.79	0.34	0.00	0.00	0.37	0.00
Avail Cap(c_a), veh/h	753	751	696				75	1850	827	0	1464	655
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.75	0.75	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.9	23.1	23.2				33.5	9.5	0.0	0.0	14.0	0.0
Incr Delay (d2), s/veh	0.3	8.4	9.0				832.2	0.4	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	10.1	9.5				18.8	3.6	0.0	0.0	3.7	0.0
LnGrp Delay(d),s/veh	20.2	31.6	32.2				865.7	9.9	0.0	0.0	14.7	0.0
LnGrp LOS	C	C	C				F	A			B	
Approach Vol, veh/h		1209						846			538	
Approach Delay, s/veh		29.2						222.3			14.7	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		42.3		27.7	7.7	34.6		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		9.3		20.5	5.0	9.4		
Green Ext Time (p_c), s		2.7		0.9	0.0	1.7		

Intersection Summary	
HCM 2010 Ctrl Delay	89.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	70	193	23	0	108	0	903	24	152	662	0
Future Volume (veh/h)	64	70	193	23	0	108	0	903	24	152	662	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	71	78	214	30	0	140	0	961	26	163	712	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	183	201	333	0	0	0	0	1656	45	201	1955	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.33	0.33	0.11	0.56	0.00
Sat Flow, veh/h	859	943	1561		0		0	5204	136	1757	3597	0
Grp Volume(v), veh/h	149	0	214		0.0		0	640	347	163	712	0
Grp Sat Flow(s),veh/h/ln	1802	0	1561				0	1679	1817	1757	1752	0
Q Serve(g_s), s	2.5	0.0	4.4				0.0	5.5	5.5	3.2	3.9	0.0
Cycle Q Clear(g_c), s	2.5	0.0	4.4				0.0	5.5	5.5	3.2	3.9	0.0
Prop In Lane	0.48		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	384	0	333				0	1103	597	201	1955	0
V/C Ratio(X)	0.39	0.00	0.64				0.00	0.58	0.58	0.81	0.36	0.00
Avail Cap(c_a), veh/h	877	0	760				0	1539	833	201	2410	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.8	0.0	12.5				0.0	9.7	9.7	15.1	4.3	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.1				0.0	0.5	0.9	21.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.0				0.0	2.6	2.8	2.7	1.9	0.0
LnGrp Delay(d),s/veh	12.4	0.0	14.6				0.0	10.2	10.6	36.5	4.4	0.0
LnGrp LOS	B		B					B	B	D	A	
Approach Vol, veh/h		363						987			875	
Approach Delay, s/veh		13.7						10.4			10.4	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		11.4		23.5			8.0	15.5
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		6.4		5.9			5.2	7.5
Green Ext Time (p_c), s		1.2		4.5			0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	10.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	854	60	68	287	8	37	7	93	3	11	10
Future Vol, veh/h	25	854	60	68	287	8	37	7	93	3	11	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	83	83	83	82	82	82	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	28	949	67	82	346	10	45	9	113	5	18	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	356	0	0	1016	0	0	1572	1559	983	1558	1587	351
Stage 1	-	-	-	-	-	-	1039	1039	-	515	515	-
Stage 2	-	-	-	-	-	-	533	520	-	1043	1072	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1197	-	-	679	-	-	89	112	301	91	107	690
Stage 1	-	-	-	-	-	-	277	306	-	541	533	-
Stage 2	-	-	-	-	-	-	529	530	-	276	296	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1197	-	-	679	-	-	66	96	301	47	92	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	96	-	47	92	-
Stage 1	-	-	-	-	-	-	271	299	-	529	469	-
Stage 2	-	-	-	-	-	-	436	466	-	163	289	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.1	85.1	48.8
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	192	1197	-	-	679	-	-	121
HCM Lane V/C Ratio	0.87	0.023	-	-	0.121	-	-	0.331
HCM Control Delay (s)	85.1	8.1	-	-	11	-	-	48.8
HCM Lane LOS	F	A	-	-	B	-	-	E
HCM 95th %tile Q(veh)	6.5	0.1	-	-	0.4	-	-	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	698	1069	92	237	3	245	15	223	9	14	5
Future Volume (veh/h)	14	698	1069	92	237	3	245	15	223	9	14	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	15	735	0	107	276	3	269	0	0	12	18	6
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.95	0.95	0.95	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	38	852	724	140	947	10	415	0	185	68	102	34
Arrive On Green	0.02	0.46	0.00	0.08	0.52	0.52	0.12	0.00	0.00	0.12	0.12	0.12
Sat Flow, veh/h	1757	1845	1568	1757	1821	20	3514	0	1568	587	880	293
Grp Volume(v), veh/h	15	735	0	107	0	279	269	0	0	36	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1841	1757	0	1568	1760	0	0
Q Serve(g_s), s	0.6	25.5	0.0	4.3	0.0	6.1	5.2	0.0	0.0	1.3	0.0	0.0
Cycle Q Clear(g_c), s	0.6	25.5	0.0	4.3	0.0	6.1	5.2	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.33		0.17
Lane Grp Cap(c), veh/h	38	852	724	140	0	957	415	0	185	205	0	0
V/C Ratio(X)	0.39	0.86	0.00	0.76	0.00	0.29	0.65	0.00	0.00	0.18	0.00	0.00
Avail Cap(c_a), veh/h	492	1291	1097	492	0	1288	1475	0	658	739	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.5	17.2	0.0	32.2	0.0	9.7	30.1	0.0	0.0	28.5	0.0	0.0
Incr Delay (d2), s/veh	6.5	4.0	0.0	8.4	0.0	0.2	1.7	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.8	0.0	2.4	0.0	3.1	2.6	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d),s/veh	41.0	21.2	0.0	40.6	0.0	9.9	31.8	0.0	0.0	28.9	0.0	0.0
LnGrp LOS	D	C		D		A	C			C		
Approach Vol, veh/h		750			386			269			36	
Approach Delay, s/veh		21.6			18.4			31.8			28.9	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.4	9.7	37.0		12.3	5.5	41.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		7.2	6.3	27.5		3.3	2.6	8.1
Green Ext Time (p_c), s		0.9	0.2	5.5		0.1	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1127	270	209	266	6	484	0	637	17	3	10
Future Volume (veh/h)	12	1127	270	209	266	6	484	0	637	17	3	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	13	1186	284	225	286	6	515	0	678	23	4	13
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.94	0.94	0.94	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	30	1200	519	241	1624	34	722	0	1074	201	35	113
Arrive On Green	0.02	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1516	1757	3510	74	3514	0	3136	977	170	552
Grp Volume(v), veh/h	13	1186	284	225	143	149	515	0	678	40	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1516	1757	1752	1831	1757	0	1568	1698	0	0
Q Serve(g_s), s	1.1	49.1	22.1	18.5	6.9	7.0	19.9	0.0	26.5	2.8	0.0	0.0
Cycle Q Clear(g_c), s	1.1	49.1	22.1	18.5	6.9	7.0	19.9	0.0	26.5	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.57		0.32
Lane Grp Cap(c), veh/h	30	1200	519	241	811	847	722	0	1074	349	0	0
V/C Ratio(X)	0.44	0.99	0.55	0.93	0.18	0.18	0.71	0.00	0.63	0.11	0.00	0.00
Avail Cap(c_a), veh/h	241	1200	519	241	811	847	722	0	1074	349	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.1	47.7	38.8	62.4	22.9	23.0	54.0	0.0	40.3	47.2	0.0	0.0
Incr Delay (d2), s/veh	9.9	23.0	1.2	40.5	0.1	0.1	5.9	0.0	2.8	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	27.6	9.4	11.7	3.4	3.6	10.3	0.0	11.9	1.4	0.0	0.0
LnGrp Delay(d),s/veh	81.0	70.7	40.0	102.9	23.1	23.1	59.9	0.0	43.1	47.9	0.0	0.0
LnGrp LOS	F	E	D	F	C	C	E		D	D		
Approach Vol, veh/h		1483			517			1193			40	
Approach Delay, s/veh		65.0			57.8			50.4			47.9	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	54.0		34.0	6.5	71.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		28.5	20.5	51.1		4.8	3.1	9.0
Green Ext Time (p_c), s		0.9	0.0	0.0		0.1	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	58.2
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	1761	843	11
Future Vol, veh/h	0	33	0	1761	843	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	36	0	1914	916	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	464	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	542	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	542	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	542	-	-
HCM Lane V/C Ratio	-	0.066	-	-
HCM Control Delay (s)	-	12.1	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	921	0	92	314	0	22
Future Vol, veh/h	921	0	92	314	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1001	0	100	341	0	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1001	0	1542	1001
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	541	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	688	-	126	293
Stage 1	-	-	-	-	354	-
Stage 2	-	-	-	-	581	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	688	-	108	293
Mov Cap-2 Maneuver	-	-	-	-	108	-
Stage 1	-	-	-	-	354	-
Stage 2	-	-	-	-	497	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	18.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	293	-	-	688	-
HCM Lane V/C Ratio	0.082	-	-	0.145	-
HCM Control Delay (s)	18.4	-	-	11.1	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	921	22	0	314	12	0
Future Vol, veh/h	921	22	0	314	12	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1001	24	0	341	13	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1354	1013
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	341	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	164	289
Stage 1	-	-	0	-	349	-
Stage 2	-	-	0	-	718	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	164	289
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	718	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	28.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	164	-	-	-	-
HCM Lane V/C Ratio	0.08	-	-	-	-
HCM Control Delay (s)	28.8	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	1873	46	0	865
Future Vol, veh/h	0	12	1873	46	0	865
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	98	98	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	20	1911	47	0	1006

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	983	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	211	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	210	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	210	-
HCM Lane V/C Ratio	-	-	0.095	-
HCM Control Delay (s)	-	-	23.9	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	299	39	133	760	5	45	5	46	12	8	23
Future Volume (veh/h)	9	299	39	133	760	5	45	5	46	12	8	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	0.99		1.00	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	12	383	50	156	894	6	75	8	0	16	10	30
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.78	0.78	0.78	0.85	0.85	0.85	0.60	0.60	0.60	0.77	0.77	0.77
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	395	1030	134	711	1179	8	358	23	0	174	53	106
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.12	0.12	0.00	0.12	0.12	0.12
Sat Flow, veh/h	610	1599	209	942	1830	12	1287	184	0	317	428	860
Grp Volume(v), veh/h	12	0	433	156	0	900	83	0	0	56	0	0
Grp Sat Flow(s),veh/h/ln	610	0	1808	942	0	1842	1471	0	0	1606	0	0
Q Serve(g_s), s	0.5	0.0	3.9	3.2	0.0	11.7	0.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.2	0.0	3.9	7.0	0.0	11.7	1.6	0.0	0.0	1.0	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.01	0.90		0.00	0.29		0.54
Lane Grp Cap(c), veh/h	395	0	1164	711	0	1187	381	0	0	332	0	0
V/C Ratio(X)	0.03	0.00	0.37	0.22	0.00	0.76	0.22	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	641	0	1894	1091	0	1930	852	0	0	860	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	2.9	4.5	0.0	4.3	13.9	0.0	0.0	13.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.2	0.0	1.0	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.9	0.9	0.0	6.1	0.7	0.0	0.0	0.5	0.0	0.0
LnGrp Delay(d),s/veh	8.5	0.0	3.1	4.7	0.0	5.3	14.2	0.0	0.0	13.9	0.0	0.0
LnGrp LOS	A		A	A		A	B			B		
Approach Vol, veh/h		445			1056			83			56	
Approach Delay, s/veh		3.2			5.2			14.2			13.9	
Approach LOS		A			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.2		26.1		8.2		26.1
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		36.0		16.0		36.0
Max Q Clear Time (g_c+I1), s		3.6		14.2		3.0		13.7
Green Ext Time (p_c), s		0.3		2.9		0.2		8.5

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	757	56	62	290	4	33	9	122	11	7	16
Future Volume (veh/h)	10	757	56	62	290	4	33	9	122	11	7	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	13	971	72	75	349	5	41	11	0	17	11	25
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.78	0.78	0.78	0.83	0.83	0.83	0.80	0.80	0.80	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	816	1185	88	338	1269	18	270	46	0	157	46	75
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.10	0.10	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1013	1694	126	534	1814	26	1080	460	0	376	457	744
Grp Volume(v), veh/h	13	0	1043	75	0	354	52	0	0	53	0	0
Grp Sat Flow(s),veh/h/ln	1013	0	1819	534	0	1840	1540	0	0	1576	0	0
Q Serve(g_s), s	0.2	0.0	16.1	4.6	0.0	2.9	0.0	0.0	0.0	0.1	0.0	0.0
Cycle Q Clear(g_c), s	3.1	0.0	16.1	20.7	0.0	2.9	1.1	0.0	0.0	1.2	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.01	0.79		0.00	0.32		0.47
Lane Grp Cap(c), veh/h	816	0	1272	338	0	1287	316	0	0	277	0	0
V/C Ratio(X)	0.02	0.00	0.82	0.22	0.00	0.28	0.16	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	1148	0	1869	513	0	1890	747	0	0	738	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.8	0.0	4.2	11.5	0.0	2.2	16.6	0.0	0.0	16.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.9	0.3	0.0	0.1	0.2	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	8.2	0.7	0.0	1.4	0.6	0.0	0.0	0.6	0.0	0.0
LnGrp Delay(d),s/veh	2.8	0.0	6.2	11.9	0.0	2.3	16.9	0.0	0.0	17.0	0.0	0.0
LnGrp LOS	A		A	B		A	B			B		
Approach Vol, veh/h		1056			429			52			53	
Approach Delay, s/veh		6.1			4.0			16.9			17.0	
Approach LOS		A			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.0		31.9		8.0		31.9
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		41.0		16.0		41.0
Max Q Clear Time (g_c+I1), s		3.1		18.1		3.2		22.7
Green Ext Time (p_c), s		0.1		9.8		0.1		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	6.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	854	60	68	287	8	37	7	93	3	11	10
Future Volume (veh/h)	25	854	60	68	287	8	37	7	93	3	11	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	28	949	67	82	346	10	45	9	0	5	18	17
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.83	0.83	0.83	0.82	0.82	0.82	0.60	0.60	0.60
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	803	1159	82	344	1216	35	293	40	0	121	89	76
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.11	0.11	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1011	1700	120	547	1784	52	1115	380	0	129	835	712
Grp Volume(v), veh/h	28	0	1016	82	0	356	54	0	0	40	0	0
Grp Sat Flow(s),veh/h/ln	1011	0	1820	547	0	1836	1495	0	0	1676	0	0
Q Serve(g_s), s	0.4	0.0	15.2	4.8	0.0	2.9	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	15.2	19.9	0.0	2.9	1.1	0.0	0.0	0.8	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.03	0.83		0.00	0.12		0.42
Lane Grp Cap(c), veh/h	803	0	1241	344	0	1251	334	0	0	285	0	0
V/C Ratio(X)	0.03	0.00	0.82	0.24	0.00	0.28	0.16	0.00	0.00	0.14	0.00	0.00
Avail Cap(c_a), veh/h	1079	0	1738	493	0	1753	785	0	0	811	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.0	0.0	4.3	11.5	0.0	2.4	15.5	0.0	0.0	15.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.2	0.4	0.0	0.1	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	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	7.8	0.7	0.0	1.4	0.5	0.0	0.0	0.4	0.0	0.0
LnGrp Delay(d),s/veh	3.0	0.0	6.5	11.9	0.0	2.5	15.8	0.0	0.0	15.6	0.0	0.0
LnGrp LOS	A		A	B		A	B			B		
Approach Vol, veh/h		1044			438			54			40	
Approach Delay, s/veh		6.5			4.2			15.8			15.6	
Approach LOS		A			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.0		29.7		8.0		29.7
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		36.0		16.0		36.0
Max Q Clear Time (g_c+I1), s		3.1		17.2		2.8		21.9
Green Ext Time (p_c), s		0.1		8.5		0.1		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	10559	10434	10596	10438	10477	10502
Vehs Exited	10222	10147	10304	10167	10172	10202
Starting Vehs	451	457	425	480	462	445
Ending Vehs	788	744	717	751	767	751
Travel Distance (mi)	6966	6947	7058	7083	7034	7018
Travel Time (hr)	1300.3	1276.9	1189.8	1310.0	1220.2	1259.4
Total Delay (hr)	1070.2	1048.3	957.7	1076.9	988.7	1028.4
Total Stops	24402	24458	22652	23753	24888	24029
Fuel Used (gal)	494.6	488.9	473.8	500.6	476.4	486.8

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	10559	10434	10596	10438	10477	10502
Vehs Exited	10222	10147	10304	10167	10172	10202
Starting Vehs	451	457	425	480	462	445
Ending Vehs	788	744	717	751	767	751
Travel Distance (mi)	6966	6947	7058	7083	7034	7018
Travel Time (hr)	1300.3	1276.9	1189.8	1310.0	1220.2	1259.4
Total Delay (hr)	1070.2	1048.3	957.7	1076.9	988.7	1028.4
Total Stops	24402	24458	22652	23753	24888	24029
Fuel Used (gal)	494.6	488.9	473.8	500.6	476.4	486.8

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	40.1	73.0	0.1	7
SR 24 EB On Ramp	6	8.5	14.5	0.1	15
	17	1.3	6.2	0.1	40
	16	0.5	9.1	0.1	28
	15	0.7	9.7	0.1	40
Acalanes Avenue	14	1.4	9.5	0.1	23
Project Dwy	11	1.0	4.6	0.0	30
Stanley Boulevard	5	26.5	45.2	0.1	8
	37	3.4	11.3	0.1	26
Quandt Road	4	3.0	28.9	0.4	45
	20	3.0	12.0	0.1	29
Reliez Valle Road	3	8.8	12.0	0.0	10
Greenvalley Drive	2	5.3	27.5	0.3	33
	19	1.2	7.6	0.1	34
Rancho View Drive	1	15.0	27.9	0.1	19
Total		119.6	299.0	1.6	22

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	109.7	774.2	0.2	4
	19	81.5	96.7	0.1	6
Greenvalley Drive	2	50.7	57.5	0.1	4
Reliez Valle Road	3	152.7	176.9	0.3	5
	20	9.5	13.2	0.0	9
Springhill Road	4	32.4	41.7	0.1	8
	37	70.4	107.2	0.4	12
Deer Hill Road	5	36.7	44.2	0.1	7
Project Dwy	11	3.1	11.4	0.1	25
Acalanes Avenue	14	1.2	5.2	0.0	26
	15	0.4	6.5	0.1	34
	16	3.2	12.2	0.1	32
	17	5.6	14.7	0.1	17
Mt. Diablo Boulevard	6	14.7	21.3	0.1	12
SR 24 EB Off Ramp	7	9.5	15.6	0.1	14
Total		581.3	1398.4	1.7	8

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	152.6	1112.4	0.1	2
First Street	9	20.9	29.6	0.1	9
Brown Avenue	8	4.2	39.8	0.3	30
	29	2.9	42.8	0.5	41
Project Dwy SW	13	0.1	2.2	0.0	48
Project Dwy NE	12	22.7	46.9	0.3	23
Pleasant Hill Road	5	78.4	204.3	0.1	3
Total		281.9	1477.9	1.4	12

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	2.0	9.2	0.1	23
Project Dwy SW	13	2.2	26.8	0.3	41
	29	0.2	3.8	0.0	28
Miller Drive	8	5.8	62.0	0.5	28
Sierra Vista Way	9	25.5	62.0	0.3	19
Laurel Drive	10	18.0	27.0	0.1	10
Total		53.7	190.8	1.3	24

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	74	62	195	216	827	827
Average Queue (ft)	24	8	107	122	777	775
95th Queue (ft)	61	38	175	188	920	912
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)					67	71
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			1			
Queuing Penalty (veh)			0			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	R	L	T	T	L	T	TR	T	T
Maximum Queue (ft)	45	177	60	31	106	142	119	404	403	751	751
Average Queue (ft)	14	80	2	3	27	46	20	342	342	602	605
95th Queue (ft)	37	144	30	16	77	106	87	472	465	1028	1029
Link Distance (ft)	333	494			1259	1259		288	288	725	725
Upstream Blk Time (%)								60	64	7	8
Queuing Penalty (veh)								687	732	77	91
Storage Bay Dist (ft)			125	76			95				
Storage Blk Time (%)		2			1	0		59			
Queuing Penalty (veh)		1			0	0		11			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	454	477	110	126	204	440	1302	1300	153
Average Queue (ft)	44	337	60	68	106	30	1213	1221	12
95th Queue (ft)	256	518	100	141	201	196	1506	1499	78
Link Distance (ft)	438	438			127	406	1259	1259	
Upstream Blk Time (%)	2	19	0	1	6	0	11	13	
Queuing Penalty (veh)	0	0	0	0	45	1	128	161	
Storage Bay Dist (ft)			230	230					130
Storage Blk Time (%)			0	1	6			58	0
Queuing Penalty (veh)			0	2	25			5	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20	B20
Directions Served	LTR	LTR	L	T	T	R	L	T	T	R	T	T
Maximum Queue (ft)	272	172	197	107	83	20	68	486	511	96	206	215
Average Queue (ft)	113	79	105	12	16	2	5	373	429	11	89	150
95th Queue (ft)	253	147	181	55	54	14	32	511	553	62	233	283
Link Distance (ft)	318	217		1832	1832			406	406		127	127
Upstream Blk Time (%)	0	0						6	17		4	32
Queuing Penalty (veh)	0	0						86	236		61	454
Storage Bay Dist (ft)			200			100	105			71		
Storage Blk Time (%)			2		0			30	31	0		
Queuing Penalty (veh)			6		0			3	21	0		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	243	225	547	175	318	365	326	163	274	426
Average Queue (ft)	91	122	215	127	513	88	223	230	217	63	108	255
95th Queue (ft)	139	133	262	273	584	210	329	353	314	122	233	431
Link Distance (ft)			220		504			342	342	342		351
Upstream Blk Time (%)			34		72		1	3	0			3
Queuing Penalty (veh)			126		0		0	9	0			30
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	5	37	40	0	83	1	15	5			1	14
Queuing Penalty (veh)	11	74	141	0	162	4	63	10			3	17

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB	SB	B37	B37
Directions Served	T	T	R	T	T
Maximum Queue (ft)	385	454	240	1796	1890
Average Queue (ft)	331	422	235	897	1048
95th Queue (ft)	403	453	275	2046	2134
Link Distance (ft)	351	351		1832	1832
Upstream Blk Time (%)	2	23		0	8
Queuing Penalty (veh)	14	221		6	115
Storage Bay Dist (ft)			180		
Storage Blk Time (%)		33	16		
Queuing Penalty (veh)		278	87		

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	193	177	179	262	168	220	105	132	149	258
Average Queue (ft)	91	87	80	159	65	101	62	68	71	115
95th Queue (ft)	157	152	146	250	145	199	142	117	117	224
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)				2	0	0				2
Queuing Penalty (veh)				11	0	1				6
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	0					8	1			
Queuing Penalty (veh)	0					35	3			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	92	98	122	305	418	494	525	90	121	125
Average Queue (ft)	43	49	29	153	110	261	396	34	44	49
95th Queue (ft)	79	81	121	288	299	544	616	75	99	100
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)			0	2	0	3	35			
Queuing Penalty (veh)			0	0	0	0	0			
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								0	1	
Queuing Penalty (veh)								1	1	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	B29	NB	SB
Directions Served	L	TR	L	TR	T	LTR	LTR
Maximum Queue (ft)	40	24	78	73	8	192	75
Average Queue (ft)	7	1	31	4	0	63	31
95th Queue (ft)	27	12	66	37	6	131	61
Link Distance (ft)		1650		2509	91	471	384
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	65		50				
Storage Blk Time (%)	0		2	0			
Queuing Penalty (veh)	0		19	0			

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	70	206	268	200	555	278	208	29	101
Average Queue (ft)	11	81	114	119	249	155	64	2	42
95th Queue (ft)	39	160	240	220	515	256	168	32	85
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)			0			1			0
Queuing Penalty (veh)			0			0			0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)	0	10		1	20		1		
Queuing Penalty (veh)	0	2		6	39		1		

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	118	523	536	165	220	329	308	293	282	118	130	64
Average Queue (ft)	10	492	503	147	192	196	138	237	166	27	59	25
95th Queue (ft)	55	556	529	219	253	378	284	312	258	75	106	57
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		51	91			6	0	5	1	0		
Queuing Penalty (veh)		0	0			32	1	0	0	0		
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		13	78	1	32	0						
Queuing Penalty (veh)		1	186	3	99	2						

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB
Directions Served	R	T	T
Maximum Queue (ft)	109	51	45
Average Queue (ft)	44	5	4
95th Queue (ft)	85	56	50
Link Distance (ft)	164	152	152
Upstream Blk Time (%)		0	0
Queuing Penalty (veh)		3	1
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	308	35	97
Average Queue (ft)	116	4	25
95th Queue (ft)	274	21	68
Link Distance (ft)	1530	220	149
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	B29	NB
Directions Served	T	L
Maximum Queue (ft)	513	44
Average Queue (ft)	17	18
95th Queue (ft)	362	43
Link Distance (ft)	2509	139
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	TR	T
Maximum Queue (ft)	69	15	27	103	24
Average Queue (ft)	27	1	2	5	1
95th Queue (ft)	54	13	15	64	12
Link Distance (ft)	178	262	262	262	152
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	SB
Directions Served	R	T	R
Maximum Queue (ft)	216	6	154
Average Queue (ft)	98	0	60
95th Queue (ft)	173	4	123
Link Distance (ft)	597	302	262
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	SB	SB
Directions Served	R	R	T	T
Maximum Queue (ft)	596	86	11	139
Average Queue (ft)	555	14	0	35
95th Queue (ft)	604	52	8	105
Link Distance (ft)	535	314	302	302
Upstream Blk Time (%)	85			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Pleasant Hill Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	88
Average Queue (ft)	6
95th Queue (ft)	39
Link Distance (ft)	314
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 4660

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	1:50	1:50	1:50	1:50	1:50	1:50
End Time	3:00	3:00	3:00	3:00	3:00	3:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	9271	9513	9310	9174	9268	9305
Vehs Exited	8575	8802	8635	8498	8677	8639
Starting Vehs	500	480	470	474	530	487
Ending Vehs	1196	1191	1145	1150	1121	1151
Travel Distance (mi)	5939	5928	6074	5814	5937	5938
Travel Time (hr)	1933.0	1864.3	1838.3	1910.9	1982.3	1905.8
Total Delay (hr)	1742.2	1673.7	1643.2	1724.1	1791.9	1715.0
Total Stops	17949	18356	18168	17220	17859	17914
Fuel Used (gal)	599.9	583.3	582.2	593.3	611.2	594.0

Interval #0 Information Seeding

Start Time	1:50
End Time	2:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	2:00
End Time	3:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	9271	9513	9310	9174	9268	9305
Vehs Exited	8575	8802	8635	8498	8677	8639
Starting Vehs	500	480	470	474	530	487
Ending Vehs	1196	1191	1145	1150	1121	1151
Travel Distance (mi)	5939	5928	6074	5814	5937	5938
Travel Time (hr)	1933.0	1864.3	1838.3	1910.9	1982.3	1905.8
Total Delay (hr)	1742.2	1673.7	1643.2	1724.1	1791.9	1715.0
Total Stops	17949	18356	18168	17220	17859	17914
Fuel Used (gal)	599.9	583.3	582.2	593.3	611.2	594.0

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	79.0	152.7	0.1	4
SR 24 EB On Ramp	6	16.0	21.9	0.1	10
	17	18.1	34.0	0.1	11
	16	79.4	87.2	0.1	3
	15	156.0	180.0	0.1	2
Acalanes Avenue	14	156.6	164.4	0.1	1
Project Dwy	11	60.0	63.9	0.0	2
Stanley Boulevard	5	146.5	221.8	0.1	2
	37	59.9	67.2	0.1	4
Quandt Road	4	417.3	471.1	0.4	3
	20	10.2	19.1	0.1	18
Reliez Valle Road	3	7.6	10.7	0.0	11
Greenvalley Drive	2	13.4	36.1	0.3	25
	19	2.5	8.9	0.1	29
Rancho View Drive	1	14.6	27.7	0.1	19
Total		1237.1	1566.8	1.6	4

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	11.2	26.5	0.2	21
	19	3.6	18.9	0.1	28
Greenvalley Drive	2	27.6	34.6	0.1	7
Reliez Valle Road	3	19.4	44.4	0.3	20
	20	1.8	5.4	0.0	22
Springhill Road	4	11.3	20.8	0.1	17
	37	5.8	43.5	0.4	30
Deer Hill Road	5	19.2	26.6	0.1	11
Project Dwy	11	2.0	10.1	0.1	28
Acalanes Avenue	14	0.5	4.5	0.0	31
	15	0.4	6.4	0.1	34
	16	3.1	12.0	0.1	32
	17	3.5	12.2	0.1	21
Mt. Diablo Boulevard	6	16.4	22.9	0.1	11
SR 24 EB Off Ramp	7	11.4	17.2	0.1	13
Total		136.9	306.2	1.7	20

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	194.4	1716.0	0.1	2
First Street	9	67.1	110.8	0.1	4
Brown Avenue	8	156.2	407.6	0.3	6
	22	319.4	354.8	0.5	5
Project Dwy SW	13	27.6	29.7	0.0	3
Project Dwy NE	12	448.3	470.8	0.3	2
Pleasant Hill Road	5	69.1	138.6	0.1	3
Total		1282.2	3228.2	1.4	4

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	2.0	9.4	0.1	23
Project Dwy SW	13	1.3	26.0	0.3	42
	22	0.1	3.6	0.0	28
Miller Drive	8	3.6	59.5	0.5	29
Sierra Vista Way	9	14.7	53.0	0.3	22
Laurel Drive	10	13.5	22.2	0.1	12
Total		35.3	173.7	1.3	27

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	64	123	364	376	262	234
Average Queue (ft)	27	15	178	194	156	112
95th Queue (ft)	59	65	338	348	235	206
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			9			
Queuing Penalty (veh)			2			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	37	85	32	340	342	192	120	346	334	48	20
Average Queue (ft)	8	30	3	148	162	14	33	181	178	3	2
95th Queue (ft)	27	69	18	300	314	96	113	334	327	30	21
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								5	4		
Queuing Penalty (veh)								21	17		
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)				14	7	0	0	41			
Queuing Penalty (veh)				1	4	0	2	10			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	42	9	98	127	212	214	461	155	141
Average Queue (ft)	6	0	46	113	174	53	195	126	19
95th Queue (ft)	24	6	89	157	246	157	377	190	85
Link Distance (ft)	438	438			127	407	1259		
Upstream Blk Time (%)			0	1	9				
Queuing Penalty (veh)			0	0	223				
Storage Bay Dist (ft)			230	230				130	130
Storage Blk Time (%)			0	1	9		8	6	0
Queuing Penalty (veh)			0	18	123		36	28	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	EB	WB	NB	NB	NB	NB	B37	B37	SB	SB	SB
Directions Served	LT	R	LTR	L	T	T	R	T	T	L	T	T
Maximum Queue (ft)	117	40	144	225	1951	1965	125	375	372	114	256	275
Average Queue (ft)	49	1	55	186	1904	1905	67	312	316	14	91	108
95th Queue (ft)	97	21	110	320	2086	2086	170	455	459	55	220	250
Link Distance (ft)	318		216		1846	1846		330	330		407	407
Upstream Blk Time (%)					93	93		11	15			
Queuing Penalty (veh)					1151	1153		132	189			
Storage Bay Dist (ft)		100		200			100			105		
Storage Blk Time (%)	1			0	98	99	0				6	10
Queuing Penalty (veh)	2			0	129	46	0				1	4

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	SB	B20
Directions Served	R	T
Maximum Queue (ft)	96	22
Average Queue (ft)	12	1
95th Queue (ft)	63	10
Link Distance (ft)		127
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	71	
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	246	225	557	175	330	442	455	68	275	400
Average Queue (ft)	109	124	226	159	516	158	206	407	410	14	200	188
95th Queue (ft)	124	128	239	299	582	225	449	472	463	45	308	379
Link Distance (ft)			219		504			343	343	343		330
Upstream Blk Time (%)			65		85		0	82	86			10
Queuing Penalty (veh)			550		0		0	494	518			37
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	11	71	7	1	92	18		86			47	10
Queuing Penalty (veh)	24	158	51	3	242	56		84			149	18

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB	SB	B37	B37
Directions Served	T	T	R	T	T
Maximum Queue (ft)	326	282	240	79	34
Average Queue (ft)	175	132	81	8	1
95th Queue (ft)	295	233	177	53	19
Link Distance (ft)	330	330		1846	1846
Upstream Blk Time (%)	0	0			
Queuing Penalty (veh)	1	0			
Storage Bay Dist (ft)			180		
Storage Blk Time (%)		4	0		
Queuing Penalty (veh)		13	1		

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	232	225	245	271	232	241	105	201	204	142
Average Queue (ft)	101	95	125	250	94	117	68	95	94	42
95th Queue (ft)	181	168	205	293	198	227	144	157	155	115
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)		0	0	50	1	1		0	0	
Queuing Penalty (veh)		0	0	227	3	6		1	1	
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	0					15	2			
Queuing Penalty (veh)	0					63	7			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	242	139	368	380	486	495	515	124	200	203
Average Queue (ft)	73	58	135	240	322	318	339	67	79	90
95th Queue (ft)	168	105	391	435	603	589	551	121	158	167
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)			22	34	28	25	10		0	0
Queuing Penalty (veh)			0	0	0	0	0		0	0
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								4	3	
Queuing Penalty (veh)								14	5	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	114	1728	60	64	349	274
Average Queue (ft)	15	1052	18	3	130	82
95th Queue (ft)	76	2362	50	30	306	224
Link Distance (ft)		1650		2515	471	384
Upstream Blk Time (%)		49			1	0
Queuing Penalty (veh)		442			0	0
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		62	1	1		
Queuing Penalty (veh)		8	5	0		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	114	330	309	185	221	302	324	145	93
Average Queue (ft)	21	273	111	94	90	147	140	73	35
95th Queue (ft)	81	394	294	174	181	267	353	188	80
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		47	0			1	26		2
Queuing Penalty (veh)		404	3			0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)		69		6	1		1	37	
Queuing Penalty (veh)		20		16	1		2	60	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	104	521	535	165	220	315	243	284	296	308	295	111
Average Queue (ft)	7	487	498	93	172	127	78	148	180	185	193	33
95th Queue (ft)	43	546	519	218	254	330	225	280	336	360	349	86
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		65	88			3	0	1	22	44	36	
Queuing Penalty (veh)		0	0			10	0	0	0	0	0	
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		70	55	1	26	0						
Queuing Penalty (veh)		6	137	3	41	2						

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB
Directions Served	R	T	T
Maximum Queue (ft)	81	253	271
Average Queue (ft)	28	199	208
95th Queue (ft)	59	318	328
Link Distance (ft)	166	151	151
Upstream Blk Time (%)	0	80	82
Queuing Penalty (veh)	0	745	761
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	1544	48	135
Average Queue (ft)	1437	11	91
95th Queue (ft)	1898	38	187
Link Distance (ft)	1530	219	144
Upstream Blk Time (%)	42		38
Queuing Penalty (veh)	346		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	EB	B22	NB
Directions Served	TR	T	L
Maximum Queue (ft)	201	2607	35
Average Queue (ft)	144	1999	13
95th Queue (ft)	246	3634	39
Link Distance (ft)	91	2515	168
Upstream Blk Time (%)	70	35	
Queuing Penalty (veh)	795	399	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB
Directions Served	R	T	T	TR
Maximum Queue (ft)	175	455	468	491
Average Queue (ft)	119	358	375	390
95th Queue (ft)	218	605	621	643
Link Distance (ft)	178	262	262	262
Upstream Blk Time (%)	31	77	81	83
Queuing Penalty (veh)	0	541	569	582
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	R
Maximum Queue (ft)	643	511	515	522	54
Average Queue (ft)	596	361	369	375	7
95th Queue (ft)	674	689	694	700	34
Link Distance (ft)	597	302	302	302	262
Upstream Blk Time (%)	95	68	71	73	
Queuing Penalty (veh)	0	313	325	334	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	594	491	488	496	491	138
Average Queue (ft)	484	265	274	291	298	44
95th Queue (ft)	691	605	613	638	663	110
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	54	39	42	51	51	
Queuing Penalty (veh)	0	206	226	273	268	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	488	178	187	192	71
Average Queue (ft)	277	52	53	69	4
95th Queue (ft)	652	186	187	213	31
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	54	4	3	9	
Queuing Penalty (veh)	0	12	10	26	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 13906

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	8226	8083	8110	8170	7847	8089
Vehs Exited	7448	7328	7408	7421	7107	7342
Starting Vehs	542	579	582	530	584	553
Ending Vehs	1320	1334	1284	1279	1324	1305
Travel Distance (mi)	5263	5171	5245	5311	5063	5211
Travel Time (hr)	2365.2	2408.9	2330.5	2420.4	2528.0	2410.6
Total Delay (hr)	2195.5	2242.1	2161.9	2249.3	2365.3	2242.8
Total Stops	17251	17377	17580	17617	16931	17353
Fuel Used (gal)	680.7	686.5	671.3	692.9	711.2	688.5

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	8226	8083	8110	8170	7847	8089
Vehs Exited	7448	7328	7408	7421	7107	7342
Starting Vehs	542	579	582	530	584	553
Ending Vehs	1320	1334	1284	1279	1324	1305
Travel Distance (mi)	5263	5171	5245	5311	5063	5211
Travel Time (hr)	2365.2	2408.9	2330.5	2420.4	2528.0	2410.6
Total Delay (hr)	2195.5	2242.1	2161.9	2249.3	2365.3	2242.8
Total Stops	17251	17377	17580	17617	16931	17353
Fuel Used (gal)	680.7	686.5	671.3	692.9	711.2	688.5

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	91.8	298.4	0.1	4
SR 24 EB On Ramp	6	55.0	61.0	0.1	4
	17	71.7	182.4	0.1	3
	16	176.9	185.1	0.1	1
	15	230.3	239.4	0.1	2
Acalanes Avenue	14	236.3	244.0	0.1	1
Project Dwy	11	87.1	91.0	0.0	2
Stanley Boulevard	5	192.7	200.0	0.1	1
	37	69.6	76.7	0.1	4
Quandt Road	4	461.3	637.5	0.4	3
	20	9.6	18.5	0.1	19
Reliez Valle Road	3	8.1	11.2	0.0	11
Greenvalley Drive	2	21.4	43.6	0.3	21
	19	3.5	9.9	0.1	26
Rancho View Drive	1	28.0	41.3	0.1	13
Total		1743.3	2340.0	1.6	3

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	77.9	95.0	0.2	6
	19	142.3	157.0	0.1	3
Greenvalley Drive	2	116.5	125.7	0.1	2
Reliez Valle Road	3	18.2	43.6	0.3	21
	20	1.8	5.4	0.0	22
Springhill Road	4	11.4	21.1	0.1	17
	37	9.3	47.0	0.4	28
Deer Hill Road	5	24.3	31.4	0.1	9
Project Dwy	11	2.6	10.8	0.1	26
Acalanes Avenue	14	0.9	4.9	0.0	28
	15	1.3	7.4	0.1	30
	16	3.5	13.1	0.1	30
	17	3.2	12.1	0.1	21
Mt. Diablo Boulevard	6	20.2	26.8	0.1	9
SR 24 EB Off Ramp	7	13.5	20.0	0.1	11
Total		446.9	621.5	1.7	10

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	238.8	4048.6	0.1	1
First Street	9	63.3	71.8	0.1	4
Brown Avenue	8	155.9	258.1	0.3	6
	22	394.7	429.2	0.5	4
Project Dwy SW	13	34.7	36.7	0.0	3
Project Dwy NE	12	433.8	456.2	0.3	2
Pleasant Hill Road	5	54.1	60.2	0.1	4
Total		1375.2	5360.8	1.4	3

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	1.8	8.0	0.1	27
Project Dwy SW	13	1.2	25.6	0.3	43
	22	0.1	3.3	0.0	29
Miller Drive	8	2.9	53.9	0.5	33
Sierra Vista Way	9	11.0	48.2	0.3	24
Laurel Drive	10	14.1	23.1	0.1	12
Total		31.0	162.1	1.3	29

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	61	89	312	316	762	758
Average Queue (ft)	21	10	219	227	353	309
95th Queue (ft)	53	52	291	297	743	717
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)					10	8
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			24			
Queuing Penalty (veh)			4			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	50	73	27	300	297	114	120	390	401	750	757
Average Queue (ft)	9	19	3	175	191	9	75	351	353	494	491
95th Queue (ft)	33	54	15	261	267	75	169	424	432	974	968
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								86	85	5	5
Queuing Penalty (veh)								395	392	24	23
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)				27	11	0	0	97			
Queuing Penalty (veh)				2	5	0	0	34			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	L	T	T	T	T	T	R
Maximum Queue (ft)	28	106	127	207	370	438	155	98
Average Queue (ft)	4	43	110	162	47	135	118	15
95th Queue (ft)	17	90	160	236	188	315	172	66
Link Distance (ft)	438			127	413	1259		
Upstream Blk Time (%)		0	1	8	0	0		
Queuing Penalty (veh)		0	0	223	1	0		
Storage Bay Dist (ft)		230	230				130	130
Storage Blk Time (%)		0	1	8		5	4	0
Queuing Penalty (veh)		0	17	118		22	17	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	B37	B37	SB	SB	SB	SB
Directions Served	LT	LTR	L	T	T	R	T	T	L	T	T	R
Maximum Queue (ft)	81	94	225	1967	1973	125	346	355	126	224	242	96
Average Queue (ft)	33	36	172	1933	1936	52	319	324	11	77	98	10
95th Queue (ft)	66	74	328	1988	1989	153	383	389	52	182	219	56
Link Distance (ft)	318	214		1855	1855		314	314		413	413	
Upstream Blk Time (%)				97	97		15	22				
Queuing Penalty (veh)				1327	1329		208	301				
Storage Bay Dist (ft)			200			100			105			71
Storage Blk Time (%)	0		0	98	99	0				4	10	0
Queuing Penalty (veh)	0		1	109	46	1				0	4	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	B20	B20
Directions Served	T	T
Maximum Queue (ft)	7	17
Average Queue (ft)	0	1
95th Queue (ft)	5	9
Link Distance (ft)	127	127
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	242	225	562	175	330	456	451	70	275	386
Average Queue (ft)	109	124	226	145	526	173	213	418	416	12	214	229
95th Queue (ft)	129	128	237	301	549	187	458	438	435	43	329	466
Link Distance (ft)			221		504			340	340	340		314
Upstream Blk Time (%)			64		90		0	93	95			34
Queuing Penalty (veh)			657		0		0	592	604			121
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	18	76	2	0	50	87		94			58	4
Queuing Penalty (veh)	28	119	20	0	194	233		96			152	7

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB	SB	B37	B37
Directions Served	T	T	R	T	T
Maximum Queue (ft)	313	291	240	210	159
Average Queue (ft)	155	161	60	43	15
95th Queue (ft)	293	260	166	176	113
Link Distance (ft)	314	314		1855	1855
Upstream Blk Time (%)	0	0			
Queuing Penalty (veh)	1	0			
Storage Bay Dist (ft)			180		
Storage Blk Time (%)		8	0		
Queuing Penalty (veh)		17	0		

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	307	357	357	261	261	262	105	178	181	109
Average Queue (ft)	200	226	248	176	177	197	84	99	103	22
95th Queue (ft)	351	393	390	291	295	310	149	156	159	78
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)		17	9	19	14	25		0	0	
Queuing Penalty (veh)		0	0	74	55	98		0	0	
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	21	2				57	2			
Queuing Penalty (veh)	61	5				168	7			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	330	222	307	349	490	503	524	124	241	218
Average Queue (ft)	102	72	68	169	184	264	329	77	89	97
95th Queue (ft)	257	190	265	368	462	554	617	130	191	187
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)	2	2	10	15	3	8	43		1	0
Queuing Penalty (veh)	0	0	0	0	0	0	0		2	0
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								14	3	
Queuing Penalty (veh)								50	4	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	92	1730	64	106	144	150
Average Queue (ft)	11	939	22	8	58	43
95th Queue (ft)	65	2270	53	50	120	111
Link Distance (ft)		1650		2527	471	384
Upstream Blk Time (%)		40				
Queuing Penalty (veh)		394				
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		58	1	1		
Queuing Penalty (veh)		16	3	1		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	96	326	256	117	459	216	303	145	69
Average Queue (ft)	10	278	80	53	91	102	73	46	24
95th Queue (ft)	55	387	220	93	409	191	245	152	56
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		43	0			1	10		
Queuing Penalty (veh)		409	0			0	0		
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)		73			0		1	19	
Queuing Penalty (veh)		11			0		3	27	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	82	522	525	165	188	81	86	264	292	296	309	183
Average Queue (ft)	7	493	498	97	101	34	37	157	141	158	157	44
95th Queue (ft)	44	513	518	223	172	70	78	280	288	338	334	138
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		79	92					0	12	35	26	0
Queuing Penalty (veh)		0	0					0	0	0	0	0
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		74	64	0	1							
Queuing Penalty (veh)		10	183	2	1							

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB
Directions Served	R	T	T
Maximum Queue (ft)	58	265	265
Average Queue (ft)	24	223	230
95th Queue (ft)	50	269	262
Link Distance (ft)	149	152	152
Upstream Blk Time (%)		92	93
Queuing Penalty (veh)		884	900
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	1543	100	135
Average Queue (ft)	1445	21	87
95th Queue (ft)	1871	65	175
Link Distance (ft)	1528	221	137
Upstream Blk Time (%)	45		40
Queuing Penalty (veh)	446		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	EB	B22	NB
Directions Served	TR	T	L
Maximum Queue (ft)	192	2605	40
Average Queue (ft)	137	1917	10
95th Queue (ft)	228	3570	35
Link Distance (ft)	76	2527	159
Upstream Blk Time (%)	78	34	
Queuing Penalty (veh)	833	366	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	TR	T
Maximum Queue (ft)	182	460	472	483	16
Average Queue (ft)	138	398	415	431	1
95th Queue (ft)	226	558	554	571	9
Link Distance (ft)	178	262	262	262	152
Upstream Blk Time (%)	68	90	91	92	
Queuing Penalty (veh)	0	614	627	632	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB	SB
Directions Served	R	T	T	T	T	TR
Maximum Queue (ft)	633	518	520	515	14	87
Average Queue (ft)	597	424	426	433	1	19
95th Queue (ft)	627	676	672	675	8	57
Link Distance (ft)	597	302	302	302	262	262
Upstream Blk Time (%)	96	84	84	86		
Queuing Penalty (veh)	0	412	416	422		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB	SB
Directions Served	R	T	T	T	R	T	T
Maximum Queue (ft)	579	498	499	485	488	16	255
Average Queue (ft)	358	373	374	375	372	1	35
95th Queue (ft)	633	671	665	660	675	11	136
Link Distance (ft)	535	314	314	314	314	302	302
Upstream Blk Time (%)	14	74	74	75	73		
Queuing Penalty (veh)	0	354	350	355	346		
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	488	263	250	236	24
Average Queue (ft)	362	149	144	149	1
95th Queue (ft)	676	310	298	300	11
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	75	33	29	47	
Queuing Penalty (veh)	0	100	87	144	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 17320

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	10131	10309	10140	10118	10218	10186
Vehs Exited	9803	9921	9802	9788	9912	9842
Starting Vehs	503	428	488	461	510	473
Ending Vehs	831	816	826	791	816	809
Travel Distance (mi)	6519	6501	6486	6421	6560	6497
Travel Time (hr)	1415.8	1411.3	1499.9	1435.5	1480.7	1448.6
Total Delay (hr)	1200.1	1195.9	1285.4	1223.1	1264.0	1233.7
Total Stops	22203	21471	22029	21694	22627	22004
Fuel Used (gal)	504.4	503.2	523.9	507.1	520.5	511.8

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	10131	10309	10140	10118	10218	10186
Vehs Exited	9803	9921	9802	9788	9912	9842
Starting Vehs	503	428	488	461	510	473
Ending Vehs	831	816	826	791	816	809
Travel Distance (mi)	6519	6501	6486	6421	6560	6497
Travel Time (hr)	1415.8	1411.3	1499.9	1435.5	1480.7	1448.6
Total Delay (hr)	1200.1	1195.9	1285.4	1223.1	1264.0	1233.7
Total Stops	22203	21471	22029	21694	22627	22004
Fuel Used (gal)	504.4	503.2	523.9	507.1	520.5	511.8

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	43.0	77.3	0.1	7
SR 24 EB On Ramp	6	8.7	14.8	0.1	15
	17	1.3	6.3	0.1	39
	16	0.4	9.0	0.1	28
	15	0.7	9.6	0.1	40
Acalanes Avenue	14	1.3	9.4	0.1	24
Project Dwy	11	0.8	4.4	0.0	31
Stanley Boulevard	5	23.6	34.6	0.1	9
Quandt Road	4	5.7	37.5	0.4	42
	20	2.6	11.5	0.1	31
Reliez Valle Road	3	8.1	11.3	0.0	11
Greenvalley Drive	2	5.1	27.3	0.3	33
	19	1.1	7.6	0.1	34
Rancho View Drive	1	15.1	28.0	0.1	19
Total		117.5	288.6	1.6	23

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	138.2	1186.0	0.2	4
	19	108.2	123.4	0.1	4
Greenvalley Drive	2	64.9	71.7	0.1	4
Reliez Valle Road	3	197.7	221.5	0.3	4
	20	13.3	16.9	0.0	7
Springhill Road	4	57.8	67.0	0.1	5
Deer Hill Road	5	205.6	245.1	0.4	6
Project Dwy	11	5.4	13.8	0.1	21
Acalanes Avenue	14	3.0	7.0	0.0	19
	15	7.7	13.9	0.1	16
	16	6.1	15.0	0.1	26
	17	5.1	14.2	0.1	18
Mt. Diablo Boulevard	6	14.9	21.5	0.1	11
SR 24 EB Off Ramp	7	9.2	15.2	0.1	14
Total		837.1	2032.1	1.7	6

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	150.4	1043.4	0.1	2
First Street	9	22.6	31.1	0.1	9
Brown Avenue	8	4.6	41.1	0.3	29
	29	3.0	43.0	0.5	41
Project Dwy SW	13	0.1	2.3	0.0	48
Project Dwy NE	12	25.4	49.8	0.3	22
Pleasant Hill Road	5	87.5	166.7	0.1	2
Total		293.6	1377.5	1.4	12

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	2.1	9.2	0.1	23
Project Dwy SW	13	2.0	26.6	0.3	41
	29	0.1	3.8	0.0	28
Miller Drive	8	5.2	60.9	0.5	29
Sierra Vista Way	9	18.0	54.3	0.3	22
Laurel Drive	10	17.1	26.1	0.1	11
Total		44.5	180.9	1.3	26

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	92	32	171	187	830	829
Average Queue (ft)	31	9	104	120	776	774
95th Queue (ft)	72	30	161	177	920	920
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)					76	78
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			1			
Queuing Penalty (veh)			0			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	R	L	T	T	L	T	TR	T	T
Maximum Queue (ft)	54	275	120	26	95	114	119	400	399	760	759
Average Queue (ft)	12	105	11	3	26	48	15	343	346	615	616
95th Queue (ft)	37	216	75	15	72	97	74	469	457	1043	1042
Link Distance (ft)	333	494			1259	1259		288	288	725	725
Upstream Blk Time (%)								68	71	13	15
Queuing Penalty (veh)								780	818	151	174
Storage Bay Dist (ft)			125	76			95				
Storage Blk Time (%)		9	0		1	0	0	68			
Queuing Penalty (veh)		3	0		0	0	0	13			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	461	495	99	126	203	180	1298	1301	130
Average Queue (ft)	158	423	59	67	95	9	1228	1233	10
95th Queue (ft)	507	551	96	133	170	96	1477	1469	70
Link Distance (ft)	438	438			127	414	1259	1259	
Upstream Blk Time (%)	11	68	0	1	4		21	25	
Queuing Penalty (veh)	0	0	0	0	27		258	304	
Storage Bay Dist (ft)			230	230					130
Storage Blk Time (%)			0	1	4			70	0
Queuing Penalty (veh)			0	2	16			6	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20	B20
Directions Served	LTR	LTR	L	T	T	R	L	T	T	R	T	T
Maximum Queue (ft)	333	169	213	103	112	32	84	520	522	96	216	225
Average Queue (ft)	151	76	125	13	15	3	7	474	486	23	160	193
95th Queue (ft)	337	143	213	94	64	17	49	544	541	91	266	241
Link Distance (ft)	318	213		2220	2220			414	414		127	127
Upstream Blk Time (%)	6							40	51		14	70
Queuing Penalty (veh)	0							563	725		203	990
Storage Bay Dist (ft)			200			100	105			71		
Storage Blk Time (%)			5					50	52	0		
Queuing Penalty (veh)			16					5	35	2		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	252	225	553	175	320	368	324	166	274	2263
Average Queue (ft)	92	120	227	195	488	106	213	214	202	65	123	2126
95th Queue (ft)	143	144	284	288	625	228	322	326	303	124	286	2610
Link Distance (ft)			234		504			342	342	342		2220
Upstream Blk Time (%)			35		53		0	1	0			8
Queuing Penalty (veh)			132		0		0	2	0			119
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	6	42	42	4	81	1	11	4			1	35
Queuing Penalty (veh)	11	85	148	13	159	4	49	9			6	43

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	2398	240
Average Queue (ft)	2243	235
95th Queue (ft)	2746	276
Link Distance (ft)	2220	
Upstream Blk Time (%)	53	
Queuing Penalty (veh)	752	
Storage Bay Dist (ft)		180
Storage Blk Time (%)	47	8
Queuing Penalty (veh)	396	63

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	192	168	197	259	195	228	105	123	130	241
Average Queue (ft)	93	85	79	156	75	109	60	61	65	98
95th Queue (ft)	159	145	154	249	159	209	140	107	111	198
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)				2	0	0				1
Queuing Penalty (veh)				8	0	0				3
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)						8	0			
Queuing Penalty (veh)						35	2			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	84	107	69	231	492	502	529	78	134	135
Average Queue (ft)	47	50	22	115	119	286	421	27	43	44
95th Queue (ft)	80	86	55	203	327	556	617	60	100	102
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)					1	3	43			
Queuing Penalty (veh)					0	0	0			
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								0	0	
Queuing Penalty (veh)								0	0	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	27	13	72	60	135	73
Average Queue (ft)	4	1	28	2	55	32
95th Queue (ft)	19	8	62	25	106	62
Link Distance (ft)		1650		2509	471	384
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		0	1	0		
Queuing Penalty (veh)		0	12	0		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	100	196	255	199	363	277	191	81	114
Average Queue (ft)	16	90	118	101	181	146	62	4	42
95th Queue (ft)	60	162	237	194	287	238	162	40	85
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		0	0			0			0
Queuing Penalty (veh)		0	0			0			0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)	0	12		1	11		1	0	
Queuing Penalty (veh)	0	2		4	22		1	0	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	71	527	528	165	220	325	302	297	254	105	136	77
Average Queue (ft)	9	489	500	150	185	165	117	233	167	27	57	27
95th Queue (ft)	37	578	536	216	254	344	243	308	248	64	106	63
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		57	89			3	0	3	0			
Queuing Penalty (veh)		0	0			15	1	0	0			
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		15	80	1	24	0						
Queuing Penalty (veh)		1	190	3	75	1						

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	SB	SB
Directions Served	R	T	T	TR
Maximum Queue (ft)	144	14	19	45
Average Queue (ft)	56	0	1	3
95th Queue (ft)	111	8	10	21
Link Distance (ft)	176	150	342	342
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	312	31	120
Average Queue (ft)	126	5	31
95th Queue (ft)	286	24	88
Link Distance (ft)	1530	234	149
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	NB
Directions Served	L
Maximum Queue (ft)	43
Average Queue (ft)	16
95th Queue (ft)	41
Link Distance (ft)	139
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	SB	SB
Directions Served	R	T	TR	T	T
Maximum Queue (ft)	73	24	116	29	91
Average Queue (ft)	25	1	4	2	9
95th Queue (ft)	54	12	65	14	47
Link Distance (ft)	178	266	266	150	150
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: Pleasant Hill Road

Movement	WB	SB	SB
Directions Served	R	T	TR
Maximum Queue (ft)	229	48	291
Average Queue (ft)	98	2	49
95th Queue (ft)	181	33	174
Link Distance (ft)	597	266	266
Upstream Blk Time (%)			0
Queuing Penalty (veh)			3
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	SB
Directions Served	R	R	T
Maximum Queue (ft)	594	70	138
Average Queue (ft)	552	17	38
95th Queue (ft)	628	55	97
Link Distance (ft)	535	314	302
Upstream Blk Time (%)	85		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Pleasant Hill Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	54
Average Queue (ft)	4
95th Queue (ft)	31
Link Distance (ft)	314
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 7460

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	1:50	1:50	1:50	1:50	1:50	1:50
End Time	3:00	3:00	3:00	3:00	3:00	3:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	9468	9624	9241	9429	9394	9430
Vehs Exited	8846	8972	8534	8689	8689	8745
Starting Vehs	496	579	467	493	493	498
Ending Vehs	1118	1231	1174	1233	1198	1191
Travel Distance (mi)	6075	6185	5903	6049	6012	6045
Travel Time (hr)	1858.7	1917.7	1870.8	1968.6	1884.4	1900.0
Total Delay (hr)	1663.2	1719.7	1680.8	1774.9	1691.6	1706.0
Total Stops	18326	19897	17451	18652	17854	18439
Fuel Used (gal)	587.5	602.8	585.8	611.1	592.3	595.9

Interval #0 Information Seeding

Start Time	1:50
End Time	2:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	2:00
End Time	3:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	9468	9624	9241	9429	9394	9430
Vehs Exited	8846	8972	8534	8689	8689	8745
Starting Vehs	496	579	467	493	493	498
Ending Vehs	1118	1231	1174	1233	1198	1191
Travel Distance (mi)	6075	6185	5903	6049	6012	6045
Travel Time (hr)	1858.7	1917.7	1870.8	1968.6	1884.4	1900.0
Total Delay (hr)	1663.2	1719.7	1680.8	1774.9	1691.6	1706.0
Total Stops	18326	19897	17451	18652	17854	18439
Fuel Used (gal)	587.5	602.8	585.8	611.1	592.3	595.9

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	70.2	119.5	0.1	4
SR 24 EB On Ramp	6	15.8	23.1	0.1	10
	17	20.6	69.0	0.1	10
	16	84.3	92.1	0.1	3
	15	160.2	183.6	0.1	2
Acalanes Avenue	14	163.2	170.9	0.1	1
Project Dwy	11	63.1	67.0	0.0	2
Stanley Boulevard	5	152.7	232.5	0.1	2
Quandt Road	4	431.1	494.3	0.4	3
	20	10.2	19.0	0.1	19
Reliez Valle Road	3	7.9	11.0	0.0	11
Greenvalley Drive	2	13.6	36.3	0.3	25
	19	2.5	8.9	0.1	29
Rancho View Drive	1	14.7	27.9	0.1	19
Total		1209.9	1555.1	1.6	4

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	11.2	26.4	0.2	21
	19	3.3	18.6	0.1	29
Greenvalley Drive	2	25.4	32.6	0.1	8
Reliez Valle Road	3	19.8	45.0	0.3	20
	20	1.8	5.4	0.0	22
Springhill Road	4	11.5	21.2	0.1	17
Deer Hill Road	5	34.6	73.0	0.4	22
Project Dwy	11	3.0	11.2	0.1	25
Acalanes Avenue	14	1.3	5.3	0.0	26
	15	4.0	10.2	0.1	22
	16	5.1	14.1	0.1	28
	17	3.4	12.1	0.1	21
Mt. Diablo Boulevard	6	17.4	24.0	0.1	10
SR 24 EB Off Ramp	7	11.1	16.9	0.1	13
Total		152.9	316.1	1.7	19

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	178.8	1636.0	0.1	2
First Street	9	69.5	94.2	0.1	4
Brown Avenue	8	139.2	360.8	0.3	7
	22	301.0	336.4	0.5	5
Project Dwy SW	13	25.7	27.8	0.0	4
Project Dwy NE	12	430.2	452.5	0.3	2
Pleasant Hill Road	5	74.5	311.6	0.1	3
Total		1219.0	3219.1	1.4	4

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	1.9	9.2	0.1	23
Project Dwy SW	13	1.3	26.0	0.3	42
	22	0.1	3.6	0.0	29
Miller Drive	8	3.3	59.1	0.5	30
Sierra Vista Way	9	16.3	53.9	0.3	22
Laurel Drive	10	12.9	21.7	0.1	13
Total		35.8	173.4	1.3	27

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	91	91	379	376	258	225
Average Queue (ft)	25	14	181	200	155	105
95th Queue (ft)	61	62	345	362	230	196
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			9			
Queuing Penalty (veh)			2			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	42	86	57	339	334	193	120	332	331	39	17
Average Queue (ft)	8	34	5	149	161	14	26	171	170	2	1
95th Queue (ft)	28	73	28	290	305	97	93	313	318	21	12
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								2	2		
Queuing Penalty (veh)								11	11		
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)				15	7	0	0	35			
Queuing Penalty (veh)				1	4	0	0	9			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	41	10	109	127	221	195	584	155	141
Average Queue (ft)	7	0	50	113	173	52	208	130	16
95th Queue (ft)	27	7	92	154	243	149	432	194	75
Link Distance (ft)	438	438			127	414	1259		
Upstream Blk Time (%)			0	2	9		0		
Queuing Penalty (veh)			0	0	226		0		
Storage Bay Dist (ft)			230	230				130	130
Storage Blk Time (%)			0	2	9		10	7	0
Queuing Penalty (veh)			0	24	125		48	29	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20
Directions Served	LT	R	LTR	L	T	T	R	L	T	T	R	T
Maximum Queue (ft)	199	100	122	225	2256	2258	125	115	287	303	96	5
Average Queue (ft)	59	3	51	187	2206	2210	55	16	96	107	12	0
95th Queue (ft)	135	36	101	320	2380	2375	157	61	227	262	63	3
Link Distance (ft)	318		213		2220	2220			414	414		127
Upstream Blk Time (%)	0				12	16						
Queuing Penalty (veh)	0				154	203						
Storage Bay Dist (ft)		100		200			100	105			71	
Storage Blk Time (%)	4	0		0	98	99	0	0	6	10	0	
Queuing Penalty (veh)	6	0		1	129	46	0	0	1	4	0	

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	260	225	562	175	330	454	452	82	274	591
Average Queue (ft)	110	124	242	190	505	162	205	414	414	15	197	281
95th Queue (ft)	123	131	252	287	627	226	452	471	459	48	311	557
Link Distance (ft)			232		504			343	343	343		2220
Upstream Blk Time (%)			66		80		0	87	91			
Queuing Penalty (veh)			557		0		0	521	545			
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	15	75	9	2	91	27		90			39	6
Queuing Penalty (veh)	33	166	62	8	239	87		88			184	11

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	676	240
Average Queue (ft)	312	136
95th Queue (ft)	611	290
Link Distance (ft)	2220	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		180
Storage Blk Time (%)	16	0
Queuing Penalty (veh)	55	1

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	209	217	249	270	239	232	105	181	174	119
Average Queue (ft)	101	98	132	225	102	123	71	98	97	36
95th Queue (ft)	174	175	222	318	212	229	147	161	154	98
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)		0		36	0	0		0	0	0
Queuing Penalty (veh)		0		165	2	2		0	0	0
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	0	0				16	4			
Queuing Penalty (veh)	0	0				69	12			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	280	200	253	324	518	519	506	120	202	192
Average Queue (ft)	82	60	92	188	268	282	338	73	80	90
95th Queue (ft)	204	126	312	372	569	568	562	129	163	162
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)	0	0	14	23	20	19	14		0	0
Queuing Penalty (veh)	0	0	0	0	0	0	0		0	0
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								4	3	
Queuing Penalty (veh)								17	5	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	114	1739	76	68	276	291
Average Queue (ft)	11	968	23	4	98	110
95th Queue (ft)	64	2301	57	28	207	318
Link Distance (ft)		1650		2515	471	384
Upstream Blk Time (%)		40				8
Queuing Penalty (veh)		358				0
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		56	2	0		
Queuing Penalty (veh)		7	6	0		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	114	326	308	171	202	291	316	145	78
Average Queue (ft)	18	247	129	78	92	141	102	57	29
95th Queue (ft)	71	382	311	146	177	260	287	169	66
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		39	1			2	11		0
Queuing Penalty (veh)		339	5			0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)	0	60		2	1		1	22	
Queuing Penalty (veh)	0	17		7	2		3	35	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	64	525	538	165	220	320	260	282	281	308	307	186
Average Queue (ft)	4	494	499	104	174	139	74	148	126	168	191	53
95th Queue (ft)	31	517	523	227	259	354	213	280	289	349	343	162
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		67	89			6	0	0	7	37	33	1
Queuing Penalty (veh)		0	0			17	0	0	0	0	0	0
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		60	68	0	30	0						
Queuing Penalty (veh)		5	169	1	47	1						

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB	SB
Directions Served	R	T	T	TR
Maximum Queue (ft)	69	257	258	6
Average Queue (ft)	31	209	213	0
95th Queue (ft)	59	309	304	4
Link Distance (ft)	178	150	150	343
Upstream Blk Time (%)		85	87	
Queuing Penalty (veh)		791	804	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	1546	36	142
Average Queue (ft)	1425	10	81
95th Queue (ft)	1871	35	172
Link Distance (ft)	1530	232	144
Upstream Blk Time (%)	40		29
Queuing Penalty (veh)	333		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	EB	B22	NB
Directions Served	TR	T	L
Maximum Queue (ft)	198	2604	39
Average Queue (ft)	136	1846	13
95th Queue (ft)	247	3610	38
Link Distance (ft)	91	2515	168
Upstream Blk Time (%)	65	30	
Queuing Penalty (veh)	744	338	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB
Directions Served	R	T	T	TR
Maximum Queue (ft)	180	462	468	482
Average Queue (ft)	114	379	391	408
95th Queue (ft)	222	591	597	622
Link Distance (ft)	178	266	266	266
Upstream Blk Time (%)	51	82	85	86
Queuing Penalty (veh)	0	577	595	607
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	633	521	515	516	60
Average Queue (ft)	598	372	377	386	4
95th Queue (ft)	631	684	686	689	32
Link Distance (ft)	597	302	302	302	266
Upstream Blk Time (%)	96	71	72	74	
Queuing Penalty (veh)	0	323	330	341	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	587	503	491	482	486	137
Average Queue (ft)	468	274	281	290	289	54
95th Queue (ft)	701	620	618	626	652	116
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	55	43	45	51	49	
Queuing Penalty (veh)	0	226	240	271	262	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	494	228	209	230	99
Average Queue (ft)	261	64	62	76	7
95th Queue (ft)	640	210	199	230	46
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	52	4	3	10	
Queuing Penalty (veh)	0	13	9	30	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 11720

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	7958	8364	8394	8220	8145	8214
Vehs Exited	7211	7578	7634	7487	7410	7462
Starting Vehs	552	558	516	557	562	544
Ending Vehs	1299	1344	1276	1290	1297	1295
Travel Distance (mi)	5134	5360	5370	5359	5251	5295
Travel Time (hr)	2394.1	2446.1	2229.0	2277.6	2427.2	2354.8
Total Delay (hr)	2228.8	2273.4	2055.9	2105.4	2258.4	2184.4
Total Stops	16828	17612	18501	17548	17425	17585
Fuel Used (gal)	682.5	699.6	650.2	663.3	692.3	677.6

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	7958	8364	8394	8220	8145	8214
Vehs Exited	7211	7578	7634	7487	7410	7462
Starting Vehs	552	558	516	557	562	544
Ending Vehs	1299	1344	1276	1290	1297	1295
Travel Distance (mi)	5134	5360	5370	5359	5251	5295
Travel Time (hr)	2394.1	2446.1	2229.0	2277.6	2427.2	2354.8
Total Delay (hr)	2228.8	2273.4	2055.9	2105.4	2258.4	2184.4
Total Stops	16828	17612	18501	17548	17425	17585
Fuel Used (gal)	682.5	699.6	650.2	663.3	692.3	677.6

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	86.5	321.9	0.1	4
SR 24 EB On Ramp	6	55.0	61.0	0.1	4
	17	68.0	208.6	0.1	3
	16	175.6	183.8	0.1	1
	15	230.3	239.3	0.1	2
Acalanes Avenue	14	233.3	241.0	0.1	1
Project Dwy	11	85.8	89.7	0.0	2
Stanley Boulevard	5	191.9	199.2	0.1	1
Quandt Road	4	418.9	703.1	0.4	4
	20	9.5	18.4	0.1	19
Reliez Valle Road	3	8.4	11.6	0.0	11
Greenvalley Drive	2	22.8	45.0	0.3	20
	19	3.5	9.9	0.1	26
Rancho View Drive	1	27.9	41.1	0.1	13
Total		1617.5	2373.8	1.6	3

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	74.9	105.8	0.2	6
	19	135.5	150.3	0.1	4
Greenvalley Drive	2	113.7	123.5	0.1	2
Reliez Valle Road	3	19.3	44.8	0.3	20
	20	1.8	5.4	0.0	22
Springhill Road	4	9.9	19.6	0.1	18
Deer Hill Road	5	39.9	81.4	0.4	20
Project Dwy	11	3.6	11.9	0.1	24
Acalanes Avenue	14	1.5	5.5	0.0	25
	15	4.1	10.3	0.1	22
	16	5.1	14.6	0.1	26
	17	3.3	12.0	0.1	21
Mt. Diablo Boulevard	6	20.5	27.1	0.1	9
SR 24 EB Off Ramp	7	13.0	19.5	0.1	11
Total		446.2	631.8	1.7	10

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	233.1	3920.7	0.1	1
First Street	9	58.6	67.2	0.1	4
Brown Avenue	8	155.6	269.7	0.3	6
	22	382.5	417.7	0.5	4
Project Dwy SW	13	32.7	34.7	0.0	3
Project Dwy NE	12	406.0	428.6	0.3	3
Pleasant Hill Road	5	57.9	64.3	0.1	3
Total		1326.5	5202.8	1.4	3

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	1.8	8.0	0.1	27
Project Dwy SW	13	1.2	25.7	0.3	43
	22	0.1	3.3	0.0	28
Miller Drive	8	2.9	54.4	0.5	32
Sierra Vista Way	9	11.3	48.9	0.3	24
Laurel Drive	10	13.5	22.3	0.1	12
Total		30.8	162.6	1.3	28

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	79	94	324	309	629	592
Average Queue (ft)	21	11	224	231	336	299
95th Queue (ft)	56	59	294	293	735	722
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)					15	14
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			25			
Queuing Penalty (veh)			4			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	40	61	42	302	299	154	120	402	405	718	722
Average Queue (ft)	8	17	3	175	191	14	76	347	348	471	469
95th Queue (ft)	26	50	21	262	276	96	170	449	451	946	942
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								85	84	5	4
Queuing Penalty (veh)								388	386	22	20
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)				30	12	0	0	94			
Queuing Penalty (veh)				2	5	0	0	33			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	L	T	T	T	T	T	R
Maximum Queue (ft)	38	109	127	215	218	476	155	97
Average Queue (ft)	6	49	115	172	46	150	121	13
95th Queue (ft)	22	92	153	238	154	334	184	58
Link Distance (ft)	438			127	414	1259		
Upstream Blk Time (%)		0	2	9		0		
Queuing Penalty (veh)		0	0	254		0		
Storage Bay Dist (ft)		230	230				130	130
Storage Blk Time (%)		0	2	9		7	4	0
Queuing Penalty (veh)		0	25	135		33	16	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20	
Directions Served	LT	LTR	L	T	T	R	L	T	T	R	T	
Maximum Queue (ft)	78	102	225	2259	2265	125	65	224	244	96	24	
Average Queue (ft)	33	36	166	2223	2225	55	6	68	81	8	1	
95th Queue (ft)	71	77	326	2316	2319	157	34	174	206	50	11	
Link Distance (ft)	318	213		2220	2220			414	414		127	
Upstream Blk Time (%)				16	20							
Queuing Penalty (veh)				221	277							
Storage Bay Dist (ft)			200			100	105			71		
Storage Blk Time (%)	0		0	99	99	0		4	6	0		
Queuing Penalty (veh)	0		0	110	47	1		0	2	0		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	250	225	560	175	330	454	450	58	275	651
Average Queue (ft)	111	124	242	191	522	175	218	417	416	10	233	375
95th Queue (ft)	119	128	249	308	566	176	460	456	450	37	326	761
Link Distance (ft)			233		504			342	342	342		2220
Upstream Blk Time (%)			64		89		0	92	95			
Queuing Penalty (veh)			653		0		0	585	604			
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	20	78	0	1	45	93		93			67	4
Queuing Penalty (veh)	31	122	2	4	173	250		95			267	7

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	668	240
Average Queue (ft)	366	90
95th Queue (ft)	737	240
Link Distance (ft)	2220	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		180
Storage Blk Time (%)	15	
Queuing Penalty (veh)	34	

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	307	354	369	267	265	264	105	178	167	118
Average Queue (ft)	204	213	246	190	181	197	85	102	102	27
95th Queue (ft)	345	387	389	309	305	316	149	158	155	84
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)		18	10	23	13	25		0	0	
Queuing Penalty (veh)		0	0	88	49	98		0	0	
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	18	2				57	3			
Queuing Penalty (veh)	54	6				168	10			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	278	118	306	372	493	503	522	124	233	226
Average Queue (ft)	95	59	61	176	149	261	346	83	92	96
95th Queue (ft)	209	100	242	376	380	538	636	137	204	191
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)			8	14	1	7	50		1	0
Queuing Penalty (veh)			0	0	0	0	0		4	1
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								19	2	
Queuing Penalty (veh)								68	4	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	115	1740	61	73	169	75
Average Queue (ft)	20	954	21	5	66	26
95th Queue (ft)	90	2276	52	33	139	56
Link Distance (ft)		1650		2527	471	384
Upstream Blk Time (%)		42				
Queuing Penalty (veh)		409				
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)	0	59	1	0		
Queuing Penalty (veh)	0	17	4	0		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	114	326	243	123	497	234	296	145	70
Average Queue (ft)	8	264	73	54	85	99	82	52	23
95th Queue (ft)	51	394	200	99	317	188	267	162	59
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		42	0		0	1	12		0
Queuing Penalty (veh)		394	0		0	0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)		69		0	0		0	22	
Queuing Penalty (veh)		10		0	0		1	32	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	119	528	530	165	200	156	146	290	303	308	308	124
Average Queue (ft)	10	494	497	98	100	36	38	169	179	161	167	39
95th Queue (ft)	56	523	517	222	175	97	92	291	324	352	345	112
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		73	93			0	0	1	19	36	30	
Queuing Penalty (veh)		0	0			0	0	0	0	0	0	
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		69	58	0	1							
Queuing Penalty (veh)		9	166	1	2							

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB	SB
Directions Served	R	T	T	TR
Maximum Queue (ft)	67	265	261	15
Average Queue (ft)	26	220	226	0
95th Queue (ft)	55	278	273	8
Link Distance (ft)	161	151	151	342
Upstream Blk Time (%)		92	93	
Queuing Penalty (veh)		889	899	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	1543	65	164
Average Queue (ft)	1433	18	105
95th Queue (ft)	1895	55	179
Link Distance (ft)	1528	233	137
Upstream Blk Time (%)	41		50
Queuing Penalty (veh)	411		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	EB	B22	NB
Directions Served	TR	T	L
Maximum Queue (ft)	185	2606	40
Average Queue (ft)	132	1876	13
95th Queue (ft)	228	3603	38
Link Distance (ft)	76	2527	159
Upstream Blk Time (%)	76	31	
Queuing Penalty (veh)	807	333	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	TR	T
Maximum Queue (ft)	183	464	467	477	46
Average Queue (ft)	136	396	410	427	2
95th Queue (ft)	230	564	567	585	18
Link Distance (ft)	178	266	266	266	151
Upstream Blk Time (%)	62	90	91	92	
Queuing Penalty (veh)	0	616	625	628	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	620	523	518	513	82
Average Queue (ft)	595	422	425	431	7
95th Queue (ft)	672	678	675	678	39
Link Distance (ft)	597	302	302	302	266
Upstream Blk Time (%)	95	84	84	85	
Queuing Penalty (veh)	0	412	416	421	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	555	503	503	488	485	104
Average Queue (ft)	295	377	378	380	378	34
95th Queue (ft)	529	671	668	663	668	79
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	6	75	75	76	74	
Queuing Penalty (veh)	0	355	358	361	351	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	488	252	242	239	35
Average Queue (ft)	367	142	140	147	2
95th Queue (ft)	673	300	296	300	15
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	76	30	28	46	
Queuing Penalty (veh)	0	92	85	141	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 14608

