FEHR PEERS

MEMORANDUM

Date: December 5, 2013

To: Liz Miles and Mike London, University of San Francisco

From: Matt Goyne and Matthew Ridgway, Fehr & Peers

Subject: USF IMP Transportation Impact Study 2013 Update – Student Residence Hall

SF10-0518

This memorandum presents an update to the Transportation Study (Original Transportation Study) in Appendix 1 of the University of San Francisco (USF) Institutional Master Plan (IMP)[1] dated March 2012 and resubmitted with the August 2013 IMP. This update reflects the changes made to the proposed Upper Campus Student Residence Hall and Parking project (page 71 of the March 2012 IMP draft). The revised Upper Campus Student Residence Hall and Parking project (Revised Student Residence Hall), found on page 67 of the August 2013 IMP proposes a 635-bedroom facility on the Underhill site of the upper campus, as opposed to the 350-bed facility proposed in the March 2012 Draft IMP. It was assumed in the March 2012 draft that the 285 students would seek private off-campus housing.

Additionally, an update to the level of service analysis documented in the Original Transportation Study is presented for the intersection of Masonic Avenue / Turk Boulevard under 2035 Cumulative PM Peak Hour Conditions.

Potential impacts of the additional 285 bedrooms proposed for the Revised Student Residence Hall Project on traffic, transit, bicyclists, pedestrians, loading, and construction activities are evaluated in a fashion consistent with the City and County of San Francisco *Transportation Impacts Analysis Guidelines* (SF Guidelines, October 2002). Additional detail on the methodology and assumptions used for the transportation impact analysis, as well as the City of San Francisco significance criteria (i.e., significant or less-than-significant) of certain impacts, is provided in Appendix 1 of the USF Institutional Master Plan

[1] *Appendix I: Transportation Study for the University of San Francisco Institutional Master Plan* (Fehr & Peers, March 2012)

The Revised Student Residence Hall Project is larger than the 350 bed residence facility proposed in the 2012 Draft IMP at this site. Even so, the proposed residence hall would not reflect a change in the total number of students anticipated under the IMP, but rather a shift in students from off-campus housing locations to on-campus housing. The proposed residence hall is not yet designed, but is intended to accommodate living-learning programs, student life, academic, study, and meeting spaces on the upper campus, as explained on page 67 of the IMP. Further study, including analysis of the potential impacts under the California Environmental Quality Act (CEQA), and approval by the City will be required to determine project specific impacts associated to construction and loading when the design is complete. Thus, this memorandum, along with the original Transportation Study in Appendix 1 to the IMP, is provided for informational purposes only.

SUMMARY OF FINDINGS

The Revised Student Residence Hall Project would reduce the total number of vehicle and transit trips to campus when compared to the Original Transportation Study as the new students living on-campus[2] would otherwise live off-campus and would arrive to campus via car, public transit or other means. This shift would reduce the severity of impacts on the surrounding roadway and transit lines. While pedestrian and bicycle trips are expected to increase due to the Revised Student Residence Hall Project, the Revised Student Residence Hall Project would not create unsafe conditions for pedestrians or bicyclists, nor would the additional walk and bike trips cause crowding on nearby sidewalks or bicycle facilities. The traffic calming plan and USF Transportation Demand Management (TDM) Plan would improve pedestrian and bicyclist conditions in the study area by reducing crosswalk lengths, increasing bicycle parking, and slowing vehicle travel speeds. Construction, emergency access, and loading conditions would not change due to the Revised Student Residence Hall Project compared to what was analyzed in the Original Transportation Study.

The Revised Student Residence Hall Project would replace the existing 80-space surface parking lot with 160 spaces in an underground garage for faculty and staff. The Original Transportation

[2] This memorandum presents an analysis of the USF Hilltop Campus as this was the focus of the Original Transportation Study. The USF Hilltop Campus is bounded generally by Anza Street to the north, Masonic Avenue to the east, Fulton Street to the south, and Stanyan Street to the west. The Hilltop Campus includes USF's Lone Mountain (upper) and lower campuses.

Study identified a parking deficit of 232 spaces in on- and off-campus parking under the proposed IMP. The 160 parking spaces proposed as a part of the Revised Student Residence Hall Project would therefore relieve some of the parking demand that was projected to potentially use neighborhood streets. In addition, the IMP Transportation Demand Management (TDM) plan would reduce overall parking demand by 13 percent. The additional on-campus parking, in addition to the TDM plan, would reduce parking demand on adjacent streets compared to existing conditions.

USF discourages students in residence halls from bringing cars to campus and would not provide parking for new on-campus students. Although a majority of the streets in the neighborhood require residential parking permits, some streets are unregulated and can be used by USF students and other residents within and outside the neighborhood to store vehicles without permits. USF will continue to discourage students from bringing cars to campus through its housing policies and TDM program and to work with the neighborhood and the City to develop on-street parking management strategies.

The Revised Student Residence Hall Project is not expected to result in any new significant impacts to the surrounding transportation network beyond that already analyzed in the Original Transportation Study; therefore, no additional improvement measures were identified. The Revised Student Residence Hall Project will be subject to additional review by the City, including environmental review under CEQA, to analyze potential issues with bicycle parking, loading, and construction, and to mitigate any related potential impacts to the extent feasible. The University has implemented a loading management plan and construction management plan to minimize loading and construction impacts to adjacent streets. A detailed analysis of project specific loading and construction impacts will be conducted when the design of the Revised Student Residence Hall Project is finalized.

Optimizing the traffic signal at Masonic Avenue / Turk Boulevard would result in acceptable intersection operations under 2035 Cumulative Conditions with and without the project. Therefore, the Revised Student Residence Hall project would result in **less-than-significant impacts** to Year 2035 Cumulative Conditions, and no mitigation measure is required.

TRAVEL DEMAND ANALYSIS

The section describes the changes to the projected vehicle, pedestrian, bicycle, and transit travel demand generated by the Revised Student Residence Hall Project. This analysis assumes the facility will house 635 students; the ultimate capacity will be determined in the final design and approval process. The impact of potential new traffic associated with the Revised Student Residence Hall Project is compared to the findings of the Original Transportation Study in the following section.

TRIP GENERATION

As explained in the Original Transportation Study, the critical step in evaluating future transportation conditions is identifying the number of new "trips" that would be generated by population growth on the upper and lower campuses. The trips included in the analysis are trips coming to campus and leaving campus, not trips that occur between different buildings on the Campus during the day. For example, a student riding his bike to campus in the morning, walking to and from three classes during the day and biking home in the evening would be counted as two daily bicycle trips.

The travel demand forecasts are based on the projected number of students and employees, as well as travel survey responses by faculty, staff, and students from April 2011. Forecasting the net new travel demand involves estimating the number of trips generated by the completion of the planned projects, less trips associated with the existing uses on-site.

Using daily population data for the USF campus, new person trips were developed separately for students, faculty, and staff. The new person trip generation is presented in Table 3.1 of Appendix 1 of the IMP. As the projected campus population and size would remain the same regardless of whether the additional beds are provided off-campus or on-campus, the new person trips would not change compared to what is presented in the Original Transportation Study. However, since some students would shift from off-campus housing locations to on-campus housing locations, these trips would primarily shift to on-campus walk trips.

MODE SPLIT

Mode split is the relative proportioning of project-generated trips to various travel modes. Modes include drive alone, carpooling, transit, and other modes. The percentages for each mode were

based on online travel survey data collected by USF. The same mode shares were used for the baseline year conditions and future conditions. This resulted in a conservative traffic analysis by assuming existing travel patterns and housing locations remain the same.

As shown in Table 1, students who live on-campus or within a couple blocks of campus are much less likely to drive or take transit when compared to those who live farther away from campus. The automobile and transit mode share for students traveling to and from campus would decrease in the future as some students who currently drive to campus would instead walk or bike from the on-campus housing.

TABLE 1: MODE SHARE BY HOUSEHOLD DISTANCE FROM CAMPUS

Household Location	Auto[1]	Transit	Walk	Other[2]
On-Campus or within a few blocks of campus	3%	12%	**83%**	2%
More than a few blocks and within 3 miles	25%	**51%**	19%	5%
Greater than 3 miles	**69%**	27%	1%	3%

Notes: USF Transportation Demand Management survey, 2011. Based on 1,529 respondents including approximately 1,000 students.

1. Auto mode share includes drive alone and carpool responses. Carpools represent seven percent of the total responses for those living more than a few blocks away and eight percent of the total responses of those who live more than three miles away.
2. Other includes bicycle, skateboard, taxi, and motorcycles.

Source: Fehr & Peers, 2013

The Revised Student Residence Hall Project would create new on-campus housing for approximately 285 students in addition to the 350 students analyzed in the Original Transportation Study. Per Chapter 3 of Appendix 1 of the IMP, students living off-campus would be expected to generate two trips a day (one to campus and one leaving campus), an average of four days a week, resulting in a total of 456 daily trips.[3] These students would shift from off-campus housing to on-campus housing; therefore, while the total number of person trips would remain the same, the mode of these trips would change and shift to on-campus. Applying the mode share percentages shown in Table 1 to the existing household locations and future on-campus housing locations shown in Table 2 results in the change in daily trip types that would be expected due to the Revised Student Residence Hall Project. As shown in Table 2, this would result in approximately 155 fewer auto person trips to campus (including some carpools), 75

[3] 285 students x 2 trips a day x 4 out of 5 days a week = 456 daily trips

fewer transit trips to campus, and 6 fewer "other" trips to campus. The impacts of these mode shift changes are discussed in the subsequent section.

TABLE 2: DAILY PERSON TRIPS FOR RESIDENT HALL

Household Location	Percent[1]	Auto	Transit	Walk	Other[2]
Original Transportation Analysis – Existing Mode Share and Housing Location					
On-Campus or within a few blocks of campus	31%	4	17	117	3
More than a few blocks and within 3 miles	26%	30	60	23	6
Greater than 3 miles	43%	135	53	2	6
Total	**100%**	**169**	**130**	**142**	**15**
Analysis with the Larger/Expanded Revised Student Residence Hall					
On-Campus	100%	14	55	378	9
Net Change					
Shift in Trips	--	-155	-75	+236	-6

Notes: USF Transportation Demand Management survey, 2011. Based on 1,529 respondents including approximately 1,000 students.

1. The TDM survey found that 31 percent of USF affiliates live within a few blocks of campus, 26 percent live further but within three miles of campus and 43 percent live three miles or more from campus.
2. Other includes bicycle, skateboard, taxi, and motorcycles.

Source: Fehr & Peers, 2013

IMPACT ANALYSIS

This section summarizes the assessment of transportation impacts resulting from the travel demand generated by the Revised Student Residence Hall Project compared to what was analyzed in the Original Transportation Study. The impacts are grouped into eight potential impact areas: (1) traffic, (2) transit, (3) bicycling, (4) pedestrian, (5) loading, (6) emergency access, and (7) construction impacts.

TRAFFIC IMPACTS

Traffic conditions in the Original Transportation Study were analyzed under Existing, Baseline (2012), Near-Term (2022), and Cumulative (2035) scenarios with and without the completion of the IMP development plan. Appendix 1 determined that the IMP development plan would not result in any significant traffic impacts at the study intersections. The increase in the number of

new bedrooms in the currently proposed Revised Student Residence Hall Project would generate approximately 155 fewer daily automobile person trips compared to the 350-bed residence hall analyzed in the Original Transportation Study due to the shift in students from off-campus to on-campus housing. Therefore, impacts to traffic conditions due to the Revised Student Residence Hall Project would be less severe than presented in the Original Transportation Study and would remain **less-than-significant** with implementation of the proposed mitigation measure. As discussed later in the memorandum, assuming the signal timings for the Masonic Avenue / Turk Boulevard intersection will be optimized, the addition of Proposed Project vehicle trips would result in **less-than-significant impacts** to Year 2035 Cumulative traffic conditions, and no mitigation measure is required.

As shown in **Appendix A**, the Revised Student Residence Hall Project would alter the existing on-campus circulation patterns on the upper campus by realigning the driveways connecting to Turk Boulevard. The primary access into the upper campus would be located within the center of the upper campus and travel in a counterclockwise loop from Roselyn Terrace to Temescal Terrace. This roadway would provide access to the parking garages at the center of the upper campus. Secondary access would be provided at the existing Tamalpais Driveway to a new garage at the existing location of the surface parking lot. Turk Boulevard is expected to operate with minimal congestion in the future (Levels of Service A or B), and this shift in automobile circulation is not expected to affect roadway operations as documented in the Original Transportation Study.

TRANSIT IMPACTS

Transit operations for the transit routes operating within ¼ mile of USF campus were analyzed under Existing, Baseline (2012), Near-Term (2022), and Cumulative (2035) Conditions, including analysis of the 33 Stanyan, 43 Masonic, 5 Fulton, 21 Hayes, 31/31BX Balboa, and 38/38L Geary bus routes. Future transit ridership for the routes was estimated using the expected transit ridership growth forecast in the San Francisco travel demand model. The Original Transportation Study determined that additional new transit riders generated by the IMP development plan would not cause transit screenlines to operate above the San Francisco Municipal Transportation Agency's (SFMTA) capacity utilization standards. Therefore, the IMP would have a **less-than-significant** impact on transit.

The Revised Student Residence Hall Project would generate approximately 75 fewer daily transit trips compared to the Original Transportation Study due to the shift in students from off-campus to on-campus housing. Therefore, impacts to transit conditions due to Revised Student Residence

Hall Project would be less severe than presented in the IMP and would remain **less-than-significant**.

BICYCLE IMPACTS

The Original Transportation Study determined that the IMP would reduce the number of bicyclists traveling to USF, although bicyclists traveling near campus could increase due to the new on-campus residents. The IMP traffic calming plan includes street modifications to Turk Boulevard and Golden Gate Avenue that would improve bicyclist safety on the Campus (as well as for those bicyclists traveling through the Campus). These modifications are detailed in the IMP's traffic calming element. In overview, bicycle lanes on Turk Boulevard would be made continuous, and Golden Gate Avenue would receive additional traffic calming treatments to address pedestrian and bicyclist safety. These improvements would be consistent with the San Francisco Better Streets Plan and Bicycle Plan.

The existing facilities and the proposed bicycle improvements, including those on Masonic Avenue, would be able to accommodate the new cyclists. The Revised Student Residence Hall Project would not create hazards to bicycle circulation and the existing facilities could generally accommodate additional bicyclists; therefore, the Revised Student Residence Hall Project is expected to have a **less-than-significant** impact on bicyclists. Furthermore, the proposed elements of the traffic calming plan would improve bicycling conditions compared to the existing conditions.

The Revised Student Residence Hall Project would generate a similar number of trips compared to the Original Transportation Study due to the shift in students from off-campus to on-campus housing[4]. Therefore, impacts to bicycle conditions due to the Revised Student Residence Hall Project would be similar to what is presented in the Original Transportation Study and therefore, the potential impact would remain **less-than-significant**.

The City of San Francisco *Planning Code* Section 155 specifies that new developments or major renovations must provide a specified number of bicycle parking spaces and bicycle amenities. The design of the bicycle parking areas on the Campus would be subject to review by the City to ensure *Planning Code* compliance, either directly, through a variance, or exception. *Planning Code* information is presented for informational purposes only.

[4] The "Other" trips shown in Table 2 would decrease by 6 daily trips. The other category includes bicycle, skateboard, taxi, and motorcycles.

> As part of the Revised Student Residence Hall Project, the University would build a 160-space parking garage under the project. USF is required to provide a minimum of six bicycle parking spaces, plus one bicycle parking space for every 20 parking spaces in garages with 120 to 500 parking spaces. In addition, any new dormitory or housing facility would be required to provide one bicycle parking space for every three bedrooms. This would result in 226 bicycle parking spaces required for the Revised Student Residence Hall Project.[5]

As mentioned in the IMP, the University would be required to submit plans to the City for any future project on the Campus, and bicycle parking would be reviewed at that time. Therefore, no impacts are identified in this subsection.

PEDESTRIAN IMPACTS

The IMP is expected to increase pedestrian traffic on and around the USF Campus. Although pedestrian activity around the campus is generally dispersed, pedestrian activity would likely increase at locations proposed as future development sites such as the Revised Student Residence Hall Project.

The Revised Student Residence Hall Project would increase on-campus pedestrian trips to and from the lower campus compared to what was presented in the Original Transportation Study. These pedestrians would use public streets to travel between the upper and lower campuses including Turk Boulevard, Parker Avenue, Chabot Terrace, Roselyn Terrace, and Masonic Avenue. The Revised Student Residence Hall Project would include amenities on the upper campus such as dining facilities, living-learning programs, student life, academic, study, and meeting spaces to help reduce the need for students to walk between upper and lower campuses for non-class related activities or during the evening. Per USF staff, these amenities are expected to similar to those currently located on the lower campus to minimize the new pedestrian trips between campuses.

The IMP traffic calming plan includes pedestrian enhancements as part of the Turk Boulevard and Golden Gate Avenue streetscape plans. Improvements would include enhanced crosswalks,

[5] Parking garage = 6 bicycle parking spaces + 160 vehicle parking spaces/20 = 14 bicycle spaces. 635 bedrooms * 0.333 bicycle parking spots / bedroom = 212 bicycle parking spaces. 14+212 = 226 bicycle parking spaces.

medians, curb extensions, and traffic calming elements. The Master Plan also includes an enhanced crosswalk on Parker Avenue at McAllister Street.

The Revised Student Residence Hall Project would not create unsafe conditions for pedestrians, nor would the additional walk trips cause crowding on nearby sidewalks; therefore, the impacts to pedestrian conditions due to Revised Student Residence Hall Project would remain **less-than-significant**. Generally, the traffic calming plan would further improve conditions for pedestrians around the Campus.

LOADING IMPACTS

Assessments of loading impacts are specific to individual projects, and include the ability of the new development to accommodate the projected delivery and service vehicle demand generated by the new uses. To the extent that the loading demand is not accommodated on-site, and could not be accommodated within existing or new on-street loading zones, double-parking, illegal use of sidewalks and other public space is likely to occur with associated disruptions and impacts to traffic and transit operations as well as to bicyclists and pedestrians. These disruptions are usually short in duration and occur when trucks enter and exit loading areas. However, USF has implemented several improvement measures to manage loading issues including creating a Traffic Coordinator position in 2010 to manage campus deliveries and to address disruptions and impacts. The University limits the hours of use of its loading docks to Monday through Friday, 7am to 4pm and Saturday & Sunday 9am to 4pm. Current plans for the Revised Student Residence Hall Project are conceptual and a detailed loading analysis will be provided prior to project approval. The Revised Student Residence Hall Project would not change loading patterns compared to what was analyzed in the IMP, therefore no impacts associated with loading were identified.

EMERGENCY ACCESS IMPACTS

The Revised Student Residence Hall Project would not inhibit or create any barriers to emergency access vehicles on the Campus or traveling through the Campus. Proposed modifications to Turk Street and Golden Gate Avenue will need to be reviewed and approved by the SFMTA and San Francisco Fire Department to ensure that the traffic calming plans meet City requirements for emergency access. Therefore, impacts to emergency access are expected to remain **less-than-significant**.

CONSTRUCTION IMPACTS

Temporary construction impacts are specific to individual development projects, and include impacts related to temporary roadway and sidewalk closures, relocation of bus stops, effects on roadway circulation due to construction vehicles, and parking demand associated with construction workers. The Revised Student Residence Hall Project may affect the transportation network along Turk Street, between Tamalpais Terrace and Roselyn Terrace. Construction activities that affect street right-of-way are typically regulated through permits and construction requirements to ensure acceptable levels of traffic and transit flow during the period of traffic disruptions. Construction best management practices are typically required to be in place to ensure the safety of construction workers, motorists, bicyclists, and pedestrians throughout the construction period. The University would be required to submit detailed plans to the City for any future project on the Campus, and potential construction impacts would be reviewed at that time.

PARKING IMPACTS

The City of San Francisco does not consider parking to be a part of the physical environment, since the availability of parking spaces (or lack thereof) is not a permanent physical condition and changes over time (both throughout the day and week and as people change their travel mode and patterns). However, parking supply and demand is of interest to both residents and the USF community and was reviewed as part of the Original Transportation Study prepared.

Although there are no significance thresholds for parking impacts, parking impacts due to campus population growth, the traffic calming plan, and the Masonic Boulevard Streetscape project were analyzed in the Original Transportation Study to help shape USF's transportation demand management strategy. Based on campus population growth projections, removal of on-street parking due to both the traffic calming plan and the Masonic Boulevard project, and future on-campus parking supply, the estimated future on-campus parking deficit is 101 vehicles and off-campus parking deficit is 127 vehicles. The USF transportation demand management strategy is designed to address the projected parking deficits by reducing the total USF parking demand by 13 percent.

The Revised Student Residence Hall Project would replace the existing 80-space surface parking lot with 160 spaces in an underground garage for faculty and staff. The March 2012 Draft IMP did not plan for a parking garage at this location. Therefore, the Revised Student Residence Hall Project would increase the on-campus parking supply by 80 spaces compared to existing

conditions and 160 spaces when compared to the IMP. This increased on-campus parking supply reduce the parking deficit identified in the Original Transportation Study, reducing the parking demand on City streets.

The Revised Student Residence Hall Project would reduce the daily campus parking demand by shifting students from off-campus to on-campus housing. As shown in Table 2, approximately 155 fewer students would drive (drive alone or in a carpool) to campus compared to what was analyzed in the Original Transportation Study. Carpools make up approximately 20 percent of all student drivers. Assuming each student drives to and from campus and two people per car in a carpool, this would result in approximately 60 fewer vehicles coming to campus each day compared to what was estimated for the 350 bed Student Residence Hall Project in the Original Transportation Study. This would reduce the on-street parking deficit identified in the IMP. In addition, the TDM plan's goal is to reduce parking demand by 13 percent, which would reduce parking demand on adjacent streets compared to existing conditions.

USF discourages students in residence halls from bringing cars to campus and would not provide parking for new on-campus students. Although a majority of the streets in the neighborhood require residential parking permits, some streets are unregulated and can be used by USF students and other residents within and outside the neighborhood to store vehicles without permits.

Recognizing that some parking will continue to occur on streets around the Campus with the Revised Student Residence Hall Project, USF would continue to work with the neighborhood and the City to implement policies and programs that discourage students from bringing cars to campus and to modify the on-street parking supply to make it less attractive for USF parking through parking management programs. Changes to on-street parking would include the traffic calming plan to reduce the impact of vehicles circling neighborhood blocks looking for on-street parking. The turn restrictions on the Terrace streets included in the traffic calming plan would discourage vehicles from circulating through each street looking for parking in an area where availability is most constrained. USF is also working the University Terrace neighborhood to change the time limit restrictions on BB permitted streets. As currently proposed, time limits would be reduced from two-hours to one-hour for non-BB permitted vehicles. Other parking supply management options include on-street parking pricing along unregulated streets on USF block faces, which was evaluated by the City 2012 but not implemented.

YEAR 2035 CUMULATIVE CONDITIONS UPDATE

The Original Transportation Study identifies a significant traffic impact under 2035 Plus Project PM peak hour conditions at the intersection of Masonic Avenue / Turk Boulevard. The addition of Proposed Project trips (as defined in the Original Transportation Study) would cause the average vehicle delay at this intersection to increase by one second, from 54 to 55 seconds. This increase in average vehicle delay would degrade the PM peak hour level of service from acceptable LOS D under 2035 Cumulative No Project Conditions to unacceptable LOS E under 2035 Cumulative Plus Project Conditions. This would be considered a **significant traffic impact**. The recommended mitigation measure includes adding an eastbound right-turn lane at this intersection to reduce the impact to a **less-than-significant** level. However, an additional lane at this location would be inconsistent with the San Francisco Better Streets Plan recommendations for reducing pedestrian crossing distances where possible.

An option for reducing this impact to less-than-significant levels without conflicting with the San Francisco Better Streets Plan would be to optimize the signals in the future to account for changes in traffic patterns. The City generally evaluates and optimizes traffic signals to adjust to changing travel patterns or when major infrastructure changes occur, such as the Masonic Avenue Streetscape Project. It is reasonable to assume the signal timings for Masonic Avenue / Turk Boulevard will be updated and optimized in the future to account for the changing traffic patterns and streetscape design. As shown in **Table 3**, optimizing the traffic signal at this intersection would reduce the average vehicle delay from 54 to 51 seconds under 2035 Cumulative No Project Conditions and from 55 to 52 seconds under 2035 Cumulative Plus Project conditions. This would result acceptable intersection operations under 2035 Cumulative Conditions with and without the project. Therefore, assuming the signal timings for the Masonic Avenue / Turk Boulevard intersection will be optimized, the addition of Proposed Project vehicle trips would result in **less-than-significant impacts** to Year 2035 Cumulative traffic conditions, and no mitigation measure is required.

TABLE 3: YEAR 2035 CUMULATIVE CONDITIONS INTERSECTION LEVEL OF SERVICE PM PEAK HOUR							
Intersection	**Traffic Control**	**2035 Cumulative No Project**			**2035 Cumulative Plus Project**		
		Avg. Delay[1]	**LOS**	**V/C Ratio**	**Avg. Delay[2]**	**LOS**	**V/C Ratio**
Original IMP Transportation Study							
Masonic Avenue / Turk Boulevard	Signal	54	D	-	**55**	**E**	**1.09**
Optimized Signal Timing							
Masonic Avenue / Turk Boulevard	Signal	51	D	-	52	D	**-**

Notes: **Bold** = unacceptable operations; Level of Service Calculations sheets are presented in **Appendix B**.

1. Average Delay shown as seconds per vehicle.

Source: Fehr & Peers, 2013

As documented previously, the Revised Student Residence Hall Project would reduce the number of vehicle trips to campus. Therefore, the impacts to traffic due to the Revised Student Residence Hall Project would be less severe than those without the Revised Student Residence Hall Project and impacts to traffic conditions would be **less-than-significant**.

CONCLUSION

The Revised Student Residence Hall Project would not create new or worsen the severity of impacts identified in the Original Transportation Study. The Revised Student Residence Hall Project reduce the total number of vehicle and transit trips to campus when compared to the Original Transportation Study as the new students living on-campus would otherwise live off-campus and would arrive to campus via car, public transit or other means. Impacts to traffic and transit conditions under baseline, near-term, and cumulative conditions would remain **less-than-significant**. While pedestrian and bicycle trips are expected to increase due to the Revised Student Residence Hall Project, the Revised Student Residence Hall Project would not create unsafe conditions for pedestrians or bicyclists, nor would the additional walk and bike trips cause crowding on nearby sidewalks or bicycle facilities. The severity of impacts due to loading, construction, emergency access, and parking conditions would not worsen compared what was presented in the Original Transportation Study.

Optimizing the traffic signal at Masonic Avenue / Turk Boulevard would result acceptable intersection operations under 2035 Cumulative Conditions with and without the project. Therefore, the addition of Proposed Project vehicle trips as documented in the Original Transportation Study would result in **less-than-significant impacts** to Year 2035 Cumulative Conditions, and no mitigation measure is required.

FEHR PEERS

APPENDIX A – STUDENT RESIDENCE PROJECT CIRCULATION PLANS

△ FIGURE 4: EXISTING BUILDING USE

LEGEND

- USF Hilltop Campus Boundary
- Academic & Administration
- Residential
- Recreation & Athletics
- Storage and Maintenance
- Field/Court
- Mixed Use Residential Academic/Administration
- Mixed Use Student Life and Academic/Administration

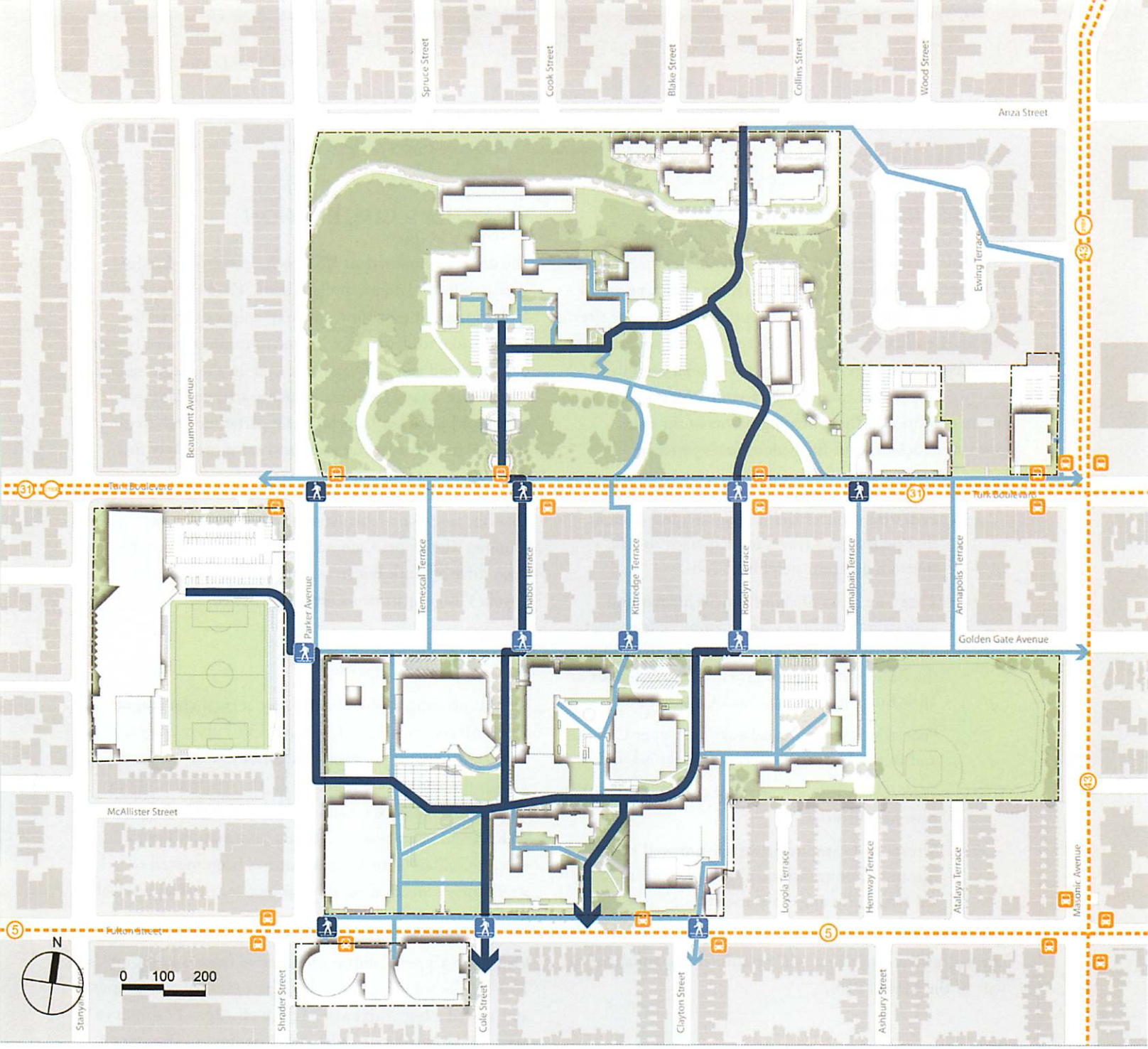


FIGURE 7: EXISTING PEDESTRIAN CIRCULATION

LEGEND

- USF Hilltop Campus Boundary
- Primary Pedestrian Route
- Secondary Pedestrian Route
- Muni Line
- Muni Stop
- Signaled Crosswalk
- Non-Signaled Crosswalk

△ FIGURE 8: EXISTING VEHICULAR CIRCULATION

LEGEND

- USF Hilltop Campus Boundary
- Primary Vehicular Route
- Secondary Vehicular Route
- Service Only Route
- Service Access Point
- Structured Parking
- Surface Parking
- Primary Arrival Point
- Secondary Arrival Point

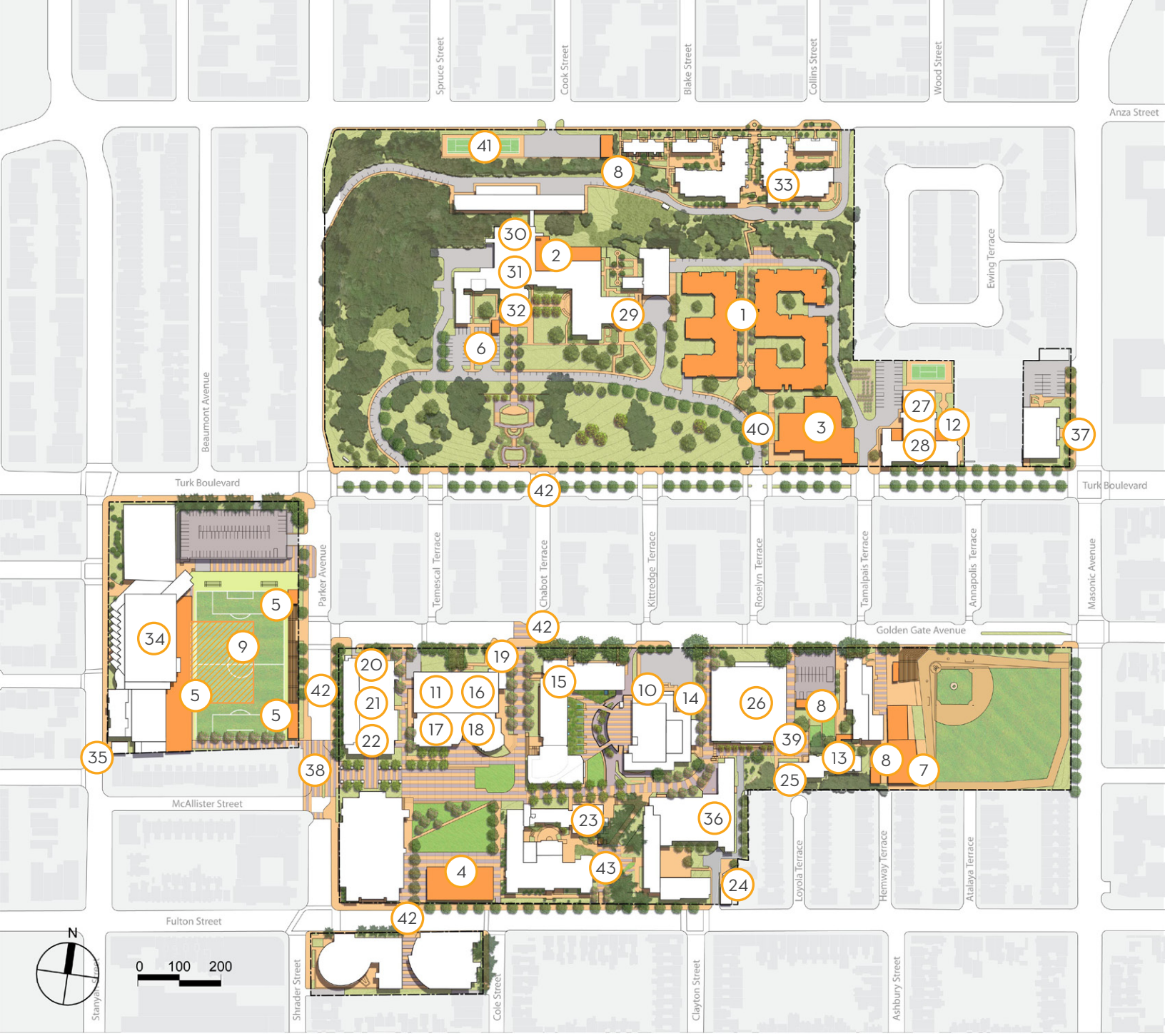


FIGURE 16A: SUPPLEMENT NOVEMBER 5, 2013

LEGEND

- USF Hilltop Campus Boundary
- Existing Buildings
- Proposed Buildings
- Proposed Underground Athletic Facility

POTENTIAL HILLTOP CAMPUS PROJECTS, 2012–2022

NEW CONSTRUCTION

1. Upper Campus Student Residence Hall and Parking
2. Upper Campus Dining Commons
3. Upper Campus Academic Building
4. Welch Field Academic Building
5. Mixed-Use Buildings at Negoesco Field
6. Visitor Center on Lone Mountain
7. Ulrich Field Intercollegiate Baseball Facility Improvements
8. Grounds Storage and Maintenance Facilities
9. Parking Under Negoesco Field

BUILDING RENOVATIONS / UPGRADE

10. University Center and Harney Science Loading Facility
11. Gleeson Library Roof Space Enclosure
12. 2350 Turk Boulevard Courtyard Infill
13. Hayes-Healy/Gillson Common Area Front Desk
14. University Center Terrace Infill
15. Existing Harney Science Renovation
16. Library Learning Commons and Entrance Renovation
17. Gleeson Rare Book Room Vault Renovation
18. Gleeson First Floor Renovation (Current Disability Services Offices)
19. Cogeneration Plant Technology Upgrade
20. Fromm Hall X-Arts Renovation
21. St. Ignatius Parish Meeting Space and Office Renovation, Including Courtyard Infill (Fromm Hall)
22. Fromm Hall Lounge Renovation
23. Cowell Hall Learning and Writing Center Refurbishment
24. Fulton House Student Housing Renovation (1982 Fulton Street)
25. Hayes-Healy/Gillson Lounge, Bathroom and Sleeping Room Renovation
26. War Memorial Gym New West Entrance and Interior Renovation
27. 2350 Turk Boulevard Renovation
28. Presentation Theater Refurbishment
29. Lone Mountain Stacks Renovation
30. Lone Mountain Main Lower Level ADA Upgrade
31. Lone Mountain Main Mechanical, Electrical, and Plumbing Upgrade
32. Lone Mountain Main Window Replacement
33. Loyola Village Renovation for Student Lounge Space and Exterior Refurbishment
34. Koret Interiors Refurbishment
35. Mission House Renovation (284 Stanyan Street)
36. Phelan Ground Floor Renovation
37. 281 Masonic Classroom Renovation

SITE IMPROVEMENTS

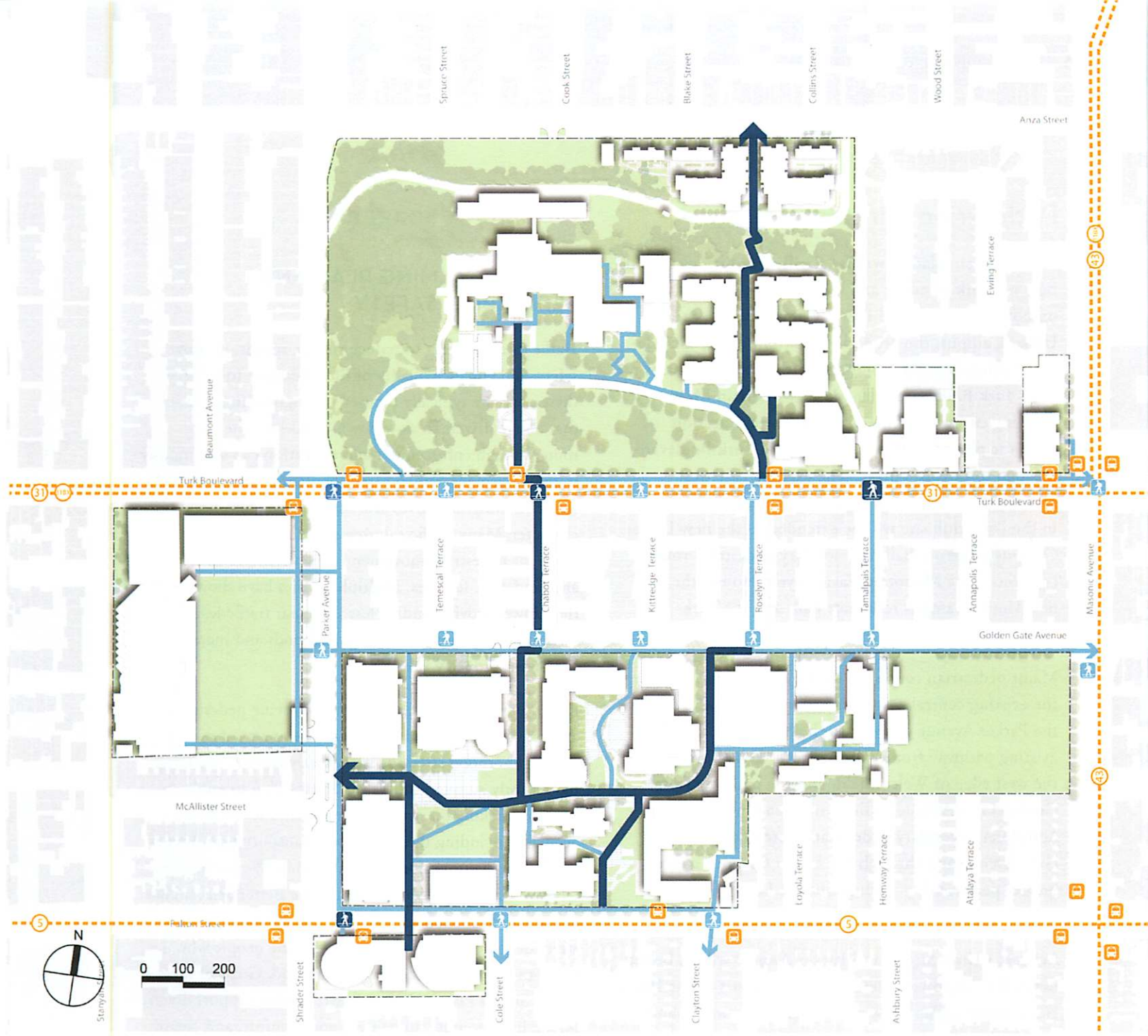
38. Parker Street Visitor Arrival Area
39. Hayes-Healy/Gillson Forecourt
40. Lone Mountain Drive Realignment
41. Replacement Tennis Courts
42. Streetscape Improvements on Golden Gate, Turk, Parker, Fulton
43. Bicycle Storage Facility

Open space improvements throughout campus including enhanced campus arrival, pedestrian gateways, new plantings, paving material upgrades, screening of service/parking areas, wayfinding signs, and installation of public art

△ FIGURE 18: PROPOSED VISITOR ARRIVAL AND VEHICULAR CIRCULATION

LEGEND

- USF Hilltop Campus Boundary
- Primary Vehicular Route
- Secondary Vehicular Route
- Service Only Route
- Service Access Point
- Structured Parking
- Surface Parking
- Primary Arrival Point
- Secondary Arrival Point



△ FIGURE 19: PROPOSED PEDESTRIAN CIRCULATION

LEGEND

- USF Hilltop Campus Boundary
- Primary Pedestrian Route
- Secondary Pedestrian Route
- Muni Line
- Muni Stop
- Signaled Crosswalk
- Non-Signaled Crosswalk

FEHR PEERS

APPENDIX B – LOS CALCULATION SHEETS

AUGUST 2013 TRANSPORTATION STUDY LOS RESULTS
(NO FUTURE SIGNAL OPTIMIZATION)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	82	242	54	235	846	85	0	1266	59	0	1928	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1817		1787	3501			3535			3516	
Flt Permitted	0.13	1.00		0.44	1.00			1.00			1.00	
Satd. Flow (perm)	241	1817		824	3501			3535			3516	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	85	252	56	245	881	89	0	1319	61	0	2008	167
RTOR Reduction (vph)	0	3	0	0	8	0	0	4	0	0	7	0
Lane Group Flow (vph)	85	305	0	245	962	0	0	1376	0	0	2168	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.55			0.55	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	84	630		286	1214			1932			1922	
v/s Ratio Prot		0.17			0.27			0.39			c0.62	
v/s Ratio Perm	c0.35			0.30								
v/c Ratio	1.01	0.48		0.86	0.79			0.71			1.13	
Uniform Delay, d1	29.4	23.1		27.3	26.5			15.1			20.4	
Progression Factor	1.00	1.00		1.00	1.00			1.58			1.00	
Incremental Delay, d2	101.5	0.6		21.5	3.6			1.9			65.0	
Delay (s)	130.9	23.7		48.8	30.1			25.7			85.4	
Level of Service	F	C		D	C			C			F	
Approach Delay (s)		46.9			33.9			25.7			85.4	
Approach LOS		D			C			C			F	

Intersection Summary			
HCM Average Control Delay	54.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	123.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	242	81	235	846	85	0	1270	60	0	1929	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1793		1787	3501			3534			3516	
Flt Permitted	0.13	1.00		0.40	1.00			1.00			1.00	
Satd. Flow (perm)	241	1793		758	3501			3534			3516	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	86	252	84	245	881	89	0	1323	62	0	2009	167
RTOR Reduction (vph)	0	3	0	0	8	0	0	4	0	0	7	0
Lane Group Flow (vph)	86	333	0	245	962	0	0	1381	0	0	2169	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.55			0.55	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	84	622		263	1214			1932			1922	
v/s Ratio Prot		0.19			0.27			0.39			c0.62	
v/s Ratio Perm	c0.36			0.32								
v/c Ratio	1.02	0.54		0.93	0.79			0.71			1.13	
Uniform Delay, d1	29.4	23.6		28.4	26.5			15.2			20.4	
Progression Factor	1.00	1.00		1.00	1.00			1.57			1.00	
Incremental Delay, d2	104.9	0.9		37.4	3.6			1.9			65.2	
Delay (s)	134.3	24.5		65.7	30.1			25.7			85.6	
Level of Service	F	C		E	C			C			F	
Approach Delay (s)		46.9			37.3			25.7			85.6	
Approach LOS		D			D			C			F	

Intersection Summary			
HCM Average Control Delay	55.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	123.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

LOS RESULTS WITH FUTURE SIGNAL OPTIMIZATION

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	82	242	54	235	846	85	0	1266	59	0	1928	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1816		1787	3500			3535			3516	
Flt Permitted	0.13	1.00		0.43	1.00			1.00			1.00	
Satd. Flow (perm)	249	1816		808	3500			3535			3516	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	85	252	56	245	881	89	0	1319	61	0	2008	167
RTOR Reduction (vph)	0	3	0	0	9	0	0	4	0	0	7	0
Lane Group Flow (vph)	85	305	0	245	961	0	0	1376	0	0	2168	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	30.2	30.2		30.2	30.2			50.2			50.2	
Effective Green, g (s)	30.2	30.2		30.2	30.2			50.2			50.2	
Actuated g/C Ratio	0.34	0.34		0.34	0.34			0.56			0.56	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	84	609		271	1174			1972			1961	
v/s Ratio Prot		0.17			0.27			0.39			c0.62	
v/s Ratio Perm	c0.34			0.30								
v/c Ratio	1.01	0.50		0.90	0.82			0.70			1.11	
Uniform Delay, d1	29.9	23.9		28.5	27.4			14.4			19.9	
Progression Factor	1.00	1.00		1.00	1.00			1.66			1.00	
Incremental Delay, d2	101.5	0.6		30.7	4.6			1.7			55.8	
Delay (s)	131.4	24.5		59.2	32.0			25.6			75.7	
Level of Service	F	C		E	C			C			E	
Approach Delay (s)		47.6			37.5			25.6			75.7	
Approach LOS		D			D			C			E	

Intersection Summary			
HCM Average Control Delay	51.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	122.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	242	81	235	846	85	0	1270	60	0	1929	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1792		1787	3500			3535			3516	
Flt Permitted	0.13	1.00		0.39	1.00			1.00			1.00	
Satd. Flow (perm)	249	1792		740	3500			3535			3516	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	86	252	84	245	881	89	0	1323	62	0	2009	167
RTOR Reduction (vph)	0	3	0	0	9	0	0	4	0	0	7	0
Lane Group Flow (vph)	86	333	0	245	961	0	0	1381	0	0	2169	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	30.2	30.2		30.2	30.2			50.2			50.2	
Effective Green, g (s)	30.2	30.2		30.2	30.2			50.2			50.2	
Actuated g/C Ratio	0.34	0.34		0.34	0.34			0.56			0.56	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	84	601		248	1174			1972			1961	
v/s Ratio Prot		0.19			0.27			0.39			c0.62	
v/s Ratio Perm	c0.35			0.33								
v/c Ratio	1.02	0.55		0.99	0.82			0.70			1.11	
Uniform Delay, d1	29.9	24.4		29.7	27.4			14.4			19.9	
Progression Factor	1.00	1.00		1.00	1.00			1.65			1.00	
Incremental Delay, d2	104.9	1.1		53.2	4.6			1.7			56.0	
Delay (s)	134.8	25.5		83.0	32.0			25.5			75.9	
Level of Service	F	C		F	C			C			E	
Approach Delay (s)		47.8			42.2			25.5			75.9	
Approach LOS		D			D			C			E	

Intersection Summary			
HCM Average Control Delay	52.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	122.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Technical Appendix

Transportation Study for the University of San Francisco Institutional Master Plan

March 2012

SF11-0547

FEHR & PEERS

APPENDIX A: GENERAL PLAN STREET DESIGNATIONS

Roadway Classifications

The San Francisco Planning Department has developed a street hierarchy system for the City and County of San Francisco, in which the function and design of each street are consistent with the character and use of adjacent land. The major classifications in the Vehicle Circulation Plan of the San Francisco *General Plan* are:

- **Freeways:** Limited access, very high capacity facilities; primary function is to carry intercity traffic; they may, as a result of route location, also serve the secondary function of providing for travel between distant sections in the city.
- **Major Arterials:** Cross-town thoroughfares whose primary function is to link districts within the city and to distribute traffic from and to the freeways; these are routes generally of citywide significance; of varying capacity depending on the travel demand for the specific direction and adjacent land uses.
- **Transit Conflict Streets:** Streets with a primary transit function which are not classified as major arterials but experience significant conflicts with automobile traffic.
- **Secondary Arterials:** Primarily intra-district routes of varying capacity serving as collectors for the major thoroughfares; in some cases supplemental to the major arterial system.
- **Recreational Streets:** A special category of street whose major function is to provide for slow pleasure drives and cyclist and pedestrian use; more highly valued for recreational use than for traffic movement. The order of priority for these streets should be to accommodate: 1) pedestrians, hiking trails or wilderness routes, as appropriate; 2) cyclists; 3) equestrians; 4) automobile scenic driving. This should be slow and consistent with the topography and nature of the area.
- **Collector Streets:** Relatively low-capacity streets serving local distribution functions primarily in large, low-density areas, connecting to major and secondary arterials.
- **Local Streets:** All other streets intended for access to abutting residential and other land uses, rather than for through traffic; generally of lowest capacity.

In addition to the San Francisco Planning Department's roadway classifications, the freeways, major arterials, and transit conflict streets are included in the Congestion Management Program (CMP) Network and Metropolitan Transportation System (MTS) Network (see below).

Transit Preferential Streets

The Transit Preferential Street network classification system takes into consideration all transportation functions, and identifies the major transit routes where general traffic should be routed away from. There are two classifications of transit preferential streets: Primary Transit Streets, which are either transit-oriented or transit-important; and Secondary Transit Streets.

- **Primary Transit Street – Transit-Oriented:** Not major arterials, with either high transit ridership, a high frequency of service, or surface rail. Along these streets, the emphasis should be on moving transit vehicles, and impacts on automobile traffic should be of secondary concern.

- **Primary Transit Street – Transit-Important:** Major arterials, with either high transit ridership, high frequency of service, or surface rail. Along these streets, the goal is to improve the balance between modes of transportation, and the emphasis should be on moving people and goods, rather than on moving vehicles.
- **Secondary Transit Street:** Medium transit ridership and low-to-medium frequency of service, or medium frequency of service and low-to-medium transit ridership, or connects two or more major destinations.

In general, it is City policy that transit preferential treatments should be concentrated on the most important transit streets, and the treatments applied should respond to all transportation needs of the street. For example, on streets that are major arterials for transit and not for automobile traffic, treatments should emphasize transit priority; on streets that are major arterials for both transit and automobiles, treatments should emphasize a balance between the modes. It is also City policy that automobile facility features (such as driveways and loading docks) should be reduced, relocated or prohibited on transit preferential streets in order to avoid traffic conflicts and automobile congestion.

Citywide Pedestrian Network

The Citywide Pedestrian Network is a classification of streets throughout the City used to identify streets devoted to or primarily oriented to pedestrian use. The main classifications are:

- **Citywide Pedestrian Network Street:** An inter-neighborhood connection with "citywide significance" includes both exclusive pedestrian and pedestrian-oriented vehicular streets. These streets include the Bay, Ridge, and Coast trails, are used by commuters, tourists, general public and recreaters, and connect major institutions with transit facilities.
- **Neighborhood Network Street:** A neighborhood commercial, residential or transit street that serves pedestrians from the general vicinity. Some streets may be part of the Citywide network, but are generally oriented towards neighborhood-serving uses. Types include exclusive pedestrian and pedestrian-oriented vehicular streets. As part of the Neighborhood Network Street network, streets are classified as **Neighborhood Commercial Streets**, which are streets that are predominately commercial use with parking and loading conflicts, or **Neighborhood Network Connection Streets**, which are intra-neighborhood connection streets that connect neighborhood destinations.

In general, it is City policy that sufficient pedestrian movement space should be provided to minimize pedestrian congestion, sidewalks should be widened where intensive commercial, recreational or institutional activity is present, and efforts should be made to ensure convenient and safe pedestrian crossings at intersections.

Congestion Management Program (CMP) Network

The CMP Network is the network of freeways, state highways, major arterials and transit conflict streets (see Roadway Classifications, above) established in accordance with state Congestion Management legislation. As part of the CMP, the San Francisco County Transportation Authority is required to determine the level of service (LOS) for the CMP Network streets every two years. The LOS is based on the average travel speed for each

- **Primary Transit Street – Transit-Important:** Major arterials, with either high transit ridership, high frequency of service, or surface rail. Along these streets, the goal is to improve the balance between modes of transportation, and the emphasis should be on moving people and goods, rather than on moving vehicles.
- **Secondary Transit Street:** Medium transit ridership and low-to-medium frequency of service, or medium frequency of service and low-to-medium transit ridership, or connects two or more major destinations.

In general, it is City policy that transit preferential treatments should be concentrated on the most important transit streets, and the treatments applied should respond to all transportation needs of the street. For example, on streets that are major arterials for transit and not for automobile traffic, treatments should emphasize transit priority; on streets that are major arterials for both transit and automobiles, treatments should emphasize a balance between the modes. It is also City policy that automobile facility features (such as driveways and loading docks) should be reduced, relocated or prohibited on transit preferential streets in order to avoid traffic conflicts and automobile congestion.

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In general, it is City policy that sufficient pedestrian movement space should be provided to minimize pedestrian congestion, sidewalks should be widened where intensive commercial, recreational or institutional activity is present, and efforts should be made to ensure convenient and safe pedestrian crossings at intersections.

Congestion Management Program (CMP) Network

The CMP Network is the network of freeways, state highways, major arterials and transit conflict streets (see Roadway Classifications, above) established in accordance with state Congestion Management legislation. As part of the CMP, the San Francisco County Transportation Authority is required to determine the level of service (LOS) for the CMP Network streets every two years. The LOS is based on the average travel speed for each

roadway segment during both the AM and PM peak periods. The level of service standard is LOS E, except for roadway segments that operated at LOS F in 1991 (when the first study was performed). The CMP requires development of "Deficiency Plans" for any CMP-designated roadway that operate at LOS F. These plans include an analysis of the causes of the deficiency, a list of improvements that would have to be made to prevent the deficiency from occurring (including cost estimates), a list of improvements proposed as part of the plan, and an action plan for implementation of the improvements (including an implementation schedule).

Metropolitan Transportation System (MTS) Network

The MTS Network is defined by Metropolitan Transportation Commission (MTC) as part of its Regional Transportation Plan. The MTS is a regional network of roadways, transit corridors and transfer points, identified by the MTC on the basis of specific criteria. The criteria identified facilities that provide relief to congested corridors, improve connectivity, accommodate travel demand and serve a regional transportation function. The State highways and major thoroughfares designated in San Francisco's CMP roadway network are all included in the regional MTS network. There are a few instances in which the local CMP network is not identical to the MTS network due to differences in the criteria used to define each network.

APPENDIX B: LOS DEFINITIONS

TABLE B1
SIGNALIZED INTERSECTION LEVEL OF SERVICE THRESHOLDS

LOS	Average Control Delay (seconds/vehicle)	Description
A	< 10.0	Operations with very slight delay, with no approach phase fully utilized.
B	10.1 – 20.0	Operations with slight delay and an occasional approach phase are fully utilized.
C	20.1 - 35.0	Operations with average delay. Individual cycle failures begin to appear.
D	35.1 – 55.0	Operations with tolerable delay. Many vehicles stop and individual cycle failures are noticeable.
E	55.1 - 80.0	Operations with high delay, up to several signal cycles. Long queues form upstream of intersection.
F	> 80.0	Operation with excessive and unacceptable delays. Volumes vary widely depending on downstream queue conditions.

Source: Transportation Research Board, *Highway Capacity Manual*, Special Report 209, 2000.

TABLE B2
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE THRESHOLDS

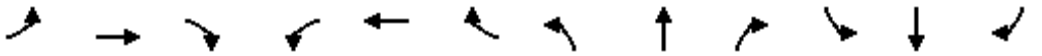
Level of Service	Unsignalized Intersection Control Delay (sec/veh)[1]	General Description
A	0 – 10.0	Little to no congestion or delays.
B	10.1 – 15.0	Limited congestion. Short delays.
C	15.1 – 25.0	Some congestion with average delays.
D	25.1 – 35.0	Significant congestion and delays.
E	35.1 – 50.0	Severe congestion and delays.
F	> 50.0	Total breakdown with extreme delays.

Notes:

1. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and acceleration delay.

Source: *Highway Capacity Manual*, Chapter 16 (Signalized Intersections) and Chapter 17 (Unsignalized Intersections), Transportation Research Board, 2000.

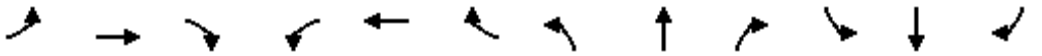
APPENDIX C: INTERSECTION LOS CALCULATIONS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2022	52	0	970	74	30	357	79	109	252	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99		1.00	1.00	0.77	1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4909			4837		1719	1810	1186	1719	1810	1439
Flt Permitted		1.00			1.00		0.51	1.00	1.00	0.36	1.00	1.00
Satd. Flow (perm)		4909			4837		915	1810	1186	650	1810	1439
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	2085	54	0	1000	76	31	368	81	112	260	45
RTOR Reduction (vph)	0	3	0	0	9	0	0	0	3	0	0	30
Lane Group Flow (vph)	0	2136	0	0	1067	0	31	368	78	112	260	15
Confl. Peds. (#/hr)			74			61			221			35
Confl. Bikes (#/hr)			2			8			34			32
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			2			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2722			2682		298	589	386	212	589	468
v/s Ratio Prot		c0.44			0.22			c0.20			0.14	
v/s Ratio Perm							0.03		0.07	0.17		0.01
v/c Ratio		0.78			0.40		0.10	0.62	0.20	0.53	0.44	0.03
Uniform Delay, d1		15.8			11.5		21.2	25.7	21.9	24.7	23.9	20.7
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		2.4			0.4		0.7	4.9	1.2	9.1	2.4	0.1
Delay (s)		18.2			11.9		21.9	30.6	23.1	33.8	26.3	20.8
Level of Service		B			B		C	C	C	C	C	C
Approach Delay (s)		18.2			11.9			28.8			27.7	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		

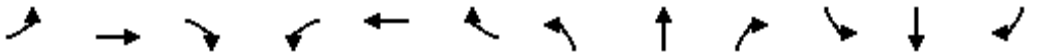
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	463	23	66	262	60	17	439	117	78	242	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00		1.00	0.99		1.00	1.00	0.88	1.00	1.00	0.95
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3455		1752	3376		1752	1845	1372	1752	1845	1484
Flt Permitted		0.90		0.39	1.00		0.56	1.00	1.00	0.34	1.00	1.00
Satd. Flow (perm)		3127		715	3376		1039	1845	1372	626	1845	1484
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	46	509	25	73	288	66	19	482	129	86	266	15
RTOR Reduction (vph)	0	5	0	0	33	0	0	0	73	0	0	9
Lane Group Flow (vph)	0	575	0	73	321	0	19	482	56	86	266	7
Confl. Peds. (#/hr)			58			24			64			32
Confl. Bikes (#/hr)			4			1			41			40
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1303		298	1407		450	800	595	271	800	643
v/s Ratio Prot					0.10			c0.26			0.14	
v/s Ratio Perm		c0.18		0.10			0.02		0.04	0.14		0.00
v/c Ratio		0.44		0.24	0.23		0.04	0.60	0.09	0.32	0.33	0.01
Uniform Delay, d1		12.5		11.4	11.3		9.8	13.0	10.0	11.2	11.3	9.7
Progression Factor		1.00		0.93	0.87		1.14	0.92	1.47	1.00	1.00	1.00
Incremental Delay, d2		1.1		1.8	0.4		0.1	2.8	0.3	3.1	1.1	0.0
Delay (s)		13.6		12.4	10.2		11.3	14.8	15.0	14.2	12.4	9.7
Level of Service		B		B	B		B	B	B	B	B	A
Approach Delay (s)		13.6			10.6			14.7			12.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		

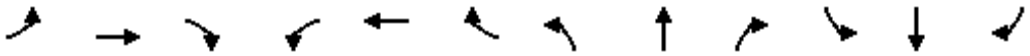
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	1031	10	5	669	82	10	352	37	150	140	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99			0.99		1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.98			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3520			3462			1825		1770	1863	1495
Flt Permitted		0.81			0.95			0.99		0.41	1.00	1.00
Satd. Flow (perm)		2860			3282			1814		760	1863	1495
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	92	1063	10	5	690	85	10	363	38	155	144	66
RTOR Reduction (vph)	0	1	0	0	16	0	0	6	0	0	0	43
Lane Group Flow (vph)	0	1164	0	0	765	0	0	405	0	155	144	23
Confl. Peds. (#/hr)			18			29			50			28
Confl. Bikes (#/hr)			1						32			33
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		29.0			29.0			21.0		21.0	21.0	21.0
Effective Green, g (s)		29.0			29.0			21.0		21.0	21.0	21.0
Actuated g/C Ratio		0.48			0.48			0.35		0.35	0.35	0.35
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1382			1586			635		266	652	523
v/s Ratio Prot											0.08	
v/s Ratio Perm		c0.41			0.23			c0.22		0.20		0.02
v/c Ratio		0.84			0.48			0.64		0.58	0.22	0.04
Uniform Delay, d1		13.5			10.4			16.3		15.9	13.7	12.9
Progression Factor		1.00			1.00			1.00		1.21	1.19	2.26
Incremental Delay, d2		6.4			1.1			4.9		8.7	0.8	0.2
Delay (s)		19.9			11.5			21.2		27.9	17.1	29.2
Level of Service		B			B			C		C	B	C
Approach Delay (s)		19.9			11.5			21.2			23.9	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	111.4%	ICU Level of Service	H
Analysis Period (min)	15		

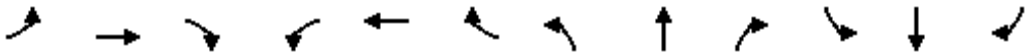
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	389	37	57	353	36	34	327	70	46	271	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.98		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1839	1445		3423			1783		1752	1820	
Flt Permitted		0.96	1.00		0.86			0.95		0.39	1.00	
Satd. Flow (perm)		1774	1445		2952			1705		719	1820	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	26	432	41	63	392	40	38	363	78	51	301	23
RTOR Reduction (vph)	0	0	22	0	11	0	0	12	0	0	4	0
Lane Group Flow (vph)	0	458	19	0	484	0	0	467	0	51	320	0
Confl. Peds. (#/hr)			53			41			19			31
Confl. Bikes (#/hr)			4			1			3			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		828	674		1378			654		276	698	
v/s Ratio Prot											0.18	
v/s Ratio Perm		c0.26	0.01		0.16			c0.27		0.07		
v/c Ratio		0.55	0.03		0.35			0.71		0.18	0.46	
Uniform Delay, d1		11.5	8.6		10.2			15.7		12.3	13.8	
Progression Factor		0.66	0.30		1.71			1.00		1.00	1.00	
Incremental Delay, d2		2.5	0.1		0.6			6.6		1.5	2.2	
Delay (s)		10.1	2.7		18.1			22.3		13.8	16.0	
Level of Service		B	A		B			C		B	B	
Approach Delay (s)		9.5			18.1			22.3			15.7	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	104.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

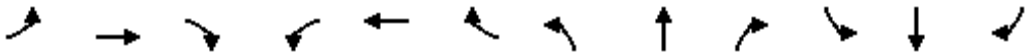


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	567	600	0	293	20	457	398	55	38	310	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.98			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1845	1452		3453		1752	1793			3469	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.54	
Satd. Flow (perm)		1845	1452		3453		1752	1793			1899	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	591	625	0	305	21	476	415	57	40	323	8
RTOR Reduction (vph)	0	0	444	0	6	0	0	6	0	0	2	0
Lane Group Flow (vph)	0	591	181	0	320	0	476	466	0	0	369	0
Confl. Peds. (#/hr)			60			45			37			39
Confl. Bikes (#/hr)			1			1			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Effective Green, g (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Actuated g/C Ratio		0.38	0.29		0.38		0.29	0.29			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		697	419		1304		506	518			359	
v/s Ratio Prot		c0.32			0.09		c0.27	0.26				
v/s Ratio Perm			0.12								c0.19	
v/c Ratio		0.85	0.43		0.25		0.94	0.90			1.03	
Uniform Delay, d1		25.6	26.0		19.2		31.2	30.8			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		12.2	3.2		0.4		27.7	21.3			55.1	
Delay (s)		37.9	29.2		19.7		58.9	52.0			91.6	
Level of Service		D	C		B		E	D			F	
Approach Delay (s)		33.4			19.7			55.5			91.6	
Approach LOS		C			B			E			F	

Intersection Summary			
HCM Average Control Delay	46.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	2149	36	1239	2	773	19	290	677	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		1.00		1.00	0.99	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		1.00		1.00	0.98	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3512		1770	3430	
Flt Permitted	1.00		1.00		1.00		0.34	1.00	
Satd. Flow (perm)	3610		5084		3512		640	3430	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2215	37	1277	2	797	20	299	698	109
RTOR Reduction (vph)	1	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	2251	0	1279	0	817	0	299	793	0
Confl. Peds. (#/hr)		38				68			82
Confl. Bikes (#/hr)		90				2			4
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	46.0		46.0		21.0		12.0	33.0	
Effective Green, g (s)	46.0		46.0		21.0		12.0	33.0	
Actuated g/C Ratio	0.51		0.51		0.23		0.13	0.37	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1845		2598		819		85	1258	
v/s Ratio Prot	c0.62				c0.23			0.23	
v/s Ratio Perm			0.25				c0.47		
v/c Ratio	1.22		0.49		1.00		3.52	0.63	
Uniform Delay, d1	22.0		14.4		34.5		39.0	23.5	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	104.1		0.7		30.6		1161.8	0.8	
Delay (s)	126.1		15.0		65.1		1200.8	24.2	
Level of Service	F		B		E		F	C	
Approach Delay (s)			15.0		65.1			342.3	
Approach LOS			B		E			F	

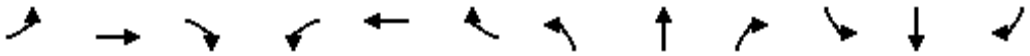
Intersection Summary			
HCM Average Control Delay	134.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.49		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	103.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2112	31	0	953	41	41	155	44	82	127	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.98			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		4925			4895			1737			1744	
Flt Permitted		1.00			1.00			0.92			0.77	
Satd. Flow (perm)		4925			4895			1607			1361	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	2200	32	0	993	43	43	161	46	85	132	28
RTOR Reduction (vph)	0	2	0	0	5	0	0	3	0	0	5	0
Lane Group Flow (vph)	0	2230	0	0	1031	0	0	247	0	0	240	0
Confl. Peds. (#/hr)			28			36			28			23
Confl. Bikes (#/hr)			4			1			2			3
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2900			2883			500			423	
v/s Ratio Prot		c0.45			0.21							
v/s Ratio Perm								0.15			c0.18	
v/c Ratio		0.77			0.36			0.49			0.57	
Uniform Delay, d1		13.9			9.6			25.2			25.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.0			0.3			0.3			1.0	
Delay (s)		15.9			10.0			25.5			27.0	
Level of Service		B			A			C			C	
Approach Delay (s)		15.9			10.0			25.5			27.0	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM Average Control Delay	15.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	D
Analysis Period (min)	15		

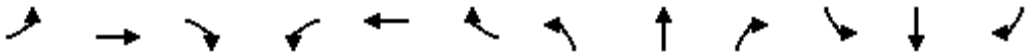
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	488	94	52	429	68	35	148	28	46	129	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.95		0.99			0.99			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.98			0.98			0.98	
Flt Protected		0.99	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1817	1477		3370			1770			1756	
Flt Permitted		0.89	1.00		0.80			0.92			0.89	
Satd. Flow (perm)		1628	1477		2696			1646			1579	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	64	548	106	58	482	76	39	166	31	52	145	36
RTOR Reduction (vph)	0	0	52	0	18	0	0	9	0	0	11	0
Lane Group Flow (vph)	0	612	54	0	598	0	0	227	0	0	222	0
Confl. Peds. (#/hr)			21			29			16			47
Confl. Bikes (#/hr)			9			1			1			
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		760	689		1258			631			605	
v/s Ratio Prot												
v/s Ratio Perm		c0.38	0.04		0.22			0.14			c0.14	
v/c Ratio		0.81	0.08		0.48			0.36			0.37	
Uniform Delay, d1		13.7	8.9		11.0			13.2			13.3	
Progression Factor		0.70	0.30		1.00			1.00			1.00	
Incremental Delay, d2		8.3	0.2		1.3			0.4			0.4	
Delay (s)		17.8	2.8		12.3			13.6			13.7	
Level of Service		B	A		B			B			B	
Approach Delay (s)		15.6			12.3			13.6			13.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	82.2%	ICU Level of Service	E
Analysis Period (min)	15		

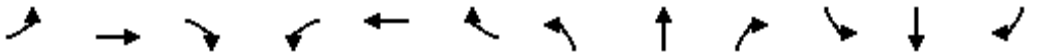
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	38	0	67	1	161	127	124	160	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	0	48	0	84	1	201	159	155	200	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	131	361	355
Volume Left (vph)	0	48	1	155
Volume Right (vph)	0	84	159	0
Hadj (s)	0.00	-0.28	-0.23	0.12
Departure Headway (s)	5.8	5.3	4.5	4.8
Degree Utilization, x	0.00	0.19	0.45	0.47
Capacity (veh/h)	527	609	779	724
Control Delay (s)	8.8	9.5	11.1	12.1
Approach Delay (s)	0.0	9.5	11.1	12.1
Approach LOS	A	A	B	B

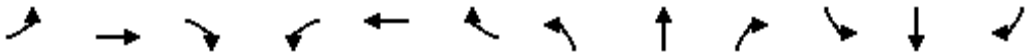
Intersection Summary				
Delay	11.2			
HCM Level of Service	B			
Intersection Capacity Utilization	56.4%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	187	196	1	153	71	18	76	1327	438	1	750	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.91	1.00	0.97			1.00	0.77
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1719	1808		3335	1810	1395	1719	3198			3438	1178
Flt Permitted	0.36	1.00		0.36	1.00	1.00	0.95	1.00			0.86	1.00
Satd. Flow (perm)	658	1808		1277	1810	1395	1719	3198			2971	1178
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	199	209	1	163	76	19	81	1412	466	1	798	156
RTOR Reduction (vph)	0	0	0	0	0	14	0	36	0	0	0	99
Lane Group Flow (vph)	199	210	0	163	76	5	81	1842	0	0	799	57
Confl. Peds. (#/hr)			63			72			84			53
Confl. Bikes (#/hr)			1			2			2			2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	custom			custom		Perm	Prot			Perm		Perm
Protected Phases		2			6		3	8			4	
Permitted Phases	5			1		6				4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.29	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	80	520		156	521	401	57	1350			1089	432
v/s Ratio Prot		c0.12			0.04		0.05	c0.58				
v/s Ratio Perm	c0.30			0.13		0.00					0.27	0.05
v/c Ratio	2.49	0.40		1.04	0.15	0.01	1.42	1.36			0.73	0.13
Uniform Delay, d1	39.5	25.8		39.5	23.8	22.9	43.5	26.0			24.7	19.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	705.1	2.3		84.4	0.6	0.1	265.5	168.9			2.6	0.1
Delay (s)	744.6	28.2		123.9	24.4	23.0	309.0	194.9			27.3	19.1
Level of Service	F	C		F	C	C	F	F			C	B
Approach Delay (s)		376.7			87.2			199.6			26.0	
Approach LOS		F			F			F			C	

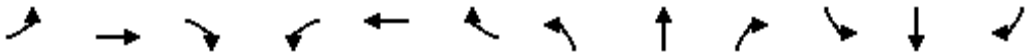
Intersection Summary			
HCM Average Control Delay	165.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	110.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



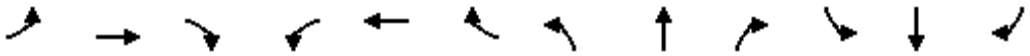
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	407	48	93	503	89	0	1710	98	0	815	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.91			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.98			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1826		1770	3421			5020			3458	
Flt Permitted	0.27	1.00		0.15	1.00			1.00			1.00	
Satd. Flow (perm)	495	1826		282	3421			5020			3458	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	115	438	52	100	541	96	0	1839	105	0	876	118
RTOR Reduction (vph)	0	5	0	0	8	0	0	7	0	0	12	0
Lane Group Flow (vph)	115	485	0	100	629	0	0	1937	0	0	982	0
Confl. Peds. (#/hr)			24			61			78			61
Confl. Bikes (#/hr)			2			2			5			5
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Effective Green, g (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.59			0.59	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	150	552		85	1034			2967			2044	
v/s Ratio Prot		0.27			0.18			c0.39			0.28	
v/s Ratio Perm	0.23			c0.35								
v/c Ratio	0.77	0.88		1.18	0.61			0.65			0.48	
Uniform Delay, d1	28.5	29.8		31.4	26.8			12.3			10.5	
Progression Factor	1.00	1.00		1.00	1.00			0.30			1.00	
Incremental Delay, d2	20.6	14.7		152.8	1.0			0.9			0.8	
Delay (s)	49.1	44.6		184.2	27.9			4.6			11.3	
Level of Service	D	D		F	C			A			B	
Approach Delay (s)		45.4			49.1			4.6			11.3	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM Average Control Delay	19.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	152	32	42	86	87	0	1700	97	0	887	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.91			0.95	
Frpb, ped/bikes		1.00	0.93		0.96			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.95			0.99			0.99	
Flt Protected		1.00	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1856	1467		1674			5023			3488	
Flt Permitted		0.98	1.00		0.90			1.00			1.00	
Satd. Flow (perm)		1818	1467		1526			5023			3488	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	165	35	46	93	95	0	1848	105	0	964	74
RTOR Reduction (vph)	0	0	27	0	15	0	0	7	0	0	6	0
Lane Group Flow (vph)	0	177	8	0	219	0	0	1946	0	0	1032	0
Confl. Peds. (#/hr)			37			65			76			40
Confl. Bikes (#/hr)			14			2			3			5
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		408	329		343			3377			2345	
v/s Ratio Prot								c0.39			0.30	
v/s Ratio Perm		0.10	0.01		c0.14							
v/c Ratio		0.43	0.02		0.64			0.58			0.44	
Uniform Delay, d1		30.0	27.2		31.6			7.9			6.9	
Progression Factor		1.00	1.00		1.00			0.25			0.52	
Incremental Delay, d2		0.7	0.0		3.9			0.5			0.5	
Delay (s)		30.7	27.2		35.5			2.5			4.1	
Level of Service		C	C		D			A			A	
Approach Delay (s)		30.2			35.5			2.5			4.1	
Approach LOS		C			D			A			A	

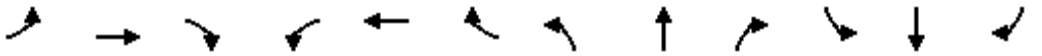
Intersection Summary			
HCM Average Control Delay	6.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	407	25	18	215	33	0	1741	48	0	870	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.91			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			1.00			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3420			3389			4980			3412	
Flt Permitted		0.79			0.90			1.00			1.00	
Satd. Flow (perm)		2724			3060			4980			3412	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	122	433	27	19	229	35	0	1852	51	0	926	88
RTOR Reduction (vph)	0	4	0	0	5	0	0	3	0	0	8	0
Lane Group Flow (vph)	0	578	0	0	278	0	0	1900	0	0	1006	0
Confl. Peds. (#/hr)			101			61			143			81
Confl. Bikes (#/hr)			7						4			5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.2			28.2			52.7			52.7	
Effective Green, g (s)		28.2			28.2			52.7			52.7	
Actuated g/C Ratio		0.31			0.31			0.59			0.59	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		854			959			2916			1998	
v/s Ratio Prot								c0.38			0.29	
v/s Ratio Perm		c0.21			0.09							
v/c Ratio		0.68			0.29			0.65			0.50	
Uniform Delay, d1		26.9			23.3			12.5			11.0	
Progression Factor		1.00			1.00			1.00			0.76	
Incremental Delay, d2		4.3			0.8			1.1			0.8	
Delay (s)		31.2			24.1			13.6			9.2	
Level of Service		C			C			B			A	
Approach Delay (s)		31.2			24.1			13.6			9.2	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	144	1265	225	59	1507	0	0	483	399
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	4.6
Lane Util. Factor				1.00	0.86			0.91			0.86	0.86
Frpb, ped/bikes				1.00	0.99			1.00			0.99	0.96
Flpb, ped/bikes				1.00	1.00			1.00			1.00	1.00
Frt				1.00	0.98			1.00			0.96	0.85
Flt Protected				0.95	1.00			1.00			1.00	1.00
Satd. Flow (prot)				1752	6166			5026			4497	1290
Flt Permitted				0.95	1.00			0.87			1.00	1.00
Satd. Flow (perm)				1752	6166			4361			4497	1290
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	152	1332	237	62	1586	0	0	508	420
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	5	5
Lane Group Flow (vph)	0	0	0	152	1563	0	0	1648	0	0	709	209
Confl. Peds. (#/hr)			406			24			51			29
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Prot			Perm					Perm
Protected Phases				1	6			8			4	
Permitted Phases							8					4
Actuated Green, G (s)				35.7	35.7			44.4			44.4	44.4
Effective Green, g (s)				35.7	35.7			44.4			44.4	44.4
Actuated g/C Ratio				0.40	0.40			0.49			0.49	0.49
Clearance Time (s)				5.3	5.3			4.6			4.6	4.6
Vehicle Extension (s)				0.2	0.2			0.2			0.2	0.2
Lane Grp Cap (vph)				695	2446			2151			2219	636
v/s Ratio Prot				0.09	c0.25						0.16	
v/s Ratio Perm								c0.38				0.16
v/c Ratio				0.22	0.64			0.77			0.32	0.33
Uniform Delay, d1				17.9	21.9			18.6			13.7	13.8
Progression Factor				1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2				0.7	1.3			2.7			0.4	1.4
Delay (s)				18.7	23.2			21.2			14.1	15.2
Level of Service				B	C			C			B	B
Approach Delay (s)		0.0			22.8			21.2			14.3	
Approach LOS		A			C			C			B	

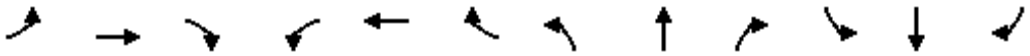
Intersection Summary			
HCM Average Control Delay	20.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	85.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	582	9	13	533	11	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.90	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1822			3467	1524	
Flt Permitted	1.00			0.94	0.97	
Satd. Flow (perm)	1822			3263	1524	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	661	10	15	606	12	6
RTOR Reduction (vph)	0	0	0	0	6	0
Lane Group Flow (vph)	671	0	0	621	12	0
Confl. Peds. (#/hr)		29				37
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1427			2556	102	
v/s Ratio Prot	c0.37				c0.01	
v/s Ratio Perm				0.19		
v/c Ratio	0.47			0.24	0.12	
Uniform Delay, d1	2.2			1.7	26.3	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	1.1			0.2	0.2	
Delay (s)	3.3			2.0	26.5	
Level of Service	A			A	C	
Approach Delay (s)	3.3			2.0	26.5	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	3.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

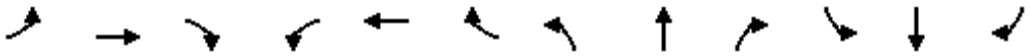
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	550	0	0	586	2	0	0	6	0	0	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	632	0	0	674	2	0	0	7	0	0	3
Pedestrians		26			64			46			97	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		2			5			4			8	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		268			542							
pX, platoon unblocked				0.70			0.70	0.70	0.70	0.70	0.70	
vC, conflicting volume	773			678			1044	1451	742	1475	1450	461
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	773			325			848	1430	416	1464	1428	461
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	98	100	100	99
cM capacity (veh/h)	759			819			150	81	369	48	81	487

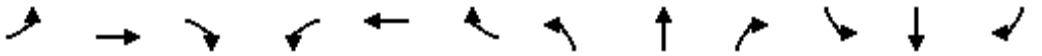
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	632	337	339	7	3
Volume Left	0	0	0	0	0
Volume Right	0	0	2	7	3
cSH	759	819	1700	369	487
Volume to Capacity	0.00	0.00	0.20	0.02	0.01
Queue Length 95th (ft)	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.0	14.9	12.4
Lane LOS				B	B
Approach Delay (s)	0.0	0.0		14.9	12.4
Approach LOS				B	B

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	48.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	546	9	7	550	30	4	2	4	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0				
Lane Util. Factor		1.00			0.95			1.00				
Frt		1.00			0.99			0.95				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		1857			3510			1728				
Flt Permitted		0.99			0.95			0.98				
Satd. Flow (perm)		1835			3329			1728				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	593	10	8	598	33	4	2	4	0	0	0
RTOR Reduction (vph)	0	1	0	0	9	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	613	0	0	630	0	0	8	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		4			8		2	2				
Permitted Phases	4			8								
Actuated Green, G (s)		18.9			18.9			18.1				
Effective Green, g (s)		18.9			18.9			18.1				
Actuated g/C Ratio		0.42			0.42			0.40				
Clearance Time (s)		4.0			4.0			4.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		771			1398			695				
v/s Ratio Prot								c0.00				
v/s Ratio Perm		c0.33			0.19							
v/c Ratio		0.79			0.45			0.01				
Uniform Delay, d1		11.4			9.3			8.1				
Progression Factor		1.00			1.00			1.00				
Incremental Delay, d2		5.7			0.2			0.0				
Delay (s)		17.0			9.6			8.1				
Level of Service		B			A			A				
Approach Delay (s)		17.0			9.6			8.1			0.0	
Approach LOS		B			A			A			A	