Appendix E – Cumulative Conditions Level of Service Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	20	0	0	0	8	508	0	0	2234	9
Future Volume (veh/h)	14	0	20	0	0	0	8	508	0	0	2234	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	21	0	30	0	0	0	11	686	0	0	2628	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	228	26	266	0	551	0	34	1991	0	0	1774	7
Arrive On Green	0.30	0.00	0.30	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.50	0.50
Sat Flow, veh/h	536	88	890	0	1845	0	1757	3597	0	0	3672	15
Grp Volume(v), veh/h	51	0	0	0	0	0	11	686	0	0	1286	1353
Grp Sat Flow(s),veh/h/ln	1513	0	0	0	1845	0	1757	1752	0	0	1752	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.5	7.9	0.0	0.0	37.2	37.2
Cycle Q Clear(g_c), s	1.7	0.0	0.0	0.0	0.0	0.0	0.5	7.9	0.0	0.0	37.2	37.2
Prop In Lane	0.41		0.59	0.00		0.00	1.00		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	520	0	0	0	551	0	34	1991	0	0	868	913
V/C Ratio(X)	0.10	0.00	0.00	0.00	0.00	0.00	0.33	0.34	0.00	0.00	1.48	1.48
Avail Cap(c_a), veh/h	520	0	0	0	551	0	187	1991	0	0	868	913
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	0.0	0.0	0.0	0.0	36.3	8.7	0.0	0.0	18.9	18.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	2.1	0.5	0.0	0.0	222.4	223.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.0	0.0	0.0	0.2	3.9	0.0	0.0	71.5	75.3
LnGrp Delay(d),s/veh	19.4	0.0	0.0	0.0	0.0	0.0	38.4	9.2	0.0	0.0	241.3	242.0
LnGrp LOS	B						D	A			F	F
Approach Vol, veh/h		51			0			697			2639	
Approach Delay, s/veh		19.4			0.0			9.6			241.7	
Approach LOS		B						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		48.0		27.0	5.4	42.6		27.0
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		42.6		22.4	8.0	* 31		22.4
Max Q Clear Time (g_c+I1), s		9.9		3.7	2.5	39.2		0.0
Green Ext Time (p_c), s		7.1		0.2	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	190.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	9	88	0	19	2	489	24	19	2234	1
Future Volume (veh/h)	9	0	9	88	0	19	2	489	24	19	2234	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	18	0	18	166	0	0	3	689	0	22	2628	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	235	23	186	421	0	364	13	1900	850	69	2012	0
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.00	0.01	1.00	0.00	0.04	0.57	0.00
Sat Flow, veh/h	704	97	802	1403	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	36	0	0	166	0	0	3	689	0	22	2628	0
Grp Sat Flow(s),veh/h/ln	1603	0	0	1403	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.0	0.9	43.1	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	7.5	0.0	0.0	0.1	0.0	0.0	0.9	43.1	0.0
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	444	0	0	421	0	364	13	1900	850	69	2012	0
V/C Ratio(X)	0.08	0.00	0.00	0.39	0.00	0.00	0.23	0.36	0.00	0.32	1.31	0.00
Avail Cap(c_a), veh/h	444	0	0	421	0	364	211	1900	850	187	2012	0
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	0.00	1.00	0.00	0.00	0.95	0.95	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	0.0	0.0	24.9	0.0	0.0	36.7	0.0	0.0	35.1	16.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.7	0.0	0.0	3.3	0.5	0.0	1.0	141.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	3.3	0.0	0.0	0.1	0.1	0.0	0.5	59.9	0.0
LnGrp Delay(d),s/veh	23.0	0.0	0.0	27.6	0.0	0.0	40.0	0.5	0.0	36.0	157.5	0.0
LnGrp LOS	C			C			D	A		D	F	
Approach Vol, veh/h		36			166			692			2650	
Approach Delay, s/veh		23.0			27.6			0.7			156.5	
Approach LOS		C			C			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	48.5		22.0	6.9	46.1		22.0
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 35		17.4	8.0	35.6		17.4
Max Q Clear Time (g_c+I1), s	2.1	45.1		3.2	2.9	2.0		9.5
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	7.1		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	118.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	451	49	508	2327	8
Future Volume (veh/h)	8	451	49	508	2327	8
Number	3	18	1	6	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	10	0	73	758	2706	9
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.80	0.80	0.67	0.67	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	507	453	100	2257	1963	878
Arrive On Green	0.29	0.00	0.06	0.64	1.00	1.00
Sat Flow, veh/h	1757	1568	1757	3597	3597	1568
Grp Volume(v), veh/h	10	0	73	758	2706	9
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1568
Q Serve(g_s), s	0.6	0.0	6.1	14.7	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	6.1	14.7	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	453	100	2257	1963	878
V/C Ratio(X)	0.02	0.00	0.73	0.34	1.38	0.01
Avail Cap(c_a), veh/h	507	453	141	2257	1963	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.2	0.0	69.6	12.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	5.3	0.4	170.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	3.1	7.2	46.5	0.0
LnGrp Delay(d),s/veh	38.2	0.0	74.9	12.5	170.5	0.0
LnGrp LOS	D		E	B	F	A
Approach Vol, veh/h	10			831	2715	
Approach Delay, s/veh	38.2			18.0	169.9	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.6	89.4				102.0		48.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	12.6	* 81				96.6		43.3
Max Q Clear Time (g_c+I1), s	8.1	2.0				16.7		2.6
Green Ext Time (p_c), s	0.0	71.9				8.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	134.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	2	155	59	1	12	110	505	28	10	2684	72
Future Volume (veh/h)	36	2	155	59	1	12	110	505	28	10	2684	72
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.97		0.92	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	53	3	0	89	2	18	157	721	40	11	2949	79
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.68	0.68	0.66	0.66	0.66	0.70	0.70	0.70	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	198	10	0	177	7	28	140	2731	1192	28	2036	889
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.17	1.00	1.00	0.02	0.71	0.71
Sat Flow, veh/h	1339	88	0	1181	60	245	1616	3505	1530	1433	2859	1248
Grp Volume(v), veh/h	56	0	0	109	0	0	157	721	40	11	2949	79
Grp Sat Flow(s),veh/h/ln	1427	0	0	1486	0	0	1616	1752	1530	1433	1430	1248
Q Serve(g_s), s	0.0	0.0	0.0	4.8	0.0	0.0	13.0	0.0	0.0	1.1	106.8	2.9
Cycle Q Clear(g_c), s	5.2	0.0	0.0	10.0	0.0	0.0	13.0	0.0	0.0	1.1	106.8	2.9
Prop In Lane	0.95		0.00	0.82		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	0	212	0	0	140	2731	1192	28	2036	889
V/C Ratio(X)	0.27	0.00	0.00	0.51	0.00	0.00	1.12	0.26	0.03	0.39	1.45	0.09
Avail Cap(c_a), veh/h	306	0	0	312	0	0	140	2731	1192	124	2036	889
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	0.00	1.00	0.00	0.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	0.0	0.0	63.1	0.0	0.0	62.0	0.0	0.0	72.6	21.6	6.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	101.5	0.2	0.0	3.3	204.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	4.3	0.0	0.0	9.7	0.1	0.0	0.5	99.4	1.1
LnGrp Delay(d),s/veh	61.5	0.0	0.0	63.8	0.0	0.0	163.5	0.2	0.0	75.9	226.2	6.8
LnGrp LOS	E			E			F	A	A	E	F	A
Approach Vol, veh/h		56			109			918			3039	
Approach Delay, s/veh		61.5			63.8			28.1			219.9	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	111.9		21.1	6.9	122.0		21.1
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	13.0	95.9		27.9	13.0	95.9		27.9
Max Q Clear Time (g_c+I1), s	15.0	108.8		12.0	3.1	2.0		7.2
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	8.6		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	170.9	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	225	83	45	211	137	61	145	715	239	131	1681	883
Future Volume (veh/h)	225	83	45	211	137	61	145	715	239	131	1681	883
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.90	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	375	138	75	235	255	82	201	993	332	144	1847	970
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	548	175	95	264	278	213	199	1583	674	161	1257	535
Arrive On Green	0.16	0.16	0.16	0.15	0.15	0.15	0.11	0.45	0.45	0.12	0.45	0.45
Sat Flow, veh/h	3408	1088	591	1757	1845	1415	1757	3505	1493	1387	2767	1179
Grp Volume(v), veh/h	375	0	213	235	255	82	201	993	332	144	1847	970
Grp Sat Flow(s),veh/h/ln	1704	0	1680	1757	1845	1415	1757	1752	1493	1387	1383	1179
Q Serve(g_s), s	15.6	0.0	18.3	19.7	20.4	7.8	17.0	32.5	23.5	15.4	68.1	68.1
Cycle Q Clear(g_c), s	15.6	0.0	18.3	19.7	20.4	7.8	17.0	32.5	23.5	15.4	68.1	68.1
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	548	0	270	264	278	213	199	1583	674	161	1257	535
V/C Ratio(X)	0.68	0.00	0.79	0.89	0.92	0.39	1.01	0.63	0.49	0.90	1.47	1.81
Avail Cap(c_a), veh/h	611	0	301	269	283	217	199	1583	674	185	1257	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	59.4	0.0	60.5	62.5	62.8	57.5	66.5	31.5	29.0	65.4	40.9	40.9
Incr Delay (d2), s/veh	2.0	0.0	10.4	27.1	32.0	0.4	66.3	1.9	2.6	4.7	211.9	366.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	0.0	9.3	11.6	12.9	3.1	11.9	16.1	10.2	6.1	63.0	76.6
LnGrp Delay(d),s/veh	61.4	0.0	70.9	89.6	94.8	57.9	132.8	33.4	31.6	70.1	252.8	407.1
LnGrp LOS	E		E	F	F	E	F	C	C	E	F	F
Approach Vol, veh/h		588			572			1526			2961	
Approach Delay, s/veh		64.8			87.4			46.1			294.4	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	73.2		26.6	21.4	72.9		29.2
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	19.0	70.1		22.4	17.4	34.5		20.3
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	13.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	182.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	270	116	0	0	0	293	783	451	0	473	835
Future Volume (veh/h)	184	270	116	0	0	0	293	783	451	0	473	835
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	196	287	123				337	900	0	0	503	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.94	0.94	0.94				0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	275	377	158				75	2380	1065	0	1995	892
Arrive On Green	0.16	0.16	0.16				0.04	0.68	0.00	0.00	0.57	0.00
Sat Flow, veh/h	1757	2408	1007				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	196	207	203				337	900	0	0	503	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1662				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	7.4	7.9	8.2				3.0	7.8	0.0	0.0	5.1	0.0
Cycle Q Clear(g_c), s	7.4	7.9	8.2				3.0	7.8	0.0	0.0	5.1	0.0
Prop In Lane	1.00		0.61				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	275	274	260				75	2380	1065	0	1995	892
V/C Ratio(X)	0.71	0.75	0.78				4.48	0.38	0.00	0.00	0.25	0.00
Avail Cap(c_a), veh/h	753	751	712				75	2380	1065	0	1995	892
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.41	0.41	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.0	28.2	28.4				33.5	4.8	0.0	0.0	7.6	0.0
Incr Delay (d2), s/veh	1.3	1.6	1.9				1576.6	0.2	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.9	3.9				34.4	3.7	0.0	0.0	2.5	0.0
LnGrp Delay(d),s/veh	29.3	29.8	30.3				1610.1	5.0	0.0	0.0	7.9	0.0
LnGrp LOS	C	C	C				F	A			A	
Approach Vol, veh/h		606						1237			503	
Approach Delay, s/veh		29.8						442.3			7.9	
Approach LOS		C						F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		52.9		17.1	7.7	45.2		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		9.8		10.2	5.0	7.1		
Green Ext Time (p_c), s		4.1		0.4	0.0	1.7		

Intersection Summary	
HCM 2010 Ctrl Delay	242.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	41	177	28	0	200	0	1240	29	79	548	0
Future Volume (veh/h)	52	41	177	28	0	200	0	1240	29	79	548	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	66	52	224	37	0	263	0	1442	34	88	609	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.76	0.76	0.76	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	214	169	333	0	0	0	0	2004	47	113	1995	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.40	0.40	0.06	0.57	0.00
Sat Flow, veh/h	1004	791	1559		0		0	5224	119	1757	3597	0
Grp Volume(v), veh/h	118	0	224		0.0		0	957	519	88	609	0
Grp Sat Flow(s),veh/h/ln	1794	0	1559				0	1679	1820	1757	1752	0
Q Serve(g_s), s	2.0	0.0	4.9				0.0	8.9	8.9	1.8	3.3	0.0
Cycle Q Clear(g_c), s	2.0	0.0	4.9				0.0	8.9	8.9	1.8	3.3	0.0
Prop In Lane	0.56		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	383	0	333				0	1330	721	113	1995	0
V/C Ratio(X)	0.31	0.00	0.67				0.00	0.72	0.72	0.78	0.31	0.00
Avail Cap(c_a), veh/h	877	0	762				0	1458	790	191	2283	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	13.3				0.0	9.4	9.4	17.0	4.1	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.4				0.0	1.6	2.9	10.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.3				0.0	4.3	4.9	1.2	1.6	0.0
LnGrp Delay(d),s/veh	12.6	0.0	15.7				0.0	11.0	12.3	27.8	4.2	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		342						1476			697	
Approach Delay, s/veh		14.6						11.4			7.2	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		11.9		25.0			6.4	18.6
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		18.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		6.9		5.3			3.8	10.9
Green Ext Time (p_c), s		1.1		3.8			0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	98

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	341	45	154	854	6	52	6	53	14	9	27
Future Vol, veh/h	10	341	45	154	854	6	52	6	53	14	9	27
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	60	60	60	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	437	58	181	1005	7	87	10	88	18	12	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1012	0	0	495	0	0	1888	1866	466	1868	1892	1011
Stage 1	-	-	-	-	-	-	492	492	-	1371	1371	-
Stage 2	-	-	-	-	-	-	1396	1374	-	497	521	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	681	-	-	1064	-	-	~ 53	72	595	55	70	289
Stage 1	-	-	-	-	-	-	557	546	-	180	213	-
Stage 2	-	-	-	-	-	-	174	212	-	553	530	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	681	-	-	1064	-	-	~ 34	59	595	35	57	289
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 34	59	-	35	57	-
Stage 1	-	-	-	-	-	-	546	536	-	177	177	-
Stage 2	-	-	-	-	-	-	118	176	-	453	520	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.4	$ 969.2	154.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	65	681	-	-	1064	-	-	77
HCM Lane V/C Ratio	2.846	0.019	-	-	0.17	-	-	0.843
HCM Control Delay (s)	$ 969.2	10.4	-	-	9.1	-	-	154.3
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	18.7	0.1	-	-	0.6	-	-	4.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	248	844	209	717	2	329	13	130	17	28	25
Future Volume (veh/h)	21	248	844	209	717	2	329	13	130	17	28	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	24	282	0	230	788	2	427	0	0	21	35	31
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.79	0.79	0.79	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	55	661	562	275	890	2	581	0	259	47	78	69
Arrive On Green	0.03	0.36	0.00	0.16	0.48	0.48	0.17	0.00	0.00	0.12	0.12	0.12
Sat Flow, veh/h	1757	1845	1568	1757	1839	5	3514	0	1568	409	682	604
Grp Volume(v), veh/h	24	282	0	230	0	790	427	0	0	87	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1844	1757	0	1568	1695	0	0
Q Serve(g_s), s	1.0	9.1	0.0	9.9	0.0	30.3	9.0	0.0	0.0	3.7	0.0	0.0
Cycle Q Clear(g_c), s	1.0	9.1	0.0	9.9	0.0	30.3	9.0	0.0	0.0	3.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.24		0.36
Lane Grp Cap(c), veh/h	55	661	562	275	0	892	581	0	259	195	0	0
V/C Ratio(X)	0.44	0.43	0.00	0.84	0.00	0.89	0.73	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	449	1179	1002	449	0	1179	1348	0	601	650	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.2	19.0	0.0	32.0	0.0	18.2	31.0	0.0	0.0	32.3	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.4	0.0	7.1	0.0	6.7	1.8	0.0	0.0	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.7	0.0	5.3	0.0	16.8	4.5	0.0	0.0	1.8	0.0	0.0
LnGrp Delay(d),s/veh	42.6	19.4	0.0	39.1	0.0	24.9	32.8	0.0	0.0	33.9	0.0	0.0
LnGrp LOS	D	B		D		C	C			C		
Approach Vol, veh/h		306			1020			427			87	
Approach Delay, s/veh		21.3			28.1			32.8			33.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		16.9	16.3	32.0		13.0	6.4	41.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		11.0	11.9	11.1		5.7	3.0	32.3
Green Ext Time (p_c), s		1.5	0.4	1.8		0.4	0.0	5.6

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	654	240	396	593	8	725	0	513	16	2	12
Future Volume (veh/h)	9	654	240	396	593	8	725	0	513	16	2	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	10	752	276	471	706	10	755	0	534	27	3	20
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.96	0.96	0.96	0.59	0.59	0.59
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	25	932	407	269	1431	20	806	0	1198	208	23	154
Arrive On Green	0.01	0.27	0.27	0.15	0.40	0.40	0.23	0.00	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1757	3505	1533	1757	3536	50	3514	0	3129	907	101	672
Grp Volume(v), veh/h	10	752	276	471	350	366	755	0	534	50	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1533	1757	1752	1834	1757	0	1565	1680	0	0
Q Serve(g_s), s	0.7	26.2	21.1	20.0	19.4	19.4	27.6	0.0	16.6	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.7	26.2	21.1	20.0	19.4	19.4	27.6	0.0	16.6	3.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.54		0.40
Lane Grp Cap(c), veh/h	25	932	407	269	709	742	806	0	1198	385	0	0
V/C Ratio(X)	0.41	0.81	0.68	1.75	0.49	0.49	0.94	0.00	0.45	0.13	0.00	0.00
Avail Cap(c_a), veh/h	269	1340	586	269	709	742	806	0	1198	385	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	63.9	44.9	43.0	55.4	28.9	28.9	49.4	0.0	30.1	40.0	0.0	0.0
Incr Delay (d2), s/veh	10.5	2.5	2.0	353.7	0.5	0.5	19.6	0.0	1.2	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.0	9.1	36.0	9.5	10.0	15.6	0.0	7.4	1.5	0.0	0.0
LnGrp Delay(d),s/veh	74.4	47.3	45.0	409.0	29.5	29.5	69.0	0.0	31.3	40.7	0.0	0.0
LnGrp LOS	E	D	D	F	C	C	E		C	D		
Approach Vol, veh/h		1038			1187			1289			50	
Approach Delay, s/veh		47.0			180.1			53.4			40.7	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	38.8		34.0	5.8	56.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		29.6	22.0	28.2		5.1	2.7	21.4
Green Ext Time (p_c), s		0.3	0.0	6.5		0.2	0.0	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	93.5
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	56	1153	83	0	1867
Future Vol, veh/h	0	56	1153	83	0	1867
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	71	71	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	77	1624	117	0	1945

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	881	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	247	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	245	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.3	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	245	-
HCM Lane V/C Ratio	-	-	0.313	-
HCM Control Delay (s)	-	-	26.3	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	1.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	23	0	0	0	19	2396	0	0	939	21
Future Volume (veh/h)	17	0	23	0	0	0	19	2396	0	0	939	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	21	0	29	0	0	0	22	2819	0	0	1021	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	203	19	236	0	498	0	56	2208	0	0	1954	44
Arrive On Green	0.27	0.00	0.27	0.00	0.00	0.00	0.03	0.63	0.00	0.00	0.56	0.56
Sat Flow, veh/h	561	72	875	0	1845	0	1757	3597	0	0	3595	79
Grp Volume(v), veh/h	50	0	0	0	0	0	22	2819	0	0	511	533
Grp Sat Flow(s),veh/h/ln	1508	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.2	63.0	0.0	0.0	18.2	18.2
Cycle Q Clear(g_c), s	2.2	0.0	0.0	0.0	0.0	0.0	1.2	63.0	0.0	0.0	18.2	18.2
Prop In Lane	0.42		0.58	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	458	0	0	0	498	0	56	2208	0	0	978	1020
V/C Ratio(X)	0.11	0.00	0.00	0.00	0.00	0.00	0.39	1.28	0.00	0.00	0.52	0.52
Avail Cap(c_a), veh/h	458	0	0	0	498	0	123	2208	0	0	978	1020
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	0.0	0.0	0.0	0.0	47.4	18.5	0.0	0.0	13.8	13.8
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	1.6	128.2	0.0	0.0	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0	0.0	0.0	0.6	69.4	0.0	0.0	9.3	9.7
LnGrp Delay(d),s/veh	27.9	0.0	0.0	0.0	0.0	0.0	49.1	146.7	0.0	0.0	15.8	15.7
LnGrp LOS	C						D	F			B	B
Approach Vol, veh/h		50			0			2841			1044	
Approach Delay, s/veh		27.9			0.0			145.9			15.7	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		68.4		31.6	7.2	61.2		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		63.0		27.0	7.0	* 52		27.0
Max Q Clear Time (g_c+I1), s		65.0		4.2	3.2	20.2		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	11.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	109.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	39	0	42	6	2374	61	25	924	2
Future Volume (veh/h)	2	0	10	39	0	42	6	2374	61	25	924	2
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	4	0	18	49	0	0	7	2760	0	28	1038	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	19	261	342	0	321	27	2263	1012	69	2347	0
Arrive On Green	0.20	0.00	0.20	0.20	0.00	0.00	0.02	0.65	0.00	0.04	0.67	0.00
Sat Flow, veh/h	189	94	1273	1394	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	22	0	0	49	0	0	7	2760	0	28	1038	0
Grp Sat Flow(s),veh/h/ln	1556	0	0	1394	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	0.5	82.0	0.0	2.0	17.7	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	3.3	0.0	0.0	0.5	82.0	0.0	2.0	17.7	0.0
Prop In Lane	0.18		0.82	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	352	0	0	342	0	321	27	2263	1012	69	2347	0
V/C Ratio(X)	0.06	0.00	0.00	0.14	0.00	0.00	0.26	1.22	0.00	0.40	0.44	0.00
Avail Cap(c_a), veh/h	352	0	0	342	0	321	124	2263	1012	111	2347	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.7	0.0	0.0	41.4	0.0	0.0	61.8	22.5	0.0	59.5	9.9	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.9	0.0	0.0	1.8	103.2	0.0	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	1.5	0.0	0.0	0.3	71.7	0.0	1.0	8.7	0.0
LnGrp Delay(d),s/veh	41.1	0.0	0.0	42.3	0.0	0.0	63.6	125.7	0.0	60.9	10.5	0.0
LnGrp LOS	D			D			E	F		E	B	
Approach Vol, veh/h		22			49			2767			1066	
Approach Delay, s/veh		41.1			42.3			125.5			11.8	
Approach LOS		D			D			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.0	90.5		30.6	9.0	87.4		30.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 81		26.0	8.0	82.0		26.0
Max Q Clear Time (g_c+I1), s	2.5	19.7		3.4	4.0	84.0		5.3
Green Ext Time (p_c), s	0.0	14.6		0.0	0.0	0.0		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	92.9	
HCM 2010 LOS	F	

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	93	115	2417	954	24
Future Volume (veh/h)	24	93	115	2417	954	24
Number	3	18	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	25	0	134	2810	1026	26
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.86	0.86	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	438	391	163	2278	1813	794
Arrive On Green	0.25	0.00	0.09	0.65	0.52	0.52
Sat Flow, veh/h	1757	1568	1757	3597	3597	1534
Grp Volume(v), veh/h	25	0	134	2810	1026	26
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1534
Q Serve(g_s), s	1.1	0.0	7.5	65.2	20.0	0.8
Cycle Q Clear(g_c), s	1.1	0.0	7.5	65.2	20.0	0.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	438	391	163	2278	1813	794
V/C Ratio(X)	0.06	0.00	0.82	1.23	0.57	0.03
Avail Cap(c_a), veh/h	438	391	210	2278	1813	794
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	1.00
Uniform Delay (d), s/veh	28.7	0.0	44.7	17.6	16.5	11.9
Incr Delay (d2), s/veh	0.2	0.0	14.3	109.0	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.3	65.5	10.0	0.4
LnGrp Delay(d),s/veh	28.9	0.0	59.0	126.6	17.8	12.0
LnGrp LOS	C		E	F	B	B
Approach Vol, veh/h	25			2944	1052	
Approach Delay, s/veh	28.9			123.5	17.7	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		70.6			13.3	57.3		29.7
Change Period (Y+Rc), s		* 5.4			4.0	5.4		4.7
Max Green Setting (Gmax), s		* 65			12.0	48.9		25.0
Max Q Clear Time (g_c+I1), s		67.2			9.5	22.0		3.1
Green Ext Time (p_c), s		0.0			0.0	11.3		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	95.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1	137	46	5	21	140	2460	50	20	972	45
Future Volume (veh/h)	60	1	137	46	5	21	140	2460	50	20	972	45
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.93		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	82	1	0	56	6	26	152	2674	54	21	1023	47
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	261	3	246	185	26	69	174	2470	1099	53	1812	789
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.11	0.70	0.70	0.04	0.63	0.63
Sat Flow, veh/h	1312	18	1568	887	163	440	1616	3505	1559	1433	2859	1245
Grp Volume(v), veh/h	83	0	0	88	0	0	152	2674	54	21	1023	47
Grp Sat Flow(s),veh/h/ln	1331	0	1568	1490	0	0	1616	1752	1559	1433	1430	1245
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	0.0	12.1	91.8	1.4	1.9	26.6	1.9
Cycle Q Clear(g_c), s	7.0	0.0	0.0	6.0	0.0	0.0	12.1	91.8	1.4	1.9	26.6	1.9
Prop In Lane	0.99		1.00	0.64		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	0	246	279	0	0	174	2470	1099	53	1812	789
V/C Ratio(X)	0.31	0.00	0.00	0.32	0.00	0.00	0.87	1.08	0.05	0.40	0.56	0.06
Avail Cap(c_a), veh/h	320	0	313	338	0	0	248	2470	1099	99	1812	789
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	0.0	0.0	48.8	0.0	0.0	57.2	19.2	5.9	61.3	13.6	9.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	15.9	45.0	0.1	1.8	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	2.8	0.0	0.0	6.2	59.4	0.6	0.8	10.7	0.7
LnGrp Delay(d),s/veh	49.5	0.0	0.0	49.0	0.0	0.0	73.1	64.2	6.0	63.1	14.9	9.2
LnGrp LOS	D			D			E	F	A	E	B	A
Approach Vol, veh/h		83			88			2880			1091	
Approach Delay, s/veh		49.5			49.0			63.6			15.6	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.8	96.9		24.6	18.0	87.7		24.6
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	4.8	91.8		26.0	20.0	80.8		26.0
Max Q Clear Time (g_c+I1), s	3.9	93.8		8.0	14.1	28.6		9.0
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	14.3		0.2

Intersection Summary		
HCM 2010 Ctrl Delay	50.3	
HCM 2010 LOS	D	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	674	132	72	183	109	153	56	1722	159	170	879	312
Future Volume (veh/h)	674	132	72	183	109	153	56	1722	159	170	879	312
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.94	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	822	161	88	180	199	189	60	1852	171	212	1099	390
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	228	125	142	149	107	98	1590	668	155	1410	594
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.06	0.45	0.45	0.11	0.51	0.51
Sat Flow, veh/h	3408	1096	599	1757	1845	1329	1757	3505	1473	1387	2767	1166
Grp Volume(v), veh/h	822	0	249	180	199	189	60	1852	171	212	1099	390
Grp Sat Flow(s),veh/h/ln	1704	0	1695	1757	1845	1329	1757	1752	1473	1387	1383	1166
Q Serve(g_s), s	26.0	0.0	17.1	10.1	10.1	10.1	4.2	56.7	9.0	14.0	40.4	30.8
Cycle Q Clear(g_c), s	26.0	0.0	17.1	10.1	10.1	10.1	4.2	56.7	9.0	14.0	40.4	30.8
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	352	142	149	107	98	1590	668	155	1410	594
V/C Ratio(X)	1.16	0.00	0.71	1.27	1.34	1.76	0.61	1.16	0.26	1.36	0.78	0.66
Avail Cap(c_a), veh/h	709	0	352	142	149	107	126	1590	668	155	1410	594
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	46.0	57.5	57.5	57.4	57.7	34.1	21.1	55.5	24.9	22.6
Incr Delay (d2), s/veh	87.0	0.0	5.4	164.6	189.2	377.1	2.3	81.5	0.9	199.8	4.3	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.8	0.0	8.5	11.4	13.0	15.0	2.1	45.4	3.8	14.0	16.3	10.8
LnGrp Delay(d),s/veh	136.5	0.0	51.4	222.0	246.6	434.5	59.9	115.6	22.0	255.3	29.3	28.2
LnGrp LOS	F		D	F	F	F	E	F	C	F	C	C
Approach Vol, veh/h		1071			568			2083			1701	
Approach Delay, s/veh		116.7			301.3			106.4			57.2	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	11.0	68.8		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	16.0	58.7		12.1	6.2	42.4		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	12.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	277	479	298	0	0	0	282	645	439	0	583	472
Future Volume (veh/h)	277	479	298	0	0	0	282	645	439	0	583	472
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	280	484	301				313	717	0	0	614	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.99	0.99	0.99				0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	518	611	378				252	1679	751	0	852	381
Arrive On Green	0.29	0.29	0.29				0.14	0.48	0.00	0.00	0.24	0.00
Sat Flow, veh/h	1757	2073	1284				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	280	409	376				313	717	0	0	614	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1604				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	6.8	10.9	11.0				7.3	6.8	0.0	0.0	8.2	0.0
Cycle Q Clear(g_c), s	6.8	10.9	11.0				7.3	6.8	0.0	0.0	8.2	0.0
Prop In Lane	1.00		0.80				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	518	516	473				252	1679	751	0	852	381
V/C Ratio(X)	0.54	0.79	0.80				1.24	0.43	0.00	0.00	0.72	0.00
Avail Cap(c_a), veh/h	1140	1137	1041				252	2447	1095	0	1620	725
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.0	16.5	16.5				21.8	8.7	0.0	0.0	17.7	0.0
Incr Delay (d2), s/veh	0.3	1.0	1.2				137.4	0.1	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	5.4	5.0				13.1	3.3	0.0	0.0	4.0	0.0
LnGrp Delay(d),s/veh	15.4	17.5	17.7				159.1	8.7	0.0	0.0	18.1	0.0
LnGrp LOS	B	B	B				F	A			B	
Approach Vol, veh/h		1065						1030			614	
Approach Delay, s/veh		17.0						54.4			18.1	
Approach LOS		B						D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		29.8		21.1	12.0	17.8		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		35.5		33.0	* 7.3	23.5		
Max Q Clear Time (g_c+I1), s		8.8		13.0	9.3	10.2		
Green Ext Time (p_c), s		3.3		0.8	0.0	2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	31.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	73	213	32	0	133	0	1146	28	148	721	0
Future Volume (veh/h)	61	73	213	32	0	133	0	1146	28	148	721	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	64	77	224	47	0	196	0	1302	32	185	901	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.68	0.68	0.68	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	171	205	326	0	0	0	0	1810	44	235	2074	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.36	0.36	0.13	0.59	0.00
Sat Flow, veh/h	819	985	1563		0		0	5219	124	1757	3597	0
Grp Volume(v), veh/h	141	0	224		0.0		0	865	469	185	901	0
Grp Sat Flow(s),veh/h/ln	1804	0	1563				0	1679	1820	1757	1752	0
Q Serve(g_s), s	2.7	0.0	5.3				0.0	8.9	8.9	4.1	5.7	0.0
Cycle Q Clear(g_c), s	2.7	0.0	5.3				0.0	8.9	8.9	4.1	5.7	0.0
Prop In Lane	0.45		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	376	0	326				0	1202	652	235	2074	0
V/C Ratio(X)	0.37	0.00	0.69				0.00	0.72	0.72	0.79	0.43	0.00
Avail Cap(c_a), veh/h	766	0	664				0	1342	727	307	2365	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	14.6				0.0	11.1	11.1	16.8	4.5	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.6				0.0	1.7	3.1	9.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	2.5				0.0	4.4	5.0	2.6	2.7	0.0
LnGrp Delay(d),s/veh	14.2	0.0	17.2				0.0	12.8	14.2	26.6	4.6	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		365						1334			1086	
Approach Delay, s/veh		16.1						13.3			8.4	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		12.3		27.7			9.3	18.3
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		27.0			7.0	16.0
Max Q Clear Time (g_c+I1), s		7.3		7.7			6.1	10.9
Green Ext Time (p_c), s		1.1		6.1			0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	57.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	862	65	72	320	5	38	10	141	13	8	19
Future Vol, veh/h	12	862	65	72	320	5	38	10	141	13	8	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	83	83	83	80	80	80	65	65	65
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	1105	83	87	386	6	48	13	176	20	12	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	392	0	0	1188	0	0	1761	1743	1147	1746	1781	389
Stage 1	-	-	-	-	-	-	1177	1177	-	563	563	-
Stage 2	-	-	-	-	-	-	584	566	-	1183	1218	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1161	-	-	584	-	-	65	86	241	67	82	657
Stage 1	-	-	-	-	-	-	232	264	-	509	507	-
Stage 2	-	-	-	-	-	-	496	506	-	230	252	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1161	-	-	584	-	-	~ 47	72	241	~ 14	69	657
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 47	72	-	~ 14	69	-
Stage 1	-	-	-	-	-	-	229	261	-	502	431	-
Stage 2	-	-	-	-	-	-	392	431	-	58	249	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.2	$ 328	$ 559.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	153	1161	-	-	584	-	-	37
HCM Lane V/C Ratio	1.544	0.013	-	-	0.149	-	-	1.663
HCM Control Delay (s)	$ 328	8.1	-	-	12.2	-	-	$ 559.9
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	16	0	-	-	0.5	-	-	6.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	672	1171	114	258	5	317	10	257	8	19	14
Future Volume (veh/h)	31	672	1171	114	258	5	317	10	257	8	19	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	34	730	0	142	322	6	360	0	0	11	26	19
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.90	0.90	0.90	0.73	0.73	0.73
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	70	828	704	180	923	17	504	0	225	36	86	63
Arrive On Green	0.04	0.45	0.00	0.10	0.51	0.51	0.14	0.00	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	1845	1568	1757	1805	34	3514	0	1568	336	793	580
Grp Volume(v), veh/h	34	730	0	142	0	328	360	0	0	56	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1839	1757	0	1568	1708	0	0
Q Serve(g_s), s	1.5	29.3	0.0	6.4	0.0	8.6	7.9	0.0	0.0	2.5	0.0	0.0
Cycle Q Clear(g_c), s	1.5	29.3	0.0	6.4	0.0	8.6	7.9	0.0	0.0	2.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.20		0.34
Lane Grp Cap(c), veh/h	70	828	704	180	0	941	504	0	225	185	0	0
V/C Ratio(X)	0.49	0.88	0.00	0.79	0.00	0.35	0.71	0.00	0.00	0.30	0.00	0.00
Avail Cap(c_a), veh/h	433	1137	966	433	0	1133	1299	0	580	632	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.2	20.4	0.0	35.6	0.0	11.8	33.2	0.0	0.0	33.4	0.0	0.0
Incr Delay (d2), s/veh	5.2	6.4	0.0	7.5	0.0	0.2	1.9	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	16.3	0.0	3.5	0.0	4.4	4.0	0.0	0.0	1.2	0.0	0.0
LnGrp Delay(d),s/veh	43.4	26.8	0.0	43.0	0.0	12.0	35.1	0.0	0.0	34.3	0.0	0.0
LnGrp LOS	D	C		D		B	D			C		
Approach Vol, veh/h		764			470			360			56	
Approach Delay, s/veh		27.5			21.4			35.1			34.3	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		15.6	12.3	40.4		12.8	7.2	45.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		9.9	8.4	31.3		4.5	3.5	10.6
Green Ext Time (p_c), s		1.2	0.3	5.1		0.2	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1059	276	287	287	15	496	0	798	16	6	8
Future Volume (veh/h)	9	1059	276	287	287	15	496	0	798	16	6	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	9	1103	288	354	354	19	539	0	867	25	9	12
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	22	1182	515	243	1566	84	728	0	1082	193	70	93
Arrive On Green	0.01	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1528	1757	3383	181	3514	0	3136	934	336	448
Grp Volume(v), veh/h	9	1103	288	354	183	190	539	0	867	46	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1528	1757	1752	1812	1757	0	1568	1719	0	0
Q Serve(g_s), s	0.7	44.1	22.3	20.0	9.1	9.1	20.8	0.0	30.0	3.2	0.0	0.0
Cycle Q Clear(g_c), s	0.7	44.1	22.3	20.0	9.1	9.1	20.8	0.0	30.0	3.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	0.54		0.26
Lane Grp Cap(c), veh/h	22	1182	515	243	811	839	728	0	1082	356	0	0
V/C Ratio(X)	0.41	0.93	0.56	1.46	0.23	0.23	0.74	0.00	0.80	0.13	0.00	0.00
Avail Cap(c_a), veh/h	243	1210	527	243	811	839	728	0	1082	356	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.0	46.4	39.2	62.4	23.3	23.4	53.8	0.0	42.9	46.8	0.0	0.0
Incr Delay (d2), s/veh	11.6	12.8	1.3	228.2	0.1	0.1	6.7	0.0	6.3	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	23.4	9.6	25.0	4.4	4.6	10.8	0.0	16.6	1.6	0.0	0.0
LnGrp Delay(d),s/veh	82.6	59.2	40.5	290.6	23.5	23.5	60.5	0.0	49.2	47.5	0.0	0.0
LnGrp LOS	F	E	D	F	C	C	E		D	D		
Approach Vol, veh/h		1400			727			1406			46	
Approach Delay, s/veh		55.5			153.5			53.5			47.5	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	52.9		34.0	5.8	71.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		32.0	22.0	46.1		5.2	2.7	11.1
Green Ext Time (p_c), s		0.0	0.0	2.8		0.2	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	74.5
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	19	1948	97	0	1129
Future Vol, veh/h	0	19	1948	97	0	1129
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	94	94	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	28	2072	103	0	1227

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1098	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	177	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	176	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.3	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	176	-
HCM Lane V/C Ratio	-	-	0.161	-
HCM Control Delay (s)	-	-	29.3	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.6	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	28	0	0	0	20	2874	0	0	924	20
Future Volume (veh/h)	13	0	28	0	0	0	20	2874	0	0	924	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	18	0	38	0	0	0	21	2994	0	0	1004	22
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.73	0.73	0.73	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	255	36	452	0	803	0	60	1413	0	0	1067	23
Arrive On Green	0.44	0.00	0.44	0.00	0.00	0.00	0.03	0.40	0.00	0.00	0.30	0.30
Sat Flow, veh/h	409	82	1037	0	1845	0	1757	3597	0	0	3597	77
Grp Volume(v), veh/h	56	0	0	0	0	0	21	2994	0	0	502	524
Grp Sat Flow(s),veh/h/ln	1529	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.7	25.0	0.0	0.0	17.3	17.3
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	0.0	0.7	25.0	0.0	0.0	17.3	17.3
Prop In Lane	0.32		0.68	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	742	0	0	0	803	0	60	1413	0	0	534	557
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.35	2.12	0.00	0.00	0.94	0.94
Avail Cap(c_a), veh/h	742	0	0	0	803	0	198	1413	0	0	534	557
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	29.3	18.5	0.0	0.0	21.0	21.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	1.3	505.7	0.0	0.0	26.8	26.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	0.0	0.4	111.2	0.0	0.0	12.3	12.8
LnGrp Delay(d),s/veh	10.4	0.0	0.0	0.0	0.0	0.0	30.5	524.2	0.0	0.0	47.8	47.0
LnGrp LOS	B						C	F			D	D
Approach Vol, veh/h		56			0			3015			1026	
Approach Delay, s/veh		10.4			0.0			520.8			47.4	
Approach LOS		B						F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		30.4		31.6	6.1	24.3		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		25.0		27.0	7.0	* 14		27.0
Max Q Clear Time (g_c+I1), s		27.0		3.2	2.7	19.3		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	395.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	12	30	0	30	7	2857	51	37	921	1
Future Volume (veh/h)	2	0	12	30	0	30	7	2857	51	37	921	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	5	0	28	42	0	0	7	2945	0	40	1001	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.43	0.43	0.43	0.72	0.72	0.72	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	114	37	472	605	0	556	29	1245	557	113	1412	0
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.00	0.02	0.36	0.00	0.06	0.40	0.00
Sat Flow, veh/h	134	103	1329	1378	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	33	0	0	42	0	0	7	2945	0	40	1001	0
Grp Sat Flow(s),veh/h/ln	1567	0	0	1378	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22.0	0.0	1.4	14.8	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.0	0.0	0.0	0.2	22.0	0.0	1.4	14.8	0.0
Prop In Lane	0.15		0.85	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	623	0	0	605	0	556	29	1245	557	113	1412	0
V/C Ratio(X)	0.05	0.00	0.00	0.07	0.00	0.00	0.24	2.37	0.00	0.35	0.71	0.00
Avail Cap(c_a), veh/h	623	0	0	605	0	556	255	1245	557	227	1412	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.2	0.0	0.0	13.2	0.0	0.0	30.1	20.0	0.0	27.8	15.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	0.1	615.0	0.0	0.7	3.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.5	0.0	0.0	0.1	116.9	0.0	0.7	7.7	0.0
LnGrp Delay(d),s/veh	13.3	0.0	0.0	13.4	0.0	0.0	30.2	635.0	0.0	28.5	18.5	0.0
LnGrp LOS	B			B			C	F		C	B	
Approach Vol, veh/h		33			42			2952			1041	
Approach Delay, s/veh		13.3			13.4			633.6			18.9	
Approach LOS		B			B			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	30.4		26.6	8.0	27.4		26.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 17		22.0	8.0	18.0		22.0
Max Q Clear Time (g_c+I1), s	2.2	16.8		2.8	3.4	24.0		3.0
Green Ext Time (p_c), s	0.0	0.4		0.1	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	464.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	108	147	2912	942	34
Future Volume (veh/h)	22	108	147	2912	942	34
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	24	0	155	3065	992	36
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	480	428	186	2194	1683	737
Arrive On Green	0.27	0.00	0.11	0.63	0.48	0.48
Sat Flow, veh/h	1757	1568	1757	3597	3597	1535
Grp Volume(v), veh/h	24	0	155	3065	992	36
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1535
Q Serve(g_s), s	1.0	0.0	8.7	62.6	20.5	1.2
Cycle Q Clear(g_c), s	1.0	0.0	8.7	62.6	20.5	1.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	480	428	186	2194	1683	737
V/C Ratio(X)	0.05	0.00	0.83	1.40	0.59	0.05
Avail Cap(c_a), veh/h	480	428	264	2194	1683	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.72	0.72
Uniform Delay (d), s/veh	26.8	0.0	43.8	18.7	18.8	13.8
Incr Delay (d2), s/veh	0.2	0.0	10.3	181.5	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	4.8	85.2	10.2	0.5
LnGrp Delay(d),s/veh	27.0	0.0	54.2	200.2	19.9	13.9
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	24			3220	1028	
Approach Delay, s/veh	27.0			193.1	19.7	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.6	53.4				68.0		32.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	15.6	* 44				62.6		27.3
Max Q Clear Time (g_c+I1), s	10.7	22.5				64.6		3.0
Green Ext Time (p_c), s	0.1	9.8				0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	150.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1	75	37	0	20	125	2979	53	15	986	41
Future Volume (veh/h)	59	1	75	37	0	20	125	2979	53	15	986	41
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	73	1	0	54	0	29	129	3071	55	16	1072	45
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.81	0.81	0.81	0.68	0.68	0.68	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	358	4	265	242	19	89	209	2058	900	45	1398	612
Arrive On Green	0.17	0.17	0.00	0.17	0.00	0.17	0.13	0.59	0.59	0.03	0.49	0.49
Sat Flow, veh/h	1437	25	1568	866	114	527	1616	3505	1533	1433	2859	1251
Grp Volume(v), veh/h	74	0	0	83	0	0	129	3071	55	16	1072	45
Grp Sat Flow(s),veh/h/ln	1462	0	1568	1507	0	0	1616	1752	1533	1433	1430	1251
Q Serve(g_s), s	0.0	0.0	0.0	0.4	0.0	0.0	4.7	36.4	1.0	0.7	19.0	1.2
Cycle Q Clear(g_c), s	2.3	0.0	0.0	2.6	0.0	0.0	4.7	36.4	1.0	0.7	19.0	1.2
Prop In Lane	0.99		1.00	0.65		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	0	265	350	0	0	209	2058	900	45	1398	612
V/C Ratio(X)	0.20	0.00	0.00	0.24	0.00	0.00	0.62	1.49	0.06	0.36	0.77	0.07
Avail Cap(c_a), veh/h	616	0	556	618	0	0	235	2058	900	185	1398	612
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	0.0	0.0	22.5	0.0	0.0	25.5	12.8	5.5	29.4	13.0	8.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.2	221.7	0.0	1.8	4.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.3	0.0	0.0	2.1	80.5	0.4	0.3	8.2	0.4
LnGrp Delay(d),s/veh	22.5	0.0	0.0	22.6	0.0	0.0	25.7	234.5	5.5	31.2	17.0	8.6
LnGrp LOS	C			C			C	F	A	C	B	A
Approach Vol, veh/h		74			83			3255			1133	
Approach Delay, s/veh		22.5			22.6			222.4			16.9	
Approach LOS		C			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	35.4		14.6	5.9	41.5		14.6
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	8.0	17.8		22.0	8.0	18.8		22.0
Max Q Clear Time (g_c+I1), s	10.7	21.0		4.6	2.7	38.4		4.3
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.2

Intersection Summary		
HCM 2010 Ctrl Delay	164.3	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	907	134	28	182	90	315	27	1777	145	184	827	226
Future Volume (veh/h)	907	134	28	182	90	315	27	1777	145	184	827	226
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	975	144	30	150	170	346	28	1832	149	202	909	248
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	957	414	86	169	178	148	59	1399	611	123	1257	549
Arrive On Green	0.28	0.28	0.28	0.10	0.10	0.10	0.03	0.40	0.40	0.09	0.45	0.45
Sat Flow, veh/h	3408	1476	307	1757	1845	1539	1757	3505	1530	1387	2767	1208
Grp Volume(v), veh/h	975	0	174	150	170	346	28	1832	149	202	909	248
Grp Sat Flow(s),veh/h/ln	1704	0	1783	1757	1845	1539	1757	1752	1530	1387	1383	1208
Q Serve(g_s), s	37.9	0.0	10.5	11.4	12.4	13.0	2.1	53.9	8.8	12.0	36.0	19.0
Cycle Q Clear(g_c), s	37.9	0.0	10.5	11.4	12.4	13.0	2.1	53.9	8.8	12.0	36.0	19.0
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	957	0	501	169	178	148	59	1399	611	123	1257	549
V/C Ratio(X)	1.02	0.00	0.35	0.89	0.96	2.34	0.47	1.31	0.24	1.64	0.72	0.45
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1399	611	123	1257	549
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.69	0.69	0.69
Uniform Delay (d), s/veh	48.5	0.0	38.7	60.3	60.7	61.0	64.0	40.5	27.0	61.5	29.9	25.3
Incr Delay (d2), s/veh	34.0	0.0	0.2	37.8	54.5	621.4	2.2	144.4	0.9	311.3	2.5	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.3	0.0	5.2	7.3	9.0	31.1	1.1	54.1	3.8	15.2	14.2	6.6
LnGrp Delay(d),s/veh	82.5	0.0	38.8	98.1	115.2	682.4	66.2	184.9	27.9	372.8	32.5	27.1
LnGrp LOS	F		D	F	F	F	E	F	C	F	C	C
Approach Vol, veh/h		1149			666			2009			1359	
Approach Delay, s/veh		75.9			406.0			171.6			82.1	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	66.4		17.0	16.0	59.0		43.0
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.6	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	4.1	38.0		15.0	14.0	55.9		39.9
Green Ext Time (p_c), s	0.0	10.0		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	157.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	664	384	0	0	0	234	685	328	0	555	393
Future Volume (veh/h)	312	664	384	0	0	0	234	685	328	0	555	393
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	322	685	396				244	714	0	0	610	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	616	750	433				75	1701	761	0	1315	588
Arrive On Green	0.35	0.35	0.35				0.04	0.49	0.00	0.00	0.38	0.00
Sat Flow, veh/h	1757	2141	1236				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	322	561	520				244	714	0	0	610	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1624				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	10.2	21.4	21.4				3.0	9.2	0.0	0.0	9.2	0.0
Cycle Q Clear(g_c), s	10.2	21.4	21.4				3.0	9.2	0.0	0.0	9.2	0.0
Prop In Lane	1.00		0.76				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	616	614	569				75	1701	761	0	1315	588
V/C Ratio(X)	0.52	0.91	0.91				3.24	0.42	0.00	0.00	0.46	0.00
Avail Cap(c_a), veh/h	753	751	696				75	1701	761	0	1315	588
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.67	0.67	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	18.1	21.7	21.7				33.5	11.6	0.0	0.0	16.5	0.0
Incr Delay (d2), s/veh	0.3	12.4	13.4				1030.9	0.5	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	12.4	11.7				23.0	4.6	0.0	0.0	4.6	0.0
LnGrp Delay(d),s/veh	18.3	34.1	35.1				1064.4	12.2	0.0	0.0	17.7	0.0
LnGrp LOS	B	C	D				F	B			B	
Approach Vol, veh/h		1403						958			610	
Approach Delay, s/veh		30.9						280.2			17.7	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		39.4		30.6	7.7	31.7		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		11.2		23.4	5.0	11.2		
Green Ext Time (p_c), s		3.0		1.0	0.0	1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	108.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	81	224	27	0	125	0	1023	16	176	754	0
Future Volume (veh/h)	74	81	224	27	0	125	0	1023	16	176	754	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	82	90	249	35	0	162	0	1088	17	189	811	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	201	221	366	0	0	0	0	1725	27	188	1934	0
Arrive On Green	0.23	0.23	0.23	0.00	0.00	0.00	0.00	0.34	0.34	0.11	0.55	0.00
Sat Flow, veh/h	859	943	1562		0		0	5272	80	1757	3597	0
Grp Volume(v), veh/h	172	0	249		0.0		0	715	390	189	811	0
Grp Sat Flow(s),veh/h/ln	1802	0	1562				0	1679	1829	1757	1752	0
Q Serve(g_s), s	3.0	0.0	5.4				0.0	6.7	6.7	4.0	5.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	5.4				0.0	6.7	6.7	4.0	5.0	0.0
Prop In Lane	0.48		1.00				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	422	0	366				0	1134	618	188	1934	0
V/C Ratio(X)	0.41	0.00	0.68				0.00	0.63	0.63	1.01	0.42	0.00
Avail Cap(c_a), veh/h	819	0	710				0	1437	783	188	2250	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.1	0.0	13.0				0.0	10.4	10.4	16.7	4.9	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.2				0.0	0.6	1.1	67.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	2.5				0.0	3.2	3.5	5.4	2.4	0.0
LnGrp Delay(d),s/veh	12.8	0.0	15.3				0.0	11.0	11.5	83.7	5.0	0.0
LnGrp LOS	B		B					B	B	F	A	
Approach Vol, veh/h		421						1105			1000	
Approach Delay, s/veh		14.2						11.2			19.9	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		12.8		24.6			8.0	16.6
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		7.4		7.0			6.0	8.7
Green Ext Time (p_c), s		1.3		5.1			0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	49.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	964	70	79	319	9	43	8	108	3	13	12
Future Vol, veh/h	29	964	70	79	319	9	43	8	108	3	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	83	83	83	82	82	82	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	1071	78	95	384	11	52	10	132	5	22	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	395	0	0	1149	0	0	1775	1759	1110	1759	1793	390
Stage 1	-	-	-	-	-	-	1174	1174	-	580	580	-
Stage 2	-	-	-	-	-	-	601	585	-	1179	1213	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1158	-	-	604	-	-	64	84	253	66	80	656
Stage 1	-	-	-	-	-	-	233	265	-	498	499	-
Stage 2	-	-	-	-	-	-	485	496	-	231	253	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1158	-	-	604	-	-	~ 40	69	253	24	66	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 40	69	-	24	66	-
Stage 1	-	-	-	-	-	-	226	258	-	484	421	-
Stage 2	-	-	-	-	-	-	376	418	-	104	246	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.3	$ 460.1	95.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	108	1158	-	-	604	-	-	82
HCM Lane V/C Ratio	1.795	0.028	-	-	0.158	-	-	0.569
HCM Control Delay (s)	$ 460.1	8.2	-	-	12.1	-	-	95.6
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	15.4	0.1	-	-	0.6	-	-	2.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	795	1239	100	268	3	284	17	258	10	16	6
Future Volume (veh/h)	16	795	1239	100	268	3	284	17	258	10	16	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	17	837	0	116	312	3	312	0	0	13	21	8
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.95	0.95	0.95	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	41	923	784	149	1025	10	438	0	196	54	87	33
Arrive On Green	0.02	0.50	0.00	0.08	0.56	0.56	0.12	0.00	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1757	1845	1568	1757	1824	18	3514	0	1568	543	877	334
Grp Volume(v), veh/h	17	837	0	116	0	315	312	0	0	42	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1841	1757	0	1568	1754	0	0
Q Serve(g_s), s	0.8	34.9	0.0	5.4	0.0	7.6	7.2	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	0.8	34.9	0.0	5.4	0.0	7.6	7.2	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.31		0.19
Lane Grp Cap(c), veh/h	41	923	784	149	0	1034	438	0	196	175	0	0
V/C Ratio(X)	0.41	0.91	0.00	0.78	0.00	0.30	0.71	0.00	0.00	0.24	0.00	0.00
Avail Cap(c_a), veh/h	418	1098	933	418	0	1096	1255	0	560	626	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.5	19.2	0.0	37.7	0.0	9.7	35.3	0.0	0.0	34.9	0.0	0.0
Incr Delay (d2), s/veh	6.5	9.7	0.0	8.4	0.0	0.2	2.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	20.2	0.0	3.0	0.0	3.9	3.6	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	47.0	28.9	0.0	46.1	0.0	9.9	37.5	0.0	0.0	35.6	0.0	0.0
LnGrp LOS	D	C		D		A	D			D		
Approach Vol, veh/h		854			431			312			42	
Approach Delay, s/veh		29.3			19.6			37.5			35.6	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.5	11.1	46.0		12.4	6.0	51.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		9.2	7.4	36.9		3.9	2.8	9.6
Green Ext Time (p_c), s		1.0	0.2	5.2		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	28.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1292	313	242	301	7	561	0	738	20	3	12
Future Volume (veh/h)	14	1292	313	242	301	7	561	0	738	20	3	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	15	1360	329	260	324	8	597	0	785	27	4	16
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.94	0.94	0.94	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	33	1200	519	241	1610	40	722	0	1074	200	30	119
Arrive On Green	0.02	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1516	1757	3495	86	3514	0	3136	973	144	577
Grp Volume(v), veh/h	15	1360	329	260	162	170	597	0	785	47	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1516	1757	1752	1829	1757	0	1568	1694	0	0
Q Serve(g_s), s	1.2	50.0	26.6	20.0	8.0	8.1	23.7	0.0	30.0	3.3	0.0	0.0
Cycle Q Clear(g_c), s	1.2	50.0	26.6	20.0	8.0	8.1	23.7	0.0	30.0	3.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	0.57		0.34
Lane Grp Cap(c), veh/h	33	1200	519	241	807	843	722	0	1074	348	0	0
V/C Ratio(X)	0.46	1.13	0.63	1.08	0.20	0.20	0.83	0.00	0.73	0.14	0.00	0.00
Avail Cap(c_a), veh/h	241	1200	519	241	807	843	722	0	1074	348	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	70.9	48.0	40.3	63.0	23.4	23.4	55.5	0.0	42.1	47.4	0.0	0.0
Incr Delay (d2), s/veh	9.5	70.7	2.5	81.0	0.1	0.1	10.5	0.0	4.4	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	36.0	11.5	15.1	3.9	4.1	12.6	0.0	14.5	1.6	0.0	0.0
LnGrp Delay(d),s/veh	80.4	118.7	42.8	144.0	23.5	23.5	66.0	0.0	46.5	48.2	0.0	0.0
LnGrp LOS	F	F	D	F	C	C	E		D	D		
Approach Vol, veh/h		1704			592			1382			47	
Approach Delay, s/veh		103.7			76.4			54.9			48.2	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	54.0		34.0	6.7	71.3
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		32.0	22.0	52.0		5.3	3.2	10.1
Green Ext Time (p_c), s		0.0	0.0	0.0		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	80.6
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	2082	53	0	952
Future Vol, veh/h	0	14	2082	53	0	952
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	98	98	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	23	2124	54	0	1107

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1093	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	178	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	177	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.4	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	177	-
HCM Lane V/C Ratio	-	-	0.132	-
HCM Control Delay (s)	-	-	28.4	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	10304	10122	10196	10232	10230	10216
Vehs Exited	9913	9763	9906	9964	9918	9892
Starting Vehs	549	564	554	601	599	569
Ending Vehs	940	923	844	869	911	898
Travel Distance (mi)	6771	6710	6694	6720	6791	6737
Travel Time (hr)	2059.2	2091.0	2105.6	2138.3	2110.0	2100.8
Total Delay (hr)	1835.2	1870.2	1884.4	1916.6	1885.8	1878.4
Total Stops	22547	21965	22199	21965	22107	22160
Fuel Used (gal)	656.4	661.6	667.4	675.1	669.2	665.9

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	10304	10122	10196	10232	10230	10216
Vehs Exited	9913	9763	9906	9964	9918	9892
Starting Vehs	549	564	554	601	599	569
Ending Vehs	940	923	844	869	911	898
Travel Distance (mi)	6771	6710	6694	6720	6791	6737
Travel Time (hr)	2059.2	2091.0	2105.6	2138.3	2110.0	2100.8
Total Delay (hr)	1835.2	1870.2	1884.4	1916.6	1885.8	1878.4
Total Stops	22547	21965	22199	21965	22107	22160
Fuel Used (gal)	656.4	661.6	667.4	675.1	669.2	665.9

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	61.8	493.4	0.1	5
SR 24 EB On Ramp	6	9.1	15.2	0.1	14
	17	1.4	6.2	0.1	40
	16	0.5	9.1	0.1	28
	15	0.8	9.8	0.1	40
Acalanes Avenue	14	1.8	9.8	0.1	23
	11	1.4	5.3	0.0	26
Stanley Boulevard	5	23.0	30.3	0.1	9
Quandt Road	4	6.7	38.3	0.4	42
	20	3.3	12.2	0.1	29
Reliez Valle Road	3	8.6	11.8	0.0	10
Greenvalley Drive	2	5.3	27.4	0.3	33
	19	1.3	7.7	0.1	33
Rancho View Drive	1	15.0	27.8	0.1	19
Total		140.0	704.3	1.6	21

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	154.3	1947.0	0.2	3
	19	121.6	136.8	0.1	4
Greenvalley Drive	2	71.6	78.4	0.1	3
Reliez Valle Road	3	212.2	235.8	0.3	4
	20	13.6	17.2	0.0	7
Springhill Road	4	62.6	71.8	0.1	5
Deer Hill Road	5	214.0	253.2	0.4	6
	11	5.3	13.9	0.1	20
Acalanes Avenue	14	2.7	6.6	0.0	21
	15	7.6	13.7	0.1	16
	16	6.3	15.1	0.1	26
	17	5.3	14.4	0.1	18
Mt. Diablo Boulevard	6	14.2	20.8	0.1	12
SR 24 EB Off Ramp	7	10.1	16.0	0.1	14
Total		901.5	2840.7	1.7	6

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	151.4	1517.2	0.1	2
First Street	9	21.6	30.2	0.1	9
Brown Avenue	8	4.4	39.9	0.3	30
	13	3.4	45.5	0.5	41
	12	57.9	82.1	0.3	13
Pleasant Hill Road	5	97.3	131.8	0.1	2
Total		335.9	1846.7	1.4	11

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	12	2.5	9.8	0.1	22
	13	2.5	27.3	0.3	40
Miller Drive	8	5.1	62.3	0.5	30
Sierra Vista Way	9	19.1	55.6	0.3	21
Laurel Drive	10	17.1	25.9	0.1	11
Total		46.2	180.9	1.3	26

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	B19	SB	SB
Directions Served	LTR	L	T	TR	T	T	TR
Maximum Queue (ft)	82	34	184	202	76	834	824
Average Queue (ft)	28	8	112	129	3	799	797
95th Queue (ft)	66	29	173	185	53	823	815
Link Distance (ft)	306		725	725	288	773	773
Upstream Blk Time (%)						84	86
Queuing Penalty (veh)						0	0
Storage Bay Dist (ft)		148					
Storage Blk Time (%)			1				
Queuing Penalty (veh)			0				

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	R	L	T	T	L	T	TR	T	T
Maximum Queue (ft)	88	237	150	16	114	129	119	404	396	751	755
Average Queue (ft)	20	114	25	1	29	53	15	352	353	636	638
95th Queue (ft)	58	203	115	11	78	98	74	455	450	1037	1036
Link Distance (ft)	333	494			1259	1259		288	288	725	725
Upstream Blk Time (%)								72	77	15	18
Queuing Penalty (veh)								961	1018	203	238
Storage Bay Dist (ft)			125	76			95				
Storage Blk Time (%)		10	0		1	0	0	73			
Queuing Penalty (veh)		3	0		0	0	0	16			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	457	487	114	126	204	256	1302	1302	155
Average Queue (ft)	166	437	64	73	107	25	1246	1250	15
95th Queue (ft)	515	531	105	144	189	179	1424	1417	89
Link Distance (ft)	438	438			127	414	1259	1259	
Upstream Blk Time (%)	12	74	0	1	6	0	24	28	
Queuing Penalty (veh)	0	0	0	0	45	1	334	391	
Storage Bay Dist (ft)			230	230					130
Storage Blk Time (%)			0	1	6			72	0
Queuing Penalty (veh)			1	2	25			6	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20	B20
Directions Served	LTR	LTR	L	T	T	R	L	T	T	R	T	T
Maximum Queue (ft)	366	210	221	338	294	37	88	518	522	96	233	217
Average Queue (ft)	286	98	152	85	64	3	5	472	479	30	168	191
95th Queue (ft)	436	183	250	315	239	17	36	594	593	102	271	246
Link Distance (ft)	318	213		2220	2220			414	414		127	127
Upstream Blk Time (%)	58	1						45	56		16	73
Queuing Penalty (veh)	0	0						739	913		260	1201
Storage Bay Dist (ft)			200			100	105			71		
Storage Blk Time (%)			23		0			54	55	0		
Queuing Penalty (veh)			82		0			6	44	1		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	B12	B13	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	TR	T	T	L	LT	R	L	T	T	R
Maximum Queue (ft)	113	126	323	664	1084	225	558	175	319	405	406	160
Average Queue (ft)	96	121	264	277	72	191	522	97	193	243	247	70
95th Queue (ft)	136	142	373	666	792	291	567	218	309	365	364	127
Link Distance (ft)			225	1548	2662		504			347	347	347
Upstream Blk Time (%)			51		0		78		0	2	1	
Queuing Penalty (veh)			277		0		0		0	9	7	
Storage Bay Dist (ft)	101	101				185		95	255			
Storage Blk Time (%)	7	37	42			4	84	1	6	7		
Queuing Penalty (veh)	15	79	158			17	187	4	30	13		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	B11	B11	SB	SB	SB	SB
Directions Served	T	T	L	T	T	R
Maximum Queue (ft)	93	106	275	2270	2406	240
Average Queue (ft)	4	4	138	2173	2296	236
95th Queue (ft)	40	47	311	2475	2624	278
Link Distance (ft)	147	147		2220	2220	
Upstream Blk Time (%)	0	0		9	66	
Queuing Penalty (veh)	0	2		153	1072	
Storage Bay Dist (ft)			175			180
Storage Blk Time (%)			1	37	48	8
Queuing Penalty (veh)			8	53	462	75

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	192	186	188	257	207	238	105	136	142	245
Average Queue (ft)	104	91	82	145	67	111	60	65	66	105
95th Queue (ft)	170	156	150	231	152	211	141	116	121	209
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)				1	0	0		0	0	1
Queuing Penalty (veh)				5	0	0		0	0	4
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)						9	1			
Queuing Penalty (veh)						45	3			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	110	112	247	338	502	510	541	107	128	126
Average Queue (ft)	51	53	74	211	179	383	505	33	47	52
95th Queue (ft)	92	89	273	386	452	642	562	77	101	107
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)			8	18	1	8	93			
Queuing Penalty (veh)			0	0	0	0	0			
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								1	1	
Queuing Penalty (veh)								2	1	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	31	22	68	20	178	76
Average Queue (ft)	4	1	27	1	62	34
95th Queue (ft)	21	10	59	14	126	65
Link Distance (ft)		1650		2662	471	384
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)	0		1	0		
Queuing Penalty (veh)	0		15	0		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	114	187	281	199	361	297	220	98	114
Average Queue (ft)	17	91	134	97	186	165	79	6	46
95th Queue (ft)	57	164	266	187	314	268	183	52	88
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)			0			1	0		1
Queuing Penalty (veh)			1			0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)	0	12		1	11		1	0	
Queuing Penalty (veh)	0	3		4	26		2	0	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	100	526	533	165	220	325	307	313	291	160	192	82
Average Queue (ft)	10	498	503	156	183	160	116	262	205	41	85	33
95th Queue (ft)	50	515	520	208	247	332	236	329	302	141	169	69
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		59	92			3	0	12	5	0	0	
Queuing Penalty (veh)		0	0			18	1	0	0	0	0	
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		20	80	1	24	0						
Queuing Penalty (veh)		2	220	3	84	1						

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB	SB	B11	B11
Directions Served	R	T	T	TR	T	T	T	T
Maximum Queue (ft)	93	10	46	134	42	106	16	58
Average Queue (ft)	35	0	4	8	1	12	1	2
95th Queue (ft)	70	7	24	72	14	59	11	23
Link Distance (ft)	178	266	266	266	147	147	347	347
Upstream Blk Time (%)						0		
Queuing Penalty (veh)						0		
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	SB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	289	10	3	26	260
Average Queue (ft)	130	0	0	1	39
95th Queue (ft)	237	7	2	18	152
Link Distance (ft)	597	302	302	266	266
Upstream Blk Time (%)					0
Queuing Penalty (veh)					2
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	SB	SB
Directions Served	R	T	R	T	T
Maximum Queue (ft)	596	197	174	27	138
Average Queue (ft)	555	7	22	1	40
95th Queue (ft)	620	83	95	19	104
Link Distance (ft)	535	314	314	302	302
Upstream Blk Time (%)	87	0	0		
Queuing Penalty (veh)	0	0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 17: Pleasant Hill Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	45
Average Queue (ft)	2
95th Queue (ft)	19
Link Distance (ft)	314
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 9554

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	1:50	1:50	1:50	1:50	1:50	1:50
End Time	3:00	3:00	3:00	3:00	3:00	3:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	9137	8976	9124	8989	9239	9094
Vehs Exited	8426	8314	8505	8358	8582	8436
Starting Vehs	589	616	567	660	603	607
Ending Vehs	1300	1278	1186	1291	1260	1261
Travel Distance (mi)	6118	6056	6165	6139	6216	6139
Travel Time (hr)	2917.7	2926.9	2743.8	3010.8	2883.7	2896.6
Total Delay (hr)	2722.6	2734.2	2547.7	2815.7	2686.2	2701.3
Total Stops	18842	17965	17940	18117	17914	18159
Fuel Used (gal)	823.5	825.9	786.7	847.8	820.2	820.8

Interval #0 Information Seeding

Start Time	1:50
End Time	2:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	2:00
End Time	3:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	9137	8976	9124	8989	9239	9094
Vehs Exited	8426	8314	8505	8358	8582	8436
Starting Vehs	589	616	567	660	603	607
Ending Vehs	1300	1278	1186	1291	1260	1261
Travel Distance (mi)	6118	6056	6165	6139	6216	6139
Travel Time (hr)	2917.7	2926.9	2743.8	3010.8	2883.7	2896.6
Total Delay (hr)	2722.6	2734.2	2547.7	2815.7	2686.2	2701.3
Total Stops	18842	17965	17940	18117	17914	18159
Fuel Used (gal)	823.5	825.9	786.7	847.8	820.2	820.8

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	131.5	610.6	0.1	3
SR 24 EB On Ramp	6	22.8	28.7	0.1	8
	17	33.4	109.9	0.1	6
	16	119.1	126.9	0.1	2
	15	192.2	223.3	0.1	2
Acalanes Avenue	14	187.4	195.1	0.1	1
	11	73.3	77.2	0.0	2
Stanley Boulevard	5	164.8	172.4	0.1	2
Quandt Road	4	440.7	511.0	0.4	3
	20	9.9	18.8	0.1	19
Reliez Valle Road	3	7.5	10.7	0.0	12
Greenvalley Drive	2	14.5	37.2	0.3	24
	19	2.6	9.0	0.1	29
Rancho View Drive	1	14.5	27.6	0.1	19
Total		1414.3	2158.5	1.6	4

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	11.2	26.6	0.2	21
	19	7.8	23.2	0.1	23
Greenvalley Drive	2	48.4	59.5	0.1	5
Reliez Valle Road	3	19.2	44.3	0.3	20
	20	1.8	5.4	0.0	22
Springhill Road	4	13.3	22.9	0.1	15
Deer Hill Road	5	49.8	94.2	0.4	18
	11	3.2	11.8	0.1	24
Acalanes Avenue	14	1.3	5.2	0.0	27
	15	4.4	10.6	0.1	21
	16	5.1	14.0	0.1	28
	17	3.5	12.3	0.1	21
Mt. Diablo Boulevard	6	18.7	25.3	0.1	10
SR 24 EB Off Ramp	7	11.8	17.5	0.1	13
Total		199.5	372.7	1.7	17

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	269.8	4251.8	0.1	1
First Street	9	103.5	180.3	0.1	2
Brown Avenue	8	183.5	649.4	0.3	6
	13	402.2	438.3	0.5	4
	12	378.9	401.4	0.3	3
Pleasant Hill Road	5	59.1	63.9	0.1	3
Total		1397.0	5985.1	1.4	3

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	12	2.1	9.6	0.1	22
	13	1.7	26.6	0.3	41
Miller Drive	8	4.4	59.6	0.5	31
Sierra Vista Way	9	28.3	66.0	0.3	18
Laurel Drive	10	13.8	22.6	0.1	12
Total		50.3	184.4	1.3	25

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	89	115	379	402	304	241
Average Queue (ft)	28	15	179	198	163	114
95th Queue (ft)	69	63	339	360	251	217
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			9			
Queuing Penalty (veh)			2			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	43	89	45	359	353	193	120	383	374	176	164
Average Queue (ft)	9	37	4	161	166	14	51	258	255	38	32
95th Queue (ft)	30	79	25	310	316	97	141	432	428	156	140
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								28	25		
Queuing Penalty (veh)								146	132		
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)		0		16	8	0	0	67			
Queuing Penalty (veh)		0		1	6	0	0	19			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	L	T	T	T	T	T	R
Maximum Queue (ft)	38	115	127	206	196	399	155	141
Average Queue (ft)	7	49	112	170	45	205	132	15
95th Queue (ft)	26	92	160	243	143	366	193	72
Link Distance (ft)	438			127	414	1259		
Upstream Blk Time (%)		0	2	9				
Queuing Penalty (veh)		0	0	253				
Storage Bay Dist (ft)		230	230				130	130
Storage Blk Time (%)		0	2	9		10	6	0
Queuing Penalty (veh)		3	25	140		54	30	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20
Directions Served	LT	R	LTR	L	T	T	R	L	T	T	R	T
Maximum Queue (ft)	191	75	148	225	2262	2262	125	114	294	316	78	9
Average Queue (ft)	56	2	60	185	2217	2220	53	18	121	134	8	0
95th Queue (ft)	121	31	121	318	2334	2330	155	66	265	296	52	6
Link Distance (ft)	318		213		2220	2220			414	414		127
Upstream Blk Time (%)	0				15	19						
Queuing Penalty (veh)	0				210	276						
Storage Bay Dist (ft)		100		200			100	105			71	
Storage Blk Time (%)	3	0		0	98	99	0		9	13	0	
Queuing Penalty (veh)	5	0		1	149	54	1		2	6	0	

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	B20
Directions Served	T
Maximum Queue (ft)	20
Average Queue (ft)	1
95th Queue (ft)	12
Link Distance (ft)	127
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	B12	B13	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	TR	T	T	L	LT	R	L	T	T	R
Maximum Queue (ft)	113	126	324	1662	2749	225	551	175	330	457	451	132
Average Queue (ft)	109	123	297	1571	2316	186	519	168	137	425	423	19
95th Queue (ft)	123	132	310	1957	3737	297	568	207	393	447	440	100
Link Distance (ft)			225	1548	2662		504			347	347	347
Upstream Blk Time (%)			74	88	43		83		0	91	94	
Queuing Penalty (veh)			957	1148	565		0		0	640	659	
Storage Bay Dist (ft)	101	101				185		95	255			
Storage Blk Time (%)	12	72	5			5	92	32		93		
Queuing Penalty (veh)	30	178	44			21	276	115		56		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	B11	B11	SB	SB	SB	SB
Directions Served	T	T	L	T	T	R
Maximum Queue (ft)	253	261	275	993	1074	240
Average Queue (ft)	216	222	226	470	517	171
95th Queue (ft)	280	278	333	1029	1085	318
Link Distance (ft)	147	147		2220	2220	
Upstream Blk Time (%)	91	91				
Queuing Penalty (veh)	953	958				
Storage Bay Dist (ft)			175			180
Storage Blk Time (%)			56	8	21	0
Queuing Penalty (veh)			308	16	81	1

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	282	303	336	271	245	250	105	181	180	142
Average Queue (ft)	139	138	167	256	116	148	79	101	99	39
95th Queue (ft)	253	268	291	275	235	262	149	159	158	112
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)		4	2	59	1	4		0	0	0
Queuing Penalty (veh)		0	0	307	7	19		0	0	0
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	4	1				24	4			
Queuing Penalty (veh)	9	2				118	13			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	297	121	380	387	524	530	541	124	209	209
Average Queue (ft)	106	58	276	338	455	465	461	79	101	97
95th Queue (ft)	235	100	514	447	625	620	623	138	187	176
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)			56	78	56	52	47		0	0
Queuing Penalty (veh)			0	0	0	0	0		0	0
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								10	4	
Queuing Penalty (veh)								45	7	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	115	1739	75	144	416	328
Average Queue (ft)	15	1206	20	15	155	145
95th Queue (ft)	76	2454	58	83	355	376
Link Distance (ft)		1650		2662	471	384
Upstream Blk Time (%)		63			1	14
Queuing Penalty (veh)		642			0	0
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		71	3	2		
Queuing Penalty (veh)		11	13	2		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	113	326	309	193	959	322	337	145	119
Average Queue (ft)	19	283	110	102	179	192	225	103	46
95th Queue (ft)	80	385	299	191	602	342	413	208	99
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		60	1		0	16	51		4
Queuing Penalty (veh)		596	6		0	0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)	0	77		7	9		3	59	
Queuing Penalty (veh)	1	26		22	13		9	110	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	34	522	541	165	220	329	308	284	296	320	300	195
Average Queue (ft)	3	485	493	77	199	210	115	121	202	225	246	67
95th Queue (ft)	27	540	517	207	261	426	296	287	350	385	350	197
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		70	93			18	0	1	35	58	55	6
Queuing Penalty (veh)		0	0			62	1	0	0	0	0	0
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		73	66	0	52	1						
Queuing Penalty (veh)		7	191	2	92	3						

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	TR	T
Maximum Queue (ft)	172	454	472	485	25
Average Queue (ft)	133	396	413	429	1
95th Queue (ft)	213	565	574	585	9
Link Distance (ft)	178	266	266	266	147
Upstream Blk Time (%)	43	88	90	91	
Queuing Penalty (veh)	0	701	715	720	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	639	510	517	518	132
Average Queue (ft)	603	413	420	424	9
95th Queue (ft)	617	679	682	685	60
Link Distance (ft)	597	302	302	302	266
Upstream Blk Time (%)	99	81	83	84	
Queuing Penalty (veh)	0	423	429	435	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	589	494	501	492	489	166
Average Queue (ft)	551	352	359	365	363	53
95th Queue (ft)	633	668	665	663	675	121
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	85	65	68	71	67	
Queuing Penalty (veh)	0	400	414	434	409	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	492	236	223	241	58
Average Queue (ft)	353	103	106	124	4
95th Queue (ft)	678	250	251	274	29
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	73	9	8	19	
Queuing Penalty (veh)	0	30	27	63	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 16055

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	8006	8043	8367	7594	8102	8025
Vehs Exited	7215	7303	7566	6844	7345	7253
Starting Vehs	615	676	654	644	633	643
Ending Vehs	1406	1416	1455	1394	1390	1407
Travel Distance (mi)	5240	5352	5396	5140	5384	5302
Travel Time (hr)	3296.0	3304.2	3017.2	3327.0	3174.5	3223.8
Total Delay (hr)	3127.2	3133.1	2843.4	3162.1	3001.6	3053.5
Total Stops	16407	17491	17414	16231	17224	16958
Fuel Used (gal)	887.8	892.3	829.8	891.9	865.0	873.4

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	8006	8043	8367	7594	8102	8025
Vehs Exited	7215	7303	7566	6844	7345	7253
Starting Vehs	615	676	654	644	633	643
Ending Vehs	1406	1416	1455	1394	1390	1407
Travel Distance (mi)	5240	5352	5396	5140	5384	5302
Travel Time (hr)	3296.0	3304.2	3017.2	3327.0	3174.5	3223.8
Total Delay (hr)	3127.2	3133.1	2843.4	3162.1	3001.6	3053.5
Total Stops	16407	17491	17414	16231	17224	16958
Fuel Used (gal)	887.8	892.3	829.8	891.9	865.0	873.4

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	149.3	640.3	0.1	2
SR 24 EB On Ramp	6	58.4	64.4	0.1	3
	17	75.2	261.3	0.1	3
	16	190.4	198.5	0.1	1
	15	254.7	263.8	0.1	1
Acalanes Avenue	14	257.5	265.2	0.1	1
	11	96.6	100.4	0.0	1
Stanley Boulevard	5	202.5	209.8	0.1	1
Quandt Road	4	438.8	749.3	0.4	3
	20	9.6	18.5	0.1	19
Reliez Valle Road	3	8.6	11.7	0.0	10
Greenvalley Drive	2	22.4	44.6	0.3	20
	19	3.5	9.9	0.1	26
Rancho View Drive	1	28.0	41.2	0.1	13
Total		1795.6	2878.9	1.6	3

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	179.1	347.2	0.2	3
	19	198.5	213.2	0.1	3
Greenvalley Drive	2	125.4	133.9	0.1	2
Reliez Valle Road	3	19.1	44.6	0.3	20
	20	1.8	5.5	0.0	22
Springhill Road	4	11.6	21.3	0.1	17
Deer Hill Road	5	47.3	90.7	0.4	18
	11	3.4	12.0	0.1	24
Acalanes Avenue	14	1.5	5.4	0.0	25
	15	4.5	10.6	0.1	21
	16	5.6	15.1	0.1	26
	17	3.6	12.5	0.1	20
Mt. Diablo Boulevard	6	25.2	31.8	0.1	8
SR 24 EB Off Ramp	7	16.6	23.2	0.1	9
Total		643.2	967.0	1.7	7

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	313.7	7074.9	0.1	1
First Street	9	84.6	92.8	0.1	3
Brown Avenue	8	164.1	347.1	0.3	6
	13	465.6	500.8	0.5	4
	12	455.6	477.9	0.3	2
Pleasant Hill Road	5	76.3	82.1	0.1	3
Total		1559.7	8575.6	1.4	3

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	12	2.0	9.4	0.1	22
	13	1.3	26.0	0.3	42
Miller Drive	8	3.4	56.1	0.5	33
Sierra Vista Way	9	12.8	50.4	0.3	23
Laurel Drive	10	12.9	21.8	0.1	13
Total		32.3	163.7	1.3	28

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	72	170	298	311	830	815
Average Queue (ft)	24	16	219	231	625	605
95th Queue (ft)	59	83	282	293	1032	1047
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)					58	56
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			25			
Queuing Penalty (veh)			5			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	45	66	57	289	293	154	120	404	394	761	763
Average Queue (ft)	11	22	3	176	188	17	75	368	371	672	675
95th Queue (ft)	33	55	25	262	268	105	169	389	390	939	937
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								99	99	8	9
Queuing Penalty (veh)								516	515	41	49
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)				29	11	0	0	99			
Queuing Penalty (veh)				2	6	0	0	40			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	50	8	112	127	220	220	232	155	120
Average Queue (ft)	7	0	47	113	171	47	141	122	14
95th Queue (ft)	28	6	91	155	241	175	215	179	65
Link Distance (ft)	438	438			127	414	1259		
Upstream Blk Time (%)			0	1	9	0			
Queuing Penalty (veh)			0	0	275	0			
Storage Bay Dist (ft)			230	230				130	130
Storage Blk Time (%)			0	1	9		7	4	0
Queuing Penalty (veh)			0	20	146		35	18	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20	B20
Directions Served	LT	LTR	L	T	T	R	L	T	T	R	T	T
Maximum Queue (ft)	92	102	225	2259	2265	125	129	245	240	96	26	15
Average Queue (ft)	36	41	158	2232	2235	60	11	84	92	10	1	1
95th Queue (ft)	77	83	325	2261	2269	163	54	191	210	55	12	8
Link Distance (ft)	318	213		2220	2220			414	414		127	127
Upstream Blk Time (%)				17	24							
Queuing Penalty (veh)				274	371							
Storage Bay Dist (ft)			200			100	105			71		
Storage Blk Time (%)	0		0	99	99	0		5	8	0		
Queuing Penalty (veh)	0		0	127	54	1		1	4	0		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	B12	B13	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	TR	T	T	L	LT	R	L	T	T	R
Maximum Queue (ft)	113	126	328	1655	2738	225	560	175	330	453	449	54
Average Queue (ft)	111	124	298	1562	2252	186	525	175	58	423	421	11
95th Queue (ft)	120	128	312	1965	3775	308	561	175	259	439	436	38
Link Distance (ft)			225	1548	2662		504			347	347	347
Upstream Blk Time (%)			82	89	40		92		0	96	97	
Queuing Penalty (veh)			989	1070	486		0		0	689	695	
Storage Bay Dist (ft)	101	101				185		95	255			
Storage Blk Time (%)	17	80	1			0	52	91		96		
Queuing Penalty (veh)	30	140	14			3	231	272		27		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	B11	B11	SB	SB	SB	SB
Directions Served	T	T	L	T	T	R
Maximum Queue (ft)	250	251	275	1110	1107	240
Average Queue (ft)	221	224	245	574	554	110
95th Queue (ft)	242	239	337	1197	1176	278
Link Distance (ft)	147	147		2220	2220	
Upstream Blk Time (%)	96	96				
Queuing Penalty (veh)	1035	1031				
Storage Bay Dist (ft)			175			180
Storage Blk Time (%)			77	3	14	
Queuing Penalty (veh)			351	7	34	

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	307	358	365	272	267	272	105	207	203	125
Average Queue (ft)	238	281	272	232	194	215	91	116	119	28
95th Queue (ft)	383	434	440	321	307	306	147	185	188	89
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)		36	19	49	15	26		1	1	
Queuing Penalty (veh)		0	0	220	68	117		3	3	
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	38	2				62	3			
Queuing Penalty (veh)	129	8				213	10			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	417	272	368	369	502	513	524	124	261	262
Average Queue (ft)	220	126	131	254	339	379	403	94	146	138
95th Queue (ft)	475	363	393	446	604	615	635	149	282	260
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)	15	11	25	37	26	29	51		6	0
Queuing Penalty (veh)	0	0	0	0	0	0	0		31	3
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								38	4	
Queuing Penalty (veh)								154	7	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	115	1728	75	116	189	112
Average Queue (ft)	22	1147	21	8	71	40
95th Queue (ft)	93	2412	57	52	154	95
Link Distance (ft)		1650		2662	471	384
Upstream Blk Time (%)		58				
Queuing Penalty (veh)		654				
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)	0	70	1	1		
Queuing Penalty (veh)	0	22	5	1		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	96	326	280	156	189	294	324	145	89
Average Queue (ft)	9	285	71	64	87	138	164	89	31
95th Queue (ft)	54	381	219	115	156	251	388	199	70
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		57	0			1	39		0
Queuing Penalty (veh)		624	1			0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)		81		0	1		1	48	
Queuing Penalty (veh)		14		0	1		4	80	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	101	525	519	165	216	202	98	301	291	300	300	297
Average Queue (ft)	6	492	493	75	118	48	43	135	167	192	198	102
95th Queue (ft)	46	519	516	205	200	118	88	316	340	367	353	275
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		74	94					1	25	52	48	15
Queuing Penalty (veh)		0	0					0	0	0	0	0
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		78	63	0	3							
Queuing Penalty (veh)		12	206	1	5							

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB	B11
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	176	455	463	483	5	13
Average Queue (ft)	137	411	425	442	0	0
95th Queue (ft)	222	521	517	530	4	6
Link Distance (ft)	178	266	266	266	147	347
Upstream Blk Time (%)	67	93	94	95		
Queuing Penalty (veh)	0	710	718	722		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	625	516	512	518	71
Average Queue (ft)	601	438	441	445	7
95th Queue (ft)	611	660	654	658	37
Link Distance (ft)	597	302	302	302	266
Upstream Blk Time (%)	100	88	88	89	
Queuing Penalty (veh)	0	483	486	491	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	579	502	494	491	490	107
Average Queue (ft)	460	398	401	402	398	37
95th Queue (ft)	698	665	654	655	661	85
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	39	80	81	81	79	
Queuing Penalty (veh)	0	437	438	442	428	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	494	266	239	236	45
Average Queue (ft)	393	156	151	165	3
95th Queue (ft)	666	306	292	302	21
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	82	32	26	54	
Queuing Penalty (veh)	0	111	90	188	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 17948

Appendix F – Cumulative plus Project Conditions Level of Service Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	20	0	0	0	8	524	0	0	2239	9
Future Volume (veh/h)	14	0	20	0	0	0	8	524	0	0	2239	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	21	0	30	0	0	0	11	708	0	0	2634	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	228	26	266	0	551	0	34	1991	0	0	1774	7
Arrive On Green	0.30	0.00	0.30	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.50	0.50
Sat Flow, veh/h	536	88	890	0	1845	0	1757	3597	0	0	3672	15
Grp Volume(v), veh/h	51	0	0	0	0	0	11	708	0	0	1289	1356
Grp Sat Flow(s),veh/h/ln	1513	0	0	0	1845	0	1757	1752	0	0	1752	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.2	0.0	0.0	37.2	37.2
Cycle Q Clear(g_c), s	1.7	0.0	0.0	0.0	0.0	0.0	0.5	8.2	0.0	0.0	37.2	37.2
Prop In Lane	0.41		0.59	0.00		0.00	1.00		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	520	0	0	0	551	0	34	1991	0	0	868	913
V/C Ratio(X)	0.10	0.00	0.00	0.00	0.00	0.00	0.33	0.36	0.00	0.00	1.48	1.49
Avail Cap(c_a), veh/h	520	0	0	0	551	0	187	1991	0	0	868	913
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	0.0	0.0	0.0	0.0	36.3	8.8	0.0	0.0	18.9	18.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	2.1	0.5	0.0	0.0	223.9	224.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.0	0.0	0.0	0.2	4.1	0.0	0.0	71.9	75.7
LnGrp Delay(d),s/veh	19.4	0.0	0.0	0.0	0.0	0.0	38.4	9.3	0.0	0.0	242.8	243.5
LnGrp LOS	B						D	A			F	F
Approach Vol, veh/h		51			0			719			2645	
Approach Delay, s/veh		19.4			0.0			9.7			243.2	
Approach LOS		B						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		48.0		27.0	5.4	42.6		27.0
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		42.6		22.4	8.0	* 31		22.4
Max Q Clear Time (g_c+I1), s		10.2		3.7	2.5	39.2		0.0
Green Ext Time (p_c), s		7.3		0.2	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		190.7
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	9	88	0	19	2	505	24	19	2239	1
Future Volume (veh/h)	9	0	9	88	0	19	2	505	24	19	2239	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	18	0	18	166	0	0	3	711	0	22	2634	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	235	23	186	421	0	364	13	1900	850	69	2012	0
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.00	0.01	1.00	0.00	0.04	0.57	0.00
Sat Flow, veh/h	704	97	802	1403	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	36	0	0	166	0	0	3	711	0	22	2634	0
Grp Sat Flow(s),veh/h/ln	1603	0	0	1403	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.0	0.9	43.1	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	7.5	0.0	0.0	0.1	0.0	0.0	0.9	43.1	0.0
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	444	0	0	421	0	364	13	1900	850	69	2012	0
V/C Ratio(X)	0.08	0.00	0.00	0.39	0.00	0.00	0.23	0.37	0.00	0.32	1.31	0.00
Avail Cap(c_a), veh/h	444	0	0	421	0	364	211	1900	850	187	2012	0
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	0.00	1.00	0.00	0.00	0.95	0.95	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	0.0	0.0	24.9	0.0	0.0	36.7	0.0	0.0	35.1	16.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.7	0.0	0.0	3.3	0.5	0.0	1.0	142.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	3.3	0.0	0.0	0.1	0.1	0.0	0.5	60.3	0.0
LnGrp Delay(d),s/veh	23.0	0.0	0.0	27.6	0.0	0.0	40.0	0.5	0.0	36.0	158.8	0.0
LnGrp LOS	C			C			D	A		D	F	
Approach Vol, veh/h		36			166			714			2656	
Approach Delay, s/veh		23.0			27.6			0.7			157.8	
Approach LOS		C			C			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	48.5		22.0	6.9	46.1		22.0
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 35		17.4	8.0	35.6		17.4
Max Q Clear Time (g_c+I1), s	2.1	45.1		3.2	2.9	2.0		9.5
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	7.4		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	119.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	451	49	524	2332	8
Future Volume (veh/h)	8	451	49	524	2332	8
Number	3	18	1	6	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	10	0	73	782	2712	9
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.80	0.80	0.67	0.67	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	507	453	100	2257	1963	878
Arrive On Green	0.29	0.00	0.06	0.64	1.00	1.00
Sat Flow, veh/h	1757	1568	1757	3597	3597	1568
Grp Volume(v), veh/h	10	0	73	782	2712	9
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1568
Q Serve(g_s), s	0.6	0.0	6.1	15.3	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	6.1	15.3	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	453	100	2257	1963	878
V/C Ratio(X)	0.02	0.00	0.73	0.35	1.38	0.01
Avail Cap(c_a), veh/h	507	453	141	2257	1963	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.2	0.0	69.6	12.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	5.3	0.4	171.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	3.1	7.5	46.9	0.0
LnGrp Delay(d),s/veh	38.2	0.0	74.9	12.7	171.9	0.0
LnGrp LOS	D		E	B	F	A
Approach Vol, veh/h	10			855	2721	
Approach Delay, s/veh	38.2			18.0	171.3	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.6	89.4				102.0		48.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	12.6	* 81				96.6		43.3
Max Q Clear Time (g_c+I1), s	8.1	2.0				17.3		2.6
Green Ext Time (p_c), s	0.0	72.0				9.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	134.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	2	155	59	1	12	110	521	28	10	2689	72
Future Volume (veh/h)	36	2	155	59	1	12	110	521	28	10	2689	72
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.97		0.92	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	53	3	0	89	2	18	157	744	40	11	2955	79
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.68	0.68	0.66	0.66	0.66	0.70	0.70	0.70	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	198	10	0	177	7	28	140	2731	1192	28	2036	889
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.09	0.78	0.78	0.02	0.71	0.71
Sat Flow, veh/h	1339	88	0	1181	60	245	1616	3505	1530	1433	2859	1248
Grp Volume(v), veh/h	56	0	0	109	0	0	157	744	40	11	2955	79
Grp Sat Flow(s),veh/h/ln	1427	0	0	1486	0	0	1616	1752	1530	1433	1430	1248
Q Serve(g_s), s	0.0	0.0	0.0	4.8	0.0	0.0	13.0	8.9	0.9	1.1	106.8	2.9
Cycle Q Clear(g_c), s	5.2	0.0	0.0	10.0	0.0	0.0	13.0	8.9	0.9	1.1	106.8	2.9
Prop In Lane	0.95		0.00	0.82		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	0	212	0	0	140	2731	1192	28	2036	889
V/C Ratio(X)	0.27	0.00	0.00	0.51	0.00	0.00	1.12	0.27	0.03	0.39	1.45	0.09
Avail Cap(c_a), veh/h	306	0	0	312	0	0	140	2731	1192	124	2036	889
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	0.0	0.0	63.1	0.0	0.0	68.5	4.6	3.8	72.6	21.6	6.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	112.2	0.2	0.1	3.3	205.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	4.3	0.0	0.0	10.2	4.3	0.4	0.5	99.8	1.1
LnGrp Delay(d),s/veh	61.5	0.0	0.0	63.8	0.0	0.0	180.7	4.9	3.8	75.9	227.5	6.8
LnGrp LOS	E			E			F	A	A	E	F	A
Approach Vol, veh/h		56			109			941			3045	
Approach Delay, s/veh		61.5			63.8			34.2			221.2	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	111.9		21.1	6.9	122.0		21.1
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	13.0	95.9		27.9	13.0	95.9		27.9
Max Q Clear Time (g_c+I1), s	15.0	108.8		12.0	3.1	10.9		7.2
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	9.0		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	172.5	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	93	45	213	139	61	164	715	239	131	1683	886
Future Volume (veh/h)	241	93	45	213	139	61	164	715	239	131	1683	886
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.90	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	402	155	75	238	258	82	228	993	332	144	1849	974
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	560	187	91	267	280	215	199	1566	667	161	1786	540
Arrive On Green	0.16	0.16	0.16	0.15	0.15	0.15	0.11	0.45	0.45	0.12	0.45	0.45
Sat Flow, veh/h	3408	1140	552	1757	1845	1417	1757	3505	1492	1387	3976	1202
Grp Volume(v), veh/h	402	0	230	238	258	82	228	993	332	144	1849	974
Grp Sat Flow(s),veh/h/ln	1704	0	1692	1757	1845	1417	1757	1752	1492	1387	1325	1202
Q Serve(g_s), s	16.8	0.0	19.7	19.9	20.7	7.8	17.0	32.8	23.7	15.4	67.4	67.4
Cycle Q Clear(g_c), s	16.8	0.0	19.7	19.9	20.7	7.8	17.0	32.8	23.7	15.4	67.4	67.4
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	560	0	278	267	280	215	199	1566	667	161	1786	540
V/C Ratio(X)	0.72	0.00	0.83	0.89	0.92	0.38	1.15	0.63	0.50	0.90	1.04	1.80
Avail Cap(c_a), veh/h	611	0	303	269	283	217	199	1566	667	185	1786	540
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	0.0	60.6	62.4	62.7	57.3	66.5	32.0	29.5	65.4	41.3	41.3
Incr Delay (d2), s/veh	3.0	0.0	14.4	28.0	32.8	0.4	108.3	2.0	2.6	33.5	31.1	369.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	10.3	11.8	13.1	3.1	14.2	16.3	10.3	7.4	29.8	77.7
LnGrp Delay(d),s/veh	62.3	0.0	75.1	90.4	95.6	57.7	174.8	34.0	32.2	99.0	72.4	410.4
LnGrp LOS	E		E	F	F	E	F	C	C	F	F	F
Approach Vol, veh/h		632			578			1553			2967	
Approach Delay, s/veh		67.0			88.1			54.3			184.6	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	72.5		26.8	21.4	72.1		29.8
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	19.0	69.4		22.7	17.4	34.8		21.7
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	13.3		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	126.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	270	116	0	0	0	293	788	451	0	493	835
Future Volume (veh/h)	184	270	116	0	0	0	293	788	451	0	493	835
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	196	287	123				337	906	0	0	524	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.94	0.94	0.94				0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	275	377	158				75	2380	1065	0	1995	892
Arrive On Green	0.16	0.16	0.16				0.04	0.68	0.00	0.00	0.57	0.00
Sat Flow, veh/h	1757	2408	1007				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	196	207	203				337	906	0	0	524	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1662				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	7.4	7.9	8.2				3.0	7.8	0.0	0.0	5.3	0.0
Cycle Q Clear(g_c), s	7.4	7.9	8.2				3.0	7.8	0.0	0.0	5.3	0.0
Prop In Lane	1.00		0.61				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	275	274	260				75	2380	1065	0	1995	892
V/C Ratio(X)	0.71	0.75	0.78				4.48	0.38	0.00	0.00	0.26	0.00
Avail Cap(c_a), veh/h	753	751	712				75	2380	1065	0	1995	892
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.40	0.40	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.0	28.2	28.4				33.5	4.9	0.0	0.0	7.6	0.0
Incr Delay (d2), s/veh	1.3	1.6	1.9				1576.3	0.2	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.9	3.9				34.4	3.7	0.0	0.0	2.6	0.0
LnGrp Delay(d),s/veh	29.3	29.8	30.3				1609.8	5.0	0.0	0.0	8.0	0.0
LnGrp LOS	C	C	C				F	A			A	
Approach Vol, veh/h		606						1243			524	
Approach Delay, s/veh		29.8						440.1			8.0	
Approach LOS		C						F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		52.9		17.1	7.7	45.2		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		9.8		10.2	5.0	7.3		
Green Ext Time (p_c), s		4.1		0.4	0.0	1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	239.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	41	177	28	0	200	0	1245	32	79	568	0
Future Volume (veh/h)	52	41	177	28	0	200	0	1245	32	79	568	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	66	52	224	37	0	263	0	1448	37	88	631	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.76	0.76	0.76	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	214	169	333	0	0	0	0	2003	51	113	1997	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.40	0.40	0.06	0.57	0.00
Sat Flow, veh/h	1004	791	1559		0		0	5213	129	1757	3597	0
Grp Volume(v), veh/h	118	0	224		0.0		0	963	522	88	631	0
Grp Sat Flow(s),veh/h/ln	1794	0	1559				0	1679	1818	1757	1752	0
Q Serve(g_s), s	2.0	0.0	4.9				0.0	9.0	9.0	1.8	3.5	0.0
Cycle Q Clear(g_c), s	2.0	0.0	4.9				0.0	9.0	9.0	1.8	3.5	0.0
Prop In Lane	0.56		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	383	0	333				0	1332	722	113	1997	0
V/C Ratio(X)	0.31	0.00	0.67				0.00	0.72	0.72	0.78	0.32	0.00
Avail Cap(c_a), veh/h	875	0	761				0	1456	788	190	2280	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	13.3				0.0	9.4	9.4	17.0	4.2	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.4				0.0	1.6	3.0	10.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.3				0.0	4.3	4.9	1.2	1.7	0.0
LnGrp Delay(d),s/veh	12.7	0.0	15.7				0.0	11.0	12.4	27.8	4.3	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		342						1485			719	
Approach Delay, s/veh		14.6						11.5			7.1	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		11.9		25.0			6.4	18.6
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		18.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		6.9		5.5			3.8	11.0
Green Ext Time (p_c), s		1.1		4.0			0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	110

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	346	45	154	877	6	52	6	53	14	9	27
Future Vol, veh/h	10	346	45	154	877	6	52	6	53	14	9	27
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	60	60	60	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	444	58	181	1032	7	87	10	88	18	12	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1039	0	0	502	0	0	1922	1900	473	1902	1926	1038
Stage 1	-	-	-	-	-	-	499	499	-	1398	1398	-
Stage 2	-	-	-	-	-	-	1423	1401	-	504	528	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	665	-	-	1057	-	-	~ 50	69	589	52	66	279
Stage 1	-	-	-	-	-	-	552	542	-	173	206	-
Stage 2	-	-	-	-	-	-	168	206	-	548	526	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	665	-	-	1057	-	-	~ 31	56	589	33	54	279
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 31	56	-	33	54	-
Stage 1	-	-	-	-	-	-	541	531	-	170	171	-
Stage 2	-	-	-	-	-	-	113	171	-	448	515	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.4	$ 1109.5	172.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	59	665	-	-	1057	-	-	73
HCM Lane V/C Ratio	3.136	0.019	-	-	0.171	-	-	0.89
HCM Control Delay (s)	$ 1109.5	10.5	-	-	9.1	-	-	172.1
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	19.3	0.1	-	-	0.6	-	-	4.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	250	844	211	738	2	329	13	130	17	28	25
Future Volume (veh/h)	21	250	844	211	738	2	329	13	130	17	28	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	24	284	0	232	811	2	427	0	0	21	35	31
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.79	0.79	0.79	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	54	677	576	276	907	2	576	0	257	46	77	68
Arrive On Green	0.03	0.37	0.00	0.16	0.49	0.49	0.16	0.00	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	1845	1568	1757	1839	5	3514	0	1568	409	682	604
Grp Volume(v), veh/h	24	284	0	232	0	813	427	0	0	87	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1844	1757	0	1568	1694	0	0
Q Serve(g_s), s	1.1	9.2	0.0	10.3	0.0	32.1	9.3	0.0	0.0	3.9	0.0	0.0
Cycle Q Clear(g_c), s	1.1	9.2	0.0	10.3	0.0	32.1	9.3	0.0	0.0	3.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.24		0.36
Lane Grp Cap(c), veh/h	54	677	576	276	0	909	576	0	257	190	0	0
V/C Ratio(X)	0.44	0.42	0.00	0.84	0.00	0.89	0.74	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	438	1149	977	438	0	1149	1313	0	586	633	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.2	19.0	0.0	32.8	0.0	18.4	31.9	0.0	0.0	33.3	0.0	0.0
Incr Delay (d2), s/veh	5.5	0.4	0.0	8.1	0.0	7.8	1.9	0.0	0.0	1.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.7	0.0	5.6	0.0	18.2	4.7	0.0	0.0	1.9	0.0	0.0
LnGrp Delay(d),s/veh	43.7	19.4	0.0	40.9	0.0	26.2	33.8	0.0	0.0	35.0	0.0	0.0
LnGrp LOS	D	B		D		C	C			D		
Approach Vol, veh/h		308			1045			427			87	
Approach Delay, s/veh		21.3			29.5			33.8			35.0	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.2	16.6	33.5		13.0	6.5	43.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		11.3	12.3	11.2		5.9	3.1	34.1
Green Ext Time (p_c), s		1.5	0.4	1.8		0.4	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.4
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	656	240	405	605	8	725	0	513	16	2	12
Future Volume (veh/h)	9	656	240	405	605	8	725	0	513	16	2	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	10	754	276	482	720	10	755	0	534	27	3	20
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.96	0.96	0.96	0.59	0.59	0.59
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	25	933	408	269	1433	20	806	0	1197	208	23	154
Arrive On Green	0.01	0.27	0.27	0.15	0.41	0.41	0.23	0.00	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1757	3505	1533	1757	3537	49	3514	0	3129	907	101	672
Grp Volume(v), veh/h	10	754	276	482	357	373	755	0	534	50	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1533	1757	1752	1834	1757	0	1565	1680	0	0
Q Serve(g_s), s	0.7	26.3	21.1	20.0	19.9	19.9	27.6	0.0	16.6	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.7	26.3	21.1	20.0	19.9	19.9	27.6	0.0	16.6	3.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.54		0.40
Lane Grp Cap(c), veh/h	25	933	408	269	710	743	806	0	1197	385	0	0
V/C Ratio(X)	0.41	0.81	0.68	1.79	0.50	0.50	0.94	0.00	0.45	0.13	0.00	0.00
Avail Cap(c_a), veh/h	269	1339	586	269	710	743	806	0	1197	385	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	64.0	44.9	43.0	55.4	29.1	29.1	49.5	0.0	30.1	40.1	0.0	0.0
Incr Delay (d2), s/veh	10.5	2.5	2.0	372.3	0.6	0.5	19.7	0.0	1.2	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.1	9.1	37.4	9.7	10.2	15.6	0.0	7.4	1.5	0.0	0.0
LnGrp Delay(d),s/veh	74.4	47.3	44.9	427.7	29.6	29.6	69.2	0.0	31.3	40.8	0.0	0.0
LnGrp LOS	E	D	D	F	C	C	E		C	D		
Approach Vol, veh/h		1040			1212			1289			50	
Approach Delay, s/veh		47.0			187.9			53.5			40.8	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	38.8		34.0	5.8	57.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		29.6	22.0	28.3		5.1	2.7	21.9
Green Ext Time (p_c), s		0.3	0.0	6.5		0.2	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	96.8
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	77	0	1187	1891	4
Future Vol, veh/h	0	77	0	1187	1891	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	84	0	1290	2055	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1030	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	197	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	197	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	36.1	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	197	-	-
HCM Lane V/C Ratio	-	0.425	-	-
HCM Control Delay (s)	-	36.1	-	-
HCM Lane LOS	-	E	-	-
HCM 95th %tile Q(veh)	-	1.9	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	371	0	24	1053	0	26
Future Vol, veh/h	371	0	24	1053	0	26
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	403	0	26	1145	0	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	403	0	1600	403
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	1197	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1150	-	116	645
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	285	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1150	-	113	645
Mov Cap-2 Maneuver	-	-	-	-	113	-
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	278	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	645	-	-	1150	-
HCM Lane V/C Ratio	0.044	-	-	0.023	-
HCM Control Delay (s)	10.8	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	371	5	0	1053	23	0
Future Vol, veh/h	371	5	0	1053	23	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	403	5	0	1145	25	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1551	406
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	1145	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	124	643
Stage 1	-	-	0	-	671	-
Stage 2	-	-	0	-	302	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	124	643
Mov Cap-2 Maneuver	-	-	-	-	124	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	302	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	41.2
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	124	-	-	-	-
HCM Lane V/C Ratio	0.202	-	-	-	-
HCM Control Delay (s)	41.2	0	-	-	-
HCM Lane LOS	E	A	-	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	56	1172	83	0	1944
Future Vol, veh/h	0	56	1172	83	0	1944
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	71	71	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	77	1651	117	0	2025

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	894	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	242	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	240	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	240	-
HCM Lane V/C Ratio	-	-	0.32	-
HCM Control Delay (s)	-	-	26.9	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	1.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	23	0	0	0	19	2406	0	0	948	21
Future Volume (veh/h)	17	0	23	0	0	0	19	2406	0	0	948	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	21	0	29	0	0	0	22	2831	0	0	1030	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	203	19	236	0	498	0	56	2208	0	0	1955	44
Arrive On Green	0.27	0.00	0.27	0.00	0.00	0.00	0.03	0.63	0.00	0.00	0.56	0.56
Sat Flow, veh/h	561	72	875	0	1845	0	1757	3597	0	0	3595	78
Grp Volume(v), veh/h	50	0	0	0	0	0	22	2831	0	0	515	538
Grp Sat Flow(s),veh/h/ln	1508	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.2	63.0	0.0	0.0	18.4	18.4
Cycle Q Clear(g_c), s	2.2	0.0	0.0	0.0	0.0	0.0	1.2	63.0	0.0	0.0	18.4	18.4
Prop In Lane	0.42		0.58	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	458	0	0	0	498	0	56	2208	0	0	978	1021
V/C Ratio(X)	0.11	0.00	0.00	0.00	0.00	0.00	0.39	1.28	0.00	0.00	0.53	0.53
Avail Cap(c_a), veh/h	458	0	0	0	498	0	123	2208	0	0	978	1021
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	0.0	0.0	0.0	0.0	47.4	18.5	0.0	0.0	13.8	13.8
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	1.6	130.6	0.0	0.0	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0	0.0	0.0	0.6	70.1	0.0	0.0	9.4	9.8
LnGrp Delay(d),s/veh	27.9	0.0	0.0	0.0	0.0	0.0	49.1	149.1	0.0	0.0	15.9	15.8
LnGrp LOS	C						D	F			B	B
Approach Vol, veh/h		50			0			2853			1053	
Approach Delay, s/veh		27.9			0.0			148.3			15.8	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		68.4		31.6	7.2	61.2		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		63.0		27.0	7.0	* 52		27.0
Max Q Clear Time (g_c+I1), s		65.0		4.2	3.2	20.4		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	11.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	111.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	39	0	42	6	2384	61	25	933	2
Future Volume (veh/h)	2	0	10	39	0	42	6	2384	61	25	933	2
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	4	0	18	49	0	0	7	2772	0	28	1048	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	19	261	342	0	321	27	2263	1012	69	2347	0
Arrive On Green	0.20	0.00	0.20	0.20	0.00	0.00	0.02	0.65	0.00	0.04	0.67	0.00
Sat Flow, veh/h	189	94	1273	1394	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	22	0	0	49	0	0	7	2772	0	28	1048	0
Grp Sat Flow(s),veh/h/ln	1556	0	0	1394	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	0.5	82.0	0.0	2.0	17.9	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	3.3	0.0	0.0	0.5	82.0	0.0	2.0	17.9	0.0
Prop In Lane	0.18		0.82	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	352	0	0	342	0	321	27	2263	1012	69	2347	0
V/C Ratio(X)	0.06	0.00	0.00	0.14	0.00	0.00	0.26	1.23	0.00	0.40	0.45	0.00
Avail Cap(c_a), veh/h	352	0	0	342	0	321	124	2263	1012	111	2347	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.7	0.0	0.0	41.4	0.0	0.0	61.8	22.5	0.0	59.5	9.9	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.9	0.0	0.0	1.8	105.5	0.0	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	1.5	0.0	0.0	0.3	72.4	0.0	1.0	8.8	0.0
LnGrp Delay(d),s/veh	41.1	0.0	0.0	42.3	0.0	0.0	63.6	128.0	0.0	60.9	10.5	0.0
LnGrp LOS	D			D			E	F		E	B	
Approach Vol, veh/h		22			49			2779			1076	
Approach Delay, s/veh		41.1			42.3			127.8			11.8	
Approach LOS		D			D			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.0	90.5		30.6	9.0	87.4		30.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 81		26.0	8.0	82.0		26.0
Max Q Clear Time (g_c+I1), s	2.5	19.9		3.4	4.0	84.0		5.3
Green Ext Time (p_c), s	0.0	14.8		0.0	0.0	0.0		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	94.5	
HCM 2010 LOS	F	

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	93	115	2427	963	24
Future Volume (veh/h)	24	93	115	2427	963	24
Number	3	18	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	25	0	134	2822	1035	26
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.86	0.86	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	438	391	163	2278	1813	794
Arrive On Green	0.25	0.00	0.09	0.65	0.52	0.52
Sat Flow, veh/h	1757	1568	1757	3597	3597	1534
Grp Volume(v), veh/h	25	0	134	2822	1035	26
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1534
Q Serve(g_s), s	1.1	0.0	7.5	65.2	20.3	0.8
Cycle Q Clear(g_c), s	1.1	0.0	7.5	65.2	20.3	0.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	438	391	163	2278	1813	794
V/C Ratio(X)	0.06	0.00	0.82	1.24	0.57	0.03
Avail Cap(c_a), veh/h	438	391	210	2278	1813	794
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	1.00
Uniform Delay (d), s/veh	28.7	0.0	44.7	17.6	16.6	11.9
Incr Delay (d2), s/veh	0.2	0.0	14.3	111.3	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.3	66.2	10.1	0.4
LnGrp Delay(d),s/veh	28.9	0.0	59.0	128.9	17.9	12.0
LnGrp LOS	C		E	F	B	B
Approach Vol, veh/h	25			2956	1061	
Approach Delay, s/veh	28.9			125.7	17.8	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		70.6			13.3	57.3		29.7
Change Period (Y+Rc), s		* 5.4			4.0	5.4		4.7
Max Green Setting (Gmax), s		* 65			12.0	48.9		25.0
Max Q Clear Time (g_c+I1), s		67.2			9.5	22.3		3.1
Green Ext Time (p_c), s		0.0			0.0	11.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	96.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1	137	46	5	21	140	2470	50	20	981	45
Future Volume (veh/h)	60	1	137	46	5	21	140	2470	50	20	981	45
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.93		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	82	1	0	56	6	26	152	2685	54	21	1033	47
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	261	3	246	185	26	69	174	2470	1099	53	1812	789
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.11	0.70	0.70	0.04	0.63	0.63
Sat Flow, veh/h	1312	18	1568	887	163	440	1616	3505	1559	1433	2859	1245
Grp Volume(v), veh/h	83	0	0	88	0	0	152	2685	54	21	1033	47
Grp Sat Flow(s),veh/h/ln	1331	0	1568	1490	0	0	1616	1752	1559	1433	1430	1245
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	0.0	12.1	91.8	1.4	1.9	27.0	1.9
Cycle Q Clear(g_c), s	7.0	0.0	0.0	6.0	0.0	0.0	12.1	91.8	1.4	1.9	27.0	1.9
Prop In Lane	0.99		1.00	0.64		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	0	246	279	0	0	174	2470	1099	53	1812	789
V/C Ratio(X)	0.31	0.00	0.00	0.32	0.00	0.00	0.87	1.09	0.05	0.40	0.57	0.06
Avail Cap(c_a), veh/h	320	0	313	338	0	0	248	2470	1099	99	1812	789
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	0.0	0.0	48.8	0.0	0.0	57.2	19.2	5.9	61.3	13.7	9.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	15.9	46.7	0.1	1.8	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	2.8	0.0	0.0	6.2	59.9	0.6	0.8	10.9	0.7
LnGrp Delay(d),s/veh	49.5	0.0	0.0	49.0	0.0	0.0	73.1	66.0	6.0	63.1	15.0	9.2
LnGrp LOS	D			D			E	F	A	E	B	A
Approach Vol, veh/h		83			88			2891			1101	
Approach Delay, s/veh		49.5			49.0			65.2			15.6	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.8	96.9		24.6	18.0	87.7		24.6
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	91.8		26.0	20.0	80.8		26.0
Max Q Clear Time (g_c+I1), s	12.9	93.8		8.0	14.1	29.0		9.0
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	14.5		0.2

Intersection Summary			
HCM 2010 Ctrl Delay		51.4	
HCM 2010 LOS		D	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	684	138	72	186	112	153	99	1722	159	170	883	317
Future Volume (veh/h)	684	138	72	186	112	153	99	1722	159	170	883	317
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	834	168	88	184	202	189	106	1852	171	212	1104	396
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	232	121	142	149	107	126	1590	685	155	1962	575
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.07	0.45	0.45	0.11	0.49	0.49
Sat Flow, veh/h	3408	1115	584	1757	1845	1329	1757	3505	1511	1387	3976	1165
Grp Volume(v), veh/h	834	0	256	184	202	189	106	1852	171	212	1104	396
Grp Sat Flow(s),veh/h/ln	1704	0	1698	1757	1845	1329	1757	1752	1511	1387	1325	1165
Q Serve(g_s), s	26.0	0.0	17.6	10.1	10.1	10.1	7.4	56.7	8.7	14.0	24.3	32.6
Cycle Q Clear(g_c), s	26.0	0.0	17.6	10.1	10.1	10.1	7.4	56.7	8.7	14.0	24.3	32.6
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	353	142	149	107	126	1590	685	155	1962	575
V/C Ratio(X)	1.18	0.00	0.72	1.30	1.36	1.76	0.84	1.16	0.25	1.36	0.56	0.69
Avail Cap(c_a), veh/h	709	0	353	142	149	107	126	1590	685	155	1962	575
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	46.2	57.5	57.5	57.4	57.3	34.1	21.0	55.5	22.2	24.3
Incr Delay (d2), s/veh	93.7	0.0	6.3	175.5	197.2	377.1	34.9	81.5	0.9	199.8	1.2	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.4	0.0	8.9	11.8	13.3	15.0	4.8	45.4	3.8	14.0	9.1	11.5
LnGrp Delay(d),s/veh	143.2	0.0	52.5	232.9	254.7	434.5	92.2	115.6	21.9	255.3	23.4	30.9
LnGrp LOS	F		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1090			575			2129			1712	
Approach Delay, s/veh		121.9			306.8			107.0			53.8	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	13.0	66.8		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	16.0	58.7		12.1	9.4	34.6		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	14.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	114.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	277	479	298	0	0	0	282	656	439	0	595	472
Future Volume (veh/h)	277	479	298	0	0	0	282	656	439	0	595	472
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	280	484	301				313	729	0	0	626	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.99	0.99	0.99				0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	517	610	378				251	1685	754	0	863	386
Arrive On Green	0.29	0.29	0.29				0.14	0.48	0.00	0.00	0.25	0.00
Sat Flow, veh/h	1757	2073	1284				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	280	409	376				313	729	0	0	626	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1604				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	6.8	11.0	11.1				7.3	7.0	0.0	0.0	8.4	0.0
Cycle Q Clear(g_c), s	6.8	11.0	11.1				7.3	7.0	0.0	0.0	8.4	0.0
Prop In Lane	1.00		0.80				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	517	516	472				251	1685	754	0	863	386
V/C Ratio(X)	0.54	0.79	0.80				1.25	0.43	0.00	0.00	0.73	0.00
Avail Cap(c_a), veh/h	1133	1130	1035				251	2432	1088	0	1610	720
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.2	16.6	16.6				21.9	8.7	0.0	0.0	17.7	0.0
Incr Delay (d2), s/veh	0.3	1.1	1.2				140.6	0.1	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	5.4	5.0				13.3	3.4	0.0	0.0	4.1	0.0
LnGrp Delay(d),s/veh	15.5	17.7	17.8				162.5	8.8	0.0	0.0	18.1	0.0
LnGrp LOS	B	B	B				F	A			B	
Approach Vol, veh/h		1065						1042			626	
Approach Delay, s/veh		17.1						55.0			18.1	
Approach LOS		B						D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		30.0		21.2	12.0	18.0		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		35.5		33.0	* 7.3	23.5		
Max Q Clear Time (g_c+I1), s		9.0		13.1	9.3	10.4		
Green Ext Time (p_c), s		3.4		0.8	0.0	2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	73	213	32	0	133	0	1157	35	148	733	0
Future Volume (veh/h)	61	73	213	32	0	133	0	1157	35	148	733	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	64	77	224	47	0	196	0	1315	40	185	916	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.68	0.68	0.68	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	170	205	325	0	0	0	0	1806	55	235	2078	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.36	0.36	0.13	0.59	0.00
Sat Flow, veh/h	819	985	1563		0		0	5185	153	1757	3597	0
Grp Volume(v), veh/h	141	0	224		0.0		0	880	475	185	916	0
Grp Sat Flow(s),veh/h/ln	1804	0	1563				0	1679	1814	1757	1752	0
Q Serve(g_s), s	2.7	0.0	5.3				0.0	9.1	9.1	4.1	5.8	0.0
Cycle Q Clear(g_c), s	2.7	0.0	5.3				0.0	9.1	9.1	4.1	5.8	0.0
Prop In Lane	0.45		1.00				0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	376	0	325				0	1208	653	235	2078	0
V/C Ratio(X)	0.38	0.00	0.69				0.00	0.73	0.73	0.79	0.44	0.00
Avail Cap(c_a), veh/h	763	0	661				0	1336	722	306	2354	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.7	0.0	14.7				0.0	11.2	11.2	16.9	4.5	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.6				0.0	1.8	3.3	9.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	2.5				0.0	4.5	5.1	2.6	2.7	0.0
LnGrp Delay(d),s/veh	14.3	0.0	17.3				0.0	13.0	14.5	26.7	4.7	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		365						1355			1101	
Approach Delay, s/veh		16.1						13.5			8.4	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		12.4		27.8			9.4	18.5
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		27.0			7.0	16.0
Max Q Clear Time (g_c+I1), s		7.3		7.8			6.1	11.1
Green Ext Time (p_c), s		1.1		6.2			0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	64.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	875	65	72	334	5	38	10	141	13	8	19
Future Vol, veh/h	12	875	65	72	334	5	38	10	141	13	8	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	83	83	83	80	80	80	65	65	65
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	1122	83	87	402	6	48	13	176	20	12	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	408	0	0	1205	0	0	1794	1776	1164	1779	1814	405
Stage 1	-	-	-	-	-	-	1194	1194	-	579	579	-
Stage 2	-	-	-	-	-	-	600	582	-	1200	1235	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1145	-	-	576	-	-	62	82	236	64	78	644
Stage 1	-	-	-	-	-	-	227	259	-	499	499	-
Stage 2	-	-	-	-	-	-	486	497	-	225	247	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1145	-	-	576	-	-	~ 44	69	236	~ 12	65	644
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 44	69	-	~ 12	65	-
Stage 1	-	-	-	-	-	-	224	256	-	493	424	-
Stage 2	-	-	-	-	-	-	382	422	-	53	244	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.2	$ 361.9	$ 700
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	146	1145	-	-	576	-	-	32
HCM Lane V/C Ratio	1.618	0.013	-	-	0.151	-	-	1.923
HCM Control Delay (s)	$ 361.9	8.2	-	-	12.4	-	-	$ 700
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	16.6	0	-	-	0.5	-	-	7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	678	1171	121	265	5	317	10	257	8	19	14
Future Volume (veh/h)	31	678	1171	121	265	5	317	10	257	8	19	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	34	737	0	151	331	6	360	0	0	11	26	19
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.90	0.90	0.90	0.73	0.73	0.73
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	831	707	190	938	17	500	0	223	36	84	62
Arrive On Green	0.04	0.45	0.00	0.11	0.52	0.52	0.14	0.00	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	1845	1568	1757	1806	33	3514	0	1568	335	793	579
Grp Volume(v), veh/h	34	737	0	151	0	337	360	0	0	56	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1839	1757	0	1568	1708	0	0
Q Serve(g_s), s	1.6	30.3	0.0	7.0	0.0	8.9	8.1	0.0	0.0	2.5	0.0	0.0
Cycle Q Clear(g_c), s	1.6	30.3	0.0	7.0	0.0	8.9	8.1	0.0	0.0	2.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.20		0.34
Lane Grp Cap(c), veh/h	69	831	707	190	0	955	500	0	223	181	0	0
V/C Ratio(X)	0.49	0.89	0.00	0.80	0.00	0.35	0.72	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	424	1112	945	424	0	1109	1271	0	567	618	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.0	20.8	0.0	36.1	0.0	11.7	34.0	0.0	0.0	34.2	0.0	0.0
Incr Delay (d2), s/veh	5.3	7.0	0.0	7.4	0.0	0.2	2.0	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	17.0	0.0	3.7	0.0	4.6	4.1	0.0	0.0	1.2	0.0	0.0
LnGrp Delay(d),s/veh	44.4	27.9	0.0	43.5	0.0	12.0	35.9	0.0	0.0	35.2	0.0	0.0
LnGrp LOS	D	C		D		B	D			D		
Approach Vol, veh/h		771			488			360			56	
Approach Delay, s/veh		28.6			21.7			35.9			35.2	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		15.8	12.9	41.4		12.8	7.3	47.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		10.1	9.0	32.3		4.5	3.6	10.9
Green Ext Time (p_c), s		1.2	0.3	5.1		0.2	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1065	276	287	294	15	496	0	798	16	6	8
Future Volume (veh/h)	9	1065	276	287	294	15	496	0	798	16	6	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	9	1109	288	354	363	19	539	0	867	25	9	12
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	22	1184	516	242	1570	82	727	0	1081	193	70	93
Arrive On Green	0.01	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1528	1757	3388	177	3514	0	3136	934	336	448
Grp Volume(v), veh/h	9	1109	288	354	187	195	539	0	867	46	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1528	1757	1752	1813	1757	0	1568	1719	0	0
Q Serve(g_s), s	0.7	44.4	22.3	20.0	9.3	9.4	20.8	0.0	30.0	3.2	0.0	0.0
Cycle Q Clear(g_c), s	0.7	44.4	22.3	20.0	9.3	9.4	20.8	0.0	30.0	3.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	0.54		0.26
Lane Grp Cap(c), veh/h	22	1184	516	242	812	840	727	0	1081	356	0	0
V/C Ratio(X)	0.41	0.94	0.56	1.46	0.23	0.23	0.74	0.00	0.80	0.13	0.00	0.00
Avail Cap(c_a), veh/h	242	1209	527	242	812	840	727	0	1081	356	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.1	46.5	39.2	62.5	23.4	23.4	53.9	0.0	43.0	46.9	0.0	0.0
Incr Delay (d2), s/veh	11.6	13.3	1.3	228.8	0.1	0.1	6.7	0.0	6.3	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	23.6	9.6	25.1	4.6	4.7	10.8	0.0	16.6	1.6	0.0	0.0
LnGrp Delay(d),s/veh	82.6	59.8	40.4	291.3	23.5	23.5	60.6	0.0	49.3	47.6	0.0	0.0
LnGrp LOS	F	E	D	F	C	C	E		D	D		
Approach Vol, veh/h		1406			736			1406			46	
Approach Delay, s/veh		56.0			152.3			53.6			47.6	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	53.0		34.0	5.8	71.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		32.0	22.0	46.4		5.2	2.7	11.4
Green Ext Time (p_c), s		0.0	0.0	2.6		0.2	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	74.7
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	47	0	1922	1151	7
Future Vol, veh/h	0	47	0	1922	1151	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	51	0	2089	1251	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	630	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	362	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	362	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	362	-	-
HCM Lane V/C Ratio	-	0.141	-	-
HCM Control Delay (s)	-	16.6	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	878	0	51	462	0	16
Future Vol, veh/h	878	0	51	462	0	16
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	954	0	55	502	0	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	954	0	1566	954
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	612	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	716	-	122	312
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	539	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	716	-	113	312
Mov Cap-2 Maneuver	-	-	-	-	113	-
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	497	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	17.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	312	-	-	716	-
HCM Lane V/C Ratio	0.056	-	-	0.077	-
HCM Control Delay (s)	17.2	-	-	10.4	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	878	13	0	462	14	0
Future Vol, veh/h	878	13	0	462	14	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	954	14	0	502	15	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1463	961
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	502	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	141	310
Stage 1	-	-	0	-	370	-
Stage 2	-	-	0	-	606	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	141	310
Mov Cap-2 Maneuver	-	-	-	-	141	-
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	606	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	33.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	141	-	-	-	-
HCM Lane V/C Ratio	0.108	-	-	-	-
HCM Control Delay (s)	33.6	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	19	1991	97	0	1176
Future Vol, veh/h	0	19	1991	97	0	1176
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	94	94	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	28	2118	103	0	1278

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1121	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	171	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	170	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30.4	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	170	-
HCM Lane V/C Ratio	-	-	0.167	-
HCM Control Delay (s)	-	-	30.4	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.6	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	28	0	0	0	20	2880	0	0	941	20
Future Volume (veh/h)	13	0	28	0	0	0	20	2880	0	0	941	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	18	0	38	0	0	0	21	3000	0	0	1023	22
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.73	0.73	0.73	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	255	36	452	0	803	0	60	1413	0	0	1068	23
Arrive On Green	0.44	0.00	0.44	0.00	0.00	0.00	0.03	0.40	0.00	0.00	0.30	0.30
Sat Flow, veh/h	409	82	1037	0	1845	0	1757	3597	0	0	3599	75
Grp Volume(v), veh/h	56	0	0	0	0	0	21	3000	0	0	511	534
Grp Sat Flow(s),veh/h/ln	1529	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.7	25.0	0.0	0.0	17.8	17.8
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	0.0	0.7	25.0	0.0	0.0	17.8	17.8
Prop In Lane	0.32		0.68	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	742	0	0	0	803	0	60	1413	0	0	534	557
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.35	2.12	0.00	0.00	0.96	0.96
Avail Cap(c_a), veh/h	742	0	0	0	803	0	198	1413	0	0	534	557
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	29.3	18.5	0.0	0.0	21.2	21.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	1.3	507.6	0.0	0.0	29.9	29.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	0.0	0.4	111.6	0.0	0.0	13.0	13.4
LnGrp Delay(d),s/veh	10.4	0.0	0.0	0.0	0.0	0.0	30.5	526.1	0.0	0.0	51.1	50.3
LnGrp LOS	B						C	F			D	D
Approach Vol, veh/h		56			0			3021			1045	
Approach Delay, s/veh		10.4			0.0			522.7			50.7	
Approach LOS		B						F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		30.4		31.6	6.1	24.3		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		25.0		27.0	7.0	* 14		27.0
Max Q Clear Time (g_c+I1), s		27.0		3.2	2.7	19.8		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	396.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	12	30	0	30	7	2863	51	37	938	1
Future Volume (veh/h)	2	0	12	30	0	30	7	2863	51	37	938	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	5	0	28	42	0	0	7	2952	0	40	1020	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.43	0.43	0.43	0.72	0.72	0.72	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	114	37	472	605	0	556	29	1245	557	113	1412	0
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.00	0.02	0.36	0.00	0.06	0.40	0.00
Sat Flow, veh/h	134	103	1329	1378	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	33	0	0	42	0	0	7	2952	0	40	1020	0
Grp Sat Flow(s),veh/h/ln	1567	0	0	1378	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22.0	0.0	1.4	15.2	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.0	0.0	0.0	0.2	22.0	0.0	1.4	15.2	0.0
Prop In Lane	0.15		0.85	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	623	0	0	605	0	556	29	1245	557	113	1412	0
V/C Ratio(X)	0.05	0.00	0.00	0.07	0.00	0.00	0.24	2.37	0.00	0.35	0.72	0.00
Avail Cap(c_a), veh/h	623	0	0	605	0	556	255	1245	557	227	1412	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.2	0.0	0.0	13.2	0.0	0.0	30.1	20.0	0.0	27.8	15.6	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	0.1	617.5	0.0	0.7	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.5	0.0	0.0	0.1	117.3	0.0	0.7	7.9	0.0
LnGrp Delay(d),s/veh	13.3	0.0	0.0	13.4	0.0	0.0	30.2	637.5	0.0	28.5	18.8	0.0
LnGrp LOS	B			B			C	F		C	B	
Approach Vol, veh/h		33			42			2959			1060	
Approach Delay, s/veh		13.3			13.4			636.1			19.2	
Approach LOS		B			B			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	30.4		26.6	8.0	27.4		26.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 17		22.0	8.0	18.0		22.0
Max Q Clear Time (g_c+I1), s	2.2	17.2		2.8	3.4	24.0		3.0
Green Ext Time (p_c), s	0.0	0.1		0.1	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	465.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	108	147	2918	959	34
Future Volume (veh/h)	22	108	147	2918	959	34
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	24	0	155	3072	1009	36
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	480	428	186	2194	1683	737
Arrive On Green	0.27	0.00	0.11	0.63	0.48	0.48
Sat Flow, veh/h	1757	1568	1757	3597	3597	1535
Grp Volume(v), veh/h	24	0	155	3072	1009	36
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1535
Q Serve(g_s), s	1.0	0.0	8.7	62.6	21.0	1.2
Cycle Q Clear(g_c), s	1.0	0.0	8.7	62.6	21.0	1.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	480	428	186	2194	1683	737
V/C Ratio(X)	0.05	0.00	0.83	1.40	0.60	0.05
Avail Cap(c_a), veh/h	480	428	264	2194	1683	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.71	0.71
Uniform Delay (d), s/veh	26.8	0.0	43.8	18.7	19.0	13.8
Incr Delay (d2), s/veh	0.2	0.0	10.3	182.9	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	4.8	85.6	10.4	0.5
LnGrp Delay(d),s/veh	27.0	0.0	54.2	201.6	20.1	13.9
LnGrp LOS	C		D	F	C	B
Approach Vol, veh/h	24			3227	1045	
Approach Delay, s/veh	27.0			194.5	19.9	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.6	53.4				68.0		32.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	15.6	* 44				62.6		27.3
Max Q Clear Time (g_c+I1), s	10.7	23.0				64.6		3.0
Green Ext Time (p_c), s	0.1	9.8				0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	151.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1	75	37	0	20	125	2985	53	15	1003	41
Future Volume (veh/h)	59	1	75	37	0	20	125	2985	53	15	1003	41
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	73	1	0	54	0	29	129	3077	55	16	1090	45
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.81	0.81	0.81	0.68	0.68	0.68	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	358	4	265	242	19	89	209	2058	900	45	1398	612
Arrive On Green	0.17	0.17	0.00	0.17	0.00	0.17	0.13	0.59	0.59	0.03	0.49	0.49
Sat Flow, veh/h	1437	25	1568	866	114	527	1616	3505	1533	1433	2859	1251
Grp Volume(v), veh/h	74	0	0	83	0	0	129	3077	55	16	1090	45
Grp Sat Flow(s),veh/h/ln	1462	0	1568	1507	0	0	1616	1752	1533	1433	1430	1251
Q Serve(g_s), s	0.0	0.0	0.0	0.4	0.0	0.0	4.7	36.4	1.0	0.7	19.5	1.2
Cycle Q Clear(g_c), s	2.3	0.0	0.0	2.6	0.0	0.0	4.7	36.4	1.0	0.7	19.5	1.2
Prop In Lane	0.99		1.00	0.65		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	0	265	350	0	0	209	2058	900	45	1398	612
V/C Ratio(X)	0.20	0.00	0.00	0.24	0.00	0.00	0.62	1.50	0.06	0.36	0.78	0.07
Avail Cap(c_a), veh/h	616	0	556	618	0	0	235	2058	900	185	1398	612
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	0.0	0.0	22.5	0.0	0.0	25.5	12.8	5.5	29.4	13.1	8.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	2.3	225.4	0.1	1.8	4.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.3	0.0	0.0	2.2	81.6	0.4	0.3	8.4	0.4
LnGrp Delay(d),s/veh	22.5	0.0	0.0	22.6	0.0	0.0	27.9	238.2	5.6	31.2	17.5	8.6
LnGrp LOS	C			C			C	F	A	C	B	A
Approach Vol, veh/h		74			83			3261			1151	
Approach Delay, s/veh		22.5			22.6			226.0			17.3	
Approach LOS		C			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	35.4		14.6	5.9	41.5		14.6
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	8.0	17.8		22.0	8.0	18.8		22.0
Max Q Clear Time (g_c+I1), s	10.7	21.5		4.6	2.7	38.4		4.3
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.2

Intersection Summary		
HCM 2010 Ctrl Delay	166.4	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	913	140	28	185	97	315	103	1777	145	184	835	235
Future Volume (veh/h)	913	140	28	185	97	315	103	1777	145	184	835	235
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	982	151	30	155	174	346	106	1832	149	202	918	258
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	957	418	83	169	178	148	91	1399	611	123	1735	532
Arrive On Green	0.28	0.28	0.28	0.10	0.10	0.10	0.05	0.40	0.40	0.09	0.44	0.44
Sat Flow, veh/h	3408	1490	296	1757	1845	1539	1757	3505	1530	1387	3976	1220
Grp Volume(v), veh/h	982	0	181	155	174	346	106	1832	149	202	918	258
Grp Sat Flow(s),veh/h/ln	1704	0	1786	1757	1845	1539	1757	1752	1530	1387	1325	1220
Q Serve(g_s), s	37.9	0.0	11.0	11.8	12.7	13.0	7.0	53.9	8.8	12.0	22.8	20.4
Cycle Q Clear(g_c), s	37.9	0.0	11.0	11.8	12.7	13.0	7.0	53.9	8.8	12.0	22.8	20.4
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	957	0	501	169	178	148	91	1399	611	123	1735	532
V/C Ratio(X)	1.03	0.00	0.36	0.92	0.98	2.34	1.16	1.31	0.24	1.64	0.53	0.48
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1399	611	123	1735	532
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	0.0	38.9	60.5	60.9	61.0	64.0	40.5	27.0	61.5	27.9	27.2
Incr Delay (d2), s/veh	36.0	0.0	0.2	44.9	61.1	621.4	145.0	144.4	0.9	320.9	1.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.6	0.0	5.4	7.8	9.5	31.1	7.1	54.1	3.8	15.6	8.5	7.3
LnGrp Delay(d),s/veh	84.5	0.0	39.0	105.4	122.0	682.4	209.0	184.9	27.9	382.4	29.0	30.3
LnGrp LOS	F		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1163			675			2087			1378	
Approach Delay, s/veh		77.5			405.4			174.9			81.1	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	64.0		17.0	16.0	59.0		43.0
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.0	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	9.0	24.8		15.0	14.0	55.9		39.9
Green Ext Time (p_c), s	0.0	12.6		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	158.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	664	384	0	0	0	234	705	328	0	566	395
Future Volume (veh/h)	312	664	384	0	0	0	234	705	328	0	566	395
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	322	685	396				244	734	0	0	622	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	616	750	433				75	1701	761	0	1315	588
Arrive On Green	0.35	0.35	0.35				0.04	0.49	0.00	0.00	0.38	0.00
Sat Flow, veh/h	1757	2141	1236				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	322	561	520				244	734	0	0	622	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1624				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	10.2	21.4	21.4				3.0	9.5	0.0	0.0	9.4	0.0
Cycle Q Clear(g_c), s	10.2	21.4	21.4				3.0	9.5	0.0	0.0	9.4	0.0
Prop In Lane	1.00		0.76				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	616	614	569				75	1701	761	0	1315	588
V/C Ratio(X)	0.52	0.91	0.91				3.24	0.43	0.00	0.00	0.47	0.00
Avail Cap(c_a), veh/h	753	751	696				75	1701	761	0	1315	588
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.65	0.65	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	18.1	21.7	21.7				33.5	11.7	0.0	0.0	16.6	0.0
Incr Delay (d2), s/veh	0.3	12.4	13.4				1030.2	0.5	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	12.4	11.7				23.0	4.7	0.0	0.0	4.8	0.0
LnGrp Delay(d),s/veh	18.3	34.1	35.1				1063.7	12.3	0.0	0.0	17.8	0.0
LnGrp LOS	B	C	D				F	B			B	
Approach Vol, veh/h		1403						978			622	
Approach Delay, s/veh		30.9						274.6			17.8	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		39.4		30.6	7.7	31.7		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		11.5		23.4	5.0	11.4		
Green Ext Time (p_c), s		3.1		1.0	0.0	1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	107.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	81	224	27	0	125	0	1043	26	176	765	0
Future Volume (veh/h)	74	81	224	27	0	125	0	1043	26	176	765	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	82	90	249	35	0	162	0	1110	28	189	823	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	201	220	365	0	0	0	0	1728	44	186	1943	0
Arrive On Green	0.23	0.23	0.23	0.00	0.00	0.00	0.00	0.34	0.34	0.11	0.55	0.00
Sat Flow, veh/h	859	943	1562		0		0	5215	127	1757	3597	0
Grp Volume(v), veh/h	172	0	249		0.0		0	738	400	189	823	0
Grp Sat Flow(s),veh/h/ln	1802	0	1562				0	1679	1819	1757	1752	0
Q Serve(g_s), s	3.1	0.0	5.5				0.0	7.0	7.0	4.0	5.2	0.0
Cycle Q Clear(g_c), s	3.1	0.0	5.5				0.0	7.0	7.0	4.0	5.2	0.0
Prop In Lane	0.48		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	421	0	365				0	1149	622	186	1943	0
V/C Ratio(X)	0.41	0.00	0.68				0.00	0.64	0.64	1.01	0.42	0.00
Avail Cap(c_a), veh/h	812	0	704				0	1425	772	186	2231	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	13.2				0.0	10.5	10.5	16.9	4.9	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.3				0.0	0.7	1.3	69.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	2.6				0.0	3.3	3.7	5.5	2.4	0.0
LnGrp Delay(d),s/veh	12.9	0.0	15.4				0.0	11.1	11.7	86.6	5.0	0.0
LnGrp LOS	B		B					B	B	F	A	
Approach Vol, veh/h		421						1138			1012	
Approach Delay, s/veh		14.4						11.3			20.3	
Approach LOS		B						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		12.8		24.9			8.0	16.9
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		7.5		7.2			6.0	9.0
Green Ext Time (p_c), s		1.3		5.2			0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	55.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	986	70	79	331	9	43	8	108	3	13	12
Future Vol, veh/h	29	986	70	79	331	9	43	8	108	3	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	83	83	83	82	82	82	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	1096	78	95	399	11	52	10	132	5	22	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	410	0	0	1174	0	0	1815	1799	1135	1799	1833	405
Stage 1	-	-	-	-	-	-	1199	1199	-	595	595	-
Stage 2	-	-	-	-	-	-	616	600	-	1204	1238	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1143	-	-	591	-	-	60	79	245	62	76	644
Stage 1	-	-	-	-	-	-	225	257	-	489	491	-
Stage 2	-	-	-	-	-	-	476	488	-	224	247	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1143	-	-	591	-	-	~ 37	64	245	22	62	644
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 37	64	-	22	62	-
Stage 1	-	-	-	-	-	-	219	250	-	475	412	-
Stage 2	-	-	-	-	-	-	367	409	-	97	240	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.3	$ 528.1	106.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	100	1143	-	-	591	-	-	77
HCM Lane V/C Ratio	1.939	0.028	-	-	0.161	-	-	0.606
HCM Control Delay (s)	$ 528.1	8.2	-	-	12.3	-	-	106.7
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	16.2	0.1	-	-	0.6	-	-	2.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	807	1239	106	274	3	284	17	258	10	16	6
Future Volume (veh/h)	16	807	1239	106	274	3	284	17	258	10	16	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	17	849	0	123	319	3	312	0	0	13	21	8
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.95	0.95	0.95	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	41	928	789	157	1039	10	435	0	194	53	85	33
Arrive On Green	0.02	0.50	0.00	0.09	0.57	0.57	0.12	0.00	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1757	1845	1568	1757	1824	17	3514	0	1568	543	877	334
Grp Volume(v), veh/h	17	849	0	123	0	322	312	0	0	42	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1842	1757	0	1568	1754	0	0
Q Serve(g_s), s	0.8	36.4	0.0	5.9	0.0	7.8	7.3	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	0.8	36.4	0.0	5.9	0.0	7.8	7.3	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.31		0.19
Lane Grp Cap(c), veh/h	41	928	789	157	0	1049	435	0	194	171	0	0
V/C Ratio(X)	0.42	0.91	0.00	0.78	0.00	0.31	0.72	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	408	1072	911	408	0	1070	1225	0	547	612	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.4	19.7	0.0	38.3	0.0	9.7	36.2	0.0	0.0	35.9	0.0	0.0
Incr Delay (d2), s/veh	6.6	10.9	0.0	8.3	0.0	0.2	2.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	21.2	0.0	3.2	0.0	4.0	3.7	0.0	0.0	1.0	0.0	0.0
LnGrp Delay(d),s/veh	48.0	30.5	0.0	46.6	0.0	9.8	38.5	0.0	0.0	36.6	0.0	0.0
LnGrp LOS	D	C		D		A	D			D		
Approach Vol, veh/h		866			445			312			42	
Approach Delay, s/veh		30.9			20.0			38.5			36.6	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.7	11.7	47.3		12.4	6.0	53.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		9.3	7.9	38.4		3.9	2.8	9.8
Green Ext Time (p_c), s		1.0	0.2	4.9		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1304	313	242	307	7	561	0	738	20	3	12
Future Volume (veh/h)	14	1304	313	242	307	7	561	0	738	20	3	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	15	1373	329	260	330	8	597	0	785	27	4	16
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.94	0.94	0.94	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	33	1200	519	241	1611	39	722	0	1074	200	30	119
Arrive On Green	0.02	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1516	1757	3497	85	3514	0	3136	973	144	577
Grp Volume(v), veh/h	15	1373	329	260	165	173	597	0	785	47	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1516	1757	1752	1829	1757	0	1568	1694	0	0
Q Serve(g_s), s	1.2	50.0	26.6	20.0	8.2	8.2	23.7	0.0	30.0	3.3	0.0	0.0
Cycle Q Clear(g_c), s	1.2	50.0	26.6	20.0	8.2	8.2	23.7	0.0	30.0	3.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	0.57		0.34
Lane Grp Cap(c), veh/h	33	1200	519	241	807	843	722	0	1074	348	0	0
V/C Ratio(X)	0.46	1.14	0.63	1.08	0.20	0.21	0.83	0.00	0.73	0.14	0.00	0.00
Avail Cap(c_a), veh/h	241	1200	519	241	807	843	722	0	1074	348	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	70.9	48.0	40.3	63.0	23.4	23.4	55.5	0.0	42.1	47.4	0.0	0.0
Incr Delay (d2), s/veh	9.5	75.0	2.5	81.0	0.1	0.1	10.5	0.0	4.4	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	36.7	11.5	15.1	4.0	4.2	12.6	0.0	14.5	1.6	0.0	0.0
LnGrp Delay(d),s/veh	80.4	123.0	42.8	144.0	23.6	23.6	66.0	0.0	46.5	48.2	0.0	0.0
LnGrp LOS	F	F	D	F	C	C	E		D	D		
Approach Vol, veh/h		1717			598			1382			47	
Approach Delay, s/veh		107.3			75.9			54.9			48.2	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	54.0		34.0	6.7	71.3
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		32.0	22.0	52.0		5.3	3.2	10.2
Green Ext Time (p_c), s		0.0	0.0	0.0		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	82.2
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	2041	973	11
Future Vol, veh/h	0	33	0	2041	973	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	36	0	2218	1058	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	535	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	417	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	417	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	417	-	-
HCM Lane V/C Ratio	-	0.086	-	-
HCM Control Delay (s)	-	14.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1067	0	92	364	0	22
Future Vol, veh/h	1067	0	92	364	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1160	0	100	396	0	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1160	0	1756	1160
Stage 1	-	-	-	-	1160	-
Stage 2	-	-	-	-	596	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	599	-	93	237
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	548	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	599	-	77	237
Mov Cap-2 Maneuver	-	-	-	-	77	-
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	456	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	21.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	237	-	-	599	-
HCM Lane V/C Ratio	0.101	-	-	0.167	-
HCM Control Delay (s)	21.9	-	-	12.2	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.6	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1067	22	0	364	12	0
Future Vol, veh/h	1067	22	0	364	12	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1160	24	0	396	13	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1568	1172
Stage 1	-	-	-	-	1172	-
Stage 2	-	-	-	-	396	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	121	233
Stage 1	-	-	0	-	293	-
Stage 2	-	-	0	-	678	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	121	233
Mov Cap-2 Maneuver	-	-	-	-	121	-
Stage 1	-	-	-	-	293	-
Stage 2	-	-	-	-	678	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	38.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	121	-	-	-	-
HCM Lane V/C Ratio	0.108	-	-	-	-
HCM Control Delay (s)	38.3	0	-	-	-
HCM Lane LOS	E	A	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	2158	53	0	995
Future Vol, veh/h	0	14	2158	53	0	995
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	98	98	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	23	2202	54	0	1157

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1132	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	168	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	167	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	167	-
HCM Lane V/C Ratio	-	-	0.14	-
HCM Control Delay (s)	-	-	30	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	346	45	154	877	6	52	6	53	14	9	27
Future Volume (veh/h)	10	346	45	154	877	6	52	6	53	14	9	27
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	0.99		1.00	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	13	444	58	181	1032	7	87	10	0	18	12	35
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.78	0.78	0.78	0.85	0.85	0.85	0.60	0.60	0.60	0.77	0.77	0.77
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	324	1094	143	674	1252	8	324	21	0	149	53	105
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.12	0.12	0.00	0.12	0.12	0.12
Sat Flow, veh/h	536	1599	209	884	1830	12	1308	178	0	304	448	877
Grp Volume(v), veh/h	13	0	502	181	0	1039	97	0	0	65	0	0
Grp Sat Flow(s),veh/h/ln	536	0	1808	884	0	1842	1486	0	0	1628	0	0
Q Serve(g_s), s	0.7	0.0	4.9	4.6	0.0	16.6	0.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	17.4	0.0	4.9	9.5	0.0	16.6	2.3	0.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.01	0.90		0.00	0.28		0.54
Lane Grp Cap(c), veh/h	324	0	1237	674	0	1260	345	0	0	307	0	0
V/C Ratio(X)	0.04	0.00	0.41	0.27	0.00	0.82	0.28	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	432	0	1599	852	0	1630	720	0	0	730	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.9	0.0	2.8	4.9	0.0	4.7	16.7	0.0	0.0	16.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.2	0.0	2.8	0.4	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.4	1.1	0.0	9.1	1.1	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d),s/veh	11.0	0.0	3.0	5.1	0.0	7.5	17.2	0.0	0.0	16.8	0.0	0.0
LnGrp LOS	B		A	A		A	B			B		
Approach Vol, veh/h		515			1220			97			65	
Approach Delay, s/veh		3.2			7.1			17.2			16.8	
Approach LOS		A			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.9		31.8		8.9		31.8
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		36.0		16.0		36.0
Max Q Clear Time (g_c+I1), s		4.3		19.4		3.4		18.6
Green Ext Time (p_c), s		0.3		3.2		0.2		9.2

Intersection Summary	
HCM 2010 Ctrl Delay	6.9
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	875	65	72	334	5	38	10	141	13	8	19
Future Volume (veh/h)	12	875	65	72	334	5	38	10	141	13	8	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	15	1122	83	87	402	6	48	12	0	20	12	29
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.78	0.78	0.78	0.83	0.83	0.83	0.80	0.80	0.80	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	823	1320	98	291	1412	21	213	23	0	121	30	57
Arrive On Green	0.78	0.78	0.78	0.78	0.78	0.78	0.07	0.07	0.00	0.07	0.07	0.07
Sat Flow, veh/h	964	1694	125	458	1813	27	1266	316	0	443	413	776
Grp Volume(v), veh/h	15	0	1205	87	0	408	60	0	0	61	0	0
Grp Sat Flow(s),veh/h/ln	964	0	1819	458	0	1840	1582	0	0	1631	0	0
Q Serve(g_s), s	0.2	0.0	23.5	8.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	0.0	23.5	31.9	0.0	3.4	1.8	0.0	0.0	1.8	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.01	0.80		0.00	0.33		0.48
Lane Grp Cap(c), veh/h	823	0	1417	291	0	1433	236	0	0	208	0	0
V/C Ratio(X)	0.02	0.00	0.85	0.30	0.00	0.28	0.25	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	1243	0	2211	490	0	2236	550	0	0	546	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.2	0.0	3.9	14.4	0.0	1.7	24.1	0.0	0.0	24.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.0	0.6	0.0	0.1	0.6	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	11.8	1.1	0.0	1.7	0.9	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	2.2	0.0	5.9	14.9	0.0	1.8	24.7	0.0	0.0	24.9	0.0	0.0
LnGrp LOS	A		A	B		A	C			C		
Approach Vol, veh/h		1220			495			60			61	
Approach Delay, s/veh		5.9			4.1			24.7			24.9	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.0		46.3		8.0		46.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		66.0		16.0		66.0
Max Q Clear Time (g_c+I1), s		3.8		25.5		3.8		33.9
Green Ext Time (p_c), s		0.2		16.8		0.2		4.3

Intersection Summary	
HCM 2010 Ctrl Delay	6.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	986	70	79	331	9	43	8	108	3	13	12
Future Volume (veh/h)	29	986	70	79	331	9	43	8	108	3	13	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	32	1096	78	95	399	11	52	10	0	5	22	20
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.83	0.83	0.83	0.82	0.82	0.82	0.60	0.60	0.60
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	814	1306	93	303	1373	38	227	19	0	86	66	56
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.08	0.08	0.00	0.08	0.08	0.08
Sat Flow, veh/h	962	1699	121	471	1787	49	1283	247	0	117	859	723
Grp Volume(v), veh/h	32	0	1174	95	0	410	62	0	0	47	0	0
Grp Sat Flow(s),veh/h/ln	962	0	1820	471	0	1836	1529	0	0	1699	0	0
Q Serve(g_s), s	0.5	0.0	21.8	8.5	0.0	3.5	0.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	21.8	30.4	0.0	3.5	1.8	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.03	0.84		0.00	0.11		0.43
Lane Grp Cap(c), veh/h	814	0	1399	303	0	1411	246	0	0	208	0	0
V/C Ratio(X)	0.04	0.00	0.84	0.31	0.00	0.29	0.25	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	1280	0	2280	531	0	2300	598	0	0	624	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.4	0.0	3.9	13.8	0.0	1.8	22.9	0.0	0.0	22.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.6	0.6	0.0	0.1	0.5	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	11.0	1.2	0.0	1.8	0.9	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d),s/veh	2.4	0.0	5.5	14.4	0.0	1.9	23.4	0.0	0.0	23.3	0.0	0.0
LnGrp LOS	A		A	B		A	C			C		
Approach Vol, veh/h		1206			505			62			47	
Approach Delay, s/veh		5.4			4.3			23.4			23.3	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.0		43.9		8.0		43.9
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		17.0		65.0		17.0		65.0
Max Q Clear Time (g_c+I1), s		3.8		23.8		3.3		32.4
Green Ext Time (p_c), s		0.2		16.1		0.1		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	6.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	20	0	0	0	8	524	0	0	2239	9
Future Volume (veh/h)	14	0	20	0	0	0	8	524	0	0	2239	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	21	0	30	0	0	0	11	708	0	0	2634	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	228	26	266	0	551	0	34	1991	0	0	1774	7
Arrive On Green	0.30	0.00	0.30	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.50	0.50
Sat Flow, veh/h	536	88	890	0	1845	0	1757	3597	0	0	3672	15
Grp Volume(v), veh/h	51	0	0	0	0	0	11	708	0	0	1289	1356
Grp Sat Flow(s),veh/h/ln	1513	0	0	0	1845	0	1757	1752	0	0	1752	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.2	0.0	0.0	37.2	37.2
Cycle Q Clear(g_c), s	1.7	0.0	0.0	0.0	0.0	0.0	0.5	8.2	0.0	0.0	37.2	37.2
Prop In Lane	0.41		0.59	0.00		0.00	1.00		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	520	0	0	0	551	0	34	1991	0	0	868	913
V/C Ratio(X)	0.10	0.00	0.00	0.00	0.00	0.00	0.33	0.36	0.00	0.00	1.48	1.49
Avail Cap(c_a), veh/h	520	0	0	0	551	0	187	1991	0	0	868	913
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	0.0	0.0	0.0	0.0	36.3	8.8	0.0	0.0	18.9	18.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	2.1	0.5	0.0	0.0	223.9	224.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.0	0.0	0.0	0.2	4.1	0.0	0.0	71.9	75.7
LnGrp Delay(d),s/veh	19.4	0.0	0.0	0.0	0.0	0.0	38.4	9.3	0.0	0.0	242.8	243.5
LnGrp LOS	B						D	A			F	F
Approach Vol, veh/h		51			0			719			2645	
Approach Delay, s/veh		19.4			0.0			9.7			243.2	
Approach LOS		B						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		48.0		27.0	5.4	42.6		27.0
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		42.6		22.4	8.0	* 31		22.4
Max Q Clear Time (g_c+I1), s		10.2		3.7	2.5	39.2		0.0
Green Ext Time (p_c), s		7.3		0.2	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		190.7
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	9	88	0	19	2	505	24	19	2239	1
Future Volume (veh/h)	9	0	9	88	0	19	2	505	24	19	2239	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	18	0	18	166	0	0	3	711	0	22	2634	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	235	23	186	421	0	364	13	1900	850	69	2012	0
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.00	0.01	1.00	0.00	0.04	0.57	0.00
Sat Flow, veh/h	704	97	802	1403	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	36	0	0	166	0	0	3	711	0	22	2634	0
Grp Sat Flow(s),veh/h/ln	1603	0	0	1403	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.0	0.9	43.1	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	7.5	0.0	0.0	0.1	0.0	0.0	0.9	43.1	0.0
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	444	0	0	421	0	364	13	1900	850	69	2012	0
V/C Ratio(X)	0.08	0.00	0.00	0.39	0.00	0.00	0.23	0.37	0.00	0.32	1.31	0.00
Avail Cap(c_a), veh/h	444	0	0	421	0	364	211	1900	850	187	2012	0
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	0.00	1.00	0.00	0.00	0.95	0.95	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	0.0	0.0	24.9	0.0	0.0	36.7	0.0	0.0	35.1	16.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.7	0.0	0.0	3.3	0.5	0.0	1.0	142.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	3.3	0.0	0.0	0.1	0.1	0.0	0.5	60.3	0.0
LnGrp Delay(d),s/veh	23.0	0.0	0.0	27.6	0.0	0.0	40.0	0.5	0.0	36.0	158.8	0.0
LnGrp LOS	C			C			D	A		D	F	
Approach Vol, veh/h		36			166			714			2656	
Approach Delay, s/veh		23.0			27.6			0.7			157.8	
Approach LOS		C			C			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	48.5		22.0	6.9	46.1		22.0
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 35		17.4	8.0	35.6		17.4
Max Q Clear Time (g_c+I1), s	2.1	45.1		3.2	2.9	2.0		9.5
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	7.4		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	119.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	451	49	524	2332	8
Future Volume (veh/h)	8	451	49	524	2332	8
Number	3	18	1	6	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	10	0	73	782	2712	9
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.80	0.80	0.67	0.67	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	507	453	100	2257	1963	878
Arrive On Green	0.29	0.00	0.06	0.64	1.00	1.00
Sat Flow, veh/h	1757	1568	1757	3597	3597	1568
Grp Volume(v), veh/h	10	0	73	782	2712	9
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1568
Q Serve(g_s), s	0.6	0.0	6.1	15.3	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	6.1	15.3	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	453	100	2257	1963	878
V/C Ratio(X)	0.02	0.00	0.73	0.35	1.38	0.01
Avail Cap(c_a), veh/h	507	453	141	2257	1963	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.2	0.0	69.6	12.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	5.3	0.4	171.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	3.1	7.5	46.9	0.0
LnGrp Delay(d),s/veh	38.2	0.0	74.9	12.7	171.9	0.0
LnGrp LOS	D		E	B	F	A
Approach Vol, veh/h	10			855	2721	
Approach Delay, s/veh	38.2			18.0	171.3	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.6	89.4				102.0		48.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	12.6	* 81				96.6		43.3
Max Q Clear Time (g_c+I1), s	8.1	2.0				17.3		2.6
Green Ext Time (p_c), s	0.0	72.0				9.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	134.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	2	155	59	1	12	110	521	28	10	2689	72
Future Volume (veh/h)	36	2	155	59	1	12	110	521	28	10	2689	72
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.97		0.92	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	53	3	0	89	2	18	157	744	40	11	2955	79
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.68	0.68	0.66	0.66	0.66	0.70	0.70	0.70	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	198	10	0	177	7	28	140	2731	1192	28	2036	889
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.17	1.00	1.00	0.02	0.71	0.71
Sat Flow, veh/h	1339	88	0	1181	60	245	1616	3505	1530	1433	2859	1248
Grp Volume(v), veh/h	56	0	0	109	0	0	157	744	40	11	2955	79
Grp Sat Flow(s),veh/h/ln	1427	0	0	1486	0	0	1616	1752	1530	1433	1430	1248
Q Serve(g_s), s	0.0	0.0	0.0	4.8	0.0	0.0	13.0	0.0	0.0	1.1	106.8	2.9
Cycle Q Clear(g_c), s	5.2	0.0	0.0	10.0	0.0	0.0	13.0	0.0	0.0	1.1	106.8	2.9
Prop In Lane	0.95		0.00	0.82		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	0	212	0	0	140	2731	1192	28	2036	889
V/C Ratio(X)	0.27	0.00	0.00	0.51	0.00	0.00	1.12	0.27	0.03	0.39	1.45	0.09
Avail Cap(c_a), veh/h	306	0	0	312	0	0	140	2731	1192	124	2036	889
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	0.00	1.00	0.00	0.00	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	0.0	0.0	63.1	0.0	0.0	62.0	0.0	0.0	72.6	21.6	6.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	100.9	0.2	0.0	3.3	205.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	4.3	0.0	0.0	9.7	0.1	0.0	0.5	99.8	1.1
LnGrp Delay(d),s/veh	61.5	0.0	0.0	63.8	0.0	0.0	162.9	0.2	0.0	75.9	227.5	6.8
LnGrp LOS	E			E			F	A	A	E	F	A
Approach Vol, veh/h		56			109			941			3045	
Approach Delay, s/veh		61.5			63.8			27.3			221.2	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	111.9		21.1	6.9	122.0		21.1
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	13.0	95.9		27.9	13.0	95.9		27.9
Max Q Clear Time (g_c+I1), s	15.0	108.8		12.0	3.1	2.0		7.2
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	9.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	171.0
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	93	45	213	139	61	164	715	239	131	1683	886
Future Volume (veh/h)	241	93	45	213	139	61	164	715	239	131	1683	886
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.90	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	402	155	75	238	258	82	228	993	332	144	1849	974
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	560	187	91	267	280	215	199	1564	666	161	1243	540
Arrive On Green	0.16	0.16	0.16	0.15	0.15	0.15	0.11	0.45	0.45	0.08	0.30	0.30
Sat Flow, veh/h	3408	1140	552	1757	1845	1417	1757	3505	1492	1387	2767	1202
Grp Volume(v), veh/h	402	0	230	238	258	82	228	993	332	144	1849	974
Grp Sat Flow(s),veh/h/ln	1704	0	1692	1757	1845	1417	1757	1752	1492	1387	1383	1202
Q Serve(g_s), s	16.8	0.0	19.7	19.9	20.7	7.8	17.0	32.8	23.8	15.4	67.4	67.4
Cycle Q Clear(g_c), s	16.8	0.0	19.7	19.9	20.7	7.8	17.0	32.8	23.8	15.4	67.4	67.4
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	560	0	278	267	280	215	199	1564	666	161	1243	540
V/C Ratio(X)	0.72	0.00	0.83	0.89	0.92	0.38	1.15	0.63	0.50	0.89	1.49	1.80
Avail Cap(c_a), veh/h	611	0	303	269	283	217	199	1564	666	185	1243	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	59.4	0.0	60.6	62.4	62.7	57.3	66.5	32.1	29.6	68.2	52.4	52.4
Incr Delay (d2), s/veh	3.0	0.0	14.4	28.0	32.8	0.4	108.3	2.0	2.7	4.6	219.9	362.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	10.3	11.8	13.1	3.1	14.2	16.3	10.3	6.1	63.7	76.8
LnGrp Delay(d),s/veh	62.3	0.0	75.1	90.4	95.6	57.7	174.8	34.1	32.2	72.8	272.3	414.8
LnGrp LOS	E		E	F	F	E	F	C	C	E	F	F
Approach Vol, veh/h		632			578			1553			2967	
Approach Delay, s/veh		67.0			88.1			54.3			309.4	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	72.5		26.8	21.4	72.0		29.8
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	19.0	69.4		22.7	17.4	34.8		21.7
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	13.2		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	191.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	270	116	0	0	0	293	788	451	0	493	835
Future Volume (veh/h)	184	270	116	0	0	0	293	788	451	0	493	835
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	196	287	123				337	906	0	0	524	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.94	0.94	0.94				0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	275	377	158				75	2380	1065	0	1995	892
Arrive On Green	0.16	0.16	0.16				0.04	0.68	0.00	0.00	0.57	0.00
Sat Flow, veh/h	1757	2408	1007				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	196	207	203				337	906	0	0	524	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1662				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	7.4	7.9	8.2				3.0	7.8	0.0	0.0	5.3	0.0
Cycle Q Clear(g_c), s	7.4	7.9	8.2				3.0	7.8	0.0	0.0	5.3	0.0
Prop In Lane	1.00		0.61				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	275	274	260				75	2380	1065	0	1995	892
V/C Ratio(X)	0.71	0.75	0.78				4.48	0.38	0.00	0.00	0.26	0.00
Avail Cap(c_a), veh/h	753	751	712				75	2380	1065	0	1995	892
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.40	0.40	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.0	28.2	28.4				33.5	4.9	0.0	0.0	7.6	0.0
Incr Delay (d2), s/veh	1.3	1.6	1.9				1576.3	0.2	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.9	3.9				34.4	3.7	0.0	0.0	2.6	0.0
LnGrp Delay(d),s/veh	29.3	29.8	30.3				1609.8	5.0	0.0	0.0	8.0	0.0
LnGrp LOS	C	C	C				F	A			A	
Approach Vol, veh/h		606						1243			524	
Approach Delay, s/veh		29.8						440.1			8.0	
Approach LOS		C						F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		52.9		17.1	7.7	45.2		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		9.8		10.2	5.0	7.3		
Green Ext Time (p_c), s		4.1		0.4	0.0	1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	239.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	41	177	28	0	200	0	1245	32	79	568	0
Future Volume (veh/h)	52	41	177	28	0	200	0	1245	32	79	568	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	66	52	224	37	0	263	0	1448	37	88	631	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.76	0.76	0.76	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	214	169	333	0	0	0	0	2003	51	113	1997	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.40	0.40	0.06	0.57	0.00
Sat Flow, veh/h	1004	791	1559		0		0	5213	129	1757	3597	0
Grp Volume(v), veh/h	118	0	224		0.0		0	963	522	88	631	0
Grp Sat Flow(s),veh/h/ln	1794	0	1559				0	1679	1818	1757	1752	0
Q Serve(g_s), s	2.0	0.0	4.9				0.0	9.0	9.0	1.8	3.5	0.0
Cycle Q Clear(g_c), s	2.0	0.0	4.9				0.0	9.0	9.0	1.8	3.5	0.0
Prop In Lane	0.56		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	383	0	333				0	1332	722	113	1997	0
V/C Ratio(X)	0.31	0.00	0.67				0.00	0.72	0.72	0.78	0.32	0.00
Avail Cap(c_a), veh/h	875	0	761				0	1456	788	190	2280	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	13.3				0.0	9.4	9.4	17.0	4.2	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.4				0.0	1.6	3.0	10.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.3				0.0	4.3	4.9	1.2	1.7	0.0
LnGrp Delay(d),s/veh	12.7	0.0	15.7				0.0	11.0	12.4	27.8	4.3	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		342						1485			719	
Approach Delay, s/veh		14.6						11.5			7.1	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		11.9		25.0			6.4	18.6
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		18.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		6.9		5.5			3.8	11.0
Green Ext Time (p_c), s		1.1		4.0			0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	110