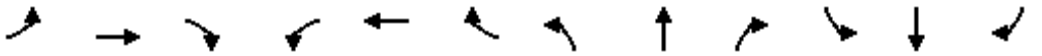
Intersection Summary			
HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1452	72	0	1961	132	49	296	74	115	433	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.98		1.00	1.00	0.78	1.00	1.00	0.88
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4957			4878		1752	1845	1223	1752	1845	1376
Flt Permitted		1.00			1.00		0.26	1.00	1.00	0.44	1.00	1.00
Satd. Flow (perm)		4957			4878		477	1845	1223	818	1845	1376
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1497	74	0	2022	136	51	305	76	119	446	77
RTOR Reduction (vph)	0	6	0	0	8	0	0	0	9	0	0	2
Lane Group Flow (vph)	0	1565	0	0	2150	0	51	305	67	119	446	75
Confl. Peds. (#/hr)			143			164			216			93
Confl. Bikes (#/hr)			5			3			24			44
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2748			2705		155	601	398	266	601	448
v/s Ratio Prot		0.32			c0.44			0.17			c0.24	
v/s Ratio Perm							0.11		0.05	0.15		0.05
v/c Ratio		0.57			0.79		0.33	0.51	0.17	0.45	0.74	0.17
Uniform Delay, d1		13.1			16.0		22.9	24.5	21.7	24.0	27.0	21.6
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.9			2.5		5.6	3.0	0.9	5.4	8.1	0.8
Delay (s)		13.9			18.5		28.5	27.6	22.6	29.3	35.0	22.5
Level of Service		B			B		C	C	C	C	D	C
Approach Delay (s)		13.9			18.5			26.8			32.5	
Approach LOS		B			B			C			C	

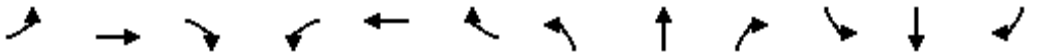
Intersection Summary			
HCM Average Control Delay	19.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	183	37	191	484	87	18	263	36	54	478	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99		1.00	0.99		1.00	1.00	0.89	1.00	1.00	0.93
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3396		1770	3431		1770	1863	1407	1770	1863	1472
Flt Permitted		0.86		0.59	1.00		0.32	1.00	1.00	0.55	1.00	1.00
Satd. Flow (perm)		2933		1096	3431		594	1863	1407	1027	1863	1472
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	33	193	39	201	509	92	19	277	38	57	503	34
RTOR Reduction (vph)	0	23	0	0	25	0	0	0	22	0	0	19
Lane Group Flow (vph)	0	242	0	201	577	0	19	277	16	57	503	15
Confl. Peds. (#/hr)			54			21			59			52
Confl. Bikes (#/hr)			3			7			31			48
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1222		457	1430		257	807	610	445	807	638
v/s Ratio Prot					0.17			0.15			c0.27	
v/s Ratio Perm		0.08		c0.18			0.03		0.01	0.06		0.01
v/c Ratio		0.20		0.44	0.40		0.07	0.34	0.03	0.13	0.62	0.02
Uniform Delay, d1		11.1		12.5	12.3		10.0	11.3	9.7	10.2	13.2	9.7
Progression Factor		1.00		0.27	0.24		1.07	1.02	1.37	1.00	1.00	1.00
Incremental Delay, d2		0.4		2.4	0.7		0.5	1.0	0.1	0.6	3.6	0.1
Delay (s)		11.5		5.8	3.6		11.2	12.6	13.4	10.8	16.8	9.8
Level of Service		B		A	A		B	B	B	B	B	A
Approach Delay (s)		11.5			4.2			12.6			15.8	
Approach LOS		B			A			B			B	

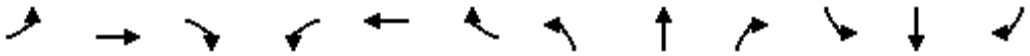
Intersection Summary			
HCM Average Control Delay	10.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	729	22	21	892	88	20	159	21	194	295	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			1.00			0.99		1.00	1.00	0.95
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.99			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3510			3475			1815		1770	1863	1504
Flt Permitted		0.78			0.93			0.95		0.64	1.00	1.00
Satd. Flow (perm)		2753			3228			1737		1191	1863	1504
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	55	776	23	22	949	94	21	169	22	206	314	169
RTOR Reduction (vph)	0	3	0	0	12	0	0	7	0	0	0	35
Lane Group Flow (vph)	0	851	0	0	1053	0	0	205	0	206	314	134
Confl. Peds. (#/hr)			15			21			46			24
Confl. Bikes (#/hr)						1			34			35
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		27.0			27.0			23.0		23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0			23.0		23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45			0.38		0.38	0.38	0.38
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1239			1453			666		457	714	577
v/s Ratio Prot											0.17	
v/s Ratio Perm		0.31			c0.33			0.12		c0.17		0.09
v/c Ratio		0.69			0.72			0.31		0.45	0.44	0.23
Uniform Delay, d1		13.1			13.5			12.9		13.8	13.7	12.5
Progression Factor		1.00			1.00			1.00		0.76	0.75	0.73
Incremental Delay, d2		3.1			3.2			1.2		2.7	1.7	0.8
Delay (s)		16.2			16.6			14.1		13.1	12.0	10.0
Level of Service		B			B			B		B	B	A
Approach Delay (s)		16.2			16.6			14.1			11.8	
Approach LOS		B			B			B			B	

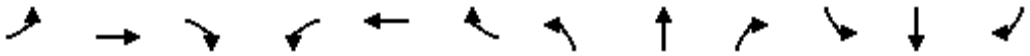
Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	105.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	227	51	90	706	39	36	314	40	39	375	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.91		1.00			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.99		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1858	1434		3486			1817		1770	1839	
Flt Permitted		0.95	1.00		0.88			0.93		0.44	1.00	
Satd. Flow (perm)		1773	1434		3101			1706		820	1839	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	13	241	54	96	751	41	38	334	43	41	399	28
RTOR Reduction (vph)	0	0	29	0	6	0	0	7	0	0	4	0
Lane Group Flow (vph)	0	254	25	0	882	0	0	408	0	41	423	0
Confl. Peds. (#/hr)			68			35			29			42
Confl. Bikes (#/hr)			4			6			2			3
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		827	669		1447			654		314	705	
v/s Ratio Prot											0.23	
v/s Ratio Perm		0.14	0.02		c0.28			c0.24		0.05		
v/c Ratio		0.31	0.04		0.61			0.62		0.13	0.60	
Uniform Delay, d1		10.0	8.7		11.9			15.0		12.0	14.8	
Progression Factor		1.08	1.48		0.26			1.00		1.00	1.00	
Incremental Delay, d2		1.0	0.1		1.5			4.5		0.9	3.7	
Delay (s)		11.7	12.9		4.5			19.5		12.9	18.6	
Level of Service		B	B		A			B		B	B	
Approach Delay (s)		11.9			4.5			19.5			18.1	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	104.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



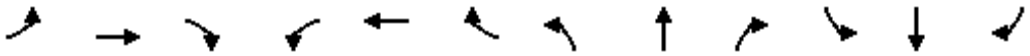
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	374	597	0	461	34	525	402	41	18	488	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.99			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1863	1474		3480		1770	1816			3507	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.64	
Satd. Flow (perm)		1863	1474		3480		1770	1816			2233	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	398	635	0	490	36	559	428	44	19	519	16
RTOR Reduction (vph)	0	0	423	0	6	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	398	212	0	520	0	559	468	0	0	552	0
Confl. Peds. (#/hr)			64			50			68			57
Confl. Bikes (#/hr)			1						3			3
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Effective Green, g (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Actuated g/C Ratio		0.33	0.33		0.33		0.33	0.33			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		621	491		1160		590	605			422	
v/s Ratio Prot		c0.21			0.15		c0.32	0.26				
v/s Ratio Perm			0.14								c0.25	
v/c Ratio		0.64	0.43		0.45		0.95	0.77			1.31	
Uniform Delay, d1		25.4	23.4		23.5		29.2	26.9			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		5.0	2.7		1.3		26.1	9.3			154.4	
Delay (s)		30.5	26.1		24.8		55.4	36.3			190.9	
Level of Service		C	C		C		E	D			F	
Approach Delay (s)		27.8			24.8			46.6			190.9	
Approach LOS		C			C			D			F	

Intersection Summary			
HCM Average Control Delay	62.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	1462	94	2257	5	628	31	273	784	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		0.98		1.00	0.98	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		0.99		1.00	0.96	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3440		1770	3336	
Flt Permitted	1.00		1.00		1.00		0.39	1.00	
Satd. Flow (perm)	3610		5084		3440		728	3336	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1523	98	2351	5	654	32	284	817	265
RTOR Reduction (vph)	7	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	1614	0	2356	0	686	0	284	1081	0
Confl. Peds. (#/hr)		45				186			89
Confl. Bikes (#/hr)		4	94			1			
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	48.0		48.0		19.0		12.0	31.0	
Effective Green, g (s)	48.0		48.0		19.0		12.0	31.0	
Actuated g/C Ratio	0.53		0.53		0.21		0.13	0.34	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1925		2711		726		97	1149	
v/s Ratio Prot	0.45				0.20			c0.32	
v/s Ratio Perm			c0.46				c0.39		
v/c Ratio	0.84		0.87		0.94		2.93	0.94	
Uniform Delay, d1	17.7		18.3		35.0		39.0	28.6	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	4.6		4.1		20.7		894.8	14.4	
Delay (s)	22.3		22.4		55.7		933.8	43.0	
Level of Service	C		C		E		F	D	
Approach Delay (s)			22.4		55.7			228.2	
Approach LOS			C		E			F	

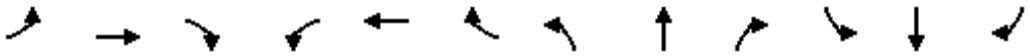
Intersection Summary			
HCM Average Control Delay	72.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	88.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1383	35	0	2003	42	54	104	57	59	233	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.96			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		5007			5015			1742			1781	
Flt Permitted		1.00			1.00			0.79			0.91	
Satd. Flow (perm)		5007			5015			1385			1629	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1456	37	0	2108	44	57	109	60	62	245	57
RTOR Reduction (vph)	0	3	0	0	2	0	0	14	0	0	5	0
Lane Group Flow (vph)	0	1490	0	0	2150	0	0	212	0	0	359	0
Confl. Peds. (#/hr)			43			22			19			20
Confl. Bikes (#/hr)			7			7			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2949			2953			431			507	
v/s Ratio Prot		0.30			c0.43							
v/s Ratio Perm								0.15			c0.22	
v/c Ratio		0.51			0.73			0.49			0.71	
Uniform Delay, d1		10.8			13.3			25.2			27.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			1.6			0.3			3.7	
Delay (s)		11.4			14.9			25.5			31.1	
Level of Service		B			B			C			C	
Approach Delay (s)		11.4			14.9			25.5			31.1	
Approach LOS		B			B			C			C	

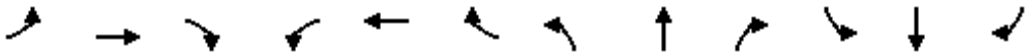
Intersection Summary			
HCM Average Control Delay	15.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	246	87	52	794	78	57	128	34	46	200	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.98			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.99			0.98			0.98	
Flt Protected		1.00	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1855	1454		3460			1770			1781	
Flt Permitted		0.89	1.00		0.92			0.86			0.92	
Satd. Flow (perm)		1653	1454		3191			1539			1649	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	26	270	96	57	873	86	63	141	37	51	220	57
RTOR Reduction (vph)	0	0	51	0	12	0	0	11	0	0	12	0
Lane Group Flow (vph)	0	296	45	0	1004	0	0	230	0	0	316	0
Confl. Peds. (#/hr)			56			60			70			84
Confl. Bikes (#/hr)			4			2			3			2
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		771	679		1489			590			632	
v/s Ratio Prot												
v/s Ratio Perm		0.18	0.03		c0.31			0.15			c0.19	
v/c Ratio		0.38	0.07		0.67			0.39			0.50	
Uniform Delay, d1		10.4	8.8		12.5			13.4			14.1	
Progression Factor		1.25	2.32		1.00			1.00			1.00	
Incremental Delay, d2		1.4	0.2		2.5			0.4			0.6	
Delay (s)		14.4	20.6		14.9			13.8			14.7	
Level of Service		B	C		B			B			B	
Approach Delay (s)		15.9			14.9			13.8			14.7	
Approach LOS		B			B			B			B	

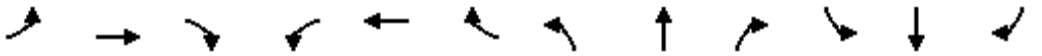
Intersection Summary			
HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	1	0	67	0	69	2	141	79	107	241	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	1	0	76	0	78	2	160	90	122	274	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	155	252	395
Volume Left (vph)	0	76	2	122
Volume Right (vph)	0	78	90	0
Hadj (s)	0.02	-0.19	-0.19	0.08
Departure Headway (s)	5.7	5.2	4.6	4.7
Degree Utilization, x	0.00	0.22	0.32	0.52
Capacity (veh/h)	531	620	746	739
Control Delay (s)	8.7	9.7	9.8	12.6
Approach Delay (s)	8.7	9.7	9.8	12.6
Approach LOS	A	A	A	B

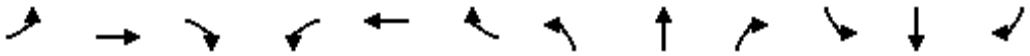
Intersection Summary				
Delay	11.2			
HCM Level of Service	B			
Intersection Capacity Utilization	60.6%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	153	132	1	389	151	25	89	774	209	0	1242	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.69	1.00	0.98			1.00	0.55
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736	1823		3367	1827	1070	1736	3283			3471	848
Flt Permitted	0.36	1.00		0.36	1.00	1.00	1.00	1.00			1.00	1.00
Satd. Flow (perm)	664	1823		1289	1827	1070	1827	3283			3471	848
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	158	136	1	401	156	26	92	798	215	0	1280	241
RTOR Reduction (vph)	0	0	0	0	0	15	0	27	0	0	0	153
Lane Group Flow (vph)	158	137	0	401	156	11	92	986	0	0	1280	88
Confl. Peds. (#/hr)			87			210			64			108
Confl. Bikes (#/hr)			2			8			5			2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	custom			custom		custom	custom			Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases	5			1		8	3			4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.42	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Vehicle Extension (s)	0.2	0.2		0.2	0.2	0.2	0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	81	525		158	526	452	61	1386			1273	311
v/s Ratio Prot		0.08			c0.09			0.30			c0.37	
v/s Ratio Perm	0.24			c0.31		0.01	c0.05					0.10
v/c Ratio	1.95	0.26		2.54	0.30	0.02	1.51	0.71			1.01	0.28
Uniform Delay, d1	39.5	24.7		39.5	25.0	15.2	43.5	21.5			28.5	20.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	469.3	1.2		710.4	1.4	0.0	296.3	1.5			26.6	0.2
Delay (s)	508.8	25.9		749.9	26.4	15.2	339.8	22.9			55.1	20.3
Level of Service	F	C		F	C	B	F	C			E	C
Approach Delay (s)		284.6			523.5			49.3			49.6	
Approach LOS		F			F			D			D	

Intersection Summary			
HCM Average Control Delay	148.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	17.1
Intersection Capacity Utilization	110.4%	ICU Level of Service	H
Analysis Period (min)	15		

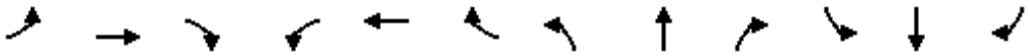
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	198	66	192	693	69	0	1041	50	0	1580	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.91	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1792		1787	3502			3533			5053	
Flt Permitted	0.21	1.00		0.48	1.00			1.00			1.00	
Satd. Flow (perm)	386	1792		904	3502			3533			5053	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	71	206	69	200	722	72	0	1084	52	0	1646	136
RTOR Reduction (vph)	0	7	0	0	8	0	0	4	0	0	10	0
Lane Group Flow (vph)	71	268	0	200	786	0	0	1132	0	0	1772	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.55			0.55	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	134	621		313	1214			1931			2762	
v/s Ratio Prot		0.15			c0.22			0.32			c0.35	
v/s Ratio Perm	0.18			0.22								
v/c Ratio	0.53	0.43		0.64	0.65			0.59			0.64	
Uniform Delay, d1	23.5	22.6		24.7	24.8			13.6			14.2	
Progression Factor	1.00	1.00		1.00	1.00			1.69			1.00	
Incremental Delay, d2	3.7	0.5		4.2	1.2			1.2			1.2	
Delay (s)	27.3	23.1		28.9	26.0			24.2			15.4	
Level of Service	C	C		C	C			C			B	
Approach Delay (s)		23.9			26.6			24.2			15.4	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	105.0%	ICU Level of Service	G
Analysis Period (min)	15		

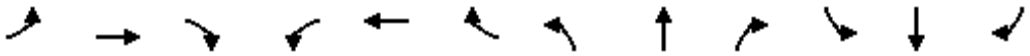
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	123	51	34	69	43	0	1038	46	0	1778	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.91	
Frpb, ped/bikes		1.00	0.90		0.98			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.96			0.99			1.00	
Flt Protected		0.99	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1866	1435		1754			3538			5104	
Flt Permitted		0.94	1.00		0.90			1.00			1.00	
Satd. Flow (perm)		1764	1435		1602			3538			5104	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	24	128	53	35	72	45	0	1081	48	0	1852	53
RTOR Reduction (vph)	0	0	16	0	17	0	0	4	0	0	3	0
Lane Group Flow (vph)	0	152	37	0	135	0	0	1125	0	0	1902	0
Confl. Peds. (#/hr)			64			33			97			64
Confl. Bikes (#/hr)			8			4			3			11
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		396	322		360			2378			3431	
v/s Ratio Prot								0.32			c0.37	
v/s Ratio Perm		c0.09	0.03		0.08							
v/c Ratio		0.38	0.12		0.37			0.47			0.55	
Uniform Delay, d1		29.6	27.8		29.6			7.1			7.7	
Progression Factor		1.00	1.00		1.00			0.77			0.44	
Incremental Delay, d2		0.6	0.2		0.7			0.6			0.5	
Delay (s)		30.2	28.0		30.2			6.1			3.9	
Level of Service		C	C		C			A			A	
Approach Delay (s)		29.6			30.2			6.1			3.9	
Approach LOS		C			C			A			A	

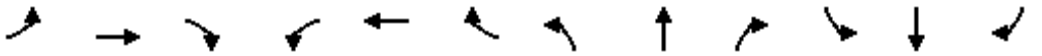
Intersection Summary			
HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	287	43	42	339	52	0	979	61	0	1686	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.91	
Frpb, ped/bikes		0.98			0.97			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.99			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3385			3364			3444			4939	
Flt Permitted		0.75			0.87			1.00			1.00	
Satd. Flow (perm)		2569			2945			3444			4939	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	72	299	45	44	353	54	0	1020	64	0	1756	149
RTOR Reduction (vph)	0	9	0	0	12	0	0	5	0	0	11	0
Lane Group Flow (vph)	0	407	0	0	439	0	0	1079	0	0	1894	0
Confl. Peds. (#/hr)			126			164			168			118
Confl. Bikes (#/hr)			3			2			2			3
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		26.2			26.2			54.7			54.7	
Effective Green, g (s)		26.2			26.2			54.7			54.7	
Actuated g/C Ratio		0.29			0.29			0.61			0.61	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		748			857			2093			3002	
v/s Ratio Prot								0.31			c0.38	
v/s Ratio Perm		c0.16			0.15							
v/c Ratio		0.54			0.51			0.52			0.63	
Uniform Delay, d1		26.9			26.6			10.1			11.2	
Progression Factor		1.00			1.00			1.00			0.42	
Incremental Delay, d2		2.8			2.2			0.9			0.9	
Delay (s)		29.7			28.8			11.0			5.5	
Level of Service		C			C			B			A	
Approach Delay (s)		29.7			28.8			11.0			5.5	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

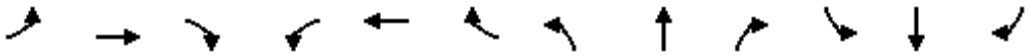


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	216	1929	142	0	898	0	0	936	699
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	4.6
Lane Util. Factor				1.00	0.86			0.91			0.86	0.86
Frpb, ped/bikes				1.00	1.00			1.00			0.98	0.91
Flpb, ped/bikes				1.00	1.00			1.00			1.00	1.00
Frt				1.00	0.99			1.00			0.96	0.85
Flt Protected				0.95	1.00			1.00			1.00	1.00
Satd. Flow (prot)				1770	6323			5085			4509	1237
Flt Permitted				0.95	1.00			1.00			1.00	1.00
Satd. Flow (perm)				1770	6323			5085			4509	1237
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	223	1989	146	0	926	0	0	965	721
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	4	4
Lane Group Flow (vph)	0	0	0	223	2127	0	0	926	0	0	1300	378
Confl. Peds. (#/hr)			418			28			67			75
Confl. Bikes (#/hr)						1			1			
Turn Type				Prot								Perm
Protected Phases				1	6			4			4	
Permitted Phases												4
Actuated Green, G (s)				48.7	48.7			31.4			31.4	31.4
Effective Green, g (s)				48.7	48.7			31.4			31.4	31.4
Actuated g/C Ratio				0.54	0.54			0.35			0.35	0.35
Clearance Time (s)				5.3	5.3			4.6			4.6	4.6
Vehicle Extension (s)				0.2	0.2			0.2			0.2	0.2
Lane Grp Cap (vph)				958	3421			1774			1573	432
v/s Ratio Prot				0.13	c0.34			0.18			0.29	
v/s Ratio Perm												c0.31
v/c Ratio				0.23	0.62			0.52			0.83	0.88
Uniform Delay, d1				10.8	14.3			23.3			26.8	27.5
Progression Factor				1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2				0.6	0.9			1.1			5.1	21.2
Delay (s)				11.4	15.1			24.4			31.9	48.7
Level of Service				B	B			C			C	D
Approach Delay (s)		0.0			14.8			24.4			35.7	
Approach LOS		A			B			C			D	

Intersection Summary			
HCM Average Control Delay	23.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	285	8	11	870	9	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.91	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1854			3537	1570	
Flt Permitted	1.00			0.95	0.97	
Satd. Flow (perm)	1854			3368	1570	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	297	8	11	906	9	5
RTOR Reduction (vph)	1	0	0	0	5	0
Lane Group Flow (vph)	304	0	0	917	9	0
Confl. Peds. (#/hr)		26				30
Confl. Bikes (#/hr)		1				
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1452			2638	105	
v/s Ratio Prot	0.16				c0.01	
v/s Ratio Perm				c0.27		
v/c Ratio	0.21			0.35	0.09	
Uniform Delay, d1	1.7			1.9	26.3	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.3			0.4	0.1	
Delay (s)	2.0			2.3	26.4	
Level of Service	A			A	C	
Approach Delay (s)	2.0			2.3	26.4	
Approach LOS	A			A	C	

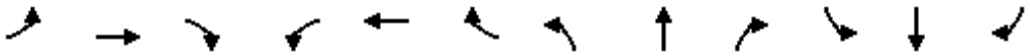
Intersection Summary			
HCM Average Control Delay	2.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	331	0	0	899	1	0	0	4	0	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	356	0	0	967	1	0	0	4	0	0	9
Pedestrians		17			30			32			73	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			3			3			6	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		268			542							
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	1041			388			897	1429	418	1430	1428	574
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1041			202			796	1417	237	1419	1416	574
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	100	100	98
cM capacity (veh/h)	624			1140			209	107	621	71	107	428

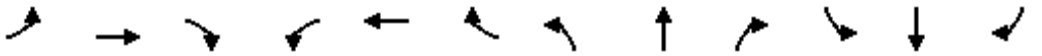
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	356	483	484	4	9
Volume Left	0	0	0	0	0
Volume Right	0	0	1	4	9
cSH	624	1140	1700	621	428
Volume to Capacity	0.00	0.00	0.28	0.01	0.02
Queue Length 95th (ft)	0	0	0	1	2
Control Delay (s)	0.0	0.0	0.0	10.8	13.6
Lane LOS				B	B
Approach Delay (s)	0.0	0.0		10.8	13.6
Approach LOS				B	B

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	41.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	328	7	7	885	15	4	1	3	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0				
Lane Util. Factor		1.00			0.95			1.00				
Frt		1.00			1.00			0.95				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		1856			3529			1725				
Flt Permitted		0.99			0.95			0.98				
Satd. Flow (perm)		1830			3361			1725				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	357	8	8	962	16	4	1	3	0	0	0
RTOR Reduction (vph)	0	2	0	0	3	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	368	0	0	983	0	0	6	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		4			8		2	2				
Permitted Phases	4			8								
Actuated Green, G (s)		15.4			15.4			16.6				
Effective Green, g (s)		15.4			15.4			16.6				
Actuated g/C Ratio		0.39			0.39			0.42				
Clearance Time (s)		4.0			4.0			4.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		705			1294			716				
v/s Ratio Prot								c0.00				
v/s Ratio Perm		0.20			c0.29							
v/c Ratio		0.52			0.76			0.01				
Uniform Delay, d1		9.5			10.7			6.9				
Progression Factor		1.00			1.00			1.00				
Incremental Delay, d2		0.7			2.6			0.0				
Delay (s)		10.2			13.3			6.9				
Level of Service		B			B			A				
Approach Delay (s)		10.2			13.3			6.9			0.0	
Approach LOS		B			B			A			A	

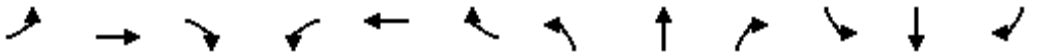
Intersection Summary			
HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2043	49	0	983	75	30	362	80	108	251	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99		1.00	1.00	0.77	1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4911			4837		1719	1810	1186	1719	1810	1439
Flt Permitted		1.00			1.00		0.51	1.00	1.00	0.35	1.00	1.00
Satd. Flow (perm)		4911			4837		917	1810	1186	638	1810	1439
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	2106	51	0	1013	77	31	373	82	111	259	46
RTOR Reduction (vph)	0	3	0	0	9	0	0	0	3	0	0	31
Lane Group Flow (vph)	0	2154	0	0	1081	0	31	373	79	111	259	15
Confl. Peds. (#/hr)			74			61			221			35
Confl. Bikes (#/hr)			2			8			34			32
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			2			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2723			2682		299	589	386	208	589	468
v/s Ratio Prot		c0.44			0.22			c0.21			0.14	
v/s Ratio Perm							0.03		0.07	0.17		0.01
v/c Ratio		0.79			0.40		0.10	0.63	0.21	0.53	0.44	0.03
Uniform Delay, d1		15.9			11.5		21.2	25.8	21.9	24.8	23.9	20.7
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		2.4			0.5		0.7	5.1	1.2	9.5	2.4	0.1
Delay (s)		18.4			12.0		21.9	30.9	23.1	34.2	26.3	20.8
Level of Service		B			B		C	C	C	C	C	C
Approach Delay (s)		18.4			12.0			29.0			27.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		

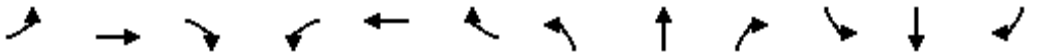
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	469	23	67	265	61	17	445	116	71	245	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00		1.00	0.99		1.00	1.00	0.88	1.00	1.00	0.95
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3455		1752	3375		1752	1845	1372	1752	1845	1484
Flt Permitted		0.90		0.38	1.00		0.56	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)		3123		707	3375		1033	1845	1372	613	1845	1484
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	47	515	25	74	291	67	19	489	127	78	269	15
RTOR Reduction (vph)	0	5	0	0	33	0	0	0	72	0	0	9
Lane Group Flow (vph)	0	582	0	74	325	0	19	489	55	78	269	7
Confl. Peds. (#/hr)			58			24			64			32
Confl. Bikes (#/hr)			4			1			41			40
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1301		295	1406		448	800	595	266	800	643
v/s Ratio Prot					0.10			c0.27			0.15	
v/s Ratio Perm		c0.19		0.10			0.02		0.04	0.13		0.00
v/c Ratio		0.45		0.25	0.23		0.04	0.61	0.09	0.29	0.34	0.01
Uniform Delay, d1		12.5		11.4	11.3		9.8	13.1	10.0	11.0	11.3	9.7
Progression Factor		1.00		0.90	0.84		1.15	0.92	1.50	1.00	1.00	1.00
Incremental Delay, d2		1.1		1.9	0.4		0.1	2.9	0.3	2.8	1.1	0.0
Delay (s)		13.7		12.1	9.8		11.4	15.0	15.3	13.8	12.4	9.7
Level of Service		B		B	A		B	B	B	B	B	A
Approach Delay (s)		13.7			10.2			14.9			12.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	101.8%	ICU Level of Service	G
Analysis Period (min)	15		

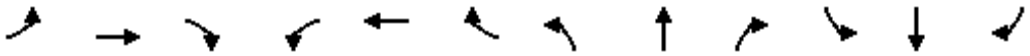
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	88	1037	10	5	678	83	10	357	37	152	142	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99			0.99		1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.98			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3520			3462			1825		1770	1863	1495
Flt Permitted		0.81			0.95			0.99		0.40	1.00	1.00
Satd. Flow (perm)		2858			3282			1815		751	1863	1495
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	91	1069	10	5	699	86	10	368	38	157	146	67
RTOR Reduction (vph)	0	1	0	0	16	0	0	6	0	0	0	44
Lane Group Flow (vph)	0	1169	0	0	775	0	0	410	0	157	146	23
Confl. Peds. (#/hr)			18			29			50			28
Confl. Bikes (#/hr)			1						32			33
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		29.0			29.0			21.0		21.0	21.0	21.0
Effective Green, g (s)		29.0			29.0			21.0		21.0	21.0	21.0
Actuated g/C Ratio		0.48			0.48			0.35		0.35	0.35	0.35
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1381			1586			635		263	652	523
v/s Ratio Prot											0.08	
v/s Ratio Perm		c0.41			0.24			c0.23		0.21		0.02
v/c Ratio		0.85			0.49			0.65		0.60	0.22	0.04
Uniform Delay, d1		13.6			10.5			16.4		16.0	13.8	12.9
Progression Factor		1.00			1.00			1.00		1.20	1.19	2.27
Incremental Delay, d2		6.6			1.1			5.0		9.3	0.8	0.2
Delay (s)		20.1			11.6			21.4		28.5	17.1	29.4
Level of Service		C			B			C		C	B	C
Approach Delay (s)		20.1			11.6			21.4			24.2	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	111.8%	ICU Level of Service	H
Analysis Period (min)	15		

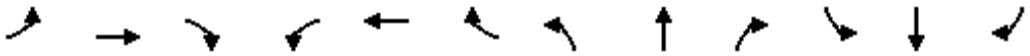
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	386	37	58	358	36	29	331	66	46	274	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.98		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1839	1445		3424			1787		1752	1820	
Flt Permitted		0.96	1.00		0.86			0.96		0.39	1.00	
Satd. Flow (perm)		1772	1445		2952			1723		723	1820	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	26	429	41	64	398	40	32	368	73	51	304	23
RTOR Reduction (vph)	0	0	22	0	11	0	0	11	0	0	4	0
Lane Group Flow (vph)	0	455	19	0	491	0	0	462	0	51	323	0
Confl. Peds. (#/hr)			53			41			19			31
Confl. Bikes (#/hr)			4			1			3			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		827	674		1378			660		277	698	
v/s Ratio Prot											0.18	
v/s Ratio Perm		c0.26	0.01		0.17			c0.27		0.07		
v/c Ratio		0.55	0.03		0.36			0.70		0.18	0.46	
Uniform Delay, d1		11.5	8.6		10.2			15.6		12.3	13.9	
Progression Factor		0.64	0.27		1.61			1.00		1.00	1.00	
Incremental Delay, d2		2.5	0.1		0.7			6.1		1.5	2.2	
Delay (s)		9.8	2.4		17.1			21.7		13.7	16.1	
Level of Service		A	A		B			C		B	B	
Approach Delay (s)		9.2			17.1			21.7			15.7	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

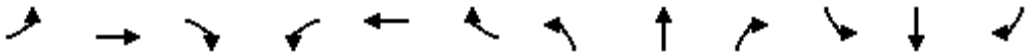


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	567	608	0	297	20	463	393	52	38	313	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.98			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1845	1452		3454		1752	1794			3469	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.54	
Satd. Flow (perm)		1845	1452		3454		1752	1794			1899	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	591	633	0	309	21	482	409	54	40	326	8
RTOR Reduction (vph)	0	0	450	0	6	0	0	5	0	0	2	0
Lane Group Flow (vph)	0	591	183	0	324	0	482	458	0	0	372	0
Confl. Peds. (#/hr)			60			45			37			39
Confl. Bikes (#/hr)			1			1			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Effective Green, g (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Actuated g/C Ratio		0.38	0.29		0.38		0.29	0.29			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		697	419		1305		506	518			359	
v/s Ratio Prot		c0.32			0.09		c0.28	0.26				
v/s Ratio Perm			0.13								c0.20	
v/c Ratio		0.85	0.44		0.25		0.95	0.88			1.04	
Uniform Delay, d1		25.6	26.0		19.2		31.4	30.6			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		12.2	3.3		0.5		29.8	19.4			57.5	
Delay (s)		37.9	29.3		19.7		61.2	49.9			94.0	
Level of Service		D	C		B		E	D			F	
Approach Delay (s)		33.4			19.7			55.7			94.0	
Approach LOS		C			B			E			F	

Intersection Summary			
HCM Average Control Delay	47.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	2177	36	1255	2	783	19	294	686	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		1.00		1.00	0.99	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		1.00		1.00	0.98	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3512		1770	3430	
Flt Permitted	1.00		1.00		1.00		0.34	1.00	
Satd. Flow (perm)	3610		5084		3512		634	3430	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2244	37	1294	2	807	20	303	707	110
RTOR Reduction (vph)	1	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	2280	0	1296	0	827	0	303	803	0
Confl. Peds. (#/hr)		38				68			82
Confl. Bikes (#/hr)		90				2			4
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	46.0		46.0		21.0		12.0	33.0	
Effective Green, g (s)	46.0		46.0		21.0		12.0	33.0	
Actuated g/C Ratio	0.51		0.51		0.23		0.13	0.37	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1845		2598		819		85	1258	
v/s Ratio Prot	c0.63				c0.24			0.23	
v/s Ratio Perm			0.25				c0.48		
v/c Ratio	1.24		0.50		1.01		3.56	0.64	
Uniform Delay, d1	22.0		14.4		34.5		39.0	23.6	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	110.9		0.7		33.9		1182.8	0.8	
Delay (s)	132.9		15.1		68.4		1221.8	24.4	
Level of Service	F		B		E		F	C	
Approach Delay (s)			15.1		68.4			348.3	
Approach LOS			B		E			F	

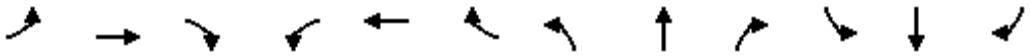
Intersection Summary			
HCM Average Control Delay	139.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2138	26	0	964	42	42	157	45	83	129	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.98			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		4928			4894			1737			1744	
Flt Permitted		1.00			1.00			0.92			0.76	
Satd. Flow (perm)		4928			4894			1604			1351	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	2227	27	0	1004	44	44	164	47	86	134	28
RTOR Reduction (vph)	0	1	0	0	5	0	0	3	0	0	5	0
Lane Group Flow (vph)	0	2253	0	0	1043	0	0	252	0	0	243	0
Confl. Peds. (#/hr)			28			36			28			23
Confl. Bikes (#/hr)			4			1			2			3
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2902			2882			499			420	
v/s Ratio Prot		c0.46			0.21							
v/s Ratio Perm								0.16			c0.18	
v/c Ratio		0.78			0.36			0.50			0.58	
Uniform Delay, d1		14.0			9.7			25.3			26.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.1			0.4			0.3			1.2	
Delay (s)		16.1			10.0			25.6			27.3	
Level of Service		B			B			C			C	
Approach Delay (s)		16.1			10.0			25.6			27.3	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

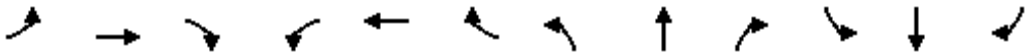
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	492	93	38	419	69	40	149	25	47	130	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.95		0.99			1.00			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.98			0.98			0.98	
Flt Protected		0.99	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1818	1477		3367			1773			1762	
Flt Permitted		0.90	1.00		0.85			0.91			0.88	
Satd. Flow (perm)		1640	1477		2867			1628			1576	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	63	553	104	43	471	78	45	167	28	53	146	31
RTOR Reduction (vph)	0	0	51	0	20	0	0	8	0	0	9	0
Lane Group Flow (vph)	0	616	53	0	572	0	0	232	0	0	221	0
Confl. Peds. (#/hr)			21			29			16			47
Confl. Bikes (#/hr)			9			1			1			
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		765	689		1338			624			604	
v/s Ratio Prot												
v/s Ratio Perm		c0.38	0.04		0.20			c0.14			0.14	
v/c Ratio		0.81	0.08		0.43			0.37			0.37	
Uniform Delay, d1		13.7	8.9		10.7			13.3			13.3	
Progression Factor		0.70	0.30		1.00			1.00			1.00	
Incremental Delay, d2		8.2	0.2		1.0			0.4			0.4	
Delay (s)		17.8	2.8		11.7			13.7			13.6	
Level of Service		B	A		B			B			B	
Approach Delay (s)		15.6			11.7			13.7			13.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

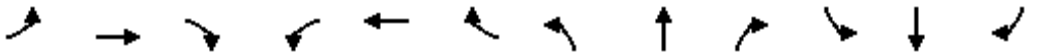
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	46	0	74	1	156	127	118	154	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	0	58	0	92	1	195	159	148	192	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	150	355	340
Volume Left (vph)	0	58	1	148
Volume Right (vph)	0	93	159	0
Hadj (s)	0.00	-0.26	-0.23	0.12
Departure Headway (s)	5.8	5.2	4.5	4.9
Degree Utilization, x	0.00	0.22	0.45	0.46
Capacity (veh/h)	526	614	770	714
Control Delay (s)	8.8	9.7	11.1	11.9
Approach Delay (s)	0.0	9.7	11.1	11.9
Approach LOS	A	A	B	B

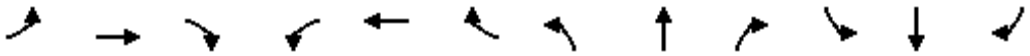
Intersection Summary				
Delay	11.2			
HCM Level of Service	B			
Intersection Capacity Utilization	55.5%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	189	199	0	150	70	18	77	1344	444	1	757	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.91	1.00	0.97			1.00	0.77
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1719	1810		3335	1810	1395	1719	3198			3438	1178
Flt Permitted	0.36	1.00		0.36	1.00	1.00	0.95	1.00			0.86	1.00
Satd. Flow (perm)	658	1810		1277	1810	1395	1719	3198			2971	1178
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	201	212	0	160	74	19	82	1430	472	1	805	159
RTOR Reduction (vph)	0	0	0	0	0	14	0	36	0	0	0	101
Lane Group Flow (vph)	201	212	0	160	74	5	82	1866	0	0	806	58
Confl. Peds. (#/hr)			63			72			84			53
Confl. Bikes (#/hr)			1			2			2			2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	custom			custom		Perm	Prot			Perm		Perm
Protected Phases		2			6		3	8			4	
Permitted Phases	5			1		6				4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.29	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	80	521		156	521	401	57	1350			1089	432
v/s Ratio Prot		c0.12			0.04		0.05	c0.58				
v/s Ratio Perm	c0.31			0.13		0.00					0.27	0.05
v/c Ratio	2.51	0.41		1.03	0.14	0.01	1.44	1.38			0.74	0.13
Uniform Delay, d1	39.5	25.9		39.5	23.8	22.9	43.5	26.0			24.8	19.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	716.1	2.3		79.0	0.6	0.1	272.4	176.8			2.7	0.1
Delay (s)	755.6	28.2		118.5	24.4	23.0	315.9	202.8			27.5	19.1
Level of Service	F	C		F	C	C	F	F			C	B
Approach Delay (s)		382.2			83.8			207.4			26.1	
Approach LOS		F			F			F			C	

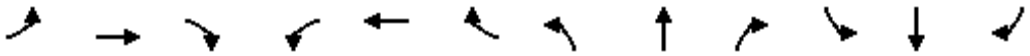
Intersection Summary			
HCM Average Control Delay	170.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	111.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