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	346	45	154	877	6	52	6	53	14	9	27
Future Vol, veh/h	10	346	45	154	877	6	52	6	53	14	9	27
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	60	60	60	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	444	58	181	1032	7	87	10	88	18	12	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1039	0	0	502	0	0	1922	1900	473	1902	1926	1038
Stage 1	-	-	-	-	-	-	499	499	-	1398	1398	-
Stage 2	-	-	-	-	-	-	1423	1401	-	504	528	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	665	-	-	1057	-	-	~ 50	69	589	52	66	279
Stage 1	-	-	-	-	-	-	552	542	-	173	206	-
Stage 2	-	-	-	-	-	-	168	206	-	548	526	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	665	-	-	1057	-	-	~ 31	56	589	33	54	279
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 31	56	-	33	54	-
Stage 1	-	-	-	-	-	-	541	531	-	170	171	-
Stage 2	-	-	-	-	-	-	113	171	-	448	515	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.4	$ 1109.5	172.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	59	665	-	-	1057	-	-	73
HCM Lane V/C Ratio	3.136	0.019	-	-	0.171	-	-	0.89
HCM Control Delay (s)	$ 1109.5	10.5	-	-	9.1	-	-	172.1
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	19.3	0.1	-	-	0.6	-	-	4.5

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	250	844	211	738	2	329	13	130	17	28	25
Future Volume (veh/h)	21	250	844	211	738	2	329	13	130	17	28	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	24	284	0	232	811	2	427	0	0	21	35	31
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.79	0.79	0.79	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	54	677	576	276	907	2	576	0	257	46	77	68
Arrive On Green	0.03	0.37	0.00	0.16	0.49	0.49	0.16	0.00	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	1845	1568	1757	1839	5	3514	0	1568	409	682	604
Grp Volume(v), veh/h	24	284	0	232	0	813	427	0	0	87	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1844	1757	0	1568	1694	0	0
Q Serve(g_s), s	1.1	9.2	0.0	10.3	0.0	32.1	9.3	0.0	0.0	3.9	0.0	0.0
Cycle Q Clear(g_c), s	1.1	9.2	0.0	10.3	0.0	32.1	9.3	0.0	0.0	3.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.24		0.36
Lane Grp Cap(c), veh/h	54	677	576	276	0	909	576	0	257	190	0	0
V/C Ratio(X)	0.44	0.42	0.00	0.84	0.00	0.89	0.74	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	438	1149	977	438	0	1149	1313	0	586	633	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.2	19.0	0.0	32.8	0.0	18.4	31.9	0.0	0.0	33.3	0.0	0.0
Incr Delay (d2), s/veh	5.5	0.4	0.0	8.1	0.0	7.8	1.9	0.0	0.0	1.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.7	0.0	5.6	0.0	18.2	4.7	0.0	0.0	1.9	0.0	0.0
LnGrp Delay(d),s/veh	43.7	19.4	0.0	40.9	0.0	26.2	33.8	0.0	0.0	35.0	0.0	0.0
LnGrp LOS	D	B		D		C	C			D		
Approach Vol, veh/h		308			1045			427			87	
Approach Delay, s/veh		21.3			29.5			33.8			35.0	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.2	16.6	33.5		13.0	6.5	43.6
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		11.3	12.3	11.2		5.9	3.1	34.1
Green Ext Time (p_c), s		1.5	0.4	1.8		0.4	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.4
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	656	240	405	605	8	725	0	513	16	2	12
Future Volume (veh/h)	9	656	240	405	605	8	725	0	513	16	2	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	10	754	276	482	720	10	755	0	534	27	3	20
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.96	0.96	0.96	0.59	0.59	0.59
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	25	933	408	269	1433	20	806	0	1197	208	23	154
Arrive On Green	0.01	0.27	0.27	0.15	0.41	0.41	0.23	0.00	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1757	3505	1533	1757	3537	49	3514	0	3129	907	101	672
Grp Volume(v), veh/h	10	754	276	482	357	373	755	0	534	50	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1533	1757	1752	1834	1757	0	1565	1680	0	0
Q Serve(g_s), s	0.7	26.3	21.1	20.0	19.9	19.9	27.6	0.0	16.6	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.7	26.3	21.1	20.0	19.9	19.9	27.6	0.0	16.6	3.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.54		0.40
Lane Grp Cap(c), veh/h	25	933	408	269	710	743	806	0	1197	385	0	0
V/C Ratio(X)	0.41	0.81	0.68	1.79	0.50	0.50	0.94	0.00	0.45	0.13	0.00	0.00
Avail Cap(c_a), veh/h	269	1339	586	269	710	743	806	0	1197	385	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	64.0	44.9	43.0	55.4	29.1	29.1	49.5	0.0	30.1	40.1	0.0	0.0
Incr Delay (d2), s/veh	10.5	2.5	2.0	372.3	0.6	0.5	19.7	0.0	1.2	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.1	9.1	37.4	9.7	10.2	15.6	0.0	7.4	1.5	0.0	0.0
LnGrp Delay(d),s/veh	74.4	47.3	44.9	427.7	29.6	29.6	69.2	0.0	31.3	40.8	0.0	0.0
LnGrp LOS	E	D	D	F	C	C	E		C	D		
Approach Vol, veh/h		1040			1212			1289			50	
Approach Delay, s/veh		47.0			187.9			53.5			40.8	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	38.8		34.0	5.8	57.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		29.6	22.0	28.3		5.1	2.7	21.9
Green Ext Time (p_c), s		0.3	0.0	6.5		0.2	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	96.8
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	77	0	1187	1891	4
Future Vol, veh/h	0	77	0	1187	1891	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	84	0	1290	2055	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1030	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	229	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	229	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.5	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	229	-	-
HCM Lane V/C Ratio	-	0.365	-	-
HCM Control Delay (s)	-	29.5	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	1.6	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	371	0	24	1053	0	26
Future Vol, veh/h	371	0	24	1053	0	26
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	403	0	26	1145	0	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	403	0	1600	403
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	1197	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1150	-	116	645
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	285	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1150	-	113	645
Mov Cap-2 Maneuver	-	-	-	-	113	-
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	278	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	645	-	-	1150	-
HCM Lane V/C Ratio	0.044	-	-	0.023	-
HCM Control Delay (s)	10.8	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	371	5	0	1053	23	0
Future Vol, veh/h	371	5	0	1053	23	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	403	5	0	1145	25	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1551	406
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	1145	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	124	643
Stage 1	-	-	0	-	671	-
Stage 2	-	-	0	-	302	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	124	643
Mov Cap-2 Maneuver	-	-	-	-	124	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	302	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	41.2
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	124	-	-	-	-
HCM Lane V/C Ratio	0.202	-	-	-	-
HCM Control Delay (s)	41.2	0	-	-	-
HCM Lane LOS	E	A	-	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	56	1172	83	0	1944
Future Vol, veh/h	0	56	1172	83	0	1944
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	71	71	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	77	1651	117	0	2025

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	894	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	242	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	240	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	240	-
HCM Lane V/C Ratio	-	-	0.32	-
HCM Control Delay (s)	-	-	26.9	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	1.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	23	0	0	0	19	2406	0	0	948	21
Future Volume (veh/h)	17	0	23	0	0	0	19	2406	0	0	948	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	21	0	29	0	0	0	22	2831	0	0	1030	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	203	19	236	0	498	0	56	2208	0	0	1955	44
Arrive On Green	0.27	0.00	0.27	0.00	0.00	0.00	0.03	0.63	0.00	0.00	0.56	0.56
Sat Flow, veh/h	561	72	875	0	1845	0	1757	3597	0	0	3595	78
Grp Volume(v), veh/h	50	0	0	0	0	0	22	2831	0	0	515	538
Grp Sat Flow(s),veh/h/ln	1508	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.2	63.0	0.0	0.0	18.4	18.4
Cycle Q Clear(g_c), s	2.2	0.0	0.0	0.0	0.0	0.0	1.2	63.0	0.0	0.0	18.4	18.4
Prop In Lane	0.42		0.58	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	458	0	0	0	498	0	56	2208	0	0	978	1021
V/C Ratio(X)	0.11	0.00	0.00	0.00	0.00	0.00	0.39	1.28	0.00	0.00	0.53	0.53
Avail Cap(c_a), veh/h	458	0	0	0	498	0	123	2208	0	0	978	1021
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	0.0	0.0	0.0	0.0	47.4	18.5	0.0	0.0	13.8	13.8
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	1.6	130.6	0.0	0.0	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0	0.0	0.0	0.6	70.1	0.0	0.0	9.4	9.8
LnGrp Delay(d),s/veh	27.9	0.0	0.0	0.0	0.0	0.0	49.1	149.1	0.0	0.0	15.9	15.8
LnGrp LOS	C						D	F			B	B
Approach Vol, veh/h		50			0			2853			1053	
Approach Delay, s/veh		27.9			0.0			148.3			15.8	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		68.4		31.6	7.2	61.2		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		63.0		27.0	7.0	* 52		27.0
Max Q Clear Time (g_c+I1), s		65.0		4.2	3.2	20.4		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	11.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	111.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	39	0	42	6	2384	61	25	933	2
Future Volume (veh/h)	2	0	10	39	0	42	6	2384	61	25	933	2
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	4	0	18	49	0	0	7	2772	0	28	1048	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	19	261	342	0	321	27	2263	1012	69	2347	0
Arrive On Green	0.20	0.00	0.20	0.20	0.00	0.00	0.02	0.65	0.00	0.04	0.67	0.00
Sat Flow, veh/h	189	94	1273	1394	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	22	0	0	49	0	0	7	2772	0	28	1048	0
Grp Sat Flow(s),veh/h/ln	1556	0	0	1394	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	0.5	82.0	0.0	2.0	17.9	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	3.3	0.0	0.0	0.5	82.0	0.0	2.0	17.9	0.0
Prop In Lane	0.18		0.82	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	352	0	0	342	0	321	27	2263	1012	69	2347	0
V/C Ratio(X)	0.06	0.00	0.00	0.14	0.00	0.00	0.26	1.23	0.00	0.40	0.45	0.00
Avail Cap(c_a), veh/h	352	0	0	342	0	321	124	2263	1012	111	2347	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.7	0.0	0.0	41.4	0.0	0.0	61.8	22.5	0.0	59.5	9.9	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.9	0.0	0.0	1.8	105.5	0.0	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	1.5	0.0	0.0	0.3	72.4	0.0	1.0	8.8	0.0
LnGrp Delay(d),s/veh	41.1	0.0	0.0	42.3	0.0	0.0	63.6	128.0	0.0	60.9	10.5	0.0
LnGrp LOS	D			D			E	F		E	B	
Approach Vol, veh/h		22			49			2779			1076	
Approach Delay, s/veh		41.1			42.3			127.8			11.8	
Approach LOS		D			D			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.0	90.5		30.6	9.0	87.4		30.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 81		26.0	8.0	82.0		26.0
Max Q Clear Time (g_c+I1), s	2.5	19.9		3.4	4.0	84.0		5.3
Green Ext Time (p_c), s	0.0	14.8		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	94.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	93	115	2427	963	24
Future Volume (veh/h)	24	93	115	2427	963	24
Number	3	18	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	25	0	134	2822	1035	26
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.86	0.86	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	438	391	163	2278	1813	794
Arrive On Green	0.25	0.00	0.09	0.65	0.52	0.52
Sat Flow, veh/h	1757	1568	1757	3597	3597	1534
Grp Volume(v), veh/h	25	0	134	2822	1035	26
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1534
Q Serve(g_s), s	1.1	0.0	7.5	65.2	20.3	0.8
Cycle Q Clear(g_c), s	1.1	0.0	7.5	65.2	20.3	0.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	438	391	163	2278	1813	794
V/C Ratio(X)	0.06	0.00	0.82	1.24	0.57	0.03
Avail Cap(c_a), veh/h	438	391	210	2278	1813	794
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	1.00
Uniform Delay (d), s/veh	28.7	0.0	44.7	17.6	16.6	11.9
Incr Delay (d2), s/veh	0.2	0.0	14.3	111.3	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.3	66.2	10.1	0.4
LnGrp Delay(d),s/veh	28.9	0.0	59.0	128.9	17.9	12.0
LnGrp LOS	C		E	F	B	B
Approach Vol, veh/h	25			2956	1061	
Approach Delay, s/veh	28.9			125.7	17.8	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		70.6			13.3	57.3		29.7
Change Period (Y+Rc), s		* 5.4			4.0	5.4		4.7
Max Green Setting (Gmax), s		* 65			12.0	48.9		25.0
Max Q Clear Time (g_c+I1), s		67.2			9.5	22.3		3.1
Green Ext Time (p_c), s		0.0			0.0	11.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	96.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1	137	46	5	21	140	2470	50	20	981	45
Future Volume (veh/h)	60	1	137	46	5	21	140	2470	50	20	981	45
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.93		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	82	1	0	56	6	26	152	2685	54	21	1033	47
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	261	3	246	185	26	69	174	2470	1099	53	1812	789
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.11	0.70	0.70	0.04	0.63	0.63
Sat Flow, veh/h	1312	18	1568	887	163	440	1616	3505	1559	1433	2859	1245
Grp Volume(v), veh/h	83	0	0	88	0	0	152	2685	54	21	1033	47
Grp Sat Flow(s),veh/h/ln	1331	0	1568	1490	0	0	1616	1752	1559	1433	1430	1245
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	0.0	12.1	91.8	1.4	1.9	27.0	1.9
Cycle Q Clear(g_c), s	7.0	0.0	0.0	6.0	0.0	0.0	12.1	91.8	1.4	1.9	27.0	1.9
Prop In Lane	0.99		1.00	0.64		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	0	246	279	0	0	174	2470	1099	53	1812	789
V/C Ratio(X)	0.31	0.00	0.00	0.32	0.00	0.00	0.87	1.09	0.05	0.40	0.57	0.06
Avail Cap(c_a), veh/h	320	0	313	338	0	0	248	2470	1099	99	1812	789
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	0.0	0.0	48.8	0.0	0.0	57.2	19.2	5.9	61.3	13.7	9.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	15.9	46.7	0.1	1.8	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	2.8	0.0	0.0	6.2	59.9	0.6	0.8	10.9	0.7
LnGrp Delay(d),s/veh	49.5	0.0	0.0	49.0	0.0	0.0	73.1	66.0	6.0	63.1	15.0	9.2
LnGrp LOS	D			D			E	F	A	E	B	A
Approach Vol, veh/h		83			88			2891			1101	
Approach Delay, s/veh		49.5			49.0			65.2			15.6	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.8	96.9		24.6	18.0	87.7		24.6
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	91.8		26.0	20.0	80.8		26.0
Max Q Clear Time (g_c+I1), s	13.9	93.8		8.0	14.1	29.0		9.0
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	14.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	51.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	684	138	72	186	112	153	99	1722	159	170	883	317
Future Volume (veh/h)	684	138	72	186	112	153	99	1722	159	170	883	317
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	834	168	88	184	202	189	106	1852	171	212	1104	396
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	232	121	142	149	107	126	1590	685	155	1366	575
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.07	0.45	0.45	0.11	0.49	0.49
Sat Flow, veh/h	3408	1115	584	1757	1845	1329	1757	3505	1511	1387	2767	1165
Grp Volume(v), veh/h	834	0	256	184	202	189	106	1852	171	212	1104	396
Grp Sat Flow(s),veh/h/ln	1704	0	1698	1757	1845	1329	1757	1752	1511	1387	1383	1165
Q Serve(g_s), s	26.0	0.0	17.6	10.1	10.1	10.1	7.4	56.7	8.7	14.0	42.0	32.6
Cycle Q Clear(g_c), s	26.0	0.0	17.6	10.1	10.1	10.1	7.4	56.7	8.7	14.0	42.0	32.6
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	353	142	149	107	126	1590	685	155	1366	575
V/C Ratio(X)	1.18	0.00	0.72	1.30	1.36	1.76	0.84	1.16	0.25	1.36	0.81	0.69
Avail Cap(c_a), veh/h	709	0	353	142	149	107	126	1590	685	155	1366	575
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	46.2	57.5	57.5	57.4	57.3	34.1	21.0	55.5	26.7	24.3
Incr Delay (d2), s/veh	93.7	0.0	6.3	175.5	197.2	377.1	34.9	81.5	0.9	199.8	5.2	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.4	0.0	8.9	11.8	13.3	15.0	4.8	45.4	3.8	14.0	16.9	11.5
LnGrp Delay(d),s/veh	143.2	0.0	52.5	232.9	254.7	434.5	92.2	115.6	21.9	255.3	31.9	30.9
LnGrp LOS	F		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1090			575			2129			1712	
Approach Delay, s/veh		121.9			306.8			107.0			59.3	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	13.0	66.8		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	16.0	58.7		12.1	9.4	44.0		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	11.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	116.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	277	479	298	0	0	0	282	656	439	0	595	472
Future Volume (veh/h)	277	479	298	0	0	0	282	656	439	0	595	472
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	280	484	301				313	729	0	0	626	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.99	0.99	0.99				0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	517	610	378				251	1685	754	0	863	386
Arrive On Green	0.29	0.29	0.29				0.14	0.48	0.00	0.00	0.25	0.00
Sat Flow, veh/h	1757	2073	1284				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	280	409	376				313	729	0	0	626	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1604				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	6.8	11.0	11.1				7.3	7.0	0.0	0.0	8.4	0.0
Cycle Q Clear(g_c), s	6.8	11.0	11.1				7.3	7.0	0.0	0.0	8.4	0.0
Prop In Lane	1.00		0.80				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	517	516	472				251	1685	754	0	863	386
V/C Ratio(X)	0.54	0.79	0.80				1.25	0.43	0.00	0.00	0.73	0.00
Avail Cap(c_a), veh/h	1133	1130	1035				251	2432	1088	0	1610	720
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.2	16.6	16.6				21.9	8.7	0.0	0.0	17.7	0.0
Incr Delay (d2), s/veh	0.3	1.1	1.2				140.6	0.1	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	5.4	5.0				13.3	3.4	0.0	0.0	4.1	0.0
LnGrp Delay(d),s/veh	15.5	17.7	17.8				162.5	8.8	0.0	0.0	18.1	0.0
LnGrp LOS	B	B	B				F	A			B	
Approach Vol, veh/h		1065						1042			626	
Approach Delay, s/veh		17.1						55.0			18.1	
Approach LOS		B						D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		30.0		21.2	12.0	18.0		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		35.5		33.0	* 7.3	23.5		
Max Q Clear Time (g_c+I1), s		9.0		13.1	9.3	10.4		
Green Ext Time (p_c), s		3.4		0.8	0.0	2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	73	213	32	0	133	0	1157	35	148	733	0
Future Volume (veh/h)	61	73	213	32	0	133	0	1157	35	148	733	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	64	77	224	47	0	196	0	1315	40	185	916	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.68	0.68	0.68	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	170	205	325	0	0	0	0	1806	55	235	2078	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.36	0.36	0.13	0.59	0.00
Sat Flow, veh/h	819	985	1563		0		0	5185	153	1757	3597	0
Grp Volume(v), veh/h	141	0	224		0.0		0	880	475	185	916	0
Grp Sat Flow(s),veh/h/ln	1804	0	1563				0	1679	1814	1757	1752	0
Q Serve(g_s), s	2.7	0.0	5.3				0.0	9.1	9.1	4.1	5.8	0.0
Cycle Q Clear(g_c), s	2.7	0.0	5.3				0.0	9.1	9.1	4.1	5.8	0.0
Prop In Lane	0.45		1.00				0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	376	0	325				0	1208	653	235	2078	0
V/C Ratio(X)	0.38	0.00	0.69				0.00	0.73	0.73	0.79	0.44	0.00
Avail Cap(c_a), veh/h	763	0	661				0	1336	722	306	2354	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.7	0.0	14.7				0.0	11.2	11.2	16.9	4.5	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.6				0.0	1.8	3.3	9.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	2.5				0.0	4.5	5.1	2.6	2.7	0.0
LnGrp Delay(d),s/veh	14.3	0.0	17.3				0.0	13.0	14.5	26.7	4.7	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		365						1355			1101	
Approach Delay, s/veh		16.1						13.5			8.4	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		12.4		27.8			9.4	18.5
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		27.0			7.0	16.0
Max Q Clear Time (g_c+I1), s		7.3		7.8			6.1	11.1
Green Ext Time (p_c), s		1.1		6.2			0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	64.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	875	65	72	334	5	38	10	141	13	8	19
Future Vol, veh/h	12	875	65	72	334	5	38	10	141	13	8	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	83	83	83	80	80	80	65	65	65
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	1122	83	87	402	6	48	13	176	20	12	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	408	0	0	1205	0	0	1794	1776	1164	1779	1814	405
Stage 1	-	-	-	-	-	-	1194	1194	-	579	579	-
Stage 2	-	-	-	-	-	-	600	582	-	1200	1235	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1145	-	-	576	-	-	62	82	236	64	78	644
Stage 1	-	-	-	-	-	-	227	259	-	499	499	-
Stage 2	-	-	-	-	-	-	486	497	-	225	247	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1145	-	-	576	-	-	~ 44	69	236	~ 12	65	644
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 44	69	-	~ 12	65	-
Stage 1	-	-	-	-	-	-	224	256	-	493	424	-
Stage 2	-	-	-	-	-	-	382	422	-	53	244	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.2	$ 361.9	$ 700
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	146	1145	-	-	576	-	-	32
HCM Lane V/C Ratio	1.618	0.013	-	-	0.151	-	-	1.923
HCM Control Delay (s)	$ 361.9	8.2	-	-	12.4	-	-	$ 700
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	16.6	0	-	-	0.5	-	-	7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	678	1171	121	265	5	317	10	257	8	19	14
Future Volume (veh/h)	31	678	1171	121	265	5	317	10	257	8	19	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	34	737	0	151	331	6	360	0	0	11	26	19
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.90	0.90	0.90	0.73	0.73	0.73
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	831	707	190	938	17	500	0	223	36	84	62
Arrive On Green	0.04	0.45	0.00	0.11	0.52	0.52	0.14	0.00	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	1845	1568	1757	1806	33	3514	0	1568	335	793	579
Grp Volume(v), veh/h	34	737	0	151	0	337	360	0	0	56	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1839	1757	0	1568	1708	0	0
Q Serve(g_s), s	1.6	30.3	0.0	7.0	0.0	8.9	8.1	0.0	0.0	2.5	0.0	0.0
Cycle Q Clear(g_c), s	1.6	30.3	0.0	7.0	0.0	8.9	8.1	0.0	0.0	2.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.20		0.34
Lane Grp Cap(c), veh/h	69	831	707	190	0	955	500	0	223	181	0	0
V/C Ratio(X)	0.49	0.89	0.00	0.80	0.00	0.35	0.72	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	424	1112	945	424	0	1109	1271	0	567	618	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.0	20.8	0.0	36.1	0.0	11.7	34.0	0.0	0.0	34.2	0.0	0.0
Incr Delay (d2), s/veh	5.3	7.0	0.0	7.4	0.0	0.2	2.0	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	17.0	0.0	3.7	0.0	4.6	4.1	0.0	0.0	1.2	0.0	0.0
LnGrp Delay(d),s/veh	44.4	27.9	0.0	43.5	0.0	12.0	35.9	0.0	0.0	35.2	0.0	0.0
LnGrp LOS	D	C		D		B	D			D		
Approach Vol, veh/h		771			488			360			56	
Approach Delay, s/veh		28.6			21.7			35.9			35.2	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		15.8	12.9	41.4		12.8	7.3	47.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		10.1	9.0	32.3		4.5	3.6	10.9
Green Ext Time (p_c), s		1.2	0.3	5.1		0.2	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1065	276	287	294	15	496	0	798	16	6	8
Future Volume (veh/h)	9	1065	276	287	294	15	496	0	798	16	6	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	9	1109	288	354	363	19	539	0	867	25	9	12
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	22	1184	516	242	1570	82	727	0	1081	193	70	93
Arrive On Green	0.01	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1528	1757	3388	177	3514	0	3136	934	336	448
Grp Volume(v), veh/h	9	1109	288	354	187	195	539	0	867	46	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1528	1757	1752	1813	1757	0	1568	1719	0	0
Q Serve(g_s), s	0.7	44.4	22.3	20.0	9.3	9.4	20.8	0.0	30.0	3.2	0.0	0.0
Cycle Q Clear(g_c), s	0.7	44.4	22.3	20.0	9.3	9.4	20.8	0.0	30.0	3.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	0.54		0.26
Lane Grp Cap(c), veh/h	22	1184	516	242	812	840	727	0	1081	356	0	0
V/C Ratio(X)	0.41	0.94	0.56	1.46	0.23	0.23	0.74	0.00	0.80	0.13	0.00	0.00
Avail Cap(c_a), veh/h	242	1209	527	242	812	840	727	0	1081	356	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.1	46.5	39.2	62.5	23.4	23.4	53.9	0.0	43.0	46.9	0.0	0.0
Incr Delay (d2), s/veh	11.6	13.3	1.3	228.8	0.1	0.1	6.7	0.0	6.3	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	23.6	9.6	25.1	4.6	4.7	10.8	0.0	16.6	1.6	0.0	0.0
LnGrp Delay(d),s/veh	82.6	59.8	40.4	291.3	23.5	23.5	60.6	0.0	49.3	47.6	0.0	0.0
LnGrp LOS	F	E	D	F	C	C	E		D	D		
Approach Vol, veh/h		1406			736			1406			46	
Approach Delay, s/veh		56.0			152.3			53.6			47.6	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	53.0		34.0	5.8	71.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		32.0	22.0	46.4		5.2	2.7	11.4
Green Ext Time (p_c), s		0.0	0.0	2.6		0.2	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	74.7
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	47	0	1922	1151	7
Future Vol, veh/h	0	47	0	1922	1151	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	51	0	2089	1251	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	630	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	422	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	422	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	422	-	-
HCM Lane V/C Ratio	-	0.121	-	-
HCM Control Delay (s)	-	14.7	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	878	0	51	462	0	16
Future Vol, veh/h	878	0	51	462	0	16
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	954	0	55	502	0	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	954	0	1566	954
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	612	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	716	-	122	312
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	539	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	716	-	113	312
Mov Cap-2 Maneuver	-	-	-	-	113	-
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	497	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	17.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	312	-	-	716	-
HCM Lane V/C Ratio	0.056	-	-	0.077	-
HCM Control Delay (s)	17.2	-	-	10.4	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	878	13	0	462	14	0
Future Vol, veh/h	878	13	0	462	14	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	954	14	0	502	15	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1463	961
Stage 1	-	-	-	-	961	-
Stage 2	-	-	-	-	502	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	141	310
Stage 1	-	-	0	-	370	-
Stage 2	-	-	0	-	606	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	141	310
Mov Cap-2 Maneuver	-	-	-	-	141	-
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	606	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	33.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	141	-	-	-	-
HCM Lane V/C Ratio	0.108	-	-	-	-
HCM Control Delay (s)	33.6	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	19	1991	97	0	1176
Future Vol, veh/h	0	19	1991	97	0	1176
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	94	94	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	28	2118	103	0	1278

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1121	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	171	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	170	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30.4	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	170	-
HCM Lane V/C Ratio	-	-	0.167	-
HCM Control Delay (s)	-	-	30.4	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.6	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	28	0	0	0	20	2880	0	0	941	20
Future Volume (veh/h)	13	0	28	0	0	0	20	2880	0	0	941	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	18	0	38	0	0	0	21	3000	0	0	1023	22
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.73	0.73	0.73	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	255	36	452	0	803	0	60	1413	0	0	1068	23
Arrive On Green	0.44	0.00	0.44	0.00	0.00	0.00	0.03	0.40	0.00	0.00	0.30	0.30
Sat Flow, veh/h	409	82	1037	0	1845	0	1757	3597	0	0	3599	75
Grp Volume(v), veh/h	56	0	0	0	0	0	21	3000	0	0	511	534
Grp Sat Flow(s),veh/h/ln	1529	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.7	25.0	0.0	0.0	17.8	17.8
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	0.0	0.7	25.0	0.0	0.0	17.8	17.8
Prop In Lane	0.32		0.68	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	742	0	0	0	803	0	60	1413	0	0	534	557
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.35	2.12	0.00	0.00	0.96	0.96
Avail Cap(c_a), veh/h	742	0	0	0	803	0	198	1413	0	0	534	557
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	29.3	18.5	0.0	0.0	21.2	21.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	1.3	507.6	0.0	0.0	29.9	29.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	0.0	0.4	111.6	0.0	0.0	13.0	13.4
LnGrp Delay(d),s/veh	10.4	0.0	0.0	0.0	0.0	0.0	30.5	526.1	0.0	0.0	51.1	50.3
LnGrp LOS	B						C	F			D	D
Approach Vol, veh/h		56			0			3021			1045	
Approach Delay, s/veh		10.4			0.0			522.7			50.7	
Approach LOS		B						F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		30.4		31.6	6.1	24.3		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		25.0		27.0	7.0	* 14		27.0
Max Q Clear Time (g_c+I1), s		27.0		3.2	2.7	19.8		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	396.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	12	30	0	30	7	2863	51	37	938	1
Future Volume (veh/h)	2	0	12	30	0	30	7	2863	51	37	938	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	5	0	28	42	0	0	7	2952	0	40	1020	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.43	0.43	0.43	0.72	0.72	0.72	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	114	37	472	605	0	556	29	1245	557	113	1412	0
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.00	0.02	0.36	0.00	0.06	0.40	0.00
Sat Flow, veh/h	134	103	1329	1378	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	33	0	0	42	0	0	7	2952	0	40	1020	0
Grp Sat Flow(s),veh/h/ln	1567	0	0	1378	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22.0	0.0	1.4	15.2	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.0	0.0	0.0	0.2	22.0	0.0	1.4	15.2	0.0
Prop In Lane	0.15		0.85	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	623	0	0	605	0	556	29	1245	557	113	1412	0
V/C Ratio(X)	0.05	0.00	0.00	0.07	0.00	0.00	0.24	2.37	0.00	0.35	0.72	0.00
Avail Cap(c_a), veh/h	623	0	0	605	0	556	255	1245	557	227	1412	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.2	0.0	0.0	13.2	0.0	0.0	30.1	20.0	0.0	27.8	15.6	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	0.1	617.5	0.0	0.7	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.5	0.0	0.0	0.1	117.3	0.0	0.7	7.9	0.0
LnGrp Delay(d),s/veh	13.3	0.0	0.0	13.4	0.0	0.0	30.2	637.5	0.0	28.5	18.8	0.0
LnGrp LOS	B			B			C	F		C	B	
Approach Vol, veh/h		33			42			2959			1060	
Approach Delay, s/veh		13.3			13.4			636.1			19.2	
Approach LOS		B			B			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	30.4		26.6	8.0	27.4		26.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 17		22.0	8.0	18.0		22.0
Max Q Clear Time (g_c+I1), s	2.2	17.2		2.8	3.4	24.0		3.0
Green Ext Time (p_c), s	0.0	0.1		0.1	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	465.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	108	147	2918	959	34
Future Volume (veh/h)	22	108	147	2918	959	34
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	24	0	155	3072	1009	36
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	480	428	186	2194	1683	737
Arrive On Green	0.27	0.00	0.11	0.63	0.48	0.48
Sat Flow, veh/h	1757	1568	1757	3597	3597	1535
Grp Volume(v), veh/h	24	0	155	3072	1009	36
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1535
Q Serve(g_s), s	1.0	0.0	8.7	62.6	21.0	1.2
Cycle Q Clear(g_c), s	1.0	0.0	8.7	62.6	21.0	1.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	480	428	186	2194	1683	737
V/C Ratio(X)	0.05	0.00	0.83	1.40	0.60	0.05
Avail Cap(c_a), veh/h	480	428	264	2194	1683	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.71	0.71
Uniform Delay (d), s/veh	26.8	0.0	43.8	18.7	19.0	13.8
Incr Delay (d2), s/veh	0.2	0.0	10.3	182.9	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	4.8	85.6	10.4	0.5
LnGrp Delay(d),s/veh	27.0	0.0	54.2	201.6	20.1	13.9
LnGrp LOS	C		D	F	C	B
Approach Vol, veh/h	24			3227	1045	
Approach Delay, s/veh	27.0			194.5	19.9	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.6	53.4				68.0		32.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	15.6	* 44				62.6		27.3
Max Q Clear Time (g_c+I1), s	10.7	23.0				64.6		3.0
Green Ext Time (p_c), s	0.1	9.8				0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	151.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1	75	37	0	20	125	2985	53	15	1003	41
Future Volume (veh/h)	59	1	75	37	0	20	125	2985	53	15	1003	41
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	73	1	0	54	0	29	129	3077	55	16	1090	45
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.81	0.81	0.81	0.68	0.68	0.68	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	358	4	265	242	19	89	209	2058	900	45	1398	612
Arrive On Green	0.17	0.17	0.00	0.17	0.00	0.17	0.13	0.59	0.59	0.03	0.49	0.49
Sat Flow, veh/h	1437	25	1568	866	114	527	1616	3505	1533	1433	2859	1251
Grp Volume(v), veh/h	74	0	0	83	0	0	129	3077	55	16	1090	45
Grp Sat Flow(s),veh/h/ln	1462	0	1568	1507	0	0	1616	1752	1533	1433	1430	1251
Q Serve(g_s), s	0.0	0.0	0.0	0.4	0.0	0.0	4.7	36.4	1.0	0.7	19.5	1.2
Cycle Q Clear(g_c), s	2.3	0.0	0.0	2.6	0.0	0.0	4.7	36.4	1.0	0.7	19.5	1.2
Prop In Lane	0.99		1.00	0.65		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	0	265	350	0	0	209	2058	900	45	1398	612
V/C Ratio(X)	0.20	0.00	0.00	0.24	0.00	0.00	0.62	1.50	0.06	0.36	0.78	0.07
Avail Cap(c_a), veh/h	616	0	556	618	0	0	235	2058	900	185	1398	612
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	0.0	0.0	22.5	0.0	0.0	25.5	12.8	5.5	29.4	13.1	8.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.2	223.1	0.0	1.8	4.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.3	0.0	0.0	2.1	80.9	0.4	0.3	8.4	0.4
LnGrp Delay(d),s/veh	22.5	0.0	0.0	22.6	0.0	0.0	25.7	235.9	5.5	31.2	17.5	8.6
LnGrp LOS	C			C			C	F	A	C	B	A
Approach Vol, veh/h		74			83			3261			1151	
Approach Delay, s/veh		22.5			22.6			223.7			17.3	
Approach LOS		C			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	35.4		14.6	5.9	41.5		14.6
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	8.0	17.8		22.0	8.0	18.8		22.0
Max Q Clear Time (g_c+I1), s	10.7	21.5		4.6	2.7	38.4		4.3
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	164.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	913	140	28	185	97	315	103	1777	145	184	835	235
Future Volume (veh/h)	913	140	28	185	97	315	103	1777	145	184	835	235
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	982	151	30	155	174	346	106	1832	149	202	918	258
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	957	418	83	169	178	148	91	1399	611	123	1207	532
Arrive On Green	0.28	0.28	0.28	0.10	0.10	0.10	0.05	0.40	0.40	0.09	0.44	0.44
Sat Flow, veh/h	3408	1490	296	1757	1845	1539	1757	3505	1530	1387	2767	1220
Grp Volume(v), veh/h	982	0	181	155	174	346	106	1832	149	202	918	258
Grp Sat Flow(s),veh/h/ln	1704	0	1786	1757	1845	1539	1757	1752	1530	1387	1383	1220
Q Serve(g_s), s	37.9	0.0	11.0	11.8	12.7	13.0	7.0	53.9	8.8	12.0	37.8	20.4
Cycle Q Clear(g_c), s	37.9	0.0	11.0	11.8	12.7	13.0	7.0	53.9	8.8	12.0	37.8	20.4
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	957	0	501	169	178	148	91	1399	611	123	1207	532
V/C Ratio(X)	1.03	0.00	0.36	0.92	0.98	2.34	1.16	1.31	0.24	1.64	0.76	0.48
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1399	611	123	1207	532
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.68	0.68	0.68
Uniform Delay (d), s/veh	48.5	0.0	38.9	60.5	60.9	61.0	64.0	40.5	27.0	61.5	32.1	27.2
Incr Delay (d2), s/veh	36.0	0.0	0.2	44.9	61.1	621.4	145.0	144.4	0.9	310.8	3.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.6	0.0	5.4	7.8	9.5	31.1	7.1	54.1	3.8	15.2	14.9	7.2
LnGrp Delay(d),s/veh	84.5	0.0	39.0	105.4	122.0	682.4	209.0	184.9	27.9	372.3	35.2	29.3
LnGrp LOS	F		D	F	F	F	F	F	C	F	D	C
Approach Vol, veh/h		1163			675			2087			1378	
Approach Delay, s/veh		77.5			405.4			174.9			83.5	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	64.0		17.0	16.0	59.0		43.0
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.0	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	9.0	39.8		15.0	14.0	55.9		39.9
Green Ext Time (p_c), s	0.0	9.7		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	159.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	664	384	0	0	0	234	705	328	0	566	395
Future Volume (veh/h)	312	664	384	0	0	0	234	705	328	0	566	395
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	322	685	396				244	734	0	0	622	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	616	750	433				75	1701	761	0	1315	588
Arrive On Green	0.35	0.35	0.35				0.04	0.49	0.00	0.00	0.38	0.00
Sat Flow, veh/h	1757	2141	1236				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	322	561	520				244	734	0	0	622	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1624				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	10.2	21.4	21.4				3.0	9.5	0.0	0.0	9.4	0.0
Cycle Q Clear(g_c), s	10.2	21.4	21.4				3.0	9.5	0.0	0.0	9.4	0.0
Prop In Lane	1.00		0.76				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	616	614	569				75	1701	761	0	1315	588
V/C Ratio(X)	0.52	0.91	0.91				3.24	0.43	0.00	0.00	0.47	0.00
Avail Cap(c_a), veh/h	753	751	696				75	1701	761	0	1315	588
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.65	0.65	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	18.1	21.7	21.7				33.5	11.7	0.0	0.0	16.6	0.0
Incr Delay (d2), s/veh	0.3	12.4	13.4				1030.2	0.5	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	12.4	11.7				23.0	4.7	0.0	0.0	4.8	0.0
LnGrp Delay(d),s/veh	18.3	34.1	35.1				1063.7	12.3	0.0	0.0	17.8	0.0
LnGrp LOS	B	C	D				F	B			B	
Approach Vol, veh/h		1403						978			622	
Approach Delay, s/veh		30.9						274.6			17.8	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		39.4		30.6	7.7	31.7		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		11.5		23.4	5.0	11.4		
Green Ext Time (p_c), s		3.1		1.0	0.0	1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	107.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	81	224	27	0	125	0	1043	26	176	765	0
Future Volume (veh/h)	74	81	224	27	0	125	0	1043	26	176	765	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	82	90	249	35	0	162	0	1110	28	189	823	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	201	220	365	0	0	0	0	1728	44	186	1943	0
Arrive On Green	0.23	0.23	0.23	0.00	0.00	0.00	0.00	0.34	0.34	0.11	0.55	0.00
Sat Flow, veh/h	859	943	1562		0		0	5215	127	1757	3597	0
Grp Volume(v), veh/h	172	0	249		0.0		0	738	400	189	823	0
Grp Sat Flow(s),veh/h/ln	1802	0	1562				0	1679	1819	1757	1752	0
Q Serve(g_s), s	3.1	0.0	5.5				0.0	7.0	7.0	4.0	5.2	0.0
Cycle Q Clear(g_c), s	3.1	0.0	5.5				0.0	7.0	7.0	4.0	5.2	0.0
Prop In Lane	0.48		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	421	0	365				0	1149	622	186	1943	0
V/C Ratio(X)	0.41	0.00	0.68				0.00	0.64	0.64	1.01	0.42	0.00
Avail Cap(c_a), veh/h	812	0	704				0	1425	772	186	2231	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	13.2				0.0	10.5	10.5	16.9	4.9	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.3				0.0	0.7	1.3	69.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	2.6				0.0	3.3	3.7	5.5	2.4	0.0
LnGrp Delay(d),s/veh	12.9	0.0	15.4				0.0	11.1	11.7	86.6	5.0	0.0
LnGrp LOS	B		B					B	B	F	A	
Approach Vol, veh/h		421						1138			1012	
Approach Delay, s/veh		14.4						11.3			20.3	
Approach LOS		B						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		12.8		24.9			8.0	16.9
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		7.5		7.2			6.0	9.0
Green Ext Time (p_c), s		1.3		5.2			0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	55.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	986	70	79	331	9	43	8	108	3	13	12
Future Vol, veh/h	29	986	70	79	331	9	43	8	108	3	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	83	83	83	82	82	82	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	1096	78	95	399	11	52	10	132	5	22	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	410	0	0	1174	0	0	1815	1799	1135	1799	1833	405
Stage 1	-	-	-	-	-	-	1199	1199	-	595	595	-
Stage 2	-	-	-	-	-	-	616	600	-	1204	1238	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1143	-	-	591	-	-	60	79	245	62	76	644
Stage 1	-	-	-	-	-	-	225	257	-	489	491	-
Stage 2	-	-	-	-	-	-	476	488	-	224	247	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1143	-	-	591	-	-	~ 37	64	245	22	62	644
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 37	64	-	22	62	-
Stage 1	-	-	-	-	-	-	219	250	-	475	412	-
Stage 2	-	-	-	-	-	-	367	409	-	97	240	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.3	$ 528.1	106.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	100	1143	-	-	591	-	-	77
HCM Lane V/C Ratio	1.939	0.028	-	-	0.161	-	-	0.606
HCM Control Delay (s)	$ 528.1	8.2	-	-	12.3	-	-	106.7
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	16.2	0.1	-	-	0.6	-	-	2.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	807	1239	106	274	3	284	17	258	10	16	6
Future Volume (veh/h)	16	807	1239	106	274	3	284	17	258	10	16	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	17	849	0	123	319	3	312	0	0	13	21	8
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.95	0.95	0.95	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	41	928	789	157	1039	10	435	0	194	53	85	33
Arrive On Green	0.02	0.50	0.00	0.09	0.57	0.57	0.12	0.00	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1757	1845	1568	1757	1824	17	3514	0	1568	543	877	334
Grp Volume(v), veh/h	17	849	0	123	0	322	312	0	0	42	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1842	1757	0	1568	1754	0	0
Q Serve(g_s), s	0.8	36.4	0.0	5.9	0.0	7.8	7.3	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	0.8	36.4	0.0	5.9	0.0	7.8	7.3	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.31		0.19
Lane Grp Cap(c), veh/h	41	928	789	157	0	1049	435	0	194	171	0	0
V/C Ratio(X)	0.42	0.91	0.00	0.78	0.00	0.31	0.72	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	408	1072	911	408	0	1070	1225	0	547	612	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.4	19.7	0.0	38.3	0.0	9.7	36.2	0.0	0.0	35.9	0.0	0.0
Incr Delay (d2), s/veh	6.6	10.9	0.0	8.3	0.0	0.2	2.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	21.2	0.0	3.2	0.0	4.0	3.7	0.0	0.0	1.0	0.0	0.0
LnGrp Delay(d),s/veh	48.0	30.5	0.0	46.6	0.0	9.8	38.5	0.0	0.0	36.6	0.0	0.0
LnGrp LOS	D	C		D		A	D			D		
Approach Vol, veh/h		866			445			312			42	
Approach Delay, s/veh		30.9			20.0			38.5			36.6	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.7	11.7	47.3		12.4	6.0	53.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		9.3	7.9	38.4		3.9	2.8	9.8
Green Ext Time (p_c), s		1.0	0.2	4.9		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1304	313	242	307	7	561	0	738	20	3	12
Future Volume (veh/h)	14	1304	313	242	307	7	561	0	738	20	3	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	15	1373	329	260	330	8	597	0	785	27	4	16
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.94	0.94	0.94	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	33	1200	519	241	1611	39	722	0	1074	200	30	119
Arrive On Green	0.02	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1516	1757	3497	85	3514	0	3136	973	144	577
Grp Volume(v), veh/h	15	1373	329	260	165	173	597	0	785	47	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1516	1757	1752	1829	1757	0	1568	1694	0	0
Q Serve(g_s), s	1.2	50.0	26.6	20.0	8.2	8.2	23.7	0.0	30.0	3.3	0.0	0.0
Cycle Q Clear(g_c), s	1.2	50.0	26.6	20.0	8.2	8.2	23.7	0.0	30.0	3.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	0.57		0.34
Lane Grp Cap(c), veh/h	33	1200	519	241	807	843	722	0	1074	348	0	0
V/C Ratio(X)	0.46	1.14	0.63	1.08	0.20	0.21	0.83	0.00	0.73	0.14	0.00	0.00
Avail Cap(c_a), veh/h	241	1200	519	241	807	843	722	0	1074	348	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	70.9	48.0	40.3	63.0	23.4	23.4	55.5	0.0	42.1	47.4	0.0	0.0
Incr Delay (d2), s/veh	9.5	75.0	2.5	81.0	0.1	0.1	10.5	0.0	4.4	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	36.7	11.5	15.1	4.0	4.2	12.6	0.0	14.5	1.6	0.0	0.0
LnGrp Delay(d),s/veh	80.4	123.0	42.8	144.0	23.6	23.6	66.0	0.0	46.5	48.2	0.0	0.0
LnGrp LOS	F	F	D	F	C	C	E		D	D		
Approach Vol, veh/h		1717			598			1382			47	
Approach Delay, s/veh		107.3			75.9			54.9			48.2	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	54.0		34.0	6.7	71.3
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		32.0	22.0	52.0		5.3	3.2	10.2
Green Ext Time (p_c), s		0.0	0.0	0.0		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	82.2
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	2041	973	11
Future Vol, veh/h	0	33	0	2041	973	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	36	0	2218	1058	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	535	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	487	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	487	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	487	-	-
HCM Lane V/C Ratio	-	0.074	-	-
HCM Control Delay (s)	-	13	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1067	0	92	364	0	22
Future Vol, veh/h	1067	0	92	364	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1160	0	100	396	0	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1160	0	1756	1160
Stage 1	-	-	-	-	1160	-
Stage 2	-	-	-	-	596	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	599	-	93	237
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	548	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	599	-	77	237
Mov Cap-2 Maneuver	-	-	-	-	77	-
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	456	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	21.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	237	-	-	599	-
HCM Lane V/C Ratio	0.101	-	-	0.167	-
HCM Control Delay (s)	21.9	-	-	12.2	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.6	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1067	22	0	364	12	0
Future Vol, veh/h	1067	22	0	364	12	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1160	24	0	396	13	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1568	1172
Stage 1	-	-	-	-	1172	-
Stage 2	-	-	-	-	396	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	121	233
Stage 1	-	-	0	-	293	-
Stage 2	-	-	0	-	678	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	121	233
Mov Cap-2 Maneuver	-	-	-	-	121	-
Stage 1	-	-	-	-	293	-
Stage 2	-	-	-	-	678	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	38.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	121	-	-	-	-
HCM Lane V/C Ratio	0.108	-	-	-	-
HCM Control Delay (s)	38.3	0	-	-	-
HCM Lane LOS	E	A	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	2158	53	0	995
Future Vol, veh/h	0	14	2158	53	0	995
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	98	98	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	23	2202	54	0	1157

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1132	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	168	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	167	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	167	-
HCM Lane V/C Ratio	-	-	0.14	-
HCM Control Delay (s)	-	-	30	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	93	45	213	139	61	164	715	239	131	1683	886
Future Volume (veh/h)	241	93	45	213	139	61	164	715	239	131	1683	886
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.90	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	402	155	75	238	258	82	228	993	332	144	1898	941
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	560	187	91	267	280	215	199	1564	666	161	1308	540
Arrive On Green	0.16	0.16	0.16	0.15	0.15	0.15	0.11	0.45	0.45	0.08	0.30	0.30
Sat Flow, veh/h	3408	1140	552	1757	1845	1417	1757	3505	1492	1387	2913	1202
Grp Volume(v), veh/h	402	0	230	238	258	82	228	993	332	144	1898	941
Grp Sat Flow(s),veh/h/ln	1704	0	1692	1757	1845	1417	1757	1752	1492	1387	1456	1202
Q Serve(g_s), s	16.8	0.0	19.7	19.9	20.7	7.8	17.0	32.8	23.8	15.4	67.4	67.4
Cycle Q Clear(g_c), s	16.8	0.0	19.7	19.9	20.7	7.8	17.0	32.8	23.8	15.4	67.4	67.4
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	560	0	278	267	280	215	199	1564	666	161	1308	540
V/C Ratio(X)	0.72	0.00	0.83	0.89	0.92	0.38	1.15	0.63	0.50	0.89	1.45	1.74
Avail Cap(c_a), veh/h	611	0	303	269	283	217	199	1564	666	185	1308	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	59.4	0.0	60.6	62.4	62.7	57.3	66.5	32.1	29.6	68.2	52.4	52.4
Incr Delay (d2), s/veh	3.0	0.0	14.4	28.0	32.8	0.4	108.3	2.0	2.7	4.6	203.2	334.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	10.3	11.8	13.1	3.1	14.2	16.3	10.3	6.1	64.1	72.6
LnGrp Delay(d),s/veh	62.3	0.0	75.1	90.4	95.6	57.7	174.8	34.1	32.2	72.8	255.7	387.3
LnGrp LOS	E		E	F	F	E	F	C	C	E	F	F
Approach Vol, veh/h		632			578			1553			2983	
Approach Delay, s/veh		67.0			88.1			54.3			288.4	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	72.5		26.8	21.4	72.0		29.8
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	19.0	69.4		22.7	17.4	34.8		21.7
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	13.2		0.9

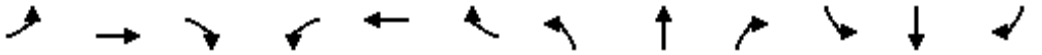
Intersection Summary	
HCM 2010 Ctrl Delay	180.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	346	45	154	877	6	52	6	53	14	9	27
Future Volume (veh/h)	10	346	45	154	877	6	52	6	53	14	9	27
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	0.99		1.00	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	13	444	58	181	1032	7	87	10	0	18	12	35
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.78	0.78	0.78	0.85	0.85	0.85	0.60	0.60	0.60	0.77	0.77	0.77
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	324	1094	143	674	1252	8	324	21	0	149	53	105
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.12	0.12	0.00	0.12	0.12	0.12
Sat Flow, veh/h	536	1599	209	884	1830	12	1308	178	0	304	448	877
Grp Volume(v), veh/h	13	0	502	181	0	1039	97	0	0	65	0	0
Grp Sat Flow(s),veh/h/ln	536	0	1808	884	0	1842	1486	0	0	1628	0	0
Q Serve(g_s), s	0.7	0.0	4.9	4.6	0.0	16.6	0.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	17.4	0.0	4.9	9.5	0.0	16.6	2.3	0.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		0.12	1.00		0.01	0.90		0.00	0.28		0.54
Lane Grp Cap(c), veh/h	324	0	1237	674	0	1260	345	0	0	307	0	0
V/C Ratio(X)	0.04	0.00	0.41	0.27	0.00	0.82	0.28	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	432	0	1599	852	0	1630	720	0	0	730	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.9	0.0	2.8	4.9	0.0	4.7	16.7	0.0	0.0	16.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.2	0.2	0.0	2.8	0.4	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	2.4	1.1	0.0	9.1	1.1	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d),s/veh	11.0	0.0	3.0	5.1	0.0	7.5	17.2	0.0	0.0	16.8	0.0	0.0
LnGrp LOS	B		A	A		A	B			B		
Approach Vol, veh/h		515			1220			97			65	
Approach Delay, s/veh		3.2			7.1			17.2			16.8	
Approach LOS		A			A			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.9		31.8		8.9		31.8
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		36.0		16.0		36.0
Max Q Clear Time (g_c+I1), s		4.3		19.4		3.4		18.6
Green Ext Time (p_c), s		0.3		3.2		0.2		9.2

Intersection Summary	
HCM 2010 Ctrl Delay	6.9
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	684	138	72	186	112	153	99	1722	159	170	883	317
Future Volume (veh/h)	684	138	72	186	112	153	99	1722	159	170	883	317
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	834	168	88	184	202	189	106	1852	171	212	1104	396
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	232	121	142	149	107	126	1590	685	155	1438	575
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.07	0.45	0.45	0.11	0.49	0.49
Sat Flow, veh/h	3408	1115	584	1757	1845	1329	1757	3505	1511	1387	2913	1165
Grp Volume(v), veh/h	834	0	256	184	202	189	106	1852	171	212	1104	396
Grp Sat Flow(s),veh/h/ln	1704	0	1698	1757	1845	1329	1757	1752	1511	1387	1456	1165
Q Serve(g_s), s	26.0	0.0	17.6	10.1	10.1	10.1	7.4	56.7	8.7	14.0	38.6	32.6
Cycle Q Clear(g_c), s	26.0	0.0	17.6	10.1	10.1	10.1	7.4	56.7	8.7	14.0	38.6	32.6
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	353	142	149	107	126	1590	685	155	1438	575
V/C Ratio(X)	1.18	0.00	0.72	1.30	1.36	1.76	0.84	1.16	0.25	1.36	0.77	0.69
Avail Cap(c_a), veh/h	709	0	353	142	149	107	126	1590	685	155	1438	575
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	46.2	57.5	57.5	57.4	57.3	34.1	21.0	55.5	25.8	24.3
Incr Delay (d2), s/veh	93.7	0.0	6.3	175.5	197.2	377.1	34.9	81.5	0.9	199.8	4.0	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.4	0.0	8.9	11.8	13.3	15.0	4.8	45.4	3.8	14.0	16.3	11.5
LnGrp Delay(d),s/veh	143.2	0.0	52.5	232.9	254.7	434.5	92.2	115.6	21.9	255.3	29.8	30.9
LnGrp LOS	F		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1090			575			2129			1712	
Approach Delay, s/veh		121.9			306.8			107.0			58.0	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	13.0	66.8		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	16.0	58.7		12.1	9.4	40.6		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	13.0		0.0

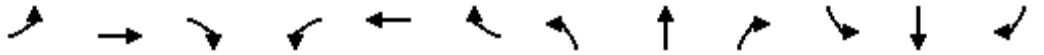
Intersection Summary		
HCM 2010 Ctrl Delay		115.6
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	875	65	72	334	5	38	10	141	13	8	19
Future Volume (veh/h)	12	875	65	72	334	5	38	10	141	13	8	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	15	1122	83	87	402	6	48	12	0	20	12	29
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.78	0.78	0.78	0.83	0.83	0.83	0.80	0.80	0.80	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	823	1320	98	291	1412	21	213	23	0	121	30	57
Arrive On Green	0.78	0.78	0.78	0.78	0.78	0.78	0.07	0.07	0.00	0.07	0.07	0.07
Sat Flow, veh/h	964	1694	125	458	1813	27	1266	316	0	443	413	776
Grp Volume(v), veh/h	15	0	1205	87	0	408	60	0	0	61	0	0
Grp Sat Flow(s),veh/h/ln	964	0	1819	458	0	1840	1582	0	0	1631	0	0
Q Serve(g_s), s	0.2	0.0	23.5	8.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.7	0.0	23.5	31.9	0.0	3.4	1.8	0.0	0.0	1.8	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.01	0.80		0.00	0.33		0.48
Lane Grp Cap(c), veh/h	823	0	1417	291	0	1433	236	0	0	208	0	0
V/C Ratio(X)	0.02	0.00	0.85	0.30	0.00	0.28	0.25	0.00	0.00	0.29	0.00	0.00
Avail Cap(c_a), veh/h	1243	0	2211	490	0	2236	550	0	0	546	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.2	0.0	3.9	14.4	0.0	1.7	24.1	0.0	0.0	24.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.0	0.6	0.0	0.1	0.6	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	11.8	1.1	0.0	1.7	0.9	0.0	0.0	0.9	0.0	0.0
LnGrp Delay(d),s/veh	2.2	0.0	5.9	14.9	0.0	1.8	24.7	0.0	0.0	24.9	0.0	0.0
LnGrp LOS	A		A	B		A	C			C		
Approach Vol, veh/h		1220			495			60			61	
Approach Delay, s/veh		5.9			4.1			24.7			24.9	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.0		46.3		8.0		46.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		66.0		16.0		66.0
Max Q Clear Time (g_c+I1), s		3.8		25.5		3.8		33.9
Green Ext Time (p_c), s		0.2		16.8		0.2		4.3

Intersection Summary	
HCM 2010 Ctrl Delay	6.7
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	913	140	28	185	97	315	103	1777	145	184	835	235
Future Volume (veh/h)	913	140	28	185	97	315	103	1777	145	184	835	235
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	982	151	30	155	174	346	106	1832	149	202	918	258
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	957	418	83	169	178	148	91	1399	611	123	1271	532
Arrive On Green	0.28	0.28	0.28	0.10	0.10	0.10	0.05	0.40	0.40	0.09	0.44	0.44
Sat Flow, veh/h	3408	1490	296	1757	1845	1539	1757	3505	1530	1387	2913	1220
Grp Volume(v), veh/h	982	0	181	155	174	346	106	1832	149	202	918	258
Grp Sat Flow(s),veh/h/ln	1704	0	1786	1757	1845	1539	1757	1752	1530	1387	1456	1220
Q Serve(g_s), s	37.9	0.0	11.0	11.8	12.7	13.0	7.0	53.9	8.8	12.0	35.0	20.4
Cycle Q Clear(g_c), s	37.9	0.0	11.0	11.8	12.7	13.0	7.0	53.9	8.8	12.0	35.0	20.4
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	957	0	501	169	178	148	91	1399	611	123	1271	532
V/C Ratio(X)	1.03	0.00	0.36	0.92	0.98	2.34	1.16	1.31	0.24	1.64	0.72	0.48
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1399	611	123	1271	532
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.68	0.68	0.68
Uniform Delay (d), s/veh	48.5	0.0	38.9	60.5	60.9	61.0	64.0	40.5	27.0	61.5	31.3	27.2
Incr Delay (d2), s/veh	36.0	0.0	0.2	44.9	61.1	621.4	145.0	144.4	0.9	310.8	2.5	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.6	0.0	5.4	7.8	9.5	31.1	7.1	54.1	3.8	15.2	14.5	7.2
LnGrp Delay(d),s/veh	84.5	0.0	39.0	105.4	122.0	682.4	209.0	184.9	27.9	372.3	33.8	29.3
LnGrp LOS	F		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1163			675			2087			1378	
Approach Delay, s/veh		77.5			405.4			174.9			82.6	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	64.0		17.0	16.0	59.0		43.0
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.0	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	9.0	37.0		15.0	14.0	55.9		39.9
Green Ext Time (p_c), s	0.0	10.4		0.0	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		158.9
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	986	70	79	331	9	43	8	108	3	13	12
Future Volume (veh/h)	29	986	70	79	331	9	43	8	108	3	13	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	32	1096	78	95	399	11	52	10	0	5	22	20
Adj No. of Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.83	0.83	0.83	0.82	0.82	0.82	0.60	0.60	0.60
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	814	1306	93	303	1373	38	227	19	0	86	66	56
Arrive On Green	0.77	0.77	0.77	0.77	0.77	0.77	0.08	0.08	0.00	0.08	0.08	0.08
Sat Flow, veh/h	962	1699	121	471	1787	49	1283	247	0	117	859	723
Grp Volume(v), veh/h	32	0	1174	95	0	410	62	0	0	47	0	0
Grp Sat Flow(s),veh/h/ln	962	0	1820	471	0	1836	1529	0	0	1699	0	0
Q Serve(g_s), s	0.5	0.0	21.8	8.5	0.0	3.5	0.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.0	0.0	21.8	30.4	0.0	3.5	1.8	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.03	0.84		0.00	0.11		0.43
Lane Grp Cap(c), veh/h	814	0	1399	303	0	1411	246	0	0	208	0	0
V/C Ratio(X)	0.04	0.00	0.84	0.31	0.00	0.29	0.25	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	1280	0	2280	531	0	2300	598	0	0	624	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.4	0.0	3.9	13.8	0.0	1.8	22.9	0.0	0.0	22.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.6	0.6	0.0	0.1	0.5	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	11.0	1.2	0.0	1.8	0.9	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d),s/veh	2.4	0.0	5.5	14.4	0.0	1.9	23.4	0.0	0.0	23.3	0.0	0.0
LnGrp LOS	A		A	B		A	C			C		
Approach Vol, veh/h		1206			505			62			47	
Approach Delay, s/veh		5.4			4.3			23.4			23.3	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.0		43.9		8.0		43.9
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		17.0		65.0		17.0		65.0
Max Q Clear Time (g_c+I1), s		3.8		23.8		3.3		32.4
Green Ext Time (p_c), s		0.2		16.1		0.1		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	6.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	93	45	213	139	61	164	715	239	131	1683	886
Future Volume (veh/h)	241	93	45	213	139	61	164	715	239	131	1683	886
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.87	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	402	155	75	238	258	82	228	993	332	144	1849	974
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	559	187	91	199	209	155	164	1700	726	161	1405	612
Arrive On Green	0.16	0.16	0.16	0.11	0.11	0.11	0.09	0.49	0.49	0.12	0.51	0.51
Sat Flow, veh/h	3408	1140	552	1757	1845	1372	1757	3505	1496	1387	2767	1205
Grp Volume(v), veh/h	402	0	230	238	258	82	228	993	332	144	1849	974
Grp Sat Flow(s),veh/h/ln	1704	0	1692	1757	1845	1372	1757	1752	1496	1387	1383	1205
Q Serve(g_s), s	16.8	0.0	19.7	17.0	17.0	8.5	14.0	30.5	22.0	15.4	76.2	76.2
Cycle Q Clear(g_c), s	16.8	0.0	19.7	17.0	17.0	8.5	14.0	30.5	22.0	15.4	76.2	76.2
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	559	0	278	199	209	155	164	1700	726	161	1405	612
V/C Ratio(X)	0.72	0.00	0.83	1.20	1.23	0.53	1.39	0.58	0.46	0.89	1.32	1.59
Avail Cap(c_a), veh/h	591	0	293	199	209	155	164	1700	726	240	1405	612
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	59.4	0.0	60.6	66.5	66.5	62.7	68.0	27.8	25.6	65.4	36.9	36.9
Incr Delay (d2), s/veh	3.3	0.0	15.7	126.4	139.6	1.7	208.6	1.5	2.1	2.1	142.6	267.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	10.4	15.2	16.8	3.3	16.3	15.1	9.5	6.0	56.9	70.7
LnGrp Delay(d),s/veh	62.7	0.0	76.3	192.9	206.1	64.4	276.6	29.2	27.6	67.5	179.5	304.1
LnGrp LOS	E		E	F	F	E	F	C	C	E	F	F
Approach Vol, veh/h		632			578			1553			2967	
Approach Delay, s/veh		67.7			180.5			65.2			214.9	
Approach LOS		E			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	81.3		21.0	21.4	77.9		29.7
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	74.8		17.0	26.0	62.8		26.0
Max Q Clear Time (g_c+I1), s	16.0	78.2		19.0	17.4	32.5		21.7
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	14.0		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	154.6
HCM 2010 LOS	F

Notes

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	11188	11073	11029	11130	11080	11095
Vehs Exited	10968	10893	10773	10795	10834	10850
Starting Vehs	582	593	543	531	558	553
Ending Vehs	802	773	799	866	804	802
Travel Distance (mi)	7322	7229	7313	7263	7320	7289
Travel Time (hr)	1962.9	2017.1	2120.6	2064.9	2003.1	2033.7
Total Delay (hr)	1721.1	1778.1	1879.2	1825.1	1761.0	1792.9
Total Stops	24970	22942	25275	26033	25487	24945
Fuel Used (gal)	656.3	665.1	690.3	677.2	664.6	670.7

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	11188	11073	11029	11130	11080	11095
Vehs Exited	10968	10893	10773	10795	10834	10850
Starting Vehs	582	593	543	531	558	553
Ending Vehs	802	773	799	866	804	802
Travel Distance (mi)	7322	7229	7313	7263	7320	7289
Travel Time (hr)	1962.9	2017.1	2120.6	2064.9	2003.1	2033.7
Total Delay (hr)	1721.1	1778.1	1879.2	1825.1	1761.0	1792.9
Total Stops	24970	22942	25275	26033	25487	24945
Fuel Used (gal)	656.3	665.1	690.3	677.2	664.6	670.7

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	61.9	452.6	0.1	5
SR 24 EB On Ramp	6	10.1	16.1	0.1	14
	17	1.4	6.2	0.1	40
	16	0.5	9.1	0.1	28
	15	0.8	9.7	0.1	40
Acalanes Avenue	14	1.7	9.8	0.1	23
Project Dwy	11	1.5	5.2	0.0	26
Stanley Boulevard	5	26.5	44.4	0.1	8
	37	3.5	11.4	0.1	26
Quandt Road	4	3.0	28.8	0.4	45
	20	3.5	12.3	0.1	29
Reliez Valle Road	3	9.8	13.0	0.0	9
Greenvalley Drive	2	5.2	27.3	0.3	33
	19	1.1	7.6	0.1	34
Rancho View Drive	1	15.0	27.8	0.1	19
Total		145.6	681.4	1.6	20

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	128.9	1618.6	0.2	4
	19	102.2	117.4	0.1	5
Greenvalley Drive	2	60.7	67.6	0.1	4
Reliez Valle Road	3	175.2	199.2	0.3	5
	20	10.6	14.2	0.0	8
Springhill Road	4	35.0	44.2	0.1	8
	37	71.1	108.1	0.4	12
Deer Hill Road	5	35.8	43.3	0.1	7
Project Dwy	11	3.0	11.4	0.1	25
Acalanes Avenue	14	1.2	5.2	0.0	26
	15	0.5	6.6	0.1	34
	16	3.2	12.1	0.1	32
	17	5.6	14.6	0.1	17
Mt. Diablo Boulevard	6	15.0	21.6	0.1	11
SR 24 EB Off Ramp	7	10.3	16.3	0.1	13
Total		658.3	2300.3	1.7	7

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	156.8	1598.6	0.1	2
First Street	9	21.2	29.9	0.1	9
Brown Avenue	8	4.4	40.4	0.3	29
	29	3.2	43.1	0.5	41
Project Dwy SW	13	0.1	2.2	0.0	48
Project Dwy NE	12	46.0	70.3	0.3	16
Pleasant Hill Road	5	87.1	306.2	0.1	2
Total		318.8	2090.7	1.4	11

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	2.1	9.3	0.1	23
Project Dwy SW	13	2.2	26.9	0.3	41
	29	0.2	3.8	0.0	28
Miller Drive	8	6.7	63.1	0.5	28
Sierra Vista Way	9	60.0	96.5	0.3	12
Laurel Drive	10	18.3	27.3	0.1	10
Total		89.5	226.9	1.3	20

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	88	123	199	205	829	834
Average Queue (ft)	29	13	116	130	798	797
95th Queue (ft)	67	62	183	191	820	819
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)					76	83
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			2			
Queuing Penalty (veh)			0			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	R	L	T	T	L	T	TR	T	T
Maximum Queue (ft)	53	215	118	26	123	116	119	394	404	753	763
Average Queue (ft)	16	105	7	2	28	45	19	356	359	658	664
95th Queue (ft)	44	186	59	12	81	93	83	428	426	998	997
Link Distance (ft)	333	494			1259	1259		288	288	725	725
Upstream Blk Time (%)								67	70	10	12
Queuing Penalty (veh)								889	932	129	159
Storage Bay Dist (ft)			125	76			95				
Storage Blk Time (%)		7	0		1		0	67			
Queuing Penalty (veh)		3	0		0		0	15			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	465	494	109	127	207	357	1299	1296	129
Average Queue (ft)	228	454	58	85	125	43	1259	1264	6
95th Queue (ft)	589	497	100	153	207	245	1355	1342	56
Link Distance (ft)	438	438			127	406	1259	1259	
Upstream Blk Time (%)	13	77	0	2	7	0	15	20	
Queuing Penalty (veh)	0	0	0	0	58	1	217	288	
Storage Bay Dist (ft)			230	230					130
Storage Blk Time (%)			0	2	7			64	0
Queuing Penalty (veh)			1	6	33			6	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20	B20
Directions Served	LTR	LTR	L	T	T	R	L	T	T	R	T	T
Maximum Queue (ft)	342	188	218	202	123	26	64	502	512	96	216	237
Average Queue (ft)	164	81	137	21	24	1	4	422	459	14	121	177
95th Queue (ft)	351	153	224	133	115	12	29	541	547	69	259	278
Link Distance (ft)	318	217		1832	1832			406	406		127	127
Upstream Blk Time (%)	6	0						11	25		7	45
Queuing Penalty (veh)	0	0						173	402		112	730
Storage Bay Dist (ft)			200			100	105			71		
Storage Blk Time (%)			7		0			31	32	0		
Queuing Penalty (veh)			28		0			3	26	0		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	250	225	552	175	321	388	357	168	274	437
Average Queue (ft)	90	121	225	139	523	88	218	241	231	70	105	256
95th Queue (ft)	142	139	255	285	538	208	328	362	327	126	233	433
Link Distance (ft)			220		504			342	342	342		351
Upstream Blk Time (%)			52		83		0	5	0			3
Queuing Penalty (veh)			223		0		0	20	1			30
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	10	43	45	0	83	1	14	6			1	14
Queuing Penalty (veh)	22	98	183	1	188	3	71	13			7	20

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB	SB	B37	B37
Directions Served	T	T	R	T	T
Maximum Queue (ft)	390	450	240	1578	1675
Average Queue (ft)	335	424	236	936	1110
95th Queue (ft)	402	457	266	1950	2060
Link Distance (ft)	351	351		1832	1832
Upstream Blk Time (%)	2	23		0	5
Queuing Penalty (veh)	18	253		6	79
Storage Bay Dist (ft)			180		
Storage Blk Time (%)		33	16		
Queuing Penalty (veh)		322	99		

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	221	162	188	264	202	245	105	153	158	286
Average Queue (ft)	106	89	90	164	81	122	71	69	70	123
95th Queue (ft)	179	144	161	260	173	224	146	128	126	247
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)				3		0		0	0	2
Queuing Penalty (veh)				18		1		0	0	11
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)						9	1			
Queuing Penalty (veh)						47	4			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	118	123	312	374	500	502	539	87	121	132
Average Queue (ft)	51	57	101	275	198	397	507	34	51	53
95th Queue (ft)	91	100	336	425	487	624	539	72	110	115
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)			13	26	1	7	92			
Queuing Penalty (veh)			0	0	0	0	0			
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								0	1	
Queuing Penalty (veh)								1	1	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	36	15	76	116	278	105
Average Queue (ft)	5	1	33	12	108	40
95th Queue (ft)	24	8	68	98	249	83
Link Distance (ft)		1650		2509	471	384
Upstream Blk Time (%)					2	
Queuing Penalty (veh)					0	
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)	0		1	3		
Queuing Penalty (veh)	0		13	5		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	69	196	290	200	937	308	265	112	112
Average Queue (ft)	13	90	131	141	467	206	126	14	50
95th Queue (ft)	41	163	264	245	1210	329	261	83	96
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)			0		1	5	0		1
Queuing Penalty (veh)			0		11	0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)		12		3	32		4	0	
Queuing Penalty (veh)		3		25	74		6	0	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	60	522	528	165	220	326	318	323	301	230	242	77
Average Queue (ft)	6	497	502	152	206	250	163	268	216	42	80	33
95th Queue (ft)	35	525	518	217	254	410	311	327	302	135	166	68
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		57	93			13	0	14	6	0	0	
Queuing Penalty (veh)		0	0			80	2	0	0	0	0	
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)	0	15	80	1	45	0						
Queuing Penalty (veh)	0	2	222	3	163	1						

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB	SB
Directions Served	R	T	T	TR
Maximum Queue (ft)	133	49	44	17
Average Queue (ft)	47	11	5	1
95th Queue (ft)	92	86	53	9
Link Distance (ft)	164	152	152	342
Upstream Blk Time (%)	0	2	0	
Queuing Penalty (veh)	0	18	1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	485	35	144
Average Queue (ft)	209	5	46
95th Queue (ft)	411	24	118
Link Distance (ft)	1530	220	149
Upstream Blk Time (%)			3
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	NB
Directions Served	L
Maximum Queue (ft)	51
Average Queue (ft)	21
95th Queue (ft)	48
Link Distance (ft)	139
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	TR	T
Maximum Queue (ft)	86	18	50	270	23
Average Queue (ft)	33	2	3	14	1
95th Queue (ft)	67	23	23	129	10
Link Distance (ft)	178	262	262	262	152
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	SB
Directions Served	R	T	R
Maximum Queue (ft)	282	3	137
Average Queue (ft)	123	0	57
95th Queue (ft)	216	2	114
Link Distance (ft)	597	302	262
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	SB
Directions Served	R	T	R	T
Maximum Queue (ft)	596	11	121	177
Average Queue (ft)	562	0	22	39
95th Queue (ft)	586	8	74	122
Link Distance (ft)	535	314	314	302
Upstream Blk Time (%)	89			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: Pleasant Hill Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	110
Average Queue (ft)	6
95th Queue (ft)	44
Link Distance (ft)	314
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 6582

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	1:50	1:50	1:50	1:50	1:50	1:50
End Time	3:00	3:00	3:00	3:00	3:00	3:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	9490	9388	9284	9328	9331	9369
Vehs Exited	8846	8803	8626	8596	8736	8722
Starting Vehs	582	568	613	607	638	604
Ending Vehs	1226	1153	1271	1339	1233	1245
Travel Distance (mi)	6183	6104	6017	5896	6148	6070
Travel Time (hr)	2801.2	2887.1	3056.6	2980.6	2908.8	2926.8
Total Delay (hr)	2603.0	2691.5	2863.9	2791.0	2711.9	2732.3
Total Stops	18700	18399	17784	18105	18152	18227
Fuel Used (gal)	804.3	821.1	857.8	836.5	825.1	829.0

Interval #0 Information Seeding

Start Time	1:50
End Time	2:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	2:00
End Time	3:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	9490	9388	9284	9328	9331	9369
Vehs Exited	8846	8803	8626	8596	8736	8722
Starting Vehs	582	568	613	607	638	604
Ending Vehs	1226	1153	1271	1339	1233	1245
Travel Distance (mi)	6183	6104	6017	5896	6148	6070
Travel Time (hr)	2801.2	2887.1	3056.6	2980.6	2908.8	2926.8
Total Delay (hr)	2603.0	2691.5	2863.9	2791.0	2711.9	2732.3
Total Stops	18700	18399	17784	18105	18152	18227
Fuel Used (gal)	804.3	821.1	857.8	836.5	825.1	829.0

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	128.2	579.8	0.1	3
SR 24 EB On Ramp	6	15.1	21.0	0.1	10
	17	19.1	37.7	0.1	10
	16	95.2	103.1	0.1	2
	15	168.4	191.3	0.1	2
Acalanes Avenue	14	166.8	174.5	0.1	1
Project Dwy	11	65.5	69.4	0.0	2
Stanley Boulevard	5	154.3	240.8	0.1	2
	37	67.8	75.1	0.1	4
Quandt Road	4	436.0	497.9	0.4	3
	20	10.0	18.9	0.1	19
Reliez Valle Road	3	7.6	10.7	0.0	12
Greenvalley Drive	2	14.5	37.2	0.3	24
	19	2.6	9.0	0.1	29
Rancho View Drive	1	14.7	27.8	0.1	19
Total		1365.6	2094.2	1.6	4

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	11.9	27.2	0.2	20
	19	10.7	26.1	0.1	20
Greenvalley Drive	2	57.0	68.2	0.1	4
Reliez Valle Road	3	20.1	45.2	0.3	20
	20	1.9	5.6	0.0	22
Springhill Road	4	12.9	22.5	0.1	16
	37	25.1	62.4	0.4	21
Deer Hill Road	5	19.8	31.6	0.1	11
Project Dwy	11	2.0	10.2	0.1	28
Acalanes Avenue	14	0.5	4.6	0.0	30
	15	0.4	6.5	0.1	34
	16	3.2	12.1	0.1	32
	17	3.7	12.4	0.1	20
Mt. Diablo Boulevard	6	18.6	25.2	0.1	10
SR 24 EB Off Ramp	7	12.6	18.5	0.1	12
Total		200.4	378.3	1.7	16

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	280.8	4199.0	0.1	1
First Street	9	114.7	228.0	0.1	2
Brown Avenue	8	195.0	731.0	0.3	5
	22	359.6	393.0	0.5	4
Project Dwy SW	13	33.9	35.9	0.0	3
Project Dwy NE	12	520.8	542.8	0.3	2
Pleasant Hill Road	5	71.8	208.3	0.1	3
Total		1576.5	6338.0	1.4	3

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	2.0	9.4	0.1	22
Project Dwy SW	13	1.5	26.3	0.3	42
	22	0.1	3.7	0.0	28
Miller Drive	8	5.2	61.2	0.5	29
Sierra Vista Way	9	18.6	56.9	0.3	21
Laurel Drive	10	13.3	21.9	0.1	13
Total		40.5	179.4	1.3	26