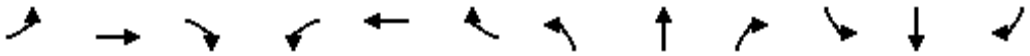
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	412	26	91	503	90	0	1732	96	0	822	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.91			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.98			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1842		1770	3420			5022			3462	
Flt Permitted	0.27	1.00		0.18	1.00			1.00			1.00	
Satd. Flow (perm)	494	1842		329	3420			5022			3462	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	116	443	28	98	541	97	0	1862	103	0	884	112
RTOR Reduction (vph)	0	3	0	0	7	0	0	7	0	0	11	0
Lane Group Flow (vph)	116	468	0	98	631	0	0	1958	0	0	985	0
Confl. Peds. (#/hr)			24			61			78			61
Confl. Bikes (#/hr)			2			2			5			5
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Effective Green, g (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.59			0.59	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	149	557		99	1034			2969			2046	
v/s Ratio Prot		0.25			0.18			c0.39			0.28	
v/s Ratio Perm	0.23			c0.30								
v/c Ratio	0.78	0.84		0.99	0.61			0.66			0.48	
Uniform Delay, d1	28.7	29.4		31.3	26.9			12.3			10.5	
Progression Factor	1.00	1.00		1.00	1.00			0.29			1.00	
Incremental Delay, d2	22.2	11.0		86.3	1.1			1.0			0.8	
Delay (s)	50.8	40.4		117.6	27.9			4.6			11.3	
Level of Service	D	D		F	C			A			B	
Approach Delay (s)		42.4			39.9			4.6			11.3	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM Average Control Delay	17.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	102.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	154	40	43	83	88	0	1719	90	0	891	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.91			0.95	
Frpb, ped/bikes		1.00	0.93		0.96			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.94			0.99			0.99	
Flt Protected		1.00	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1857	1467		1671			5028			3504	
Flt Permitted		0.98	1.00		0.90			1.00			1.00	
Satd. Flow (perm)		1819	1467		1518			5028			3504	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	167	43	47	90	96	0	1868	98	0	968	51
RTOR Reduction (vph)	0	0	33	0	14	0	0	6	0	0	4	0
Lane Group Flow (vph)	0	179	10	0	219	0	0	1960	0	0	1015	0
Confl. Peds. (#/hr)			37			65			76			40
Confl. Bikes (#/hr)			14			2			3			5
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		408	329		341			3380			2355	
v/s Ratio Prot								c0.39			0.29	
v/s Ratio Perm		0.10	0.01		c0.14							
v/c Ratio		0.44	0.03		0.64			0.58			0.43	
Uniform Delay, d1		30.0	27.2		31.6			7.9			6.8	
Progression Factor		1.00	1.00		1.00			0.24			0.51	
Incremental Delay, d2		0.8	0.0		4.1			0.6			0.5	
Delay (s)		30.8	27.3		35.7			2.5			4.0	
Level of Service		C	C		D			A			A	
Approach Delay (s)		30.1			35.7			2.5			4.0	
Approach LOS		C			D			A			A	

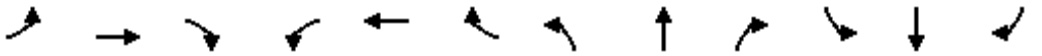
Intersection Summary			
HCM Average Control Delay	7.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	412	25	18	216	31	0	1757	47	0	881	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.91			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			1.00			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3421			3395			4982			3419	
Flt Permitted		0.79			0.90			1.00			1.00	
Satd. Flow (perm)		2728			3063			4982			3419	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	123	438	27	19	230	33	0	1869	50	0	937	82
RTOR Reduction (vph)	0	4	0	0	5	0	0	3	0	0	7	0
Lane Group Flow (vph)	0	584	0	0	277	0	0	1916	0	0	1012	0
Confl. Peds. (#/hr)			101			61			143			81
Confl. Bikes (#/hr)			7						4			5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.2			28.2			52.7			52.7	
Effective Green, g (s)		28.2			28.2			52.7			52.7	
Actuated g/C Ratio		0.31			0.31			0.59			0.59	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		855			960			2917			2002	
v/s Ratio Prot								c0.38			0.30	
v/s Ratio Perm		c0.21			0.09							
v/c Ratio		0.68			0.29			0.66			0.51	
Uniform Delay, d1		27.0			23.3			12.6			11.0	
Progression Factor		1.00			1.00			1.00			0.78	
Incremental Delay, d2		4.4			0.8			1.2			0.8	
Delay (s)		31.4			24.1			13.7			9.5	
Level of Service		C			C			B			A	
Approach Delay (s)		31.4			24.1			13.7			9.5	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	146	1266	222	60	1522	0	0	489	404
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	4.6
Lane Util. Factor				1.00	0.86			0.91			0.86	0.86
Frpb, ped/bikes				1.00	0.99			1.00			0.99	0.96
Flpb, ped/bikes				1.00	1.00			1.00			1.00	1.00
Frt				1.00	0.98			1.00			0.96	0.85
Flt Protected				0.95	1.00			1.00			1.00	1.00
Satd. Flow (prot)				1752	6168			5026			4497	1290
Flt Permitted				0.95	1.00			0.86			1.00	1.00
Satd. Flow (perm)				1752	6168			4351			4497	1290
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	154	1333	234	63	1602	0	0	515	425
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	0	0	5	5
Lane Group Flow (vph)	0	0	0	154	1562	0	0	1665	0	0	718	212
Confl. Peds. (#/hr)			406			24			51			29
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Prot			Perm					Perm
Protected Phases				1	6			8			4	
Permitted Phases							8					4
Actuated Green, G (s)				35.7	35.7			44.4			44.4	44.4
Effective Green, g (s)				35.7	35.7			44.4			44.4	44.4
Actuated g/C Ratio				0.40	0.40			0.49			0.49	0.49
Clearance Time (s)				5.3	5.3			4.6			4.6	4.6
Vehicle Extension (s)				0.2	0.2			0.2			0.2	0.2
Lane Grp Cap (vph)				695	2447			2146			2219	636
v/s Ratio Prot				0.09	c0.25						0.16	
v/s Ratio Perm								c0.38				0.16
v/c Ratio				0.22	0.64			0.78			0.32	0.33
Uniform Delay, d1				18.0	21.9			18.7			13.7	13.8
Progression Factor				1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2				0.7	1.3			2.8			0.4	1.4
Delay (s)				18.7	23.2			21.5			14.1	15.2
Level of Service				B	C			C			B	B
Approach Delay (s)		0.0			22.8			21.5			14.4	
Approach LOS		A			C			C			B	

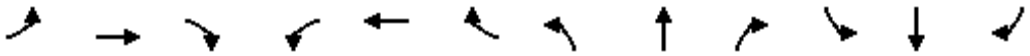
Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	573	17	10	512	22	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.91	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.96	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1818			3468	1542	
Flt Permitted	1.00			0.95	0.97	
Satd. Flow (perm)	1818			3280	1542	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	651	19	11	582	25	11
RTOR Reduction (vph)	1	0	0	0	10	0
Lane Group Flow (vph)	669	0	0	593	26	0
Confl. Peds. (#/hr)		29				37
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1424			2569	103	
v/s Ratio Prot	c0.37				c0.02	
v/s Ratio Perm				0.18		
v/c Ratio	0.47			0.23	0.25	
Uniform Delay, d1	2.2			1.7	26.6	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	1.1			0.2	0.5	
Delay (s)	3.3			1.9	27.0	
Level of Service	A			A	C	
Approach Delay (s)	3.3			1.9	27.0	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	3.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

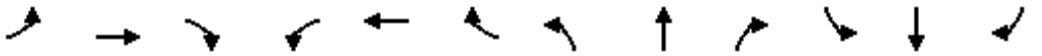
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	524	18	13	566	2	7	4	7	1	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			2.0	
Lane Util. Factor		1.00			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.96			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.95			0.91	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		1814			3465			1627			1597	
Flt Permitted		1.00			0.94			0.87			0.96	
Satd. Flow (perm)		1808			3267			1448			1556	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	5	602	21	15	651	2	8	5	8	1	0	2
RTOR Reduction (vph)	0	1	0	0	0	0	0	7	0	0	2	0
Lane Group Flow (vph)	0	627	0	0	668	0	0	14	0	0	1	0
Confl. Peds. (#/hr)			46			97			64			26
Confl. Bikes (#/hr)			5			2						
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		47.0			47.0			4.0			7.0	
Effective Green, g (s)		47.0			47.0			4.0			7.0	
Actuated g/C Ratio		0.78			0.78			0.07			0.12	
Clearance Time (s)		4.0			4.0			5.0			2.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1416			2559			97			182	
v/s Ratio Prot												
v/s Ratio Perm		c0.35			0.20			c0.01			0.00	
v/c Ratio		0.44			0.26			0.14			0.01	
Uniform Delay, d1		2.2			1.8			26.4			23.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.0			0.2			0.7			0.0	
Delay (s)		3.2			2.0			27.0			23.4	
Level of Service		A			A			C			C	
Approach Delay (s)		3.2			2.0			27.0			23.4	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	3.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

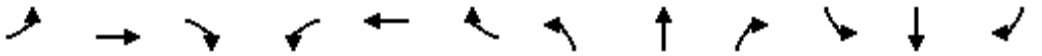
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1464	72	0	1979	133	46	297	75	115	437	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.98		1.00	1.00	0.78	1.00	1.00	0.88
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4957			4878		1752	1845	1223	1752	1845	1376
Flt Permitted		1.00			1.00		0.25	1.00	1.00	0.44	1.00	1.00
Satd. Flow (perm)		4957			4878		465	1845	1223	815	1845	1376
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1509	74	0	2040	137	47	306	77	119	451	78
RTOR Reduction (vph)	0	6	0	0	8	0	0	0	9	0	0	2
Lane Group Flow (vph)	0	1577	0	0	2169	0	47	306	68	119	451	76
Confl. Peds. (#/hr)			143			164			216			93
Confl. Bikes (#/hr)			5			3			24			44
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2748			2705		151	601	398	265	601	448
v/s Ratio Prot		0.32			c0.44			0.17			c0.24	
v/s Ratio Perm							0.10		0.06	0.15		0.06
v/c Ratio		0.57			0.80		0.31	0.51	0.17	0.45	0.75	0.17
Uniform Delay, d1		13.1			16.1		22.8	24.5	21.7	24.0	27.1	21.7
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.9			2.6		5.3	3.1	0.9	5.4	8.4	0.8
Delay (s)		14.0			18.7		28.1	27.6	22.6	29.4	35.5	22.5
Level of Service		B			B		C	C	C	C	D	C
Approach Delay (s)		14.0			18.7			26.8			32.8	
Approach LOS		B			B			C			C	

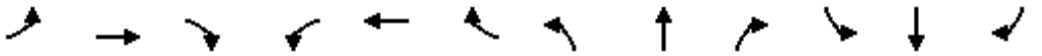
Intersection Summary			
HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	98.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	185	37	191	488	84	18	264	36	53	482	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99		1.00	0.99		1.00	1.00	0.89	1.00	1.00	0.93
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3397		1770	3436		1770	1863	1407	1770	1863	1472
Flt Permitted		0.86		0.59	1.00		0.32	1.00	1.00	0.55	1.00	1.00
Satd. Flow (perm)		2935		1094	3436		587	1863	1407	1025	1863	1472
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	33	195	39	201	514	88	19	278	38	56	507	34
RTOR Reduction (vph)	0	23	0	0	23	0	0	0	22	0	0	19
Lane Group Flow (vph)	0	244	0	201	579	0	19	278	16	56	507	15
Confl. Peds. (#/hr)			54			21			59			52
Confl. Bikes (#/hr)			3			7			31			48
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1223		456	1432		254	807	610	444	807	638
v/s Ratio Prot					0.17			0.15			c0.27	
v/s Ratio Perm		0.08		c0.18			0.03		0.01	0.05		0.01
v/c Ratio		0.20		0.44	0.40		0.07	0.34	0.03	0.13	0.63	0.02
Uniform Delay, d1		11.1		12.5	12.3		10.0	11.3	9.7	10.2	13.2	9.7
Progression Factor		1.00		0.27	0.24		1.07	1.03	1.37	1.00	1.00	1.00
Incremental Delay, d2		0.4		2.5	0.7		0.5	1.0	0.1	0.6	3.7	0.1
Delay (s)		11.5		5.9	3.7		11.2	12.7	13.5	10.8	16.9	9.8
Level of Service		B		A	A		B	B	B	B	B	A
Approach Delay (s)		11.5			4.2			12.7			15.9	
Approach LOS		B			A			B			B	

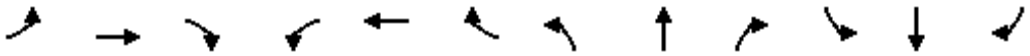
Intersection Summary			
HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	97.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	735	22	20	900	88	20	160	21	196	296	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			1.00			0.99		1.00	1.00	0.95
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.99			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3510			3476			1815		1770	1863	1504
Flt Permitted		0.78			0.93			0.95		0.64	1.00	1.00
Satd. Flow (perm)		2746			3234			1738		1189	1863	1504
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	55	782	23	21	957	94	21	170	22	209	315	170
RTOR Reduction (vph)	0	3	0	0	12	0	0	7	0	0	0	35
Lane Group Flow (vph)	0	857	0	0	1060	0	0	206	0	209	315	135
Confl. Peds. (#/hr)			15			21			46			24
Confl. Bikes (#/hr)						1			34			35
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		27.0			27.0			23.0		23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0			23.0		23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45			0.38		0.38	0.38	0.38
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1236			1455			666		456	714	577
v/s Ratio Prot											0.17	
v/s Ratio Perm		0.31			c0.33			0.12		c0.18		0.09
v/c Ratio		0.69			0.73			0.31		0.46	0.44	0.23
Uniform Delay, d1		13.2			13.5			12.9		13.8	13.7	12.5
Progression Factor		1.00			1.00			1.00		0.76	0.76	0.74
Incremental Delay, d2		3.2			3.2			1.2		2.8	1.7	0.8
Delay (s)		16.4			16.7			14.2		13.3	12.1	10.1
Level of Service		B			B			B		B	B	B
Approach Delay (s)		16.4			16.7			14.2			12.0	
Approach LOS		B			B			B			B	

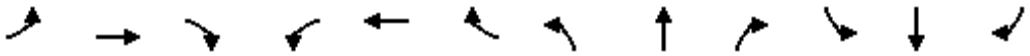
Intersection Summary			
HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	106.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	228	51	83	705	38	36	317	39	39	378	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.91		1.00			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.99		1.00	0.99	
Flt Protected		1.00	1.00		1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1858	1434		3488			1819		1770	1839	
Flt Permitted		0.95	1.00		0.89			0.93		0.44	1.00	
Satd. Flow (perm)		1775	1434		3123			1707		818	1839	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	13	243	54	88	750	40	38	337	41	41	402	28
RTOR Reduction (vph)	0	0	29	0	6	0	0	7	0	0	4	0
Lane Group Flow (vph)	0	256	25	0	872	0	0	409	0	41	426	0
Confl. Peds. (#/hr)			68			35			29			42
Confl. Bikes (#/hr)			4			6			2			3
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		828	669		1457			654		314	705	
v/s Ratio Prot											0.23	
v/s Ratio Perm		0.14	0.02		c0.28			c0.24		0.05		
v/c Ratio		0.31	0.04		0.60			0.63		0.13	0.60	
Uniform Delay, d1		10.0	8.7		11.8			15.0		12.0	14.8	
Progression Factor		1.09	1.48		0.25			1.00		1.00	1.00	
Incremental Delay, d2		1.0	0.1		1.4			4.5		0.9	3.8	
Delay (s)		11.8	13.0		4.4			19.5		12.9	18.7	
Level of Service		B	B		A			B		B	B	
Approach Delay (s)		12.0			4.4			19.5			18.2	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	104.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



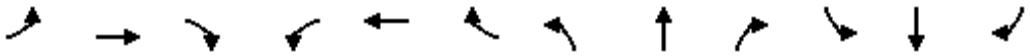
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	376	602	0	463	34	530	405	41	18	484	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.99			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1863	1474		3481		1770	1816			3507	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.64	
Satd. Flow (perm)		1863	1474		3481		1770	1816			2232	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	400	640	0	493	36	564	431	44	19	515	16
RTOR Reduction (vph)	0	0	427	0	6	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	400	213	0	523	0	564	471	0	0	548	0
Confl. Peds. (#/hr)			64			50			68			57
Confl. Bikes (#/hr)			1						3			3
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Effective Green, g (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Actuated g/C Ratio		0.33	0.33		0.33		0.33	0.33			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		621	491		1160		590	605			422	
v/s Ratio Prot		c0.21			0.15		c0.32	0.26				
v/s Ratio Perm			0.14								c0.25	
v/c Ratio		0.64	0.43		0.45		0.96	0.78			1.30	
Uniform Delay, d1		25.5	23.4		23.5		29.4	27.0			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		5.1	2.8		1.3		27.6	9.5			150.5	
Delay (s)		30.6	26.2		24.8		57.0	36.6			187.0	
Level of Service		C	C		C		E	D			F	
Approach Delay (s)		27.9			24.8			47.7			187.0	
Approach LOS		C			C			D			F	

Intersection Summary			
HCM Average Control Delay	61.6	HCM Level of Service	E
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	1475	95	2276	4	634	31	275	783	256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		0.98		1.00	0.98	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		0.99		1.00	0.96	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3441		1770	3334	
Flt Permitted	1.00		1.00		1.00		0.39	1.00	
Satd. Flow (perm)	3610		5084		3441		724	3334	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1536	99	2371	4	660	32	286	816	267
RTOR Reduction (vph)	7	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	1628	0	2375	0	692	0	286	1082	0
Confl. Peds. (#/hr)		45				186			89
Confl. Bikes (#/hr)		4	94			1			
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	48.0		48.0		19.0		12.0	31.0	
Effective Green, g (s)	48.0		48.0		19.0		12.0	31.0	
Actuated g/C Ratio	0.53		0.53		0.21		0.13	0.34	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1925		2711		726		97	1148	
v/s Ratio Prot	0.45				0.20			c0.32	
v/s Ratio Perm			c0.47				c0.40		
v/c Ratio	0.85		0.88		0.95		2.95	0.94	
Uniform Delay, d1	17.9		18.4		35.1		39.0	28.6	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	4.8		4.4		22.3		904.0	14.6	
Delay (s)	22.7		22.7		57.4		943.0	43.2	
Level of Service	C		C		E		F	D	
Approach Delay (s)			22.7		57.4			231.2	
Approach LOS			C		E			F	

Intersection Summary			
HCM Average Control Delay	73.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	89.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



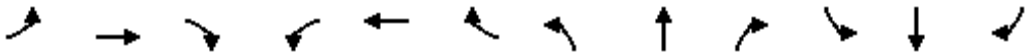
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1394	34	0	2021	42	52	105	54	60	235	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		5008			5015			1745			1781	
Flt Permitted		1.00			1.00			0.79			0.91	
Satd. Flow (perm)		5008			5015			1398			1628	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1467	36	0	2127	44	55	111	57	63	247	57
RTOR Reduction (vph)	0	3	0	0	2	0	0	14	0	0	5	0
Lane Group Flow (vph)	0	1500	0	0	2169	0	0	209	0	0	362	0
Confl. Peds. (#/hr)			43			22			19			20
Confl. Bikes (#/hr)			7			7			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2949			2953			435			506	
v/s Ratio Prot		0.30			c0.43							
v/s Ratio Perm								0.15			c0.22	
v/c Ratio		0.51			0.73			0.48			0.72	
Uniform Delay, d1		10.9			13.4			25.1			27.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			1.7			0.3			4.0	
Delay (s)		11.5			15.1			25.4			31.5	
Level of Service		B			B			C			C	
Approach Delay (s)		11.5			15.1			25.4			31.5	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	244	86	40	794	78	54	128	34	45	202	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.98			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.99			0.98			0.98	
Flt Protected		1.00	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1855	1454		3461			1770			1781	
Flt Permitted		0.90	1.00		0.93			0.86			0.92	
Satd. Flow (perm)		1672	1454		3226			1549			1657	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	24	268	95	44	873	86	59	141	37	49	222	57
RTOR Reduction (vph)	0	0	51	0	12	0	0	11	0	0	12	0
Lane Group Flow (vph)	0	292	44	0	991	0	0	226	0	0	316	0
Confl. Peds. (#/hr)			56			60			70			84
Confl. Bikes (#/hr)			4			2			3			2
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		780	679		1505			594			635	
v/s Ratio Prot												
v/s Ratio Perm		0.17	0.03		c0.31			0.15			c0.19	
v/c Ratio		0.37	0.07		0.66			0.38			0.50	
Uniform Delay, d1		10.3	8.8		12.3			13.4			14.1	
Progression Factor		1.27	2.38		1.00			1.00			1.00	
Incremental Delay, d2		1.3	0.2		2.3			0.4			0.6	
Delay (s)		14.4	21.1		14.6			13.8			14.7	
Level of Service		B	C		B			B			B	
Approach Delay (s)		16.1			14.6			13.8			14.7	
Approach LOS		B			B			B			B	

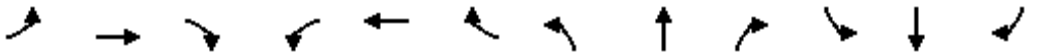
Intersection Summary			
HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	1	0	73	0	75	2	139	80	102	235	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	1	0	83	0	85	2	158	91	116	267	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	168	251	383
Volume Left (vph)	0	83	2	116
Volume Right (vph)	0	85	91	0
Hadj (s)	0.02	-0.19	-0.20	0.08
Departure Headway (s)	5.7	5.2	4.6	4.8
Degree Utilization, x	0.00	0.24	0.32	0.51
Capacity (veh/h)	530	625	740	732
Control Delay (s)	8.8	9.9	9.9	12.5
Approach Delay (s)	8.8	9.9	9.9	12.5
Approach LOS	A	A	A	B

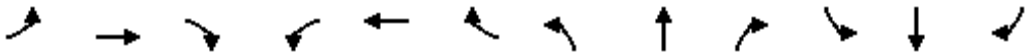
Intersection Summary			
Delay	11.1		
HCM Level of Service	B		
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	153	131	0	393	152	25	90	780	207	0	1253	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.69	1.00	0.98			1.00	0.55
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736	1827		3367	1827	1070	1736	3286			3471	848
Flt Permitted	0.36	1.00		0.36	1.00	1.00	1.00	1.00			1.00	1.00
Satd. Flow (perm)	664	1827		1289	1827	1070	1827	3286			3471	848
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	158	135	0	405	157	26	93	804	213	0	1292	243
RTOR Reduction (vph)	0	0	0	0	0	15	0	27	0	0	0	154
Lane Group Flow (vph)	158	135	0	405	157	11	93	990	0	0	1292	89
Confl. Peds. (#/hr)			87			210			64			108
Confl. Bikes (#/hr)			2			8			5			2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	custom			custom		custom	custom			Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases	5			1		8	3			4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.42	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Vehicle Extension (s)	0.2	0.2		0.2	0.2	0.2	0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	81	526		158	526	452	61	1387			1273	311
v/s Ratio Prot		0.07			c0.09			0.30			c0.37	
v/s Ratio Perm	0.24			c0.31		0.01	c0.05					0.11
v/c Ratio	1.95	0.26		2.56	0.30	0.02	1.52	0.71			1.01	0.29
Uniform Delay, d1	39.5	24.6		39.5	25.0	15.2	43.5	21.5			28.5	20.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	469.3	1.2		721.7	1.4	0.0	302.9	1.5			29.0	0.2
Delay (s)	508.8	25.8		761.2	26.4	15.2	346.4	23.0			57.5	20.4
Level of Service	F	C		F	C	B	F	C			E	C
Approach Delay (s)		286.3			532.0			50.1			51.6	
Approach LOS		F			F			D			D	

Intersection Summary			
HCM Average Control Delay	150.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	17.1
Intersection Capacity Utilization	110.9%	ICU Level of Service	H
Analysis Period (min)	15		

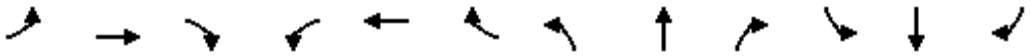
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	200	45	194	699	70	0	1046	49	0	1593	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.91	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1816		1787	3502			3534			5052	
Flt Permitted	0.20	1.00		0.51	1.00			1.00			1.00	
Satd. Flow (perm)	379	1816		953	3502			3534			5052	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	71	208	47	202	728	73	0	1090	51	0	1659	138
RTOR Reduction (vph)	0	7	0	0	8	0	0	4	0	0	10	0
Lane Group Flow (vph)	71	248	0	202	793	0	0	1137	0	0	1787	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.55			0.55	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	131	630		330	1214			1932			2762	
v/s Ratio Prot		0.14			c0.23			0.32			c0.35	
v/s Ratio Perm	0.19			0.21								
v/c Ratio	0.54	0.39		0.61	0.65			0.59			0.65	
Uniform Delay, d1	23.7	22.2		24.4	24.8			13.6			14.3	
Progression Factor	1.00	1.00		1.00	1.00			1.70			1.00	
Incremental Delay, d2	4.5	0.4		3.3	1.3			1.2			1.2	
Delay (s)	28.2	22.6		27.7	26.1			24.3			15.5	
Level of Service	C	C		C	C			C			B	
Approach Delay (s)		23.9			26.4			24.3			15.5	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	105.0%	ICU Level of Service	G
Analysis Period (min)	15		

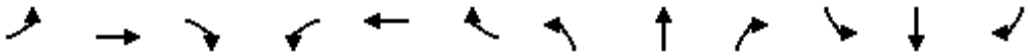
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	124	57	34	69	43	0	1045	46	0	1784	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.91	
Frpb, ped/bikes		1.00	0.90		0.98			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.96			0.99			1.00	
Flt Protected		0.99	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1868	1435		1754			3538			5112	
Flt Permitted		0.94	1.00		0.90			1.00			1.00	
Satd. Flow (perm)		1775	1435		1602			3538			5112	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	22	129	59	35	72	45	0	1089	48	0	1858	40
RTOR Reduction (vph)	0	0	16	0	17	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	151	43	0	135	0	0	1133	0	0	1896	0
Confl. Peds. (#/hr)			64			33			97			64
Confl. Bikes (#/hr)			8			4			3			11
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		398	322		360			2378			3436	
v/s Ratio Prot								0.32			c0.37	
v/s Ratio Perm		c0.09	0.03		0.08							
v/c Ratio		0.38	0.14		0.37			0.48			0.55	
Uniform Delay, d1		29.6	27.9		29.6			7.1			7.7	
Progression Factor		1.00	1.00		1.00			0.77			0.40	
Incremental Delay, d2		0.6	0.2		0.7			0.6			0.5	
Delay (s)		30.2	28.1		30.2			6.1			3.6	
Level of Service		C	C		C			A			A	
Approach Delay (s)		29.6			30.2			6.1			3.6	
Approach LOS		C			C			A			A	

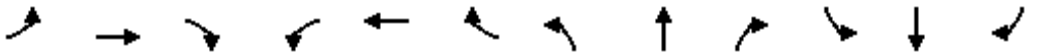
Intersection Summary			
HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	290	40	42	342	51	0	988	62	0	1696	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.91	
Frpb, ped/bikes		0.98			0.97			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.99			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3393			3367			3444			4944	
Flt Permitted		0.75			0.87			1.00			1.00	
Satd. Flow (perm)		2582			2949			3444			4944	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	71	302	42	44	356	53	0	1029	65	0	1767	144
RTOR Reduction (vph)	0	9	0	0	11	0	0	5	0	0	10	0
Lane Group Flow (vph)	0	406	0	0	442	0	0	1089	0	0	1901	0
Confl. Peds. (#/hr)			126			164			168			118
Confl. Bikes (#/hr)			3			2			2			3
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		26.2			26.2			54.7			54.7	
Effective Green, g (s)		26.2			26.2			54.7			54.7	
Actuated g/C Ratio		0.29			0.29			0.61			0.61	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		752			858			2093			3005	
v/s Ratio Prot								0.32			c0.38	
v/s Ratio Perm		c0.16			0.15							
v/c Ratio		0.54			0.51			0.52			0.63	
Uniform Delay, d1		26.8			26.6			10.1			11.2	
Progression Factor		1.00			1.00			1.00			0.42	
Incremental Delay, d2		2.8			2.2			0.9			0.9	
Delay (s)		29.6			28.8			11.1			5.6	
Level of Service		C			C			B			A	
Approach Delay (s)		29.6			28.8			11.1			5.6	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

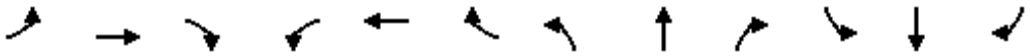


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	218	1943	143	0	906	0	0	936	705
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	4.6
Lane Util. Factor				1.00	0.86			0.91			0.86	0.86
Frpb, ped/bikes				1.00	1.00			1.00			0.98	0.91
Flpb, ped/bikes				1.00	1.00			1.00			1.00	1.00
Frt				1.00	0.99			1.00			0.96	0.85
Flt Protected				0.95	1.00			1.00			1.00	1.00
Satd. Flow (prot)				1770	6323			5085			4507	1237
Flt Permitted				0.95	1.00			1.00			1.00	1.00
Satd. Flow (perm)				1770	6323			5085			4507	1237
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	225	2003	147	0	934	0	0	965	727
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	4	4
Lane Group Flow (vph)	0	0	0	225	2142	0	0	934	0	0	1303	381
Confl. Peds. (#/hr)			418			28			67			75
Confl. Bikes (#/hr)						1			1			
Turn Type				Prot								Perm
Protected Phases				1	6			4			4	
Permitted Phases												4
Actuated Green, G (s)				48.7	48.7			31.4			31.4	31.4
Effective Green, g (s)				48.7	48.7			31.4			31.4	31.4
Actuated g/C Ratio				0.54	0.54			0.35			0.35	0.35
Clearance Time (s)				5.3	5.3			4.6			4.6	4.6
Vehicle Extension (s)				0.2	0.2			0.2			0.2	0.2
Lane Grp Cap (vph)				958	3421			1774			1572	432
v/s Ratio Prot				0.13	c0.34			0.18			0.29	
v/s Ratio Perm												c0.31
v/c Ratio				0.23	0.63			0.53			0.83	0.88
Uniform Delay, d1				10.9	14.3			23.4			26.8	27.6
Progression Factor				1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2				0.6	0.9			1.1			5.2	22.0
Delay (s)				11.4	15.2			24.5			32.0	49.6
Level of Service				B	B			C			C	D
Approach Delay (s)		0.0			14.9			24.5			36.0	
Approach LOS		A			B			C			D	

Intersection Summary			
HCM Average Control Delay	23.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

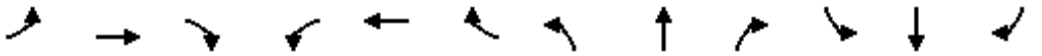
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	274	16	11	859	17	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.92	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.99			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1845			3537	1584	
Flt Permitted	1.00			0.95	0.97	
Satd. Flow (perm)	1845			3368	1584	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	285	17	11	895	18	9
RTOR Reduction (vph)	2	0	0	0	8	0
Lane Group Flow (vph)	300	0	0	906	19	0
Confl. Peds. (#/hr)		26				30
Confl. Bikes (#/hr)		1				
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1445			2638	106	
v/s Ratio Prot	0.16				c0.01	
v/s Ratio Perm				c0.27		
v/c Ratio	0.21			0.34	0.18	
Uniform Delay, d1	1.7			1.9	26.4	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.3			0.4	0.3	
Delay (s)	2.0			2.3	26.7	
Level of Service	A			A	C	
Approach Delay (s)	2.0			2.3	26.7	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	2.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	308	14	13	893	1	7	1	6	2	2	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			2.0	
Lane Util. Factor		1.00			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.97			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.95			0.93	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1847			3536			1672			1692	
Flt Permitted		0.99			0.95			0.92			0.98	
Satd. Flow (perm)		1837			3359			1580			1685	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	3	331	15	14	960	1	8	1	6	2	2	4
RTOR Reduction (vph)	0	3	0	0	0	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	346	0	0	975	0	0	11	0	0	6	0
Confl. Peds. (#/hr)			32			73			30			17
Confl. Bikes (#/hr)			6			5						
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		31.0			31.0			20.0			23.0	
Effective Green, g (s)		31.0			31.0			20.0			23.0	
Actuated g/C Ratio		0.52			0.52			0.33			0.38	
Clearance Time (s)		4.0			4.0			5.0			2.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		949			1735			527			646	
v/s Ratio Prot												
v/s Ratio Perm		0.19			c0.29			c0.01			0.00	
v/c Ratio		0.36			0.56			0.02			0.01	
Uniform Delay, d1		8.6			9.9			13.4			11.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.1			1.3			0.0			0.0	
Delay (s)		9.7			11.2			13.4			11.5	
Level of Service		A			B			B			B	
Approach Delay (s)		9.7			11.2			13.4			11.5	
Approach LOS		A			B			B			B	

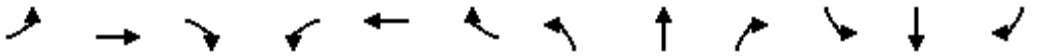
Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2048	53	0	983	75	30	362	80	110	255	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99		1.00	1.00	0.77	1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4908			4837		1719	1810	1186	1719	1810	1439
Flt Permitted		1.00			1.00		0.50	1.00	1.00	0.35	1.00	1.00
Satd. Flow (perm)		4908			4837		907	1810	1186	638	1810	1439
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	2111	55	0	1013	77	31	373	82	113	263	46
RTOR Reduction (vph)	0	3	0	0	9	0	0	0	3	0	0	31
Lane Group Flow (vph)	0	2163	0	0	1081	0	31	373	79	113	263	15
Confl. Peds. (#/hr)			74			61			221			35
Confl. Bikes (#/hr)			2			8			34			32
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			2			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2721			2682		295	589	386	208	589	468
v/s Ratio Prot		c0.44			0.22			c0.21			0.15	
v/s Ratio Perm							0.03		0.07	0.18		0.01
v/c Ratio		0.79			0.40		0.11	0.63	0.21	0.54	0.45	0.03
Uniform Delay, d1		16.0			11.5		21.2	25.8	21.9	24.9	24.0	20.7
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		2.5			0.5		0.7	5.1	1.2	9.8	2.4	0.1
Delay (s)		18.5			12.0		21.9	30.9	23.1	34.7	26.4	20.8
Level of Service		B			B		C	C	C	C	C	C
Approach Delay (s)		18.5			12.0			29.0			28.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	98.0%	ICU Level of Service	F
Analysis Period (min)	15		

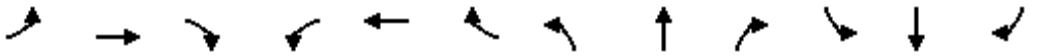
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	469	23	67	265	61	17	445	118	79	245	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00		1.00	0.99		1.00	1.00	0.88	1.00	1.00	0.95
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3455		1752	3375		1752	1845	1372	1752	1845	1484
Flt Permitted		0.90		0.38	1.00		0.56	1.00	1.00	0.33	1.00	1.00
Satd. Flow (perm)		3123		707	3375		1033	1845	1372	613	1845	1484
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	47	515	25	74	291	67	19	489	130	87	269	15
RTOR Reduction (vph)	0	5	0	0	33	0	0	0	74	0	0	9
Lane Group Flow (vph)	0	582	0	74	325	0	19	489	56	87	269	7
Confl. Peds. (#/hr)			58			24			64			32
Confl. Bikes (#/hr)			4			1			41			40
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1301		295	1406		448	800	595	266	800	643
v/s Ratio Prot					0.10			c0.27			0.15	
v/s Ratio Perm		c0.19		0.10			0.02		0.04	0.14		0.00
v/c Ratio		0.45		0.25	0.23		0.04	0.61	0.09	0.33	0.34	0.01
Uniform Delay, d1		12.5		11.4	11.3		9.8	13.1	10.0	11.2	11.3	9.7
Progression Factor		1.00		0.93	0.87		1.14	0.92	1.49	1.00	1.00	1.00
Incremental Delay, d2		1.1		1.9	0.4		0.1	2.9	0.3	3.3	1.1	0.0
Delay (s)		13.7		12.5	10.2		11.3	15.0	15.3	14.5	12.4	9.7
Level of Service		B		B	B		B	B	B	B	B	A
Approach Delay (s)		13.7			10.6			14.9			12.8	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	101.8%	ICU Level of Service	G
Analysis Period (min)	15		

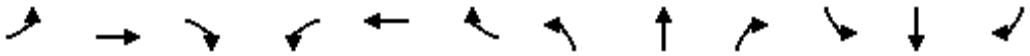
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	1044	10	5	678	83	10	357	37	152	142	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99			0.99		1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.98			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3520			3462			1825		1770	1863	1495
Flt Permitted		0.80			0.95			0.99		0.40	1.00	1.00
Satd. Flow (perm)		2841			3282			1815		751	1863	1495
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	93	1076	10	5	699	86	10	368	38	157	146	67
RTOR Reduction (vph)	0	1	0	0	16	0	0	6	0	0	0	44
Lane Group Flow (vph)	0	1178	0	0	775	0	0	410	0	157	146	23
Confl. Peds. (#/hr)			18			29			50			28
Confl. Bikes (#/hr)			1						32			33
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		29.0			29.0			21.0		21.0	21.0	21.0
Effective Green, g (s)		29.0			29.0			21.0		21.0	21.0	21.0
Actuated g/C Ratio		0.48			0.48			0.35		0.35	0.35	0.35
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1373			1586			635		263	652	523
v/s Ratio Prot											0.08	
v/s Ratio Perm		c0.41			0.24			c0.23		0.21		0.02
v/c Ratio		0.86			0.49			0.65		0.60	0.22	0.04
Uniform Delay, d1		13.7			10.5			16.4		16.0	13.8	12.9
Progression Factor		1.00			1.00			1.00		1.21	1.19	2.27
Incremental Delay, d2		7.1			1.1			5.0		9.3	0.8	0.2
Delay (s)		20.8			11.6			21.4		28.6	17.2	29.4
Level of Service		C			B			C		C	B	C
Approach Delay (s)		20.8			11.6			21.4			24.2	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	112.1%	ICU Level of Service	H
Analysis Period (min)	15		

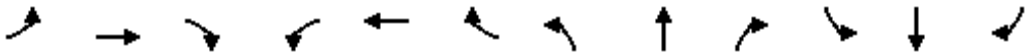
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	394	37	58	358	36	34	331	71	47	275	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.98		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1840	1445		3424			1783		1752	1821	
Flt Permitted		0.96	1.00		0.86			0.95		0.39	1.00	
Satd. Flow (perm)		1774	1445		2947			1705		711	1821	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	26	438	41	64	398	40	38	368	79	52	306	23
RTOR Reduction (vph)	0	0	22	0	11	0	0	12	0	0	4	0
Lane Group Flow (vph)	0	464	19	0	491	0	0	473	0	52	325	0
Confl. Peds. (#/hr)			53			41			19			31
Confl. Bikes (#/hr)			4			1			3			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		828	674		1375			654		273	698	
v/s Ratio Prot											0.18	
v/s Ratio Perm		c0.26	0.01		0.17			c0.28		0.07		
v/c Ratio		0.56	0.03		0.36			0.72		0.19	0.47	
Uniform Delay, d1		11.6	8.6		10.2			15.8		12.3	13.9	
Progression Factor		0.66	0.29		1.69			1.00		1.00	1.00	
Incremental Delay, d2		2.6	0.1		0.6			6.8		1.5	2.2	
Delay (s)		10.2	2.6		18.0			22.6		13.9	16.1	
Level of Service		B	A		B			C		B	B	
Approach Delay (s)		9.6			18.0			22.6			15.8	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	104.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

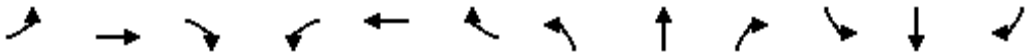


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	574	608	0	297	20	463	403	56	38	314	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.98			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1845	1452		3454		1752	1792			3469	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.54	
Satd. Flow (perm)		1845	1452		3454		1752	1792			1899	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	598	633	0	309	21	482	420	58	40	327	8
RTOR Reduction (vph)	0	0	450	0	6	0	0	6	0	0	2	0
Lane Group Flow (vph)	0	598	183	0	324	0	482	472	0	0	373	0
Confl. Peds. (#/hr)			60			45			37			39
Confl. Bikes (#/hr)			1			1			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Effective Green, g (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Actuated g/C Ratio		0.38	0.29		0.38		0.29	0.29			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		697	419		1305		506	518			359	
v/s Ratio Prot		c0.32			0.09		c0.28	0.26				
v/s Ratio Perm			0.13								c0.20	
v/c Ratio		0.86	0.44		0.25		0.95	0.91			1.04	
Uniform Delay, d1		25.8	26.0		19.2		31.4	30.9			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		13.0	3.3		0.5		29.8	22.8			58.3	
Delay (s)		38.7	29.3		19.7		61.2	53.7			94.8	
Level of Service		D	C		B		E	D			F	
Approach Delay (s)		33.9			19.7			57.5			94.8	
Approach LOS		C			B			E			F	

Intersection Summary			
HCM Average Control Delay	48.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	2177	36	1255	2	783	19	294	686	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		1.00		1.00	0.99	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		1.00		1.00	0.98	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3512		1770	3430	
Flt Permitted	1.00		1.00		1.00		0.34	1.00	
Satd. Flow (perm)	3610		5084		3512		634	3430	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2244	37	1294	2	807	20	303	707	110
RTOR Reduction (vph)	1	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	2280	0	1296	0	827	0	303	803	0
Confl. Peds. (#/hr)		38				68			82
Confl. Bikes (#/hr)		90				2			4
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	46.0		46.0		21.0		12.0	33.0	
Effective Green, g (s)	46.0		46.0		21.0		12.0	33.0	
Actuated g/C Ratio	0.51		0.51		0.23		0.13	0.37	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1845		2598		819		85	1258	
v/s Ratio Prot	c0.63				c0.24			0.23	
v/s Ratio Perm			0.25				c0.48		
v/c Ratio	1.24		0.50		1.01		3.56	0.64	
Uniform Delay, d1	22.0		14.4		34.5		39.0	23.6	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	110.9		0.7		33.9		1182.8	0.8	
Delay (s)	132.9		15.1		68.4		1221.8	24.4	
Level of Service	F		B		E		F	C	
Approach Delay (s)			15.1		68.4			348.3	
Approach LOS			B		E			F	

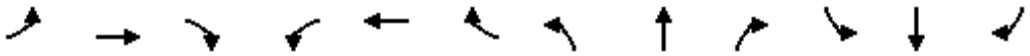
Intersection Summary			
HCM Average Control Delay	139.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2139	31	0	965	42	42	157	45	83	129	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.98			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		4925			4894			1737			1744	
Flt Permitted		1.00			1.00			0.92			0.76	
Satd. Flow (perm)		4925			4894			1604			1351	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	2228	32	0	1005	44	44	164	47	86	134	28
RTOR Reduction (vph)	0	2	0	0	5	0	0	3	0	0	5	0
Lane Group Flow (vph)	0	2258	0	0	1044	0	0	252	0	0	243	0
Confl. Peds. (#/hr)			28			36			28			23
Confl. Bikes (#/hr)			4			1			2			3
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2900			2882			499			420	
v/s Ratio Prot		c0.46			0.21							
v/s Ratio Perm								0.16			c0.18	
v/c Ratio		0.78			0.36			0.50			0.58	
Uniform Delay, d1		14.0			9.7			25.3			26.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.1			0.4			0.3			1.2	
Delay (s)		16.2			10.0			25.6			27.3	
Level of Service		B			B			C			C	
Approach Delay (s)		16.2			10.0			25.6			27.3	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

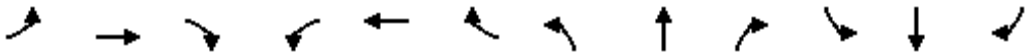
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	494	95	52	434	69	43	150	28	47	131	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.95		0.99			0.99			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.98			0.98			0.98	
Flt Protected		0.99	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1817	1477		3369			1770			1756	
Flt Permitted		0.89	1.00		0.79			0.90			0.89	
Satd. Flow (perm)		1625	1477		2680			1616			1572	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	65	555	107	58	488	78	48	169	31	53	147	36
RTOR Reduction (vph)	0	0	52	0	19	0	0	9	0	0	11	0
Lane Group Flow (vph)	0	620	55	0	605	0	0	239	0	0	225	0
Confl. Peds. (#/hr)			21			29			16			47
Confl. Bikes (#/hr)			9			1			1			
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		758	689		1251			619			603	
v/s Ratio Prot												
v/s Ratio Perm		c0.38	0.04		0.23			c0.15			0.14	
v/c Ratio		0.82	0.08		0.48			0.39			0.37	
Uniform Delay, d1		13.8	8.9		11.0			13.4			13.3	
Progression Factor		0.70	0.30		1.00			1.00			1.00	
Incremental Delay, d2		8.8	0.2		1.3			0.4			0.4	
Delay (s)		18.5	2.8		12.4			13.8			13.7	
Level of Service		B	A		B			B			B	
Approach Delay (s)		16.2			12.4			13.8			13.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		

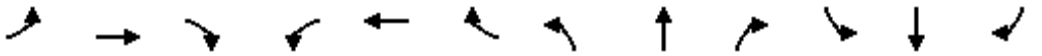
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	39	0	67	1	163	129	126	162	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	0	49	0	84	1	204	161	158	202	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	133	366	360
Volume Left (vph)	0	49	1	158
Volume Right (vph)	0	84	161	0
Hadj (s)	0.00	-0.27	-0.23	0.12
Departure Headway (s)	5.9	5.3	4.5	4.8
Degree Utilization, x	0.00	0.19	0.46	0.48
Capacity (veh/h)	523	605	777	723
Control Delay (s)	8.9	9.6	11.2	12.2
Approach Delay (s)	0.0	9.6	11.2	12.2
Approach LOS	A	A	B	B

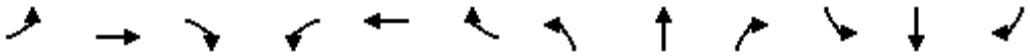
Intersection Summary				
Delay	11.4			
HCM Level of Service	B			
Intersection Capacity Utilization	56.9%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	189	199	1	155	72	18	77	1344	444	1	760	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.91	1.00	0.97			1.00	0.77
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1719	1808		3335	1810	1395	1719	3198			3438	1178
Flt Permitted	0.36	1.00		0.36	1.00	1.00	0.95	1.00			0.86	1.00
Satd. Flow (perm)	658	1808		1277	1810	1395	1719	3198			2971	1178
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	201	212	1	165	77	19	82	1430	472	1	809	159
RTOR Reduction (vph)	0	0	0	0	0	14	0	36	0	0	0	101
Lane Group Flow (vph)	201	213	0	165	77	5	82	1866	0	0	810	58
Confl. Peds. (#/hr)			63			72			84			53
Confl. Bikes (#/hr)			1			2			2			2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	custom			custom		Perm	Prot			Perm		Perm
Protected Phases		2			6		3	8			4	
Permitted Phases	5			1		6				4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.29	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	80	520		156	521	401	57	1350			1089	432
v/s Ratio Prot		c0.12			0.04		0.05	c0.58				
v/s Ratio Perm	c0.31			0.13		0.00					0.27	0.05
v/c Ratio	2.51	0.41		1.06	0.15	0.01	1.44	1.38			0.74	0.13
Uniform Delay, d1	39.5	25.9		39.5	23.8	22.9	43.5	26.0			24.8	19.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	716.1	2.4		88.2	0.6	0.1	272.4	176.8			2.8	0.1
Delay (s)	755.6	28.3		127.7	24.4	23.0	315.9	202.8			27.6	19.1
Level of Service	F	C		F	C	C	F	F			C	B
Approach Delay (s)		381.4			89.6			207.4			26.2	
Approach LOS		F			F			F			C	

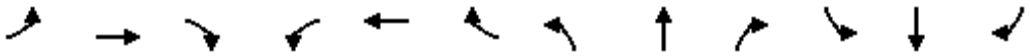
Intersection Summary			
HCM Average Control Delay	170.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	111.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



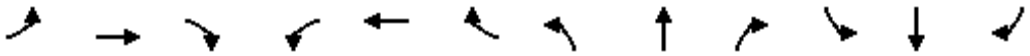
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	412	48	94	509	90	0	1732	99	0	826	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.91			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.98			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1826		1770	3421			5020			3458	
Flt Permitted	0.26	1.00		0.15	1.00			1.00			1.00	
Satd. Flow (perm)	486	1826		274	3421			5020			3458	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	116	443	52	101	547	97	0	1862	106	0	888	119
RTOR Reduction (vph)	0	5	0	0	7	0	0	7	0	0	11	0
Lane Group Flow (vph)	116	490	0	101	637	0	0	1961	0	0	996	0
Confl. Peds. (#/hr)			24			61			78			61
Confl. Bikes (#/hr)			2			2			5			5
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Effective Green, g (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.59			0.59	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	147	552		83	1034			2967			2044	
v/s Ratio Prot		0.27			0.19			c0.39			0.29	
v/s Ratio Perm	0.24			c0.37								
v/c Ratio	0.79	0.89		1.22	0.62			0.66			0.49	
Uniform Delay, d1	28.8	29.9		31.4	26.9			12.3			10.6	
Progression Factor	1.00	1.00		1.00	1.00			0.29			1.00	
Incremental Delay, d2	23.9	15.9		168.2	1.1			1.0			0.8	
Delay (s)	52.6	45.8		199.6	28.0			4.6			11.4	
Level of Service	D	D		F	C			A			B	
Approach Delay (s)		47.1			51.3			4.6			11.4	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	103.8%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	154	33	43	87	88	0	1722	98	0	898	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.91			0.95	
Frpb, ped/bikes		1.00	0.93		0.96			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.95			0.99			0.99	
Flt Protected		1.00	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1857	1467		1675			5023			3488	
Flt Permitted		0.98	1.00		0.90			1.00			1.00	
Satd. Flow (perm)		1819	1467		1525			5023			3488	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	167	36	47	95	96	0	1872	107	0	976	75
RTOR Reduction (vph)	0	0	28	0	14	0	0	7	0	0	6	0
Lane Group Flow (vph)	0	179	8	0	224	0	0	1972	0	0	1045	0
Confl. Peds. (#/hr)			37			65			76			40
Confl. Bikes (#/hr)			14			2			3			5
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		408	329		342			3377			2345	
v/s Ratio Prot								c0.39			0.30	
v/s Ratio Perm		0.10	0.01		c0.15							
v/c Ratio		0.44	0.02		0.66			0.58			0.45	
Uniform Delay, d1		30.0	27.2		31.7			8.0			6.9	
Progression Factor		1.00	1.00		1.00			0.24			0.52	
Incremental Delay, d2		0.8	0.0		4.5			0.6			0.5	
Delay (s)		30.8	27.2		36.2			2.5			4.1	
Level of Service		C	C		D			A			A	
Approach Delay (s)		30.2			36.2			2.5			4.1	
Approach LOS		C			D			A			A	

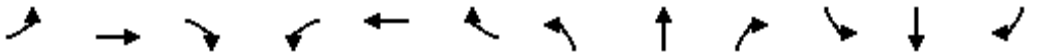
Intersection Summary			
HCM Average Control Delay	7.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	412	25	18	218	33	0	1764	49	0	881	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.91			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			1.00			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3421			3390			4980			3412	
Flt Permitted		0.79			0.90			1.00			1.00	
Satd. Flow (perm)		2719			3061			4980			3412	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	123	438	27	19	232	35	0	1877	52	0	937	89
RTOR Reduction (vph)	0	4	0	0	5	0	0	3	0	0	8	0
Lane Group Flow (vph)	0	584	0	0	281	0	0	1926	0	0	1018	0
Confl. Peds. (#/hr)			101			61			143			81
Confl. Bikes (#/hr)			7						4			5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.2			28.2			52.7			52.7	
Effective Green, g (s)		28.2			28.2			52.7			52.7	
Actuated g/C Ratio		0.31			0.31			0.59			0.59	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		852			959			2916			1998	
v/s Ratio Prot								c0.39			0.30	
v/s Ratio Perm		c0.21			0.09							
v/c Ratio		0.69			0.29			0.66			0.51	
Uniform Delay, d1		27.0			23.4			12.6			11.0	
Progression Factor		1.00			1.00			1.00			0.77	
Incremental Delay, d2		4.5			0.8			1.2			0.8	
Delay (s)		31.5			24.1			13.8			9.3	
Level of Service		C			C			B			A	
Approach Delay (s)		31.5			24.1			13.8			9.3	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	146	1281	228	60	1527	0	0	489	404
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	4.6
Lane Util. Factor				1.00	0.86			0.91			0.86	0.86
Frpb, ped/bikes				1.00	0.99			1.00			0.99	0.96
Flpb, ped/bikes				1.00	1.00			1.00			1.00	1.00
Frt				1.00	0.98			1.00			0.96	0.85
Flt Protected				0.95	1.00			1.00			1.00	1.00
Satd. Flow (prot)				1752	6166			5026			4497	1290
Flt Permitted				0.95	1.00			0.86			1.00	1.00
Satd. Flow (perm)				1752	6166			4352			4497	1290
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	154	1348	240	63	1607	0	0	515	425
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	0	0	5	5
Lane Group Flow (vph)	0	0	0	154	1583	0	0	1670	0	0	718	212
Confl. Peds. (#/hr)			406			24			51			29
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Prot			Perm					Perm
Protected Phases				1	6			8			4	
Permitted Phases							8					4
Actuated Green, G (s)				35.7	35.7			44.4			44.4	44.4
Effective Green, g (s)				35.7	35.7			44.4			44.4	44.4
Actuated g/C Ratio				0.40	0.40			0.49			0.49	0.49
Clearance Time (s)				5.3	5.3			4.6			4.6	4.6
Vehicle Extension (s)				0.2	0.2			0.2			0.2	0.2
Lane Grp Cap (vph)				695	2446			2147			2219	636
v/s Ratio Prot				0.09	c0.26						0.16	
v/s Ratio Perm								c0.38				0.16
v/c Ratio				0.22	0.65			0.78			0.32	0.33
Uniform Delay, d1				18.0	22.0			18.7			13.7	13.8
Progression Factor				1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2				0.7	1.3			2.9			0.4	1.4
Delay (s)				18.7	23.4			21.6			14.1	15.2
Level of Service				B	C			C			B	B
Approach Delay (s)		0.0			23.0			21.6			14.4	
Approach LOS		A			C			C			B	

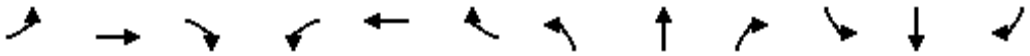
Intersection Summary			
HCM Average Control Delay	20.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	589	9	13	540	11	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.90	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1822			3467	1524	
Flt Permitted	1.00			0.94	0.97	
Satd. Flow (perm)	1822			3263	1524	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	669	10	15	614	12	6
RTOR Reduction (vph)	0	0	0	0	6	0
Lane Group Flow (vph)	679	0	0	629	12	0
Confl. Peds. (#/hr)		29				37
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1427			2556	102	
v/s Ratio Prot	c0.37				c0.01	
v/s Ratio Perm				0.19		
v/c Ratio	0.48			0.25	0.12	
Uniform Delay, d1	2.2			1.7	26.3	
Progression Factor	1.00			2.30	1.00	
Incremental Delay, d2	1.1			0.2	0.2	
Delay (s)	3.4			4.2	26.5	
Level of Service	A			A	C	
Approach Delay (s)	3.4			4.2	26.5	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	4.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		

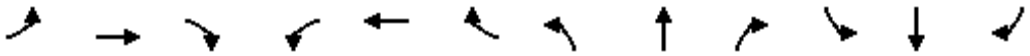
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	550	0	0	593	2	0	2	4	0	0	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	632	0	0	682	2	0	2	5	0	0	3
Pedestrians		26			64			46			97	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		2			5			4			8	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		268			542							
pX, platoon unblocked				0.72			0.72	0.72	0.72	0.72	0.72	
vC, conflicting volume	781			678			1048	1459	742	1482	1458	465
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	781			356			871	1443	445	1475	1441	465
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	97	99	100	100	99
cM capacity (veh/h)	753			819			148	82	363	48	82	484

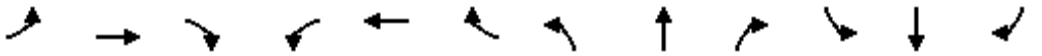
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	632	341	343	7	3
Volume Left	0	0	0	0	0
Volume Right	0	0	2	5	3
cSH	753	819	1700	169	484
Volume to Capacity	0.00	0.00	0.20	0.04	0.01
Queue Length 95th (ft)	0	0	0	3	1
Control Delay (s)	0.0	0.0	0.0	27.2	12.5
Lane LOS				D	B
Approach Delay (s)	0.0	0.0		27.2	12.5
Approach LOS				D	B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	47.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	546	9	7	558	30	4	2	4	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0				
Lane Util. Factor		1.00			0.95			1.00				
Frt		1.00			0.99			0.95				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		1857			3510			1728				
Flt Permitted		0.99			0.95			0.98				
Satd. Flow (perm)		1836			3332			1728				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	593	10	8	607	33	4	2	4	0	0	0
RTOR Reduction (vph)	0	1	0	0	8	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	613	0	0	640	0	0	8	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		4			8		2	2				
Permitted Phases	4			8								
Actuated Green, G (s)		27.1			27.1			24.9				
Effective Green, g (s)		27.1			27.1			24.9				
Actuated g/C Ratio		0.45			0.45			0.41				
Clearance Time (s)		4.0			4.0			4.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		829			1505			717				
v/s Ratio Prot								c0.00				
v/s Ratio Perm		c0.33			0.19							
v/c Ratio		0.74			0.43			0.01				
Uniform Delay, d1		13.5			11.2			10.3				
Progression Factor		0.95			1.00			1.00				
Incremental Delay, d2		3.3			0.2			0.0				
Delay (s)		16.2			11.4			10.3				
Level of Service		B			B			B				
Approach Delay (s)		16.2			11.4			10.3			0.0	
Approach LOS		B			B			B			A	

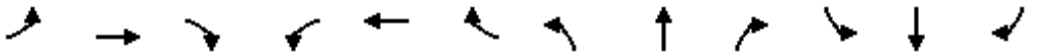
Intersection Summary			
HCM Average Control Delay	13.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1465	73	0	1979	133	49	299	75	116	437	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.98		1.00	1.00	0.78	1.00	1.00	0.88
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4956			4878		1752	1845	1223	1752	1845	1376
Flt Permitted		1.00			1.00		0.25	1.00	1.00	0.44	1.00	1.00
Satd. Flow (perm)		4956			4878		465	1845	1223	810	1845	1376
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1510	75	0	2040	137	51	308	77	120	451	78
RTOR Reduction (vph)	0	6	0	0	8	0	0	0	9	0	0	2
Lane Group Flow (vph)	0	1579	0	0	2169	0	51	308	68	120	451	76
Confl. Peds. (#/hr)			143			164			216			93
Confl. Bikes (#/hr)			5			3			24			44
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2748			2705		151	601	398	264	601	448
v/s Ratio Prot		0.32			c0.44			0.17			c0.24	
v/s Ratio Perm							0.11		0.06	0.15		0.06
v/c Ratio		0.57			0.80		0.34	0.51	0.17	0.45	0.75	0.17
Uniform Delay, d1		13.1			16.1		23.0	24.6	21.7	24.0	27.1	21.7
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.9			2.6		6.0	3.1	0.9	5.6	8.4	0.8
Delay (s)		14.0			18.7		29.0	27.7	22.6	29.6	35.5	22.5
Level of Service		B			B		C	C	C	C	D	C
Approach Delay (s)		14.0			18.7			26.9			32.8	
Approach LOS		B			B			C			C	

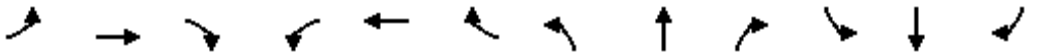
Intersection Summary			
HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	98.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	185	37	193	488	88	18	265	36	54	482	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99		1.00	0.99		1.00	1.00	0.89	1.00	1.00	0.93
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3397		1770	3431		1770	1863	1407	1770	1863	1472
Flt Permitted		0.86		0.59	1.00		0.32	1.00	1.00	0.55	1.00	1.00
Satd. Flow (perm)		2933		1094	3431		587	1863	1407	1023	1863	1472
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	33	195	39	203	514	93	19	279	38	57	507	34
RTOR Reduction (vph)	0	23	0	0	25	0	0	0	22	0	0	19
Lane Group Flow (vph)	0	244	0	203	583	0	19	279	16	57	507	15
Confl. Peds. (#/hr)			54			21			59			52
Confl. Bikes (#/hr)			3			7			31			48
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1222		456	1430		254	807	610	443	807	638
v/s Ratio Prot					0.17			0.15			c0.27	
v/s Ratio Perm		0.08		c0.19			0.03		0.01	0.06		0.01
v/c Ratio		0.20		0.45	0.41		0.07	0.35	0.03	0.13	0.63	0.02
Uniform Delay, d1		11.1		12.5	12.3		10.0	11.3	9.7	10.2	13.2	9.7
Progression Factor		1.00		0.27	0.24		1.07	1.03	1.38	1.00	1.00	1.00
Incremental Delay, d2		0.4		2.5	0.7		0.5	1.0	0.1	0.6	3.7	0.1
Delay (s)		11.5		5.9	3.6		11.2	12.7	13.5	10.8	16.9	9.8
Level of Service		B		A	A		B	B	B	B	B	A
Approach Delay (s)		11.5			4.2			12.7			15.9	
Approach LOS		B			A			B			B	

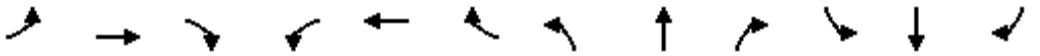
Intersection Summary			
HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	736	22	21	900	89	20	160	21	196	298	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			1.00			0.99		1.00	1.00	0.95
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.99			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3510			3475			1815		1770	1863	1504
Flt Permitted		0.78			0.93			0.95		0.64	1.00	1.00
Satd. Flow (perm)		2744			3228			1737		1189	1863	1504
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	55	783	23	22	957	95	21	170	22	209	317	170
RTOR Reduction (vph)	0	3	0	0	12	0	0	7	0	0	0	35
Lane Group Flow (vph)	0	858	0	0	1062	0	0	206	0	209	317	135
Confl. Peds. (#/hr)			15			21			46			24
Confl. Bikes (#/hr)						1			34			35
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		27.0			27.0			23.0		23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0			23.0		23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45			0.38		0.38	0.38	0.38
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1235			1453			666		456	714	577
v/s Ratio Prot											0.17	
v/s Ratio Perm		0.31			c0.33			0.12		c0.18		0.09
v/c Ratio		0.69			0.73			0.31		0.46	0.44	0.23
Uniform Delay, d1		13.2			13.5			12.9		13.8	13.7	12.5
Progression Factor		1.00			1.00			1.00		0.76	0.76	0.74
Incremental Delay, d2		3.2			3.3			1.2		2.8	1.7	0.8
Delay (s)		16.4			16.8			14.2		13.3	12.1	10.0
Level of Service		B			B			B		B	B	B
Approach Delay (s)		16.4			16.8			14.2			12.0	
Approach LOS		B			B			B			B	

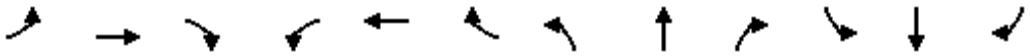
Intersection Summary			
HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	106.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	229	51	91	712	39	36	317	40	39	378	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.91		1.00			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.99		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1858	1434		3486			1817		1770	1839	
Flt Permitted		0.95	1.00		0.88			0.93		0.44	1.00	
Satd. Flow (perm)		1773	1434		3098			1706		815	1839	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	13	244	54	97	757	41	38	337	43	41	402	28
RTOR Reduction (vph)	0	0	29	0	6	0	0	7	0	0	4	0
Lane Group Flow (vph)	0	257	25	0	889	0	0	411	0	41	426	0
Confl. Peds. (#/hr)			68			35			29			42
Confl. Bikes (#/hr)			4			6			2			3
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		827	669		1446			654		312	705	
v/s Ratio Prot											0.23	
v/s Ratio Perm		0.14	0.02		c0.29			c0.24		0.05		
v/c Ratio		0.31	0.04		0.61			0.63		0.13	0.60	
Uniform Delay, d1		10.0	8.7		12.0			15.0		12.0	14.8	
Progression Factor		1.08	1.48		0.26			1.00		1.00	1.00	
Incremental Delay, d2		1.0	0.1		1.5			4.5		0.9	3.8	
Delay (s)		11.8	12.9		4.5			19.6		12.9	18.7	
Level of Service		B	B		A			B		B	B	
Approach Delay (s)		12.0			4.5			19.6			18.2	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	105.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



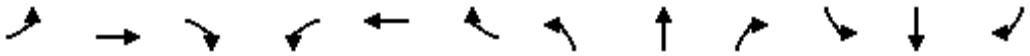
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	377	602	0	465	34	530	406	41	18	492	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.99			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1863	1474		3481		1770	1816			3508	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.64	
Satd. Flow (perm)		1863	1474		3481		1770	1816			2233	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	401	640	0	495	36	564	432	44	19	523	16
RTOR Reduction (vph)	0	0	427	0	6	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	401	213	0	525	0	564	472	0	0	556	0
Confl. Peds. (#/hr)			64			50			68			57
Confl. Bikes (#/hr)			1						3			3
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Effective Green, g (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Actuated g/C Ratio		0.33	0.33		0.33		0.33	0.33			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		621	491		1160		590	605			422	
v/s Ratio Prot		c0.22			0.15		c0.32	0.26				
v/s Ratio Perm			0.14								c0.25	
v/c Ratio		0.65	0.43		0.45		0.96	0.78			1.32	
Uniform Delay, d1		25.5	23.4		23.6		29.4	27.0			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		5.1	2.8		1.3		27.6	9.6			158.4	
Delay (s)		30.6	26.2		24.8		57.0	36.7			194.9	
Level of Service		C	C		C		E	D			F	
Approach Delay (s)		27.9			24.8			47.7			194.9	
Approach LOS		C			C			D			F	

Intersection Summary			
HCM Average Control Delay	63.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	1475	95	2277	5	634	31	275	791	256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		0.98		1.00	0.98	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		0.99		1.00	0.96	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3441		1770	3336	
Flt Permitted	1.00		1.00		1.00		0.39	1.00	
Satd. Flow (perm)	3610		5084		3441		724	3336	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1536	99	2372	5	660	32	286	824	267
RTOR Reduction (vph)	7	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	1628	0	2377	0	692	0	286	1090	0
Confl. Peds. (#/hr)		45				186			89
Confl. Bikes (#/hr)		4	94			1			
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	48.0		48.0		19.0		12.0	31.0	
Effective Green, g (s)	48.0		48.0		19.0		12.0	31.0	
Actuated g/C Ratio	0.53		0.53		0.21		0.13	0.34	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1925		2711		726		97	1149	
v/s Ratio Prot	0.45				0.20			c0.33	
v/s Ratio Perm			c0.47				c0.40		
v/c Ratio	0.85		0.88		0.95		2.95	0.95	
Uniform Delay, d1	17.9		18.4		35.1		39.0	28.7	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	4.8		4.4		22.3		904.0	15.4	
Delay (s)	22.7		22.8		57.4		943.0	44.1	
Level of Service	C		C		E		F	D	
Approach Delay (s)			22.8		57.4			230.8	
Approach LOS			C		E			F	

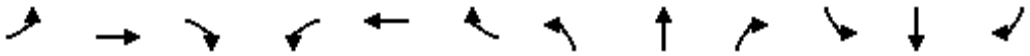
Intersection Summary			
HCM Average Control Delay	73.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	89.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1395	35	0	2021	42	54	105	57	60	235	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.96			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		5007			5015			1743			1781	
Flt Permitted		1.00			1.00			0.78			0.90	
Satd. Flow (perm)		5007			5015			1384			1625	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1468	37	0	2127	44	57	111	60	63	247	57
RTOR Reduction (vph)	0	3	0	0	2	0	0	14	0	0	5	0
Lane Group Flow (vph)	0	1502	0	0	2169	0	0	214	0	0	362	0
Confl. Peds. (#/hr)			43			22			19			20
Confl. Bikes (#/hr)			7			7			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2949			2953			431			506	
v/s Ratio Prot		0.30			c0.43							
v/s Ratio Perm								0.15			c0.22	
v/c Ratio		0.51			0.73			0.50			0.72	
Uniform Delay, d1		10.9			13.4			25.2			27.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			1.7			0.3			4.0	
Delay (s)		11.5			15.1			25.6			31.5	
Level of Service		B			B			C			C	
Approach Delay (s)		11.5			15.1			25.6			31.5	
Approach LOS		B			B			C			C	

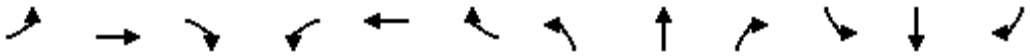
Intersection Summary			
HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	248	88	52	801	79	57	129	34	46	202	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.98			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.99			0.98			0.98	
Flt Protected		1.00	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1855	1454		3459			1770			1781	
Flt Permitted		0.89	1.00		0.92			0.86			0.92	
Satd. Flow (perm)		1653	1454		3191			1539			1650	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	26	273	97	57	880	87	63	142	37	51	222	57
RTOR Reduction (vph)	0	0	52	0	12	0	0	11	0	0	12	0
Lane Group Flow (vph)	0	299	45	0	1012	0	0	231	0	0	318	0
Confl. Peds. (#/hr)			56			60			70			84
Confl. Bikes (#/hr)			4			2			3			2
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		771	679		1489			590			633	
v/s Ratio Prot												
v/s Ratio Perm		0.18	0.03		c0.32			0.15			c0.19	
v/c Ratio		0.39	0.07		0.68			0.39			0.50	
Uniform Delay, d1		10.4	8.8		12.5			13.4			14.1	
Progression Factor		1.26	2.36		1.00			1.00			1.00	
Incremental Delay, d2		1.4	0.2		2.5			0.4			0.6	
Delay (s)		14.5	20.9		15.0			13.9			14.8	
Level of Service		B	C		B			B			B	
Approach Delay (s)		16.1			15.0			13.9			14.8	
Approach LOS		B			B			B			B	

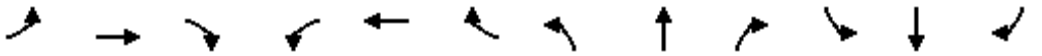
Intersection Summary			
HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	1	0	68	0	70	2	142	80	108	243	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	1	0	77	0	80	2	161	91	123	276	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	157	255	399
Volume Left (vph)	0	77	2	123
Volume Right (vph)	0	80	91	0
Hadj (s)	0.02	-0.19	-0.20	0.08
Departure Headway (s)	5.8	5.2	4.6	4.7
Degree Utilization, x	0.00	0.23	0.33	0.52
Capacity (veh/h)	528	619	743	737
Control Delay (s)	8.8	9.8	9.9	12.8
Approach Delay (s)	8.8	9.8	9.9	12.8
Approach LOS	A	A	A	B

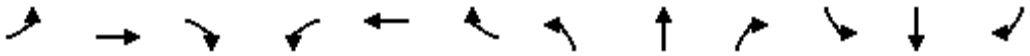
Intersection Summary				
Delay	11.3			
HCM Level of Service	B			
Intersection Capacity Utilization	61.0%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	154	133	1	393	152	25	90	781	211	0	1253	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.69	1.00	0.98			1.00	0.55
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736	1823		3367	1827	1070	1736	3283			3471	848
Flt Permitted	0.36	1.00		0.36	1.00	1.00	1.00	1.00			1.00	1.00
Satd. Flow (perm)	664	1823		1289	1827	1070	1827	3283			3471	848
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	159	137	1	405	157	26	93	805	218	0	1292	243
RTOR Reduction (vph)	0	0	0	0	0	15	0	27	0	0	0	154
Lane Group Flow (vph)	159	138	0	405	157	11	93	996	0	0	1292	89
Confl. Peds. (#/hr)			87			210			64			108
Confl. Bikes (#/hr)			2			8			5			2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	custom			custom		custom	custom			Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases	5			1		8	3			4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.42	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Vehicle Extension (s)	0.2	0.2		0.2	0.2	0.2	0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	81	525		158	526	452	61	1386			1273	311
v/s Ratio Prot		0.08			c0.09			0.30			c0.37	
v/s Ratio Perm	0.24			c0.31		0.01	c0.05					0.11
v/c Ratio	1.96	0.26		2.56	0.30	0.02	1.52	0.72			1.01	0.29
Uniform Delay, d1	39.5	24.7		39.5	25.0	15.2	43.5	21.6			28.5	20.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	474.7	1.2		721.7	1.4	0.0	302.9	1.5			29.0	0.2
Delay (s)	514.2	25.9		761.2	26.4	15.2	346.4	23.1			57.5	20.4
Level of Service	F	C		F	C	B	F	C			E	C
Approach Delay (s)		287.3			532.0			50.0			51.6	
Approach LOS		F			F			D			D	

Intersection Summary			
HCM Average Control Delay	150.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	17.1
Intersection Capacity Utilization	111.1%	ICU Level of Service	H
Analysis Period (min)	15		

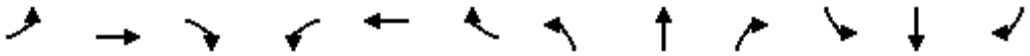
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	200	66	194	699	70	0	1050	50	0	1594	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.91	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1793		1787	3502			3534			5052	
Flt Permitted	0.20	1.00		0.48	1.00			1.00			1.00	
Satd. Flow (perm)	379	1793		899	3502			3534			5052	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	72	208	69	202	728	73	0	1094	52	0	1660	138
RTOR Reduction (vph)	0	7	0	0	8	0	0	4	0	0	10	0
Lane Group Flow (vph)	72	270	0	202	793	0	0	1142	0	0	1788	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.55			0.55	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	131	622		312	1214			1932			2762	
v/s Ratio Prot		0.15			c0.23			0.32			c0.35	
v/s Ratio Perm	0.19			0.22								
v/c Ratio	0.55	0.43		0.65	0.65			0.59			0.65	
Uniform Delay, d1	23.7	22.6		24.8	24.8			13.7			14.3	
Progression Factor	1.00	1.00		1.00	1.00			1.69			1.00	
Incremental Delay, d2	4.7	0.5		4.6	1.3			1.2			1.2	
Delay (s)	28.4	23.1		29.3	26.1			24.3			15.5	
Level of Service	C	C		C	C			C			B	
Approach Delay (s)		24.2			26.8			24.3			15.5	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM Average Control Delay	21.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	105.0%	ICU Level of Service	G
Analysis Period (min)	15		

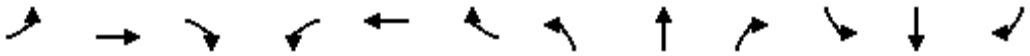
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	124	52	34	70	43	0	1047	46	0	1794	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.91	
Frpb, ped/bikes		1.00	0.90		0.98			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.96			0.99			1.00	
Flt Protected		0.99	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1867	1435		1755			3538			5104	
Flt Permitted		0.94	1.00		0.90			1.00			1.00	
Satd. Flow (perm)		1765	1435		1603			3538			5104	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	24	129	54	35	73	45	0	1091	48	0	1869	53
RTOR Reduction (vph)	0	0	15	0	16	0	0	4	0	0	3	0
Lane Group Flow (vph)	0	153	39	0	137	0	0	1135	0	0	1919	0
Confl. Peds. (#/hr)			64			33			97			64
Confl. Bikes (#/hr)			8			4			3			11
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		396	322		360			2378			3431	
v/s Ratio Prot								0.32			c0.38	
v/s Ratio Perm		c0.09	0.03		0.09							
v/c Ratio		0.39	0.12		0.38			0.48			0.56	
Uniform Delay, d1		29.6	27.8		29.6			7.1			7.7	
Progression Factor		1.00	1.00		1.00			0.77			0.44	
Incremental Delay, d2		0.6	0.2		0.7			0.6			0.5	
Delay (s)		30.3	28.0		30.3			6.1			3.9	
Level of Service		C	C		C			A			A	
Approach Delay (s)		29.7			30.3			6.1			3.9	
Approach LOS		C			C			A			A	

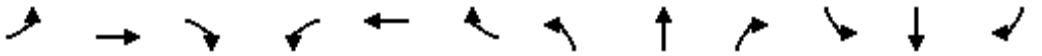
Intersection Summary			
HCM Average Control Delay	7.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	95.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	290	43	42	342	52	0	988	62	0	1701	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.91	
Frpb, ped/bikes		0.98			0.97			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.99			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3386			3365			3444			4939	
Flt Permitted		0.75			0.87			1.00			1.00	
Satd. Flow (perm)		2555			2945			3444			4939	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	73	302	45	44	356	54	0	1029	65	0	1772	150
RTOR Reduction (vph)	0	9	0	0	11	0	0	5	0	0	11	0
Lane Group Flow (vph)	0	411	0	0	443	0	0	1089	0	0	1911	0
Confl. Peds. (#/hr)			126			164			168			118
Confl. Bikes (#/hr)			3			2			2			3
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		26.2			26.2			54.7			54.7	
Effective Green, g (s)		26.2			26.2			54.7			54.7	
Actuated g/C Ratio		0.29			0.29			0.61			0.61	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		744			857			2093			3002	
v/s Ratio Prot								0.32			c0.39	
v/s Ratio Perm		c0.16			0.15							
v/c Ratio		0.55			0.52			0.52			0.64	
Uniform Delay, d1		27.0			26.6			10.1			11.3	
Progression Factor		1.00			1.00			1.00			0.42	
Incremental Delay, d2		3.0			2.2			0.9			0.9	
Delay (s)		29.9			28.8			11.1			5.6	
Level of Service		C			C			B			A	
Approach Delay (s)		29.9			28.8			11.1			5.6	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

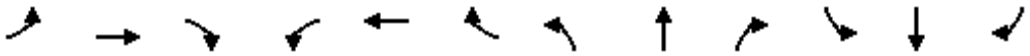


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	218	1946	143	0	906	0	0	944	705
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	4.6
Lane Util. Factor				1.00	0.86			0.91			0.86	0.86
Frpb, ped/bikes				1.00	1.00			1.00			0.98	0.91
Flpb, ped/bikes				1.00	1.00			1.00			1.00	1.00
Frt				1.00	0.99			1.00			0.96	0.85
Flt Protected				0.95	1.00			1.00			1.00	1.00
Satd. Flow (prot)				1770	6323			5085			4509	1237
Flt Permitted				0.95	1.00			1.00			1.00	1.00
Satd. Flow (perm)				1770	6323			5085			4509	1237
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	225	2006	147	0	934	0	0	973	727
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	4	4
Lane Group Flow (vph)	0	0	0	225	2145	0	0	934	0	0	1311	381
Confl. Peds. (#/hr)			418			28			67			75
Confl. Bikes (#/hr)						1			1			
Turn Type				Prot								Perm
Protected Phases				1	6			4			4	
Permitted Phases												4
Actuated Green, G (s)				48.7	48.7			31.4			31.4	31.4
Effective Green, g (s)				48.7	48.7			31.4			31.4	31.4
Actuated g/C Ratio				0.54	0.54			0.35			0.35	0.35
Clearance Time (s)				5.3	5.3			4.6			4.6	4.6
Vehicle Extension (s)				0.2	0.2			0.2			0.2	0.2
Lane Grp Cap (vph)				958	3421			1774			1573	432
v/s Ratio Prot				0.13	c0.34			0.18			0.29	
v/s Ratio Perm												c0.31
v/c Ratio				0.23	0.63			0.53			0.83	0.88
Uniform Delay, d1				10.9	14.3			23.4			26.9	27.6
Progression Factor				1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2				0.6	0.9			1.1			5.3	22.0
Delay (s)				11.4	15.2			24.5			32.2	49.6
Level of Service				B	B			C			C	D
Approach Delay (s)		0.0			14.9			24.5			36.2	
Approach LOS		A			B			C			D	

Intersection Summary			
HCM Average Control Delay	23.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	287	8	11	878	9	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.91	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1854			3537	1570	
Flt Permitted	1.00			0.95	0.97	
Satd. Flow (perm)	1854			3368	1570	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	299	8	11	915	9	5
RTOR Reduction (vph)	1	0	0	0	5	0
Lane Group Flow (vph)	306	0	0	926	9	0
Confl. Peds. (#/hr)		26				30
Confl. Bikes (#/hr)		1				
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1452			2638	105	
v/s Ratio Prot	0.17				c0.01	
v/s Ratio Perm				c0.27		
v/c Ratio	0.21			0.35	0.09	
Uniform Delay, d1	1.7			1.9	26.3	
Progression Factor	1.00			2.18	1.00	
Incremental Delay, d2	0.3			0.3	0.1	
Delay (s)	2.0			4.6	26.4	
Level of Service	A			A	C	
Approach Delay (s)	2.0			4.6	26.4	
Approach LOS	A			A	C	

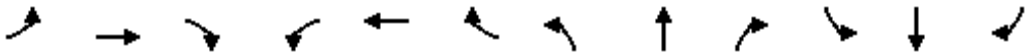
Intersection Summary			
HCM Average Control Delay	4.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	334	0	0	907	1	0	1	3	0	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	359	0	0	975	1	0	1	3	0	0	9
Pedestrians		17			30			32			73	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			3			3			6	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		268			542							
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	1049			391			904	1440	421	1442	1440	578
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1049			217			811	1431	251	1433	1430	578
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	99	99	100	100	98
cM capacity (veh/h)	619			1136			206	105	614	69	105	425

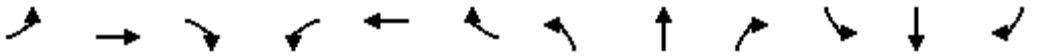
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	359	488	489	4	9
Volume Left	0	0	0	0	0
Volume Right	0	0	1	3	9
cSH	619	1136	1700	278	425
Volume to Capacity	0.00	0.00	0.29	0.02	0.02
Queue Length 95th (ft)	0	0	0	1	2
Control Delay (s)	0.0	0.0	0.0	18.2	13.6
Lane LOS				C	B
Approach Delay (s)	0.0	0.0		18.2	13.6
Approach LOS				C	B

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	41.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	331	7	7	893	15	4	1	3	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0				
Lane Util. Factor		1.00			0.95			1.00				
Frt		1.00			1.00			0.95				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		1856			3529			1725				
Flt Permitted		0.99			0.95			0.98				
Satd. Flow (perm)		1835			3362			1725				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	360	8	8	971	16	4	1	3	0	0	0
RTOR Reduction (vph)	0	2	0	0	3	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	371	0	0	992	0	0	6	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		4			8		2	2				
Permitted Phases	4			8								
Actuated Green, G (s)		26.7			26.7			25.3				
Effective Green, g (s)		26.7			26.7			25.3				
Actuated g/C Ratio		0.44			0.44			0.42				
Clearance Time (s)		4.0			4.0			4.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		817			1496			727				
v/s Ratio Prot								c0.00				
v/s Ratio Perm		0.20			c0.30							
v/c Ratio		0.45			0.66			0.01				
Uniform Delay, d1		11.6			13.1			10.1				
Progression Factor		0.98			1.00			1.00				
Incremental Delay, d2		0.4			1.1			0.0				
Delay (s)		11.8			14.2			10.1				
Level of Service		B			B			B				
Approach Delay (s)		11.8			14.2			10.1			0.0	
Approach LOS		B			B			B			A	