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	77	145	388	398	296	254
Average Queue (ft)	26	17	180	196	175	126
95th Queue (ft)	60	70	351	362	264	225
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			10			
Queuing Penalty (veh)			2			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	55	108	37	363	379	190	120	378	380	199	183
Average Queue (ft)	10	38	4	158	169	13	62	294	289	60	51
95th Queue (ft)	35	86	23	315	327	90	156	438	431	193	177
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								39	35		
Queuing Penalty (veh)								208	185		
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)		0		16	8	0	0	80			
Queuing Penalty (veh)		0		1	6	0	0	22			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	55	19	113	127	213	225	409	155	120
Average Queue (ft)	9	1	51	115	170	49	209	135	15
95th Queue (ft)	34	10	95	157	242	164	373	190	78
Link Distance (ft)	438	438			127	407	1259		
Upstream Blk Time (%)			0	2	9				
Queuing Penalty (veh)			0	0	245				
Storage Bay Dist (ft)			230	230				130	130
Storage Blk Time (%)			0	2	9		10	8	0
Queuing Penalty (veh)			0	24	135		53	41	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	EB	WB	NB	NB	NB	NB	B37	B37	SB	SB	SB
Directions Served	LT	R	LTR	L	T	T	R	T	T	L	T	T
Maximum Queue (ft)	220	85	178	225	1963	1960	125	381	378	114	316	352
Average Queue (ft)	64	4	68	177	1921	1921	69	325	327	16	111	137
95th Queue (ft)	141	37	133	322	2007	2007	171	435	436	57	273	317
Link Distance (ft)	318		216		1846	1846		330	330		407	407
Upstream Blk Time (%)			0		96	96		13	18			0
Queuing Penalty (veh)			0		1383	1385		187	254			0
Storage Bay Dist (ft)		100		200			100			105		
Storage Blk Time (%)	4	0		0	98	99	0				7	13
Queuing Penalty (veh)	7	0		1	148	53	1				2	6

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	SB	B20	B20
Directions Served	R	T	T
Maximum Queue (ft)	96	26	9
Average Queue (ft)	11	1	0
95th Queue (ft)	60	12	6
Link Distance (ft)		127	127
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	71		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	256	225	558	175	330	448	445	65	275	426
Average Queue (ft)	110	124	227	158	523	156	219	421	417	14	248	313
95th Queue (ft)	121	127	242	297	542	235	460	440	434	48	327	508
Link Distance (ft)			219		504			343	343	343		330
Upstream Blk Time (%)			69		90		0	88	92			51
Queuing Penalty (veh)			674		0		0	614	641			215
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	9	76	7	0	92	22		91			80	20
Queuing Penalty (veh)	23	194	55	0	280	81		96			295	44

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB	SB	B37	B37
Directions Served	T	T	R	T	T
Maximum Queue (ft)	345	337	229	554	592
Average Queue (ft)	205	151	92	177	147
95th Queue (ft)	346	277	203	660	649
Link Distance (ft)	330	330		1846	1846
Upstream Blk Time (%)	1	0			
Queuing Penalty (veh)	3	1			
Storage Bay Dist (ft)			180		
Storage Blk Time (%)		4	1		
Queuing Penalty (veh)		15	2		

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	204	230	310	271	247	250	105	198	193	221
Average Queue (ft)	117	103	156	256	100	131	71	103	103	54
95th Queue (ft)	186	179	249	272	208	242	148	173	168	136
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)		0	0	58	1	1		0	0	0
Queuing Penalty (veh)		0	0	305	3	3		1	1	1
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)						13	4			
Queuing Penalty (veh)						64	16			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	366	267	368	391	518	527	528	124	231	233
Average Queue (ft)	126	74	280	340	462	473	460	83	104	106
95th Queue (ft)	303	194	509	450	616	599	606	138	199	194
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)	2	1	58	83	62	57	37		0	0
Queuing Penalty (veh)	0	0	0	0	0	0	0		1	0
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								11	5	
Queuing Penalty (veh)								51	9	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	114	1730	89	193	509	393
Average Queue (ft)	6	1226	22	20	262	154
95th Queue (ft)	43	2463	61	102	557	369
Link Distance (ft)		1650		2515	471	384
Upstream Blk Time (%)		65			24	10
Queuing Penalty (veh)		671			0	0
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		70	3	3		
Queuing Penalty (veh)		11	11	2		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	100	326	307	194	689	308	326	145	110
Average Queue (ft)	14	284	94	112	133	171	218	104	42
95th Queue (ft)	66	386	277	194	405	320	413	207	87
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		62	0		0	7	54		2
Queuing Penalty (veh)		622	3		0	0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)	0	79		11	3		4	60	
Queuing Penalty (veh)	2	27		37	5		11	111	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	85	528	528	165	220	326	298	292	291	312	307	218
Average Queue (ft)	4	487	494	76	187	162	83	119	179	221	227	85
95th Queue (ft)	33	551	515	206	266	381	235	290	357	382	371	223
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		72	93			7	0	1	30	59	53	1
Queuing Penalty (veh)		0	0			25	0	0	0	0	0	0
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		77	62	0	39	0						
Queuing Penalty (veh)		7	180	1	71	2						

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB	SB
Directions Served	R	T	T	T
Maximum Queue (ft)	84	258	264	11
Average Queue (ft)	29	219	226	0
95th Queue (ft)	61	283	281	8
Link Distance (ft)	166	151	151	343
Upstream Blk Time (%)		86	87	
Queuing Penalty (veh)		927	935	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	1545	56	135
Average Queue (ft)	1457	9	61
95th Queue (ft)	1877	37	140
Link Distance (ft)	1530	219	144
Upstream Blk Time (%)	49		8
Queuing Penalty (veh)	469		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	EB	B22	NB
Directions Served	TR	T	L
Maximum Queue (ft)	203	2611	35
Average Queue (ft)	149	2179	14
95th Queue (ft)	241	3620	39
Link Distance (ft)	91	2515	168
Upstream Blk Time (%)	76	48	
Queuing Penalty (veh)	998	633	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB
Directions Served	R	T	T	TR
Maximum Queue (ft)	182	460	476	480
Average Queue (ft)	145	388	405	420
95th Queue (ft)	228	579	586	602
Link Distance (ft)	178	262	262	262
Upstream Blk Time (%)	76	84	87	89
Queuing Penalty (veh)	0	681	706	720
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	R
Maximum Queue (ft)	642	512	515	516	60
Average Queue (ft)	602	395	399	404	9
95th Queue (ft)	621	691	687	692	39
Link Distance (ft)	597	302	302	302	262
Upstream Blk Time (%)	99	77	78	78	
Queuing Penalty (veh)	0	407	412	413	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	587	490	487	490	497	158
Average Queue (ft)	546	316	321	342	353	47
95th Queue (ft)	643	643	642	663	675	114
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	80	53	55	66	62	
Queuing Penalty (veh)	0	326	339	402	383	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	500	209	219	224	98
Average Queue (ft)	339	57	63	82	6
95th Queue (ft)	682	184	195	221	40
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	70	2	2	5	
Queuing Penalty (veh)	0	8	7	17	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 18622

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	8242	8135	7754	7993	7961	8013
Vehs Exited	7543	7447	7166	7276	7259	7340
Starting Vehs	658	652	704	659	684	662
Ending Vehs	1357	1340	1292	1376	1386	1343
Travel Distance (mi)	5271	5232	5021	5117	5210	5170
Travel Time (hr)	3313.2	3262.1	3495.8	3244.8	3427.8	3348.8
Total Delay (hr)	3143.0	3093.1	3334.1	3079.4	3260.1	3181.9
Total Stops	17375	17117	16110	16982	16905	16896
Fuel Used (gal)	894.5	883.6	928.2	875.0	918.6	900.0

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	8242	8135	7754	7993	7961	8013
Vehs Exited	7543	7447	7166	7276	7259	7340
Starting Vehs	658	652	704	659	684	662
Ending Vehs	1357	1340	1292	1376	1386	1343
Travel Distance (mi)	5271	5232	5021	5117	5210	5170
Travel Time (hr)	3313.2	3262.1	3495.8	3244.8	3427.8	3348.8
Total Delay (hr)	3143.0	3093.1	3334.1	3079.4	3260.1	3181.9
Total Stops	17375	17117	16110	16982	16905	16896
Fuel Used (gal)	894.5	883.6	928.2	875.0	918.6	900.0

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	132.5	832.9	0.1	3
SR 24 EB On Ramp	6	60.3	66.3	0.1	3
	17	77.6	251.8	0.1	3
	16	196.8	205.0	0.1	1
	15	253.0	262.0	0.1	1
Acalanes Avenue	14	256.9	264.5	0.1	1
Project Dwy	11	96.4	100.3	0.0	1
Stanley Boulevard	5	207.5	214.7	0.1	1
	37	73.9	81.0	0.1	3
Quandt Road	4	474.3	660.2	0.4	3
	20	9.1	18.0	0.1	20
Reliez Valle Road	3	8.4	11.5	0.0	11
Greenvalley Drive	2	21.9	44.2	0.3	20
	19	3.6	10.0	0.1	26
Rancho View Drive	1	27.9	41.1	0.1	13
Total		1900.0	3063.5	1.6	3

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	179.9	381.4	0.2	3
	19	196.8	211.6	0.1	3
Greenvalley Drive	2	125.0	132.7	0.1	2
Reliez Valle Road	3	18.6	44.1	0.3	20
	20	1.9	5.6	0.0	22
Springhill Road	4	12.1	21.7	0.1	16
	37	20.5	58.1	0.4	23
Deer Hill Road	5	24.0	31.5	0.1	9
Project Dwy	11	2.6	10.9	0.1	26
Acalanes Avenue	14	0.9	4.9	0.0	28
	15	1.4	7.5	0.1	30
	16	4.0	13.6	0.1	28
	17	3.5	12.3	0.1	21
Mt. Diablo Boulevard	6	20.6	27.2	0.1	9
SR 24 EB Off Ramp	7	14.6	21.1	0.1	10
Total		626.4	984.2	1.7	8

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	325.4	7456.4	0.1	1
First Street	9	88.4	96.6	0.1	3
Brown Avenue	8	178.5	365.8	0.3	6
	22	451.6	485.1	0.5	4
Project Dwy SW	13	41.0	43.0	0.0	2
Project Dwy NE	12	479.8	501.7	0.3	2
Pleasant Hill Road	5	59.1	65.4	0.1	3
Total		1623.8	9014.0	1.4	3

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	1.7	7.6	0.1	28
Project Dwy SW	13	1.2	25.7	0.3	43
	22	0.1	3.3	0.0	28
Miller Drive	8	3.5	54.4	0.5	32
Sierra Vista Way	9	11.6	48.8	0.3	24
Laurel Drive	10	13.9	22.8	0.1	12
Total		31.9	162.6	1.3	28

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	68	146	286	294	820	825
Average Queue (ft)	25	13	218	228	625	611
95th Queue (ft)	58	70	276	285	1030	1050
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)					61	58
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)		148				
Storage Blk Time (%)		0	24			
Queuing Penalty (veh)		0	5			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	53	64	57	292	308	153	120	407	403	759	766
Average Queue (ft)	9	21	3	175	187	11	72	370	372	673	671
95th Queue (ft)	30	54	24	256	268	85	167	393	392	929	930
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								100	99	9	9
Queuing Penalty (veh)								530	526	49	47
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)				28	10	0	0	99			
Queuing Penalty (veh)				2	5	0	1	40			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	32	18	107	127	211	164	252	155	118
Average Queue (ft)	7	1	43	114	166	34	134	123	13
95th Queue (ft)	25	9	87	157	239	109	215	177	61
Link Distance (ft)	438	438			127	413	1259		
Upstream Blk Time (%)			0	2	8				
Queuing Penalty (veh)			0	0	260				
Storage Bay Dist (ft)			230	230				130	130
Storage Blk Time (%)			0	2	8		5	4	0
Queuing Penalty (veh)			0	30	138		25	21	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	B37	B37	SB	SB	SB	SB
Directions Served	LT	LTR	L	T	T	R	T	T	L	T	T	R
Maximum Queue (ft)	78	88	225	1972	1967	125	372	368	45	231	279	96
Average Queue (ft)	38	36	164	1936	1937	58	325	328	8	79	103	16
95th Queue (ft)	75	73	326	1960	1960	160	360	354	41	191	234	74
Link Distance (ft)	318	214		1855	1855		314	314		413	413	
Upstream Blk Time (%)				99	99		17	23				
Queuing Penalty (veh)				1562	1564		267	356				
Storage Bay Dist (ft)			200			100			105			71
Storage Blk Time (%)	0		0	99	99	0				4	10	0
Queuing Penalty (veh)	0		0	128	55	1				1	5	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	B20	B20
Directions Served	T	T
Maximum Queue (ft)	25	23
Average Queue (ft)	1	1
95th Queue (ft)	11	11
Link Distance (ft)	127	127
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	243	225	558	175	330	456	445	120	275	412
Average Queue (ft)	109	123	226	135	526	173	184	419	417	13	248	297
95th Queue (ft)	133	134	238	298	547	194	440	440	435	97	329	502
Link Distance (ft)			221		504			340	340	340		314
Upstream Blk Time (%)			66		93		0	95	97			54
Queuing Penalty (veh)			782		0		0	701	714			222
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	14	78	1	0	55	85		96			79	6
Queuing Penalty (veh)	26	142	7	0	247	264		101			243	11

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB	SB	B37	B37
Directions Served	T	T	R	T	T
Maximum Queue (ft)	328	301	240	413	411
Average Queue (ft)	169	164	58	127	66
95th Queue (ft)	304	253	159	377	276
Link Distance (ft)	314	314		1855	1855
Upstream Blk Time (%)	0	0			
Queuing Penalty (veh)	1	1			
Storage Bay Dist (ft)			180		
Storage Blk Time (%)		7	0		
Queuing Penalty (veh)		17	0		

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	307	365	361	267	270	279	105	174	190	137
Average Queue (ft)	242	288	274	197	192	222	92	102	105	29
95th Queue (ft)	385	432	428	317	302	307	147	161	165	92
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)		40	19	28	13	32		0	0	0
Queuing Penalty (veh)		0	0	126	61	143		0	1	0
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	42	5				69	3			
Queuing Penalty (veh)	145	17				235	9			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	344	196	303	362	488	503	531	124	228	214
Average Queue (ft)	137	82	147	240	242	333	429	85	98	100
95th Queue (ft)	318	216	414	435	553	606	646	140	198	181
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)	3	3	25	40	15	18	63		0	0
Queuing Penalty (veh)	0	0	0	0	0	0	0		2	0
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								21	3	
Queuing Penalty (veh)								85	6	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	114	1733	55	139	237	143
Average Queue (ft)	15	1128	20	9	92	41
95th Queue (ft)	76	2396	52	59	183	111
Link Distance (ft)		1650		2527	471	384
Upstream Blk Time (%)		57				
Queuing Penalty (veh)		646				
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		69	1	1		
Queuing Penalty (veh)		22	4	1		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	114	330	265	126	501	263	319	145	99
Average Queue (ft)	12	286	65	56	86	118	171	83	33
95th Queue (ft)	66	383	210	103	318	229	387	198	77
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		57	0		0	1	35		2
Queuing Penalty (veh)		619	0		0	0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)	0	79		0	0		1	50	
Queuing Penalty (veh)	0	13		0	1		3	83	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	58	519	535	165	208	201	109	294	285	306	294	283
Average Queue (ft)	3	492	494	74	112	40	38	145	167	190	193	104
95th Queue (ft)	26	518	517	203	190	107	87	327	333	367	357	268
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		82	95					1	23	49	47	7
Queuing Penalty (veh)		0	0					0	0	0	0	0
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		75	66	0	3							
Queuing Penalty (veh)		11	219	1	5							

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB	SB
Directions Served	R	T	T	TR
Maximum Queue (ft)	66	265	263	4
Average Queue (ft)	23	227	232	0
95th Queue (ft)	52	251	251	3
Link Distance (ft)	149	152	152	340
Upstream Blk Time (%)		95	96	
Queuing Penalty (veh)		1063	1068	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	1543	56	161
Average Queue (ft)	1497	16	103
95th Queue (ft)	1748	47	175
Link Distance (ft)	1528	221	137
Upstream Blk Time (%)	48		48
Queuing Penalty (veh)	556		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	EB	B22	NB
Directions Served	TR	T	L
Maximum Queue (ft)	187	2608	39
Average Queue (ft)	144	2079	11
95th Queue (ft)	215	3616	36
Link Distance (ft)	76	2527	159
Upstream Blk Time (%)	84	44	
Queuing Penalty (veh)	1040	539	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	TR	T
Maximum Queue (ft)	181	457	465	485	7
Average Queue (ft)	138	410	426	442	0
95th Queue (ft)	222	525	523	534	6
Link Distance (ft)	178	262	262	262	152
Upstream Blk Time (%)	70	92	94	95	
Queuing Penalty (veh)	0	729	740	748	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB	SB
Directions Served	R	T	T	T	T	TR
Maximum Queue (ft)	621	518	506	523	40	82
Average Queue (ft)	603	439	443	447	2	20
95th Queue (ft)	620	663	652	658	18	63
Link Distance (ft)	597	302	302	302	262	262
Upstream Blk Time (%)	100	88	89	89		
Queuing Penalty (veh)	0	497	503	505		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	587	501	491	487	499	183
Average Queue (ft)	521	404	402	403	396	41
95th Queue (ft)	688	663	654	652	666	123
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	60	82	82	82	80	
Queuing Penalty (veh)	0	450	449	453	439	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	502	276	240	231	70
Average Queue (ft)	396	161	158	169	3
95th Queue (ft)	667	306	296	303	28
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	82	32	29	59	
Queuing Penalty (veh)	0	111	101	206	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 21753

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	10816	10574	11092	10753	10765	10797
Vehs Exited	10469	10326	10808	10431	10508	10507
Starting Vehs	571	598	567	535	612	571
Ending Vehs	918	846	851	857	869	869
Travel Distance (mi)	6766	6726	6921	6681	6715	6762
Travel Time (hr)	2347.2	2270.1	2182.8	2203.3	2213.6	2243.4
Total Delay (hr)	2123.3	2047.4	1953.3	1980.8	1990.6	2019.1
Total Stops	23255	22733	22903	22596	22564	22810
Fuel Used (gal)	723.1	705.3	692.4	689.7	692.6	700.6

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	10816	10574	11092	10753	10765	10797
Vehs Exited	10469	10326	10808	10431	10508	10507
Starting Vehs	571	598	567	535	612	571
Ending Vehs	918	846	851	857	869	869
Travel Distance (mi)	6766	6726	6921	6681	6715	6762
Travel Time (hr)	2347.2	2270.1	2182.8	2203.3	2213.6	2243.4
Total Delay (hr)	2123.3	2047.4	1953.3	1980.8	1990.6	2019.1
Total Stops	23255	22733	22903	22596	22564	22810
Fuel Used (gal)	723.1	705.3	692.4	689.7	692.6	700.6

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	62.1	482.0	0.1	5
SR 24 EB On Ramp	6	10.1	16.2	0.1	14
	17	1.4	6.2	0.1	40
	16	0.5	9.1	0.1	28
	15	0.9	9.8	0.1	39
Acalanes Avenue	14	2.1	10.1	0.1	22
Project Dwy	11	1.7	5.4	0.0	25
Stanley Boulevard	5	26.0	62.6	0.1	9
Quandt Road	4	6.6	38.6	0.4	41
	20	3.5	12.4	0.1	28
Reliez Valle Road	3	9.4	12.6	0.0	10
Greenvalley Drive	2	5.2	27.3	0.3	33
	19	1.2	7.6	0.1	34
Rancho View Drive	1	15.0	27.9	0.1	19
Total		145.6	727.8	1.6	20

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	156.4	2016.2	0.2	3
	19	127.8	142.9	0.1	4
Greenvalley Drive	2	74.4	81.2	0.1	3
Reliez Valle Road	3	212.0	235.7	0.3	4
	20	14.0	17.6	0.0	7
Springhill Road	4	62.0	71.2	0.1	5
Deer Hill Road	5	213.8	253.0	0.4	6
Project Dwy	11	5.2	13.6	0.1	21
Acalanes Avenue	14	3.1	7.1	0.0	19
	15	7.7	13.8	0.1	16
	16	6.0	14.7	0.1	26
	17	5.1	14.1	0.1	18
Mt. Diablo Boulevard	6	15.1	21.7	0.1	11
SR 24 EB Off Ramp	7	10.1	16.0	0.1	14
Total		912.7	2918.8	1.7	6

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	155.9	1650.5	0.1	2
First Street	9	22.3	31.1	0.1	9
Brown Avenue	8	5.0	40.5	0.3	29
	29	3.5	43.5	0.5	40
Project Dwy SW	13	0.2	2.3	0.0	47
Project Dwy NE	12	41.8	66.1	0.3	17
Pleasant Hill Road	5	89.0	434.4	0.1	2
Total		317.6	2268.3	1.4	11

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	2.2	9.3	0.1	23
Project Dwy SW	13	2.2	26.8	0.3	41
	29	0.2	3.8	0.0	28
Miller Drive	8	5.6	61.5	0.5	28
Sierra Vista Way	9	32.0	68.4	0.3	17
Laurel Drive	10	17.4	26.4	0.1	10
Total		59.5	196.2	1.3	24

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	91	52	204	208	825	830
Average Queue (ft)	31	10	114	132	794	795
95th Queue (ft)	72	36	180	195	870	865
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)					84	85
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			2			
Queuing Penalty (veh)			0			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	R	L	T	T	L	T	TR	T	T
Maximum Queue (ft)	62	263	150	21	107	131	119	399	401	759	753
Average Queue (ft)	17	112	15	2	28	49	20	360	364	669	670
95th Queue (ft)	48	209	87	14	78	101	87	422	426	994	990
Link Distance (ft)	333	494			1259	1259		288	288	725	725
Upstream Blk Time (%)								75	80	15	19
Queuing Penalty (veh)								997	1066	200	256
Storage Bay Dist (ft)			125	76			95				
Storage Blk Time (%)		10	0		1	0	0	74			
Queuing Penalty (veh)		4	0		0	0	0	16			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	464	488	107	127	207	274	1295	1304	155
Average Queue (ft)	203	449	56	80	125	27	1257	1262	14
95th Queue (ft)	564	516	99	151	215	158	1387	1384	85
Link Distance (ft)	438	438			127	414	1259	1259	
Upstream Blk Time (%)	15	83	0	2	9	0	22	28	
Queuing Penalty (veh)	0	0	0	0	72	0	316	398	
Storage Bay Dist (ft)			230	230					130
Storage Blk Time (%)			0	2	9			73	0
Queuing Penalty (veh)			0	8	41			7	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20	B20
Directions Served	LTR	LTR	L	T	T	R	L	T	T	R	T	T
Maximum Queue (ft)	358	210	219	179	151	15	129	525	529	96	217	229
Average Queue (ft)	282	88	143	33	31	1	11	481	489	26	171	188
95th Queue (ft)	426	167	234	194	144	9	63	533	528	96	264	260
Link Distance (ft)	318	213		2220	2220			414	414		127	127
Upstream Blk Time (%)	52	1						46	55		16	75
Queuing Penalty (veh)	0	0						748	898		270	1224
Storage Bay Dist (ft)			200			100	105			71		
Storage Blk Time (%)			12	0	0			54	53	0		
Queuing Penalty (veh)			44	0	0			6	42	1		

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	249	225	557	175	328	392	363	181	275	2268
Average Queue (ft)	93	123	236	187	520	105	252	267	242	69	135	2139
95th Queue (ft)	135	134	262	291	568	227	360	406	354	134	301	2622
Link Distance (ft)			234		504			342	342	342		2220
Upstream Blk Time (%)			45		75		0	6	1			10
Queuing Penalty (veh)			195		0		0	27	3			170
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	7	42	44	2	83	1	23	8			1	35
Queuing Penalty (veh)	16	97	177	10	188	6	115	18			12	51

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	2404	240
Average Queue (ft)	2258	235
95th Queue (ft)	2754	271
Link Distance (ft)	2220	
Upstream Blk Time (%)	62	
Queuing Penalty (veh)	1018	
Storage Bay Dist (ft)		180
Storage Blk Time (%)	48	10
Queuing Penalty (veh)	469	89

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	196	179	226	260	238	248	105	127	126	249
Average Queue (ft)	100	91	94	161	84	128	69	64	68	104
95th Queue (ft)	172	154	174	263	181	236	147	112	117	209
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)				4	1	0			0	1
Queuing Penalty (veh)				23	3	2			0	5
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)						10	1			
Queuing Penalty (veh)						50	6			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	110	124	375	390	498	521	546	84	111	118
Average Queue (ft)	54	56	172	299	206	410	511	34	46	52
95th Queue (ft)	95	94	452	455	499	634	533	70	94	103
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)			25	45	1	10	93			
Queuing Penalty (veh)			0	0	0	0	0			
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								0	1	
Queuing Penalty (veh)								0	1	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	B29	NB	SB
Directions Served	L	TR	L	TR	T	LTR	LTR
Maximum Queue (ft)	32	24	68	38	13	212	88
Average Queue (ft)	4	1	32	2	0	84	33
95th Queue (ft)	20	12	64	24	7	175	67
Link Distance (ft)		1650		2509	91	471	384
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	65		50				
Storage Blk Time (%)	0	0	2				
Queuing Penalty (veh)	0	0	20				

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	86	235	278	199	636	297	255	83	105
Average Queue (ft)	13	105	132	126	272	194	106	5	47
95th Queue (ft)	47	195	261	221	658	308	233	47	86
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		0	0			2	0		0
Queuing Penalty (veh)		0	0			0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)		14		2	21		2	0	
Queuing Penalty (veh)		3		15	50		3	0	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	86	528	530	165	220	328	313	308	318	292	209	82
Average Queue (ft)	8	497	503	143	196	206	132	270	223	52	78	31
95th Queue (ft)	43	514	519	226	256	386	273	328	319	178	154	67
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		59	93			8	0	17	8	1	0	
Queuing Penalty (veh)		0	0			49	2	0	0	0	0	
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		20	81	0	36	0						
Queuing Penalty (veh)		2	223	2	130	2						

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB	SB
Directions Served	R	T	T	TR
Maximum Queue (ft)	113	67	51	46
Average Queue (ft)	49	12	7	3
95th Queue (ft)	93	90	61	23
Link Distance (ft)	176	150	150	342
Upstream Blk Time (%)	0	3	0	
Queuing Penalty (veh)	0	23	1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	470	31	98
Average Queue (ft)	205	6	37
95th Queue (ft)	421	27	96
Link Distance (ft)	1530	234	149
Upstream Blk Time (%)			4
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	B29	NB
Directions Served	T	L
Maximum Queue (ft)	508	60
Average Queue (ft)	17	21
95th Queue (ft)	358	49
Link Distance (ft)	2509	139
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	112	40	68	276	72	144
Average Queue (ft)	40	6	5	13	4	17
95th Queue (ft)	98	58	34	115	31	74
Link Distance (ft)	178	266	266	266	150	150
Upstream Blk Time (%)	1					0
Queuing Penalty (veh)	0					1
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	SB
Directions Served	R	T	TR
Maximum Queue (ft)	296	12	258
Average Queue (ft)	135	0	44
95th Queue (ft)	246	7	151
Link Distance (ft)	597	302	266
Upstream Blk Time (%)			0
Queuing Penalty (veh)			2
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	SB
Directions Served	R	R	T
Maximum Queue (ft)	587	89	122
Average Queue (ft)	560	17	38
95th Queue (ft)	581	56	100
Link Distance (ft)	535	314	302
Upstream Blk Time (%)	92		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: Pleasant Hill Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	59
Average Queue (ft)	4
95th Queue (ft)	27
Link Distance (ft)	314
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 9889

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	1:50	1:50	1:50	1:50	1:50	1:50
End Time	3:00	3:00	3:00	3:00	3:00	3:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	9597	9535	9600	9586	9317	9528
Vehs Exited	8864	8838	8963	8951	8703	8864
Starting Vehs	559	602	642	604	657	606
Ending Vehs	1292	1299	1279	1239	1271	1270
Travel Distance (mi)	6168	6135	6283	6195	6027	6161
Travel Time (hr)	2840.2	2757.4	2965.5	2758.4	3134.3	2891.1
Total Delay (hr)	2642.9	2561.1	2764.7	2559.7	2941.3	2694.0
Total Stops	20220	19919	20602	19387	19221	19869
Fuel Used (gal)	810.2	791.0	842.8	793.5	873.9	822.3

Interval #0 Information Seeding

Start Time	1:50
End Time	2:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	2:00
End Time	3:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	9597	9535	9600	9586	9317	9528
Vehs Exited	8864	8838	8963	8951	8703	8864
Starting Vehs	559	602	642	604	657	606
Ending Vehs	1292	1299	1279	1239	1271	1270
Travel Distance (mi)	6168	6135	6283	6195	6027	6161
Travel Time (hr)	2840.2	2757.4	2965.5	2758.4	3134.3	2891.1
Total Delay (hr)	2642.9	2561.1	2764.7	2559.7	2941.3	2694.0
Total Stops	20220	19919	20602	19387	19221	19869
Fuel Used (gal)	810.2	791.0	842.8	793.5	873.9	822.3

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	123.2	614.1	0.1	3
SR 24 EB On Ramp	6	21.4	27.4	0.1	8
	17	28.1	119.8	0.1	8
	16	104.4	112.2	0.1	2
	15	174.6	197.2	0.1	2
Acalanes Avenue	14	170.0	177.7	0.1	1
Project Dwy	11	67.6	71.6	0.0	2
Stanley Boulevard	5	159.5	236.9	0.1	2
Quandt Road	4	443.0	521.8	0.4	3
	20	10.1	19.0	0.1	19
Reliez Valle Road	3	7.7	10.7	0.0	11
Greenvalley Drive	2	14.4	37.1	0.3	24
	19	2.5	9.0	0.1	29
Rancho View Drive	1	14.4	27.6	0.1	19
Total		1341.0	2182.1	1.6	4

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	11.4	26.7	0.2	21
	19	17.3	32.6	0.1	16
Greenvalley Drive	2	58.5	71.4	0.1	4
Reliez Valle Road	3	20.1	45.1	0.3	20
	20	1.8	5.4	0.0	22
Springhill Road	4	12.2	21.8	0.1	16
Deer Hill Road	5	84.0	188.2	0.4	13
Project Dwy	11	3.2	11.4	0.1	25
Acalanes Avenue	14	1.5	5.5	0.0	25
	15	4.3	10.5	0.1	21
	16	5.2	14.0	0.1	28
	17	3.7	12.5	0.1	20
Mt. Diablo Boulevard	6	19.5	26.1	0.1	9
SR 24 EB Off Ramp	7	12.7	18.5	0.1	12
Total		255.3	489.8	1.7	15

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	244.0	3371.6	0.1	1
First Street	9	75.6	134.1	0.1	3
Brown Avenue	8	180.0	576.9	0.3	6
	22	338.6	372.8	0.5	5
Project Dwy SW	13	31.2	33.3	0.0	3
Project Dwy NE	12	465.1	486.9	0.3	2
Pleasant Hill Road	5	80.1	380.9	0.1	2
Total		1414.6	5356.4	1.4	3

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	1.9	9.2	0.1	23
Project Dwy SW	13	1.4	26.0	0.3	42
	22	0.1	3.6	0.0	29
Miller Drive	8	4.2	60.2	0.5	29
Sierra Vista Way	9	31.2	69.1	0.3	17
Laurel Drive	10	15.2	23.9	0.1	12
Total		53.9	191.9	1.3	24

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (ft)	78	100	370	362	279	255
Average Queue (ft)	27	14	177	188	165	119
95th Queue (ft)	63	54	342	348	245	215
Link Distance (ft)	306		725	725	773	773
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		148				
Storage Blk Time (%)			9			
Queuing Penalty (veh)			2			

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	49	95	22	350	346	77	120	387	390	268	270
Average Queue (ft)	10	38	3	149	164	8	61	296	294	88	83
95th Queue (ft)	34	80	14	303	317	69	153	434	433	329	319
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								39	37		
Queuing Penalty (veh)								207	197		
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)		0		15	7	0	0	81			
Queuing Penalty (veh)		0		1	5	0	0	23			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	L	T	T	T	T	T	R
Maximum Queue (ft)	28	100	127	212	258	400	155	142
Average Queue (ft)	7	52	113	173	50	215	135	15
95th Queue (ft)	22	90	158	241	160	377	192	71
Link Distance (ft)	438			127	414	1259		
Upstream Blk Time (%)		0	2	9				
Queuing Penalty (veh)		0	0	246				
Storage Bay Dist (ft)		230	230				130	130
Storage Blk Time (%)		0	2	9		11	6	0
Queuing Penalty (veh)		0	28	136		59	32	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20
Directions Served	LT	R	LTR	L	T	T	R	L	T	T	R	T
Maximum Queue (ft)	166	75	165	225	2261	2253	125	114	280	322	79	19
Average Queue (ft)	53	3	63	182	2213	2216	63	20	113	126	11	1
95th Queue (ft)	119	36	131	322	2358	2348	166	72	252	286	59	10
Link Distance (ft)	318		213		2220	2220			414	414		127
Upstream Blk Time (%)	0		0		15	18						
Queuing Penalty (veh)	0		0		209	262						
Storage Bay Dist (ft)		100		200			100	105			71	
Storage Blk Time (%)	2	0		0	98	99	0		8	12	0	
Queuing Penalty (veh)	3	0		1	149	53	1		2	6	0	

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	B20
Directions Served	T
Maximum Queue (ft)	11
Average Queue (ft)	0
95th Queue (ft)	8
Link Distance (ft)	127
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	266	225	558	175	330	458	454	70	275	1347
Average Queue (ft)	109	124	243	195	521	164	199	421	418	14	262	860
95th Queue (ft)	129	128	253	293	552	228	450	453	444	50	314	1595
Link Distance (ft)			232		504			343	343	343		2220
Upstream Blk Time (%)			67		86		0	88	92			
Queuing Penalty (veh)			654		0		0	613	638			
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	13	74	9	4	92	28		90			78	9
Queuing Penalty (veh)	34	189	71	19	280	102		96			428	18

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	1399	240
Average Queue (ft)	902	180
95th Queue (ft)	1639	325
Link Distance (ft)	2220	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		180
Storage Blk Time (%)	24	0
Queuing Penalty (veh)	94	1

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	285	291	326	271	242	253	105	198	199	115
Average Queue (ft)	149	136	177	253	108	139	79	106	102	31
95th Queue (ft)	272	259	299	284	219	253	148	166	167	93
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)		2	1	58	1	3		0	0	
Queuing Penalty (veh)		0	0	304	5	15		1	1	
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	4	0				24	4			
Queuing Penalty (veh)	9	1				118	16			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	324	206	372	382	521	526	526	124	214	206
Average Queue (ft)	114	66	235	320	426	459	463	76	95	101
95th Queue (ft)	277	164	503	472	643	621	604	130	186	180
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)	1	0	49	74	52	51	44		0	0
Queuing Penalty (veh)	0	0	0	0	0	0	0		0	0
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								4	5	
Queuing Penalty (veh)								19	9	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	114	1743	71	141	504	342
Average Queue (ft)	9	1184	22	11	273	148
95th Queue (ft)	58	2444	59	61	561	362
Link Distance (ft)		1650		2515	471	384
Upstream Blk Time (%)		58			22	5
Queuing Penalty (veh)		604			0	0
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		67	3	2		
Queuing Penalty (veh)		10	13	2		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	114	326	309	199	426	323	331	145	98
Average Queue (ft)	19	278	114	106	143	210	208	97	40
95th Queue (ft)	76	389	297	193	334	358	404	204	85
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		56	0			21	39		0
Queuing Penalty (veh)		559	4			0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)		74		6	11		5	50	
Queuing Penalty (veh)		25		20	17		14	93	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	58	530	534	165	220	328	310	296	293	314	314	212
Average Queue (ft)	5	492	496	87	199	218	95	150	187	209	224	76
95th Queue (ft)	39	523	518	216	261	428	261	321	352	379	365	203
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		79	93			22	0	3	26	53	47	4
Queuing Penalty (veh)		0	0			77	1	0	0	0	0	0
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		72	69	0	53	1						
Queuing Penalty (veh)		6	200	1	96	3						

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB	SB
Directions Served	R	T	T	TR
Maximum Queue (ft)	75	262	262	17
Average Queue (ft)	31	218	222	1
95th Queue (ft)	64	287	288	9
Link Distance (ft)	178	150	150	343
Upstream Blk Time (%)		87	88	
Queuing Penalty (veh)		935	944	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	1544	56	120
Average Queue (ft)	1492	10	82
95th Queue (ft)	1752	38	173
Link Distance (ft)	1530	232	144
Upstream Blk Time (%)	46		40
Queuing Penalty (veh)	435		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	EB	B22	NB
Directions Served	TR	T	L
Maximum Queue (ft)	203	2600	47
Average Queue (ft)	151	2097	15
95th Queue (ft)	236	3613	41
Link Distance (ft)	91	2515	168
Upstream Blk Time (%)	74	41	
Queuing Penalty (veh)	980	545	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB	SB
Directions Served	R	T	T	TR	T	T
Maximum Queue (ft)	176	467	472	486	7	27
Average Queue (ft)	130	397	408	424	0	1
95th Queue (ft)	219	576	580	600	5	13
Link Distance (ft)	178	266	266	266	150	150
Upstream Blk Time (%)	38	85	89	90		
Queuing Penalty (veh)	0	693	726	733		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	628	525	523	522	44
Average Queue (ft)	599	414	418	424	3
95th Queue (ft)	616	689	680	683	22
Link Distance (ft)	597	302	302	302	266
Upstream Blk Time (%)	100	80	82	83	
Queuing Penalty (veh)	0	426	433	440	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	592	507	500	500	496	174
Average Queue (ft)	545	351	352	360	364	55
95th Queue (ft)	646	668	659	664	682	125
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	80	62	63	68	66	
Queuing Penalty (veh)	0	381	389	420	408	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	497	256	224	228	76
Average Queue (ft)	360	99	101	116	5
95th Queue (ft)	681	253	249	269	34
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	72	8	5	18	
Queuing Penalty (veh)	0	25	18	60	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 16094

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	7928	7885	8350	7904	7888	7993
Vehs Exited	7222	7230	7590	7237	7288	7312
Starting Vehs	645	674	627	670	710	661
Ending Vehs	1351	1329	1387	1337	1310	1338
Travel Distance (mi)	5068	5156	5450	5168	5222	5213
Travel Time (hr)	3305.0	3292.5	3140.6	3288.6	3462.2	3297.8
Total Delay (hr)	3141.7	3126.8	2965.7	3122.0	3294.8	3130.2
Total Stops	16060	16735	17762	16790	16489	16766
Fuel Used (gal)	887.6	885.0	859.4	886.8	926.0	889.0

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	7928	7885	8350	7904	7888	7993
Vehs Exited	7222	7230	7590	7237	7288	7312
Starting Vehs	645	674	627	670	710	661
Ending Vehs	1351	1329	1387	1337	1310	1338
Travel Distance (mi)	5068	5156	5450	5168	5222	5213
Travel Time (hr)	3305.0	3292.5	3140.6	3288.6	3462.2	3297.8
Total Delay (hr)	3141.7	3126.8	2965.7	3122.0	3294.8	3130.2
Total Stops	16060	16735	17762	16790	16489	16766
Fuel Used (gal)	887.6	885.0	859.4	886.8	926.0	889.0

Arterial Level of Service: NB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Old Tunnel Road	7	146.3	888.2	0.1	2
SR 24 EB On Ramp	6	68.9	74.8	0.1	3
	17	83.3	266.7	0.1	3
	16	204.4	212.5	0.1	1
	15	258.2	267.3	0.1	1
Acalanes Avenue	14	263.5	271.2	0.1	1
Project Dwy	11	96.9	100.8	0.0	1
Stanley Boulevard	5	208.3	215.5	0.1	1
Quandt Road	4	444.8	743.3	0.4	3
	20	9.1	18.0	0.1	20
Reliez Valle Road	3	8.2	11.3	0.0	11
Greenvalley Drive	2	20.2	42.4	0.3	21
	19	3.4	9.8	0.1	26
Rancho View Drive	1	27.4	40.6	0.1	13
Total		1843.0	3162.5	1.6	3

Arterial Level of Service: SB Pleasant Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Rancho View Drive	1	184.4	379.7	0.2	3
	19	199.6	214.3	0.1	2
Greenvalley Drive	2	126.2	134.0	0.1	2
Reliez Valle Road	3	18.7	44.0	0.3	20
	20	1.7	5.4	0.0	22
Springhill Road	4	11.1	20.7	0.1	17
Deer Hill Road	5	35.3	76.5	0.4	21
Project Dwy	11	3.7	11.9	0.1	24
Acalanes Avenue	14	1.8	5.7	0.0	24
	15	4.6	10.8	0.1	21
	16	5.4	14.9	0.1	26
	17	3.3	12.1	0.1	21
Mt. Diablo Boulevard	6	23.0	29.5	0.1	8
SR 24 EB Off Ramp	7	15.6	22.2	0.1	10
Total		634.3	981.8	1.7	8

Arterial Level of Service: EB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
SR 24 WB Ramps	10	309.5	6900.4	0.1	1
First Street	9	88.6	96.9	0.1	3
Brown Avenue	8	173.7	362.3	0.3	6
	22	432.9	466.7	0.5	4
Project Dwy SW	13	38.4	40.4	0.0	2
Project Dwy NE	12	459.3	481.3	0.3	2
Pleasant Hill Road	5	58.7	64.9	0.1	3
Total		1561.0	8412.9	1.4	3

Arterial Level of Service: WB Deer Hill Road

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Project Dwy NE	12	1.7	7.7	0.1	28
Project Dwy SW	13	1.3	25.7	0.3	43
	22	0.1	3.3	0.0	28
Miller Drive	8	3.6	53.8	0.5	33
Sierra Vista Way	9	11.0	48.1	0.3	25
Laurel Drive	10	12.6	21.5	0.1	13
Total		30.3	160.1	1.3	29

Intersection: 1: Pleasant Hill Road & Rancho View Drive

Movement	EB	NB	NB	NB	B19	SB	SB
Directions Served	LTR	L	T	TR	T	T	TR
Maximum Queue (ft)	68	95	287	307	6	830	830
Average Queue (ft)	21	8	212	223	0	632	615
95th Queue (ft)	56	46	272	286	4	1032	1045
Link Distance (ft)	306		725	725	288	773	773
Upstream Blk Time (%)						59	57
Queuing Penalty (veh)						0	0
Storage Bay Dist (ft)		148					
Storage Blk Time (%)			23				
Queuing Penalty (veh)			5				

Intersection: 2: Pleasant Hill Road & Greenvalley Drive

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	B19	B19
Directions Served	LTR	LT	L	T	T	R	L	T	TR	T	T
Maximum Queue (ft)	58	64	59	267	266	191	120	400	406	763	764
Average Queue (ft)	11	24	5	167	180	13	68	369	370	671	671
95th Queue (ft)	35	55	32	245	250	91	165	392	394	939	940
Link Distance (ft)	333	494		1259	1259			288	288	725	725
Upstream Blk Time (%)								99	99	9	9
Queuing Penalty (veh)								524	523	46	47
Storage Bay Dist (ft)			76			168	95				
Storage Blk Time (%)				25	8	0	0	99			
Queuing Penalty (veh)				2	5	0	0	40			

Intersection: 3: Pleasant Hill Road & Reliez Valle Road

Movement	EB	EB	NB	NB	NB	B20	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	T	R
Maximum Queue (ft)	37	8	115	127	216	185	226	155	53
Average Queue (ft)	7	0	46	107	159	33	133	119	11
95th Queue (ft)	24	6	95	161	237	118	209	178	44
Link Distance (ft)	438	438			127	414	1259		
Upstream Blk Time (%)			0	1	8				
Queuing Penalty (veh)			0	0	248				
Storage Bay Dist (ft)			230	230				130	130
Storage Blk Time (%)			0	1	8		6	3	0
Queuing Penalty (veh)			0	21	132		30	15	0

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B20
Directions Served	LT	R	LTR	L	T	T	R	L	T	T	R	T
Maximum Queue (ft)	96	14	94	225	2261	2255	125	73	254	255	78	11
Average Queue (ft)	39	0	38	169	2233	2233	49	8	77	84	5	1
95th Queue (ft)	80	10	78	326	2259	2256	150	36	184	199	40	9
Link Distance (ft)	318		213		2220	2220			414	414		127
Upstream Blk Time (%)					19	24						
Queuing Penalty (veh)					307	374						
Storage Bay Dist (ft)		100		200			100	105			71	
Storage Blk Time (%)	0			0	98	99	0		4	8	0	
Queuing Penalty (veh)	0			1	127	55	1		1	4	0	

Intersection: 4: Pleasant Hill Road & Springhill Road/Quandt Road

Movement	B20
Directions Served	T
Maximum Queue (ft)	8
Average Queue (ft)	0
95th Queue (ft)	6
Link Distance (ft)	127
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	L	TR	L	LT	R	L	T	T	R	L	T
Maximum Queue (ft)	113	126	248	225	558	175	330	450	446	60	274	574
Average Queue (ft)	111	124	242	187	526	174	182	420	417	9	227	312
95th Queue (ft)	119	128	248	311	548	194	440	438	431	37	325	599
Link Distance (ft)			233		504			342	342	342		2220
Upstream Blk Time (%)			66		95		0	95	97			
Queuing Penalty (veh)			782		0		0	704	718			
Storage Bay Dist (ft)	101	101		185		95	255				175	
Storage Blk Time (%)	13	78	2	0	44	96		96			61	5
Queuing Penalty (veh)	24	140	18	0	198	297		102			281	11

Intersection: 5: Pleasant Hill Road & Deer Hill Road/Stanley Boulevard

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	563	240
Average Queue (ft)	306	105
95th Queue (ft)	566	266
Link Distance (ft)	2220	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		180
Storage Blk Time (%)	18	0
Queuing Penalty (veh)	46	0

Intersection: 6: Pleasant Hill Road & Mt. Diablo Boulevard/SR 24 EB On Ramp

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	T	R	T	T	R
Maximum Queue (ft)	307	368	370	266	265	270	105	185	215	127
Average Queue (ft)	245	284	268	211	195	215	92	115	115	29
95th Queue (ft)	387	428	429	325	313	312	146	175	182	97
Link Distance (ft)		327	327	239	239	239		189	189	189
Upstream Blk Time (%)		43	17	36	18	37		0	0	0
Queuing Penalty (veh)		0	0	163	83	165		1	2	0
Storage Bay Dist (ft)	282						75			
Storage Blk Time (%)	45	5				67	2			
Queuing Penalty (veh)	154	15				229	9			

Intersection: 7: Pleasant Hill Road & SR 24 EB Off Ramp/Old Tunnel Road

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	R	T	T	TR	L	T	T
Maximum Queue (ft)	358	196	374	380	508	505	532	125	246	257
Average Queue (ft)	145	83	190	278	269	372	435	91	125	114
95th Queue (ft)	323	214	470	473	552	619	632	147	242	215
Link Distance (ft)	441	441	349	349	485	485	485		239	239
Upstream Blk Time (%)	3	2	40	56	11	20	67		3	0
Queuing Penalty (veh)	0	0	0	0	0	0	0		14	2
Storage Bay Dist (ft)								100		
Storage Blk Time (%)								27	4	
Queuing Penalty (veh)								113	8	

Intersection: 8: Brown Avenue/Miller Drive & Deer Hill Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (ft)	115	1721	71	130	228	157
Average Queue (ft)	17	1118	19	11	83	47
95th Queue (ft)	80	2397	52	64	175	132
Link Distance (ft)		1650		2527	471	384
Upstream Blk Time (%)		57				
Queuing Penalty (veh)		643				
Storage Bay Dist (ft)	65		50			
Storage Blk Time (%)		68	1	2		
Queuing Penalty (veh)		22	2	2		

Intersection: 9: First Street/Sierra Vista Way & Deer Hill Road

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	R	L	TR	L	LT	R	LTR
Maximum Queue (ft)	96	326	259	141	160	298	318	145	90
Average Queue (ft)	6	288	66	61	76	122	163	85	29
95th Queue (ft)	44	387	204	110	137	240	378	198	69
Link Distance (ft)		302	302		1650	286	286		108
Upstream Blk Time (%)		57	0			1	34		0
Queuing Penalty (veh)		621	0			0	0		0
Storage Bay Dist (ft)	75			150				120	
Storage Blk Time (%)		80		0	0		0	47	
Queuing Penalty (veh)		14		0	0		1	79	

Intersection: 10: SR 24 WB Ramps/Laurel Drive & Deer Hill Road

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	TR	L	LT	R	R	LTR
Maximum Queue (ft)	38	517	534	165	199	129	104	304	292	319	300	260
Average Queue (ft)	3	490	495	85	109	38	40	153	179	188	176	101
95th Queue (ft)	23	517	519	213	186	89	84	330	339	375	356	275
Link Distance (ft)		482	482			302	302	277	277	277	277	292
Upstream Blk Time (%)		82	95					2	21	50	39	15
Queuing Penalty (veh)		0	0					0	0	0	0	0
Storage Bay Dist (ft)	95			140	170							
Storage Blk Time (%)		80	60	0	3							
Queuing Penalty (veh)		12	197	2	5							

Intersection: 11: Pleasant Hill Road & Project Dwy

Movement	EB	NB	NB	SB
Directions Served	R	T	T	TR
Maximum Queue (ft)	68	256	262	5
Average Queue (ft)	23	226	228	0
95th Queue (ft)	51	246	246	3
Link Distance (ft)	161	151	151	342
Upstream Blk Time (%)		96	97	
Queuing Penalty (veh)		1070	1075	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Project Dwy NE & Deer Hill Road

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	1544	52	148
Average Queue (ft)	1499	13	88
95th Queue (ft)	1741	40	166
Link Distance (ft)	1528	233	137
Upstream Blk Time (%)	47		32
Queuing Penalty (veh)	540		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Project Dwy SW & Deer Hill Road

Movement	EB	B22	NB
Directions Served	TR	T	L
Maximum Queue (ft)	181	2607	32
Average Queue (ft)	143	2115	10
95th Queue (ft)	215	3553	34
Link Distance (ft)	76	2527	159
Upstream Blk Time (%)	83	41	
Queuing Penalty (veh)	1020	510	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Pleasant Hill Road & Acalanes Avenue

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	TR	T
Maximum Queue (ft)	182	460	458	486	64
Average Queue (ft)	136	415	427	443	3
95th Queue (ft)	229	527	517	533	34
Link Distance (ft)	178	266	266	266	151
Upstream Blk Time (%)	52	93	94	95	
Queuing Penalty (veh)	0	738	746	751	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	628	517	508	520	74
Average Queue (ft)	600	442	446	449	9
95th Queue (ft)	613	661	651	657	45
Link Distance (ft)	597	302	302	302	266
Upstream Blk Time (%)	100	88	90	90	
Queuing Penalty (veh)	0	501	509	511	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 16: Pleasant Hill Road

Movement	EB	NB	NB	NB	NB	SB
Directions Served	R	T	T	T	R	T
Maximum Queue (ft)	589	508	485	493	491	116
Average Queue (ft)	512	406	403	405	404	37
95th Queue (ft)	691	668	654	653	654	88
Link Distance (ft)	535	314	314	314	314	302
Upstream Blk Time (%)	56	82	82	82	80	
Queuing Penalty (veh)	0	451	450	451	438	
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 17: Pleasant Hill Road

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	TR
Maximum Queue (ft)	491	261	225	231	58
Average Queue (ft)	391	162	159	168	4
95th Queue (ft)	664	303	292	302	26
Link Distance (ft)	446	189	189	189	314
Upstream Blk Time (%)	81	35	30	58	
Queuing Penalty (veh)	0	123	106	203	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 18578

Appendix G – Alternative Trip Generation Level of Service Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	0	17	0	0	0	7	449	0	0	1932	8
Future Volume (veh/h)	12	0	17	0	0	0	7	449	0	0	1932	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	18	0	26	0	0	0	9	607	0	0	2273	9
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	226	26	267	0	551	0	28	1991	0	0	1786	7
Arrive On Green	0.30	0.00	0.30	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.50	0.50
Sat Flow, veh/h	531	88	895	0	1845	0	1757	3597	0	0	3673	14
Grp Volume(v), veh/h	44	0	0	0	0	0	9	607	0	0	1112	1170
Grp Sat Flow(s),veh/h/ln	1514	0	0	0	1845	0	1757	1752	0	0	1752	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.4	6.8	0.0	0.0	37.4	37.4
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.0	0.0	0.0	0.4	6.8	0.0	0.0	37.4	37.4
Prop In Lane	0.41		0.59	0.00		0.00	1.00		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	520	0	0	0	551	0	28	1991	0	0	874	919
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.32	0.30	0.00	0.00	1.27	1.27
Avail Cap(c_a), veh/h	520	0	0	0	551	0	187	1991	0	0	874	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	0.0	0.0	0.0	0.0	36.5	8.5	0.0	0.0	18.8	18.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.0	2.4	0.4	0.0	0.0	131.4	131.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	0.2	3.3	0.0	0.0	49.9	52.5
LnGrp Delay(d),s/veh	19.3	0.0	0.0	0.0	0.0	0.0	38.9	8.9	0.0	0.0	150.2	150.5
LnGrp LOS	B						D	A			F	F
Approach Vol, veh/h		44			0			616			2282	
Approach Delay, s/veh		19.3			0.0			9.3			150.4	
Approach LOS		B						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		48.0		27.0	5.2	42.8		27.0
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		42.6		22.4	8.0	* 31		22.4
Max Q Clear Time (g_c+I1), s		8.8		3.4	2.4	39.4		0.0
Green Ext Time (p_c), s		6.1		0.2	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		118.9
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	8	76	0	16	2	433	21	16	1932	1
Future Volume (veh/h)	8	0	8	76	0	16	2	433	21	16	1932	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	16	0	16	143	0	0	3	610	0	19	2273	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	233	23	183	421	0	364	13	1915	857	61	2012	0
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.00	0.01	1.00	0.00	0.03	0.57	0.00
Sat Flow, veh/h	693	97	791	1402	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	32	0	0	143	0	0	3	610	0	19	2273	0
Grp Sat Flow(s),veh/h/ln	1581	0	0	1402	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	0.0	0.1	0.0	0.0	0.8	43.1	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.0	0.8	43.1	0.0
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	439	0	0	421	0	364	13	1915	857	61	2012	0
V/C Ratio(X)	0.07	0.00	0.00	0.34	0.00	0.00	0.23	0.32	0.00	0.31	1.13	0.00
Avail Cap(c_a), veh/h	439	0	0	421	0	364	211	1915	857	187	2012	0
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	0.00	1.00	0.00	0.00	0.97	0.97	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	24.4	0.0	0.0	36.7	0.0	0.0	35.3	16.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	2.2	0.0	0.0	3.3	0.4	0.0	1.1	65.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.8	0.0	0.0	0.1	0.1	0.0	0.4	38.7	0.0
LnGrp Delay(d),s/veh	22.9	0.0	0.0	26.6	0.0	0.0	40.1	0.4	0.0	36.4	81.3	0.0
LnGrp LOS	C			C			D	A		D	F	
Approach Vol, veh/h		32			143			613			2292	
Approach Delay, s/veh		22.9			26.6			0.6			80.9	
Approach LOS		C			C			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	48.5		22.0	6.6	46.4		22.0
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 35		17.4	8.0	35.6		17.4
Max Q Clear Time (g_c+I1), s	2.1	45.1		3.1	2.8	2.0		8.3
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	61.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	389	42	449	2012	7
Future Volume (veh/h)	7	389	42	449	2012	7
Number	3	18	1	6	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	9	0	63	670	2340	8
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.80	0.80	0.67	0.67	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	507	453	98	2257	1969	881
Arrive On Green	0.29	0.00	0.06	0.64	1.00	1.00
Sat Flow, veh/h	1757	1568	1757	3597	3597	1568
Grp Volume(v), veh/h	9	0	63	670	2340	8
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1568
Q Serve(g_s), s	0.5	0.0	5.3	12.6	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	5.3	12.6	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	453	98	2257	1969	881
V/C Ratio(X)	0.02	0.00	0.64	0.30	1.19	0.01
Avail Cap(c_a), veh/h	507	453	141	2257	1969	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.1	0.0	69.4	11.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.6	0.3	85.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.6	6.2	23.4	0.0
LnGrp Delay(d),s/veh	38.2	0.0	72.0	12.1	85.4	0.0
LnGrp LOS	D		E	B	F	A
Approach Vol, veh/h	9			733	2348	
Approach Delay, s/veh	38.2			17.2	85.1	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.3	89.7				102.0		48.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	12.6	* 81				96.6		43.3
Max Q Clear Time (g_c+I1), s	7.3	2.0				14.6		2.5
Green Ext Time (p_c), s	0.0	63.1				7.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	68.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	2	134	51	1	10	95	447	24	9	2320	62
Future Volume (veh/h)	31	2	134	51	1	10	95	447	24	9	2320	62
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.97		0.92	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	46	3	0	77	2	15	136	639	34	10	2549	68
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.68	0.68	0.66	0.66	0.66	0.70	0.70	0.70	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	196	11	0	176	8	27	140	2736	1195	26	2036	889
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.09	0.78	0.78	0.02	0.71	0.71
Sat Flow, veh/h	1325	101	0	1167	69	235	1616	3505	1530	1433	2859	1248
Grp Volume(v), veh/h	49	0	0	94	0	0	136	639	34	10	2549	68
Grp Sat Flow(s),veh/h/ln	1425	0	0	1471	0	0	1616	1752	1530	1433	1430	1248
Q Serve(g_s), s	0.0	0.0	0.0	4.0	0.0	0.0	12.6	7.3	0.7	1.0	106.8	2.5
Cycle Q Clear(g_c), s	4.5	0.0	0.0	8.5	0.0	0.0	12.6	7.3	0.7	1.0	106.8	2.5
Prop In Lane	0.94		0.00	0.82		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	0	210	0	0	140	2736	1195	26	2036	889
V/C Ratio(X)	0.24	0.00	0.00	0.45	0.00	0.00	0.97	0.23	0.03	0.38	1.25	0.08
Avail Cap(c_a), veh/h	306	0	0	310	0	0	140	2736	1195	124	2036	889
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	0.0	0.0	62.5	0.0	0.0	68.3	4.4	3.7	72.8	21.6	6.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.6	0.0	0.0	66.6	0.2	0.0	3.4	117.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	3.7	0.0	0.0	8.2	3.6	0.3	0.4	74.8	0.9
LnGrp Delay(d),s/veh	61.2	0.0	0.0	63.1	0.0	0.0	135.0	4.6	3.7	76.2	139.1	6.7
LnGrp LOS	E			E			F	A	A	E	F	A
Approach Vol, veh/h		49			94			809			2627	
Approach Delay, s/veh		61.2			63.1			26.5			135.5	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	111.9		21.1	6.7	122.2		21.1
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	13.0	95.9		27.9	13.0	95.9		27.9
Max Q Clear Time (g_c+I1), s	14.6	108.8		10.5	3.0	9.3		6.5
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	7.3		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	107.9	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	79	39	184	118	53	143	617	206	113	1455	762
Future Volume (veh/h)	205	79	39	184	118	53	143	617	206	113	1455	762
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.89	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	342	132	65	204	222	72	199	857	286	124	1599	837
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	534	177	87	237	249	189	199	1702	726	141	1883	570
Arrive On Green	0.16	0.16	0.16	0.14	0.14	0.14	0.11	0.49	0.49	0.10	0.47	0.47
Sat Flow, veh/h	3408	1131	557	1757	1845	1400	1757	3505	1496	1387	3976	1203
Grp Volume(v), veh/h	342	0	197	204	222	72	199	857	286	124	1599	837
Grp Sat Flow(s),veh/h/ln	1704	0	1688	1757	1845	1400	1757	1752	1496	1387	1325	1203
Q Serve(g_s), s	14.1	0.0	16.7	17.0	17.8	7.0	17.0	25.0	18.2	13.2	53.1	71.0
Cycle Q Clear(g_c), s	14.1	0.0	16.7	17.0	17.8	7.0	17.0	25.0	18.2	13.2	53.1	71.0
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	534	0	264	237	249	189	199	1702	726	141	1883	570
V/C Ratio(X)	0.64	0.00	0.75	0.86	0.89	0.38	1.00	0.50	0.39	0.88	0.85	1.47
Avail Cap(c_a), veh/h	611	0	303	269	283	215	199	1702	726	185	1883	570
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	0.0	60.4	63.5	63.8	59.2	66.5	26.3	24.5	66.5	34.8	39.5
Incr Delay (d2), s/veh	1.1	0.0	6.7	19.6	24.0	0.5	63.6	1.1	1.6	25.5	5.0	220.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	8.3	9.6	10.7	2.7	11.8	12.3	7.9	6.1	20.3	58.5
LnGrp Delay(d),s/veh	60.4	0.0	67.1	83.1	87.8	59.6	130.1	27.3	26.1	92.0	39.8	259.8
LnGrp LOS	E		E	F	F	E	F	C	C	F	D	F
Approach Vol, veh/h		539			498			1342			2560	
Approach Delay, s/veh		62.9			81.8			42.3			114.2	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	76.1		24.3	19.2	77.9		28.6
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	19.0	73.0		19.8	15.2	27.0		18.7
Green Ext Time (p_c), s	0.0	0.0		0.5	0.1	12.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	85.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	233	100	0	0	0	253	681	389	0	421	721
Future Volume (veh/h)	159	233	100	0	0	0	253	681	389	0	421	721
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	169	248	106				291	783	0	0	448	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.94	0.94	0.94				0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	247	339	141				75	2437	1090	0	2051	918
Arrive On Green	0.14	0.14	0.14				0.04	0.70	0.00	0.00	0.59	0.00
Sat Flow, veh/h	1757	2414	1002				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	169	178	176				291	783	0	0	448	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1663				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	6.4	6.8	7.1				3.0	6.1	0.0	0.0	4.3	0.0
Cycle Q Clear(g_c), s	6.4	6.8	7.1				3.0	6.1	0.0	0.0	4.3	0.0
Prop In Lane	1.00		0.60				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	247	246	234				75	2437	1090	0	2051	918
V/C Ratio(X)	0.68	0.72	0.75				3.86	0.32	0.00	0.00	0.22	0.00
Avail Cap(c_a), veh/h	753	751	713				75	2437	1090	0	2051	918
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.67	0.67	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.6	28.8	28.9				33.5	4.2	0.0	0.0	6.9	0.0
Incr Delay (d2), s/veh	1.3	1.5	1.8				1310.4	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.4	3.4				28.8	3.0	0.0	0.0	2.1	0.0
LnGrp Delay(d),s/veh	29.9	30.3	30.8				1343.9	4.4	0.0	0.0	7.1	0.0
LnGrp LOS	C	C	C				F	A			A	
Approach Vol, veh/h		523						1074			448	
Approach Delay, s/veh		30.3						367.4			7.1	
Approach LOS		C						F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		54.1		15.9	7.7	46.4		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		8.1		9.1	5.0	6.3		
Green Ext Time (p_c), s		3.5		0.3	0.0	1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	202.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	35	153	24	0	173	0	1075	25	68	486	0
Future Volume (veh/h)	45	35	153	24	0	173	0	1075	25	68	486	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	57	44	194	32	0	228	0	1250	29	76	540	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.76	0.76	0.76	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	197	152	303	0	0	0	0	1979	46	106	1996	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.57	0.00
Sat Flow, veh/h	1012	782	1558		0		0	5227	117	1757	3597	0
Grp Volume(v), veh/h	101	0	194		0.0		0	829	450	76	540	0
Grp Sat Flow(s),veh/h/ln	1794	0	1558				0	1679	1821	1757	1752	0
Q Serve(g_s), s	1.6	0.0	3.9				0.0	6.8	6.8	1.4	2.7	0.0
Cycle Q Clear(g_c), s	1.6	0.0	3.9				0.0	6.8	6.8	1.4	2.7	0.0
Prop In Lane	0.56		1.00				0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	348	0	303				0	1313	712	106	1996	0
V/C Ratio(X)	0.29	0.00	0.64				0.00	0.63	0.63	0.72	0.27	0.00
Avail Cap(c_a), veh/h	954	0	828				0	1587	860	208	2484	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.6	0.0	12.6				0.0	8.3	8.3	15.6	3.7	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.3				0.0	0.6	1.1	8.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.9				0.0	3.2	3.6	0.9	1.3	0.0
LnGrp Delay(d),s/veh	12.1	0.0	14.8				0.0	8.9	9.4	24.3	3.8	0.0
LnGrp LOS	B		B					A	A	C	A	
Approach Vol, veh/h		295						1279			616	
Approach Delay, s/veh		13.9						9.1			6.3	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		10.6		23.3			6.0	17.2
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		18.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		5.9		4.7			3.4	8.8
Green Ext Time (p_c), s		0.9		3.4			0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	35.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	299	39	133	752	5	45	5	46	12	8	23
Future Vol, veh/h	9	299	39	133	752	5	45	5	46	12	8	23
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	60	60	60	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	383	50	156	885	6	75	8	77	16	10	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	891	0	0	433	0	0	1654	1635	408	1636	1657	890
Stage 1	-	-	-	-	-	-	432	432	-	1200	1200	-
Stage 2	-	-	-	-	-	-	1222	1203	-	436	457	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	757	-	-	1121	-	-	78	100	641	80	97	340
Stage 1	-	-	-	-	-	-	600	581	-	225	257	-
Stage 2	-	-	-	-	-	-	219	256	-	597	566	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	757	-	-	1121	-	-	~ 57	85	641	58	82	339
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 57	85	-	58	82	-
Stage 1	-	-	-	-	-	-	590	572	-	221	221	-
Stage 2	-	-	-	-	-	-	164	220	-	510	557	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.3	$ 343.9	62.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	106	757	-	-	1121	-	-	115
HCM Lane V/C Ratio	1.509	0.015	-	-	0.14	-	-	0.486
HCM Control Delay (s)	$ 343.9	9.8	-	-	8.7	-	-	62.8
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	11.8	0	-	-	0.5	-	-	2.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	217	728	180	634	2	284	11	114	15	24	22
Future Volume (veh/h)	18	217	728	180	634	2	284	11	114	15	24	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	20	247	0	198	697	2	369	0	0	19	30	28
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.79	0.79	0.79	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	49	615	523	248	821	2	552	0	246	55	87	81
Arrive On Green	0.03	0.33	0.00	0.14	0.45	0.45	0.16	0.00	0.00	0.13	0.13	0.13
Sat Flow, veh/h	1757	1845	1568	1757	1838	5	3514	0	1568	418	660	616
Grp Volume(v), veh/h	20	247	0	198	0	699	369	0	0	77	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1844	1757	0	1568	1695	0	0
Q Serve(g_s), s	0.8	7.0	0.0	7.4	0.0	22.8	6.7	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	0.8	7.0	0.0	7.4	0.0	22.8	6.7	0.0	0.0	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.25		0.36
Lane Grp Cap(c), veh/h	49	615	523	248	0	823	552	0	246	223	0	0
V/C Ratio(X)	0.41	0.40	0.00	0.80	0.00	0.85	0.67	0.00	0.00	0.35	0.00	0.00
Avail Cap(c_a), veh/h	521	1367	1162	521	0	1366	1562	0	697	753	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.3	17.3	0.0	28.1	0.0	16.6	26.8	0.0	0.0	26.7	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.4	0.0	5.9	0.0	2.8	1.4	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.6	0.0	4.0	0.0	12.1	3.3	0.0	0.0	1.4	0.0	0.0
LnGrp Delay(d),s/veh	37.7	17.7	0.0	33.9	0.0	19.4	28.2	0.0	0.0	27.6	0.0	0.0
LnGrp LOS	D	B		C		B	C			C		
Approach Vol, veh/h		267			897			369			77	
Approach Delay, s/veh		19.2			22.6			28.2			27.6	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.6	13.5	26.5		12.9	5.9	34.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		8.7	9.4	9.0		4.8	2.8	24.8
Green Ext Time (p_c), s		1.3	0.4	1.6		0.4	0.0	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	567	207	349	520	7	626	0	443	14	2	10
Future Volume (veh/h)	8	567	207	349	520	7	626	0	443	14	2	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	9	652	238	415	619	8	652	0	461	24	3	17
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.96	0.96	0.96	0.59	0.59	0.59
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	23	829	361	279	1355	18	838	0	1245	219	27	155
Arrive On Green	0.01	0.24	0.24	0.16	0.38	0.38	0.24	0.00	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1757	3505	1528	1757	3541	46	3514	0	3129	918	115	650
Grp Volume(v), veh/h	9	652	238	415	306	321	652	0	461	44	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1528	1757	1752	1834	1757	0	1565	1683	0	0
Q Serve(g_s), s	0.6	21.9	17.7	20.0	16.4	16.4	21.8	0.0	13.1	2.6	0.0	0.0
Cycle Q Clear(g_c), s	0.6	21.9	17.7	20.0	16.4	16.4	21.8	0.0	13.1	2.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.55		0.39
Lane Grp Cap(c), veh/h	23	829	361	279	671	702	838	0	1245	402	0	0
V/C Ratio(X)	0.40	0.79	0.66	1.49	0.46	0.46	0.78	0.00	0.37	0.11	0.00	0.00
Avail Cap(c_a), veh/h	279	1394	608	279	697	729	838	0	1245	402	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	61.6	45.0	43.4	52.9	29.0	29.0	44.8	0.0	26.8	37.4	0.0	0.0
Incr Delay (d2), s/veh	10.9	1.7	2.0	236.5	0.5	0.5	7.0	0.0	0.8	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	10.8	7.7	28.0	8.0	8.4	11.4	0.0	5.8	1.3	0.0	0.0
LnGrp Delay(d),s/veh	72.5	46.7	45.5	289.4	29.5	29.5	51.8	0.0	27.6	38.0	0.0	0.0
LnGrp LOS	E	D	D	F	C	C	D		C	D		
Approach Vol, veh/h		899			1042			1113			44	
Approach Delay, s/veh		46.6			133.0			41.8			38.0	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	33.7		34.0	5.6	52.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		23.8	22.0	23.9		4.6	2.6	18.4
Green Ext Time (p_c), s		2.5	0.0	5.8		0.2	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	73.8
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	51	0	1042	1609	6
Future Vol, veh/h	0	51	0	1042	1609	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	55	0	1133	1749	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	878	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	248	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	248	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	248	-	-
HCM Lane V/C Ratio	-	0.224	-	-
HCM Control Delay (s)	-	23.6	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.8	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	0	18	909	0	18
Future Vol, veh/h	320	0	18	909	0	18
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	348	0	20	988	0	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	348	0	1376	348
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	1028	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1205	-	159	693
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	344	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1205	-	156	693
Mov Cap-2 Maneuver	-	-	-	-	156	-
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	338	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	693	-	-	1205	-
HCM Lane V/C Ratio	0.028	-	-	0.016	-
HCM Control Delay (s)	10.3	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	5	0	909	15	0
Future Vol, veh/h	320	5	0	909	15	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	348	5	0	988	16	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1339	351
Stage 1	-	-	-	-	351	-
Stage 2	-	-	-	-	988	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	168	690
Stage 1	-	-	0	-	710	-
Stage 2	-	-	0	-	359	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	168	690
Mov Cap-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	359	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	28.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	168	-	-	-	-
HCM Lane V/C Ratio	0.097	-	-	-	-
HCM Control Delay (s)	28.7	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	48	1013	72	0	1662
Future Vol, veh/h	0	48	1013	72	0	1662
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	71	71	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	66	1427	101	0	1731

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	774	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	291	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	289	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	289	-
HCM Lane V/C Ratio	-	-	0.228	-
HCM Control Delay (s)	-	-	21.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.9	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	20	0	0	0	16	2074	0	0	817	18
Future Volume (veh/h)	15	0	20	0	0	0	16	2074	0	0	817	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	19	0	25	0	0	0	19	2440	0	0	888	20
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	208	19	231	0	498	0	50	2208	0	0	1966	44
Arrive On Green	0.27	0.00	0.27	0.00	0.00	0.00	0.03	0.63	0.00	0.00	0.56	0.56
Sat Flow, veh/h	580	71	855	0	1845	0	1757	3597	0	0	3595	79
Grp Volume(v), veh/h	44	0	0	0	0	0	19	2440	0	0	444	464
Grp Sat Flow(s),veh/h/ln	1505	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	63.0	0.0	0.0	14.9	14.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	0.0	0.0	0.0	1.1	63.0	0.0	0.0	14.9	14.9
Prop In Lane	0.43		0.57	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	458	0	0	0	498	0	50	2208	0	0	984	1026
V/C Ratio(X)	0.10	0.00	0.00	0.00	0.00	0.00	0.38	1.11	0.00	0.00	0.45	0.45
Avail Cap(c_a), veh/h	458	0	0	0	498	0	123	2208	0	0	984	1026
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	0.0	0.0	0.0	0.0	0.0	47.7	18.5	0.0	0.0	12.9	12.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	1.7	54.7	0.0	0.0	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.0	0.0	0.0	0.5	46.8	0.0	0.0	7.6	7.9
LnGrp Delay(d),s/veh	27.8	0.0	0.0	0.0	0.0	0.0	49.4	73.2	0.0	0.0	14.4	14.3
LnGrp LOS	C						D	F			B	B
Approach Vol, veh/h		44			0			2459			908	
Approach Delay, s/veh		27.8			0.0			73.0			14.4	
Approach LOS		C						E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		68.4		31.6	6.9	61.5		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		63.0		27.0	7.0	* 52		27.0
Max Q Clear Time (g_c+I1), s		65.0		4.0	3.1	16.9		0.0
Green Ext Time (p_c), s		0.0		0.2	0.0	9.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	56.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	9	34	0	36	5	2055	53	22	804	2
Future Volume (veh/h)	2	0	9	34	0	36	5	2055	53	22	804	2
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	4	0	16	42	0	0	6	2390	0	25	903	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	79	19	255	343	0	322	24	2269	1015	65	2351	0
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.00	0.01	0.65	0.00	0.04	0.67	0.00
Sat Flow, veh/h	217	94	1242	1394	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	20	0	0	42	0	0	6	2390	0	25	903	0
Grp Sat Flow(s),veh/h/ln	1552	0	0	1394	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	0.4	82.0	0.0	1.8	14.5	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	2.8	0.0	0.0	0.4	82.0	0.0	1.8	14.5	0.0
Prop In Lane	0.20		0.80	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	353	0	0	343	0	322	24	2269	1015	65	2351	0
V/C Ratio(X)	0.06	0.00	0.00	0.12	0.00	0.00	0.25	1.05	0.00	0.39	0.38	0.00
Avail Cap(c_a), veh/h	353	0	0	343	0	322	125	2269	1015	111	2351	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.5	0.0	0.0	41.1	0.0	0.0	61.9	22.3	0.0	59.6	9.3	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	2.0	34.9	0.0	1.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.3	0.0	0.0	0.2	50.1	0.0	0.9	7.1	0.0
LnGrp Delay(d),s/veh	40.8	0.0	0.0	41.8	0.0	0.0	63.9	57.2	0.0	61.0	9.7	0.0
LnGrp LOS	D			D			E	F		E	A	
Approach Vol, veh/h		20			42			2396			928	
Approach Delay, s/veh		40.8			41.8			57.2			11.1	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	90.4		30.6	8.7	87.4		30.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 81		26.0	8.0	82.0		26.0
Max Q Clear Time (g_c+I1), s	2.4	16.5		3.3	3.8	84.0		4.8
Green Ext Time (p_c), s	0.0	11.9		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	44.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	80	99	2092	830	21
Future Volume (veh/h)	21	80	99	2092	830	21
Number	3	18	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	22	0	115	2433	892	23
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.86	0.86	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	438	391	143	2278	1854	812
Arrive On Green	0.25	0.00	0.08	0.65	0.53	0.53
Sat Flow, veh/h	1757	1568	1757	3597	3597	1534
Grp Volume(v), veh/h	22	0	115	2433	892	23
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1534
Q Serve(g_s), s	1.0	0.0	6.5	65.2	16.1	0.7
Cycle Q Clear(g_c), s	1.0	0.0	6.5	65.2	16.1	0.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	438	391	143	2278	1854	812
V/C Ratio(X)	0.05	0.00	0.81	1.07	0.48	0.03
Avail Cap(c_a), veh/h	438	391	210	2278	1854	812
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	1.00
Uniform Delay (d), s/veh	28.6	0.0	45.3	17.5	14.9	11.3
Incr Delay (d2), s/veh	0.2	0.0	8.0	40.0	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	3.4	43.7	8.0	0.3
LnGrp Delay(d),s/veh	28.8	0.0	53.3	57.6	15.8	11.4
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	22			2548	915	
Approach Delay, s/veh	28.8			57.4	15.7	
Approach LOS	C			E	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		70.6			12.1	58.5		29.7
Change Period (Y+Rc), s		* 5.4			4.0	5.4		4.7
Max Green Setting (Gmax), s		* 65			12.0	48.9		25.0
Max Q Clear Time (g_c+I1), s		67.2			8.5	18.1		3.0
Green Ext Time (p_c), s		0.0			0.0	10.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1	118	40	4	18	121	2129	43	17	846	39
Future Volume (veh/h)	52	1	118	40	4	18	121	2129	43	17	846	39
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.93		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	71	1	0	49	5	22	132	2314	47	18	891	41
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	265	3	247	185	25	67	154	2480	1103	47	1846	804
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.10	0.71	0.71	0.03	0.65	0.65
Sat Flow, veh/h	1334	21	1568	884	156	424	1616	3505	1559	1433	2859	1245
Grp Volume(v), veh/h	72	0	0	76	0	0	132	2314	47	18	891	41
Grp Sat Flow(s),veh/h/ln	1355	0	1568	1463	0	0	1616	1752	1559	1433	1430	1245
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.0	10.4	73.7	1.2	1.6	20.8	1.6
Cycle Q Clear(g_c), s	5.6	0.0	0.0	5.1	0.0	0.0	10.4	73.7	1.2	1.6	20.8	1.6
Prop In Lane	0.99		1.00	0.64		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	0	247	276	0	0	154	2480	1103	47	1846	804
V/C Ratio(X)	0.27	0.00	0.00	0.28	0.00	0.00	0.86	0.93	0.04	0.38	0.48	0.05
Avail Cap(c_a), veh/h	325	0	314	335	0	0	249	2480	1103	99	1846	804
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	0.0	0.0	48.2	0.0	0.0	57.8	16.3	5.7	61.4	11.8	8.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	8.4	8.0	0.1	1.8	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	2.4	0.0	0.0	5.0	37.8	0.5	0.7	8.4	0.6
LnGrp Delay(d),s/veh	48.6	0.0	0.0	48.4	0.0	0.0	66.2	24.3	5.8	63.2	12.7	8.5
LnGrp LOS	D			D			E	C	A	E	B	A
Approach Vol, veh/h		72			76			2493			950	
Approach Delay, s/veh		48.6			48.4			26.2			13.5	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	96.9		24.5	16.4	88.8		24.5
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	91.8		26.0	20.0	80.8		26.0
Max Q Clear Time (g_c+I1), s	12.6	75.7		7.1	12.4	22.8		7.6
Green Ext Time (p_c), s	0.0	15.1		0.2	0.0	11.9		0.2