Intersection Summary			
HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2309	55	0	1111	85	34	409	90	122	284	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99		1.00	1.00	0.77	1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4911			4836		1719	1810	1186	1719	1810	1439
Flt Permitted		1.00			1.00		0.46	1.00	1.00	0.29	1.00	1.00
Satd. Flow (perm)		4911			4836		832	1810	1186	523	1810	1439
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	2380	57	0	1145	88	35	422	93	126	293	53
RTOR Reduction (vph)	0	3	0	0	10	0	0	0	1	0	0	34
Lane Group Flow (vph)	0	2434	0	0	1223	0	35	422	92	126	293	19
Confl. Peds. (#/hr)			74			61			221			35
Confl. Bikes (#/hr)			2			8			34			32
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			2			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2723			2681		271	589	386	170	589	468
v/s Ratio Prot		c0.50			0.25			0.23			0.16	
v/s Ratio Perm							0.04		0.08	c0.24		0.01
v/c Ratio		0.89			0.46		0.13	0.72	0.24	0.74	0.50	0.04
Uniform Delay, d1		17.7			12.0		21.4	26.7	22.2	27.0	24.4	20.7
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.0			0.6		1.0	7.3	1.4	25.0	3.0	0.2
Delay (s)		22.8			12.5		22.4	34.0	23.6	51.9	27.4	20.9
Level of Service		C			B		C	C	C	D	C	C
Approach Delay (s)		22.8			12.5			31.5			33.2	
Approach LOS		C			B			C			C	

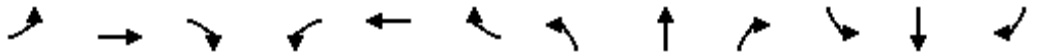
Intersection Summary			
HCM Average Control Delay	22.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	103.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	530	26	76	299	69	19	503	131	80	277	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00		1.00	0.99		1.00	1.00	0.88	1.00	1.00	0.95
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3454		1752	3375		1752	1845	1372	1752	1845	1484
Flt Permitted		0.89		0.34	1.00		0.52	1.00	1.00	0.27	1.00	1.00
Satd. Flow (perm)		3089		620	3375		962	1845	1372	500	1845	1484
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	54	582	29	84	329	76	21	553	144	88	304	18
RTOR Reduction (vph)	0	5	0	0	33	0	0	0	67	0	0	10
Lane Group Flow (vph)	0	660	0	84	372	0	21	553	77	88	304	8
Confl. Peds. (#/hr)			58			24			64			32
Confl. Bikes (#/hr)			4			1			41			40
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1287		258	1406		417	800	595	217	800	643
v/s Ratio Prot					0.11			c0.30			0.16	
v/s Ratio Perm		c0.21		0.14			0.02		0.06	0.18		0.01
v/c Ratio		0.51		0.33	0.26		0.05	0.69	0.13	0.41	0.38	0.01
Uniform Delay, d1		13.0		11.8	11.5		9.8	13.8	10.2	11.7	11.5	9.7
Progression Factor		1.00		0.91	0.84		1.17	0.96	1.41	1.00	1.00	1.00
Incremental Delay, d2		1.5		3.0	0.4		0.2	3.7	0.3	5.5	1.4	0.0
Delay (s)		14.4		13.8	10.1		11.7	16.9	14.7	17.2	12.9	9.7
Level of Service		B		B	B		B	B	B	B	B	A
Approach Delay (s)		14.4			10.7			16.3			13.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	104.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	1172	11	6	766	94	11	403	42	172	160	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99			0.99		1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.98			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3520			3462			1825		1770	1863	1495
Flt Permitted		0.75			0.95			0.99		0.36	1.00	1.00
Satd. Flow (perm)		2664			3273			1814		668	1863	1495
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	102	1208	11	6	790	97	11	415	43	177	165	75
RTOR Reduction (vph)	0	1	0	0	16	0	0	6	0	0	0	49
Lane Group Flow (vph)	0	1320	0	0	878	0	0	463	0	177	165	26
Confl. Peds. (#/hr)			18			29			50			28
Confl. Bikes (#/hr)			1						32			33
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		29.0			29.0			21.0		21.0	21.0	21.0
Effective Green, g (s)		29.0			29.0			21.0		21.0	21.0	21.0
Actuated g/C Ratio		0.48			0.48			0.35		0.35	0.35	0.35
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1288			1582			635		234	652	523
v/s Ratio Prot											0.09	
v/s Ratio Perm		c0.50			0.27			0.26		c0.26		0.02
v/c Ratio		1.02			0.55			0.73		0.76	0.25	0.05
Uniform Delay, d1		15.5			10.9			17.0		17.2	13.9	12.9
Progression Factor		1.00			1.00			1.00		1.18	1.17	2.29
Incremental Delay, d2		31.6			1.4			7.2		19.2	0.9	0.2
Delay (s)		47.1			12.3			24.2		39.6	17.2	29.8
Level of Service		D			B			C		D	B	C
Approach Delay (s)		47.1			12.3			24.2			28.9	
Approach LOS		D			B			C			C	

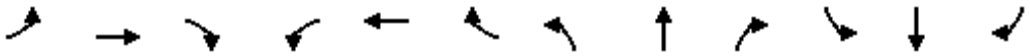
Intersection Summary			
HCM Average Control Delay	31.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	119.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	436	42	66	405	41	33	374	75	52	310	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.98		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1839	1445		3423			1787		1752	1820	
Flt Permitted		0.96	1.00		0.81			0.95		0.35	1.00	
Satd. Flow (perm)		1762	1445		2775			1712		644	1820	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	29	484	47	73	450	46	37	416	83	58	344	27
RTOR Reduction (vph)	0	0	25	0	11	0	0	11	0	0	5	0
Lane Group Flow (vph)	0	513	22	0	558	0	0	525	0	58	366	0
Confl. Peds. (#/hr)			53			41			19			31
Confl. Bikes (#/hr)			4			1			3			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		822	674		1295			656		247	698	
v/s Ratio Prot											0.20	
v/s Ratio Perm		c0.29	0.02		0.20			c0.31		0.09		
v/c Ratio		0.62	0.03		0.43			0.80		0.23	0.52	
Uniform Delay, d1		12.0	8.7		10.7			16.5		12.5	14.3	
Progression Factor		0.65	0.26		1.72			1.00		1.00	1.00	
Incremental Delay, d2		3.2	0.1		0.9			9.9		2.2	2.8	
Delay (s)		11.1	2.3		19.3			26.4		14.8	17.1	
Level of Service		B	A		B			C		B	B	
Approach Delay (s)		10.4			19.3			26.4			16.8	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	18.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	108.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

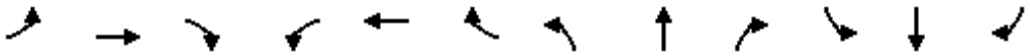


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	641	687	0	336	23	523	444	59	43	354	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.98			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1845	1452		3453		1752	1794			3470	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.54	
Satd. Flow (perm)		1845	1452		3453		1752	1794			1869	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	668	716	0	350	24	545	462	61	45	369	9
RTOR Reduction (vph)	0	0	471	0	6	0	0	5	0	0	2	0
Lane Group Flow (vph)	0	668	245	0	368	0	545	518	0	0	421	0
Confl. Peds. (#/hr)			60			45			37			39
Confl. Bikes (#/hr)			1			1			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Effective Green, g (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Actuated g/C Ratio		0.38	0.29		0.38		0.29	0.29			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		697	419		1304		506	518			353	
v/s Ratio Prot		c0.36			0.11		c0.31	0.29				
v/s Ratio Perm			0.17								c0.23	
v/c Ratio		0.96	0.58		0.28		1.08	1.00			1.19	
Uniform Delay, d1		27.3	27.4		19.5		32.0	32.0			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		25.3	5.8		0.5		62.3	39.6			111.7	
Delay (s)		52.6	33.2		20.0		94.3	71.6			148.2	
Level of Service		D	C		C		F	E			F	
Approach Delay (s)		42.6			20.0			83.2			148.2	
Approach LOS		D			C			F			F	

Intersection Summary			
HCM Average Control Delay	67.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	87.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	2460	41	1418	2	885	21	332	775	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		1.00		1.00	0.99	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		1.00		1.00	0.98	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3513		1770	3430	
Flt Permitted	1.00		1.00		1.00		0.33	1.00	
Satd. Flow (perm)	3610		5084		3513		621	3430	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2536	42	1462	2	912	22	342	799	125
RTOR Reduction (vph)	1	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	2577	0	1464	0	934	0	342	910	0
Confl. Peds. (#/hr)		38				68			82
Confl. Bikes (#/hr)		90				2			4
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	46.0		46.0		21.0		12.0	33.0	
Effective Green, g (s)	46.0		46.0		21.0		12.0	33.0	
Actuated g/C Ratio	0.51		0.51		0.23		0.13	0.37	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1845		2598		820		83	1258	
v/s Ratio Prot	c0.71				c0.27			0.27	
v/s Ratio Perm			0.29				c0.55		
v/c Ratio	1.40		0.56		1.14		4.12	0.72	
Uniform Delay, d1	22.0		15.1		34.5		39.0	24.6	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	181.8		0.9		77.1		1432.3	1.8	
Delay (s)	203.8		16.0		111.6		1471.3	26.3	
Level of Service	F		B		F		F	C	
Approach Delay (s)			16.0		111.6			416.7	
Approach LOS			B		F			F	

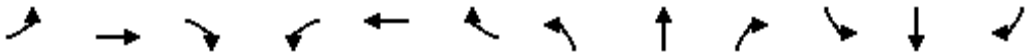
Intersection Summary			
HCM Average Control Delay	189.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2416	29	0	1089	47	47	177	51	94	146	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.97			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		4928			4895			1736			1744	
Flt Permitted		1.00			1.00			0.90			0.71	
Satd. Flow (perm)		4928			4895			1578			1268	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	2517	30	0	1134	49	49	184	53	98	152	32
RTOR Reduction (vph)	0	1	0	0	5	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	2546	0	0	1178	0	0	285	0	0	277	0
Confl. Peds. (#/hr)			28			36			28			23
Confl. Bikes (#/hr)			4			1			2			3
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2902			2883			491			394	
v/s Ratio Prot		c0.52			0.24							
v/s Ratio Perm								0.18			c0.22	
v/c Ratio		0.88			0.41			0.58			0.70	
Uniform Delay, d1		15.7			10.0			26.1			27.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.1			0.4			1.0			4.6	
Delay (s)		19.9			10.4			27.1			31.9	
Level of Service		B			B			C			C	
Approach Delay (s)		19.9			10.4			27.1			31.9	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

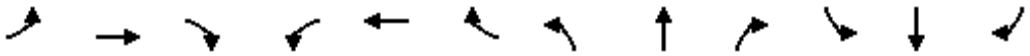
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	63	556	105	43	473	78	45	168	28	53	147	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.95		0.99			1.00			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.98			0.98			0.98	
Flt Protected		0.99	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1818	1477		3367			1774			1761	
Flt Permitted		0.88	1.00		0.78			0.90			0.87	
Satd. Flow (perm)		1612	1477		2629			1611			1555	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	71	625	118	48	531	88	51	189	31	60	165	36
RTOR Reduction (vph)	0	0	51	0	20	0	0	8	0	0	10	0
Lane Group Flow (vph)	0	696	67	0	647	0	0	263	0	0	251	0
Confl. Peds. (#/hr)			21			29			16			47
Confl. Bikes (#/hr)			9			1			1			
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		752	689		1227			618			596	
v/s Ratio Prot												
v/s Ratio Perm		c0.43	0.05		0.25			c0.16			0.16	
v/c Ratio		0.93	0.10		0.53			0.43			0.42	
Uniform Delay, d1		15.0	8.9		11.3			13.6			13.6	
Progression Factor		0.69	0.30		1.00			1.00			1.00	
Incremental Delay, d2		17.5	0.3		1.6			0.5			0.5	
Delay (s)		27.9	3.0		12.9			14.1			14.1	
Level of Service		C	A		B			B			B	
Approach Delay (s)		24.2			12.9			14.1			14.1	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	86.1%	ICU Level of Service	E
Analysis Period (min)	15		

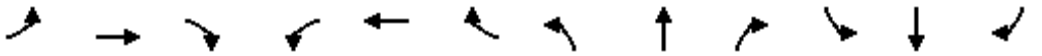
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	52	0	84	1	176	144	133	174	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	0	65	0	105	1	220	180	166	218	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	170	401	384
Volume Left (vph)	0	65	1	166
Volume Right (vph)	0	105	180	0
Hadj (s)	0.00	-0.26	-0.23	0.12
Departure Headway (s)	6.2	5.5	4.7	5.0
Degree Utilization, x	0.00	0.26	0.52	0.53
Capacity (veh/h)	482	585	746	694
Control Delay (s)	9.2	10.4	12.6	13.6
Approach Delay (s)	0.0	10.4	12.6	13.6
Approach LOS	A	B	B	B

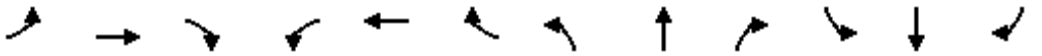
Intersection Summary				
Delay	12.6			
HCM Level of Service	B			
Intersection Capacity Utilization	59.6%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	214	225	0	170	79	20	87	1519	502	1	855	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.91	1.00	0.97			1.00	0.77
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1719	1810		3335	1810	1395	1719	3198			3438	1178
Flt Permitted	0.36	1.00		0.36	1.00	1.00	0.95	1.00			0.86	1.00
Satd. Flow (perm)	658	1810		1277	1810	1395	1719	3198			2971	1178
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	228	239	0	181	84	21	93	1616	534	1	910	179
RTOR Reduction (vph)	0	0	0	0	0	15	0	36	0	0	0	113
Lane Group Flow (vph)	228	239	0	181	84	6	93	2114	0	0	911	66
Confl. Peds. (#/hr)			63			72			84			53
Confl. Bikes (#/hr)			1			2			2			2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	custom			custom		Perm	Prot			Perm		Perm
Protected Phases		2			6		3	8			4	
Permitted Phases	5			1		6				4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.29	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	80	521		156	521	401	57	1350			1089	432
v/s Ratio Prot		c0.13			0.05		0.05	c0.66				
v/s Ratio Perm	c0.35			0.14		0.00					0.31	0.06
v/c Ratio	2.85	0.46		1.16	0.16	0.02	1.63	1.57			0.84	0.15
Uniform Delay, d1	39.5	26.3		39.5	23.9	22.9	43.5	26.0			26.0	19.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	865.8	2.9		121.6	0.7	0.1	350.4	258.4			5.7	0.2
Delay (s)	905.3	29.2		161.1	24.6	23.0	393.9	284.4			31.8	19.3
Level of Service	F	C		F	C	C	F	F			C	B
Approach Delay (s)		456.9			110.9			288.9			29.7	
Approach LOS		F			F			F			C	

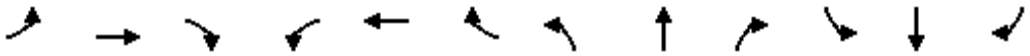
Intersection Summary			
HCM Average Control Delay	226.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	117.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



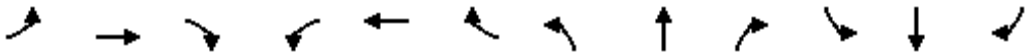
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	122	466	29	103	568	102	0	1957	108	0	929	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.98			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1843		1770	3420			3495			3462	
Flt Permitted	0.21	1.00		0.15	1.00			1.00			1.00	
Satd. Flow (perm)	394	1843		274	3420			3495			3462	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	131	501	31	111	611	110	0	2104	116	0	999	127
RTOR Reduction (vph)	0	3	0	0	3	0	0	4	0	0	11	0
Lane Group Flow (vph)	131	529	0	111	718	0	0	2216	0	0	1115	0
Confl. Peds. (#/hr)			24			61			78			61
Confl. Bikes (#/hr)			2			2			5			5
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Effective Green, g (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.59			0.59	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	119	557		83	1034			2066			2046	
v/s Ratio Prot		0.29			0.21			c0.63			0.32	
v/s Ratio Perm	0.33			c0.41								
v/c Ratio	1.10	0.95		1.34	0.69			1.07			0.54	
Uniform Delay, d1	31.4	30.7		31.4	27.7			18.4			11.1	
Progression Factor	1.00	1.00		1.00	1.00			0.41			1.00	
Incremental Delay, d2	112.2	26.2		213.1	2.0			36.7			1.0	
Delay (s)	143.6	56.9		244.5	29.8			44.3			12.1	
Level of Service	F	E		F	C			D			B	
Approach Delay (s)		74.0			58.4			44.3			12.1	
Approach LOS		E			E			D			B	

Intersection Summary			
HCM Average Control Delay	43.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	118.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	174	45	49	94	99	0	1942	102	0	1007	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frpb, ped/bikes		1.00	0.93		0.96			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.94			0.99			0.99	
Flt Protected		1.00	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1857	1467		1671			3499			3503	
Flt Permitted		0.98	1.00		0.82			1.00			1.00	
Satd. Flow (perm)		1817	1467		1388			3499			3503	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	189	49	53	102	108	0	2111	111	0	1095	58
RTOR Reduction (vph)	0	0	38	0	9	0	0	4	0	0	4	0
Lane Group Flow (vph)	0	202	11	0	254	0	0	2218	0	0	1149	0
Confl. Peds. (#/hr)			37			65			76			40
Confl. Bikes (#/hr)			14			2			3			5
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		408	329		312			2352			2355	
v/s Ratio Prot								c0.63			0.33	
v/s Ratio Perm		0.11	0.01		c0.18							
v/c Ratio		0.50	0.03		0.82			0.94			0.49	
Uniform Delay, d1		30.5	27.3		33.1			13.2			7.2	
Progression Factor		1.00	1.00		1.00			0.30			0.48	
Incremental Delay, d2		0.9	0.0		15.0			1.1			0.6	
Delay (s)		31.4	27.3		48.2			5.1			4.0	
Level of Service		C	C		D			A			A	
Approach Delay (s)		30.6			48.2			5.1			4.0	
Approach LOS		C			D			A			A	

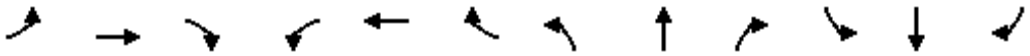
Intersection Summary			
HCM Average Control Delay	9.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	102.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	131	466	28	20	244	35	0	1985	53	0	996	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			1.00			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3422			3395			3467			3419	
Flt Permitted		0.77			0.89			1.00			1.00	
Satd. Flow (perm)		2655			3035			3467			3419	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	139	496	30	21	260	37	0	2112	56	0	1060	93
RTOR Reduction (vph)	0	3	0	0	3	0	0	2	0	0	7	0
Lane Group Flow (vph)	0	662	0	0	315	0	0	2166	0	0	1146	0
Confl. Peds. (#/hr)			101			61			143			81
Confl. Bikes (#/hr)			7						4			5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.2			28.2			52.7			52.7	
Effective Green, g (s)		28.2			28.2			52.7			52.7	
Actuated g/C Ratio		0.31			0.31			0.59			0.59	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		832			951			2030			2002	
v/s Ratio Prot								c0.62			0.34	
v/s Ratio Perm		c0.25			0.10							
v/c Ratio		0.80			0.33			1.07			0.57	
Uniform Delay, d1		28.3			23.7			18.6			11.6	
Progression Factor		1.00			1.00			1.00			0.86	
Incremental Delay, d2		7.7			0.9			40.6			1.1	
Delay (s)		36.0			24.6			59.3			11.1	
Level of Service		D			C			E			B	
Approach Delay (s)		36.0			24.6			59.3			11.1	
Approach LOS		D			C			E			B	

Intersection Summary			
HCM Average Control Delay	40.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	102.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	165	1431	251	68	1720	0	0	553	457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	
Lane Util. Factor				1.00	0.86			0.91			0.91	
Frpb, ped/bikes				1.00	0.99			1.00			0.98	
Flpb, ped/bikes				1.00	1.00			1.00			1.00	
Frt				1.00	0.98			1.00			0.93	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1752	6168			5026			4603	
Flt Permitted				0.95	1.00			0.82			1.00	
Satd. Flow (perm)				1752	6168			4121			4603	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	174	1506	264	72	1811	0	0	582	481
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	174	1767	0	0	1883	0	0	1060	0
Confl. Peds. (#/hr)			406			24			51			29
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Prot			Perm					
Protected Phases				1	6			8			4	
Permitted Phases							8					
Actuated Green, G (s)				35.7	35.7			44.4			44.4	
Effective Green, g (s)				35.7	35.7			44.4			44.4	
Actuated g/C Ratio				0.40	0.40			0.49			0.49	
Clearance Time (s)				5.3	5.3			4.6			4.6	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				695	2447			2033			2271	
v/s Ratio Prot				0.10	c0.29						0.23	
v/s Ratio Perm								c0.46				
v/c Ratio				0.25	0.72			0.93			0.47	
Uniform Delay, d1				18.2	23.0			21.3			15.0	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				0.9	1.9			8.8			0.7	
Delay (s)				19.0	24.8			30.1			15.7	
Level of Service				B	C			C			B	
Approach Delay (s)		0.0			24.3			30.1			15.7	
Approach LOS		A			C			C			B	

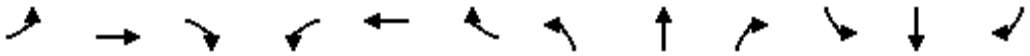
Intersection Summary			
HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	647	19	11	579	25	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.95	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.96	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1818			3468	1614	
Flt Permitted	1.00			0.94	0.97	
Satd. Flow (perm)	1818			3274	1614	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	735	22	12	658	28	12
RTOR Reduction (vph)	1	0	0	0	10	0
Lane Group Flow (vph)	756	0	0	670	30	0
Confl. Peds. (#/hr)		29				37
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	43.0			43.0	8.0	
Effective Green, g (s)	43.0			43.0	8.0	
Actuated g/C Ratio	0.72			0.72	0.13	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1303			2346	215	
v/s Ratio Prot	c0.42				c0.02	
v/s Ratio Perm				0.20		
v/c Ratio	0.58			0.29	0.14	
Uniform Delay, d1	4.1			3.0	23.0	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	1.9			0.3	0.1	
Delay (s)	6.0			3.3	23.1	
Level of Service	A			A	C	
Approach Delay (s)	6.0			3.3	23.1	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	5.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

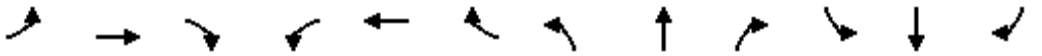
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	592	20	15	640	2	8	5	8	1	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			2.0	
Lane Util. Factor		1.00			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.96			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.95			0.91	
Flt Protected		1.00			1.00			0.98			0.98	
Satd. Flow (prot)		1814			3465			1630			1597	
Flt Permitted		1.00			0.94			0.88			0.96	
Satd. Flow (perm)		1807			3258			1453			1555	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	6	680	23	17	736	2	9	6	9	1	0	2
RTOR Reduction (vph)	0	1	0	0	0	0	0	8	0	0	2	0
Lane Group Flow (vph)	0	708	0	0	755	0	0	16	0	0	1	0
Confl. Peds. (#/hr)			46			97			64			26
Confl. Bikes (#/hr)			5			2						
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		47.0			47.0			4.0			7.0	
Effective Green, g (s)		47.0			47.0			4.0			7.0	
Actuated g/C Ratio		0.78			0.78			0.07			0.12	
Clearance Time (s)		4.0			4.0			5.0			2.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1415			2552			97			181	
v/s Ratio Prot												
v/s Ratio Perm		c0.39			0.23			c0.01			0.00	
v/c Ratio		0.50			0.30			0.16			0.01	
Uniform Delay, d1		2.3			1.8			26.4			23.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.3			0.3			0.8			0.0	
Delay (s)		3.6			2.1			27.2			23.4	
Level of Service		A			A			C			C	
Approach Delay (s)		3.6			2.1			27.2			23.4	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	3.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

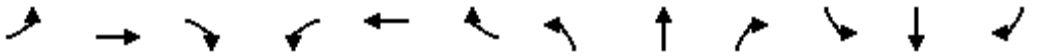
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1596	78	0	2157	145	50	324	82	125	476	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.98		1.00	1.00	0.78	1.00	1.00	0.88
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4958			4879		1752	1845	1223	1752	1845	1376
Flt Permitted		1.00			1.00		0.20	1.00	1.00	0.40	1.00	1.00
Satd. Flow (perm)		4958			4879		373	1845	1223	746	1845	1376
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1645	80	0	2224	149	52	334	85	129	491	86
RTOR Reduction (vph)	0	6	0	0	8	0	0	0	6	0	0	1
Lane Group Flow (vph)	0	1719	0	0	2365	0	52	334	79	129	491	85
Confl. Peds. (#/hr)			143			164			216			93
Confl. Bikes (#/hr)			5			3			24			44
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2749			2705		121	601	398	243	601	448
v/s Ratio Prot		0.35			c0.48			0.18			c0.27	
v/s Ratio Perm							0.14		0.06	0.17		0.06
v/c Ratio		0.63			0.87		0.43	0.56	0.20	0.53	0.82	0.19
Uniform Delay, d1		13.7			17.3		23.8	25.0	21.9	24.7	27.9	21.8
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.1			4.3		10.8	3.7	1.1	8.1	11.7	0.9
Delay (s)		14.8			21.6		34.6	28.7	23.0	32.8	39.6	22.7
Level of Service		B			C		C	C	C	C	D	C
Approach Delay (s)		14.8			21.6			28.3			36.3	
Approach LOS		B			C			C			D	

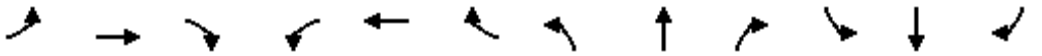
Intersection Summary			
HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	202	40	208	532	92	20	288	39	58	525	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99		1.00	0.99		1.00	1.00	0.89	1.00	1.00	0.93
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3399		1770	3435		1770	1863	1407	1770	1863	1472
Flt Permitted		0.85		0.57	1.00		0.27	1.00	1.00	0.52	1.00	1.00
Satd. Flow (perm)		2899		1069	3435		505	1863	1407	974	1863	1472
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	36	213	42	219	560	97	21	303	41	61	553	37
RTOR Reduction (vph)	0	23	0	0	23	0	0	0	23	0	0	20
Lane Group Flow (vph)	0	268	0	219	634	0	21	303	18	61	553	17
Confl. Peds. (#/hr)			54			21			59			52
Confl. Bikes (#/hr)			3			7			31			48
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1208		445	1431		219	807	610	422	807	638
v/s Ratio Prot					0.18			0.16			c0.30	
v/s Ratio Perm		0.09		c0.20			0.04		0.01	0.06		0.01
v/c Ratio		0.22		0.49	0.44		0.10	0.38	0.03	0.14	0.69	0.03
Uniform Delay, d1		11.2		12.8	12.5		10.1	11.5	9.8	10.3	13.7	9.7
Progression Factor		1.00		0.29	0.26		1.12	1.08	1.44	1.00	1.00	1.00
Incremental Delay, d2		0.4		2.9	0.7		0.7	1.1	0.1	0.7	4.7	0.1
Delay (s)		11.7		6.6	4.0		12.1	13.5	14.1	11.0	18.4	9.8
Level of Service		B		A	A		B	B	B	B	B	A
Approach Delay (s)		11.7			4.6			13.5			17.2	
Approach LOS		B			A			B			B	

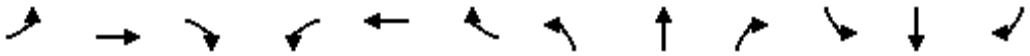
Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	101.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	801	24	22	981	96	22	174	23	214	323	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			1.00			0.99		1.00	1.00	0.95
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.99			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3510			3476			1815		1770	1863	1504
Flt Permitted		0.73			0.93			0.95		0.62	1.00	1.00
Satd. Flow (perm)		2564			3220			1730		1147	1863	1504
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	61	852	26	23	1044	102	23	185	24	228	344	185
RTOR Reduction (vph)	0	3	0	0	12	0	0	7	0	0	0	26
Lane Group Flow (vph)	0	936	0	0	1157	0	0	225	0	228	344	159
Confl. Peds. (#/hr)			15			21			46			24
Confl. Bikes (#/hr)						1			34			35
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		27.0			27.0			23.0		23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0			23.0		23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45			0.38		0.38	0.38	0.38
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1154			1449			663		440	714	577
v/s Ratio Prot											0.18	
v/s Ratio Perm		c0.36			0.36			0.13		c0.20		0.11
v/c Ratio		0.81			0.80			0.34		0.52	0.48	0.28
Uniform Delay, d1		14.3			14.2			13.1		14.2	14.0	12.8
Progression Factor		1.00			1.00			1.00		0.80	0.80	0.82
Incremental Delay, d2		6.2			4.7			1.4		3.4	1.8	0.9
Delay (s)		20.5			18.8			14.5		14.8	13.0	11.4
Level of Service		C			B			B		B	B	B
Approach Delay (s)		20.5			18.8			14.5			13.1	
Approach LOS		C			B			B			B	

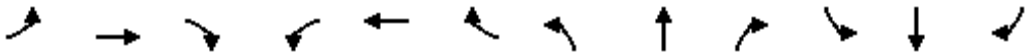
Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	110.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	249	56	90	768	41	39	346	43	43	412	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.91		1.00			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.99		1.00	0.99	
Flt Protected		1.00	1.00		1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1858	1434		3487			1818		1770	1839	
Flt Permitted		0.95	1.00		0.89			0.88		0.41	1.00	
Satd. Flow (perm)		1764	1434		3103			1604		762	1839	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	14	265	60	96	817	44	41	368	46	46	438	30
RTOR Reduction (vph)	0	0	32	0	6	0	0	7	0	0	4	0
Lane Group Flow (vph)	0	279	28	0	951	0	0	448	0	46	464	0
Confl. Peds. (#/hr)			68			35			29			42
Confl. Bikes (#/hr)			4			6			2			3
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		823	669		1448			615		292	705	
v/s Ratio Prot											0.25	
v/s Ratio Perm		0.16	0.02		c0.31			c0.28		0.06		
v/c Ratio		0.34	0.04		0.66			0.73		0.16	0.66	
Uniform Delay, d1		10.1	8.7		12.3			15.8		12.1	15.3	
Progression Factor		1.08	1.54		0.25			1.00		1.00	1.00	
Incremental Delay, d2		1.1	0.1		1.7			7.4		1.1	4.8	
Delay (s)		12.1	13.5		4.7			23.2		13.3	20.0	
Level of Service		B	B		A			C		B	C	
Approach Delay (s)		12.3			4.7			23.2			19.4	
Approach LOS		B			A			C			B	

Intersection Summary			
HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	110.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



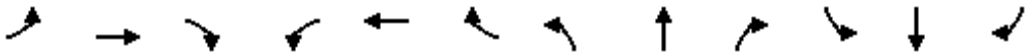
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	410	656	0	505	37	578	441	45	20	528	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.99			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1863	1474		3481		1770	1816			3508	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.62	
Satd. Flow (perm)		1863	1474		3481		1770	1816			2193	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	436	698	0	537	39	615	469	48	21	562	17
RTOR Reduction (vph)	0	0	465	0	6	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	436	233	0	570	0	615	513	0	0	598	0
Confl. Peds. (#/hr)			64			50			68			57
Confl. Bikes (#/hr)			1						3			3
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Effective Green, g (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Actuated g/C Ratio		0.33	0.33		0.33		0.33	0.33			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		621	491		1160		590	605			414	
v/s Ratio Prot		c0.23			0.16		c0.35	0.28				
v/s Ratio Perm			0.16								c0.27	
v/c Ratio		0.70	0.47		0.49		1.04	0.85			1.44	
Uniform Delay, d1		26.1	23.8		23.9		30.0	27.9			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		6.5	3.3		1.5		48.5	13.8			212.8	
Delay (s)		32.6	27.0		25.4		78.5	41.7			249.3	
Level of Service		C	C		C		E	D			F	
Approach Delay (s)		29.2			25.4			61.7			249.3	
Approach LOS		C			C			E			F	

Intersection Summary			
HCM Average Control Delay	77.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	83.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	1608	104	2481	4	691	34	300	853	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		0.98		1.00	0.98	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		0.99		1.00	0.96	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3441		1770	3334	
Flt Permitted	1.00		1.00		1.00		0.37	1.00	
Satd. Flow (perm)	3610		5084		3441		680	3334	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1675	108	2584	4	720	35	312	889	291
RTOR Reduction (vph)	7	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	1776	0	2588	0	755	0	312	1179	0
Confl. Peds. (#/hr)		45				186			89
Confl. Bikes (#/hr)		4	94			1			
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	48.0		48.0		19.0		12.0	31.0	
Effective Green, g (s)	48.0		48.0		19.0		12.0	31.0	
Actuated g/C Ratio	0.53		0.53		0.21		0.13	0.34	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1925		2711		726		91	1148	
v/s Ratio Prot	0.49				0.22			c0.35	
v/s Ratio Perm			c0.51				c0.46		
v/c Ratio	0.92		0.95		1.04		3.43	1.03	
Uniform Delay, d1	19.3		20.0		35.5		39.0	29.5	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	8.9		9.5		44.2		1120.1	33.8	
Delay (s)	28.2		29.5		79.7		1159.1	63.3	
Level of Service	C		C		E		F	E	
Approach Delay (s)			29.5		79.7			292.4	
Approach LOS			C		E			F	

Intersection Summary			
HCM Average Control Delay	94.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	96.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



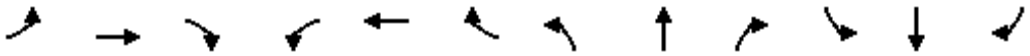
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1519	37	0	2203	46	57	114	59	65	256	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		5008			5015			1745			1782	
Flt Permitted		1.00			1.00			0.76			0.89	
Satd. Flow (perm)		5008			5015			1339			1606	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1599	39	0	2319	48	60	120	62	68	269	62
RTOR Reduction (vph)	0	3	0	0	2	0	0	14	0	0	3	0
Lane Group Flow (vph)	0	1635	0	0	2365	0	0	228	0	0	396	0
Confl. Peds. (#/hr)			43			22			19			20
Confl. Bikes (#/hr)			7			7			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2949			2953			417			500	
v/s Ratio Prot		0.33			c0.47							
v/s Ratio Perm								0.17			c0.25	
v/c Ratio		0.55			0.80			0.55			0.79	
Uniform Delay, d1		11.3			14.4			25.7			28.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8			2.4			0.8			7.9	
Delay (s)		12.0			16.8			26.5			36.2	
Level of Service		B			B			C			D	
Approach Delay (s)		12.0			16.8			26.5			36.2	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	266	94	44	865	85	59	140	37	49	220	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.98			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.99			0.98			0.98	
Flt Protected		1.00	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1855	1454		3461			1769			1781	
Flt Permitted		0.88	1.00		0.93			0.85			0.92	
Satd. Flow (perm)		1648	1454		3218			1530			1644	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	26	292	103	48	951	93	65	154	41	54	242	63
RTOR Reduction (vph)	0	0	55	0	12	0	0	11	0	0	13	0
Lane Group Flow (vph)	0	318	48	0	1080	0	0	249	0	0	346	0
Confl. Peds. (#/hr)			56			60			70			84
Confl. Bikes (#/hr)			4			2			3			2
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		769	679		1502			587			630	
v/s Ratio Prot												
v/s Ratio Perm		0.19	0.03		c0.34			0.16			c0.21	
v/c Ratio		0.41	0.07		0.72			0.42			0.55	
Uniform Delay, d1		10.6	8.8		12.8			13.6			14.5	
Progression Factor		1.30	2.53		1.00			1.00			1.00	
Incremental Delay, d2		1.6	0.2		3.0			0.5			1.0	
Delay (s)		15.3	22.5		15.8			14.1			15.4	
Level of Service		B	C		B			B			B	
Approach Delay (s)		17.1			15.8			14.1			15.4	
Approach LOS		B			B			B			B	

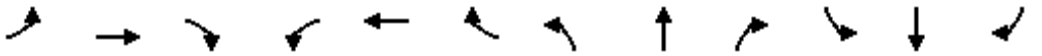
Intersection Summary			
HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	1	0	80	0	82	2	152	87	111	256	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	1	0	91	0	93	2	173	99	126	291	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	184	274	417
Volume Left (vph)	0	91	2	126
Volume Right (vph)	0	93	99	0
Hadj (s)	0.02	-0.19	-0.20	0.08
Departure Headway (s)	6.0	5.4	4.8	4.9
Degree Utilization, x	0.00	0.27	0.36	0.56
Capacity (veh/h)	493	607	720	718
Control Delay (s)	9.0	10.4	10.4	13.9
Approach Delay (s)	9.0	10.4	10.4	13.9
Approach LOS	A	B	B	B

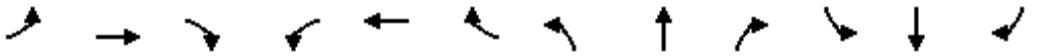
Intersection Summary			
Delay	12.1		
HCM Level of Service	B		
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	167	143	0	428	166	27	98	850	226	0	1366	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.69	1.00	0.98			1.00	0.55
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736	1827		3367	1827	1070	1736	3285			3471	848
Flt Permitted	0.36	1.00		0.36	1.00	1.00	1.00	1.00			1.00	1.00
Satd. Flow (perm)	664	1827		1289	1827	1070	1827	3285			3471	848
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	172	147	0	441	171	28	101	876	233	0	1408	265
RTOR Reduction (vph)	0	0	0	0	0	16	0	27	0	0	0	168
Lane Group Flow (vph)	172	147	0	441	171	12	101	1082	0	0	1408	97
Confl. Peds. (#/hr)			87			210			64			108
Confl. Bikes (#/hr)			2			8			5			2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	custom			custom		custom	custom			Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases	5			1		8	3			4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.42	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Vehicle Extension (s)	0.2	0.2		0.2	0.2	0.2	0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	81	526		158	526	452	61	1387			1273	311
v/s Ratio Prot		0.08			c0.09			0.33			c0.41	
v/s Ratio Perm	0.26			c0.34		0.01	c0.06					0.11
v/c Ratio	2.12	0.28		2.79	0.33	0.03	1.66	0.78			1.11	0.31
Uniform Delay, d1	39.5	24.8		39.5	25.2	15.2	43.5	22.4			28.5	20.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	544.6	1.3		823.4	1.6	0.0	356.7	2.7			59.5	0.2
Delay (s)	584.1	26.1		862.9	26.8	15.2	400.2	25.1			88.0	20.6
Level of Service	F	C		F	C	B	F	C			F	C
Approach Delay (s)		327.0			602.4			56.4			77.4	
Approach LOS		F			F			E			E	

Intersection Summary			
HCM Average Control Delay	178.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	17.1
Intersection Capacity Utilization	117.6%	ICU Level of Service	H
Analysis Period (min)	15		

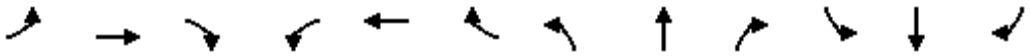
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	218	49	211	762	76	0	1140	53	0	1736	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1816		1787	3502			3535			3516	
Flt Permitted	0.17	1.00		0.48	1.00			1.00			1.00	
Satd. Flow (perm)	311	1816		897	3502			3535			3516	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	77	227	51	220	794	79	0	1188	55	0	1808	150
RTOR Reduction (vph)	0	5	0	0	8	0	0	4	0	0	7	0
Lane Group Flow (vph)	77	273	0	220	865	0	0	1239	0	0	1951	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.55			0.55	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	108	630		311	1214			1932			1922	
v/s Ratio Prot		0.15			0.25			0.35			c0.55	
v/s Ratio Perm	c0.25			0.25								
v/c Ratio	0.71	0.43		0.71	0.71			0.64			1.02	
Uniform Delay, d1	25.5	22.6		25.4	25.5			14.2			20.4	
Progression Factor	1.00	1.00		1.00	1.00			1.66			1.00	
Incremental Delay, d2	19.9	0.5		7.2	2.0			1.4			24.4	
Delay (s)	45.4	23.1		32.6	27.5			25.1			44.8	
Level of Service	D	C		C	C			C			D	
Approach Delay (s)		27.9			28.5			25.1			44.8	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM Average Control Delay	34.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	117.0%	ICU Level of Service	H
Analysis Period (min)	15		

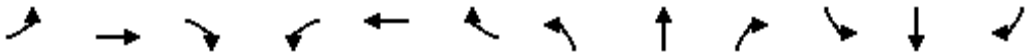
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	135	62	37	75	47	0	1139	50	0	1945	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frpb, ped/bikes		1.00	0.90		0.98			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.96			0.99			1.00	
Flt Protected		0.99	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1868	1435		1754			3538			3558	
Flt Permitted		0.94	1.00		0.89			1.00			1.00	
Satd. Flow (perm)		1776	1435		1588			3538			3558	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	24	141	65	39	78	49	0	1186	52	0	2026	43
RTOR Reduction (vph)	0	0	11	0	17	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	165	54	0	149	0	0	1234	0	0	2067	0
Confl. Peds. (#/hr)			64			33			97			64
Confl. Bikes (#/hr)			8			4			3			11
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		399	322		356			2378			2392	
v/s Ratio Prot								0.35			c0.58	
v/s Ratio Perm		0.09	0.04		c0.09							
v/c Ratio		0.41	0.17		0.42			0.52			0.86	
Uniform Delay, d1		29.8	28.1		29.9			7.4			11.5	
Progression Factor		1.00	1.00		1.00			0.75			0.47	
Incremental Delay, d2		0.7	0.2		0.8			0.7			1.4	
Delay (s)		30.5	28.4		30.7			6.3			6.7	
Level of Service		C	C		C			A			A	
Approach Delay (s)		29.9			30.7			6.3			6.7	
Approach LOS		C			C			A			A	

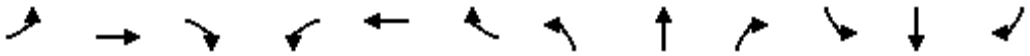
Intersection Summary			
HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	316	44	46	373	56	0	1077	68	0	1849	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.98			0.97			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.99			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3392			3367			3444			3442	
Flt Permitted		0.72			0.86			1.00			1.00	
Satd. Flow (perm)		2462			2913			3444			3442	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	77	329	46	48	389	58	0	1122	71	0	1926	156
RTOR Reduction (vph)	0	6	0	0	11	0	0	5	0	0	7	0
Lane Group Flow (vph)	0	446	0	0	484	0	0	1188	0	0	2075	0
Confl. Peds. (#/hr)			126			164			168			118
Confl. Bikes (#/hr)			3			2			2			3
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		26.2			26.2			54.7			54.7	
Effective Green, g (s)		26.2			26.2			54.7			54.7	
Actuated g/C Ratio		0.29			0.29			0.61			0.61	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		717			848			2093			2092	
v/s Ratio Prot								0.34			c0.60	
v/s Ratio Perm		c0.18			0.17							
v/c Ratio		0.62			0.57			0.57			0.99	
Uniform Delay, d1		27.6			27.1			10.6			17.4	
Progression Factor		1.00			1.00			1.00			0.38	
Incremental Delay, d2		4.0			2.8			1.1			12.4	
Delay (s)		31.7			29.9			11.7			19.1	
Level of Service		C			C			B			B	
Approach Delay (s)		31.7			29.9			11.7			19.1	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	19.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	101.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	238	2118	156	0	988	0	0	1020	768
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	
Lane Util. Factor				1.00	0.86			0.91			0.91	
Frpb, ped/bikes				1.00	1.00			1.00			0.96	
Flpb, ped/bikes				1.00	1.00			1.00			1.00	
Frt				1.00	0.99			1.00			0.94	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1770	6323			5085			4571	
Flt Permitted				0.95	1.00			1.00			1.00	
Satd. Flow (perm)				1770	6323			5085			4571	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	245	2184	161	0	1019	0	0	1052	792
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	0	0	245	2339	0	0	1019	0	0	1842	0
Confl. Peds. (#/hr)			418			28			67			75
Confl. Bikes (#/hr)						1			1			
Turn Type				Prot								
Protected Phases				1	6			4			4	
Permitted Phases												
Actuated Green, G (s)				48.7	48.7			31.4			31.4	
Effective Green, g (s)				48.7	48.7			31.4			31.4	
Actuated g/C Ratio				0.54	0.54			0.35			0.35	
Clearance Time (s)				5.3	5.3			4.6			4.6	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				958	3421			1774			1595	
v/s Ratio Prot				0.14	c0.37			0.20			c0.40	
v/s Ratio Perm												
v/c Ratio				0.26	0.68			0.57			1.46dr	
Uniform Delay, d1				11.0	15.0			23.9			29.3	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				0.6	1.1			1.4			77.3	
Delay (s)				11.6	16.2			25.2			106.6	
Level of Service				B	B			C			F	
Approach Delay (s)		0.0			15.7			25.2			106.6	
Approach LOS		A			B			C			F	

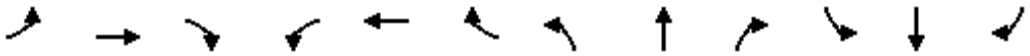
Intersection Summary			
HCM Average Control Delay	48.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

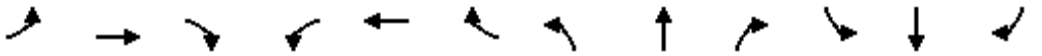
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	299	17	12	936	19	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.92	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.99			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1845			3537	1584	
Flt Permitted	1.00			0.95	0.97	
Satd. Flow (perm)	1845			3367	1584	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	311	18	12	975	20	10
RTOR Reduction (vph)	2	0	0	0	9	0
Lane Group Flow (vph)	327	0	0	987	21	0
Confl. Peds. (#/hr)		26				30
Confl. Bikes (#/hr)		1				
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1445			2637	106	
v/s Ratio Prot	0.18				c0.01	
v/s Ratio Perm				c0.29		
v/c Ratio	0.23			0.37	0.19	
Uniform Delay, d1	1.7			2.0	26.5	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.4			0.4	0.3	
Delay (s)	2.1			2.4	26.8	
Level of Service	A			A	C	
Approach Delay (s)	2.1			2.4	26.8	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	2.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	336	15	14	973	1	8	1	7	2	2	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			2.0	
Lane Util. Factor		1.00			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.97			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.94			0.93	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		1847			3536			1660			1692	
Flt Permitted		0.99			0.95			0.92			0.98	
Satd. Flow (perm)		1837			3358			1569			1685	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	3	361	16	15	1046	1	9	1	8	2	2	4
RTOR Reduction (vph)	0	2	0	0	0	0	0	5	0	0	2	0
Lane Group Flow (vph)	0	378	0	0	1062	0	0	13	0	0	6	0
Confl. Peds. (#/hr)			32			73			30			17
Confl. Bikes (#/hr)			6			5						
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		31.0			31.0			20.0			23.0	
Effective Green, g (s)		31.0			31.0			20.0			23.0	
Actuated g/C Ratio		0.52			0.52			0.33			0.38	
Clearance Time (s)		4.0			4.0			5.0			2.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		949			1735			523			646	
v/s Ratio Prot												
v/s Ratio Perm		0.21			c0.32			c0.01			0.00	
v/c Ratio		0.40			0.61			0.02			0.01	
Uniform Delay, d1		8.8			10.2			13.4			11.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.2			1.6			0.0			0.0	
Delay (s)		10.1			11.9			13.5			11.5	
Level of Service		B			B			B			B	
Approach Delay (s)		10.1			11.9			13.5			11.5	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2314	59	0	1111	85	34	409	90	124	288	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99		1.00	1.00	0.77	1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4909			4836		1719	1810	1186	1719	1810	1439
Flt Permitted		1.00			1.00		0.45	1.00	1.00	0.29	1.00	1.00
Satd. Flow (perm)		4909			4836		822	1810	1186	523	1810	1439
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	2386	61	0	1145	88	35	422	93	128	297	53
RTOR Reduction (vph)	0	3	0	0	10	0	0	0	1	0	0	34
Lane Group Flow (vph)	0	2444	0	0	1223	0	35	422	92	128	297	19
Confl. Peds. (#/hr)			74			61			221			35
Confl. Bikes (#/hr)			2			8			34			32
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			2			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2722			2681		268	589	386	170	589	468
v/s Ratio Prot		c0.50			0.25			0.23			0.16	
v/s Ratio Perm							0.04		0.08	c0.24		0.01
v/c Ratio		0.90			0.46		0.13	0.72	0.24	0.75	0.50	0.04
Uniform Delay, d1		17.8			12.0		21.4	26.7	22.2	27.1	24.5	20.7
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.2			0.6		1.0	7.3	1.4	26.1	3.1	0.2
Delay (s)		23.0			12.5		22.4	34.0	23.6	53.2	27.6	20.9
Level of Service		C			B		C	C	C	D	C	C
Approach Delay (s)		23.0			12.5			31.5			33.7	
Approach LOS		C			B			C			C	

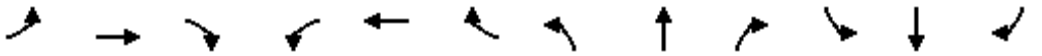
Intersection Summary			
HCM Average Control Delay	22.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	103.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	530	26	76	299	69	19	503	133	88	277	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00		1.00	0.99		1.00	1.00	0.88	1.00	1.00	0.95
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3454		1752	3375		1752	1845	1372	1752	1845	1484
Flt Permitted		0.89		0.34	1.00		0.52	1.00	1.00	0.27	1.00	1.00
Satd. Flow (perm)		3089		620	3375		962	1845	1372	500	1845	1484
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	54	582	29	84	329	76	21	553	146	97	304	18
RTOR Reduction (vph)	0	5	0	0	33	0	0	0	67	0	0	10
Lane Group Flow (vph)	0	660	0	84	372	0	21	553	79	97	304	8
Confl. Peds. (#/hr)			58			24			64			32
Confl. Bikes (#/hr)			4			1			41			40
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1287		258	1406		417	800	595	217	800	643
v/s Ratio Prot					0.11			c0.30			0.16	
v/s Ratio Perm		c0.21		0.14			0.02		0.06	0.19		0.01
v/c Ratio		0.51		0.33	0.26		0.05	0.69	0.13	0.45	0.38	0.01
Uniform Delay, d1		13.0		11.8	11.5		9.8	13.8	10.2	11.9	11.5	9.7
Progression Factor		1.00		0.94	0.87		1.17	0.95	1.40	1.00	1.00	1.00
Incremental Delay, d2		1.5		3.0	0.4		0.2	3.7	0.3	6.5	1.4	0.0
Delay (s)		14.4		14.0	10.4		11.7	16.8	14.7	18.5	12.9	9.7
Level of Service		B		B	B		B	B	B	B	B	A
Approach Delay (s)		14.4			11.0			16.3			14.1	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	14.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	104.8%	ICU Level of Service	G
Analysis Period (min)	15		

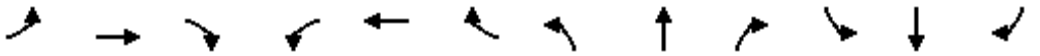
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	1179	11	6	766	94	11	403	42	172	160	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99			0.99		1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.98			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3520			3462			1825		1770	1863	1495
Flt Permitted		0.75			0.95			0.99		0.36	1.00	1.00
Satd. Flow (perm)		2649			3273			1814		668	1863	1495
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	104	1215	11	6	790	97	11	415	43	177	165	75
RTOR Reduction (vph)	0	1	0	0	16	0	0	6	0	0	0	49
Lane Group Flow (vph)	0	1329	0	0	878	0	0	463	0	177	165	26
Confl. Peds. (#/hr)			18			29			50			28
Confl. Bikes (#/hr)			1						32			33
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		29.0			29.0			21.0		21.0	21.0	21.0
Effective Green, g (s)		29.0			29.0			21.0		21.0	21.0	21.0
Actuated g/C Ratio		0.48			0.48			0.35		0.35	0.35	0.35
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1280			1582			635		234	652	523
v/s Ratio Prot											0.09	
v/s Ratio Perm		c0.50			0.27			0.26		c0.26		0.02
v/c Ratio		1.04			0.55			0.73		0.76	0.25	0.05
Uniform Delay, d1		15.5			10.9			17.0		17.2	13.9	12.9
Progression Factor		1.00			1.00			1.00		1.19	1.17	2.29
Incremental Delay, d2		35.6			1.4			7.2		19.2	0.9	0.2
Delay (s)		51.1			12.3			24.2		39.6	17.2	29.8
Level of Service		D			B			C		D	B	C
Approach Delay (s)		51.1			12.3			24.2			29.0	
Approach LOS		D			B			C			C	

Intersection Summary			
HCM Average Control Delay	33.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	119.4%	ICU Level of Service	H
Analysis Period (min)	15		

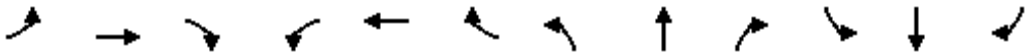
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	444	42	66	405	41	38	374	80	53	311	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.98		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1840	1445		3423			1783		1752	1820	
Flt Permitted		0.96	1.00		0.80			0.95		0.34	1.00	
Satd. Flow (perm)		1763	1445		2756			1697		635	1820	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	29	493	47	73	450	46	42	416	89	59	346	27
RTOR Reduction (vph)	0	0	25	0	11	0	0	12	0	0	5	0
Lane Group Flow (vph)	0	522	22	0	558	0	0	535	0	59	368	0
Confl. Peds. (#/hr)			53			41			19			31
Confl. Bikes (#/hr)			4			1			3			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		823	674		1286			651		243	698	
v/s Ratio Prot											0.20	
v/s Ratio Perm		c0.30	0.02		0.20			c0.32		0.09		
v/c Ratio		0.63	0.03		0.43			0.82		0.24	0.53	
Uniform Delay, d1		12.1	8.7		10.7			16.7		12.6	14.3	
Progression Factor		0.67	0.29		1.77			1.00		1.00	1.00	
Incremental Delay, d2		3.4	0.1		0.9			11.2		2.4	2.8	
Delay (s)		11.5	2.6		19.8			27.9		14.9	17.1	
Level of Service		B	A		B			C		B	B	
Approach Delay (s)		10.8			19.8			27.9			16.8	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	109.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

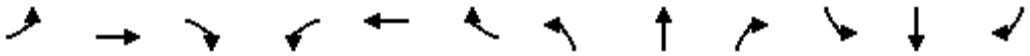


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	648	687	0	336	23	523	454	63	43	355	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.98			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1845	1452		3453		1752	1792			3470	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.54	
Satd. Flow (perm)		1845	1452		3453		1752	1792			1869	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	675	716	0	350	24	545	473	66	45	370	9
RTOR Reduction (vph)	0	0	466	0	6	0	0	6	0	0	2	0
Lane Group Flow (vph)	0	675	250	0	368	0	545	533	0	0	422	0
Confl. Peds. (#/hr)			60			45			37			39
Confl. Bikes (#/hr)			1			1			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Effective Green, g (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Actuated g/C Ratio		0.38	0.29		0.38		0.29	0.29			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		697	419		1304		506	518			353	
v/s Ratio Prot		c0.37			0.11		c0.31	0.30				
v/s Ratio Perm			0.17								c0.23	
v/c Ratio		0.97	0.60		0.28		1.08	1.03			1.20	
Uniform Delay, d1		27.5	27.5		19.5		32.0	32.0			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		27.2	6.1		0.5		62.3	47.3			112.8	
Delay (s)		54.7	33.6		20.0		94.3	79.3			149.3	
Level of Service		D	C		C		F	E			F	
Approach Delay (s)		43.8			20.0			86.9			149.3	
Approach LOS		D			C			F			F	

Intersection Summary			
HCM Average Control Delay	69.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	88.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	2460	41	1418	2	885	21	332	775	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		1.00		1.00	0.99	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		1.00		1.00	0.98	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3513		1770	3430	
Flt Permitted	1.00		1.00		1.00		0.33	1.00	
Satd. Flow (perm)	3610		5084		3513		621	3430	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2536	42	1462	2	912	22	342	799	125
RTOR Reduction (vph)	1	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	2577	0	1464	0	934	0	342	910	0
Confl. Peds. (#/hr)		38				68			82
Confl. Bikes (#/hr)		90				2			4
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	46.0		46.0		21.0		12.0	33.0	
Effective Green, g (s)	46.0		46.0		21.0		12.0	33.0	
Actuated g/C Ratio	0.51		0.51		0.23		0.13	0.37	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1845		2598		820		83	1258	
v/s Ratio Prot	c0.71				c0.27			0.27	
v/s Ratio Perm			0.29				c0.55		
v/c Ratio	1.40		0.56		1.14		4.12	0.72	
Uniform Delay, d1	22.0		15.1		34.5		39.0	24.6	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	181.8		0.9		77.1		1432.3	1.8	
Delay (s)	203.8		16.0		111.6		1471.3	26.3	
Level of Service	F		B		F		F	C	
Approach Delay (s)			16.0		111.6			416.7	
Approach LOS			B		F			F	

Intersection Summary			
HCM Average Control Delay	189.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	112.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2417	34	0	1090	47	47	177	51	94	146	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.97			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		4926			4895			1736			1744	
Flt Permitted		1.00			1.00			0.90			0.71	
Satd. Flow (perm)		4926			4895			1578			1268	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	2518	35	0	1135	49	49	184	53	98	152	32
RTOR Reduction (vph)	0	2	0	0	5	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	2551	0	0	1179	0	0	285	0	0	277	0
Confl. Peds. (#/hr)			28			36			28			23
Confl. Bikes (#/hr)			4			1			2			3
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2901			2883			491			394	
v/s Ratio Prot		c0.52			0.24							
v/s Ratio Perm								0.18			c0.22	
v/c Ratio		0.88			0.41			0.58			0.70	
Uniform Delay, d1		15.8			10.0			26.1			27.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.2			0.4			1.0			4.6	
Delay (s)		20.0			10.4			27.1			31.9	
Level of Service		B			B			C			C	
Approach Delay (s)		20.0			10.4			27.1			31.9	
Approach LOS		B			B			C			C	

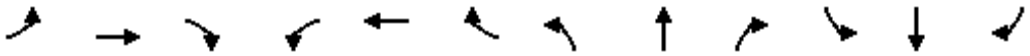
Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	558	107	59	489	78	48	169	31	53	148	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.95		0.99			0.99			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.98			0.98			0.98	
Flt Protected		0.99	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1817	1477		3368			1770			1757	
Flt Permitted		0.87	1.00		0.72			0.89			0.87	
Satd. Flow (perm)		1595	1477		2432			1599			1552	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	73	627	120	66	549	88	54	190	35	60	166	40
RTOR Reduction (vph)	0	0	51	0	19	0	0	9	0	0	10	0
Lane Group Flow (vph)	0	700	69	0	684	0	0	270	0	0	256	0
Confl. Peds. (#/hr)			21			29			16			47
Confl. Bikes (#/hr)			9			1			1			
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		744	689		1135			613			595	
v/s Ratio Prot												
v/s Ratio Perm		c0.44	0.05		0.28			c0.17			0.16	
v/c Ratio		0.94	0.10		0.60			0.44			0.43	
Uniform Delay, d1		15.2	9.0		11.9			13.7			13.7	
Progression Factor		0.69	0.31		1.00			1.00			1.00	
Incremental Delay, d2		19.6	0.3		2.4			0.5			0.5	
Delay (s)		30.1	3.0		14.3			14.2			14.2	
Level of Service		C	A		B			B			B	
Approach Delay (s)		26.1			14.3			14.2			14.2	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		

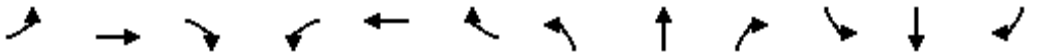
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	44	0	76	1	183	146	142	183	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	0	55	0	95	1	229	182	178	229	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	150	413	406
Volume Left (vph)	0	55	1	178
Volume Right (vph)	0	95	183	0
Hadj (s)	0.00	-0.27	-0.23	0.12
Departure Headway (s)	6.2	5.5	4.6	5.0
Degree Utilization, x	0.00	0.23	0.53	0.56
Capacity (veh/h)	481	577	754	704
Control Delay (s)	9.2	10.2	12.8	14.1
Approach Delay (s)	0.0	10.2	12.8	14.1
Approach LOS	A	B	B	B

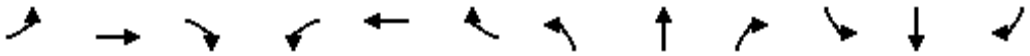
Intersection Summary				
Delay		12.9		
HCM Level of Service		B		
Intersection Capacity Utilization		60.9%	ICU Level of Service	B
Analysis Period (min)		15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	214	225	1	175	81	20	87	1519	502	1	858	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.91	1.00	0.97			1.00	0.77
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1719	1808		3335	1810	1395	1719	3198			3438	1178
Flt Permitted	0.36	1.00		0.36	1.00	1.00	0.95	1.00			0.86	1.00
Satd. Flow (perm)	658	1808		1277	1810	1395	1719	3198			2971	1178
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	228	239	1	186	86	21	93	1616	534	1	913	179
RTOR Reduction (vph)	0	0	0	0	0	15	0	36	0	0	0	113
Lane Group Flow (vph)	228	240	0	186	86	6	93	2114	0	0	914	66
Confl. Peds. (#/hr)			63			72			84			53
Confl. Bikes (#/hr)			1			2			2			2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	custom			custom		Perm	Prot			Perm		Perm
Protected Phases		2			6		3	8			4	
Permitted Phases	5			1		6				4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.29	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	80	520		156	521	401	57	1350			1089	432
v/s Ratio Prot		c0.13			0.05		0.05	c0.66				
v/s Ratio Perm	c0.35			0.15		0.00					0.31	0.06
v/c Ratio	2.85	0.46		1.19	0.17	0.02	1.63	1.57			0.84	0.15
Uniform Delay, d1	39.5	26.3		39.5	24.0	22.9	43.5	26.0			26.1	19.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	865.8	2.9		133.1	0.7	0.1	350.4	258.4			5.8	0.2
Delay (s)	905.3	29.3		172.6	24.6	23.0	393.9	284.4			31.9	19.3
Level of Service	F	C		F	C	C	F	F			C	B
Approach Delay (s)		456.1			118.4			288.9			29.8	
Approach LOS		F			F			F			C	

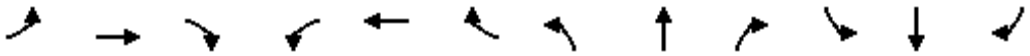
Intersection Summary			
HCM Average Control Delay	226.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	117.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



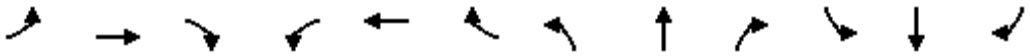
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	122	466	54	106	574	102	0	1957	111	0	933	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.98			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1827		1770	3421			3494			3459	
Flt Permitted	0.21	1.00		0.15	1.00			1.00			1.00	
Satd. Flow (perm)	387	1827		274	3421			3494			3459	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	131	501	58	114	617	110	0	2104	119	0	1003	134
RTOR Reduction (vph)	0	5	0	0	3	0	0	4	0	0	11	0
Lane Group Flow (vph)	131	554	0	114	724	0	0	2219	0	0	1126	0
Confl. Peds. (#/hr)			24			61			78			61
Confl. Bikes (#/hr)			2			2			5			5
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Effective Green, g (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.59			0.59	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	117	552		83	1034			2065			2045	
v/s Ratio Prot		0.30			0.21			c0.63			0.33	
v/s Ratio Perm	0.34			c0.42								
v/c Ratio	1.12	1.00		1.37	0.70			1.07			0.55	
Uniform Delay, d1	31.4	31.4		31.4	27.8			18.4			11.2	
Progression Factor	1.00	1.00		1.00	1.00			0.42			1.00	
Incremental Delay, d2	119.0	39.3		227.1	2.1			37.4			1.1	
Delay (s)	150.4	70.7		258.5	29.9			45.0			12.2	
Level of Service	F	E		F	C			D			B	
Approach Delay (s)		85.8			60.9			45.0			12.2	
Approach LOS		F			E			D			B	

Intersection Summary			
HCM Average Control Delay	45.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	120.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	174	37	49	98	99	0	1945	110	0	1115	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frpb, ped/bikes		1.00	0.93		0.96			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.95			0.99			0.99	
Flt Protected		1.00	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1857	1467		1675			3496			3493	
Flt Permitted		0.97	1.00		0.82			1.00			1.00	
Satd. Flow (perm)		1815	1467		1393			3496			3493	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	189	40	53	107	108	0	2114	120	0	1212	85
RTOR Reduction (vph)	0	0	31	0	9	0	0	5	0	0	6	0
Lane Group Flow (vph)	0	202	9	0	259	0	0	2229	0	0	1291	0
Confl. Peds. (#/hr)			37			65			76			40
Confl. Bikes (#/hr)			14			2			3			5
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		407	329		313			2350			2348	
v/s Ratio Prot								c0.64			0.37	
v/s Ratio Perm		0.11	0.01		c0.19							
v/c Ratio		0.50	0.03		0.83			0.95			0.55	
Uniform Delay, d1		30.5	27.2		33.3			13.3			7.7	
Progression Factor		1.00	1.00		1.00			0.31			0.51	
Incremental Delay, d2		1.0	0.0		16.4			1.2			0.8	
Delay (s)		31.4	27.3		49.6			5.3			4.7	
Level of Service		C	C		D			A			A	
Approach Delay (s)		30.7			49.6			5.3			4.7	
Approach LOS		C			D			A			A	

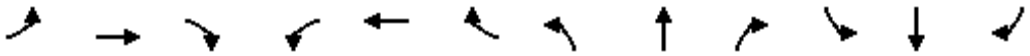
Intersection Summary			
HCM Average Control Delay	9.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	103.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	131	466	28	20	246	37	0	1992	55	0	996	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			1.00			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3422			3391			3466			3412	
Flt Permitted		0.77			0.89			1.00			1.00	
Satd. Flow (perm)		2647			3034			3466			3412	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	139	496	30	21	262	39	0	2119	59	0	1060	101
RTOR Reduction (vph)	0	3	0	0	3	0	0	2	0	0	8	0
Lane Group Flow (vph)	0	662	0	0	319	0	0	2176	0	0	1153	0
Confl. Peds. (#/hr)			101			61			143			81
Confl. Bikes (#/hr)			7						4			5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.2			28.2			52.7			52.7	
Effective Green, g (s)		28.2			28.2			52.7			52.7	
Actuated g/C Ratio		0.31			0.31			0.59			0.59	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		829			951			2030			1998	
v/s Ratio Prot								c0.63			0.34	
v/s Ratio Perm		c0.25			0.11							
v/c Ratio		0.80			0.34			1.07			0.58	
Uniform Delay, d1		28.3			23.7			18.6			11.7	
Progression Factor		1.00			1.00			1.00			0.84	
Incremental Delay, d2		7.9			1.0			42.4			1.0	
Delay (s)		36.2			24.7			61.1			10.8	
Level of Service		D			C			E			B	
Approach Delay (s)		36.2			24.7			61.1			10.8	
Approach LOS		D			C			E			B	

Intersection Summary			
HCM Average Control Delay	41.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	103.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	165	1446	257	68	1725	0	0	553	457
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	
Lane Util. Factor				1.00	0.86			0.91			0.91	
Frpb, ped/bikes				1.00	0.99			1.00			0.98	
Flpb, ped/bikes				1.00	1.00			1.00			1.00	
Frt				1.00	0.98			1.00			0.93	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1752	6166			5026			4603	
Flt Permitted				0.95	1.00			0.82			1.00	
Satd. Flow (perm)				1752	6166			4122			4603	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	174	1522	271	72	1816	0	0	582	481
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	0	0	174	1790	0	0	1888	0	0	1061	0
Confl. Peds. (#/hr)			406			24			51			29
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Prot			Perm					
Protected Phases				1	6			8			4	
Permitted Phases							8					
Actuated Green, G (s)				35.7	35.7			44.4			44.4	
Effective Green, g (s)				35.7	35.7			44.4			44.4	
Actuated g/C Ratio				0.40	0.40			0.49			0.49	
Clearance Time (s)				5.3	5.3			4.6			4.6	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				695	2446			2034			2271	
v/s Ratio Prot				0.10	c0.29						0.23	
v/s Ratio Perm								c0.46				
v/c Ratio				0.25	0.73			0.93			0.47	
Uniform Delay, d1				18.2	23.1			21.3			15.0	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				0.9	2.0			9.0			0.7	
Delay (s)				19.0	25.1			30.3			15.7	
Level of Service				B	C			C			B	
Approach Delay (s)		0.0			24.5			30.3			15.7	
Approach LOS		A			C			C			B	

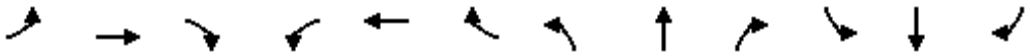
Intersection Summary			
HCM Average Control Delay	24.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	664	10	15	610	13	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.91	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.96	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1822			3467	1534	
Flt Permitted	1.00			0.94	0.97	
Satd. Flow (perm)	1822			3252	1534	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	755	11	17	693	15	7
RTOR Reduction (vph)	0	0	0	0	7	0
Lane Group Flow (vph)	766	0	0	710	15	0
Confl. Peds. (#/hr)		29				37
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1427			2547	102	
v/s Ratio Prot	c0.42				c0.01	
v/s Ratio Perm				0.22		
v/c Ratio	0.54			0.28	0.15	
Uniform Delay, d1	2.4			1.8	26.4	
Progression Factor	1.00			2.25	1.00	
Incremental Delay, d2	1.4			0.3	0.3	
Delay (s)	3.9			4.3	26.7	
Level of Service	A			A	C	
Approach Delay (s)	3.9			4.3	26.7	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	4.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

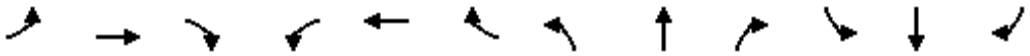
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	622	0	0	669	2	0	0	7	0	0	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	715	0	0	769	2	0	0	8	0	0	3
Pedestrians		26			64			46			97	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		2			5			4			8	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		268			542							
pX, platoon unblocked				0.68			0.68	0.68	0.68	0.68	0.68	
vC, conflicting volume	868			761			1175	1629	825	1654	1628	509
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	868			408			1019	1691	502	1728	1689	509
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	99
cM capacity (veh/h)	698			737			108	54	314	29	54	454

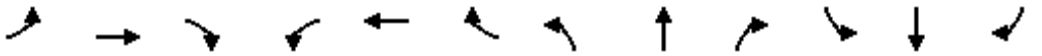
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	715	384	387	8	3
Volume Left	0	0	0	0	0
Volume Right	0	0	2	8	3
cSH	698	737	1700	314	454
Volume to Capacity	0.00	0.00	0.23	0.03	0.01
Queue Length 95th (ft)	0	0	0	2	1
Control Delay (s)	0.0	0.0	0.0	16.8	13.0
Lane LOS				C	B
Approach Delay (s)	0.0	0.0		16.8	13.0
Approach LOS				C	B

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	51.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	618	10	8	631	33	4	3	4	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0				
Lane Util. Factor		1.00			0.95			1.00				
Frt		1.00			0.99			0.95				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		1857			3511			1740				
Flt Permitted		0.99			0.95			0.98				
Satd. Flow (perm)		1834			3329			1740				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	672	11	9	686	36	4	3	4	0	0	0
RTOR Reduction (vph)	0	1	0	0	8	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	694	0	0	723	0	0	9	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		4			8		2	2				
Permitted Phases	4			8								
Actuated Green, G (s)		29.3			29.3			22.7				
Effective Green, g (s)		29.3			29.3			22.7				
Actuated g/C Ratio		0.49			0.49			0.38				
Clearance Time (s)		4.0			4.0			4.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		896			1626			658				
v/s Ratio Prot								c0.00				
v/s Ratio Perm		c0.38			0.22							
v/c Ratio		0.77			0.44			0.01				
Uniform Delay, d1		12.6			10.0			11.7				
Progression Factor		0.96			1.00			1.00				
Incremental Delay, d2		3.9			0.2			0.0				
Delay (s)		16.1			10.2			11.7				
Level of Service		B			B			B				
Approach Delay (s)		16.1			10.2			11.7			0.0	
Approach LOS		B			B			B			A	

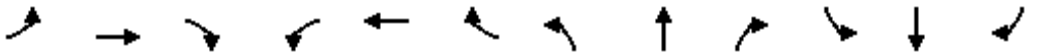
Intersection Summary			
HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1597	79	0	2157	145	53	326	82	126	476	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.98		1.00	1.00	0.78	1.00	1.00	0.88
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4957			4879		1752	1845	1223	1752	1845	1376
Flt Permitted		1.00			1.00		0.20	1.00	1.00	0.40	1.00	1.00
Satd. Flow (perm)		4957			4879		373	1845	1223	741	1845	1376
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1646	81	0	2224	149	55	336	85	130	491	86
RTOR Reduction (vph)	0	6	0	0	8	0	0	0	6	0	0	1
Lane Group Flow (vph)	0	1721	0	0	2365	0	55	336	79	130	491	85
Confl. Peds. (#/hr)			143			164			216			93
Confl. Bikes (#/hr)			5			3			24			44
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2748			2705		121	601	398	241	601	448
v/s Ratio Prot		0.35			c0.48			0.18			c0.27	
v/s Ratio Perm							0.15		0.06	0.18		0.06
v/c Ratio		0.63			0.87		0.45	0.56	0.20	0.54	0.82	0.19
Uniform Delay, d1		13.7			17.3		24.0	25.0	21.9	24.8	27.9	21.8
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.1			4.3		11.8	3.7	1.1	8.4	11.7	0.9
Delay (s)		14.8			21.6		35.9	28.8	23.0	33.2	39.6	22.7
Level of Service		B			C		D	C	C	C	D	C
Approach Delay (s)		14.8			21.6			28.5			36.4	
Approach LOS		B			C			C			D	

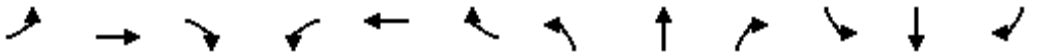
Intersection Summary			
HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	103.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	202	40	210	532	96	20	289	39	59	525	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99		1.00	0.99		1.00	1.00	0.89	1.00	1.00	0.93
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3399		1770	3431		1770	1863	1407	1770	1863	1472
Flt Permitted		0.85		0.57	1.00		0.27	1.00	1.00	0.52	1.00	1.00
Satd. Flow (perm)		2897		1069	3431		505	1863	1407	972	1863	1472
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	36	213	42	221	560	101	21	304	41	62	553	37
RTOR Reduction (vph)	0	23	0	0	25	0	0	0	23	0	0	20
Lane Group Flow (vph)	0	268	0	221	637	0	21	304	18	62	553	17
Confl. Peds. (#/hr)			54			21			59			52
Confl. Bikes (#/hr)			3			7			31			48
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1207		445	1430		219	807	610	421	807	638
v/s Ratio Prot					0.19			0.16			c0.30	
v/s Ratio Perm		0.09		c0.21			0.04		0.01	0.06		0.01
v/c Ratio		0.22		0.50	0.45		0.10	0.38	0.03	0.15	0.69	0.03
Uniform Delay, d1		11.3		12.9	12.5		10.1	11.5	9.8	10.3	13.7	9.7
Progression Factor		1.00		0.31	0.27		1.13	1.08	1.44	1.00	1.00	1.00
Incremental Delay, d2		0.4		2.9	0.7		0.7	1.1	0.1	0.7	4.7	0.1
Delay (s)		11.7		6.8	4.2		12.1	13.5	14.1	11.0	18.4	9.8
Level of Service		B		A	A		B	B	B	B	B	A
Approach Delay (s)		11.7			4.8			13.5			17.2	
Approach LOS		B			A			B			B	

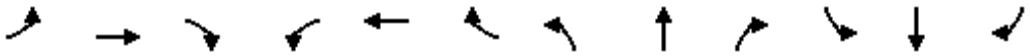
Intersection Summary			
HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	101.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	802	24	23	981	97	22	174	23	214	325	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			1.00			0.99		1.00	1.00	0.95
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.99			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3510			3476			1815		1770	1863	1504
Flt Permitted		0.73			0.92			0.95		0.62	1.00	1.00
Satd. Flow (perm)		2562			3213			1729		1147	1863	1504
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	61	853	26	24	1044	103	23	185	24	228	346	185
RTOR Reduction (vph)	0	3	0	0	12	0	0	7	0	0	0	26
Lane Group Flow (vph)	0	937	0	0	1159	0	0	225	0	228	346	159
Confl. Peds. (#/hr)			15			21			46			24
Confl. Bikes (#/hr)						1			34			35
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		27.0			27.0			23.0		23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0			23.0		23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45			0.38		0.38	0.38	0.38
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1153			1446			663		440	714	577
v/s Ratio Prot											0.19	
v/s Ratio Perm		c0.37			0.36			0.13		c0.20		0.11
v/c Ratio		0.81			0.80			0.34		0.52	0.48	0.28
Uniform Delay, d1		14.3			14.2			13.1		14.2	14.0	12.8
Progression Factor		1.00			1.00			1.00		0.80	0.80	0.82
Incremental Delay, d2		6.3			4.8			1.4		3.4	1.9	0.9
Delay (s)		20.6			19.0			14.5		14.8	13.0	11.3
Level of Service		C			B			B		B	B	B
Approach Delay (s)		20.6			19.0			14.5			13.1	
Approach LOS		C			B			B			B	

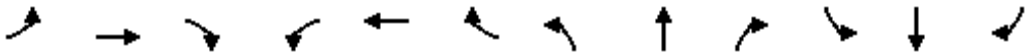
Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	110.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	250	56	98	775	42	39	346	44	43	412	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.91		1.00			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.99		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1858	1434		3486			1817		1770	1839	
Flt Permitted		0.95	1.00		0.88			0.88		0.41	1.00	
Satd. Flow (perm)		1763	1434		3082			1603		761	1839	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	14	266	60	104	824	45	41	368	47	46	438	30
RTOR Reduction (vph)	0	0	32	0	6	0	0	7	0	0	4	0
Lane Group Flow (vph)	0	280	28	0	967	0	0	449	0	46	464	0
Confl. Peds. (#/hr)			68			35			29			42
Confl. Bikes (#/hr)			4			6			2			3
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		823	669		1438			614		292	705	
v/s Ratio Prot											0.25	
v/s Ratio Perm		0.16	0.02		c0.31			c0.28		0.06		
v/c Ratio		0.34	0.04		0.67			0.73		0.16	0.66	
Uniform Delay, d1		10.1	8.7		12.4			15.9		12.1	15.3	
Progression Factor		1.08	1.54		0.25			1.00		1.00	1.00	
Incremental Delay, d2		1.1	0.1		1.7			7.5		1.1	4.8	
Delay (s)		12.1	13.5		4.8			23.4		13.3	20.0	
Level of Service		B	B		A			C		B	C	
Approach Delay (s)		12.3			4.8			23.4			19.4	
Approach LOS		B			A			C			B	

Intersection Summary			
HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	111.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



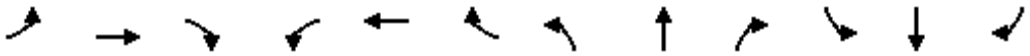
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	411	656	0	507	37	578	442	45	20	536	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.99			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1863	1474		3481		1770	1816			3508	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.62	
Satd. Flow (perm)		1863	1474		3481		1770	1816			2194	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	437	698	0	539	39	615	470	48	21	570	17
RTOR Reduction (vph)	0	0	465	0	6	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	437	233	0	572	0	615	514	0	0	606	0
Confl. Peds. (#/hr)			64			50			68			57
Confl. Bikes (#/hr)			1						3			3
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Effective Green, g (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Actuated g/C Ratio		0.33	0.33		0.33		0.33	0.33			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		621	491		1160		590	605			414	
v/s Ratio Prot		c0.23			0.16		c0.35	0.28				
v/s Ratio Perm			0.16								c0.28	
v/c Ratio		0.70	0.47		0.49		1.04	0.85			1.46	
Uniform Delay, d1		26.1	23.8		23.9		30.0	27.9			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		6.6	3.3		1.5		48.5	13.9			221.2	
Delay (s)		32.7	27.0		25.4		78.5	41.8			257.7	
Level of Service		C	C		C		E	D			F	
Approach Delay (s)		29.2			25.4			61.8			257.7	
Approach LOS		C			C			E			F	

Intersection Summary			
HCM Average Control Delay	79.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	1608	104	2482	5	691	34	300	861	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		0.98		1.00	0.98	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		0.99		1.00	0.96	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3441		1770	3336	
Flt Permitted	1.00		1.00		1.00		0.37	1.00	
Satd. Flow (perm)	3610		5084		3441		680	3336	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1675	108	2585	5	720	35	312	897	291
RTOR Reduction (vph)	7	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	1776	0	2590	0	755	0	312	1187	0
Confl. Peds. (#/hr)		45				186			89
Confl. Bikes (#/hr)		4	94			1			
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	48.0		48.0		19.0		12.0	31.0	
Effective Green, g (s)	48.0		48.0		19.0		12.0	31.0	
Actuated g/C Ratio	0.53		0.53		0.21		0.13	0.34	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1925		2711		726		91	1149	
v/s Ratio Prot	0.49				0.22			c0.36	
v/s Ratio Perm			c0.51				c0.46		
v/c Ratio	0.92		0.96		1.04		3.43	1.03	
Uniform Delay, d1	19.3		20.0		35.5		39.0	29.5	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	8.9		9.6		44.2		1120.1	35.5	
Delay (s)	28.2		29.6		79.7		1159.1	65.0	
Level of Service	C		C		E		F	E	
Approach Delay (s)			29.6		79.7			292.6	
Approach LOS			C		E			F	

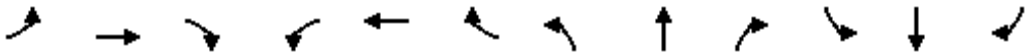
Intersection Summary			
HCM Average Control Delay	94.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.38		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1520	38	0	2203	46	59	114	62	65	256	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.96			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		5007			5015			1743			1782	
Flt Permitted		1.00			1.00			0.75			0.89	
Satd. Flow (perm)		5007			5015			1325			1602	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1600	40	0	2319	48	62	120	65	68	269	62
RTOR Reduction (vph)	0	3	0	0	2	0	0	14	0	0	3	0
Lane Group Flow (vph)	0	1637	0	0	2365	0	0	233	0	0	396	0
Confl. Peds. (#/hr)			43			22			19			20
Confl. Bikes (#/hr)			7			7			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2949			2953			412			498	
v/s Ratio Prot		0.33			c0.47							
v/s Ratio Perm								0.18			c0.25	
v/c Ratio		0.56			0.80			0.56			0.80	
Uniform Delay, d1		11.3			14.4			25.9			28.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8			2.4			1.1			8.0	
Delay (s)		12.1			16.8			27.0			36.4	
Level of Service		B			B			C			D	
Approach Delay (s)		12.1			16.8			27.0			36.4	
Approach LOS		B			B			C			D	