Intersection Summary		
HCM 2010 Ctrl Delay	23.7	
HCM 2010 LOS	C	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	588	118	62	162	94	132	78	1486	137	147	766	269
Future Volume (veh/h)	588	118	62	162	94	132	78	1486	137	147	766	269
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	717	144	76	158	175	163	84	1598	147	184	958	336
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	231	122	142	149	107	106	1590	685	155	2008	589
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.06	0.45	0.45	0.11	0.51	0.51
Sat Flow, veh/h	3408	1111	587	1757	1845	1329	1757	3505	1511	1387	3976	1166
Grp Volume(v), veh/h	717	0	220	158	175	163	84	1598	147	184	958	336
Grp Sat Flow(s),veh/h/ln	1704	0	1698	1757	1845	1329	1757	1752	1511	1387	1325	1166
Q Serve(g_s), s	26.0	0.0	14.7	10.1	10.1	10.1	5.9	56.7	7.4	14.0	19.6	25.0
Cycle Q Clear(g_c), s	26.0	0.0	14.7	10.1	10.1	10.1	5.9	56.7	7.4	14.0	19.6	25.0
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	353	142	149	107	106	1590	685	155	2008	589
V/C Ratio(X)	1.01	0.00	0.62	1.11	1.17	1.52	0.79	1.01	0.21	1.18	0.48	0.57
Avail Cap(c_a), veh/h	709	0	353	142	149	107	126	1590	685	155	2008	589
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	45.0	57.5	57.5	57.4	57.9	34.1	20.7	55.5	20.2	21.5
Incr Delay (d2), s/veh	36.7	0.0	2.5	109.1	128.1	274.6	20.1	23.8	0.7	130.4	0.8	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	0.0	7.2	9.2	10.4	11.9	3.5	32.6	3.2	11.0	7.3	8.7
LnGrp Delay(d),s/veh	86.2	0.0	47.6	166.5	185.6	332.1	78.0	58.0	21.4	185.9	21.0	25.5
LnGrp LOS	F		D	F	F	F	E	F	C	F	C	C
Approach Vol, veh/h		937			496			1829			1478	
Approach Delay, s/veh		77.1			227.7			55.9			42.5	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	11.6	68.2		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	16.0	58.7		12.1	7.9	27.0		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	14.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	73.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	413	257	0	0	0	243	565	379	0	511	407
Future Volume (veh/h)	239	413	257	0	0	0	243	565	379	0	511	407
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	241	417	260				270	628	0	0	538	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.99	0.99	0.99				0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	475	561	346				275	1693	757	0	790	354
Arrive On Green	0.27	0.27	0.27				0.16	0.48	0.00	0.00	0.23	0.00
Sat Flow, veh/h	1757	2075	1281				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	241	351	326				270	628	0	0	538	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1603				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	5.4	8.5	8.7				7.1	5.3	0.0	0.0	6.5	0.0
Cycle Q Clear(g_c), s	5.4	8.5	8.7				7.1	5.3	0.0	0.0	6.5	0.0
Prop In Lane	1.00		0.80				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	475	473	433				275	1693	757	0	790	354
V/C Ratio(X)	0.51	0.74	0.75				0.98	0.37	0.00	0.00	0.68	0.00
Avail Cap(c_a), veh/h	1244	1241	1136				275	2670	1195	0	1768	791
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	14.4	15.5	15.6				19.6	7.6	0.0	0.0	16.5	0.0
Incr Delay (d2), s/veh	0.3	0.9	1.0				48.7	0.1	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.2	3.9				7.1	2.5	0.0	0.0	3.2	0.0
LnGrp Delay(d),s/veh	14.7	16.4	16.6				68.3	7.6	0.0	0.0	16.9	0.0
LnGrp LOS	B	B	B				E	A			B	
Approach Vol, veh/h		918						898			538	
Approach Delay, s/veh		16.0						25.9			16.9	
Approach LOS		B						C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		27.9		18.7	12.0	15.9		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		35.5		33.0	* 7.3	23.5		
Max Q Clear Time (g_c+I1), s		7.3		10.7	9.1	8.5		
Green Ext Time (p_c), s		2.9		0.7	0.0	1.9		

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	63	184	28	0	115	0	997	24	128	630	0
Future Volume (veh/h)	53	63	184	28	0	115	0	997	24	128	630	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	56	66	194	41	0	169	0	1133	27	160	788	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.68	0.68	0.68	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	159	187	300	0	0	0	0	1803	43	205	2050	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.36	0.36	0.12	0.58	0.00
Sat Flow, veh/h	828	976	1563		0		0	5223	120	1757	3597	0
Grp Volume(v), veh/h	122	0	194		0.0		0	752	408	160	788	0
Grp Sat Flow(s),veh/h/ln	1803	0	1563				0	1679	1820	1757	1752	0
Q Serve(g_s), s	2.1	0.0	4.1				0.0	6.7	6.7	3.2	4.3	0.0
Cycle Q Clear(g_c), s	2.1	0.0	4.1				0.0	6.7	6.7	3.2	4.3	0.0
Prop In Lane	0.46		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	346	0	300				0	1197	649	205	2050	0
V/C Ratio(X)	0.35	0.00	0.65				0.00	0.63	0.63	0.78	0.38	0.00
Avail Cap(c_a), veh/h	856	0	742				0	1499	813	343	2641	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.5	0.0	13.4				0.0	9.6	9.6	15.4	4.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.3				0.0	0.6	1.0	6.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.9				0.0	3.1	3.5	1.9	2.0	0.0
LnGrp Delay(d),s/veh	13.2	0.0	15.7				0.0	10.1	10.6	21.8	4.1	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		316						1160			948	
Approach Delay, s/veh		14.7						10.3			7.1	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		10.9		25.0			8.2	16.8
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		27.0			7.0	16.0
Max Q Clear Time (g_c+I1), s		6.1		6.3			5.2	8.7
Green Ext Time (p_c), s		1.0		5.4			0.1	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	753	56	62	285	4	33	9	122	11	7	16
Future Vol, veh/h	10	753	56	62	285	4	33	9	122	11	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	83	83	83	80	80	80	65	65	65
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	965	72	75	343	5	41	11	153	17	11	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	348	0	0	1037	0	0	1541	1525	1001	1529	1559	346
Stage 1	-	-	-	-	-	-	1027	1027	-	496	496	-
Stage 2	-	-	-	-	-	-	514	498	-	1033	1063	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1205	-	-	666	-	-	93	117	293	95	112	695
Stage 1	-	-	-	-	-	-	282	310	-	554	544	-
Stage 2	-	-	-	-	-	-	541	543	-	279	299	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1205	-	-	666	-	-	75	103	293	38	98	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	75	103	-	38	98	-
Stage 1	-	-	-	-	-	-	279	307	-	548	483	-
Stage 2	-	-	-	-	-	-	453	482	-	127	296	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2	36.4	91.6
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	311	1205	-	-	666	-	-	89
HCM Lane V/C Ratio	0.659	0.011	-	-	0.112	-	-	0.588
HCM Control Delay (s)	36.4	8	-	-	11.1	-	-	91.6
HCM Lane LOS	E	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	4.4	0	-	-	0.4	-	-	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	585	1011	103	227	4	274	9	226	7	16	12
Future Volume (veh/h)	27	585	1011	103	227	4	274	9	226	7	16	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	29	636	0	129	284	5	311	0	0	10	22	16
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.90	0.90	0.90	0.73	0.73	0.73
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	65	754	641	168	844	15	481	0	215	45	99	72
Arrive On Green	0.04	0.41	0.00	0.10	0.47	0.47	0.14	0.00	0.00	0.13	0.13	0.13
Sat Flow, veh/h	1757	1845	1568	1757	1807	32	3514	0	1568	357	784	570
Grp Volume(v), veh/h	29	636	0	129	0	289	311	0	0	48	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1839	1757	0	1568	1711	0	0
Q Serve(g_s), s	1.1	21.4	0.0	4.9	0.0	6.8	5.8	0.0	0.0	1.7	0.0	0.0
Cycle Q Clear(g_c), s	1.1	21.4	0.0	4.9	0.0	6.8	5.8	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.21		0.33
Lane Grp Cap(c), veh/h	65	754	641	168	0	859	481	0	215	216	0	0
V/C Ratio(X)	0.44	0.84	0.00	0.77	0.00	0.34	0.65	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	511	1341	1140	511	0	1337	1532	0	684	746	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.4	18.3	0.0	30.4	0.0	11.6	28.1	0.0	0.0	27.0	0.0	0.0
Incr Delay (d2), s/veh	4.7	2.7	0.0	7.2	0.0	0.2	1.5	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.3	0.0	2.7	0.0	3.5	2.9	0.0	0.0	0.8	0.0	0.0
LnGrp Delay(d),s/veh	37.1	21.0	0.0	37.6	0.0	11.8	29.6	0.0	0.0	27.5	0.0	0.0
LnGrp LOS	D	C		D		B	C			C		
Approach Vol, veh/h		665			418			311			48	
Approach Delay, s/veh		21.7			19.8			29.6			27.5	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.4	10.6	32.1		12.7	6.6	36.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		7.8	6.9	23.4		3.7	3.1	8.8
Green Ext Time (p_c), s		1.1	0.2	4.7		0.2	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	919	238	248	252	13	428	0	689	14	5	7
Future Volume (veh/h)	8	919	238	248	252	13	428	0	689	14	5	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	8	957	248	306	311	16	465	0	749	22	8	11
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	20	1102	480	251	1512	77	753	0	1120	197	72	99
Arrive On Green	0.01	0.31	0.31	0.14	0.45	0.45	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1527	1757	3392	174	3514	0	3136	921	335	461
Grp Volume(v), veh/h	8	957	248	306	160	167	465	0	749	41	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1527	1757	1752	1813	1757	0	1568	1717	0	0
Q Serve(g_s), s	0.6	36.1	18.6	20.0	7.8	7.9	16.8	0.0	28.2	2.7	0.0	0.0
Cycle Q Clear(g_c), s	0.6	36.1	18.6	20.0	7.8	7.9	16.8	0.0	28.2	2.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	0.54		0.27
Lane Grp Cap(c), veh/h	20	1102	480	251	781	808	753	0	1120	368	0	0
V/C Ratio(X)	0.40	0.87	0.52	1.22	0.20	0.21	0.62	0.00	0.67	0.11	0.00	0.00
Avail Cap(c_a), veh/h	251	1252	545	251	781	808	753	0	1120	368	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	68.7	45.3	39.3	60.0	23.7	23.7	49.8	0.0	38.0	44.3	0.0	0.0
Incr Delay (d2), s/veh	12.2	6.2	0.9	129.2	0.1	0.1	3.8	0.0	3.2	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	18.4	8.0	18.7	3.8	4.0	8.5	0.0	12.7	1.3	0.0	0.0
LnGrp Delay(d),s/veh	80.9	51.4	40.2	189.2	23.8	23.8	53.6	0.0	41.2	44.9	0.0	0.0
LnGrp LOS	F	D	D	F	C	C	D		D	D		
Approach Vol, veh/h		1213			633			1214			41	
Approach Delay, s/veh		49.3			103.7			45.9			44.9	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	48.0		34.0	5.6	66.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		30.2	22.0	38.1		4.7	2.6	9.9
Green Ext Time (p_c), s		0.0	0.0	5.9		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	59.1
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	30	0	1689	979	11
Future Vol, veh/h	0	30	0	1689	979	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	33	0	1836	1064	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	538	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	415	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	415	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	415	-	-
HCM Lane V/C Ratio	-	0.079	-	-
HCM Control Delay (s)	-	14.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	758	0	30	399	0	10
Future Vol, veh/h	758	0	30	399	0	10
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	824	0	33	434	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	824	0	1324	824
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	802	-	171	371
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	607	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	802	-	164	371
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	582	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	15
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	371	-	-	802	-
HCM Lane V/C Ratio	0.029	-	-	0.041	-
HCM Control Delay (s)	15	-	-	9.7	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	758	9	0	399	9	0
Future Vol, veh/h	758	9	0	399	9	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	824	10	0	434	10	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1263	829
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	434	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	186	369
Stage 1	-	-	0	-	427	-
Stage 2	-	-	0	-	651	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	186	369
Mov Cap-2 Maneuver	-	-	-	-	186	-
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	25.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	186	-	-	-	-
HCM Lane V/C Ratio	0.053	-	-	-	-
HCM Control Delay (s)	25.4	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	1711	84	0	1004
Future Vol, veh/h	0	16	1711	84	0	1004
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	94	94	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	24	1820	89	0	1091

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	965	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	217	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	215	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	215	-
HCM Lane V/C Ratio	-	-	0.111	-
HCM Control Delay (s)	-	-	23.8	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	24	0	0	0	17	2487	0	0	808	17
Future Volume (veh/h)	11	0	24	0	0	0	17	2487	0	0	808	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	15	0	33	0	0	0	18	2591	0	0	878	18
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.73	0.73	0.73	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	248	36	458	0	803	0	53	1413	0	0	1083	22
Arrive On Green	0.44	0.00	0.44	0.00	0.00	0.00	0.03	0.40	0.00	0.00	0.31	0.31
Sat Flow, veh/h	395	83	1052	0	1845	0	1757	3597	0	0	3603	72
Grp Volume(v), veh/h	48	0	0	0	0	0	18	2591	0	0	438	458
Grp Sat Flow(s),veh/h/ln	1531	0	0	0	1845	0	1757	1752	0	0	1752	1830
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.6	25.0	0.0	0.0	14.3	14.3
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	0.0	0.0	0.6	25.0	0.0	0.0	14.3	14.3
Prop In Lane	0.31		0.69	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	743	0	0	0	803	0	53	1413	0	0	541	565
V/C Ratio(X)	0.06	0.00	0.00	0.00	0.00	0.00	0.34	1.83	0.00	0.00	0.81	0.81
Avail Cap(c_a), veh/h	743	0	0	0	803	0	198	1413	0	0	541	565
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	29.5	18.5	0.0	0.0	19.8	19.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	1.4	377.8	0.0	0.0	12.4	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	0.3	86.1	0.0	0.0	8.7	9.0
LnGrp Delay(d),s/veh	10.3	0.0	0.0	0.0	0.0	0.0	30.9	396.3	0.0	0.0	32.2	31.7
LnGrp LOS	B						C	F			C	C
Approach Vol, veh/h		48			0			2609			896	
Approach Delay, s/veh		10.3			0.0			393.8			31.9	
Approach LOS		B						F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		30.4		31.6	5.9	24.5		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		25.0		27.0	7.0	* 14		27.0
Max Q Clear Time (g_c+I1), s		27.0		3.1	2.6	16.3		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	297.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	26	0	26	6	2473	44	32	806	1
Future Volume (veh/h)	2	0	10	26	0	26	6	2473	44	32	806	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	5	0	23	36	0	0	6	2549	0	35	876	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.43	0.43	0.43	0.72	0.72	0.72	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	130	38	455	606	0	556	25	1265	566	103	1420	0
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.00	0.01	0.36	0.00	0.06	0.41	0.00
Sat Flow, veh/h	172	106	1283	1382	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	28	0	0	36	0	0	6	2549	0	35	876	0
Grp Sat Flow(s),veh/h/ln	1562	0	0	1382	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22.4	0.0	1.2	12.3	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.9	0.0	0.0	0.2	22.4	0.0	1.2	12.3	0.0
Prop In Lane	0.18		0.82	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	623	0	0	606	0	556	25	1265	566	103	1420	0
V/C Ratio(X)	0.04	0.00	0.00	0.06	0.00	0.00	0.24	2.01	0.00	0.34	0.62	0.00
Avail Cap(c_a), veh/h	623	0	0	606	0	556	255	1265	566	227	1420	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	13.2	0.0	0.0	30.2	19.8	0.0	28.0	14.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	0.0	0.2	457.0	0.0	0.7	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.4	0.0	0.0	0.1	91.0	0.0	0.6	6.2	0.0
LnGrp Delay(d),s/veh	13.3	0.0	0.0	13.4	0.0	0.0	30.4	476.8	0.0	28.8	16.6	0.0
LnGrp LOS	B			B			C	F		C	B	
Approach Vol, veh/h		28			36			2555			911	
Approach Delay, s/veh		13.3			13.4			475.7			17.1	
Approach LOS		B			B			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	30.5		26.6	7.6	27.8		26.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 17		22.0	8.0	18.0		22.0
Max Q Clear Time (g_c+I1), s	2.2	14.3		2.7	3.2	24.4		2.9
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	349.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	93	127	2520	824	29
Future Volume (veh/h)	19	93	127	2520	824	29
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	21	0	134	2653	867	31
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	480	428	164	2194	1727	757
Arrive On Green	0.27	0.00	0.09	0.63	0.49	0.49
Sat Flow, veh/h	1757	1568	1757	3597	3597	1535
Grp Volume(v), veh/h	21	0	134	2653	867	31
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1535
Q Serve(g_s), s	0.9	0.0	7.5	62.6	16.7	1.0
Cycle Q Clear(g_c), s	0.9	0.0	7.5	62.6	16.7	1.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	480	428	164	2194	1727	757
V/C Ratio(X)	0.04	0.00	0.82	1.21	0.50	0.04
Avail Cap(c_a), veh/h	480	428	264	2194	1727	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.81	0.81
Uniform Delay (d), s/veh	26.7	0.0	44.5	18.7	17.1	13.1
Incr Delay (d2), s/veh	0.2	0.0	4.5	98.7	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	3.9	59.9	8.3	0.5
LnGrp Delay(d),s/veh	26.9	0.0	49.0	117.4	17.9	13.2
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	21			2787	898	
Approach Delay, s/veh	26.9			114.1	17.8	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.3	54.7				68.0		32.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	15.0	* 44				62.6		27.3
Max Q Clear Time (g_c+I1), s	9.5	18.7				64.6		2.9
Green Ext Time (p_c), s	0.1	9.1				0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	90.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1	65	32	0	17	108	2578	46	13	862	35
Future Volume (veh/h)	51	1	65	32	0	17	108	2578	46	13	862	35
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	63	1	0	47	0	25	111	2658	47	14	937	38
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.81	0.81	0.81	0.68	0.68	0.68	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	349	5	257	237	19	85	200	2088	913	40	1429	625
Arrive On Green	0.16	0.16	0.00	0.16	0.00	0.16	0.12	0.60	0.60	0.03	0.50	0.50
Sat Flow, veh/h	1427	28	1568	861	117	520	1616	3505	1533	1433	2859	1251
Grp Volume(v), veh/h	64	0	0	72	0	0	111	2658	47	14	937	38
Grp Sat Flow(s),veh/h/ln	1456	0	1568	1499	0	0	1616	1752	1533	1433	1430	1251
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.0	4.0	36.9	0.8	0.6	15.1	1.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0	2.3	0.0	0.0	4.0	36.9	0.8	0.6	15.1	1.0
Prop In Lane	0.98		1.00	0.65		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	0	257	341	0	0	200	2088	913	40	1429	625
V/C Ratio(X)	0.18	0.00	0.00	0.21	0.00	0.00	0.56	1.27	0.05	0.35	0.66	0.06
Avail Cap(c_a), veh/h	615	0	556	616	0	0	235	2088	913	185	1429	625
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	22.6	0.0	0.0	25.6	12.5	5.2	29.6	11.5	8.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.9	126.8	0.1	2.0	2.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.1	0.0	0.0	1.8	54.2	0.4	0.3	6.3	0.4
LnGrp Delay(d),s/veh	22.6	0.0	0.0	22.7	0.0	0.0	26.5	139.3	5.3	31.6	13.9	8.2
LnGrp LOS	C			C			C	F	A	C	B	A
Approach Vol, veh/h		64			72			2816			989	
Approach Delay, s/veh		22.6			22.7			132.6			13.9	
Approach LOS		C			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.7	36.1		14.3	5.7	42.0		14.3
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	17.8		22.0	8.0	18.8		22.0
Max Q Clear Time (g_c+I1), s	10.3	17.1		4.3	2.6	38.9		4.0
Green Ext Time (p_c), s	0.0	0.5		0.2	0.0	0.0		0.2

Intersection Summary		
HCM 2010 Ctrl Delay	99.1	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	790	120	24	164	78	272	75	1534	125	159	725	195
Future Volume (veh/h)	790	120	24	164	78	272	75	1534	125	159	725	195
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	849	129	26	133	152	299	77	1581	129	175	797	214
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	905	394	80	169	178	148	91	1453	634	123	1795	551
Arrive On Green	0.27	0.27	0.27	0.10	0.10	0.10	0.05	0.41	0.41	0.09	0.45	0.45
Sat Flow, veh/h	3408	1485	299	1757	1845	1539	1757	3505	1530	1387	3976	1220
Grp Volume(v), veh/h	849	0	155	133	152	299	77	1581	129	175	797	214
Grp Sat Flow(s),veh/h/ln	1704	0	1785	1757	1845	1539	1757	1752	1530	1387	1325	1220
Q Serve(g_s), s	32.9	0.0	9.4	10.0	11.0	13.0	5.9	55.9	7.3	12.0	18.6	15.7
Cycle Q Clear(g_c), s	32.9	0.0	9.4	10.0	11.0	13.0	5.9	55.9	7.3	12.0	18.6	15.7
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	905	0	474	169	178	148	91	1453	634	123	1795	551
V/C Ratio(X)	0.94	0.00	0.33	0.79	0.86	2.02	0.85	1.09	0.20	1.42	0.44	0.39
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1453	634	123	1795	551
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	0.0	39.9	59.6	60.1	61.0	63.5	39.5	25.3	61.5	25.4	24.6
Incr Delay (d2), s/veh	15.4	0.0	0.1	19.7	30.1	481.0	46.4	51.6	0.7	229.4	0.8	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.4	0.0	4.7	5.8	7.1	25.3	4.0	37.4	3.2	12.4	6.9	5.6
LnGrp Delay(d),s/veh	63.9	0.0	40.0	79.3	90.2	542.0	109.8	91.1	26.0	290.9	26.2	26.7
LnGrp LOS	E		D	E	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1004			584			1787			1186	
Approach Delay, s/veh		60.2			319.1			87.2			65.3	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	66.0		17.0	16.0	61.0		41.0
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.0	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	11.9	20.6		15.0	14.0	57.9		34.9
Green Ext Time (p_c), s	0.0	10.8		0.0	0.0	0.0		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	105.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	573	331	0	0	0	202	605	283	0	488	339
Future Volume (veh/h)	269	573	331	0	0	0	202	605	283	0	488	339
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	277	591	341				210	630	0	0	536	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	541	659	380				75	1850	827	0	1464	655
Arrive On Green	0.31	0.31	0.31				0.04	0.53	0.00	0.00	0.42	0.00
Sat Flow, veh/h	1757	2141	1235				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	277	484	448				210	630	0	0	536	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1624				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	9.1	18.5	18.5				3.0	7.2	0.0	0.0	7.4	0.0
Cycle Q Clear(g_c), s	9.1	18.5	18.5				3.0	7.2	0.0	0.0	7.4	0.0
Prop In Lane	1.00		0.76				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	541	540	500				75	1850	827	0	1464	655
V/C Ratio(X)	0.51	0.90	0.90				2.79	0.34	0.00	0.00	0.37	0.00
Avail Cap(c_a), veh/h	753	751	696				75	1850	827	0	1464	655
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.76	0.76	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.9	23.1	23.2				33.5	9.5	0.0	0.0	14.0	0.0
Incr Delay (d2), s/veh	0.3	8.4	9.0				832.5	0.4	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	10.1	9.5				18.9	3.6	0.0	0.0	3.6	0.0
LnGrp Delay(d),s/veh	20.2	31.6	32.2				866.0	9.9	0.0	0.0	14.7	0.0
LnGrp LOS	C	C	C				F	A			B	
Approach Vol, veh/h		1209						840			536	
Approach Delay, s/veh		29.2						223.9			14.7	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		42.3		27.7	7.7	34.6		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		9.2		20.5	5.0	9.4		
Green Ext Time (p_c), s		2.7		0.9	0.0	1.7		

Intersection Summary	
HCM 2010 Ctrl Delay	89.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	70	193	23	0	108	0	897	14	152	660	0
Future Volume (veh/h)	64	70	193	23	0	108	0	897	14	152	660	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	71	78	214	30	0	140	0	954	15	163	710	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	183	201	333	0	0	0	0	1662	26	202	1949	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.33	0.33	0.12	0.56	0.00
Sat Flow, veh/h	859	943	1561		0		0	5272	80	1757	3597	0
Grp Volume(v), veh/h	149	0	214		0.0		0	627	342	163	710	0
Grp Sat Flow(s),veh/h/ln	1802	0	1561				0	1679	1828	1757	1752	0
Q Serve(g_s), s	2.5	0.0	4.3				0.0	5.4	5.4	3.1	3.9	0.0
Cycle Q Clear(g_c), s	2.5	0.0	4.3				0.0	5.4	5.4	3.1	3.9	0.0
Prop In Lane	0.48		1.00				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	384	0	333				0	1093	595	202	1949	0
V/C Ratio(X)	0.39	0.00	0.64				0.00	0.57	0.57	0.80	0.36	0.00
Avail Cap(c_a), veh/h	883	0	765				0	1548	843	202	2424	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.7	0.0	12.4				0.0	9.7	9.7	15.0	4.3	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.1				0.0	0.5	0.9	20.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.0				0.0	2.5	2.8	2.7	1.9	0.0
LnGrp Delay(d),s/veh	12.3	0.0	14.5				0.0	10.2	10.6	35.6	4.4	0.0
LnGrp LOS	B		B					B	B	D	A	
Approach Vol, veh/h		363						969			873	
Approach Delay, s/veh		13.6						10.3			10.2	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		11.4		23.3			8.0	15.3
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		6.3		5.9			5.1	7.4
Green Ext Time (p_c), s		1.2		4.5			0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	10.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	9.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	847	60	68	285	8	37	7	93	3	11	10
Future Vol, veh/h	25	847	60	68	285	8	37	7	93	3	11	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	83	83	83	82	82	82	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	28	941	67	82	343	10	45	9	113	5	18	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	353	0	0	1008	0	0	1561	1548	975	1547	1576	348
Stage 1	-	-	-	-	-	-	1031	1031	-	512	512	-
Stage 2	-	-	-	-	-	-	530	517	-	1035	1064	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1200	-	-	684	-	-	91	113	304	93	109	693
Stage 1	-	-	-	-	-	-	280	309	-	543	535	-
Stage 2	-	-	-	-	-	-	531	532	-	279	298	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1200	-	-	684	-	-	68	97	304	49	94	693
Mov Cap-2 Maneuver	-	-	-	-	-	-	68	97	-	49	94	-
Stage 1	-	-	-	-	-	-	274	302	-	531	471	-
Stage 2	-	-	-	-	-	-	438	468	-	166	291	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.1	78.3	46.8
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	198	1200	-	-	684	-	-	125
HCM Lane V/C Ratio	0.844	0.023	-	-	0.12	-	-	0.32
HCM Control Delay (s)	78.3	8.1	-	-	11	-	-	46.8
HCM Lane LOS	F	A	-	-	B	-	-	E
HCM 95th %tile Q(veh)	6.2	0.1	-	-	0.4	-	-	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	694	1069	91	236	3	245	15	230	9	14	5
Future Volume (veh/h)	14	694	1069	91	236	3	245	15	230	9	14	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	15	731	0	106	274	3	269	0	0	12	18	6
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.95	0.95	0.95	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	38	849	722	139	942	10	416	0	186	69	103	34
Arrive On Green	0.02	0.46	0.00	0.08	0.52	0.52	0.12	0.00	0.00	0.12	0.12	0.12
Sat Flow, veh/h	1757	1845	1568	1757	1821	20	3514	0	1568	587	880	293
Grp Volume(v), veh/h	15	731	0	106	0	277	269	0	0	36	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1841	1757	0	1568	1760	0	0
Q Serve(g_s), s	0.6	25.2	0.0	4.2	0.0	6.1	5.2	0.0	0.0	1.3	0.0	0.0
Cycle Q Clear(g_c), s	0.6	25.2	0.0	4.2	0.0	6.1	5.2	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.33		0.17
Lane Grp Cap(c), veh/h	38	849	722	139	0	953	416	0	186	206	0	0
V/C Ratio(X)	0.39	0.86	0.00	0.76	0.00	0.29	0.65	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	495	1299	1104	495	0	1297	1485	0	663	744	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.3	17.1	0.0	32.1	0.0	9.7	29.9	0.0	0.0	28.2	0.0	0.0
Incr Delay (d2), s/veh	6.5	3.9	0.0	8.4	0.0	0.2	1.7	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.5	0.0	2.4	0.0	3.1	2.6	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d),s/veh	40.8	21.0	0.0	40.5	0.0	9.9	31.6	0.0	0.0	28.6	0.0	0.0
LnGrp LOS	D	C		D		A	C			C		
Approach Vol, veh/h		746			383			269			36	
Approach Delay, s/veh		21.4			18.4			31.6			28.6	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.4	9.6	36.7		12.3	5.5	40.7
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		7.2	6.2	27.2		3.3	2.6	8.1
Green Ext Time (p_c), s		0.9	0.2	5.5		0.1	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1123	270	209	265	6	484	0	637	17	3	10
Future Volume (veh/h)	12	1123	270	209	265	6	484	0	637	17	3	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	13	1182	284	225	285	6	515	0	678	23	4	13
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.94	0.94	0.94	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	30	1200	519	241	1624	34	722	0	1074	201	35	113
Arrive On Green	0.02	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1516	1757	3510	74	3514	0	3136	977	170	552
Grp Volume(v), veh/h	13	1182	284	225	142	149	515	0	678	40	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1516	1757	1752	1831	1757	0	1568	1698	0	0
Q Serve(g_s), s	1.1	48.9	22.1	18.5	6.9	6.9	19.9	0.0	26.5	2.8	0.0	0.0
Cycle Q Clear(g_c), s	1.1	48.9	22.1	18.5	6.9	6.9	19.9	0.0	26.5	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.57		0.32
Lane Grp Cap(c), veh/h	30	1200	519	241	811	847	722	0	1074	349	0	0
V/C Ratio(X)	0.44	0.98	0.55	0.93	0.18	0.18	0.71	0.00	0.63	0.11	0.00	0.00
Avail Cap(c_a), veh/h	241	1200	519	241	811	847	722	0	1074	349	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.1	47.6	38.8	62.4	22.9	22.9	54.0	0.0	40.3	47.2	0.0	0.0
Incr Delay (d2), s/veh	9.9	22.3	1.2	40.5	0.1	0.1	5.9	0.0	2.8	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	27.4	9.4	11.7	3.4	3.5	10.3	0.0	11.9	1.4	0.0	0.0
LnGrp Delay(d),s/veh	81.0	69.9	40.0	102.9	23.0	23.0	59.9	0.0	43.1	47.9	0.0	0.0
LnGrp LOS	F	E	D	F	C	C	E		D	D		
Approach Vol, veh/h		1479			516			1193			40	
Approach Delay, s/veh		64.3			57.8			50.4			47.9	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	54.0		34.0	6.5	71.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		28.5	20.5	50.9		4.8	3.1	8.9
Green Ext Time (p_c), s		0.9	0.0	0.0		0.1	0.0	1.8

Intersection Summary		
HCM 2010 Ctrl Delay		57.9
HCM 2010 LOS		E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	1813	821	18
Future Vol, veh/h	0	33	0	1813	821	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	36	0	1971	892	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	456	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	470	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	470	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	470	-	-
HCM Lane V/C Ratio	-	0.076	-	-
HCM Control Delay (s)	-	13.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	921	0	52	314	0	11
Future Vol, veh/h	921	0	52	314	0	11
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1001	0	57	341	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1001	0	1456	1001
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	455	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	688	-	142	293
Stage 1	-	-	-	-	354	-
Stage 2	-	-	-	-	637	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	688	-	130	293
Mov Cap-2 Maneuver	-	-	-	-	130	-
Stage 1	-	-	-	-	354	-
Stage 2	-	-	-	-	584	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	17.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	293	-	-	688	-
HCM Lane V/C Ratio	0.041	-	-	0.082	-
HCM Control Delay (s)	17.8	-	-	10.7	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	921	15	0	314	10	0
Future Vol, veh/h	921	15	0	314	10	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1001	16	0	341	11	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1350	1009
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	341	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	165	290
Stage 1	-	-	0	-	351	-
Stage 2	-	-	0	-	718	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	165	290
Mov Cap-2 Maneuver	-	-	-	-	165	-
Stage 1	-	-	-	-	351	-
Stage 2	-	-	-	-	718	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	28.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	165	-	-	-	-
HCM Lane V/C Ratio	0.066	-	-	-	-
HCM Control Delay (s)	28.4	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	1849	46	0	855
Future Vol, veh/h	0	12	1849	46	0	855
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	98	98	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	20	1887	47	0	994

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	971	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	215	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	214	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	214	-
HCM Lane V/C Ratio	-	-	0.093	-
HCM Control Delay (s)	-	-	23.5	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	0	17	0	0	0	7	449	0	0	1932	8
Future Volume (veh/h)	12	0	17	0	0	0	7	449	0	0	1932	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	18	0	26	0	0	0	9	607	0	0	2273	9
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	226	26	267	0	551	0	28	1991	0	0	1786	7
Arrive On Green	0.30	0.00	0.30	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.50	0.50
Sat Flow, veh/h	531	88	895	0	1845	0	1757	3597	0	0	3673	14
Grp Volume(v), veh/h	44	0	0	0	0	0	9	607	0	0	1112	1170
Grp Sat Flow(s),veh/h/ln	1514	0	0	0	1845	0	1757	1752	0	0	1752	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.4	6.8	0.0	0.0	37.4	37.4
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.0	0.0	0.0	0.4	6.8	0.0	0.0	37.4	37.4
Prop In Lane	0.41		0.59	0.00		0.00	1.00		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	520	0	0	0	551	0	28	1991	0	0	874	919
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.32	0.30	0.00	0.00	1.27	1.27
Avail Cap(c_a), veh/h	520	0	0	0	551	0	187	1991	0	0	874	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	0.0	0.0	0.0	0.0	36.5	8.5	0.0	0.0	18.8	18.8
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.0	2.4	0.4	0.0	0.0	131.4	131.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	0.2	3.3	0.0	0.0	49.9	52.5
LnGrp Delay(d),s/veh	19.3	0.0	0.0	0.0	0.0	0.0	38.9	8.9	0.0	0.0	150.2	150.5
LnGrp LOS	B						D	A			F	F
Approach Vol, veh/h		44			0			616			2282	
Approach Delay, s/veh		19.3			0.0			9.3			150.4	
Approach LOS		B						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		48.0		27.0	5.2	42.8		27.0
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		42.6		22.4	8.0	* 31		22.4
Max Q Clear Time (g_c+I1), s		8.8		3.4	2.4	39.4		0.0
Green Ext Time (p_c), s		6.1		0.2	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	118.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	8	76	0	16	2	433	21	16	1932	1
Future Volume (veh/h)	8	0	8	76	0	16	2	433	21	16	1932	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	16	0	16	143	0	0	3	610	0	19	2273	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	233	23	183	421	0	364	13	1915	857	61	2012	0
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.00	0.01	1.00	0.00	0.03	0.57	0.00
Sat Flow, veh/h	693	97	791	1402	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	32	0	0	143	0	0	3	610	0	19	2273	0
Grp Sat Flow(s),veh/h/ln	1581	0	0	1402	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	0.0	0.1	0.0	0.0	0.8	43.1	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.0	0.8	43.1	0.0
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	439	0	0	421	0	364	13	1915	857	61	2012	0
V/C Ratio(X)	0.07	0.00	0.00	0.34	0.00	0.00	0.23	0.32	0.00	0.31	1.13	0.00
Avail Cap(c_a), veh/h	439	0	0	421	0	364	211	1915	857	187	2012	0
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	0.00	1.00	0.00	0.00	0.97	0.97	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	24.4	0.0	0.0	36.7	0.0	0.0	35.3	16.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	2.2	0.0	0.0	3.3	0.4	0.0	1.1	65.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	2.8	0.0	0.0	0.1	0.1	0.0	0.4	38.7	0.0
LnGrp Delay(d),s/veh	22.9	0.0	0.0	26.6	0.0	0.0	40.1	0.4	0.0	36.4	81.3	0.0
LnGrp LOS	C			C			D	A		D	F	
Approach Vol, veh/h		32			143			613			2292	
Approach Delay, s/veh		22.9			26.6			0.6			80.9	
Approach LOS		C			C			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	48.5		22.0	6.6	46.4		22.0
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 35		17.4	8.0	35.6		17.4
Max Q Clear Time (g_c+I1), s	2.1	45.1		3.1	2.8	2.0		8.3
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	6.2		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	61.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	389	42	449	2012	7
Future Volume (veh/h)	7	389	42	449	2012	7
Number	3	18	1	6	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	9	0	63	670	2340	8
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.80	0.80	0.67	0.67	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	507	453	98	2257	1969	881
Arrive On Green	0.29	0.00	0.06	0.64	1.00	1.00
Sat Flow, veh/h	1757	1568	1757	3597	3597	1568
Grp Volume(v), veh/h	9	0	63	670	2340	8
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1568
Q Serve(g_s), s	0.5	0.0	5.3	12.6	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	5.3	12.6	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	453	98	2257	1969	881
V/C Ratio(X)	0.02	0.00	0.64	0.30	1.19	0.01
Avail Cap(c_a), veh/h	507	453	141	2257	1969	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.1	0.0	69.4	11.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	2.6	0.3	85.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	2.6	6.2	23.4	0.0
LnGrp Delay(d),s/veh	38.2	0.0	72.0	12.1	85.4	0.0
LnGrp LOS	D		E	B	F	A
Approach Vol, veh/h	9			733	2348	
Approach Delay, s/veh	38.2			17.2	85.1	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.3	89.7				102.0		48.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	12.6	* 81				96.6		43.3
Max Q Clear Time (g_c+I1), s	7.3	2.0				14.6		2.5
Green Ext Time (p_c), s	0.0	63.1				7.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	68.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	2	134	51	1	10	95	447	24	9	2320	62
Future Volume (veh/h)	31	2	134	51	1	10	95	447	24	9	2320	62
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.97		0.92	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	46	3	0	77	2	15	136	639	34	10	2549	68
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.68	0.68	0.66	0.66	0.66	0.70	0.70	0.70	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	196	11	0	176	8	27	140	2736	1195	26	2036	889
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.17	1.00	1.00	0.02	0.71	0.71
Sat Flow, veh/h	1325	101	0	1167	69	235	1616	3505	1530	1433	2859	1248
Grp Volume(v), veh/h	49	0	0	94	0	0	136	639	34	10	2549	68
Grp Sat Flow(s),veh/h/ln	1425	0	0	1471	0	0	1616	1752	1530	1433	1430	1248
Q Serve(g_s), s	0.0	0.0	0.0	4.0	0.0	0.0	12.5	0.0	0.0	1.0	106.8	2.5
Cycle Q Clear(g_c), s	4.5	0.0	0.0	8.5	0.0	0.0	12.5	0.0	0.0	1.0	106.8	2.5
Prop In Lane	0.94		0.00	0.82		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	0	210	0	0	140	2736	1195	26	2036	889
V/C Ratio(X)	0.24	0.00	0.00	0.45	0.00	0.00	0.97	0.23	0.03	0.38	1.25	0.08
Avail Cap(c_a), veh/h	306	0	0	310	0	0	140	2736	1195	124	2036	889
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	0.00	1.00	0.00	0.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.0	0.0	0.0	62.5	0.0	0.0	61.8	0.0	0.0	72.8	21.6	6.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.6	0.0	0.0	60.1	0.2	0.0	3.4	117.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	3.7	0.0	0.0	7.9	0.1	0.0	0.4	74.8	0.9
LnGrp Delay(d),s/veh	61.2	0.0	0.0	63.1	0.0	0.0	121.9	0.2	0.0	76.2	139.1	6.7
LnGrp LOS	E			E			F	A	A	E	F	A
Approach Vol, veh/h		49			94			809			2627	
Approach Delay, s/veh		61.2			63.1			20.6			135.5	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	111.9		21.1	6.7	122.2		21.1
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	13.0	95.9		27.9	13.0	95.9		27.9
Max Q Clear Time (g_c+I1), s	14.5	108.8		10.5	3.0	2.0		6.5
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	7.3		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	106.6	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	79	39	184	118	53	143	617	206	113	1455	762
Future Volume (veh/h)	205	79	39	184	118	53	143	617	206	113	1455	762
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.89	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	342	132	65	204	222	72	199	857	286	124	1599	837
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	534	177	87	237	249	189	199	1702	726	141	1311	570
Arrive On Green	0.16	0.16	0.16	0.14	0.14	0.14	0.11	0.49	0.49	0.10	0.47	0.47
Sat Flow, veh/h	3408	1131	557	1757	1845	1400	1757	3505	1496	1387	2767	1203
Grp Volume(v), veh/h	342	0	197	204	222	72	199	857	286	124	1599	837
Grp Sat Flow(s),veh/h/ln	1704	0	1688	1757	1845	1400	1757	1752	1496	1387	1383	1203
Q Serve(g_s), s	14.1	0.0	16.7	17.0	17.8	7.0	17.0	25.0	18.2	13.2	71.0	71.0
Cycle Q Clear(g_c), s	14.1	0.0	16.7	17.0	17.8	7.0	17.0	25.0	18.2	13.2	71.0	71.0
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	534	0	264	237	249	189	199	1702	726	141	1311	570
V/C Ratio(X)	0.64	0.00	0.75	0.86	0.89	0.38	1.00	0.50	0.39	0.88	1.22	1.47
Avail Cap(c_a), veh/h	611	0	303	269	283	215	199	1702	726	185	1311	570
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	59.3	0.0	60.4	63.5	63.8	59.2	66.5	26.3	24.5	66.5	39.5	39.5
Incr Delay (d2), s/veh	1.1	0.0	6.7	19.6	24.0	0.5	63.6	1.1	1.6	3.2	99.7	211.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	8.3	9.6	10.7	2.7	11.8	12.3	7.9	5.2	45.3	57.1
LnGrp Delay(d),s/veh	60.4	0.0	67.1	83.1	87.8	59.6	130.1	27.3	26.1	69.7	139.2	251.2
LnGrp LOS	E		E	F	F	E	F	C	C	E	F	F
Approach Vol, veh/h		539			498			1342			2560	
Approach Delay, s/veh		62.9			81.8			42.3			172.4	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	76.1		24.3	19.2	77.9		28.6
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	19.0	73.0		19.8	15.2	27.0		18.7
Green Ext Time (p_c), s	0.0	0.0		0.5	0.1	12.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	116.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	233	100	0	0	0	253	681	389	0	421	721
Future Volume (veh/h)	159	233	100	0	0	0	253	681	389	0	421	721
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	169	248	106				291	783	0	0	448	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.94	0.94	0.94				0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	247	339	141				75	2437	1090	0	2051	918
Arrive On Green	0.14	0.14	0.14				0.04	0.70	0.00	0.00	0.59	0.00
Sat Flow, veh/h	1757	2414	1002				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	169	178	176				291	783	0	0	448	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1663				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	6.4	6.8	7.1				3.0	6.1	0.0	0.0	4.3	0.0
Cycle Q Clear(g_c), s	6.4	6.8	7.1				3.0	6.1	0.0	0.0	4.3	0.0
Prop In Lane	1.00		0.60				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	247	246	234				75	2437	1090	0	2051	918
V/C Ratio(X)	0.68	0.72	0.75				3.86	0.32	0.00	0.00	0.22	0.00
Avail Cap(c_a), veh/h	753	751	713				75	2437	1090	0	2051	918
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.67	0.67	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.6	28.8	28.9				33.5	4.2	0.0	0.0	6.9	0.0
Incr Delay (d2), s/veh	1.3	1.5	1.8				1310.4	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.4	3.4				28.8	3.0	0.0	0.0	2.1	0.0
LnGrp Delay(d),s/veh	29.9	30.3	30.8				1343.9	4.4	0.0	0.0	7.1	0.0
LnGrp LOS	C	C	C				F	A			A	
Approach Vol, veh/h		523						1074			448	
Approach Delay, s/veh		30.3						367.4			7.1	
Approach LOS		C						F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		54.1		15.9	7.7	46.4		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		8.1		9.1	5.0	6.3		
Green Ext Time (p_c), s		3.5		0.3	0.0	1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	202.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	35	153	24	0	173	0	1075	25	68	486	0
Future Volume (veh/h)	45	35	153	24	0	173	0	1075	25	68	486	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	57	44	194	32	0	228	0	1250	29	76	540	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.76	0.76	0.76	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	197	152	303	0	0	0	0	1979	46	106	1996	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.57	0.00
Sat Flow, veh/h	1012	782	1558		0		0	5227	117	1757	3597	0
Grp Volume(v), veh/h	101	0	194		0.0		0	829	450	76	540	0
Grp Sat Flow(s),veh/h/ln	1794	0	1558				0	1679	1821	1757	1752	0
Q Serve(g_s), s	1.6	0.0	3.9				0.0	6.8	6.8	1.4	2.7	0.0
Cycle Q Clear(g_c), s	1.6	0.0	3.9				0.0	6.8	6.8	1.4	2.7	0.0
Prop In Lane	0.56		1.00				0.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	348	0	303				0	1313	712	106	1996	0
V/C Ratio(X)	0.29	0.00	0.64				0.00	0.63	0.63	0.72	0.27	0.00
Avail Cap(c_a), veh/h	954	0	828				0	1587	860	208	2484	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.6	0.0	12.6				0.0	8.3	8.3	15.6	3.7	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.3				0.0	0.6	1.1	8.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.9				0.0	3.2	3.6	0.9	1.3	0.0
LnGrp Delay(d),s/veh	12.1	0.0	14.8				0.0	8.9	9.4	24.3	3.8	0.0
LnGrp LOS	B		B					A	A	C	A	
Approach Vol, veh/h		295						1279			616	
Approach Delay, s/veh		13.9						9.1			6.3	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		10.6		23.3			6.0	17.2
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		18.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		5.9		4.7			3.4	8.8
Green Ext Time (p_c), s		0.9		3.4			0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	35.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	299	39	133	752	5	45	5	46	12	8	23
Future Vol, veh/h	9	299	39	133	752	5	45	5	46	12	8	23
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	60	60	60	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	12	383	50	156	885	6	75	8	77	16	10	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	891	0	0	433	0	0	1654	1635	408	1636	1657	890
Stage 1	-	-	-	-	-	-	432	432	-	1200	1200	-
Stage 2	-	-	-	-	-	-	1222	1203	-	436	457	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	757	-	-	1121	-	-	78	100	641	80	97	340
Stage 1	-	-	-	-	-	-	600	581	-	225	257	-
Stage 2	-	-	-	-	-	-	219	256	-	597	566	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	757	-	-	1121	-	-	~ 57	85	641	58	82	339
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 57	85	-	58	82	-
Stage 1	-	-	-	-	-	-	590	572	-	221	221	-
Stage 2	-	-	-	-	-	-	164	220	-	510	557	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.3	$ 343.9	62.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	106	757	-	-	1121	-	-	115
HCM Lane V/C Ratio	1.509	0.015	-	-	0.14	-	-	0.486
HCM Control Delay (s)	$ 343.9	9.8	-	-	8.7	-	-	62.8
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	11.8	0	-	-	0.5	-	-	2.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	217	728	180	634	2	284	11	114	15	24	22
Future Volume (veh/h)	18	217	728	180	634	2	284	11	114	15	24	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	20	247	0	198	697	2	369	0	0	19	30	28
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.79	0.79	0.79	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	49	615	523	248	821	2	552	0	246	55	87	81
Arrive On Green	0.03	0.33	0.00	0.14	0.45	0.45	0.16	0.00	0.00	0.13	0.13	0.13
Sat Flow, veh/h	1757	1845	1568	1757	1838	5	3514	0	1568	418	660	616
Grp Volume(v), veh/h	20	247	0	198	0	699	369	0	0	77	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1844	1757	0	1568	1695	0	0
Q Serve(g_s), s	0.8	7.0	0.0	7.4	0.0	22.8	6.7	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	0.8	7.0	0.0	7.4	0.0	22.8	6.7	0.0	0.0	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.25		0.36
Lane Grp Cap(c), veh/h	49	615	523	248	0	823	552	0	246	223	0	0
V/C Ratio(X)	0.41	0.40	0.00	0.80	0.00	0.85	0.67	0.00	0.00	0.35	0.00	0.00
Avail Cap(c_a), veh/h	521	1367	1162	521	0	1366	1562	0	697	753	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.3	17.3	0.0	28.1	0.0	16.6	26.8	0.0	0.0	26.7	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.4	0.0	5.9	0.0	2.8	1.4	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.6	0.0	4.0	0.0	12.1	3.3	0.0	0.0	1.4	0.0	0.0
LnGrp Delay(d),s/veh	37.7	17.7	0.0	33.9	0.0	19.4	28.2	0.0	0.0	27.6	0.0	0.0
LnGrp LOS	D	B		C		B	C			C		
Approach Vol, veh/h		267			897			369			77	
Approach Delay, s/veh		19.2			22.6			28.2			27.6	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.6	13.5	26.5		12.9	5.9	34.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		8.7	9.4	9.0		4.8	2.8	24.8
Green Ext Time (p_c), s		1.3	0.4	1.6		0.4	0.0	5.3

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	567	207	349	520	7	626	0	443	14	2	10
Future Volume (veh/h)	8	567	207	349	520	7	626	0	443	14	2	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	9	652	238	415	619	8	652	0	461	24	3	17
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.96	0.96	0.96	0.59	0.59	0.59
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	23	829	361	279	1355	18	838	0	1245	219	27	155
Arrive On Green	0.01	0.24	0.24	0.16	0.38	0.38	0.24	0.00	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1757	3505	1528	1757	3541	46	3514	0	3129	918	115	650
Grp Volume(v), veh/h	9	652	238	415	306	321	652	0	461	44	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1528	1757	1752	1834	1757	0	1565	1683	0	0
Q Serve(g_s), s	0.6	21.9	17.7	20.0	16.4	16.4	21.8	0.0	13.1	2.6	0.0	0.0
Cycle Q Clear(g_c), s	0.6	21.9	17.7	20.0	16.4	16.4	21.8	0.0	13.1	2.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.55		0.39
Lane Grp Cap(c), veh/h	23	829	361	279	671	702	838	0	1245	402	0	0
V/C Ratio(X)	0.40	0.79	0.66	1.49	0.46	0.46	0.78	0.00	0.37	0.11	0.00	0.00
Avail Cap(c_a), veh/h	279	1394	608	279	697	729	838	0	1245	402	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	61.6	45.0	43.4	52.9	29.0	29.0	44.8	0.0	26.8	37.4	0.0	0.0
Incr Delay (d2), s/veh	10.9	1.7	2.0	236.5	0.5	0.5	7.0	0.0	0.8	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	10.8	7.7	28.0	8.0	8.4	11.4	0.0	5.8	1.3	0.0	0.0
LnGrp Delay(d),s/veh	72.5	46.7	45.5	289.4	29.5	29.5	51.8	0.0	27.6	38.0	0.0	0.0
LnGrp LOS	E	D	D	F	C	C	D		C	D		
Approach Vol, veh/h		899			1042			1113			44	
Approach Delay, s/veh		46.6			133.0			41.8			38.0	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	33.7		34.0	5.6	52.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		23.8	22.0	23.9		4.6	2.6	18.4
Green Ext Time (p_c), s		2.5	0.0	5.8		0.2	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	73.8
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	51	0	1042	1609	6
Future Vol, veh/h	0	51	0	1042	1609	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	55	0	1133	1749	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	878	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	289	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	289	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	289	-	-
HCM Lane V/C Ratio	-	0.192	-	-
HCM Control Delay (s)	-	20.4	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	0	18	909	0	18
Future Vol, veh/h	320	0	18	909	0	18
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	348	0	20	988	0	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	348	0	1376	348
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	1028	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1205	-	159	693
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	344	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1205	-	156	693
Mov Cap-2 Maneuver	-	-	-	-	156	-
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	338	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	693	-	-	1205	-
HCM Lane V/C Ratio	0.028	-	-	0.016	-
HCM Control Delay (s)	10.3	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	320	5	0	909	15	0
Future Vol, veh/h	320	5	0	909	15	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	348	5	0	988	16	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1339	351
Stage 1	-	-	-	-	351	-
Stage 2	-	-	-	-	988	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	168	690
Stage 1	-	-	0	-	710	-
Stage 2	-	-	0	-	359	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	168	690
Mov Cap-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	359	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	28.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	168	-	-	-	-
HCM Lane V/C Ratio	0.097	-	-	-	-
HCM Control Delay (s)	28.7	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	48	1013	72	0	1662
Future Vol, veh/h	0	48	1013	72	0	1662
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	71	71	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	66	1427	101	0	1731

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	774	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	291	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	289	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	289	-
HCM Lane V/C Ratio	-	-	0.228	-
HCM Control Delay (s)	-	-	21.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.9	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	20	0	0	0	16	2074	0	0	817	18
Future Volume (veh/h)	15	0	20	0	0	0	16	2074	0	0	817	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	19	0	25	0	0	0	19	2440	0	0	888	20
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	208	19	231	0	498	0	50	2208	0	0	1966	44
Arrive On Green	0.27	0.00	0.27	0.00	0.00	0.00	0.03	0.63	0.00	0.00	0.56	0.56
Sat Flow, veh/h	580	71	855	0	1845	0	1757	3597	0	0	3595	79
Grp Volume(v), veh/h	44	0	0	0	0	0	19	2440	0	0	444	464
Grp Sat Flow(s),veh/h/ln	1505	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	63.0	0.0	0.0	14.9	14.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	0.0	0.0	0.0	1.1	63.0	0.0	0.0	14.9	14.9
Prop In Lane	0.43		0.57	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	458	0	0	0	498	0	50	2208	0	0	984	1026
V/C Ratio(X)	0.10	0.00	0.00	0.00	0.00	0.00	0.38	1.11	0.00	0.00	0.45	0.45
Avail Cap(c_a), veh/h	458	0	0	0	498	0	123	2208	0	0	984	1026
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	0.0	0.0	0.0	0.0	0.0	47.7	18.5	0.0	0.0	12.9	12.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	1.7	54.7	0.0	0.0	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.0	0.0	0.0	0.5	46.8	0.0	0.0	7.6	7.9
LnGrp Delay(d),s/veh	27.8	0.0	0.0	0.0	0.0	0.0	49.4	73.2	0.0	0.0	14.4	14.3
LnGrp LOS	C						D	F			B	B
Approach Vol, veh/h		44			0			2459			908	
Approach Delay, s/veh		27.8			0.0			73.0			14.4	
Approach LOS		C						E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		68.4		31.6	6.9	61.5		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		63.0		27.0	7.0	* 52		27.0
Max Q Clear Time (g_c+I1), s		65.0		4.0	3.1	16.9		0.0
Green Ext Time (p_c), s		0.0		0.2	0.0	9.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	56.8
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	9	34	0	36	5	2055	53	22	804	2
Future Volume (veh/h)	2	0	9	34	0	36	5	2055	53	22	804	2
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	4	0	16	42	0	0	6	2390	0	25	903	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	79	19	255	343	0	322	24	2269	1015	65	2351	0
Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.00	0.01	0.65	0.00	0.04	0.67	0.00
Sat Flow, veh/h	217	94	1242	1394	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	20	0	0	42	0	0	6	2390	0	25	903	0
Grp Sat Flow(s),veh/h/ln	1552	0	0	1394	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	0.4	82.0	0.0	1.8	14.5	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	2.8	0.0	0.0	0.4	82.0	0.0	1.8	14.5	0.0
Prop In Lane	0.20		0.80	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	353	0	0	343	0	322	24	2269	1015	65	2351	0
V/C Ratio(X)	0.06	0.00	0.00	0.12	0.00	0.00	0.25	1.05	0.00	0.39	0.38	0.00
Avail Cap(c_a), veh/h	353	0	0	343	0	322	125	2269	1015	111	2351	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.5	0.0	0.0	41.1	0.0	0.0	61.9	22.3	0.0	59.6	9.3	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	2.0	34.9	0.0	1.4	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	1.3	0.0	0.0	0.2	50.1	0.0	0.9	7.1	0.0
LnGrp Delay(d),s/veh	40.8	0.0	0.0	41.8	0.0	0.0	63.9	57.2	0.0	61.0	9.7	0.0
LnGrp LOS	D			D			E	F		E	A	
Approach Vol, veh/h		20			42			2396			928	
Approach Delay, s/veh		40.8			41.8			57.2			11.1	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	90.4		30.6	8.7	87.4		30.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 81		26.0	8.0	82.0		26.0
Max Q Clear Time (g_c+I1), s	2.4	16.5		3.3	3.8	84.0		4.8
Green Ext Time (p_c), s	0.0	11.9		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	44.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	80	99	2092	830	21
Future Volume (veh/h)	21	80	99	2092	830	21
Number	3	18	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	22	0	115	2433	892	23
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.86	0.86	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	438	391	143	2278	1854	812
Arrive On Green	0.25	0.00	0.08	0.65	0.53	0.53
Sat Flow, veh/h	1757	1568	1757	3597	3597	1534
Grp Volume(v), veh/h	22	0	115	2433	892	23
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1534
Q Serve(g_s), s	1.0	0.0	6.5	65.2	16.1	0.7
Cycle Q Clear(g_c), s	1.0	0.0	6.5	65.2	16.1	0.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	438	391	143	2278	1854	812
V/C Ratio(X)	0.05	0.00	0.81	1.07	0.48	0.03
Avail Cap(c_a), veh/h	438	391	210	2278	1854	812
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	1.00
Uniform Delay (d), s/veh	28.6	0.0	45.3	17.5	14.9	11.3
Incr Delay (d2), s/veh	0.2	0.0	8.0	40.0	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	3.4	43.7	8.0	0.3
LnGrp Delay(d),s/veh	28.8	0.0	53.3	57.6	15.8	11.4
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	22			2548	915	
Approach Delay, s/veh	28.8			57.4	15.7	
Approach LOS	C			E	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		70.6			12.1	58.5		29.7
Change Period (Y+Rc), s		* 5.4			4.0	5.4		4.7
Max Green Setting (Gmax), s		* 65			12.0	48.9		25.0
Max Q Clear Time (g_c+I1), s		67.2			8.5	18.1		3.0
Green Ext Time (p_c), s		0.0			0.0	10.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1	118	40	4	18	121	2129	43	17	846	39
Future Volume (veh/h)	52	1	118	40	4	18	121	2129	43	17	846	39
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.93		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	71	1	0	49	5	22	132	2314	47	18	891	41
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	265	3	247	185	25	67	154	2480	1103	47	1846	804
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.10	0.71	0.71	0.03	0.65	0.65
Sat Flow, veh/h	1334	21	1568	884	156	424	1616	3505	1559	1433	2859	1245
Grp Volume(v), veh/h	72	0	0	76	0	0	132	2314	47	18	891	41
Grp Sat Flow(s),veh/h/ln	1355	0	1568	1463	0	0	1616	1752	1559	1433	1430	1245
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	0.0	10.4	73.7	1.2	1.6	20.8	1.6
Cycle Q Clear(g_c), s	5.6	0.0	0.0	5.1	0.0	0.0	10.4	73.7	1.2	1.6	20.8	1.6
Prop In Lane	0.99		1.00	0.64		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	0	247	276	0	0	154	2480	1103	47	1846	804
V/C Ratio(X)	0.27	0.00	0.00	0.28	0.00	0.00	0.86	0.93	0.04	0.38	0.48	0.05
Avail Cap(c_a), veh/h	325	0	314	335	0	0	249	2480	1103	99	1846	804
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	0.0	0.0	48.2	0.0	0.0	57.8	16.3	5.7	61.4	11.8	8.4
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	8.4	8.0	0.1	1.8	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	2.4	0.0	0.0	5.0	37.8	0.5	0.7	8.4	0.6
LnGrp Delay(d),s/veh	48.6	0.0	0.0	48.4	0.0	0.0	66.2	24.3	5.8	63.2	12.7	8.5
LnGrp LOS	D			D			E	C	A	E	B	A
Approach Vol, veh/h		72			76			2493			950	
Approach Delay, s/veh		48.6			48.4			26.2			13.5	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	96.9		24.5	16.4	88.8		24.5
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	91.8		26.0	20.0	80.8		26.0
Max Q Clear Time (g_c+I1), s	12.6	75.7		7.1	12.4	22.8		7.6
Green Ext Time (p_c), s	0.0	15.1		0.2	0.0	11.9		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	23.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	588	118	62	162	94	132	78	1486	137	147	766	269
Future Volume (veh/h)	588	118	62	162	94	132	78	1486	137	147	766	269
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	717	144	76	158	175	163	84	1598	147	184	958	336
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	231	122	142	149	107	106	1590	685	155	1398	589
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.06	0.45	0.45	0.11	0.51	0.51
Sat Flow, veh/h	3408	1111	587	1757	1845	1329	1757	3505	1511	1387	2767	1166
Grp Volume(v), veh/h	717	0	220	158	175	163	84	1598	147	184	958	336
Grp Sat Flow(s),veh/h/ln	1704	0	1698	1757	1845	1329	1757	1752	1511	1387	1383	1166
Q Serve(g_s), s	26.0	0.0	14.7	10.1	10.1	10.1	5.9	56.7	7.4	14.0	32.8	25.0
Cycle Q Clear(g_c), s	26.0	0.0	14.7	10.1	10.1	10.1	5.9	56.7	7.4	14.0	32.8	25.0
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	353	142	149	107	106	1590	685	155	1398	589
V/C Ratio(X)	1.01	0.00	0.62	1.11	1.17	1.52	0.79	1.01	0.21	1.18	0.69	0.57
Avail Cap(c_a), veh/h	709	0	353	142	149	107	126	1590	685	155	1398	589
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	45.0	57.5	57.5	57.4	57.9	34.1	20.7	55.5	23.4	21.5
Incr Delay (d2), s/veh	36.7	0.0	2.5	109.1	128.1	274.6	20.1	23.8	0.7	130.4	2.8	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	0.0	7.2	9.2	10.4	11.9	3.5	32.6	3.2	11.0	13.0	8.7
LnGrp Delay(d),s/veh	86.2	0.0	47.6	166.5	185.6	332.1	78.0	58.0	21.4	185.9	26.2	25.5
LnGrp LOS	F		D	F	F	F	E	F	C	F	C	C
Approach Vol, veh/h		937			496			1829			1478	
Approach Delay, s/veh		77.1			227.7			55.9			45.9	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	11.6	68.2		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	16.0	58.7		12.1	7.9	34.8		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	12.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	75.0
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	413	257	0	0	0	243	565	379	0	511	407
Future Volume (veh/h)	239	413	257	0	0	0	243	565	379	0	511	407
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	241	417	260				270	628	0	0	538	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.99	0.99	0.99				0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	475	561	346				275	1693	757	0	790	354
Arrive On Green	0.27	0.27	0.27				0.16	0.48	0.00	0.00	0.23	0.00
Sat Flow, veh/h	1757	2075	1281				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	241	351	326				270	628	0	0	538	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1603				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	5.4	8.5	8.7				7.1	5.3	0.0	0.0	6.5	0.0
Cycle Q Clear(g_c), s	5.4	8.5	8.7				7.1	5.3	0.0	0.0	6.5	0.0
Prop In Lane	1.00		0.80				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	475	473	433				275	1693	757	0	790	354
V/C Ratio(X)	0.51	0.74	0.75				0.98	0.37	0.00	0.00	0.68	0.00
Avail Cap(c_a), veh/h	1244	1241	1136				275	2670	1195	0	1768	791
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	14.4	15.5	15.6				19.6	7.6	0.0	0.0	16.5	0.0
Incr Delay (d2), s/veh	0.3	0.9	1.0				48.7	0.1	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.2	3.9				7.1	2.5	0.0	0.0	3.2	0.0
LnGrp Delay(d),s/veh	14.7	16.4	16.6				68.3	7.6	0.0	0.0	16.9	0.0
LnGrp LOS	B	B	B				E	A			B	
Approach Vol, veh/h		918						898			538	
Approach Delay, s/veh		16.0						25.9			16.9	
Approach LOS		B						C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		27.9		18.7	12.0	15.9		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		35.5		33.0	* 7.3	23.5		
Max Q Clear Time (g_c+I1), s		7.3		10.7	9.1	8.5		
Green Ext Time (p_c), s		2.9		0.7	0.0	1.9		

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	63	184	28	0	115	0	997	24	128	630	0
Future Volume (veh/h)	53	63	184	28	0	115	0	997	24	128	630	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	56	66	194	41	0	169	0	1133	27	160	788	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.68	0.68	0.68	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	159	187	300	0	0	0	0	1803	43	205	2050	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.36	0.36	0.12	0.58	0.00
Sat Flow, veh/h	828	976	1563		0		0	5223	120	1757	3597	0
Grp Volume(v), veh/h	122	0	194		0.0		0	752	408	160	788	0
Grp Sat Flow(s),veh/h/ln	1803	0	1563				0	1679	1820	1757	1752	0
Q Serve(g_s), s	2.1	0.0	4.1				0.0	6.7	6.7	3.2	4.3	0.0
Cycle Q Clear(g_c), s	2.1	0.0	4.1				0.0	6.7	6.7	3.2	4.3	0.0
Prop In Lane	0.46		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	346	0	300				0	1197	649	205	2050	0
V/C Ratio(X)	0.35	0.00	0.65				0.00	0.63	0.63	0.78	0.38	0.00
Avail Cap(c_a), veh/h	856	0	742				0	1499	813	343	2641	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.5	0.0	13.4				0.0	9.6	9.6	15.4	4.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.3				0.0	0.6	1.0	6.4	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.9				0.0	3.1	3.5	1.9	2.0	0.0
LnGrp Delay(d),s/veh	13.2	0.0	15.7				0.0	10.1	10.6	21.8	4.1	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		316						1160			948	
Approach Delay, s/veh		14.7						10.3			7.1	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		10.9		25.0			8.2	16.8
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		27.0			7.0	16.0
Max Q Clear Time (g_c+I1), s		6.1		6.3			5.2	8.7
Green Ext Time (p_c), s		1.0		5.4			0.1	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	753	56	62	285	4	33	9	122	11	7	16
Future Vol, veh/h	10	753	56	62	285	4	33	9	122	11	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	83	83	83	80	80	80	65	65	65
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	965	72	75	343	5	41	11	153	17	11	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	348	0	0	1037	0	0	1541	1525	1001	1529	1559	346
Stage 1	-	-	-	-	-	-	1027	1027	-	496	496	-
Stage 2	-	-	-	-	-	-	514	498	-	1033	1063	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1205	-	-	666	-	-	93	117	293	95	112	695
Stage 1	-	-	-	-	-	-	282	310	-	554	544	-
Stage 2	-	-	-	-	-	-	541	543	-	279	299	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1205	-	-	666	-	-	75	103	293	38	98	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	75	103	-	38	98	-
Stage 1	-	-	-	-	-	-	279	307	-	548	483	-
Stage 2	-	-	-	-	-	-	453	482	-	127	296	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2	36.4	91.6
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	311	1205	-	-	666	-	-	89
HCM Lane V/C Ratio	0.659	0.011	-	-	0.112	-	-	0.588
HCM Control Delay (s)	36.4	8	-	-	11.1	-	-	91.6
HCM Lane LOS	E	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	4.4	0	-	-	0.4	-	-	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	585	1011	103	227	4	274	9	226	7	16	12
Future Volume (veh/h)	27	585	1011	103	227	4	274	9	226	7	16	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	29	636	0	129	284	5	311	0	0	10	22	16
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.90	0.90	0.90	0.73	0.73	0.73
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	65	754	641	168	844	15	481	0	215	45	99	72
Arrive On Green	0.04	0.41	0.00	0.10	0.47	0.47	0.14	0.00	0.00	0.13	0.13	0.13
Sat Flow, veh/h	1757	1845	1568	1757	1807	32	3514	0	1568	357	784	570
Grp Volume(v), veh/h	29	636	0	129	0	289	311	0	0	48	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1839	1757	0	1568	1711	0	0
Q Serve(g_s), s	1.1	21.4	0.0	4.9	0.0	6.8	5.8	0.0	0.0	1.7	0.0	0.0
Cycle Q Clear(g_c), s	1.1	21.4	0.0	4.9	0.0	6.8	5.8	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.21		0.33
Lane Grp Cap(c), veh/h	65	754	641	168	0	859	481	0	215	216	0	0
V/C Ratio(X)	0.44	0.84	0.00	0.77	0.00	0.34	0.65	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	511	1341	1140	511	0	1337	1532	0	684	746	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.4	18.3	0.0	30.4	0.0	11.6	28.1	0.0	0.0	27.0	0.0	0.0
Incr Delay (d2), s/veh	4.7	2.7	0.0	7.2	0.0	0.2	1.5	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.3	0.0	2.7	0.0	3.5	2.9	0.0	0.0	0.8	0.0	0.0
LnGrp Delay(d),s/veh	37.1	21.0	0.0	37.6	0.0	11.8	29.6	0.0	0.0	27.5	0.0	0.0
LnGrp LOS	D	C		D		B	C			C		
Approach Vol, veh/h		665			418			311			48	
Approach Delay, s/veh		21.7			19.8			29.6			27.5	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.4	10.6	32.1		12.7	6.6	36.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		7.8	6.9	23.4		3.7	3.1	8.8
Green Ext Time (p_c), s		1.1	0.2	4.7		0.2	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	919	238	248	252	13	428	0	689	14	5	7
Future Volume (veh/h)	8	919	238	248	252	13	428	0	689	14	5	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	8	957	248	306	311	16	465	0	749	22	8	11
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	20	1102	480	251	1512	77	753	0	1120	197	72	99
Arrive On Green	0.01	0.31	0.31	0.14	0.45	0.45	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1527	1757	3392	174	3514	0	3136	921	335	461
Grp Volume(v), veh/h	8	957	248	306	160	167	465	0	749	41	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1527	1757	1752	1813	1757	0	1568	1717	0	0
Q Serve(g_s), s	0.6	36.1	18.6	20.0	7.8	7.9	16.8	0.0	28.2	2.7	0.0	0.0
Cycle Q Clear(g_c), s	0.6	36.1	18.6	20.0	7.8	7.9	16.8	0.0	28.2	2.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	0.54		0.27
Lane Grp Cap(c), veh/h	20	1102	480	251	781	808	753	0	1120	368	0	0
V/C Ratio(X)	0.40	0.87	0.52	1.22	0.20	0.21	0.62	0.00	0.67	0.11	0.00	0.00
Avail Cap(c_a), veh/h	251	1252	545	251	781	808	753	0	1120	368	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	68.7	45.3	39.3	60.0	23.7	23.7	49.8	0.0	38.0	44.3	0.0	0.0
Incr Delay (d2), s/veh	12.2	6.2	0.9	129.2	0.1	0.1	3.8	0.0	3.2	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	18.4	8.0	18.7	3.8	4.0	8.5	0.0	12.7	1.3	0.0	0.0
LnGrp Delay(d),s/veh	80.9	51.4	40.2	189.2	23.8	23.8	53.6	0.0	41.2	44.9	0.0	0.0
LnGrp LOS	F	D	D	F	C	C	D		D	D		
Approach Vol, veh/h		1213			633			1214			41	
Approach Delay, s/veh		49.3			103.7			45.9			44.9	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	48.0		34.0	5.6	66.4
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		30.2	22.0	38.1		4.7	2.6	9.9
Green Ext Time (p_c), s		0.0	0.0	5.9		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	59.1
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	30	0	1689	979	11
Future Vol, veh/h	0	30	0	1689	979	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	33	0	1836	1064	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	538	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	485	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	485	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	485	-	-
HCM Lane V/C Ratio	-	0.067	-	-
HCM Control Delay (s)	-	13	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	758	0	30	399	0	10
Future Vol, veh/h	758	0	30	399	0	10
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	824	0	33	434	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	824	0	1324	824
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	802	-	171	371
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	607	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	802	-	164	371
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	582	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	15
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	371	-	-	802	-
HCM Lane V/C Ratio	0.029	-	-	0.041	-
HCM Control Delay (s)	15	-	-	9.7	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	758	9	0	399	9	0
Future Vol, veh/h	758	9	0	399	9	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	824	10	0	434	10	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1263	829
Stage 1	-	-	-	-	829	-
Stage 2	-	-	-	-	434	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	186	369
Stage 1	-	-	0	-	427	-
Stage 2	-	-	0	-	651	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	186	369
Mov Cap-2 Maneuver	-	-	-	-	186	-
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	25.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	186	-	-	-	-
HCM Lane V/C Ratio	0.053	-	-	-	-
HCM Control Delay (s)	25.4	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	16	1711	84	0	1004
Future Vol, veh/h	0	16	1711	84	0	1004
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	94	94	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	24	1820	89	0	1091

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	965	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	217	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	215	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	215	-
HCM Lane V/C Ratio	-	-	0.111	-
HCM Control Delay (s)	-	-	23.8	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.4	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	24	0	0	0	17	2487	0	0	808	17
Future Volume (veh/h)	11	0	24	0	0	0	17	2487	0	0	808	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	15	0	33	0	0	0	18	2591	0	0	878	18
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.73	0.73	0.73	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	248	36	458	0	803	0	53	1413	0	0	1083	22
Arrive On Green	0.44	0.00	0.44	0.00	0.00	0.00	0.03	0.40	0.00	0.00	0.31	0.31
Sat Flow, veh/h	395	83	1052	0	1845	0	1757	3597	0	0	3603	72
Grp Volume(v), veh/h	48	0	0	0	0	0	18	2591	0	0	438	458
Grp Sat Flow(s),veh/h/ln	1531	0	0	0	1845	0	1757	1752	0	0	1752	1830
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.6	25.0	0.0	0.0	14.3	14.3
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	0.0	0.0	0.6	25.0	0.0	0.0	14.3	14.3
Prop In Lane	0.31		0.69	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	743	0	0	0	803	0	53	1413	0	0	541	565
V/C Ratio(X)	0.06	0.00	0.00	0.00	0.00	0.00	0.34	1.83	0.00	0.00	0.81	0.81
Avail Cap(c_a), veh/h	743	0	0	0	803	0	198	1413	0	0	541	565
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	29.5	18.5	0.0	0.0	19.8	19.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	1.4	377.8	0.0	0.0	12.4	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	0.3	86.1	0.0	0.0	8.7	9.0
LnGrp Delay(d),s/veh	10.3	0.0	0.0	0.0	0.0	0.0	30.9	396.3	0.0	0.0	32.2	31.7
LnGrp LOS	B						C	F			C	C
Approach Vol, veh/h		48			0			2609			896	
Approach Delay, s/veh		10.3			0.0			393.8			31.9	
Approach LOS		B						F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		30.4		31.6	5.9	24.5		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		25.0		27.0	7.0	* 14		27.0
Max Q Clear Time (g_c+I1), s		27.0		3.1	2.6	16.3		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	297.3
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	26	0	26	6	2473	44	32	806	1
Future Volume (veh/h)	2	0	10	26	0	26	6	2473	44	32	806	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	5	0	23	36	0	0	6	2549	0	35	876	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.43	0.43	0.43	0.72	0.72	0.72	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	130	38	455	606	0	556	25	1265	566	103	1420	0
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.00	0.01	0.36	0.00	0.06	0.41	0.00
Sat Flow, veh/h	172	106	1283	1382	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	28	0	0	36	0	0	6	2549	0	35	876	0
Grp Sat Flow(s),veh/h/ln	1562	0	0	1382	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22.4	0.0	1.2	12.3	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.9	0.0	0.0	0.2	22.4	0.0	1.2	12.3	0.0
Prop In Lane	0.18		0.82	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	623	0	0	606	0	556	25	1265	566	103	1420	0
V/C Ratio(X)	0.04	0.00	0.00	0.06	0.00	0.00	0.24	2.01	0.00	0.34	0.62	0.00
Avail Cap(c_a), veh/h	623	0	0	606	0	556	255	1265	566	227	1420	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	13.2	0.0	0.0	30.2	19.8	0.0	28.0	14.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	0.0	0.2	457.0	0.0	0.7	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.4	0.0	0.0	0.1	91.0	0.0	0.6	6.2	0.0
LnGrp Delay(d),s/veh	13.3	0.0	0.0	13.4	0.0	0.0	30.4	476.8	0.0	28.8	16.6	0.0
LnGrp LOS	B			B			C	F		C	B	
Approach Vol, veh/h		28			36			2555			911	
Approach Delay, s/veh		13.3			13.4			475.7			17.1	
Approach LOS		B			B			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.9	30.5		26.6	7.6	27.8		26.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 17		22.0	8.0	18.0		22.0
Max Q Clear Time (g_c+I1), s	2.2	14.3		2.7	3.2	24.4		2.9
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	349.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	93	127	2520	824	29
Future Volume (veh/h)	19	93	127	2520	824	29
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	21	0	134	2653	867	31
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	480	428	164	2194	1727	757
Arrive On Green	0.27	0.00	0.09	0.63	0.49	0.49
Sat Flow, veh/h	1757	1568	1757	3597	3597	1535
Grp Volume(v), veh/h	21	0	134	2653	867	31
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1535
Q Serve(g_s), s	0.9	0.0	7.5	62.6	16.7	1.0
Cycle Q Clear(g_c), s	0.9	0.0	7.5	62.6	16.7	1.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	480	428	164	2194	1727	757
V/C Ratio(X)	0.04	0.00	0.82	1.21	0.50	0.04
Avail Cap(c_a), veh/h	480	428	264	2194	1727	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.81	0.81
Uniform Delay (d), s/veh	26.7	0.0	44.5	18.7	17.1	13.1
Incr Delay (d2), s/veh	0.2	0.0	4.5	98.7	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	3.9	59.9	8.3	0.5
LnGrp Delay(d),s/veh	26.9	0.0	49.0	117.4	17.9	13.2
LnGrp LOS	C		D	F	B	B
Approach Vol, veh/h	21			2787	898	
Approach Delay, s/veh	26.9			114.1	17.8	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.3	54.7				68.0		32.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	15.0	* 44				62.6		27.3
Max Q Clear Time (g_c+I1), s	9.5	18.7				64.6		2.9
Green Ext Time (p_c), s	0.1	9.1				0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	90.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1	65	32	0	17	108	2578	46	13	862	35
Future Volume (veh/h)	51	1	65	32	0	17	108	2578	46	13	862	35
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	63	1	0	47	0	25	111	2658	47	14	937	38
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.81	0.81	0.81	0.68	0.68	0.68	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	349	5	257	237	19	85	200	2088	913	40	1429	625
Arrive On Green	0.16	0.16	0.00	0.16	0.00	0.16	0.12	0.60	0.60	0.03	0.50	0.50
Sat Flow, veh/h	1427	28	1568	861	117	520	1616	3505	1533	1433	2859	1251
Grp Volume(v), veh/h	64	0	0	72	0	0	111	2658	47	14	937	38
Grp Sat Flow(s),veh/h/ln	1456	0	1568	1499	0	0	1616	1752	1533	1433	1430	1251
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.0	4.0	36.9	0.8	0.6	15.1	1.0
Cycle Q Clear(g_c), s	2.0	0.0	0.0	2.3	0.0	0.0	4.0	36.9	0.8	0.6	15.1	1.0
Prop In Lane	0.98		1.00	0.65		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	354	0	257	341	0	0	200	2088	913	40	1429	625
V/C Ratio(X)	0.18	0.00	0.00	0.21	0.00	0.00	0.56	1.27	0.05	0.35	0.66	0.06
Avail Cap(c_a), veh/h	615	0	556	616	0	0	235	2088	913	185	1429	625
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	0.0	22.6	0.0	0.0	25.6	12.5	5.2	29.6	11.5	8.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.1	123.2	0.0	2.0	2.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.1	0.0	0.0	1.8	53.1	0.3	0.3	6.3	0.4
LnGrp Delay(d),s/veh	22.6	0.0	0.0	22.7	0.0	0.0	25.6	135.8	5.2	31.6	13.9	8.2
LnGrp LOS	C			C			C	F	A	C	B	A
Approach Vol, veh/h		64			72			2816			989	
Approach Delay, s/veh		22.6			22.7			129.3			13.9	
Approach LOS		C			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.7	36.1		14.3	5.7	42.0		14.3
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	17.8		22.0	8.0	18.8		22.0
Max Q Clear Time (g_c+I1), s	10.3	17.1		4.3	2.6	38.9		4.0
Green Ext Time (p_c), s	0.0	0.5		0.2	0.0	0.0		0.2

Intersection Summary		
HCM 2010 Ctrl Delay	96.6	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	790	120	24	164	78	272	75	1534	125	159	725	195
Future Volume (veh/h)	790	120	24	164	78	272	75	1534	125	159	725	195
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	849	129	26	133	152	299	77	1581	129	175	797	214
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	905	394	80	169	178	148	91	1453	634	123	1249	551
Arrive On Green	0.27	0.27	0.27	0.10	0.10	0.10	0.05	0.41	0.41	0.09	0.45	0.45
Sat Flow, veh/h	3408	1485	299	1757	1845	1539	1757	3505	1530	1387	2767	1220
Grp Volume(v), veh/h	849	0	155	133	152	299	77	1581	129	175	797	214
Grp Sat Flow(s),veh/h/ln	1704	0	1785	1757	1845	1539	1757	1752	1530	1387	1383	1220
Q Serve(g_s), s	32.9	0.0	9.4	10.0	11.0	13.0	5.9	55.9	7.3	12.0	30.0	15.7
Cycle Q Clear(g_c), s	32.9	0.0	9.4	10.0	11.0	13.0	5.9	55.9	7.3	12.0	30.0	15.7
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	905	0	474	169	178	148	91	1453	634	123	1249	551
V/C Ratio(X)	0.94	0.00	0.33	0.79	0.86	2.02	0.85	1.09	0.20	1.42	0.64	0.39
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1453	634	123	1249	551
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	48.5	0.0	39.9	59.6	60.1	61.0	63.5	39.5	25.3	61.5	28.5	24.6
Incr Delay (d2), s/veh	15.4	0.0	0.1	19.7	30.1	481.0	46.4	51.6	0.7	221.9	2.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.4	0.0	4.7	5.8	7.1	25.3	4.0	37.4	3.2	12.2	11.7	5.5
LnGrp Delay(d),s/veh	63.9	0.0	40.0	79.3	90.2	542.0	109.8	91.1	26.0	283.4	30.5	26.3
LnGrp LOS	E		D	E	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1004			584			1787			1186	
Approach Delay, s/veh		60.2			319.1			87.2			67.0	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	66.0		17.0	16.0	61.0		41.0
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.0	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	11.9	32.0		15.0	14.0	57.9		34.9
Green Ext Time (p_c), s	0.0	9.7		0.0	0.0	0.0		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	105.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	573	331	0	0	0	202	605	283	0	488	339
Future Volume (veh/h)	269	573	331	0	0	0	202	605	283	0	488	339
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	277	591	341				210	630	0	0	536	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	541	659	380				75	1850	827	0	1464	655
Arrive On Green	0.31	0.31	0.31				0.04	0.53	0.00	0.00	0.42	0.00
Sat Flow, veh/h	1757	2141	1235				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	277	484	448				210	630	0	0	536	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1624				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	9.1	18.5	18.5				3.0	7.2	0.0	0.0	7.4	0.0
Cycle Q Clear(g_c), s	9.1	18.5	18.5				3.0	7.2	0.0	0.0	7.4	0.0
Prop In Lane	1.00		0.76				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	541	540	500				75	1850	827	0	1464	655
V/C Ratio(X)	0.51	0.90	0.90				2.79	0.34	0.00	0.00	0.37	0.00
Avail Cap(c_a), veh/h	753	751	696				75	1850	827	0	1464	655
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.76	0.76	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.9	23.1	23.2				33.5	9.5	0.0	0.0	14.0	0.0
Incr Delay (d2), s/veh	0.3	8.4	9.0				832.5	0.4	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	10.1	9.5				18.9	3.6	0.0	0.0	3.6	0.0
LnGrp Delay(d),s/veh	20.2	31.6	32.2				866.0	9.9	0.0	0.0	14.7	0.0
LnGrp LOS	C	C	C				F	A			B	
Approach Vol, veh/h		1209						840			536	
Approach Delay, s/veh		29.2						223.9			14.7	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		42.3		27.7	7.7	34.6		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		9.2		20.5	5.0	9.4		
Green Ext Time (p_c), s		2.7		0.9	0.0	1.7		

Intersection Summary	
HCM 2010 Ctrl Delay	89.5
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	70	193	23	0	108	0	897	14	152	660	0
Future Volume (veh/h)	64	70	193	23	0	108	0	897	14	152	660	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	71	78	214	30	0	140	0	954	15	163	710	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	183	201	333	0	0	0	0	1662	26	202	1949	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.33	0.33	0.12	0.56	0.00
Sat Flow, veh/h	859	943	1561		0		0	5272	80	1757	3597	0
Grp Volume(v), veh/h	149	0	214		0.0		0	627	342	163	710	0
Grp Sat Flow(s),veh/h/ln	1802	0	1561				0	1679	1828	1757	1752	0
Q Serve(g_s), s	2.5	0.0	4.3				0.0	5.4	5.4	3.1	3.9	0.0
Cycle Q Clear(g_c), s	2.5	0.0	4.3				0.0	5.4	5.4	3.1	3.9	0.0
Prop In Lane	0.48		1.00				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	384	0	333				0	1093	595	202	1949	0
V/C Ratio(X)	0.39	0.00	0.64				0.00	0.57	0.57	0.80	0.36	0.00
Avail Cap(c_a), veh/h	883	0	765				0	1548	843	202	2424	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.7	0.0	12.4				0.0	9.7	9.7	15.0	4.3	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.1				0.0	0.5	0.9	20.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	2.0				0.0	2.5	2.8	2.7	1.9	0.0
LnGrp Delay(d),s/veh	12.3	0.0	14.5				0.0	10.2	10.6	35.6	4.4	0.0
LnGrp LOS	B		B					B	B	D	A	
Approach Vol, veh/h		363						969			873	
Approach Delay, s/veh		13.6						10.3			10.2	
Approach LOS		B						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		11.4		23.3			8.0	15.3
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		6.3		5.9			5.1	7.4
Green Ext Time (p_c), s		1.2		4.5			0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	10.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	9.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	847	60	68	285	8	37	7	93	3	11	10
Future Vol, veh/h	25	847	60	68	285	8	37	7	93	3	11	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	83	83	83	82	82	82	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	28	941	67	82	343	10	45	9	113	5	18	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	353	0	0	1008	0	0	1561	1548	975	1547	1576	348
Stage 1	-	-	-	-	-	-	1031	1031	-	512	512	-
Stage 2	-	-	-	-	-	-	530	517	-	1035	1064	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1200	-	-	684	-	-	91	113	304	93	109	693
Stage 1	-	-	-	-	-	-	280	309	-	543	535	-
Stage 2	-	-	-	-	-	-	531	532	-	279	298	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1200	-	-	684	-	-	68	97	304	49	94	693
Mov Cap-2 Maneuver	-	-	-	-	-	-	68	97	-	49	94	-
Stage 1	-	-	-	-	-	-	274	302	-	531	471	-
Stage 2	-	-	-	-	-	-	438	468	-	166	291	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.1	78.3	46.8
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	198	1200	-	-	684	-	-	125
HCM Lane V/C Ratio	0.844	0.023	-	-	0.12	-	-	0.32
HCM Control Delay (s)	78.3	8.1	-	-	11	-	-	46.8
HCM Lane LOS	F	A	-	-	B	-	-	E
HCM 95th %tile Q(veh)	6.2	0.1	-	-	0.4	-	-	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	694	1069	91	236	3	245	15	230	9	14	5
Future Volume (veh/h)	14	694	1069	91	236	3	245	15	230	9	14	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	15	731	0	106	274	3	269	0	0	12	18	6
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.95	0.95	0.95	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	38	849	722	139	942	10	416	0	186	69	103	34
Arrive On Green	0.02	0.46	0.00	0.08	0.52	0.52	0.12	0.00	0.00	0.12	0.12	0.12
Sat Flow, veh/h	1757	1845	1568	1757	1821	20	3514	0	1568	587	880	293
Grp Volume(v), veh/h	15	731	0	106	0	277	269	0	0	36	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1841	1757	0	1568	1760	0	0
Q Serve(g_s), s	0.6	25.2	0.0	4.2	0.0	6.1	5.2	0.0	0.0	1.3	0.0	0.0
Cycle Q Clear(g_c), s	0.6	25.2	0.0	4.2	0.0	6.1	5.2	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.33		0.17
Lane Grp Cap(c), veh/h	38	849	722	139	0	953	416	0	186	206	0	0
V/C Ratio(X)	0.39	0.86	0.00	0.76	0.00	0.29	0.65	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	495	1299	1104	495	0	1297	1485	0	663	744	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.3	17.1	0.0	32.1	0.0	9.7	29.9	0.0	0.0	28.2	0.0	0.0
Incr Delay (d2), s/veh	6.5	3.9	0.0	8.4	0.0	0.2	1.7	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.5	0.0	2.4	0.0	3.1	2.6	0.0	0.0	0.7	0.0	0.0
LnGrp Delay(d),s/veh	40.8	21.0	0.0	40.5	0.0	9.9	31.6	0.0	0.0	28.6	0.0	0.0
LnGrp LOS	D	C		D		A	C			C		
Approach Vol, veh/h		746			383			269			36	
Approach Delay, s/veh		21.4			18.4			31.6			28.6	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		12.4	9.6	36.7		12.3	5.5	40.7
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		7.2	6.2	27.2		3.3	2.6	8.1
Green Ext Time (p_c), s		0.9	0.2	5.5		0.1	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	1123	270	209	265	6	484	0	637	17	3	10
Future Volume (veh/h)	12	1123	270	209	265	6	484	0	637	17	3	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	13	1182	284	225	285	6	515	0	678	23	4	13
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.94	0.94	0.94	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	30	1200	519	241	1624	34	722	0	1074	201	35	113
Arrive On Green	0.02	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1516	1757	3510	74	3514	0	3136	977	170	552
Grp Volume(v), veh/h	13	1182	284	225	142	149	515	0	678	40	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1516	1757	1752	1831	1757	0	1568	1698	0	0
Q Serve(g_s), s	1.1	48.9	22.1	18.5	6.9	6.9	19.9	0.0	26.5	2.8	0.0	0.0
Cycle Q Clear(g_c), s	1.1	48.9	22.1	18.5	6.9	6.9	19.9	0.0	26.5	2.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.57		0.32
Lane Grp Cap(c), veh/h	30	1200	519	241	811	847	722	0	1074	349	0	0
V/C Ratio(X)	0.44	0.98	0.55	0.93	0.18	0.18	0.71	0.00	0.63	0.11	0.00	0.00
Avail Cap(c_a), veh/h	241	1200	519	241	811	847	722	0	1074	349	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.1	47.6	38.8	62.4	22.9	22.9	54.0	0.0	40.3	47.2	0.0	0.0
Incr Delay (d2), s/veh	9.9	22.3	1.2	40.5	0.1	0.1	5.9	0.0	2.8	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	27.4	9.4	11.7	3.4	3.5	10.3	0.0	11.9	1.4	0.0	0.0
LnGrp Delay(d),s/veh	81.0	69.9	40.0	102.9	23.0	23.0	59.9	0.0	43.1	47.9	0.0	0.0
LnGrp LOS	F	E	D	F	C	C	E		D	D		
Approach Vol, veh/h		1479			516			1193			40	
Approach Delay, s/veh		64.3			57.8			50.4			47.9	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	54.0		34.0	6.5	71.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		28.5	20.5	50.9		4.8	3.1	8.9
Green Ext Time (p_c), s		0.9	0.0	0.0		0.1	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	57.9
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	1813	821	18
Future Vol, veh/h	0	33	0	1813	821	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	36	0	1971	892	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	456	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	549	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	549	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	549	-	-
HCM Lane V/C Ratio	-	0.065	-	-
HCM Control Delay (s)	-	12	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	921	0	52	314	0	11
Future Vol, veh/h	921	0	52	314	0	11
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1001	0	57	341	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1001	0	1456	1001
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	455	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	688	-	142	293
Stage 1	-	-	-	-	354	-
Stage 2	-	-	-	-	637	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	688	-	130	293
Mov Cap-2 Maneuver	-	-	-	-	130	-
Stage 1	-	-	-	-	354	-
Stage 2	-	-	-	-	584	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	17.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	293	-	-	688	-
HCM Lane V/C Ratio	0.041	-	-	0.082	-
HCM Control Delay (s)	17.8	-	-	10.7	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	921	15	0	314	10	0
Future Vol, veh/h	921	15	0	314	10	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1001	16	0	341	11	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1350	1009
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	341	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	165	290
Stage 1	-	-	0	-	351	-
Stage 2	-	-	0	-	718	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	165	290
Mov Cap-2 Maneuver	-	-	-	-	165	-
Stage 1	-	-	-	-	351	-
Stage 2	-	-	-	-	718	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	28.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	165	-	-	-	-
HCM Lane V/C Ratio	0.066	-	-	-	-
HCM Control Delay (s)	28.4	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	1849	46	0	855
Future Vol, veh/h	0	12	1849	46	0	855
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	98	98	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	20	1887	47	0	994

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	971	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	215	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	214	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	214	-
HCM Lane V/C Ratio	-	-	0.093	-
HCM Control Delay (s)	-	-	23.5	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	20	0	0	0	8	519	0	0	2238	9
Future Volume (veh/h)	14	0	20	0	0	0	8	519	0	0	2238	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	21	0	30	0	0	0	11	701	0	0	2633	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	228	26	266	0	551	0	34	1991	0	0	1774	7
Arrive On Green	0.30	0.00	0.30	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.50	0.50
Sat Flow, veh/h	536	88	890	0	1845	0	1757	3597	0	0	3672	15
Grp Volume(v), veh/h	51	0	0	0	0	0	11	701	0	0	1288	1356
Grp Sat Flow(s),veh/h/ln	1513	0	0	0	1845	0	1757	1752	0	0	1752	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.1	0.0	0.0	37.2	37.2
Cycle Q Clear(g_c), s	1.7	0.0	0.0	0.0	0.0	0.0	0.5	8.1	0.0	0.0	37.2	37.2
Prop In Lane	0.41		0.59	0.00		0.00	1.00		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	520	0	0	0	551	0	34	1991	0	0	868	913
V/C Ratio(X)	0.10	0.00	0.00	0.00	0.00	0.00	0.33	0.35	0.00	0.00	1.48	1.49
Avail Cap(c_a), veh/h	520	0	0	0	551	0	187	1991	0	0	868	913
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	0.0	0.0	0.0	0.0	36.3	8.7	0.0	0.0	18.9	18.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	2.1	0.5	0.0	0.0	223.7	224.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.0	0.0	0.0	0.2	4.0	0.0	0.0	71.8	75.6
LnGrp Delay(d),s/veh	19.4	0.0	0.0	0.0	0.0	0.0	38.4	9.2	0.0	0.0	242.6	243.2
LnGrp LOS	B						D	A			F	F
Approach Vol, veh/h		51			0			712			2644	
Approach Delay, s/veh		19.4			0.0			9.7			242.9	
Approach LOS		B						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		48.0		27.0	5.4	42.6		27.0
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		42.6		22.4	8.0	* 31		22.4
Max Q Clear Time (g_c+I1), s		10.1		3.7	2.5	39.2		0.0
Green Ext Time (p_c), s		7.2		0.2	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		190.8
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	9	88	0	19	2	500	24	19	2238	1
Future Volume (veh/h)	9	0	9	88	0	19	2	500	24	19	2238	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	18	0	18	166	0	0	3	704	0	22	2633	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	235	23	186	421	0	364	13	1900	850	69	2012	0
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.00	0.01	1.00	0.00	0.04	0.57	0.00
Sat Flow, veh/h	704	97	802	1403	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	36	0	0	166	0	0	3	704	0	22	2633	0
Grp Sat Flow(s),veh/h/ln	1603	0	0	1403	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.0	0.9	43.1	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	7.5	0.0	0.0	0.1	0.0	0.0	0.9	43.1	0.0
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	444	0	0	421	0	364	13	1900	850	69	2012	0
V/C Ratio(X)	0.08	0.00	0.00	0.39	0.00	0.00	0.23	0.37	0.00	0.32	1.31	0.00
Avail Cap(c_a), veh/h	444	0	0	421	0	364	211	1900	850	187	2012	0
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	0.00	1.00	0.00	0.00	0.95	0.95	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	0.0	0.0	24.9	0.0	0.0	36.7	0.0	0.0	35.1	16.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.7	0.0	0.0	3.3	0.5	0.0	1.0	142.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	3.3	0.0	0.0	0.1	0.1	0.0	0.5	60.2	0.0
LnGrp Delay(d),s/veh	23.0	0.0	0.0	27.6	0.0	0.0	40.0	0.5	0.0	36.0	158.6	0.0
LnGrp LOS	C			C			D	A		D	F	
Approach Vol, veh/h		36			166			707			2655	
Approach Delay, s/veh		23.0			27.6			0.7			157.5	
Approach LOS		C			C			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	48.5		22.0	6.9	46.1		22.0
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 35		17.4	8.0	35.6		17.4
Max Q Clear Time (g_c+I1), s	2.1	45.1		3.2	2.9	2.0		9.5
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	7.3		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	119.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	451	49	519	2331	8
Future Volume (veh/h)	8	451	49	519	2331	8
Number	3	18	1	6	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	10	0	73	775	2710	9
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.80	0.80	0.67	0.67	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	507	453	100	2257	1963	878
Arrive On Green	0.29	0.00	0.06	0.64	1.00	1.00
Sat Flow, veh/h	1757	1568	1757	3597	3597	1568
Grp Volume(v), veh/h	10	0	73	775	2710	9
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1568
Q Serve(g_s), s	0.6	0.0	6.1	15.2	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	6.1	15.2	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	453	100	2257	1963	878
V/C Ratio(X)	0.02	0.00	0.73	0.34	1.38	0.01
Avail Cap(c_a), veh/h	507	453	141	2257	1963	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.2	0.0	69.6	12.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	5.3	0.4	171.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	3.1	7.5	46.7	0.0
LnGrp Delay(d),s/veh	38.2	0.0	74.9	12.6	171.4	0.0
LnGrp LOS	D		E	B	F	A
Approach Vol, veh/h	10			848	2719	
Approach Delay, s/veh	38.2			18.0	170.8	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.6	89.4				102.0		48.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	12.6	* 81				96.6		43.3
Max Q Clear Time (g_c+I1), s	8.1	2.0				17.2		2.6
Green Ext Time (p_c), s	0.0	72.0				9.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	134.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	2	155	59	1	12	110	516	28	10	2688	72
Future Volume (veh/h)	36	2	155	59	1	12	110	516	28	10	2688	72
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.97		0.92	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	53	3	0	89	2	18	157	737	40	11	2954	79
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.68	0.68	0.66	0.66	0.66	0.70	0.70	0.70	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	198	10	0	177	7	28	140	2731	1192	28	2036	889
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.09	0.78	0.78	0.02	0.71	0.71
Sat Flow, veh/h	1339	88	0	1181	60	245	1616	3505	1530	1433	2859	1248
Grp Volume(v), veh/h	56	0	0	109	0	0	157	737	40	11	2954	79
Grp Sat Flow(s),veh/h/ln	1427	0	0	1486	0	0	1616	1752	1530	1433	1430	1248
Q Serve(g_s), s	0.0	0.0	0.0	4.8	0.0	0.0	13.0	8.8	0.9	1.1	106.8	2.9
Cycle Q Clear(g_c), s	5.2	0.0	0.0	10.0	0.0	0.0	13.0	8.8	0.9	1.1	106.8	2.9
Prop In Lane	0.95		0.00	0.82		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	0	212	0	0	140	2731	1192	28	2036	889
V/C Ratio(X)	0.27	0.00	0.00	0.51	0.00	0.00	1.12	0.27	0.03	0.39	1.45	0.09
Avail Cap(c_a), veh/h	306	0	0	312	0	0	140	2731	1192	124	2036	889
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	0.0	0.0	63.1	0.0	0.0	68.5	4.6	3.8	72.6	21.6	6.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	112.2	0.2	0.1	3.3	205.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	4.3	0.0	0.0	10.2	4.3	0.4	0.5	99.7	1.1
LnGrp Delay(d),s/veh	61.5	0.0	0.0	63.8	0.0	0.0	180.7	4.9	3.8	75.9	227.3	6.8
LnGrp LOS	E			E			F	A	A	E	F	A
Approach Vol, veh/h		56			109			934			3044	
Approach Delay, s/veh		61.5			63.8			34.4			221.0	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	111.9		21.1	6.9	122.0		21.1
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	13.0	95.9		27.9	13.0	95.9		27.9
Max Q Clear Time (g_c+I1), s	15.0	108.8		12.0	3.1	10.8		7.2
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	8.9		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	172.6	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	90	45	213	137	61	163	715	239	131	1685	883
Future Volume (veh/h)	236	90	45	213	137	61	163	715	239	131	1685	883
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.90	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	393	150	75	236	257	82	226	993	332	144	1852	970
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	557	184	92	266	279	214	199	1571	669	161	1792	542
Arrive On Green	0.16	0.16	0.16	0.15	0.15	0.15	0.11	0.45	0.45	0.12	0.45	0.45
Sat Flow, veh/h	3408	1126	563	1757	1845	1416	1757	3505	1492	1387	3976	1202
Grp Volume(v), veh/h	393	0	225	236	257	82	226	993	332	144	1852	970
Grp Sat Flow(s),veh/h/ln	1704	0	1689	1757	1845	1416	1757	1752	1492	1387	1325	1202
Q Serve(g_s), s	16.4	0.0	19.3	19.8	20.6	7.8	17.0	32.7	23.7	15.4	67.6	67.6
Cycle Q Clear(g_c), s	16.4	0.0	19.3	19.8	20.6	7.8	17.0	32.7	23.7	15.4	67.6	67.6
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	557	0	276	266	279	214	199	1571	669	161	1792	542
V/C Ratio(X)	0.71	0.00	0.82	0.89	0.92	0.38	1.14	0.63	0.50	0.90	1.03	1.79
Avail Cap(c_a), veh/h	611	0	303	269	283	217	199	1571	669	185	1792	542
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.3	0.0	60.6	62.4	62.8	57.3	66.5	31.9	29.4	65.4	41.2	41.2
Incr Delay (d2), s/veh	2.6	0.0	13.1	27.0	32.6	0.4	104.8	1.9	2.6	33.5	30.5	363.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	10.0	11.6	13.0	3.1	14.0	16.3	10.3	7.4	29.8	77.1
LnGrp Delay(d),s/veh	62.0	0.0	73.7	89.4	95.3	57.8	171.3	33.8	32.0	99.0	71.7	404.2
LnGrp LOS	E		E	F	F	E	F	C	C	F	F	F
Approach Vol, veh/h		618			575			1551			2966	
Approach Delay, s/veh		66.2			87.5			53.5			181.7	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	72.7		26.7	21.4	72.3		29.6
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	19.0	69.6		22.6	17.4	34.7		21.3
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	13.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	124.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	270	116	0	0	0	293	788	451	0	486	835
Future Volume (veh/h)	184	270	116	0	0	0	293	788	451	0	486	835
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	196	287	123				337	906	0	0	517	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.94	0.94	0.94				0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	275	377	158				75	2380	1065	0	1995	892
Arrive On Green	0.16	0.16	0.16				0.04	0.68	0.00	0.00	0.57	0.00
Sat Flow, veh/h	1757	2408	1007				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	196	207	203				337	906	0	0	517	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1662				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	7.4	7.9	8.2				3.0	7.8	0.0	0.0	5.2	0.0
Cycle Q Clear(g_c), s	7.4	7.9	8.2				3.0	7.8	0.0	0.0	5.2	0.0
Prop In Lane	1.00		0.61				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	275	274	260				75	2380	1065	0	1995	892
V/C Ratio(X)	0.71	0.75	0.78				4.48	0.38	0.00	0.00	0.26	0.00
Avail Cap(c_a), veh/h	753	751	712				75	2380	1065	0	1995	892
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.40	0.40	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.0	28.2	28.4				33.5	4.9	0.0	0.0	7.6	0.0
Incr Delay (d2), s/veh	1.3	1.6	1.9				1576.4	0.2	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.9	3.9				34.4	3.7	0.0	0.0	2.6	0.0
LnGrp Delay(d),s/veh	29.3	29.8	30.3				1609.9	5.0	0.0	0.0	7.9	0.0
LnGrp LOS	C	C	C				F	A			A	
Approach Vol, veh/h		606						1243			517	
Approach Delay, s/veh		29.8						440.2			7.9	
Approach LOS		C						F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		52.9		17.1	7.7	45.2		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		9.8		10.2	5.0	7.2		
Green Ext Time (p_c), s		4.1		0.4	0.0	1.7		

Intersection Summary	
HCM 2010 Ctrl Delay	240.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	41	177	28	0	200	0	1245	29	79	561	0
Future Volume (veh/h)	52	41	177	28	0	200	0	1245	29	79	561	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	66	52	224	37	0	263	0	1448	34	88	623	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.76	0.76	0.76	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	214	169	333	0	0	0	0	2006	47	113	1996	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.40	0.40	0.06	0.57	0.00
Sat Flow, veh/h	1004	791	1559		0		0	5225	119	1757	3597	0
Grp Volume(v), veh/h	118	0	224		0.0		0	961	521	88	623	0
Grp Sat Flow(s),veh/h/ln	1794	0	1559				0	1679	1820	1757	1752	0
Q Serve(g_s), s	2.0	0.0	4.9				0.0	8.9	8.9	1.8	3.4	0.0
Cycle Q Clear(g_c), s	2.0	0.0	4.9				0.0	8.9	8.9	1.8	3.4	0.0
Prop In Lane	0.56		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	383	0	333				0	1332	722	113	1996	0
V/C Ratio(X)	0.31	0.00	0.67				0.00	0.72	0.72	0.78	0.31	0.00
Avail Cap(c_a), veh/h	876	0	761				0	1457	790	191	2281	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	13.3				0.0	9.4	9.4	17.0	4.2	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.4				0.0	1.6	2.9	10.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.3				0.0	4.3	4.9	1.2	1.7	0.0
LnGrp Delay(d),s/veh	12.7	0.0	15.7				0.0	11.0	12.4	27.8	4.2	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		342						1482			711	
Approach Delay, s/veh		14.6						11.5			7.2	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		11.9		25.0			6.4	18.6
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		18.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		6.9		5.4			3.8	10.9
Green Ext Time (p_c), s		1.1		3.9			0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	105.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	346	45	154	869	6	52	6	53	14	9	27
Future Vol, veh/h	10	346	45	154	869	6	52	6	53	14	9	27
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	60	60	60	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	444	58	181	1022	7	87	10	88	18	12	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1029	0	0	502	0	0	1912	1890	473	1892	1916	1028
Stage 1	-	-	-	-	-	-	499	499	-	1388	1388	-
Stage 2	-	-	-	-	-	-	1413	1391	-	504	528	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	671	-	-	1057	-	-	~ 51	70	589	53	67	283
Stage 1	-	-	-	-	-	-	552	542	-	176	209	-
Stage 2	-	-	-	-	-	-	170	208	-	548	526	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	671	-	-	1057	-	-	~ 32	57	589	34	54	283
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 32	57	-	34	54	-
Stage 1	-	-	-	-	-	-	542	532	-	173	173	-
Stage 2	-	-	-	-	-	-	115	172	-	448	516	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.4	$ 1059.7	167.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	61	671	-	-	1057	-	-	74
HCM Lane V/C Ratio	3.033	0.019	-	-	0.171	-	-	0.878
HCM Control Delay (s)	$ 1059.7	10.5	-	-	9.1	-	-	167.4
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	19.1	0.1	-	-	0.6	-	-	4.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	251	844	209	732	2	329	13	132	17	28	25
Future Volume (veh/h)	21	251	844	209	732	2	329	13	132	17	28	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	24	285	0	230	804	2	427	0	0	21	35	31
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.79	0.79	0.79	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	55	674	573	275	902	2	578	0	258	46	77	68
Arrive On Green	0.03	0.37	0.00	0.16	0.49	0.49	0.16	0.00	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	1845	1568	1757	1839	5	3514	0	1568	409	682	604
Grp Volume(v), veh/h	24	285	0	230	0	806	427	0	0	87	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1844	1757	0	1568	1694	0	0
Q Serve(g_s), s	1.1	9.2	0.0	10.1	0.0	31.5	9.2	0.0	0.0	3.8	0.0	0.0
Cycle Q Clear(g_c), s	1.1	9.2	0.0	10.1	0.0	31.5	9.2	0.0	0.0	3.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.24		0.36
Lane Grp Cap(c), veh/h	55	674	573	275	0	904	578	0	258	192	0	0
V/C Ratio(X)	0.44	0.42	0.00	0.84	0.00	0.89	0.74	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	441	1158	985	441	0	1158	1324	0	591	638	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.9	19.0	0.0	32.6	0.0	18.4	31.6	0.0	0.0	33.0	0.0	0.0
Incr Delay (d2), s/veh	5.5	0.4	0.0	7.6	0.0	7.4	1.9	0.0	0.0	1.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.7	0.0	5.5	0.0	17.8	4.6	0.0	0.0	1.9	0.0	0.0
LnGrp Delay(d),s/veh	43.4	19.4	0.0	40.3	0.0	25.8	33.5	0.0	0.0	34.7	0.0	0.0
LnGrp LOS	D	B		D		C	C			C		
Approach Vol, veh/h		309			1036			427			87	
Approach Delay, s/veh		21.3			29.0			33.5			34.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.1	16.4	33.1		13.0	6.5	43.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		11.2	12.1	11.2		5.8	3.1	33.5
Green Ext Time (p_c), s		1.5	0.4	1.8		0.4	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	657	240	403	601	8	725	0	513	16	2	12
Future Volume (veh/h)	9	657	240	403	601	8	725	0	513	16	2	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	10	755	276	480	715	10	755	0	534	27	3	20
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.96	0.96	0.96	0.59	0.59	0.59
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	25	934	409	268	1434	20	805	0	1196	208	23	154
Arrive On Green	0.01	0.27	0.27	0.15	0.41	0.41	0.23	0.00	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1757	3505	1533	1757	3537	49	3514	0	3129	907	101	672
Grp Volume(v), veh/h	10	755	276	480	354	371	755	0	534	50	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1533	1757	1752	1834	1757	0	1565	1680	0	0
Q Serve(g_s), s	0.7	26.4	21.1	20.0	19.7	19.7	27.6	0.0	16.6	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.7	26.4	21.1	20.0	19.7	19.7	27.6	0.0	16.6	3.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.54		0.40
Lane Grp Cap(c), veh/h	25	934	409	268	710	743	805	0	1196	385	0	0
V/C Ratio(X)	0.41	0.81	0.68	1.79	0.50	0.50	0.94	0.00	0.45	0.13	0.00	0.00
Avail Cap(c_a), veh/h	268	1339	585	268	710	743	805	0	1196	385	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	64.0	44.9	42.9	55.4	29.0	29.0	49.5	0.0	30.1	40.1	0.0	0.0
Incr Delay (d2), s/veh	10.5	2.5	2.0	369.3	0.5	0.5	19.7	0.0	1.2	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.1	9.1	37.2	9.7	10.1	15.6	0.0	7.4	1.5	0.0	0.0
LnGrp Delay(d),s/veh	74.5	47.4	44.9	424.7	29.5	29.5	69.2	0.0	31.3	40.8	0.0	0.0
LnGrp LOS	E	D	D	F	C	C	E		C	D		
Approach Vol, veh/h		1041			1205			1289			50	
Approach Delay, s/veh		47.0			187.0			53.5			40.8	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	38.9		34.0	5.8	57.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		29.6	22.0	28.4		5.1	2.7	21.7
Green Ext Time (p_c), s		0.2	0.0	6.5		0.2	0.0	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	96.3
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	51	0	1205	1864	6
Future Vol, veh/h	0	51	0	1205	1864	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	55	0	1310	2026	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1017	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	201	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	201	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.6	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	201	-	-
HCM Lane V/C Ratio	-	0.276	-	-
HCM Control Delay (s)	-	29.6	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	1.1	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	371	0	18	1053	0	18
Future Vol, veh/h	371	0	18	1053	0	18
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	403	0	20	1145	0	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	403	0	1588	403
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	1185	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1150	-	118	645
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	289	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1150	-	116	645
Mov Cap-2 Maneuver	-	-	-	-	116	-
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	284	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	645	-	-	1150	-
HCM Lane V/C Ratio	0.03	-	-	0.017	-
HCM Control Delay (s)	10.8	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	371	5	0	1053	15	0
Future Vol, veh/h	371	5	0	1053	15	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	403	5	0	1145	16	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1551	406
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	1145	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	124	643
Stage 1	-	-	0	-	671	-
Stage 2	-	-	0	-	302	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	124	643
Mov Cap-2 Maneuver	-	-	-	-	124	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	302	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	38.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	124	-	-	-	-
HCM Lane V/C Ratio	0.131	-	-	-	-
HCM Control Delay (s)	38.4	0	-	-	-
HCM Lane LOS	E	A	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	56	1171	83	0	1918
Future Vol, veh/h	0	56	1171	83	0	1918
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	71	71	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	77	1649	117	0	1998

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	893	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	243	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	241	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.8	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	241	-
HCM Lane V/C Ratio	-	-	0.318	-
HCM Control Delay (s)	-	-	26.8	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	1.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	23	0	0	0	19	2402	0	0	946	21
Future Volume (veh/h)	17	0	23	0	0	0	19	2402	0	0	946	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	21	0	29	0	0	0	22	2826	0	0	1028	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	203	19	236	0	498	0	56	2208	0	0	1955	44
Arrive On Green	0.27	0.00	0.27	0.00	0.00	0.00	0.03	0.63	0.00	0.00	0.56	0.56
Sat Flow, veh/h	561	72	875	0	1845	0	1757	3597	0	0	3595	78
Grp Volume(v), veh/h	50	0	0	0	0	0	22	2826	0	0	514	537
Grp Sat Flow(s),veh/h/ln	1508	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.2	63.0	0.0	0.0	18.4	18.4
Cycle Q Clear(g_c), s	2.2	0.0	0.0	0.0	0.0	0.0	1.2	63.0	0.0	0.0	18.4	18.4
Prop In Lane	0.42		0.58	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	458	0	0	0	498	0	56	2208	0	0	978	1021
V/C Ratio(X)	0.11	0.00	0.00	0.00	0.00	0.00	0.39	1.28	0.00	0.00	0.53	0.53
Avail Cap(c_a), veh/h	458	0	0	0	498	0	123	2208	0	0	978	1021
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	0.0	0.0	0.0	0.0	47.4	18.5	0.0	0.0	13.8	13.8
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	1.6	129.6	0.0	0.0	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0	0.0	0.0	0.6	69.8	0.0	0.0	9.4	9.8
LnGrp Delay(d),s/veh	27.9	0.0	0.0	0.0	0.0	0.0	49.1	148.1	0.0	0.0	15.8	15.8
LnGrp LOS	C						D	F			B	B
Approach Vol, veh/h		50			0			2848			1051	
Approach Delay, s/veh		27.9			0.0			147.3			15.8	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		68.4		31.6	7.2	61.2		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		63.0		27.0	7.0	* 52		27.0
Max Q Clear Time (g_c+I1), s		65.0		4.2	3.2	20.4		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	11.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	110.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	39	0	42	6	2380	61	25	931	2
Future Volume (veh/h)	2	0	10	39	0	42	6	2380	61	25	931	2
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	4	0	18	49	0	0	7	2767	0	28	1046	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	19	261	342	0	321	27	2263	1012	69	2347	0
Arrive On Green	0.20	0.00	0.20	0.20	0.00	0.00	0.02	0.65	0.00	0.04	0.67	0.00
Sat Flow, veh/h	189	94	1273	1394	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	22	0	0	49	0	0	7	2767	0	28	1046	0
Grp Sat Flow(s),veh/h/ln	1556	0	0	1394	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	0.5	82.0	0.0	2.0	17.9	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	3.3	0.0	0.0	0.5	82.0	0.0	2.0	17.9	0.0
Prop In Lane	0.18		0.82	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	352	0	0	342	0	321	27	2263	1012	69	2347	0
V/C Ratio(X)	0.06	0.00	0.00	0.14	0.00	0.00	0.26	1.22	0.00	0.40	0.45	0.00
Avail Cap(c_a), veh/h	352	0	0	342	0	321	124	2263	1012	111	2347	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.7	0.0	0.0	41.4	0.0	0.0	61.8	22.5	0.0	59.5	9.9	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.9	0.0	0.0	1.8	104.5	0.0	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	1.5	0.0	0.0	0.3	72.1	0.0	1.0	8.8	0.0
LnGrp Delay(d),s/veh	41.1	0.0	0.0	42.3	0.0	0.0	63.6	127.0	0.0	60.9	10.5	0.0
LnGrp LOS	D			D			E	F		E	B	
Approach Vol, veh/h		22			49			2774			1074	
Approach Delay, s/veh		41.1			42.3			126.9			11.8	
Approach LOS		D			D			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.0	90.5		30.6	9.0	87.4		30.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 81		26.0	8.0	82.0		26.0
Max Q Clear Time (g_c+I1), s	2.5	19.9		3.4	4.0	84.0		5.3
Green Ext Time (p_c), s	0.0	14.8		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	93.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	93	115	2423	961	24
Future Volume (veh/h)	24	93	115	2423	961	24
Number	3	18	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	25	0	134	2817	1033	26
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.86	0.86	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	438	391	163	2278	1813	794
Arrive On Green	0.25	0.00	0.09	0.65	0.52	0.52
Sat Flow, veh/h	1757	1568	1757	3597	3597	1534
Grp Volume(v), veh/h	25	0	134	2817	1033	26
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1534
Q Serve(g_s), s	1.1	0.0	7.5	65.2	20.2	0.8
Cycle Q Clear(g_c), s	1.1	0.0	7.5	65.2	20.2	0.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	438	391	163	2278	1813	794
V/C Ratio(X)	0.06	0.00	0.82	1.24	0.57	0.03
Avail Cap(c_a), veh/h	438	391	210	2278	1813	794
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	1.00
Uniform Delay (d), s/veh	28.7	0.0	44.7	17.6	16.6	11.9
Incr Delay (d2), s/veh	0.2	0.0	14.3	110.4	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.3	65.9	10.1	0.4
LnGrp Delay(d),s/veh	28.9	0.0	59.0	127.9	17.9	12.0
LnGrp LOS	C		E	F	B	B
Approach Vol, veh/h	25			2951	1059	
Approach Delay, s/veh	28.9			124.8	17.7	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		70.6			13.3	57.3		29.7
Change Period (Y+Rc), s		* 5.4			4.0	5.4		4.7
Max Green Setting (Gmax), s		* 65			12.0	48.9		25.0
Max Q Clear Time (g_c+I1), s		67.2			9.5	22.2		3.1
Green Ext Time (p_c), s		0.0			0.0	11.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	96.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1	137	46	5	21	140	2466	50	20	979	45
Future Volume (veh/h)	60	1	137	46	5	21	140	2466	50	20	979	45
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.93		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	82	1	0	56	6	26	152	2680	54	21	1031	47
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	261	3	246	185	26	69	174	2470	1099	53	1812	789
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.11	0.70	0.70	0.04	0.63	0.63
Sat Flow, veh/h	1312	18	1568	887	163	440	1616	3505	1559	1433	2859	1245
Grp Volume(v), veh/h	83	0	0	88	0	0	152	2680	54	21	1031	47
Grp Sat Flow(s),veh/h/ln	1331	0	1568	1490	0	0	1616	1752	1559	1433	1430	1245
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	0.0	12.1	91.8	1.4	1.9	26.9	1.9
Cycle Q Clear(g_c), s	7.0	0.0	0.0	6.0	0.0	0.0	12.1	91.8	1.4	1.9	26.9	1.9
Prop In Lane	0.99		1.00	0.64		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	0	246	279	0	0	174	2470	1099	53	1812	789
V/C Ratio(X)	0.31	0.00	0.00	0.32	0.00	0.00	0.87	1.08	0.05	0.40	0.57	0.06
Avail Cap(c_a), veh/h	320	0	313	338	0	0	248	2470	1099	99	1812	789
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	0.0	0.0	48.8	0.0	0.0	57.2	19.2	5.9	61.3	13.7	9.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	15.9	45.9	0.1	1.8	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	2.8	0.0	0.0	6.2	59.7	0.6	0.8	10.9	0.7
LnGrp Delay(d),s/veh	49.5	0.0	0.0	49.0	0.0	0.0	73.1	65.2	6.0	63.1	15.0	9.2
LnGrp LOS	D			D			E	F	A	E	B	A
Approach Vol, veh/h		83			88			2886			1099	
Approach Delay, s/veh		49.5			49.0			64.5			15.6	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.8	96.9		24.6	18.0	87.7		24.6
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	91.8		26.0	20.0	80.8		26.0
Max Q Clear Time (g_c+I1), s	12.9	93.8		8.0	14.1	28.9		9.0
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	14.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	50.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	680	136	72	187	109	153	86	1722	159	170	886	312
Future Volume (veh/h)	680	136	72	187	109	153	86	1722	159	170	886	312
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	829	166	88	183	202	189	92	1852	171	212	1108	390
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	231	122	142	149	107	114	1590	685	155	1991	584
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.06	0.45	0.45	0.11	0.50	0.50
Sat Flow, veh/h	3408	1109	588	1757	1845	1329	1757	3505	1511	1387	3976	1166
Grp Volume(v), veh/h	829	0	254	183	202	189	92	1852	171	212	1108	390
Grp Sat Flow(s),veh/h/ln	1704	0	1697	1757	1845	1329	1757	1752	1511	1387	1325	1166
Q Serve(g_s), s	26.0	0.0	17.4	10.1	10.1	10.1	6.5	56.7	8.7	14.0	24.1	31.4
Cycle Q Clear(g_c), s	26.0	0.0	17.4	10.1	10.1	10.1	6.5	56.7	8.7	14.0	24.1	31.4
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	353	142	149	107	114	1590	685	155	1991	584
V/C Ratio(X)	1.17	0.00	0.72	1.29	1.36	1.76	0.81	1.16	0.25	1.36	0.56	0.67
Avail Cap(c_a), veh/h	709	0	353	142	149	107	126	1590	685	155	1991	584
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	46.1	57.5	57.5	57.4	57.7	34.1	21.0	55.5	21.6	23.4
Incr Delay (d2), s/veh	90.9	0.0	6.0	172.7	197.2	377.1	25.4	81.5	0.9	199.8	1.1	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.2	0.0	8.8	11.7	13.3	15.0	3.9	45.4	3.8	14.0	9.0	11.0
LnGrp Delay(d),s/veh	140.4	0.0	52.1	230.2	254.7	434.5	83.0	115.6	21.9	255.3	22.7	29.4
LnGrp LOS	F		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1083			574			2115			1710	
Approach Delay, s/veh		119.7			306.1			106.7			53.1	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	12.1	67.7		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	10.0	58.7		12.1	8.5	33.4		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	15.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	277	479	298	0	0	0	282	653	439	0	591	472
Future Volume (veh/h)	277	479	298	0	0	0	282	653	439	0	591	472
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	280	484	301				313	726	0	0	622	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.99	0.99	0.99				0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	517	610	378				251	1683	753	0	859	384
Arrive On Green	0.29	0.29	0.29				0.14	0.48	0.00	0.00	0.25	0.00
Sat Flow, veh/h	1757	2073	1284				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	280	409	376				313	726	0	0	622	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1604				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	6.8	11.0	11.0				7.3	6.9	0.0	0.0	8.3	0.0
Cycle Q Clear(g_c), s	6.8	11.0	11.0				7.3	6.9	0.0	0.0	8.3	0.0
Prop In Lane	1.00		0.80				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	517	516	472				251	1683	753	0	859	384
V/C Ratio(X)	0.54	0.79	0.80				1.25	0.43	0.00	0.00	0.72	0.00
Avail Cap(c_a), veh/h	1136	1133	1037				251	2437	1090	0	1613	722
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.1	16.6	16.6				21.9	8.7	0.0	0.0	17.7	0.0
Incr Delay (d2), s/veh	0.3	1.1	1.2				139.5	0.1	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	5.4	5.0				13.2	3.3	0.0	0.0	4.0	0.0
LnGrp Delay(d),s/veh	15.4	17.6	17.8				161.4	8.8	0.0	0.0	18.1	0.0
LnGrp LOS	B	B	B				F	A			B	
Approach Vol, veh/h		1065						1039			622	
Approach Delay, s/veh		17.1						54.7			18.1	
Approach LOS		B						D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		29.9		21.1	12.0	17.9		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		35.5		33.0	* 7.3	23.5		
Max Q Clear Time (g_c+I1), s		8.9		13.0	9.3	10.3		
Green Ext Time (p_c), s		3.4		0.8	0.0	2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	31.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	73	213	32	0	133	0	1154	28	148	729	0
Future Volume (veh/h)	61	73	213	32	0	133	0	1154	28	148	729	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	64	77	224	47	0	196	0	1311	32	185	911	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.68	0.68	0.68	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	171	205	326	0	0	0	0	1814	44	235	2075	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.36	0.36	0.13	0.59	0.00
Sat Flow, veh/h	819	985	1563		0		0	5220	123	1757	3597	0
Grp Volume(v), veh/h	141	0	224		0.0		0	871	472	185	911	0
Grp Sat Flow(s),veh/h/ln	1804	0	1563				0	1679	1820	1757	1752	0
Q Serve(g_s), s	2.7	0.0	5.3				0.0	9.0	9.0	4.1	5.7	0.0
Cycle Q Clear(g_c), s	2.7	0.0	5.3				0.0	9.0	9.0	4.1	5.7	0.0
Prop In Lane	0.45		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	376	0	326				0	1205	653	235	2075	0
V/C Ratio(X)	0.38	0.00	0.69				0.00	0.72	0.72	0.79	0.44	0.00
Avail Cap(c_a), veh/h	765	0	663				0	1340	726	307	2360	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	14.7				0.0	11.1	11.1	16.8	4.5	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.6				0.0	1.7	3.2	9.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	2.5				0.0	4.4	5.0	2.6	2.7	0.0
LnGrp Delay(d),s/veh	14.2	0.0	17.2				0.0	12.9	14.3	26.6	4.7	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		365						1343			1096	
Approach Delay, s/veh		16.1						13.4			8.4	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		12.4		27.7			9.4	18.4
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		27.0			7.0	16.0
Max Q Clear Time (g_c+I1), s		7.3		7.7			6.1	11.0
Green Ext Time (p_c), s		1.1		6.2			0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	60.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	871	65	72	329	5	38	10	141	13	8	19
Future Vol, veh/h	12	871	65	72	329	5	38	10	141	13	8	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	83	83	83	80	80	80	65	65	65
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	1117	83	87	396	6	48	13	176	20	12	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	402	0	0	1200	0	0	1783	1765	1159	1768	1803	399
Stage 1	-	-	-	-	-	-	1189	1189	-	573	573	-
Stage 2	-	-	-	-	-	-	594	576	-	1195	1230	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1151	-	-	578	-	-	63	83	237	65	79	649
Stage 1	-	-	-	-	-	-	228	260	-	503	502	-
Stage 2	-	-	-	-	-	-	490	501	-	226	249	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1151	-	-	578	-	-	~ 45	70	237	~ 13	66	649
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 45	70	-	~ 13	66	-
Stage 1	-	-	-	-	-	-	225	257	-	496	426	-
Stage 2	-	-	-	-	-	-	386	425	-	54	246	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.2	$ 351.8	$ 610.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	148	1151	-	-	578	-	-	35
HCM Lane V/C Ratio	1.596	0.013	-	-	0.15	-	-	1.758
HCM Control Delay (s)	$ 351.8	8.2	-	-	12.3	-	-	$ 610.9
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	16.4	0	-	-	0.5	-	-	6.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	677	1171	119	262	5	317	10	261	8	19	14
Future Volume (veh/h)	31	677	1171	119	262	5	317	10	261	8	19	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	34	736	0	149	328	6	360	0	0	11	26	19
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.90	0.90	0.90	0.73	0.73	0.73
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	831	706	187	935	17	501	0	224	36	84	62
Arrive On Green	0.04	0.45	0.00	0.11	0.52	0.52	0.14	0.00	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	1845	1568	1757	1806	33	3514	0	1568	335	793	579
Grp Volume(v), veh/h	34	736	0	149	0	334	360	0	0	56	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1839	1757	0	1568	1708	0	0
Q Serve(g_s), s	1.6	30.1	0.0	6.8	0.0	8.8	8.1	0.0	0.0	2.5	0.0	0.0
Cycle Q Clear(g_c), s	1.6	30.1	0.0	6.8	0.0	8.8	8.1	0.0	0.0	2.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.20		0.34
Lane Grp Cap(c), veh/h	69	831	706	187	0	952	501	0	224	182	0	0
V/C Ratio(X)	0.49	0.89	0.00	0.79	0.00	0.35	0.72	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	425	1117	949	425	0	1113	1276	0	570	620	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.9	20.7	0.0	36.0	0.0	11.7	33.8	0.0	0.0	34.1	0.0	0.0
Incr Delay (d2), s/veh	5.3	6.9	0.0	7.4	0.0	0.2	2.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	16.7	0.0	3.7	0.0	4.5	4.0	0.0	0.0	1.2	0.0	0.0
LnGrp Delay(d),s/veh	44.2	27.6	0.0	43.4	0.0	12.0	35.8	0.0	0.0	35.0	0.0	0.0
LnGrp LOS	D	C		D		B	D			D		
Approach Vol, veh/h		770			483			360			56	
Approach Delay, s/veh		28.4			21.7			35.8			35.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		15.8	12.8	41.2		12.8	7.2	46.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		10.1	8.8	32.1		4.5	3.6	10.8
Green Ext Time (p_c), s		1.2	0.3	5.1		0.2	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1064	276	287	291	15	496	0	798	16	6	8
Future Volume (veh/h)	9	1064	276	287	291	15	496	0	798	16	6	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	9	1108	288	354	359	19	539	0	867	25	9	12
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	22	1184	516	242	1569	83	727	0	1082	193	70	93
Arrive On Green	0.01	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1528	1757	3386	179	3514	0	3136	934	336	448
Grp Volume(v), veh/h	9	1108	288	354	185	193	539	0	867	46	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1528	1757	1752	1812	1757	0	1568	1719	0	0
Q Serve(g_s), s	0.7	44.4	22.3	20.0	9.2	9.3	20.8	0.0	30.0	3.2	0.0	0.0
Cycle Q Clear(g_c), s	0.7	44.4	22.3	20.0	9.2	9.3	20.8	0.0	30.0	3.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	0.54		0.26
Lane Grp Cap(c), veh/h	22	1184	516	242	812	840	727	0	1082	356	0	0
V/C Ratio(X)	0.41	0.94	0.56	1.46	0.23	0.23	0.74	0.00	0.80	0.13	0.00	0.00
Avail Cap(c_a), veh/h	242	1209	527	242	812	840	727	0	1082	356	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.0	46.5	39.2	62.5	23.4	23.4	53.9	0.0	43.0	46.8	0.0	0.0
Incr Delay (d2), s/veh	11.6	13.2	1.3	228.7	0.1	0.1	6.7	0.0	6.3	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	23.6	9.6	25.1	4.5	4.7	10.8	0.0	16.6	1.6	0.0	0.0
LnGrp Delay(d),s/veh	82.6	59.7	40.4	291.1	23.5	23.5	60.6	0.0	49.3	47.6	0.0	0.0
LnGrp LOS	F	E	D	F	C	C	E		D	D		
Approach Vol, veh/h		1405			732			1406			46	
Approach Delay, s/veh		55.9			152.9			53.6			47.6	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	53.0		34.0	5.8	71.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		32.0	22.0	46.4		5.2	2.7	11.3
Green Ext Time (p_c), s		0.0	0.0	2.6		0.2	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	74.7
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	30	0	1952	1134	11
Future Vol, veh/h	0	30	0	1952	1134	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	33	0	2122	1233	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	623	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	366	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	366	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	366	-	-
HCM Lane V/C Ratio	-	0.089	-	-
HCM Control Delay (s)	-	15.8	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	878	0	30	462	0	10
Future Vol, veh/h	878	0	30	462	0	10
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	954	0	33	502	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	954	0	1522	954
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	568	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	716	-	130	312
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	565	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	716	-	124	312
Mov Cap-2 Maneuver	-	-	-	-	124	-
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	539	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	17
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	312	-	-	716	-
HCM Lane V/C Ratio	0.035	-	-	0.046	-
HCM Control Delay (s)	17	-	-	10.3	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	878	9	0	462	9	0
Future Vol, veh/h	878	9	0	462	9	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	954	10	0	502	10	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1461	959
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	502	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	141	310
Stage 1	-	-	0	-	371	-
Stage 2	-	-	0	-	606	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	141	310
Mov Cap-2 Maneuver	-	-	-	-	141	-
Stage 1	-	-	-	-	371	-
Stage 2	-	-	-	-	606	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	32.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	141	-	-	-	-
HCM Lane V/C Ratio	0.069	-	-	-	-
HCM Control Delay (s)	32.4	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	19	1978	97	0	1159
Future Vol, veh/h	0	19	1978	97	0	1159
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	94	94	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	28	2104	103	0	1260

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1114	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	173	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	172	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	172	-
HCM Lane V/C Ratio	-	-	0.165	-
HCM Control Delay (s)	-	-	30	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.6	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	28	0	0	0	20	2881	0	0	935	20
Future Volume (veh/h)	13	0	28	0	0	0	20	2881	0	0	935	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	18	0	38	0	0	0	21	3001	0	0	1016	22
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.73	0.73	0.73	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	255	36	452	0	803	0	60	1413	0	0	1067	23
Arrive On Green	0.44	0.00	0.44	0.00	0.00	0.00	0.03	0.40	0.00	0.00	0.30	0.30
Sat Flow, veh/h	409	82	1037	0	1845	0	1757	3597	0	0	3598	76
Grp Volume(v), veh/h	56	0	0	0	0	0	21	3001	0	0	508	530
Grp Sat Flow(s),veh/h/ln	1529	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.7	25.0	0.0	0.0	17.6	17.6
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	0.0	0.7	25.0	0.0	0.0	17.6	17.6
Prop In Lane	0.32		0.68	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	742	0	0	0	803	0	60	1413	0	0	534	557
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.35	2.12	0.00	0.00	0.95	0.95
Avail Cap(c_a), veh/h	742	0	0	0	803	0	198	1413	0	0	534	557
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	29.3	18.5	0.0	0.0	21.1	21.1
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	1.3	508.0	0.0	0.0	28.7	27.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	0.0	0.4	111.7	0.0	0.0	12.7	13.2
LnGrp Delay(d),s/veh	10.4	0.0	0.0	0.0	0.0	0.0	30.5	526.5	0.0	0.0	49.8	49.0
LnGrp LOS	B						C	F			D	D
Approach Vol, veh/h		56			0			3022			1038	
Approach Delay, s/veh		10.4			0.0			523.0			49.4	
Approach LOS		B						F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		30.4		31.6	6.1	24.3		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		25.0		27.0	7.0	* 14		27.0
Max Q Clear Time (g_c+I1), s		27.0		3.2	2.7	19.6		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	396.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	12	30	0	30	7	2864	51	37	932	1
Future Volume (veh/h)	2	0	12	30	0	30	7	2864	51	37	932	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	5	0	28	42	0	0	7	2953	0	40	1013	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.43	0.43	0.43	0.72	0.72	0.72	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	114	37	472	605	0	556	29	1245	557	113	1412	0
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.00	0.02	0.36	0.00	0.06	0.40	0.00
Sat Flow, veh/h	134	103	1329	1378	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	33	0	0	42	0	0	7	2953	0	40	1013	0
Grp Sat Flow(s),veh/h/ln	1567	0	0	1378	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22.0	0.0	1.4	15.1	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.0	0.0	0.0	0.2	22.0	0.0	1.4	15.1	0.0
Prop In Lane	0.15		0.85	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	623	0	0	605	0	556	29	1245	557	113	1412	0
V/C Ratio(X)	0.05	0.00	0.00	0.07	0.00	0.00	0.24	2.37	0.00	0.35	0.72	0.00
Avail Cap(c_a), veh/h	623	0	0	605	0	556	255	1245	557	227	1412	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.2	0.0	0.0	13.2	0.0	0.0	30.1	20.0	0.0	27.8	15.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	0.1	617.9	0.0	0.7	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.5	0.0	0.0	0.1	117.4	0.0	0.7	7.8	0.0
LnGrp Delay(d),s/veh	13.3	0.0	0.0	13.4	0.0	0.0	30.2	637.9	0.0	28.5	18.7	0.0
LnGrp LOS	B			B			C	F		C	B	
Approach Vol, veh/h		33			42			2960			1053	
Approach Delay, s/veh		13.3			13.4			636.5			19.1	
Approach LOS		B			B			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	30.4		26.6	8.0	27.4		26.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 17		22.0	8.0	18.0		22.0
Max Q Clear Time (g_c+I1), s	2.2	17.1		2.8	3.4	24.0		3.0
Green Ext Time (p_c), s	0.0	0.2		0.1	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	466.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	108	147	2919	953	34
Future Volume (veh/h)	22	108	147	2919	953	34
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	24	0	155	3073	1003	36
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	480	428	186	2194	1683	737
Arrive On Green	0.27	0.00	0.11	0.63	0.48	0.48
Sat Flow, veh/h	1757	1568	1757	3597	3597	1535
Grp Volume(v), veh/h	24	0	155	3073	1003	36
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1535
Q Serve(g_s), s	1.0	0.0	8.7	62.6	20.8	1.2
Cycle Q Clear(g_c), s	1.0	0.0	8.7	62.6	20.8	1.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	480	428	186	2194	1683	737
V/C Ratio(X)	0.05	0.00	0.83	1.40	0.60	0.05
Avail Cap(c_a), veh/h	480	428	264	2194	1683	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.72	0.72
Uniform Delay (d), s/veh	26.8	0.0	43.8	18.7	18.9	13.8
Incr Delay (d2), s/veh	0.2	0.0	10.3	183.1	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	4.8	85.7	10.3	0.5
LnGrp Delay(d),s/veh	27.0	0.0	54.2	201.8	20.0	13.9
LnGrp LOS	C		D	F	C	B
Approach Vol, veh/h	24			3228	1039	
Approach Delay, s/veh	27.0			194.7	19.8	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.6	53.4				68.0		32.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	15.6	* 44				62.6		27.3
Max Q Clear Time (g_c+I1), s	10.7	22.8				64.6		3.0
Green Ext Time (p_c), s	0.1	9.8				0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	151.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1	75	37	0	20	125	2986	53	15	997	41
Future Volume (veh/h)	59	1	75	37	0	20	125	2986	53	15	997	41
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	73	1	0	54	0	29	129	3078	55	16	1084	45
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.81	0.81	0.81	0.68	0.68	0.68	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	358	4	265	242	19	89	209	2058	900	45	1398	612
Arrive On Green	0.17	0.17	0.00	0.17	0.00	0.17	0.13	0.59	0.59	0.03	0.49	0.49
Sat Flow, veh/h	1437	25	1568	866	114	527	1616	3505	1533	1433	2859	1251
Grp Volume(v), veh/h	74	0	0	83	0	0	129	3078	55	16	1084	45
Grp Sat Flow(s),veh/h/ln	1462	0	1568	1507	0	0	1616	1752	1533	1433	1430	1251
Q Serve(g_s), s	0.0	0.0	0.0	0.4	0.0	0.0	4.7	36.4	1.0	0.7	19.4	1.2
Cycle Q Clear(g_c), s	2.3	0.0	0.0	2.6	0.0	0.0	4.7	36.4	1.0	0.7	19.4	1.2
Prop In Lane	0.99		1.00	0.65		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	0	265	350	0	0	209	2058	900	45	1398	612
V/C Ratio(X)	0.20	0.00	0.00	0.24	0.00	0.00	0.62	1.50	0.06	0.36	0.78	0.07
Avail Cap(c_a), veh/h	616	0	556	618	0	0	235	2058	900	185	1398	612
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	0.0	0.0	22.5	0.0	0.0	25.5	12.8	5.5	29.4	13.0	8.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	2.3	225.6	0.1	1.8	4.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.3	0.0	0.0	2.2	81.6	0.4	0.3	8.4	0.4
LnGrp Delay(d),s/veh	22.5	0.0	0.0	22.6	0.0	0.0	27.9	238.4	5.6	31.2	17.3	8.6
LnGrp LOS	C			C			C	F	A	C	B	A
Approach Vol, veh/h		74			83			3262			1145	
Approach Delay, s/veh		22.5			22.6			226.2			17.2	
Approach LOS		C			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	35.4		14.6	5.9	41.5		14.6
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	8.0	17.8		22.0	8.0	18.8		22.0
Max Q Clear Time (g_c+I1), s	10.7	21.4		4.6	2.7	38.4		4.3
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	166.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	914	138	28	189	90	315	79	1777	145	184	838	226
Future Volume (veh/h)	914	138	28	189	90	315	79	1777	145	184	838	226
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	983	148	30	154	175	346	81	1832	149	202	921	248
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	3	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	957	417	84	169	178	148	91	1399	611	123	1735	532
Arrive On Green	0.28	0.28	0.28	0.10	0.10	0.10	0.05	0.40	0.40	0.09	0.44	0.44
Sat Flow, veh/h	3408	1484	301	1757	1845	1539	1757	3505	1530	1387	3976	1220
Grp Volume(v), veh/h	983	0	178	154	175	346	81	1832	149	202	921	248
Grp Sat Flow(s),veh/h/ln	1704	0	1785	1757	1845	1539	1757	1752	1530	1387	1325	1220
Q Serve(g_s), s	37.9	0.0	10.8	11.7	12.8	13.0	6.2	53.9	8.8	12.0	22.9	19.4
Cycle Q Clear(g_c), s	37.9	0.0	10.8	11.7	12.8	13.0	6.2	53.9	8.8	12.0	22.9	19.4
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	957	0	501	169	178	148	91	1399	611	123	1735	532
V/C Ratio(X)	1.03	0.00	0.36	0.91	0.99	2.34	0.89	1.31	0.24	1.64	0.53	0.47
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1399	611	123	1735	532
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	0.0	38.8	60.4	60.9	61.0	63.6	40.5	27.0	61.5	27.9	26.9
Incr Delay (d2), s/veh	36.3	0.0	0.2	43.4	62.9	621.4	58.2	144.4	0.9	320.9	1.2	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.6	0.0	5.3	7.7	9.6	31.1	4.5	54.1	3.8	15.6	8.5	7.0
LnGrp Delay(d),s/veh	84.8	0.0	38.9	103.9	123.8	682.4	121.8	184.9	27.9	382.4	29.1	29.8
LnGrp LOS	F		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1161			675			2062			1371	
Approach Delay, s/veh		77.8			405.6			171.1			81.3	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	64.0		17.0	16.0	59.0		43.0
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.0	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	9.2	24.9		15.0	14.0	55.9		39.9
Green Ext Time (p_c), s	0.0	12.5		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	157.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	664	384	0	0	0	234	699	328	0	564	393
Future Volume (veh/h)	312	664	384	0	0	0	234	699	328	0	564	393
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	322	685	396				244	728	0	0	620	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	616	750	433				75	1701	761	0	1315	588
Arrive On Green	0.35	0.35	0.35				0.04	0.49	0.00	0.00	0.38	0.00
Sat Flow, veh/h	1757	2141	1236				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	322	561	520				244	728	0	0	620	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1624				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	10.2	21.4	21.4				3.0	9.4	0.0	0.0	9.4	0.0
Cycle Q Clear(g_c), s	10.2	21.4	21.4				3.0	9.4	0.0	0.0	9.4	0.0
Prop In Lane	1.00		0.76				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	616	614	569				75	1701	761	0	1315	588
V/C Ratio(X)	0.52	0.91	0.91				3.24	0.43	0.00	0.00	0.47	0.00
Avail Cap(c_a), veh/h	753	751	696				75	1701	761	0	1315	588
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.66	0.66	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	18.1	21.7	21.7				33.5	11.7	0.0	0.0	16.6	0.0
Incr Delay (d2), s/veh	0.3	12.4	13.4				1030.6	0.5	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	12.4	11.7				23.0	4.7	0.0	0.0	4.7	0.0
LnGrp Delay(d),s/veh	18.3	34.1	35.1				1064.1	12.2	0.0	0.0	17.8	0.0
LnGrp LOS	B	C	D				F	B			B	
Approach Vol, veh/h		1403						972			620	
Approach Delay, s/veh		30.9						276.3			17.8	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		39.4		30.6	7.7	31.7		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		11.4		23.4	5.0	11.4		
Green Ext Time (p_c), s		3.1		1.0	0.0	1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	107.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	81	224	27	0	125	0	1037	16	176	763	0
Future Volume (veh/h)	74	81	224	27	0	125	0	1037	16	176	763	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	82	90	249	35	0	162	0	1103	17	189	820	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	201	220	365	0	0	0	0	1735	27	187	1938	0
Arrive On Green	0.23	0.23	0.23	0.00	0.00	0.00	0.00	0.34	0.34	0.11	0.55	0.00
Sat Flow, veh/h	859	943	1562		0		0	5273	79	1757	3597	0
Grp Volume(v), veh/h	172	0	249		0.0		0	725	395	189	820	0
Grp Sat Flow(s),veh/h/ln	1802	0	1562				0	1679	1829	1757	1752	0
Q Serve(g_s), s	3.0	0.0	5.5				0.0	6.8	6.8	4.0	5.1	0.0
Cycle Q Clear(g_c), s	3.0	0.0	5.5				0.0	6.8	6.8	4.0	5.1	0.0
Prop In Lane	0.48		1.00				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	421	0	365				0	1141	621	187	1938	0
V/C Ratio(X)	0.41	0.00	0.68				0.00	0.64	0.64	1.01	0.42	0.00
Avail Cap(c_a), veh/h	816	0	708				0	1432	780	187	2242	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	13.1				0.0	10.4	10.4	16.8	4.9	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.2				0.0	0.6	1.1	68.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	2.6				0.0	3.2	3.6	5.4	2.4	0.0
LnGrp Delay(d),s/veh	12.8	0.0	15.3				0.0	11.1	11.6	84.9	5.0	0.0
LnGrp LOS	B		B					B	B	F	A	
Approach Vol, veh/h		421						1120			1009	
Approach Delay, s/veh		14.3						11.2			20.0	
Approach LOS		B						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		12.8		24.7			8.0	16.7
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		7.5		7.1			6.0	8.8
Green Ext Time (p_c), s		1.3		5.2			0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	53.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	979	70	79	329	9	43	8	108	3	13	12
Future Vol, veh/h	29	979	70	79	329	9	43	8	108	3	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	83	83	83	82	82	82	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	1088	78	95	396	11	52	10	132	5	22	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	407	0	0	1166	0	0	1804	1788	1127	1788	1822	402
Stage 1	-	-	-	-	-	-	1191	1191	-	592	592	-
Stage 2	-	-	-	-	-	-	613	597	-	1196	1230	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1146	-	-	596	-	-	61	81	248	63	77	646
Stage 1	-	-	-	-	-	-	228	260	-	491	492	-
Stage 2	-	-	-	-	-	-	478	490	-	226	249	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1146	-	-	596	-	-	~ 38	66	248	23	63	646
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 38	66	-	23	63	-
Stage 1	-	-	-	-	-	-	222	253	-	477	414	-
Stage 2	-	-	-	-	-	-	369	412	-	99	242	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.3	$ 501.3	102
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	103	1146	-	-	596	-	-	79
HCM Lane V/C Ratio	1.883	0.028	-	-	0.16	-	-	0.591
HCM Control Delay (s)	$ 501.3	8.2	-	-	12.2	-	-	102
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	15.9	0.1	-	-	0.6	-	-	2.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	803	1239	105	273	3	284	17	265	10	16	6
Future Volume (veh/h)	16	803	1239	105	273	3	284	17	265	10	16	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	17	845	0	122	317	3	312	0	0	13	21	8
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.95	0.95	0.95	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	41	926	787	156	1035	10	436	0	195	53	86	33
Arrive On Green	0.02	0.50	0.00	0.09	0.57	0.57	0.12	0.00	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1757	1845	1568	1757	1824	17	3514	0	1568	543	877	334
Grp Volume(v), veh/h	17	845	0	122	0	320	312	0	0	42	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1842	1757	0	1568	1754	0	0
Q Serve(g_s), s	0.8	36.0	0.0	5.8	0.0	7.8	7.3	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	0.8	36.0	0.0	5.8	0.0	7.8	7.3	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.31		0.19
Lane Grp Cap(c), veh/h	41	926	787	156	0	1045	436	0	195	172	0	0
V/C Ratio(X)	0.42	0.91	0.00	0.78	0.00	0.31	0.72	0.00	0.00	0.24	0.00	0.00
Avail Cap(c_a), veh/h	411	1078	917	411	0	1077	1233	0	550	615	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.2	19.6	0.0	38.2	0.0	9.7	36.0	0.0	0.0	35.6	0.0	0.0
Incr Delay (d2), s/veh	6.6	10.5	0.0	8.3	0.0	0.2	2.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	20.8	0.0	3.2	0.0	4.0	3.7	0.0	0.0	1.0	0.0	0.0
LnGrp Delay(d),s/veh	47.8	30.1	0.0	46.4	0.0	9.8	38.2	0.0	0.0	36.4	0.0	0.0
LnGrp LOS	D	C		D		A	D			D		
Approach Vol, veh/h		862			442			312			42	
Approach Delay, s/veh		30.5			19.9			38.2			36.4	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.6	11.6	46.9		12.4	6.0	52.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		9.3	7.8	38.0		3.9	2.8	9.8
Green Ext Time (p_c), s		1.0	0.2	4.9		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1300	313	242	306	7	561	0	738	20	3	12
Future Volume (veh/h)	14	1300	313	242	306	7	561	0	738	20	3	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	15	1368	329	260	329	8	597	0	785	27	4	16
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.94	0.94	0.94	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	33	1200	519	241	1611	39	722	0	1074	200	30	119
Arrive On Green	0.02	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1516	1757	3497	85	3514	0	3136	973	144	577
Grp Volume(v), veh/h	15	1368	329	260	165	172	597	0	785	47	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1516	1757	1752	1829	1757	0	1568	1694	0	0
Q Serve(g_s), s	1.2	50.0	26.6	20.0	8.2	8.2	23.7	0.0	30.0	3.3	0.0	0.0
Cycle Q Clear(g_c), s	1.2	50.0	26.6	20.0	8.2	8.2	23.7	0.0	30.0	3.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	0.57		0.34
Lane Grp Cap(c), veh/h	33	1200	519	241	807	843	722	0	1074	348	0	0
V/C Ratio(X)	0.46	1.14	0.63	1.08	0.20	0.20	0.83	0.00	0.73	0.14	0.00	0.00
Avail Cap(c_a), veh/h	241	1200	519	241	807	843	722	0	1074	348	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	70.9	48.0	40.3	63.0	23.4	23.4	55.5	0.0	42.1	47.4	0.0	0.0
Incr Delay (d2), s/veh	9.5	73.4	2.5	81.0	0.1	0.1	10.5	0.0	4.4	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	36.4	11.5	15.1	4.0	4.1	12.6	0.0	14.5	1.6	0.0	0.0
LnGrp Delay(d),s/veh	80.4	121.4	42.8	144.0	23.6	23.6	66.0	0.0	46.5	48.2	0.0	0.0
LnGrp LOS	F	F	D	F	C	C	E		D	D		
Approach Vol, veh/h		1712			597			1382			47	
Approach Delay, s/veh		105.9			76.0			54.9			48.2	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	54.0		34.0	6.7	71.3
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		32.0	22.0	52.0		5.3	3.2	10.2
Green Ext Time (p_c), s		0.0	0.0	0.0		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	81.6
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	2093	951	18
Future Vol, veh/h	0	33	0	2093	951	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	36	0	2275	1034	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	527	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	422	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	422	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	422	-	-
HCM Lane V/C Ratio	-	0.085	-	-
HCM Control Delay (s)	-	14.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1067	0	52	364	0	11
Future Vol, veh/h	1067	0	52	364	0	11
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1160	0	57	396	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1160	0	1670	1160
Stage 1	-	-	-	-	1160	-
Stage 2	-	-	-	-	510	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	599	-	105	237
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	599	-	95	237
Mov Cap-2 Maneuver	-	-	-	-	95	-
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	544	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	237	-	-	599	-
HCM Lane V/C Ratio	0.05	-	-	0.094	-
HCM Control Delay (s)	21	-	-	11.6	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1067	15	0	364	10	0
Future Vol, veh/h	1067	15	0	364	10	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1160	16	0	396	11	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1564	1168
Stage 1	-	-	-	-	1168	-
Stage 2	-	-	-	-	396	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	122	234
Stage 1	-	-	0	-	294	-
Stage 2	-	-	0	-	678	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	122	234
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	678	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	37.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	122	-	-	-	-
HCM Lane V/C Ratio	0.089	-	-	-	-
HCM Control Delay (s)	37.4	0	-	-	-
HCM Lane LOS	E	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	2134	53	0	985
Future Vol, veh/h	0	14	2134	53	0	985
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	98	98	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	23	2178	54	0	1145

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1120	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	171	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	170	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.5	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	170	-
HCM Lane V/C Ratio	-	-	0.137	-
HCM Control Delay (s)	-	-	29.5	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	20	0	0	0	8	519	0	0	2238	9
Future Volume (veh/h)	14	0	20	0	0	0	8	519	0	0	2238	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	21	0	30	0	0	0	11	701	0	0	2633	11
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.74	0.74	0.74	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	228	26	266	0	551	0	34	1991	0	0	1774	7
Arrive On Green	0.30	0.00	0.30	0.00	0.00	0.00	0.02	0.57	0.00	0.00	0.50	0.50
Sat Flow, veh/h	536	88	890	0	1845	0	1757	3597	0	0	3672	15
Grp Volume(v), veh/h	51	0	0	0	0	0	11	701	0	0	1288	1356
Grp Sat Flow(s),veh/h/ln	1513	0	0	0	1845	0	1757	1752	0	0	1752	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.1	0.0	0.0	37.2	37.2
Cycle Q Clear(g_c), s	1.7	0.0	0.0	0.0	0.0	0.0	0.5	8.1	0.0	0.0	37.2	37.2
Prop In Lane	0.41		0.59	0.00		0.00	1.00		0.00	0.00		0.01
Lane Grp Cap(c), veh/h	520	0	0	0	551	0	34	1991	0	0	868	913
V/C Ratio(X)	0.10	0.00	0.00	0.00	0.00	0.00	0.33	0.35	0.00	0.00	1.48	1.49
Avail Cap(c_a), veh/h	520	0	0	0	551	0	187	1991	0	0	868	913
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	0.0	0.0	0.0	0.0	36.3	8.7	0.0	0.0	18.9	18.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	2.1	0.5	0.0	0.0	223.7	224.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.0	0.0	0.0	0.2	4.0	0.0	0.0	71.8	75.6
LnGrp Delay(d),s/veh	19.4	0.0	0.0	0.0	0.0	0.0	38.4	9.2	0.0	0.0	242.6	243.2
LnGrp LOS	B						D	A			F	F
Approach Vol, veh/h		51			0			712			2644	
Approach Delay, s/veh		19.4			0.0			9.7			242.9	
Approach LOS		B						A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		48.0		27.0	5.4	42.6		27.0
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		42.6		22.4	8.0	* 31		22.4
Max Q Clear Time (g_c+I1), s		10.1		3.7	2.5	39.2		0.0
Green Ext Time (p_c), s		7.2		0.2	0.0	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		190.8
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	9	88	0	19	2	500	24	19	2238	1
Future Volume (veh/h)	9	0	9	88	0	19	2	500	24	19	2238	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	18	0	18	166	0	0	3	704	0	22	2633	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.50	0.50	0.50	0.53	0.53	0.53	0.71	0.71	0.71	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	235	23	186	421	0	364	13	1900	850	69	2012	0
Arrive On Green	0.23	0.00	0.23	0.23	0.00	0.00	0.01	1.00	0.00	0.04	0.57	0.00
Sat Flow, veh/h	704	97	802	1403	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	36	0	0	166	0	0	3	704	0	22	2633	0
Grp Sat Flow(s),veh/h/ln	1603	0	0	1403	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.0	0.9	43.1	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	7.5	0.0	0.0	0.1	0.0	0.0	0.9	43.1	0.0
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	444	0	0	421	0	364	13	1900	850	69	2012	0
V/C Ratio(X)	0.08	0.00	0.00	0.39	0.00	0.00	0.23	0.37	0.00	0.32	1.31	0.00
Avail Cap(c_a), veh/h	444	0	0	421	0	364	211	1900	850	187	2012	0
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	0.00	1.00	0.00	0.00	0.95	0.95	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	0.0	0.0	24.9	0.0	0.0	36.7	0.0	0.0	35.1	16.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.7	0.0	0.0	3.3	0.5	0.0	1.0	142.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	3.3	0.0	0.0	0.1	0.1	0.0	0.5	60.2	0.0
LnGrp Delay(d),s/veh	23.0	0.0	0.0	27.6	0.0	0.0	40.0	0.5	0.0	36.0	158.6	0.0
LnGrp LOS	C			C			D	A		D	F	
Approach Vol, veh/h		36			166			707			2655	
Approach Delay, s/veh		23.0			27.6			0.7			157.5	
Approach LOS		C			C			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.5	48.5		22.0	6.9	46.1		22.0
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 35		17.4	8.0	35.6		17.4
Max Q Clear Time (g_c+I1), s	2.1	45.1		3.2	2.9	2.0		9.5
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	7.3		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	119.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	451	49	519	2331	8
Future Volume (veh/h)	8	451	49	519	2331	8
Number	3	18	1	6	2	12
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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	10	0	73	775	2710	9
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.80	0.80	0.67	0.67	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	507	453	100	2257	1963	878
Arrive On Green	0.29	0.00	0.06	0.64	1.00	1.00
Sat Flow, veh/h	1757	1568	1757	3597	3597	1568
Grp Volume(v), veh/h	10	0	73	775	2710	9
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1568
Q Serve(g_s), s	0.6	0.0	6.1	15.2	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	6.1	15.2	0.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	507	453	100	2257	1963	878
V/C Ratio(X)	0.02	0.00	0.73	0.34	1.38	0.01
Avail Cap(c_a), veh/h	507	453	141	2257	1963	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.09	0.09
Uniform Delay (d), s/veh	38.2	0.0	69.6	12.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	5.3	0.4	171.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	3.1	7.5	46.7	0.0
LnGrp Delay(d),s/veh	38.2	0.0	74.9	12.6	171.4	0.0
LnGrp LOS	D		E	B	F	A
Approach Vol, veh/h	10			848	2719	
Approach Delay, s/veh	38.2			18.0	170.8	
Approach LOS	D			B	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.6	89.4				102.0		48.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	12.6	* 81				96.6		43.3
Max Q Clear Time (g_c+I1), s	8.1	2.0				17.2		2.6
Green Ext Time (p_c), s	0.0	72.0				9.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	134.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	2	155	59	1	12	110	516	28	10	2688	72
Future Volume (veh/h)	36	2	155	59	1	12	110	516	28	10	2688	72
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.97		0.92	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	53	3	0	89	2	18	157	737	40	11	2954	79
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.68	0.68	0.68	0.66	0.66	0.66	0.70	0.70	0.70	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	198	10	0	177	7	28	140	2731	1192	28	2036	889
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.17	1.00	1.00	0.02	0.71	0.71
Sat Flow, veh/h	1339	88	0	1181	60	245	1616	3505	1530	1433	2859	1248
Grp Volume(v), veh/h	56	0	0	109	0	0	157	737	40	11	2954	79
Grp Sat Flow(s),veh/h/ln	1427	0	0	1486	0	0	1616	1752	1530	1433	1430	1248
Q Serve(g_s), s	0.0	0.0	0.0	4.8	0.0	0.0	13.0	0.0	0.0	1.1	106.8	2.9
Cycle Q Clear(g_c), s	5.2	0.0	0.0	10.0	0.0	0.0	13.0	0.0	0.0	1.1	106.8	2.9
Prop In Lane	0.95		0.00	0.82		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	0	0	212	0	0	140	2731	1192	28	2036	889
V/C Ratio(X)	0.27	0.00	0.00	0.51	0.00	0.00	1.12	0.27	0.03	0.39	1.45	0.09
Avail Cap(c_a), veh/h	306	0	0	312	0	0	140	2731	1192	124	2036	889
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	0.00	1.00	0.00	0.00	0.73	0.73	0.73	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	0.0	0.0	63.1	0.0	0.0	62.0	0.0	0.0	72.6	21.6	6.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	0.0	101.1	0.2	0.0	3.3	205.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	4.3	0.0	0.0	9.7	0.1	0.0	0.5	99.7	1.1
LnGrp Delay(d),s/veh	61.5	0.0	0.0	63.8	0.0	0.0	163.1	0.2	0.0	75.9	227.3	6.8
LnGrp LOS	E			E			F	A	A	E	F	A
Approach Vol, veh/h		56			109			934			3044	
Approach Delay, s/veh		61.5			63.8			27.6			221.0	
Approach LOS		E			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.0	111.9		21.1	6.9	122.0		21.1
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	13.0	95.9		27.9	13.0	95.9		27.9
Max Q Clear Time (g_c+I1), s	15.0	108.8		12.0	3.1	2.0		7.2
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	8.9		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	171.1	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	90	45	213	137	61	163	715	239	131	1685	883
Future Volume (veh/h)	236	90	45	213	137	61	163	715	239	131	1685	883
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.90	1.00		0.95	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	393	150	75	236	257	82	226	993	332	144	1852	970
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.60	0.60	0.60	0.74	0.74	0.74	0.72	0.72	0.72	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	557	184	92	266	279	214	199	1569	668	161	1247	542
Arrive On Green	0.16	0.16	0.16	0.15	0.15	0.15	0.11	0.45	0.45	0.08	0.30	0.30
Sat Flow, veh/h	3408	1126	563	1757	1845	1416	1757	3505	1492	1387	2767	1202
Grp Volume(v), veh/h	393	0	225	236	257	82	226	993	332	144	1852	970
Grp Sat Flow(s),veh/h/ln	1704	0	1689	1757	1845	1416	1757	1752	1492	1387	1383	1202
Q Serve(g_s), s	16.4	0.0	19.3	19.8	20.6	7.8	17.0	32.7	23.7	15.4	67.6	67.6
Cycle Q Clear(g_c), s	16.4	0.0	19.3	19.8	20.6	7.8	17.0	32.7	23.7	15.4	67.6	67.6
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	557	0	276	266	279	214	199	1569	668	161	1247	542
V/C Ratio(X)	0.71	0.00	0.82	0.89	0.92	0.38	1.14	0.63	0.50	0.89	1.49	1.79
Avail Cap(c_a), veh/h	611	0	303	269	283	217	199	1569	668	185	1247	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	59.3	0.0	60.6	62.4	62.8	57.3	66.5	31.9	29.4	68.2	52.4	52.4
Incr Delay (d2), s/veh	2.6	0.0	13.1	27.0	32.6	0.4	104.8	2.0	2.6	4.6	218.7	356.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	10.0	11.6	13.0	3.1	14.0	16.3	10.3	6.1	63.7	76.1
LnGrp Delay(d),s/veh	62.0	0.0	73.7	89.4	95.3	57.8	171.3	33.9	32.0	72.8	271.1	408.7
LnGrp LOS	E		E	F	F	E	F	C	C	E	F	F
Approach Vol, veh/h		618			575			1551			2966	
Approach Delay, s/veh		66.2			87.5			53.5			306.4	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	21.0	72.7		26.7	21.4	72.3		29.6
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	17.0	64.9		23.0	20.0	61.9		26.9
Max Q Clear Time (g_c+I1), s	19.0	69.6		22.6	17.4	34.7		21.3
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	13.3		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	189.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	270	116	0	0	0	293	788	451	0	486	835
Future Volume (veh/h)	184	270	116	0	0	0	293	788	451	0	486	835
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	196	287	123				337	906	0	0	517	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.94	0.94	0.94				0.87	0.87	0.87	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	275	377	158				75	2380	1065	0	1995	892
Arrive On Green	0.16	0.16	0.16				0.04	0.68	0.00	0.00	0.57	0.00
Sat Flow, veh/h	1757	2408	1007				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	196	207	203				337	906	0	0	517	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1662				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	7.4	7.9	8.2				3.0	7.8	0.0	0.0	5.2	0.0
Cycle Q Clear(g_c), s	7.4	7.9	8.2				3.0	7.8	0.0	0.0	5.2	0.0
Prop In Lane	1.00		0.61				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	275	274	260				75	2380	1065	0	1995	892
V/C Ratio(X)	0.71	0.75	0.78				4.48	0.38	0.00	0.00	0.26	0.00
Avail Cap(c_a), veh/h	753	751	712				75	2380	1065	0	1995	892
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.40	0.40	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	28.0	28.2	28.4				33.5	4.9	0.0	0.0	7.6	0.0
Incr Delay (d2), s/veh	1.3	1.6	1.9				1576.4	0.2	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	3.9	3.9				34.4	3.7	0.0	0.0	2.6	0.0
LnGrp Delay(d),s/veh	29.3	29.8	30.3				1609.9	5.0	0.0	0.0	7.9	0.0
LnGrp LOS	C	C	C				F	A			A	
Approach Vol, veh/h		606						1243			517	
Approach Delay, s/veh		29.8						440.2			7.9	
Approach LOS		C						F			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		52.9		17.1	7.7	45.2		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		9.8		10.2	5.0	7.2		
Green Ext Time (p_c), s		4.1		0.4	0.0	1.7		

Intersection Summary	
HCM 2010 Ctrl Delay	240.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	41	177	28	0	200	0	1245	29	79	561	0
Future Volume (veh/h)	52	41	177	28	0	200	0	1245	29	79	561	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	66	52	224	37	0	263	0	1448	34	88	623	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.79	0.79	0.79	0.76	0.76	0.76	0.86	0.86	0.86	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	214	169	333	0	0	0	0	2006	47	113	1996	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.40	0.40	0.06	0.57	0.00
Sat Flow, veh/h	1004	791	1559		0		0	5225	119	1757	3597	0
Grp Volume(v), veh/h	118	0	224		0.0		0	961	521	88	623	0
Grp Sat Flow(s),veh/h/ln	1794	0	1559				0	1679	1820	1757	1752	0
Q Serve(g_s), s	2.0	0.0	4.9				0.0	8.9	8.9	1.8	3.4	0.0
Cycle Q Clear(g_c), s	2.0	0.0	4.9				0.0	8.9	8.9	1.8	3.4	0.0
Prop In Lane	0.56		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	383	0	333				0	1332	722	113	1996	0
V/C Ratio(X)	0.31	0.00	0.67				0.00	0.72	0.72	0.78	0.31	0.00
Avail Cap(c_a), veh/h	876	0	761				0	1457	790	191	2281	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	13.3				0.0	9.4	9.4	17.0	4.2	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.4				0.0	1.6	2.9	10.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.3				0.0	4.3	4.9	1.2	1.7	0.0
LnGrp Delay(d),s/veh	12.7	0.0	15.7				0.0	11.0	12.4	27.8	4.2	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		342						1482			711	
Approach Delay, s/veh		14.6						11.5			7.2	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		11.9		25.0			6.4	18.6
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		18.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		6.9		5.4			3.8	10.9
Green Ext Time (p_c), s		1.1		3.9			0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	105.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	346	45	154	869	6	52	6	53	14	9	27
Future Vol, veh/h	10	346	45	154	869	6	52	6	53	14	9	27
Conflicting Peds, #/hr	0	0	0	0	0	0	2	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	85	85	85	60	60	60	77	77	77
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	444	58	181	1022	7	87	10	88	18	12	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1029	0	0	502	0	0	1912	1890	473	1892	1916	1028
Stage 1	-	-	-	-	-	-	499	499	-	1388	1388	-
Stage 2	-	-	-	-	-	-	1413	1391	-	504	528	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	671	-	-	1057	-	-	~ 51	70	589	53	67	283
Stage 1	-	-	-	-	-	-	552	542	-	176	209	-
Stage 2	-	-	-	-	-	-	170	208	-	548	526	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	671	-	-	1057	-	-	~ 32	57	589	34	54	283
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 32	57	-	34	54	-
Stage 1	-	-	-	-	-	-	542	532	-	173	173	-
Stage 2	-	-	-	-	-	-	115	172	-	448	516	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.4	$ 1059.7	167.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	61	671	-	-	1057	-	-	74
HCM Lane V/C Ratio	3.033	0.019	-	-	0.171	-	-	0.878
HCM Control Delay (s)	$ 1059.7	10.5	-	-	9.1	-	-	167.4
HCM Lane LOS	F	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	19.1	0.1	-	-	0.6	-	-	4.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	251	844	209	732	2	329	13	132	17	28	25
Future Volume (veh/h)	21	251	844	209	732	2	329	13	132	17	28	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	24	285	0	230	804	2	427	0	0	21	35	31
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.79	0.79	0.79	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	55	674	573	275	902	2	578	0	258	46	77	68
Arrive On Green	0.03	0.37	0.00	0.16	0.49	0.49	0.16	0.00	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	1845	1568	1757	1839	5	3514	0	1568	409	682	604
Grp Volume(v), veh/h	24	285	0	230	0	806	427	0	0	87	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1844	1757	0	1568	1694	0	0
Q Serve(g_s), s	1.1	9.2	0.0	10.1	0.0	31.5	9.2	0.0	0.0	3.8	0.0	0.0
Cycle Q Clear(g_c), s	1.1	9.2	0.0	10.1	0.0	31.5	9.2	0.0	0.0	3.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.24		0.36
Lane Grp Cap(c), veh/h	55	674	573	275	0	904	578	0	258	192	0	0
V/C Ratio(X)	0.44	0.42	0.00	0.84	0.00	0.89	0.74	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	441	1158	985	441	0	1158	1324	0	591	638	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.9	19.0	0.0	32.6	0.0	18.4	31.6	0.0	0.0	33.0	0.0	0.0
Incr Delay (d2), s/veh	5.5	0.4	0.0	7.6	0.0	7.4	1.9	0.0	0.0	1.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.7	0.0	5.5	0.0	17.8	4.6	0.0	0.0	1.9	0.0	0.0
LnGrp Delay(d),s/veh	43.4	19.4	0.0	40.3	0.0	25.8	33.5	0.0	0.0	34.7	0.0	0.0
LnGrp LOS	D	B		D		C	C			C		
Approach Vol, veh/h		309			1036			427			87	
Approach Delay, s/veh		21.3			29.0			33.5			34.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		17.1	16.4	33.1		13.0	6.5	43.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		11.2	12.1	11.2		5.8	3.1	33.5
Green Ext Time (p_c), s		1.5	0.4	1.8		0.4	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	29.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	657	240	403	601	8	725	0	513	16	2	12
Future Volume (veh/h)	9	657	240	403	601	8	725	0	513	16	2	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	10	755	276	480	715	10	755	0	534	27	3	20
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.87	0.87	0.87	0.84	0.84	0.84	0.96	0.96	0.96	0.59	0.59	0.59
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	25	934	409	268	1434	20	805	0	1196	208	23	154
Arrive On Green	0.01	0.27	0.27	0.15	0.41	0.41	0.23	0.00	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1757	3505	1533	1757	3537	49	3514	0	3129	907	101	672
Grp Volume(v), veh/h	10	755	276	480	354	371	755	0	534	50	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1533	1757	1752	1834	1757	0	1565	1680	0	0
Q Serve(g_s), s	0.7	26.4	21.1	20.0	19.7	19.7	27.6	0.0	16.6	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.7	26.4	21.1	20.0	19.7	19.7	27.6	0.0	16.6	3.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	0.54		0.40
Lane Grp Cap(c), veh/h	25	934	409	268	710	743	805	0	1196	385	0	0
V/C Ratio(X)	0.41	0.81	0.68	1.79	0.50	0.50	0.94	0.00	0.45	0.13	0.00	0.00
Avail Cap(c_a), veh/h	268	1339	585	268	710	743	805	0	1196	385	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	64.0	44.9	42.9	55.4	29.0	29.0	49.5	0.0	30.1	40.1	0.0	0.0
Incr Delay (d2), s/veh	10.5	2.5	2.0	369.3	0.5	0.5	19.7	0.0	1.2	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	13.1	9.1	37.2	9.7	10.1	15.6	0.0	7.4	1.5	0.0	0.0
LnGrp Delay(d),s/veh	74.5	47.4	44.9	424.7	29.5	29.5	69.2	0.0	31.3	40.8	0.0	0.0
LnGrp LOS	E	D	D	F	C	C	E		C	D		
Approach Vol, veh/h		1041			1205			1289			50	
Approach Delay, s/veh		47.0			187.0			53.5			40.8	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	38.9		34.0	5.8	57.1
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		29.6	22.0	28.4		5.1	2.7	21.7
Green Ext Time (p_c), s		0.2	0.0	6.5		0.2	0.0	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	96.3
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	51	0	1205	1864	6
Future Vol, veh/h	0	51	0	1205	1864	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	55	0	1310	2026	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1017	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	234	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	234	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.1	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	234	-	-
HCM Lane V/C Ratio	-	0.237	-	-
HCM Control Delay (s)	-	25.1	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	0.9	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	371	0	18	1053	0	18
Future Vol, veh/h	371	0	18	1053	0	18
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	403	0	20	1145	0	20

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	403	0	1588	403
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	1185	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1150	-	118	645
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	289	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1150	-	116	645
Mov Cap-2 Maneuver	-	-	-	-	116	-
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	284	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	645	-	-	1150	-
HCM Lane V/C Ratio	0.03	-	-	0.017	-
HCM Control Delay (s)	10.8	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	371	5	0	1053	15	0
Future Vol, veh/h	371	5	0	1053	15	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	403	5	0	1145	16	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1551	406
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	1145	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	124	643
Stage 1	-	-	0	-	671	-
Stage 2	-	-	0	-	302	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	124	643
Mov Cap-2 Maneuver	-	-	-	-	124	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	302	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	38.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	124	-	-	-	-
HCM Lane V/C Ratio	0.131	-	-	-	-
HCM Control Delay (s)	38.4	0	-	-	-
HCM Lane LOS	E	A	-	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	56	1171	83	0	1918
Future Vol, veh/h	0	56	1171	83	0	1918
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	73	73	71	71	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	77	1649	117	0	1998

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	893	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	243	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	241	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.8	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	241	-
HCM Lane V/C Ratio	-	-	0.318	-
HCM Control Delay (s)	-	-	26.8	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	1.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	23	0	0	0	19	2402	0	0	946	21
Future Volume (veh/h)	17	0	23	0	0	0	19	2402	0	0	946	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	21	0	29	0	0	0	22	2826	0	0	1028	23
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.80	0.80	0.80	0.92	0.92	0.92	0.85	0.85	0.85	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	203	19	236	0	498	0	56	2208	0	0	1955	44
Arrive On Green	0.27	0.00	0.27	0.00	0.00	0.00	0.03	0.63	0.00	0.00	0.56	0.56
Sat Flow, veh/h	561	72	875	0	1845	0	1757	3597	0	0	3595	78
Grp Volume(v), veh/h	50	0	0	0	0	0	22	2826	0	0	514	537
Grp Sat Flow(s),veh/h/ln	1508	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.2	63.0	0.0	0.0	18.4	18.4
Cycle Q Clear(g_c), s	2.2	0.0	0.0	0.0	0.0	0.0	1.2	63.0	0.0	0.0	18.4	18.4
Prop In Lane	0.42		0.58	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	458	0	0	0	498	0	56	2208	0	0	978	1021
V/C Ratio(X)	0.11	0.00	0.00	0.00	0.00	0.00	0.39	1.28	0.00	0.00	0.53	0.53
Avail Cap(c_a), veh/h	458	0	0	0	498	0	123	2208	0	0	978	1021
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	0.0	0.0	0.0	0.0	47.4	18.5	0.0	0.0	13.8	13.8
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	1.6	129.6	0.0	0.0	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0	0.0	0.0	0.6	69.8	0.0	0.0	9.4	9.8
LnGrp Delay(d),s/veh	27.9	0.0	0.0	0.0	0.0	0.0	49.1	148.1	0.0	0.0	15.8	15.8
LnGrp LOS	C						D	F			B	B
Approach Vol, veh/h		50			0			2848			1051	
Approach Delay, s/veh		27.9			0.0			147.3			15.8	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		68.4		31.6	7.2	61.2		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		63.0		27.0	7.0	* 52		27.0
Max Q Clear Time (g_c+I1), s		65.0		4.2	3.2	20.4		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	11.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	110.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	39	0	42	6	2380	61	25	931	2
Future Volume (veh/h)	2	0	10	39	0	42	6	2380	61	25	931	2
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	4	0	18	49	0	0	7	2767	0	28	1046	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.56	0.56	0.56	0.80	0.80	0.80	0.86	0.86	0.86	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	19	261	342	0	321	27	2263	1012	69	2347	0
Arrive On Green	0.20	0.00	0.20	0.20	0.00	0.00	0.02	0.65	0.00	0.04	0.67	0.00
Sat Flow, veh/h	189	94	1273	1394	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	22	0	0	49	0	0	7	2767	0	28	1046	0
Grp Sat Flow(s),veh/h/ln	1556	0	0	1394	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	0.5	82.0	0.0	2.0	17.9	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	3.3	0.0	0.0	0.5	82.0	0.0	2.0	17.9	0.0
Prop In Lane	0.18		0.82	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	352	0	0	342	0	321	27	2263	1012	69	2347	0
V/C Ratio(X)	0.06	0.00	0.00	0.14	0.00	0.00	0.26	1.22	0.00	0.40	0.45	0.00
Avail Cap(c_a), veh/h	352	0	0	342	0	321	124	2263	1012	111	2347	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.7	0.0	0.0	41.4	0.0	0.0	61.8	22.5	0.0	59.5	9.9	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.9	0.0	0.0	1.8	104.5	0.0	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	1.5	0.0	0.0	0.3	72.1	0.0	1.0	8.8	0.0
LnGrp Delay(d),s/veh	41.1	0.0	0.0	42.3	0.0	0.0	63.6	127.0	0.0	60.9	10.5	0.0
LnGrp LOS	D			D			E	F		E	B	
Approach Vol, veh/h		22			49			2774			1074	
Approach Delay, s/veh		41.1			42.3			126.9			11.8	
Approach LOS		D			D			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.0	90.5		30.6	9.0	87.4		30.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 81		26.0	8.0	82.0		26.0
Max Q Clear Time (g_c+I1), s	2.5	19.9		3.4	4.0	84.0		5.3
Green Ext Time (p_c), s	0.0	14.8		0.0	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	93.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	93	115	2423	961	24
Future Volume (veh/h)	24	93	115	2423	961	24
Number	3	18	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	25	0	134	2817	1033	26
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.97	0.97	0.86	0.86	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	438	391	163	2278	1813	794
Arrive On Green	0.25	0.00	0.09	0.65	0.52	0.52
Sat Flow, veh/h	1757	1568	1757	3597	3597	1534
Grp Volume(v), veh/h	25	0	134	2817	1033	26
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1534
Q Serve(g_s), s	1.1	0.0	7.5	65.2	20.2	0.8
Cycle Q Clear(g_c), s	1.1	0.0	7.5	65.2	20.2	0.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	438	391	163	2278	1813	794
V/C Ratio(X)	0.06	0.00	0.82	1.24	0.57	0.03
Avail Cap(c_a), veh/h	438	391	210	2278	1813	794
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	1.00
Uniform Delay (d), s/veh	28.7	0.0	44.7	17.6	16.6	11.9
Incr Delay (d2), s/veh	0.2	0.0	14.3	110.4	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	4.3	65.9	10.1	0.4
LnGrp Delay(d),s/veh	28.9	0.0	59.0	127.9	17.9	12.0
LnGrp LOS	C		E	F	B	B
Approach Vol, veh/h	25			2951	1059	
Approach Delay, s/veh	28.9			124.8	17.7	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		70.6			13.3	57.3		29.7
Change Period (Y+Rc), s		* 5.4			4.0	5.4		4.7
Max Green Setting (Gmax), s		* 65			12.0	48.9		25.0
Max Q Clear Time (g_c+I1), s		67.2			9.5	22.2		3.1
Green Ext Time (p_c), s		0.0			0.0	11.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	96.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	1	137	46	5	21	140	2466	50	20	979	45
Future Volume (veh/h)	60	1	137	46	5	21	140	2466	50	20	979	45
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		1.00	0.93		0.95	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	82	1	0	56	6	26	152	2680	54	21	1031	47
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	261	3	246	185	26	69	174	2470	1099	53	1812	789
Arrive On Green	0.16	0.16	0.00	0.16	0.16	0.16	0.11	0.70	0.70	0.04	0.63	0.63
Sat Flow, veh/h	1312	18	1568	887	163	440	1616	3505	1559	1433	2859	1245
Grp Volume(v), veh/h	83	0	0	88	0	0	152	2680	54	21	1031	47
Grp Sat Flow(s),veh/h/ln	1331	0	1568	1490	0	0	1616	1752	1559	1433	1430	1245
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	0.0	12.1	91.8	1.4	1.9	26.9	1.9
Cycle Q Clear(g_c), s	7.0	0.0	0.0	6.0	0.0	0.0	12.1	91.8	1.4	1.9	26.9	1.9
Prop In Lane	0.99		1.00	0.64		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	0	246	279	0	0	174	2470	1099	53	1812	789
V/C Ratio(X)	0.31	0.00	0.00	0.32	0.00	0.00	0.87	1.08	0.05	0.40	0.57	0.06
Avail Cap(c_a), veh/h	320	0	313	338	0	0	248	2470	1099	99	1812	789
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	0.0	0.0	48.8	0.0	0.0	57.2	19.2	5.9	61.3	13.7	9.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	15.9	45.9	0.1	1.8	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	2.8	0.0	0.0	6.2	59.7	0.6	0.8	10.9	0.7
LnGrp Delay(d),s/veh	49.5	0.0	0.0	49.0	0.0	0.0	73.1	65.2	6.0	63.1	15.0	9.2
LnGrp LOS	D			D			E	F	A	E	B	A
Approach Vol, veh/h		83			88			2886			1099	
Approach Delay, s/veh		49.5			49.0			64.5			15.6	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.8	96.9		24.6	18.0	87.7		24.6
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	9.6	91.8		26.0	20.0	80.8		26.0
Max Q Clear Time (g_c+I1), s	13.9	93.8		8.0	14.1	28.9		9.0
Green Ext Time (p_c), s	0.0	0.0		0.3	0.0	14.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	50.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	680	136	72	187	109	153	86	1722	159	170	886	312
Future Volume (veh/h)	680	136	72	187	109	153	86	1722	159	170	886	312
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.85	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	829	166	88	183	202	189	92	1852	171	212	1108	390
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.93	0.93	0.93	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	709	231	122	142	149	107	114	1590	685	155	1385	584
Arrive On Green	0.21	0.21	0.21	0.08	0.08	0.08	0.06	0.45	0.45	0.11	0.50	0.50
Sat Flow, veh/h	3408	1109	588	1757	1845	1329	1757	3505	1511	1387	2767	1166
Grp Volume(v), veh/h	829	0	254	183	202	189	92	1852	171	212	1108	390
Grp Sat Flow(s),veh/h/ln	1704	0	1697	1757	1845	1329	1757	1752	1511	1387	1383	1166
Q Serve(g_s), s	26.0	0.0	17.4	10.1	10.1	10.1	6.5	56.7	8.7	14.0	41.7	31.4
Cycle Q Clear(g_c), s	26.0	0.0	17.4	10.1	10.1	10.1	6.5	56.7	8.7	14.0	41.7	31.4
Prop In Lane	1.00		0.35	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	709	0	353	142	149	107	114	1590	685	155	1385	584
V/C Ratio(X)	1.17	0.00	0.72	1.29	1.36	1.76	0.81	1.16	0.25	1.36	0.80	0.67
Avail Cap(c_a), veh/h	709	0	353	142	149	107	126	1590	685	155	1385	584
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	46.1	57.5	57.5	57.4	57.7	34.1	21.0	55.5	26.0	23.4
Incr Delay (d2), s/veh	90.9	0.0	6.0	172.7	197.2	377.1	25.4	81.5	0.9	199.8	4.9	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.2	0.0	8.8	11.7	13.3	15.0	3.9	45.4	3.8	14.0	16.8	11.0
LnGrp Delay(d),s/veh	140.4	0.0	52.1	230.2	254.7	434.5	83.0	115.6	21.9	255.3	30.9	29.4
LnGrp LOS	F		D	F	F	F	F	F	C	F	C	C
Approach Vol, veh/h		1083			574			2115			1710	
Approach Delay, s/veh		119.7			306.1			106.7			58.4	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	61.8		14.1	12.1	67.7		31.1
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	14.0	56.7		10.1	9.0	61.7		26.0
Max Q Clear Time (g_c+I1), s	16.0	58.7		12.1	8.5	43.7		28.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	11.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	115.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	277	479	298	0	0	0	282	653	439	0	591	472
Future Volume (veh/h)	277	479	298	0	0	0	282	653	439	0	591	472
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	280	484	301				313	726	0	0	622	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.99	0.99	0.99				0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	517	610	378				251	1683	753	0	859	384
Arrive On Green	0.29	0.29	0.29				0.14	0.48	0.00	0.00	0.25	0.00
Sat Flow, veh/h	1757	2073	1284				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	280	409	376				313	726	0	0	622	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1604				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	6.8	11.0	11.0				7.3	6.9	0.0	0.0	8.3	0.0
Cycle Q Clear(g_c), s	6.8	11.0	11.0				7.3	6.9	0.0	0.0	8.3	0.0
Prop In Lane	1.00		0.80				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	517	516	472				251	1683	753	0	859	384
V/C Ratio(X)	0.54	0.79	0.80				1.25	0.43	0.00	0.00	0.72	0.00
Avail Cap(c_a), veh/h	1136	1133	1037				251	2437	1090	0	1613	722
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				1.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.1	16.6	16.6				21.9	8.7	0.0	0.0	17.7	0.0
Incr Delay (d2), s/veh	0.3	1.1	1.2				139.5	0.1	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	5.4	5.0				13.2	3.3	0.0	0.0	4.0	0.0
LnGrp Delay(d),s/veh	15.4	17.6	17.8				161.4	8.8	0.0	0.0	18.1	0.0
LnGrp LOS	B	B	B				F	A			B	
Approach Vol, veh/h		1065						1039			622	
Approach Delay, s/veh		17.1						54.7			18.1	
Approach LOS		B						D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		29.9		21.1	12.0	17.9		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		35.5		33.0	* 7.3	23.5		
Max Q Clear Time (g_c+I1), s		8.9		13.0	9.3	10.3		
Green Ext Time (p_c), s		3.4		0.8	0.0	2.1		

Intersection Summary	
HCM 2010 Ctrl Delay	31.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	73	213	32	0	133	0	1154	28	148	729	0
Future Volume (veh/h)	61	73	213	32	0	133	0	1154	28	148	729	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	64	77	224	47	0	196	0	1311	32	185	911	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.68	0.68	0.68	0.88	0.88	0.88	0.80	0.80	0.80
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	171	205	326	0	0	0	0	1814	44	235	2075	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.36	0.36	0.13	0.59	0.00
Sat Flow, veh/h	819	985	1563		0		0	5220	123	1757	3597	0
Grp Volume(v), veh/h	141	0	224		0.0		0	871	472	185	911	0
Grp Sat Flow(s),veh/h/ln	1804	0	1563				0	1679	1820	1757	1752	0
Q Serve(g_s), s	2.7	0.0	5.3				0.0	9.0	9.0	4.1	5.7	0.0
Cycle Q Clear(g_c), s	2.7	0.0	5.3				0.0	9.0	9.0	4.1	5.7	0.0
Prop In Lane	0.45		1.00				0.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	376	0	326				0	1205	653	235	2075	0
V/C Ratio(X)	0.38	0.00	0.69				0.00	0.72	0.72	0.79	0.44	0.00
Avail Cap(c_a), veh/h	765	0	663				0	1340	726	307	2360	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	14.7				0.0	11.1	11.1	16.8	4.5	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.6				0.0	1.7	3.2	9.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	2.5				0.0	4.4	5.0	2.6	2.7	0.0
LnGrp Delay(d),s/veh	14.2	0.0	17.2				0.0	12.9	14.3	26.6	4.7	0.0
LnGrp LOS	B		B					B	B	C	A	
Approach Vol, veh/h		365						1343			1096	
Approach Delay, s/veh		16.1						13.4			8.4	
Approach LOS		B						B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		12.4		27.7			9.4	18.4
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		27.0			7.0	16.0
Max Q Clear Time (g_c+I1), s		7.3		7.7			6.1	11.0
Green Ext Time (p_c), s		1.1		6.2			0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	11.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	60.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	871	65	72	329	5	38	10	141	13	8	19
Future Vol, veh/h	12	871	65	72	329	5	38	10	141	13	8	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	83	83	83	80	80	80	65	65	65
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	15	1117	83	87	396	6	48	13	176	20	12	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	402	0	0	1200	0	0	1783	1765	1159	1768	1803	399
Stage 1	-	-	-	-	-	-	1189	1189	-	573	573	-
Stage 2	-	-	-	-	-	-	594	576	-	1195	1230	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1151	-	-	578	-	-	63	83	237	65	79	649
Stage 1	-	-	-	-	-	-	228	260	-	503	502	-
Stage 2	-	-	-	-	-	-	490	501	-	226	249	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1151	-	-	578	-	-	~ 45	70	237	~ 13	66	649
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 45	70	-	~ 13	66	-
Stage 1	-	-	-	-	-	-	225	257	-	496	426	-
Stage 2	-	-	-	-	-	-	386	425	-	54	246	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2.2	$ 351.8	$ 610.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	148	1151	-	-	578	-	-	35
HCM Lane V/C Ratio	1.596	0.013	-	-	0.15	-	-	1.758
HCM Control Delay (s)	$ 351.8	8.2	-	-	12.3	-	-	$ 610.9
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	16.4	0	-	-	0.5	-	-	6.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	677	1171	119	262	5	317	10	261	8	19	14
Future Volume (veh/h)	31	677	1171	119	262	5	317	10	261	8	19	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	34	736	0	149	328	6	360	0	0	11	26	19
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.80	0.80	0.80	0.90	0.90	0.90	0.73	0.73	0.73
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	69	831	706	187	935	17	501	0	224	36	84	62
Arrive On Green	0.04	0.45	0.00	0.11	0.52	0.52	0.14	0.00	0.00	0.11	0.11	0.11
Sat Flow, veh/h	1757	1845	1568	1757	1806	33	3514	0	1568	335	793	579
Grp Volume(v), veh/h	34	736	0	149	0	334	360	0	0	56	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1839	1757	0	1568	1708	0	0
Q Serve(g_s), s	1.6	30.1	0.0	6.8	0.0	8.8	8.1	0.0	0.0	2.5	0.0	0.0
Cycle Q Clear(g_c), s	1.6	30.1	0.0	6.8	0.0	8.8	8.1	0.0	0.0	2.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.20		0.34
Lane Grp Cap(c), veh/h	69	831	706	187	0	952	501	0	224	182	0	0
V/C Ratio(X)	0.49	0.89	0.00	0.79	0.00	0.35	0.72	0.00	0.00	0.31	0.00	0.00
Avail Cap(c_a), veh/h	425	1117	949	425	0	1113	1276	0	570	620	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.9	20.7	0.0	36.0	0.0	11.7	33.8	0.0	0.0	34.1	0.0	0.0
Incr Delay (d2), s/veh	5.3	6.9	0.0	7.4	0.0	0.2	2.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	16.7	0.0	3.7	0.0	4.5	4.0	0.0	0.0	1.2	0.0	0.0
LnGrp Delay(d),s/veh	44.2	27.6	0.0	43.4	0.0	12.0	35.8	0.0	0.0	35.0	0.0	0.0
LnGrp LOS	D	C		D		B	D			D		
Approach Vol, veh/h		770			483			360			56	
Approach Delay, s/veh		28.4			21.7			35.8			35.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		15.8	12.8	41.2		12.8	7.2	46.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		10.1	8.8	32.1		4.5	3.6	10.8
Green Ext Time (p_c), s		1.2	0.3	5.1		0.2	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1064	276	287	291	15	496	0	798	16	6	8
Future Volume (veh/h)	9	1064	276	287	291	15	496	0	798	16	6	8
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	9	1108	288	354	359	19	539	0	867	25	9	12
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.81	0.81	0.81	0.92	0.92	0.92	0.65	0.65	0.65
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	22	1184	516	242	1569	83	727	0	1082	193	70	93
Arrive On Green	0.01	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1528	1757	3386	179	3514	0	3136	934	336	448
Grp Volume(v), veh/h	9	1108	288	354	185	193	539	0	867	46	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1528	1757	1752	1812	1757	0	1568	1719	0	0
Q Serve(g_s), s	0.7	44.4	22.3	20.0	9.2	9.3	20.8	0.0	30.0	3.2	0.0	0.0
Cycle Q Clear(g_c), s	0.7	44.4	22.3	20.0	9.2	9.3	20.8	0.0	30.0	3.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	0.54		0.26
Lane Grp Cap(c), veh/h	22	1184	516	242	812	840	727	0	1082	356	0	0
V/C Ratio(X)	0.41	0.94	0.56	1.46	0.23	0.23	0.74	0.00	0.80	0.13	0.00	0.00
Avail Cap(c_a), veh/h	242	1209	527	242	812	840	727	0	1082	356	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	71.0	46.5	39.2	62.5	23.4	23.4	53.9	0.0	43.0	46.8	0.0	0.0
Incr Delay (d2), s/veh	11.6	13.2	1.3	228.7	0.1	0.1	6.7	0.0	6.3	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	23.6	9.6	25.1	4.5	4.7	10.8	0.0	16.6	1.6	0.0	0.0
LnGrp Delay(d),s/veh	82.6	59.7	40.4	291.1	23.5	23.5	60.6	0.0	49.3	47.6	0.0	0.0
LnGrp LOS	F	E	D	F	C	C	E		D	D		
Approach Vol, veh/h		1405			732			1406			46	
Approach Delay, s/veh		55.9			152.9			53.6			47.6	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	53.0		34.0	5.8	71.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		32.0	22.0	46.4		5.2	2.7	11.3
Green Ext Time (p_c), s		0.0	0.0	2.6		0.2	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	74.7
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	30	0	1952	1134	11
Future Vol, veh/h	0	30	0	1952	1134	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	33	0	2122	1233	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	623	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	426	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	426	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	426	-	-
HCM Lane V/C Ratio	-	0.077	-	-
HCM Control Delay (s)	-	14.2	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	878	0	30	462	0	10
Future Vol, veh/h	878	0	30	462	0	10
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	954	0	33	502	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	954	0	1522	954
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	568	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	716	-	130	312
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	565	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	716	-	124	312
Mov Cap-2 Maneuver	-	-	-	-	124	-
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	539	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	17
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	312	-	-	716	-
HCM Lane V/C Ratio	0.035	-	-	0.046	-
HCM Control Delay (s)	17	-	-	10.3	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	878	9	0	462	9	0
Future Vol, veh/h	878	9	0	462	9	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	954	10	0	502	10	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1461	959
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	502	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	141	310
Stage 1	-	-	0	-	371	-
Stage 2	-	-	0	-	606	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	141	310
Mov Cap-2 Maneuver	-	-	-	-	141	-
Stage 1	-	-	-	-	371	-
Stage 2	-	-	-	-	606	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	32.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	141	-	-	-	-
HCM Lane V/C Ratio	0.069	-	-	-	-
HCM Control Delay (s)	32.4	0	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	19	1978	97	0	1159
Future Vol, veh/h	0	19	1978	97	0	1159
Conflicting Peds, #/hr	0	0	0	10	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	67	67	94	94	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	28	2104	103	0	1260

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1114	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	173	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	172	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	172	-
HCM Lane V/C Ratio	-	-	0.165	-
HCM Control Delay (s)	-	-	30	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.6	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	28	0	0	0	20	2881	0	0	935	20
Future Volume (veh/h)	13	0	28	0	0	0	20	2881	0	0	935	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1900	1845	1845	1900	0	1845	1900
Adj Flow Rate, veh/h	18	0	38	0	0	0	21	3001	0	0	1016	22
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	0	2	0
Peak Hour Factor	0.73	0.73	0.73	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	255	36	452	0	803	0	60	1413	0	0	1067	23
Arrive On Green	0.44	0.00	0.44	0.00	0.00	0.00	0.03	0.40	0.00	0.00	0.30	0.30
Sat Flow, veh/h	409	82	1037	0	1845	0	1757	3597	0	0	3598	76
Grp Volume(v), veh/h	56	0	0	0	0	0	21	3001	0	0	508	530
Grp Sat Flow(s),veh/h/ln	1529	0	0	0	1845	0	1757	1752	0	0	1752	1829
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.7	25.0	0.0	0.0	17.6	17.6
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	0.0	0.7	25.0	0.0	0.0	17.6	17.6
Prop In Lane	0.32		0.68	0.00		0.00	1.00		0.00	0.00		0.04
Lane Grp Cap(c), veh/h	742	0	0	0	803	0	60	1413	0	0	534	557
V/C Ratio(X)	0.08	0.00	0.00	0.00	0.00	0.00	0.35	2.12	0.00	0.00	0.95	0.95
Avail Cap(c_a), veh/h	742	0	0	0	803	0	198	1413	0	0	534	557
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	29.3	18.5	0.0	0.0	21.1	21.1
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	1.3	508.0	0.0	0.0	28.7	27.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	0.0	0.4	111.7	0.0	0.0	12.7	13.2
LnGrp Delay(d),s/veh	10.4	0.0	0.0	0.0	0.0	0.0	30.5	526.5	0.0	0.0	49.8	49.0
LnGrp LOS	B						C	F			D	D
Approach Vol, veh/h		56			0			3022			1038	
Approach Delay, s/veh		10.4			0.0			523.0			49.4	
Approach LOS		B						F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		30.4		31.6	6.1	24.3		31.6
Change Period (Y+Rc), s		5.4		4.6	4.0	* 5.4		4.6
Max Green Setting (Gmax), s		25.0		27.0	7.0	* 14		27.0
Max Q Clear Time (g_c+I1), s		27.0		3.2	2.7	19.6		0.0
Green Ext Time (p_c), s		0.0		0.3	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	396.6
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	12	30	0	30	7	2864	51	37	932	1
Future Volume (veh/h)	2	0	12	30	0	30	7	2864	51	37	932	1
Number	7	4	14	3	8	18	1	6	16	5	2	12
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
Adj Sat Flow, veh/h/ln	1900	1845	1900	1900	1845	1845	1845	1845	1845	1845	1845	1900
Adj Flow Rate, veh/h	5	0	28	42	0	0	7	2953	0	40	1013	0
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.43	0.43	0.43	0.72	0.72	0.72	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	114	37	472	605	0	556	29	1245	557	113	1412	0
Arrive On Green	0.35	0.00	0.35	0.35	0.00	0.00	0.02	0.36	0.00	0.06	0.40	0.00
Sat Flow, veh/h	134	103	1329	1378	0	1568	1757	3505	1568	1757	3597	0
Grp Volume(v), veh/h	33	0	0	42	0	0	7	2953	0	40	1013	0
Grp Sat Flow(s),veh/h/ln	1567	0	0	1378	0	1568	1757	1752	1568	1757	1752	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22.0	0.0	1.4	15.1	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.0	0.0	0.0	0.2	22.0	0.0	1.4	15.1	0.0
Prop In Lane	0.15		0.85	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	623	0	0	605	0	556	29	1245	557	113	1412	0
V/C Ratio(X)	0.05	0.00	0.00	0.07	0.00	0.00	0.24	2.37	0.00	0.35	0.72	0.00
Avail Cap(c_a), veh/h	623	0	0	605	0	556	255	1245	557	227	1412	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.2	0.0	0.0	13.2	0.0	0.0	30.1	20.0	0.0	27.8	15.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	0.1	617.9	0.0	0.7	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.5	0.0	0.0	0.1	117.4	0.0	0.7	7.8	0.0
LnGrp Delay(d),s/veh	13.3	0.0	0.0	13.4	0.0	0.0	30.2	637.9	0.0	28.5	18.7	0.0
LnGrp LOS	B			B			C	F		C	B	
Approach Vol, veh/h		33			42			2960			1053	
Approach Delay, s/veh		13.3			13.4			636.5			19.1	
Approach LOS		B			B			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	30.4		26.6	8.0	27.4		26.6
Change Period (Y+Rc), s	4.0	* 5.4		4.6	4.0	5.4		4.6
Max Green Setting (Gmax), s	9.6	* 17		22.0	8.0	18.0		22.0
Max Q Clear Time (g_c+I1), s	2.2	17.1		2.8	3.4	24.0		3.0
Green Ext Time (p_c), s	0.0	0.2		0.1	0.0	0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	466.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	108	147	2919	953	34
Future Volume (veh/h)	22	108	147	2919	953	34
Number	3	18	1	6	2	12
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	24	0	155	3073	1003	36
Adj No. of Lanes	1	1	1	2	2	1
Peak Hour Factor	0.90	0.90	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	480	428	186	2194	1683	737
Arrive On Green	0.27	0.00	0.11	0.63	0.48	0.48
Sat Flow, veh/h	1757	1568	1757	3597	3597	1535
Grp Volume(v), veh/h	24	0	155	3073	1003	36
Grp Sat Flow(s),veh/h/ln	1757	1568	1757	1752	1752	1535
Q Serve(g_s), s	1.0	0.0	8.7	62.6	20.8	1.2
Cycle Q Clear(g_c), s	1.0	0.0	8.7	62.6	20.8	1.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	480	428	186	2194	1683	737
V/C Ratio(X)	0.05	0.00	0.83	1.40	0.60	0.05
Avail Cap(c_a), veh/h	480	428	264	2194	1683	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.72	0.72
Uniform Delay (d), s/veh	26.8	0.0	43.8	18.7	18.9	13.8
Incr Delay (d2), s/veh	0.2	0.0	10.3	183.1	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	4.8	85.7	10.3	0.5
LnGrp Delay(d),s/veh	27.0	0.0	54.2	201.8	20.0	13.9
LnGrp LOS	C		D	F	C	B
Approach Vol, veh/h	24			3228	1039	
Approach Delay, s/veh	27.0			194.7	19.8	
Approach LOS	C			F	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	14.6	53.4				68.0		32.0
Change Period (Y+Rc), s	4.0	* 5.4				5.4		4.7
Max Green Setting (Gmax), s	15.6	* 44				62.6		27.3
Max Q Clear Time (g_c+I1), s	10.7	22.8				64.6		3.0
Green Ext Time (p_c), s	0.1	9.8				0.0		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	151.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1	75	37	0	20	125	2986	53	15	997	41
Future Volume (veh/h)	59	1	75	37	0	20	125	2986	53	15	997	41
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1900	1845	1900	1845	1845	1845	1505	1505	1505
Adj Flow Rate, veh/h	73	1	0	54	0	29	129	3078	55	16	1084	45
Adj No. of Lanes	0	1	1	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.81	0.81	0.81	0.68	0.68	0.68	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	358	4	265	242	19	89	209	2058	900	45	1398	612
Arrive On Green	0.17	0.17	0.00	0.17	0.00	0.17	0.13	0.59	0.59	0.03	0.49	0.49
Sat Flow, veh/h	1437	25	1568	866	114	527	1616	3505	1533	1433	2859	1251
Grp Volume(v), veh/h	74	0	0	83	0	0	129	3078	55	16	1084	45
Grp Sat Flow(s),veh/h/ln	1462	0	1568	1507	0	0	1616	1752	1533	1433	1430	1251
Q Serve(g_s), s	0.0	0.0	0.0	0.4	0.0	0.0	4.7	36.4	1.0	0.7	19.4	1.2
Cycle Q Clear(g_c), s	2.3	0.0	0.0	2.6	0.0	0.0	4.7	36.4	1.0	0.7	19.4	1.2
Prop In Lane	0.99		1.00	0.65		0.35	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	0	265	350	0	0	209	2058	900	45	1398	612
V/C Ratio(X)	0.20	0.00	0.00	0.24	0.00	0.00	0.62	1.50	0.06	0.36	0.78	0.07
Avail Cap(c_a), veh/h	616	0	556	618	0	0	235	2058	900	185	1398	612
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	0.00	0.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	0.0	0.0	22.5	0.0	0.0	25.5	12.8	5.5	29.4	13.0	8.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	0.2	223.3	0.0	1.8	4.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.3	0.0	0.0	2.1	81.0	0.4	0.3	8.4	0.4
LnGrp Delay(d),s/veh	22.5	0.0	0.0	22.6	0.0	0.0	25.7	236.1	5.5	31.2	17.3	8.6
LnGrp LOS	C			C			C	F	A	C	B	A
Approach Vol, veh/h		74			83			3262			1145	
Approach Delay, s/veh		22.5			22.6			223.9			17.2	
Approach LOS		C			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	35.4		14.6	5.9	41.5		14.6
Change Period (Y+Rc), s	4.0	5.1		4.1	4.0	5.1		4.1
Max Green Setting (Gmax), s	8.0	17.8		22.0	8.0	18.8		22.0
Max Q Clear Time (g_c+I1), s	10.7	21.4		4.6	2.7	38.4		4.3
Green Ext Time (p_c), s	0.0	0.0		0.2	0.0	0.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	165.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	914	138	28	189	90	315	79	1777	145	184	838	226
Future Volume (veh/h)	914	138	28	189	90	315	79	1777	145	184	838	226
Number	3	8	18	7	4	14	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1845	1845	1845	1845	1456	1456	1456
Adj Flow Rate, veh/h	983	148	30	154	175	346	81	1832	149	202	921	248
Adj No. of Lanes	2	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	957	417	84	169	178	148	91	1399	611	123	1207	532
Arrive On Green	0.28	0.28	0.28	0.10	0.10	0.10	0.05	0.40	0.40	0.09	0.44	0.44
Sat Flow, veh/h	3408	1484	301	1757	1845	1539	1757	3505	1530	1387	2767	1220
Grp Volume(v), veh/h	983	0	178	154	175	346	81	1832	149	202	921	248
Grp Sat Flow(s),veh/h/ln	1704	0	1785	1757	1845	1539	1757	1752	1530	1387	1383	1220
Q Serve(g_s), s	37.9	0.0	10.8	11.7	12.8	13.0	6.2	53.9	8.8	12.0	38.0	19.4
Cycle Q Clear(g_c), s	37.9	0.0	10.8	11.7	12.8	13.0	6.2	53.9	8.8	12.0	38.0	19.4
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	957	0	501	169	178	148	91	1399	611	123	1207	532
V/C Ratio(X)	1.03	0.00	0.36	0.91	0.99	2.34	0.89	1.31	0.24	1.64	0.76	0.47
Avail Cap(c_a), veh/h	957	0	501	169	178	148	91	1399	611	123	1207	532
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	0.68	0.68	0.68
Uniform Delay (d), s/veh	48.5	0.0	38.8	60.4	60.9	61.0	63.6	40.5	27.0	61.5	32.2	26.9
Incr Delay (d2), s/veh	36.3	0.0	0.2	43.4	62.9	621.4	58.2	144.4	0.9	310.9	3.2	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.6	0.0	5.3	7.7	9.6	31.1	4.5	54.1	3.8	15.2	15.0	6.8
LnGrp Delay(d),s/veh	84.8	0.0	38.9	103.9	123.8	682.4	121.8	184.9	27.9	372.4	35.3	28.9
LnGrp LOS	F		D	F	F	F	F	F	C	F	D	C
Approach Vol, veh/h		1161			675			2062			1371	
Approach Delay, s/veh		77.8			405.6			171.1			83.8	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	64.0		17.0	16.0	59.0		43.0
Change Period (Y+Rc), s	4.0	5.1		4.0	4.0	5.1		5.1
Max Green Setting (Gmax), s	7.0	58.9		13.0	12.0	53.9		37.9
Max Q Clear Time (g_c+I1), s	9.2	40.0		15.0	14.0	55.9		39.9
Green Ext Time (p_c), s	0.0	9.6		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	157.9
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	664	384	0	0	0	234	699	328	0	564	393
Future Volume (veh/h)	312	664	384	0	0	0	234	699	328	0	564	393
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				1845	1845	1845	0	1845	1845
Adj Flow Rate, veh/h	322	685	396				244	728	0	0	620	0
Adj No. of Lanes	1	2	0				1	2	1	0	2	1
Peak Hour Factor	0.97	0.97	0.97				0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3				3	3	3	0	3	3
Cap, veh/h	616	750	433				75	1701	761	0	1315	588
Arrive On Green	0.35	0.35	0.35				0.04	0.49	0.00	0.00	0.38	0.00
Sat Flow, veh/h	1757	2141	1236				1757	3505	1568	0	3597	1568
Grp Volume(v), veh/h	322	561	520				244	728	0	0	620	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1624				1757	1752	1568	0	1752	1568
Q Serve(g_s), s	10.2	21.4	21.4				3.0	9.4	0.0	0.0	9.4	0.0
Cycle Q Clear(g_c), s	10.2	21.4	21.4				3.0	9.4	0.0	0.0	9.4	0.0
Prop In Lane	1.00		0.76				1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	616	614	569				75	1701	761	0	1315	588
V/C Ratio(X)	0.52	0.91	0.91				3.24	0.43	0.00	0.00	0.47	0.00
Avail Cap(c_a), veh/h	753	751	696				75	1701	761	0	1315	588
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00				0.66	0.66	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	18.1	21.7	21.7				33.5	11.7	0.0	0.0	16.6	0.0
Incr Delay (d2), s/veh	0.3	12.4	13.4				1030.6	0.5	0.0	0.0	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	12.4	11.7				23.0	4.7	0.0	0.0	4.7	0.0
LnGrp Delay(d),s/veh	18.3	34.1	35.1				1064.1	12.2	0.0	0.0	17.8	0.0
LnGrp LOS	B	C	D				F	B			B	
Approach Vol, veh/h		1403						972			620	
Approach Delay, s/veh		30.9						276.3			17.8	
Approach LOS		C						F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		39.4		30.6	7.7	31.7		
Change Period (Y+Rc), s		5.4		6.1	* 4.7	5.4		
Max Green Setting (Gmax), s		28.5		30.0	* 3	20.8		
Max Q Clear Time (g_c+I1), s		11.4		23.4	5.0	11.4		
Green Ext Time (p_c), s		3.1		1.0	0.0	1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	107.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	81	224	27	0	125	0	1037	16	176	763	0
Future Volume (veh/h)	74	81	224	27	0	125	0	1037	16	176	763	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1845	1845	1845	0	1845	0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	82	90	249	35	0	162	0	1103	17	189	820	0
Adj No. of Lanes	0	1	1	1	0	1	0	3	0	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.77	0.77	0.77	0.94	0.94	0.94	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	0	3	0	3	3	3	3	0
Cap, veh/h	201	220	365	0	0	0	0	1735	27	187	1938	0
Arrive On Green	0.23	0.23	0.23	0.00	0.00	0.00	0.00	0.34	0.34	0.11	0.55	0.00
Sat Flow, veh/h	859	943	1562		0		0	5273	79	1757	3597	0
Grp Volume(v), veh/h	172	0	249		0.0		0	725	395	189	820	0
Grp Sat Flow(s),veh/h/ln	1802	0	1562				0	1679	1829	1757	1752	0
Q Serve(g_s), s	3.0	0.0	5.5				0.0	6.8	6.8	4.0	5.1	0.0
Cycle Q Clear(g_c), s	3.0	0.0	5.5				0.0	6.8	6.8	4.0	5.1	0.0
Prop In Lane	0.48		1.00				0.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	421	0	365				0	1141	621	187	1938	0
V/C Ratio(X)	0.41	0.00	0.68				0.00	0.64	0.64	1.01	0.42	0.00
Avail Cap(c_a), veh/h	816	0	708				0	1432	780	187	2242	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.2	0.0	13.1				0.0	10.4	10.4	16.8	4.9	0.0
Incr Delay (d2), s/veh	0.6	0.0	2.2				0.0	0.6	1.1	68.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	2.6				0.0	3.2	3.6	5.4	2.4	0.0
LnGrp Delay(d),s/veh	12.8	0.0	15.3				0.0	11.1	11.6	84.9	5.0	0.0
LnGrp LOS	B		B					B	B	F	A	
Approach Vol, veh/h		421						1120			1009	
Approach Delay, s/veh		14.3						11.2			20.0	
Approach LOS		B						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		12.8		24.7			8.0	16.7
Change Period (Y+Rc), s		4.0		4.0			4.0	4.0
Max Green Setting (Gmax), s		17.0		24.0			4.0	16.0
Max Q Clear Time (g_c+I1), s		7.5		7.1			6.0	8.8
Green Ext Time (p_c), s		1.3		5.2			0.0	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	53.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	979	70	79	329	9	43	8	108	3	13	12
Future Vol, veh/h	29	979	70	79	329	9	43	8	108	3	13	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	65	-	-	50	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	83	83	83	82	82	82	60	60	60
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	32	1088	78	95	396	11	52	10	132	5	22	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	407	0	0	1166	0	0	1804	1788	1127	1788	1822	402
Stage 1	-	-	-	-	-	-	1191	1191	-	592	592	-
Stage 2	-	-	-	-	-	-	613	597	-	1196	1230	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.13	6.53	6.23	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.227	-	-	2.227	-	-	3.527	4.027	3.327	3.527	4.027	3.327
Pot Cap-1 Maneuver	1146	-	-	596	-	-	61	81	248	63	77	646
Stage 1	-	-	-	-	-	-	228	260	-	491	492	-
Stage 2	-	-	-	-	-	-	478	490	-	226	249	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1146	-	-	596	-	-	~ 38	66	248	23	63	646
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 38	66	-	23	63	-
Stage 1	-	-	-	-	-	-	222	253	-	477	414	-
Stage 2	-	-	-	-	-	-	369	412	-	99	242	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.3	$ 501.3	102
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	103	1146	-	-	596	-	-	79
HCM Lane V/C Ratio	1.883	0.028	-	-	0.16	-	-	0.591
HCM Control Delay (s)	$ 501.3	8.2	-	-	12.2	-	-	102
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	15.9	0.1	-	-	0.6	-	-	2.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	803	1239	105	273	3	284	17	265	10	16	6
Future Volume (veh/h)	16	803	1239	105	273	3	284	17	265	10	16	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	17	845	0	122	317	3	312	0	0	13	21	8
Adj No. of Lanes	1	1	1	1	1	0	2	0	1	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.95	0.95	0.95	0.78	0.78	0.78
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	41	926	787	156	1035	10	436	0	195	53	86	33
Arrive On Green	0.02	0.50	0.00	0.09	0.57	0.57	0.12	0.00	0.00	0.10	0.10	0.10
Sat Flow, veh/h	1757	1845	1568	1757	1824	17	3514	0	1568	543	877	334
Grp Volume(v), veh/h	17	845	0	122	0	320	312	0	0	42	0	0
Grp Sat Flow(s),veh/h/ln	1757	1845	1568	1757	0	1842	1757	0	1568	1754	0	0
Q Serve(g_s), s	0.8	36.0	0.0	5.8	0.0	7.8	7.3	0.0	0.0	1.9	0.0	0.0
Cycle Q Clear(g_c), s	0.8	36.0	0.0	5.8	0.0	7.8	7.3	0.0	0.0	1.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.31		0.19
Lane Grp Cap(c), veh/h	41	926	787	156	0	1045	436	0	195	172	0	0
V/C Ratio(X)	0.42	0.91	0.00	0.78	0.00	0.31	0.72	0.00	0.00	0.24	0.00	0.00
Avail Cap(c_a), veh/h	411	1078	917	411	0	1077	1233	0	550	615	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.2	19.6	0.0	38.2	0.0	9.7	36.0	0.0	0.0	35.6	0.0	0.0
Incr Delay (d2), s/veh	6.6	10.5	0.0	8.3	0.0	0.2	2.2	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	20.8	0.0	3.2	0.0	4.0	3.7	0.0	0.0	1.0	0.0	0.0
LnGrp Delay(d),s/veh	47.8	30.1	0.0	46.4	0.0	9.8	38.2	0.0	0.0	36.4	0.0	0.0
LnGrp LOS	D	C		D		A	D			D		
Approach Vol, veh/h		862			442			312			42	
Approach Delay, s/veh		30.5			19.9			38.2			36.4	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		14.6	11.6	46.9		12.4	6.0	52.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		9.3	7.8	38.0		3.9	2.8	9.8
Green Ext Time (p_c), s		1.0	0.2	4.9		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	1300	313	242	306	7	561	0	738	20	3	12
Future Volume (veh/h)	14	1300	313	242	306	7	561	0	738	20	3	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1900	1845	1845	1845	1900	1845	1900
Adj Flow Rate, veh/h	15	1368	329	260	329	8	597	0	785	27	4	16
Adj No. of Lanes	1	2	1	1	2	0	2	0	2	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.94	0.94	0.94	0.75	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	33	1200	519	241	1611	39	722	0	1074	200	30	119
Arrive On Green	0.02	0.34	0.34	0.14	0.46	0.46	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1757	3505	1516	1757	3497	85	3514	0	3136	973	144	577
Grp Volume(v), veh/h	15	1368	329	260	165	172	597	0	785	47	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1516	1757	1752	1829	1757	0	1568	1694	0	0
Q Serve(g_s), s	1.2	50.0	26.6	20.0	8.2	8.2	23.7	0.0	30.0	3.3	0.0	0.0
Cycle Q Clear(g_c), s	1.2	50.0	26.6	20.0	8.2	8.2	23.7	0.0	30.0	3.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	0.57		0.34
Lane Grp Cap(c), veh/h	33	1200	519	241	807	843	722	0	1074	348	0	0
V/C Ratio(X)	0.46	1.14	0.63	1.08	0.20	0.20	0.83	0.00	0.73	0.14	0.00	0.00
Avail Cap(c_a), veh/h	241	1200	519	241	807	843	722	0	1074	348	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	70.9	48.0	40.3	63.0	23.4	23.4	55.5	0.0	42.1	47.4	0.0	0.0
Incr Delay (d2), s/veh	9.5	73.4	2.5	81.0	0.1	0.1	10.5	0.0	4.4	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	36.4	11.5	15.1	4.0	4.1	12.6	0.0	14.5	1.6	0.0	0.0
LnGrp Delay(d),s/veh	80.4	121.4	42.8	144.0	23.6	23.6	66.0	0.0	46.5	48.2	0.0	0.0
LnGrp LOS	F	F	D	F	C	C	E		D	D		
Approach Vol, veh/h		1712			597			1382			47	
Approach Delay, s/veh		105.9			76.0			54.9			48.2	
Approach LOS		F			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		34.0	24.0	54.0		34.0	6.7	71.3
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		30.0	20.0	50.0		30.0	20.0	50.0
Max Q Clear Time (g_c+I1), s		32.0	22.0	52.0		5.3	3.2	10.2
Green Ext Time (p_c), s		0.0	0.0	0.0		0.2	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	81.6
HCM 2010 LOS	F

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	2093	951	18
Future Vol, veh/h	0	33	0	2093	951	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	36	0	2275	1034	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	527	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	-	-	-	-
Pot Cap-1 Maneuver	0	493	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	493	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	493	-	-
HCM Lane V/C Ratio	-	0.073	-	-
HCM Control Delay (s)	-	12.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1067	0	52	364	0	11
Future Vol, veh/h	1067	0	52	364	0	11
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	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1160	0	57	396	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1160	0	1670	1160
Stage 1	-	-	-	-	1160	-
Stage 2	-	-	-	-	510	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	599	-	105	237
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	599	-	95	237
Mov Cap-2 Maneuver	-	-	-	-	95	-
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	544	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	237	-	-	599	-
HCM Lane V/C Ratio	0.05	-	-	0.094	-
HCM Control Delay (s)	21	-	-	11.6	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1067	15	0	364	10	0
Future Vol, veh/h	1067	15	0	364	10	0
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	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1160	16	0	396	11	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	1564	1168
Stage 1	-	-	-	-	1168	-
Stage 2	-	-	-	-	396	-
Critical Hdwy	-	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	0	-	122	234
Stage 1	-	-	0	-	294	-
Stage 2	-	-	0	-	678	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	122	234
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	678	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	37.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBT
Capacity (veh/h)	122	-	-	-	-
HCM Lane V/C Ratio	0.089	-	-	-	-
HCM Control Delay (s)	37.4	0	-	-	-
HCM Lane LOS	E	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

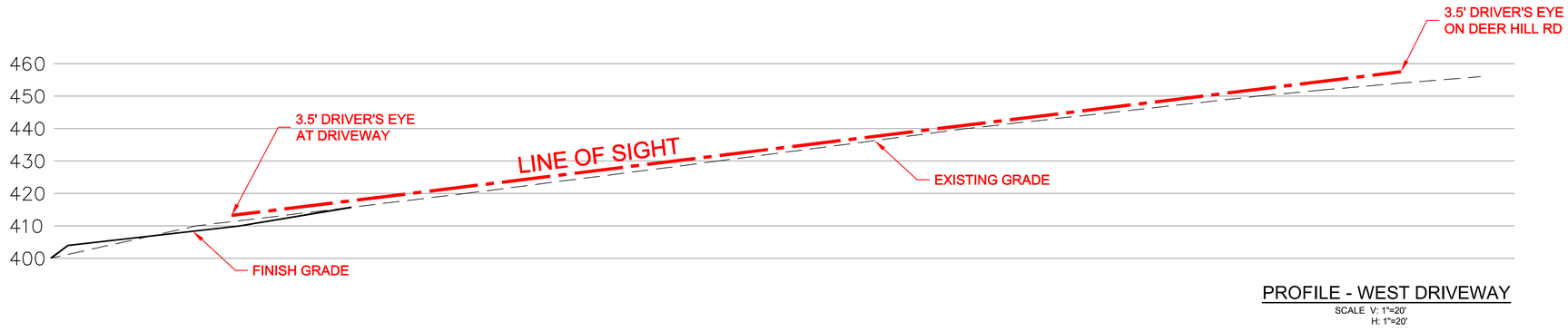
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	2134	53	0	985
Future Vol, veh/h	0	14	2134	53	0	985
Conflicting Peds, #/hr	0	0	0	4	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	60	60	98	98	86	86
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	23	2178	54	0	1145

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1120	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.16	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.93	-	-	-	-
Pot Cap-1 Maneuver	0	171	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	170	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.5	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	170	-
HCM Lane V/C Ratio	-	-	0.137	-
HCM Control Delay (s)	-	-	29.5	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Appendix H – Sight Distance Analysis



PROFILE - WEST DRIVEWAY

SCALE V: 1"=20'
H: 1"=20'

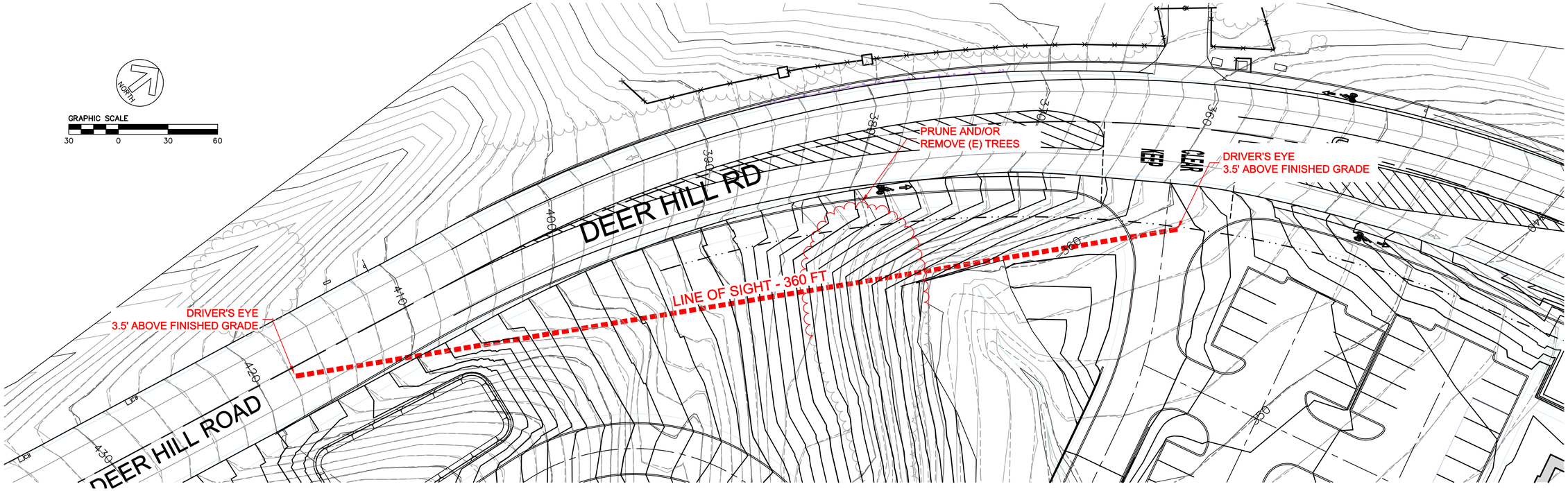
STOPPING SIGHT DISTANCE = 360' @ 45 mph
(CALTRANS HDM, 6th EDITION)

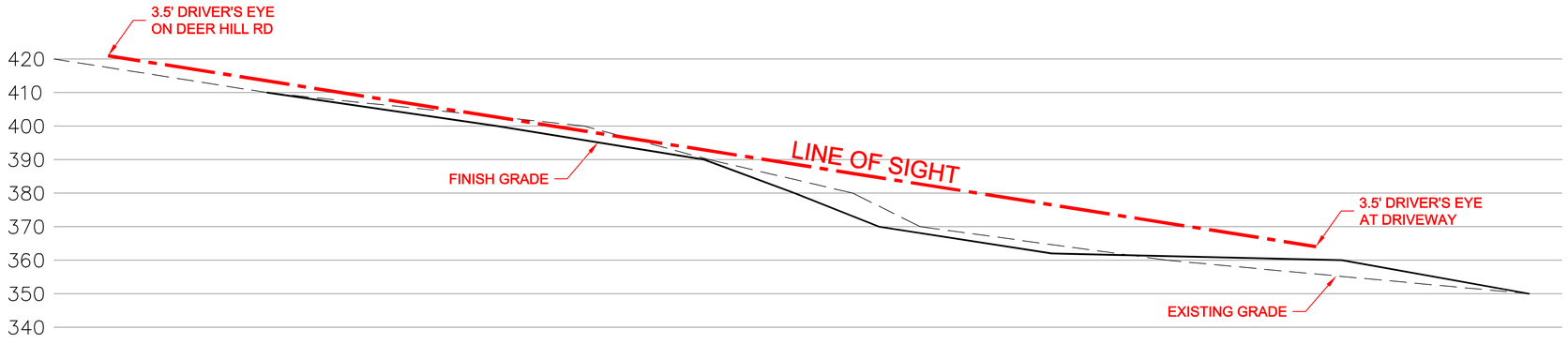
BkF 100+ YEARS
ENGINEERS . SURVEYORS . PLANNERS

STOPPING SIGHT DISTANCE EXHIBIT - DEER HILL ROAD

THE TERRACES OF LAFAYETTE
LAFAYETTE, CALIFORNIA

August 26, 2019





PROFILE - EAST DRIVEWAY

SCALE V: 1"=20'
H: 1"=20'

STOPPING SIGHT DISTANCE = 360' @ 45 mph
(CALTRANS HDM, 6th EDITION)

BkF 100+ YEARS
ENGINEERS . SURVEYORS . PLANNERS

August 26, 2019

SIGHT DISTANCE EXHIBIT - DEER HILL ROAD

THE TERRACES OF LAFAYETTE
LAFAYETTE, CALIFORNIA

Appendix I – 2018 Emergency Response Time Statistics

Calendar year 2018 (Fire Station #2)

Descriptive Statistics

	Counts	Avg	Std Dev	Median	Min	Max	25%	75%	90%
Null	23.0	00:06:13	00:03:37	00:05:55	00:02:47	00:22:01	00:04:43	00:06:25	00:06:55
Not urgent	144.0	00:07:27	00:03:10	00:06:53	00:00:02	00:19:31	00:05:30	00:08:54	00:11:26
Urgent	798.0	00:06:01	00:02:52	00:05:31	00:00:01	00:27:58	00:04:25	00:06:54	00:08:41
Grand Total	965.0	00:06:14	00:02:59	00:05:42	00:00:01	00:27:58	00:04:33	00:07:07	00:09:09

Calendar year 2018 (Fire Station #5)

Descriptive Statistics

	Counts	Avg	Std Dev	Median	Min	Max	25%	75%	90%
Null	34	00:04:56	00:02:46	00:04:59	00:00:04	00:14:36	00:03:24	00:06:23	00:07:17
Not urgent	180	00:08:12	00:04:11	00:07:37	00:00:02	00:36:54	00:05:56	00:09:30	00:11:47
Urgent	982	00:05:32	00:02:27	00:05:17	00:00:01	00:30:16	00:04:05	00:06:37	00:07:58
Grand Total	1,196	00:05:55	00:02:57	00:05:33	00:00:01	00:36:54	00:04:14	00:07:05	00:08:39

Calendar year 2018 (Fire Station #15)

Descriptive Statistics

	Counts	Avg	Std Dev	Median	Min	Max	25%	75%	90%
Null	29.0	00:05:32	00:02:12	00:05:45	00:00:35	00:09:30	00:04:39	00:06:48	00:07:58
Not urgent	130.0	00:08:08	00:03:35	00:07:57	00:00:01	00:19:56	00:05:20	00:10:00	00:12:21
Urgent	577.0	00:05:56	00:02:45	00:05:42	00:00:01	00:41:40	00:04:26	00:07:02	00:08:37
Grand Total	736.0	00:06:18	00:03:01	00:05:51	00:00:01	00:41:40	00:04:39	00:07:25	00:09:25

Calendar year 2018 (Totals for FS2, 5, 15)

Descriptive Statistics

	Counts	Avg	Std Dev	Median	Min	Max	25%	75%	90%
Null	86	00:05:29	00:02:52	00:05:18	00:00:04	00:22:01	00:04:14	00:06:36	00:07:27
Not urgent	454	00:07:57	00:03:43	00:07:34	00:00:01	00:36:54	00:05:32	00:09:28	00:11:46
Urgent	2,357	00:05:48	00:02:41	00:05:29	00:00:01	00:41:40	00:04:18	00:06:50	00:08:19
Grand Total	2,897	00:06:07	00:02:59	00:05:41	00:00:01	00:41:40	00:04:27	00:07:12	00:09:05

Appendix J – Caltrans Letter, March 2019

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
P.O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
FAX (510) 286-5559
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life!

March 4, 2019

SCH#2011072055
04-CC-2019-00301
GTS ID # 14411
CC-24-PM 7.562

Mrs. Michele Rodriquez
City of Lafayette
Planning Services Division
3675 Mt. Diablo Blvd. Suite 210
Lafayette, CA 94549

Dear Mrs. Rodriquez:

The Terraces of Lafayette – Use Permit and Design Review Application

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-referenced project. In tandem with the Metropolitan Transportation Commission's (MTC) Sustainable Communities Strategy (SCS), Caltrans mission signals a modernization of our approach to evaluating and mitigating impacts to the State Transportation Network (STN). Caltrans' *Strategic Management Plan 2015-2020* aims to reduce Vehicle Miles Travelled (VMT) by tripling bicycle and doubling both pedestrian and transit travel by 2020. Our comments are based on the use permit and design review application.

Project Understanding

The applicant requests the following: Land Use Permit, Hillside Development Permit, Design Review Permit, Ridgeline Exception, Grading Permit, and Tree Removal Permit to construct 14 buildings consisting of seven three-story and seven two-story apartments for a grand total of 315 units. The applicant also proposes two additional buildings – a 13,300 square foot (sf) Club House and a 950 sf Leasing Office, as well as 569 parking spaces. The residential building area is 332,395 sf and the total project land use area is 410,547 sf which, would require the removal of 92 trees and 500,000 cubic yards of soil. The property is located within the Hillside Overlay District at 3233 Deer Hill Road (Rd.). Revisions to the attached site plan indicates a proposed new bus lane turnout on Pleasant Hill Road, as well as a new 200-foot right-in and right-out driveway. The project site is adjacent to State Route (SR)-24. Regional access is located approximately 1,700 feet south of the site at the SR-244/Pleasant Hill Road (Rd) interchange.

Multimodal Planning

Please clarify why the multi-use path does not extend along the entire southern border of the project site. The project should be conditioned to construct the proposed low-stressed bikeway or contribute fair share traffic impact fees towards the completion of a low-stress bikeway within the

project study area to ensure connection to Deer Hill Rd. and Pleasant Hill Rd. bikeways. Please see *Contra Costa Countywide Bicycle Plan*: http://keepcontracostamoving.net/interactive-map/.

Right of Way
The proposed multi-use trail as shown on the submitted site plan will traverse the State Right of Way (ROW) in a location that is access controlled. Any break in access control must be approved by Caltrans and the California Transportation Commission (CTC). See attached Site Plan with comment.

Hydraulics
If the drainage system drains to the existing highway drainage facility, please identify on-site storm water receiving system and illustrate how the on-site runoff will be discharged into the highway drainage facility. Provide calculations of design discharge for pre and post development. The design discharge of post development shall not exceed the design discharge at the existing site condition. Please provide the plans and drainage calculations for our review.

Access Operations
Considering the close proximity of the SR-24/Pleasant Hill Rd ramps and the current traffic operations, Caltrans recommends that the project access should be re-located to Deer Hill Road. Please submit a Travel Demand Analysis analyzing project-related trip generation, distribution, and storage capacity within SR-24 and Pleasant Hill Rd. ramps. The analysis of state facilities is necessary to determine the scope and significance of issues that may arise from the project's potential conflicts. The California Environmental Quality Act does not exempt these types of operational concerns from evaluation.

Encroachment Permit
Please be advised that any sign or work within Caltrans ROW will require an encroachment permit prior to construction. To apply for an encroachment permit, please complete an encroachment permit application, environmental documentation, and six (6) sets of plans clearly indicating State ROW, and submit to the following address: David Salladay, District Office Chief, Office of Permits, California Department of Transportation, District 4 Office of Permits, 111 Grand Avenue, Oakland, CA 94612.

Traffic-related mitigation measures should be incorporated into the construction plans prior to the encroachment permit process. See the website link below for more information.
http://www.dot.ca.gov/hq/traffops/developserv/permits.

Lead Agency
As the Lead Agency, the City of Lafayette is responsible for all project mitigation, including any needed improvements to the STN. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all

proposed mitigation measures. Mitigation that includes requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City. Please submit a copy of the final staff report and conditions of approval for our review.

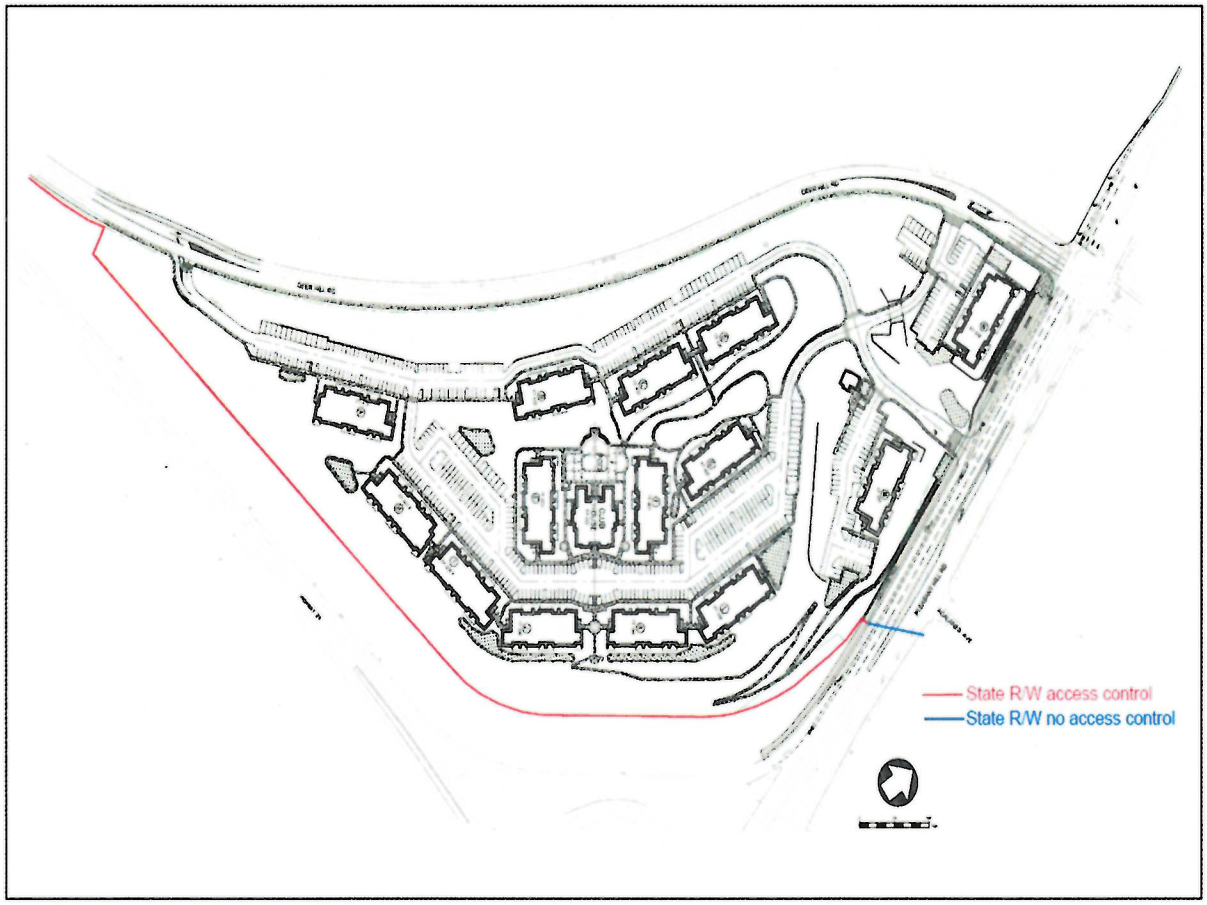
Should you have any questions regarding this letter, please contact Michael Casas at (510) 286-5614 or michael.casas@dot.ca.gov.

Sincerely,

For Stephen Conteh
PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

Attachment 3



Source: BKF Engineers, Surveyors, Planners, December 13, 2018.

FIRSTCARBON SOLUTIONS™

Exhibit 4
Refined Site Plan

51790001 • 12/2018 | 4_refined_site_plan.cdr

CITY OF LAFAYETTE • THE TERRACES OF LAFAYETTE PROJECT
ADDENDUM

Mrs. Michele Rodriquez
City of Lafayette
Planning Services Division
3675 Mt. Diablo Blvd. Suite 210
Lafayette, CA 94549

Appendix K – Traffic Impacts and Significance Criteria, 2012 Traffic Impact Analysis

Significant Impact Criteria

The project is considered to have a significant impact on traffic conditions if it would:

1. Cause a signalized "downtown" intersection (as identified in General Plan) operations to deteriorate from LOS A, B, C, or D to LOS E or F.
2. Cause operations at a signalized intersection "outside downtown" to deteriorate from LOS A, B, C, or "good" D to "poor" LOS D or to LOS E or F. "Good" LOS D is defined as 35 to 45 seconds of average control delay per vehicle. "Poor" LOS D is defined as 45 to 55 seconds of average delay.
3. Cause the overall level of service at an unsignalized all-way stop control intersection to degrade from LOS D or better to LOS E or F.
4. Cause the level of service at an unsignalized one- or two-way stop control intersection to degrade from LOS E or better for the worst movement from the side street to LOS F, where the intersection also meets at least one warrant for the installation of a traffic signal.
5. Cause a Delay Index to increase from 2.0 or less to exceed 2.0 for the peak hour peak direction on State Route 24 or Pleasant Hill Road.
6. Cause delay to increase by five or more seconds at an intersection, or the Delay Index to increase by 0.05 or more for a roadway, where subject intersection or roadway is operating below the acceptable standard that is applicable, as outlined above.
7. Substantially increase hazards due to a design feature (e.g. sharp curves; intersections or driveways with restricted visibility, or causing unacceptable weaving conditions such as decreasing average speed by ten percent or more on the weaving segment, etc.).
8. Generate added transit ridership that would increase the peak hour average ridership at a BART station by three (3) percent where average waiting time at fare gates also either:
   a) Already exceeds one minute, or
   b) Would exceed one minute as a result of ridership added by the project.
9. Generate added transit ridership that would increase the AM load factor on a County Connection bus line such that it would be over capacity during the AM peak hour (load factor greater than 1.0).
10. Create demand for public transit services above that which is provided or planned; disrupt or interfere with existing or planned transit services or facilities; or create inconsistencies with adopted transit system plans, guidelines, policies, or standards.
11. Disrupt existing bicycle or pedestrian facilities; interfere with planned bicycle or pedestrian facilities; or create inconsistencies with adopted bicycle or pedestrian system plans, guidelines, policies, or standards.

Mitigation measures would subsequently be evaluated that would potentially improve the impacted condition such that the subject threshold would not be exceeded.

Regarding threshold #1 above, none of the study intersections is "Downtown" as defined in the Lafayette General Plan Circulation Chapter (p. II-5).