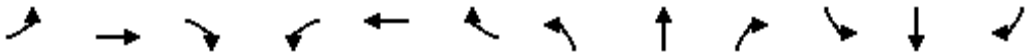
Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	270	96	56	872	86	62	141	37	50	220	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.98			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.99			0.98			0.98	
Flt Protected		1.00	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1854	1454		3459			1769			1780	
Flt Permitted		0.87	1.00		0.92			0.85			0.91	
Satd. Flow (perm)		1619	1454		3179			1519			1640	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	29	297	105	62	958	95	68	155	41	55	242	63
RTOR Reduction (vph)	0	0	56	0	12	0	0	11	0	0	13	0
Lane Group Flow (vph)	0	326	49	0	1103	0	0	253	0	0	347	0
Confl. Peds. (#/hr)			56			60			70			84
Confl. Bikes (#/hr)			4			2			3			2
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		756	679		1484			582			629	
v/s Ratio Prot												
v/s Ratio Perm		0.20	0.03		c0.35			0.17			c0.21	
v/c Ratio		0.43	0.07		0.74			0.43			0.55	
Uniform Delay, d1		10.7	8.8		13.1			13.7			14.5	
Progression Factor		1.29	2.50		1.00			1.00			1.00	
Incremental Delay, d2		1.7	0.2		3.4			0.5			1.1	
Delay (s)		15.5	22.3		16.5			14.2			15.5	
Level of Service		B	C		B			B			B	
Approach Delay (s)		17.1			16.5			14.2			15.5	
Approach LOS		B			B			B			B	

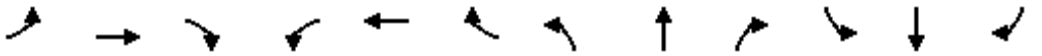
Intersection Summary			
HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	1	0	75	0	77	2	155	87	117	264	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	1	0	85	0	88	2	176	99	133	300	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	173	277	433
Volume Left (vph)	0	85	2	133
Volume Right (vph)	0	88	99	0
Hadj (s)	0.02	-0.19	-0.20	0.08
Departure Headway (s)	6.0	5.4	4.8	4.8
Degree Utilization, x	0.00	0.26	0.37	0.58
Capacity (veh/h)	491	600	725	724
Control Delay (s)	9.0	10.3	10.5	14.3
Approach Delay (s)	9.0	10.3	10.5	14.3
Approach LOS	A	B	B	B

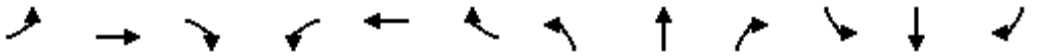
Intersection Summary			
Delay	12.3		
HCM Level of Service	B		
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	145	1	428	166	27	98	851	230	0	1366	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.69	1.00	0.98			1.00	0.55
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736	1824		3367	1827	1070	1736	3283			3471	848
Flt Permitted	0.36	1.00		0.36	1.00	1.00	1.00	1.00			1.00	1.00
Satd. Flow (perm)	664	1824		1289	1827	1070	1827	3283			3471	848
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	173	149	1	441	171	28	101	877	237	0	1408	265
RTOR Reduction (vph)	0	0	0	0	0	16	0	27	0	0	0	168
Lane Group Flow (vph)	173	150	0	441	171	12	101	1087	0	0	1408	97
Confl. Peds. (#/hr)			87			210			64			108
Confl. Bikes (#/hr)			2			8			5			2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	custom			custom		custom	custom			Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases	5			1		8	3			4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.42	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Vehicle Extension (s)	0.2	0.2		0.2	0.2	0.2	0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	81	525		158	526	452	61	1386			1273	311
v/s Ratio Prot		0.08			c0.09			0.33			c0.41	
v/s Ratio Perm	0.26			c0.34		0.01	c0.06					0.11
v/c Ratio	2.14	0.29		2.79	0.33	0.03	1.66	0.78			1.11	0.31
Uniform Delay, d1	39.5	24.9		39.5	25.2	15.2	43.5	22.5			28.5	20.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	549.9	1.4		823.4	1.6	0.0	356.7	2.8			59.5	0.2
Delay (s)	589.4	26.2		862.9	26.8	15.2	400.2	25.2			88.0	20.6
Level of Service	F	C		F	C	B	F	C			F	C
Approach Delay (s)		327.9			602.4			56.4			77.4	
Approach LOS		F			F			E			E	

Intersection Summary			
HCM Average Control Delay	179.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	17.1
Intersection Capacity Utilization	117.7%	ICU Level of Service	H
Analysis Period (min)	15		

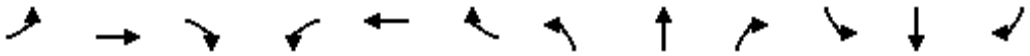
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	218	74	211	762	76	0	1144	54	0	1737	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1791		1787	3502			3534			3516	
Flt Permitted	0.17	1.00		0.44	1.00			1.00			1.00	
Satd. Flow (perm)	311	1791		834	3502			3534			3516	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	78	227	77	220	794	79	0	1192	56	0	1809	150
RTOR Reduction (vph)	0	5	0	0	8	0	0	4	0	0	7	0
Lane Group Flow (vph)	78	299	0	220	865	0	0	1244	0	0	1952	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.55			0.55	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	108	621		289	1214			1932			1922	
v/s Ratio Prot		0.17			0.25			0.35			c0.56	
v/s Ratio Perm	0.25			c0.26								
v/c Ratio	0.72	0.48		0.76	0.71			0.64			1.02	
Uniform Delay, d1	25.6	23.1		26.1	25.5			14.3			20.4	
Progression Factor	1.00	1.00		1.00	1.00			1.65			1.00	
Incremental Delay, d2	21.1	0.6		11.2	2.0			1.5			24.5	
Delay (s)	46.7	23.7		37.3	27.5			25.0			44.9	
Level of Service	D	C		D	C			C			D	
Approach Delay (s)		28.4			29.5			25.0			44.9	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM Average Control Delay	34.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	117.0%	ICU Level of Service	H
Analysis Period (min)	15		

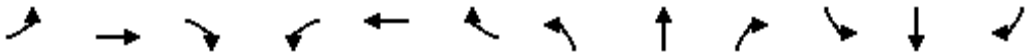
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	135	56	37	76	47	0	1141	50	0	1956	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frpb, ped/bikes		1.00	0.90		0.98			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.96			0.99			1.00	
Flt Protected		0.99	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1867	1435		1755			3538			3552	
Flt Permitted		0.94	1.00		0.89			1.00			1.00	
Satd. Flow (perm)		1772	1435		1588			3538			3552	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	26	141	58	39	79	49	0	1189	52	0	2038	59
RTOR Reduction (vph)	0	0	10	0	16	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	167	48	0	151	0	0	1237	0	0	2095	0
Confl. Peds. (#/hr)			64			33			97			64
Confl. Bikes (#/hr)			8			4			3			11
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		398	322		356			2378			2388	
v/s Ratio Prot								0.35			c0.59	
v/s Ratio Perm		0.09	0.03		c0.09							
v/c Ratio		0.42	0.15		0.42			0.52			0.88	
Uniform Delay, d1		29.9	28.0		29.9			7.4			11.8	
Progression Factor		1.00	1.00		1.00			0.75			0.50	
Incremental Delay, d2		0.7	0.2		0.8			0.7			1.5	
Delay (s)		30.6	28.2		30.7			6.3			7.4	
Level of Service		C	C		C			A			A	
Approach Delay (s)		30.0			30.7			6.3			7.4	
Approach LOS		C			C			A			A	

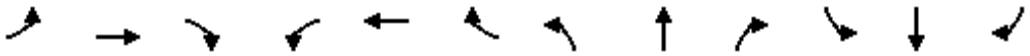
Intersection Summary			
HCM Average Control Delay	9.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	316	47	46	373	57	0	1077	68	0	1854	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.98			0.97			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.99			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3386			3365			3444			3437	
Flt Permitted		0.71			0.86			1.00			1.00	
Satd. Flow (perm)		2438			2902			3444			3437	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	79	329	49	48	389	59	0	1122	71	0	1931	164
RTOR Reduction (vph)	0	6	0	0	11	0	0	5	0	0	7	0
Lane Group Flow (vph)	0	451	0	0	485	0	0	1188	0	0	2088	0
Confl. Peds. (#/hr)			126			164			168			118
Confl. Bikes (#/hr)			3			2			2			3
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		26.2			26.2			54.7			54.7	
Effective Green, g (s)		26.2			26.2			54.7			54.7	
Actuated g/C Ratio		0.29			0.29			0.61			0.61	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		710			845			2093			2089	
v/s Ratio Prot								0.34			c0.61	
v/s Ratio Perm		c0.19			0.17							
v/c Ratio		0.64			0.57			0.57			1.00	
Uniform Delay, d1		27.7			27.1			10.6			17.6	
Progression Factor		1.00			1.00			1.00			0.37	
Incremental Delay, d2		4.3			2.8			1.1			13.8	
Delay (s)		32.1			30.0			11.7			20.3	
Level of Service		C			C			B			C	
Approach Delay (s)		32.1			30.0			11.7			20.3	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	20.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	101.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	238	2121	156	0	988	0	0	1028	768
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	
Lane Util. Factor				1.00	0.86			0.91			0.91	
Frpb, ped/bikes				1.00	1.00			1.00			0.96	
Flpb, ped/bikes				1.00	1.00			1.00			1.00	
Frt				1.00	0.99			1.00			0.94	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1770	6323			5085			4573	
Flt Permitted				0.95	1.00			1.00			1.00	
Satd. Flow (perm)				1770	6323			5085			4573	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	245	2187	161	0	1019	0	0	1060	792
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	0	0	245	2342	0	0	1019	0	0	1850	0
Confl. Peds. (#/hr)			418			28			67			75
Confl. Bikes (#/hr)						1			1			
Turn Type				Prot								
Protected Phases				1	6			4			4	
Permitted Phases												
Actuated Green, G (s)				48.7	48.7			31.4			31.4	
Effective Green, g (s)				48.7	48.7			31.4			31.4	
Actuated g/C Ratio				0.54	0.54			0.35			0.35	
Clearance Time (s)				5.3	5.3			4.6			4.6	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				958	3421			1774			1595	
v/s Ratio Prot				0.14	c0.37			0.20			c0.40	
v/s Ratio Perm												
v/c Ratio				0.26	0.68			0.57			1.46dr	
Uniform Delay, d1				11.0	15.1			23.9			29.3	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				0.6	1.1			1.4			79.4	
Delay (s)				11.6	16.2			25.2			108.7	
Level of Service				B	B			C			F	
Approach Delay (s)		0.0			15.8			25.2			108.7	
Approach LOS		A			B			C			F	

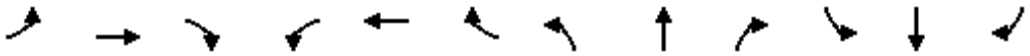
Intersection Summary			
HCM Average Control Delay	49.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	313	9	12	956	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.92	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1854			3537	1584	
Flt Permitted	1.00			0.95	0.97	
Satd. Flow (perm)	1854			3367	1584	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	326	9	12	996	10	5
RTOR Reduction (vph)	1	0	0	0	5	0
Lane Group Flow (vph)	334	0	0	1008	10	0
Confl. Peds. (#/hr)		26				30
Confl. Bikes (#/hr)		1				
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1452			2637	106	
v/s Ratio Prot	0.18				c0.01	
v/s Ratio Perm				c0.30		
v/c Ratio	0.23			0.38	0.10	
Uniform Delay, d1	1.7			2.0	26.3	
Progression Factor	1.00			2.08	1.00	
Incremental Delay, d2	0.4			0.4	0.1	
Delay (s)	2.1			4.5	26.5	
Level of Service	A			A	C	
Approach Delay (s)	2.1			4.5	26.5	
Approach LOS	A			A	C	

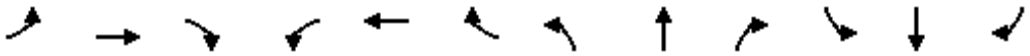
Intersection Summary			
HCM Average Control Delay	4.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	365	0	0	987	1	0	1	4	0	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	392	0	0	1061	1	0	1	4	0	0	9
Pedestrians		17			30			32			73	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			3			3			6	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		268			542							
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	1135			424			981	1560	454	1562	1559	621
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1135			242			893	1570	277	1573	1569	621
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	99	99	100	100	98
cM capacity (veh/h)	574			1100			177	86	584	53	86	398

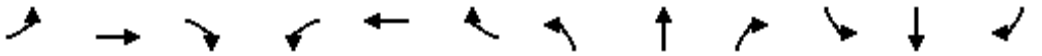
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	392	531	532	5	9
Volume Left	0	0	0	0	0
Volume Right	0	0	1	4	9
cSH	574	1100	1700	270	398
Volume to Capacity	0.00	0.00	0.31	0.02	0.02
Queue Length 95th (ft)	0	0	0	2	2
Control Delay (s)	0.0	0.0	0.0	18.6	14.2
Lane LOS				C	B
Approach Delay (s)	0.0	0.0		18.6	14.2
Approach LOS				C	B

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	43.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	361	8	7	972	16	4	1	4	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0				
Lane Util. Factor		1.00			0.95			1.00				
Frt		1.00			1.00			0.94				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		1856			3530			1713				
Flt Permitted		0.98			0.95			0.98				
Satd. Flow (perm)		1824			3363			1713				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	392	9	8	1057	17	4	1	4	0	0	0
RTOR Reduction (vph)	0	2	0	0	2	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	406	0	0	1080	0	0	7	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		4			8		2	2				
Permitted Phases	4			8								
Actuated Green, G (s)		28.6			28.6			23.4				
Effective Green, g (s)		28.6			28.6			23.4				
Actuated g/C Ratio		0.48			0.48			0.39				
Clearance Time (s)		4.0			4.0			4.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		869			1603			668				
v/s Ratio Prot								c0.00				
v/s Ratio Perm		0.22			c0.32							
v/c Ratio		0.47			0.67			0.01				
Uniform Delay, d1		10.6			12.1			11.2				
Progression Factor		1.00			1.00			1.00				
Incremental Delay, d2		0.4			1.1			0.0				
Delay (s)		11.0			13.2			11.2				
Level of Service		B			B			B				
Approach Delay (s)		11.0			13.2			11.2			0.0	
Approach LOS		B			B			B			A	

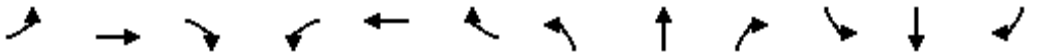
Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2656	64	0	1278	98	39	471	104	140	326	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99		1.00	1.00	0.77	1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4911			4836		1719	1810	1186	1719	1810	1439
Flt Permitted		1.00			1.00		0.40	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)		4911			4836		726	1810	1186	377	1810	1439
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	2738	66	0	1318	101	40	486	107	144	336	61
RTOR Reduction (vph)	0	3	0	0	10	0	0	0	1	0	0	22
Lane Group Flow (vph)	0	2801	0	0	1409	0	40	486	106	144	336	39
Confl. Peds. (#/hr)			74			61			221			35
Confl. Bikes (#/hr)			2			8			34			32
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			2			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2723			2681		236	589	386	123	589	468
v/s Ratio Prot		c0.57			0.29			0.27			0.19	
v/s Ratio Perm							0.06		0.09	c0.38		0.03
v/c Ratio		1.03			0.53		0.17	0.83	0.28	1.17	0.57	0.08
Uniform Delay, d1		20.1			12.6		21.7	28.0	22.5	30.4	25.1	21.0
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		25.1			0.7		1.6	12.4	1.8	134.3	4.0	0.3
Delay (s)		45.2			13.3		23.2	40.4	24.2	164.6	29.1	21.4
Level of Service		D			B		C	D	C	F	C	C
Approach Delay (s)		45.2			13.3			36.6			64.3	
Approach LOS		D			B			D			E	

Intersection Summary			
HCM Average Control Delay	37.7	HCM Level of Service	D
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	110.6%	ICU Level of Service	H
Analysis Period (min)	15		

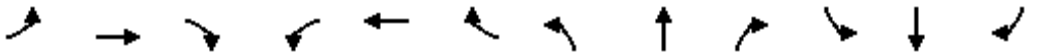
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	610	30	87	345	79	22	579	151	92	319	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00		1.00	0.99		1.00	1.00	0.88	1.00	1.00	0.95
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3454		1752	3375		1752	1845	1372	1752	1845	1484
Flt Permitted		0.88		0.28	1.00		0.47	1.00	1.00	0.19	1.00	1.00
Satd. Flow (perm)		3048		518	3375		870	1845	1372	358	1845	1484
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	62	670	33	96	379	87	24	636	166	101	351	20
RTOR Reduction (vph)	0	5	0	0	33	0	0	0	50	0	0	11
Lane Group Flow (vph)	0	760	0	96	433	0	24	636	116	101	351	9
Confl. Peds. (#/hr)			58			24			64			32
Confl. Bikes (#/hr)			4			1			41			40
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1270		216	1406		377	800	595	155	800	643
v/s Ratio Prot					0.13			c0.34			0.19	
v/s Ratio Perm		c0.25		0.19			0.03		0.08	0.28		0.01
v/c Ratio		0.60		0.44	0.31		0.06	0.80	0.19	0.65	0.44	0.01
Uniform Delay, d1		13.6		12.5	11.7		9.9	14.7	10.5	13.4	11.9	9.7
Progression Factor		1.00		0.91	0.82		1.22	0.99	1.31	1.00	1.00	1.00
Incremental Delay, d2		2.1		5.4	0.5		0.2	5.2	0.5	19.3	1.7	0.0
Delay (s)		15.7		16.8	10.0		12.3	19.8	14.2	32.8	13.6	9.7
Level of Service		B		B	B		B	B	B	C	B	A
Approach Delay (s)		15.7			11.2			18.4			17.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	108.8%	ICU Level of Service	G
Analysis Period (min)	15		

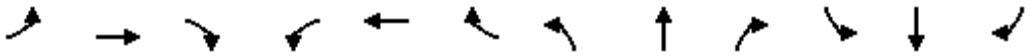
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	114	1348	13	7	881	108	13	464	48	198	185	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99			0.99		1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.98			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3520			3462			1826		1770	1863	1495
Flt Permitted		0.68			0.93			0.99		0.31	1.00	1.00
Satd. Flow (perm)		2412			3216			1812		570	1863	1495
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	118	1390	13	7	908	111	13	478	49	204	191	88
RTOR Reduction (vph)	0	1	0	0	16	0	0	6	0	0	0	49
Lane Group Flow (vph)	0	1520	0	0	1011	0	0	534	0	204	191	39
Confl. Peds. (#/hr)			18			29			50			28
Confl. Bikes (#/hr)			1						32			33
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		29.0			29.0			21.0		21.0	21.0	21.0
Effective Green, g (s)		29.0			29.0			21.0		21.0	21.0	21.0
Actuated g/C Ratio		0.48			0.48			0.35		0.35	0.35	0.35
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1166			1554			634		200	652	523
v/s Ratio Prot											0.10	
v/s Ratio Perm		c0.63			0.31			0.29		c0.36		0.03
v/c Ratio		1.30			0.65			0.84		1.02	0.29	0.07
Uniform Delay, d1		15.5			11.7			18.0		19.5	14.1	13.0
Progression Factor		1.00			1.00			1.00		1.19	1.18	1.98
Incremental Delay, d2		142.9			2.1			12.9		66.0	1.0	0.2
Delay (s)		158.4			13.8			30.8		89.1	17.7	25.9
Level of Service		F			B			C		F	B	C
Approach Delay (s)		158.4			13.8			30.8			49.4	
Approach LOS		F			B			C			D	

Intersection Summary			
HCM Average Control Delay	82.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	131.9%	ICU Level of Service	H
Analysis Period (min)	15		

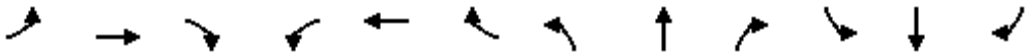
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	502	48	75	465	47	38	430	86	60	356	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.98		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1840	1445		3424			1787		1752	1820	
Flt Permitted		0.95	1.00		0.74			0.95		0.30	1.00	
Satd. Flow (perm)		1747	1445		2545			1701		556	1820	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	558	53	83	517	52	42	478	96	67	396	30
RTOR Reduction (vph)	0	0	27	0	11	0	0	11	0	0	4	0
Lane Group Flow (vph)	0	591	26	0	641	0	0	605	0	67	422	0
Confl. Peds. (#/hr)			53			41			19			31
Confl. Bikes (#/hr)			4			1			3			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		815	674		1188			652		213	698	
v/s Ratio Prot											0.23	
v/s Ratio Perm		c0.34	0.02		0.25			c0.36		0.12		
v/c Ratio		0.73	0.04		0.54			0.93		0.31	0.60	
Uniform Delay, d1		12.9	8.7		11.4			17.7		13.0	14.8	
Progression Factor		0.69	0.29		1.77			1.00		1.00	1.00	
Incremental Delay, d2		4.8	0.1		1.3			21.4		3.8	3.9	
Delay (s)		13.6	2.6		21.5			39.1		16.8	18.7	
Level of Service		B	A		C			D		B	B	
Approach Delay (s)		12.7			21.5			39.1			18.4	
Approach LOS		B			C			D			B	

Intersection Summary			
HCM Average Control Delay	23.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	117.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

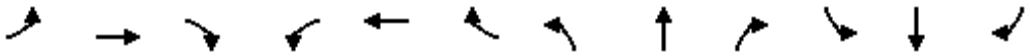


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	737	790	0	386	26	602	511	68	49	407	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		1.00		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.98			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1845	1452		3454		1752	1794			3470	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.54	
Satd. Flow (perm)		1845	1452		3454		1752	1794			1873	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	768	823	0	402	27	627	532	71	51	424	10
RTOR Reduction (vph)	0	0	471	0	6	0	0	6	0	0	2	0
Lane Group Flow (vph)	0	768	352	0	423	0	627	597	0	0	483	0
Confl. Peds. (#/hr)			60			45			37			39
Confl. Bikes (#/hr)			1			1			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Effective Green, g (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Actuated g/C Ratio		0.38	0.29		0.38		0.29	0.29			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		697	419		1305		506	518			354	
v/s Ratio Prot		c0.42			0.12		c0.36	0.33				
v/s Ratio Perm			0.24								c0.26	
v/c Ratio		1.10	0.84		0.32		1.24	1.15			1.37	
Uniform Delay, d1		28.0	30.0		19.9		32.0	32.0			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		65.4	17.9		0.7		123.7	89.1			181.7	
Delay (s)		93.4	48.0		20.5		155.7	121.1			218.2	
Level of Service		F	D		C		F	F			F	
Approach Delay (s)		69.9			20.5			138.7			218.2	
Approach LOS		E			C			F			F	

Intersection Summary			
HCM Average Control Delay	106.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	97.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	2830	47	1632	3	1018	25	382	892	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		1.00		1.00	0.99	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		1.00		1.00	0.98	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3512		1770	3431	
Flt Permitted	1.00		1.00		1.00		0.33	1.00	
Satd. Flow (perm)	3610		5084		3512		621	3431	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2918	48	1682	3	1049	26	394	920	143
RTOR Reduction (vph)	1	0	0	0	0	0	0	8	0
Lane Group Flow (vph)	2965	0	1685	0	1075	0	394	1055	0
Confl. Peds. (#/hr)		38				68			82
Confl. Bikes (#/hr)		90				2			4
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	46.0		46.0		21.0		12.0	33.0	
Effective Green, g (s)	46.0		46.0		21.0		12.0	33.0	
Actuated g/C Ratio	0.51		0.51		0.23		0.13	0.37	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1845		2598		819		83	1258	
v/s Ratio Prot	c0.82				c0.31			0.31	
v/s Ratio Perm			0.33				c0.63		
v/c Ratio	1.61		0.65		1.31		4.75	0.84	
Uniform Delay, d1	22.0		16.1		34.5		39.0	26.1	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	275.6		1.3		149.4		1713.2	4.8	
Delay (s)	297.6		17.4		183.9		1752.2	30.9	
Level of Service	F		B		F		F	C	
Approach Delay (s)			17.4		183.9			496.4	
Approach LOS			B		F			F	

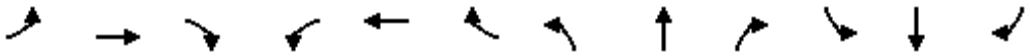
Intersection Summary			
HCM Average Control Delay	255.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	128.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2779	34	0	1253	55	55	204	59	108	168	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.98			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		4928			4895			1736			1745	
Flt Permitted		1.00			1.00			0.88			0.66	
Satd. Flow (perm)		4928			4895			1535			1171	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	2895	35	0	1305	57	57	212	61	112	175	36
RTOR Reduction (vph)	0	1	0	0	5	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	2929	0	0	1357	0	0	329	0	0	318	0
Confl. Peds. (#/hr)			28			36			28			23
Confl. Bikes (#/hr)			4			1			2			3
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2902			2883			478			364	
v/s Ratio Prot		c0.59			0.28							
v/s Ratio Perm								0.21			c0.27	
v/c Ratio		1.01			0.47			0.69			0.87	
Uniform Delay, d1		18.5			10.5			27.2			29.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		19.0			0.6			3.3			19.6	
Delay (s)		37.5			11.1			30.5			48.9	
Level of Service		D			B			C			D	
Approach Delay (s)		37.5			11.1			30.5			48.9	
Approach LOS		D			B			C			D	

Intersection Summary			
HCM Average Control Delay	30.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		

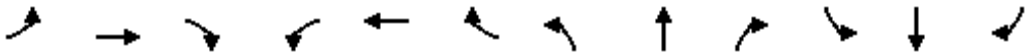
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	640	121	49	545	90	52	194	33	61	169	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.95		0.99			1.00			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.98			0.98			0.98	
Flt Protected		0.99	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1818	1477		3368			1773			1762	
Flt Permitted		0.86	1.00		0.68			0.89			0.87	
Satd. Flow (perm)		1570	1477		2301			1596			1554	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	82	719	136	55	612	101	58	218	37	69	190	40
RTOR Reduction (vph)	0	0	51	0	20	0	0	8	0	0	9	0
Lane Group Flow (vph)	0	801	85	0	748	0	0	305	0	0	290	0
Confl. Peds. (#/hr)			21			29			16			47
Confl. Bikes (#/hr)			9			1			1			
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		733	689		1074			612			596	
v/s Ratio Prot												
v/s Ratio Perm		c0.51	0.06		0.33			c0.19			0.19	
v/c Ratio		1.09	0.12		0.70			0.50			0.49	
Uniform Delay, d1		16.0	9.1		12.6			14.1			14.0	
Progression Factor		0.67	0.31		1.00			1.00			1.00	
Incremental Delay, d2		59.0	0.3		3.7			0.6			0.6	
Delay (s)		69.7	3.1		16.4			14.7			14.6	
Level of Service		E	A		B			B			B	
Approach Delay (s)		60.0			16.4			14.7			14.6	
Approach LOS		E			B			B			B	

Intersection Summary			
HCM Average Control Delay	33.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		

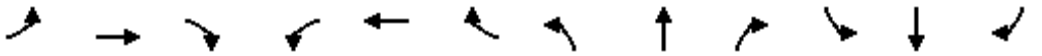
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	60	0	96	1	203	165	153	200	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	0	75	0	120	1	254	206	191	250	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	195	461	441
Volume Left (vph)	0	75	1	191
Volume Right (vph)	0	120	206	0
Hadj (s)	0.00	-0.26	-0.23	0.12
Departure Headway (s)	6.6	5.8	4.9	5.2
Degree Utilization, x	0.00	0.31	0.63	0.64
Capacity (veh/h)	442	553	706	667
Control Delay (s)	9.6	11.5	15.8	17.1
Approach Delay (s)	0.0	11.5	15.8	17.1
Approach LOS	A	B	C	C

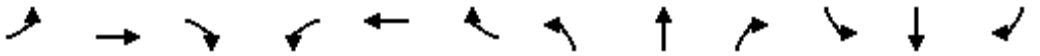
Intersection Summary				
Delay	15.5			
HCM Level of Service	C			
Intersection Capacity Utilization	65.1%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	246	259	0	195	91	23	100	1747	577	1	984	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.91	1.00	0.97			1.00	0.77
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1719	1810		3335	1810	1395	1719	3198			3438	1178
Flt Permitted	0.36	1.00		0.36	1.00	1.00	0.95	1.00			0.86	1.00
Satd. Flow (perm)	658	1810		1277	1810	1395	1719	3198			2971	1178
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	262	276	0	207	97	24	106	1859	614	1	1047	206
RTOR Reduction (vph)	0	0	0	0	0	11	0	36	0	0	0	130
Lane Group Flow (vph)	262	276	0	207	97	13	106	2437	0	0	1048	76
Confl. Peds. (#/hr)			63			72			84			53
Confl. Bikes (#/hr)			1			2			2			2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	custom			custom		Perm	Prot			Perm		Perm
Protected Phases		2			6		3	8			4	
Permitted Phases	5			1		6				4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.29	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	80	521		156	521	401	57	1350			1089	432
v/s Ratio Prot		c0.15			0.05		0.06	c0.76				
v/s Ratio Perm	c0.40			0.16		0.01					0.35	0.06
v/c Ratio	3.27	0.53		1.33	0.19	0.03	1.86	1.81			0.96	0.17
Uniform Delay, d1	39.5	26.9		39.5	24.1	23.0	43.5	26.0			27.9	19.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	1055.2	3.8		184.5	0.8	0.1	446.1	365.4			18.8	0.2
Delay (s)	1094.7	30.8		224.0	24.9	23.2	489.6	391.4			46.7	19.5
Level of Service	F	C		F	C	C	F	F			D	B
Approach Delay (s)		548.9			150.4			395.4			42.2	
Approach LOS		F			F			F			D	

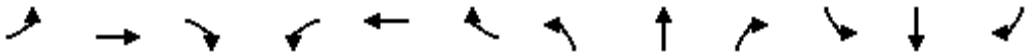
Intersection Summary			
HCM Average Control Delay	301.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	129.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



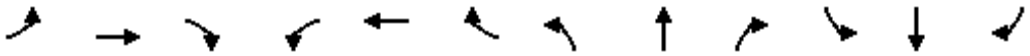
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	536	34	118	654	117	0	2252	125	0	1069	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.98			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1842		1770	3420			3495			3463	
Flt Permitted	0.15	1.00		0.15	1.00			1.00			1.00	
Satd. Flow (perm)	277	1842		274	3420			3495			3463	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	151	576	37	127	703	126	0	2422	134	0	1149	145
RTOR Reduction (vph)	0	3	0	0	1	0	0	4	0	0	11	0
Lane Group Flow (vph)	151	610	0	127	828	0	0	2552	0	0	1283	0
Confl. Peds. (#/hr)			24			61			78			61
Confl. Bikes (#/hr)			2			2			5			5
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Effective Green, g (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.59			0.59	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	84	557		83	1034			2066			2047	
v/s Ratio Prot		0.33			0.24			c0.73			0.37	
v/s Ratio Perm	c0.55			0.46								
v/c Ratio	1.80	1.10		1.53	0.80			1.23			0.63	
Uniform Delay, d1	31.4	31.4		31.4	28.9			18.4			12.0	
Progression Factor	1.00	1.00		1.00	1.00			0.46			1.00	
Incremental Delay, d2	402.0	66.8		290.0	4.5			106.2			1.5	
Delay (s)	433.4	98.2		321.4	33.4			114.6			13.4	
Level of Service	F	F		F	C			F			B	
Approach Delay (s)		164.5			71.7			114.6			13.4	
Approach LOS		F			E			F			B	

Intersection Summary			
HCM Average Control Delay	90.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.43		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	131.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	200	52	56	108	114	0	2235	117	0	1158	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frpb, ped/bikes		1.00	0.93		0.96			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.94			0.99			0.99	
Flt Protected		1.00	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1857	1467		1671			3499			3504	
Flt Permitted		0.96	1.00		0.72			1.00			1.00	
Satd. Flow (perm)		1796	1467		1213			3499			3504	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	217	57	61	117	124	0	2429	127	0	1259	66
RTOR Reduction (vph)	0	0	44	0	4	0	0	4	0	0	4	0
Lane Group Flow (vph)	0	232	13	0	298	0	0	2552	0	0	1321	0
Confl. Peds. (#/hr)			37			65			76			40
Confl. Bikes (#/hr)			14			2			3			5
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		403	329		272			2352			2355	
v/s Ratio Prot								c0.73			0.38	
v/s Ratio Perm		0.13	0.01		c0.25							
v/c Ratio		0.58	0.04		1.10			1.08			0.56	
Uniform Delay, d1		31.1	27.3		34.9			14.8			7.8	
Progression Factor		1.00	1.00		1.00			0.37			0.45	
Incremental Delay, d2		2.0	0.0		82.7			39.1			0.7	
Delay (s)		33.1	27.4		117.6			44.5			4.2	
Level of Service		C	C		F			D			A	
Approach Delay (s)		31.9			117.6			44.5			4.2	
Approach LOS		C			F			D			A	

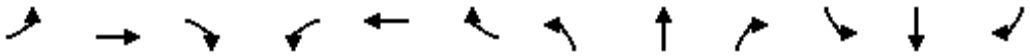
Intersection Summary			
HCM Average Control Delay	36.7	HCM Level of Service	D
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	112.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	151	536	33	23	281	40	0	2284	61	0	1145	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			1.00			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3421			3394			3467			3419	
Flt Permitted		0.74			0.84			1.00			1.00	
Satd. Flow (perm)		2557			2869			3467			3419	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	161	570	35	24	299	43	0	2430	65	0	1218	106
RTOR Reduction (vph)	0	4	0	0	1	0	0	2	0	0	7	0
Lane Group Flow (vph)	0	762	0	0	365	0	0	2493	0	0	1317	0
Confl. Peds. (#/hr)			101			61			143			81
Confl. Bikes (#/hr)			7						4			5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.2			28.2			52.7			52.7	
Effective Green, g (s)		28.2			28.2			52.7			52.7	
Actuated g/C Ratio		0.31			0.31			0.59			0.59	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		801			899			2030			2002	
v/s Ratio Prot								c0.72			0.39	
v/s Ratio Perm		c0.30			0.13							
v/c Ratio		0.95			0.41			1.23			0.66	
Uniform Delay, d1		30.2			24.3			18.6			12.6	
Progression Factor		1.00			1.00			1.00			0.96	
Incremental Delay, d2		21.9			1.4			107.2			1.4	
Delay (s)		52.1			25.7			125.8			13.5	
Level of Service		D			C			F			B	
Approach Delay (s)		52.1			25.7			125.8			13.5	
Approach LOS		D			C			F			B	

Intersection Summary			
HCM Average Control Delay	77.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	114.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	190	1646	289	78	1979	0	0	636	525
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	
Lane Util. Factor				1.00	0.86			0.91			0.91	
Frpb, ped/bikes				1.00	0.99			1.00			0.98	
Flpb, ped/bikes				1.00	1.00			1.00			1.00	
Frt				1.00	0.98			1.00			0.93	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1752	6168			5026			4602	
Flt Permitted				0.95	1.00			0.77			1.00	
Satd. Flow (perm)				1752	6168			3901			4602	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	200	1733	304	82	2083	0	0	669	553
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	200	2036	0	0	2165	0	0	1221	0
Confl. Peds. (#/hr)			406			24			51			29
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Prot			Perm					
Protected Phases				1	6			8			4	
Permitted Phases							8					
Actuated Green, G (s)				35.7	35.7			44.4			44.4	
Effective Green, g (s)				35.7	35.7			44.4			44.4	
Actuated g/C Ratio				0.40	0.40			0.49			0.49	
Clearance Time (s)				5.3	5.3			4.6			4.6	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				695	2447			1924			2270	
v/s Ratio Prot				0.11	c0.33						0.27	
v/s Ratio Perm								c0.55				
v/c Ratio				0.29	0.83			1.13			0.54	
Uniform Delay, d1				18.5	24.4			22.8			15.7	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				1.0	3.5			63.8			0.9	
Delay (s)				19.5	27.9			86.6			16.6	
Level of Service				B	C			F			B	
Approach Delay (s)		0.0			27.2			86.6			16.6	
Approach LOS		A			C			F			B	

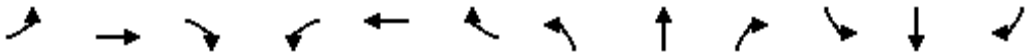
Intersection Summary			
HCM Average Control Delay	47.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	106.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	745	22	13	666	29	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.95	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.96	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1818			3468	1609	
Flt Permitted	1.00			0.94	0.97	
Satd. Flow (perm)	1818			3257	1609	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	847	25	15	757	33	15
RTOR Reduction (vph)	1	0	0	0	13	0
Lane Group Flow (vph)	871	0	0	772	35	0
Confl. Peds. (#/hr)		29				37
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	43.0			43.0	8.0	
Effective Green, g (s)	43.0			43.0	8.0	
Actuated g/C Ratio	0.72			0.72	0.13	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1303			2334	215	
v/s Ratio Prot	c0.48				c0.02	
v/s Ratio Perm				0.24		
v/c Ratio	0.67			0.33	0.16	
Uniform Delay, d1	4.6			3.2	23.0	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	2.7			0.4	0.1	
Delay (s)	7.4			3.5	23.2	
Level of Service	A			A	C	
Approach Delay (s)	7.4			3.5	23.2	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	6.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

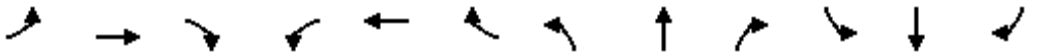
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	681	23	17	736	3	9	5	9	1	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			2.0	
Lane Util. Factor		1.00			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.96			0.97	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.95			0.90	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		1815			3464			1625			1579	
Flt Permitted		1.00			0.93			0.87			0.97	
Satd. Flow (perm)		1807			3241			1444			1547	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	6	783	26	20	846	3	10	6	10	1	0	3
RTOR Reduction (vph)	0	1	0	0	0	0	0	9	0	0	3	0
Lane Group Flow (vph)	0	814	0	0	869	0	0	17	0	0	1	0
Confl. Peds. (#/hr)			46			97			64			26
Confl. Bikes (#/hr)			5			2						
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		47.0			47.0			4.0			7.0	
Effective Green, g (s)		47.0			47.0			4.0			7.0	
Actuated g/C Ratio		0.78			0.78			0.07			0.12	
Clearance Time (s)		4.0			4.0			5.0			2.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1415			2539			96			180	
v/s Ratio Prot												
v/s Ratio Perm		c0.45			0.27			c0.01			0.00	
v/c Ratio		0.58			0.34			0.17			0.01	
Uniform Delay, d1		2.6			1.9			26.4			23.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.7			0.4			0.9			0.0	
Delay (s)		4.3			2.3			27.3			23.4	
Level of Service		A			A			C			C	
Approach Delay (s)		4.3			2.3			27.3			23.4	
Approach LOS		A			A			C			C	

Intersection Summary			
HCM Average Control Delay	3.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

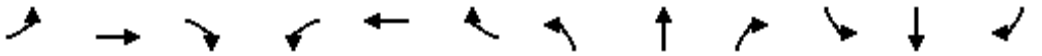
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1771	87	0	2395	161	56	359	91	139	529	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.98		1.00	1.00	0.78	1.00	1.00	0.88
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4957			4878		1752	1845	1223	1752	1845	1376
Flt Permitted		1.00			1.00		0.14	1.00	1.00	0.36	1.00	1.00
Satd. Flow (perm)		4957			4878		252	1845	1223	657	1845	1376
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1826	90	0	2469	166	58	370	94	143	545	95
RTOR Reduction (vph)	0	6	0	0	8	0	0	0	4	0	0	1
Lane Group Flow (vph)	0	1910	0	0	2627	0	58	370	90	143	545	94
Confl. Peds. (#/hr)			143			164			216			93
Confl. Bikes (#/hr)			5			3			24			44
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2748			2705		82	601	398	214	601	448
v/s Ratio Prot		0.39			c0.54			0.20			c0.30	
v/s Ratio Perm							0.23		0.07	0.22		0.07
v/c Ratio		0.70			0.97		0.71	0.62	0.23	0.67	0.91	0.21
Uniform Delay, d1		14.5			19.4		26.6	25.6	22.1	26.2	29.0	22.0
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.5			11.7		40.6	4.7	1.3	15.4	19.8	1.1
Delay (s)		16.0			31.1		67.2	30.3	23.4	41.5	48.8	23.0
Level of Service		B			C		E	C	C	D	D	C
Approach Delay (s)		16.0			31.1			33.1			44.4	
Approach LOS		B			C			C			D	

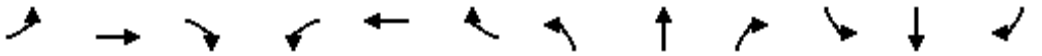
Intersection Summary			
HCM Average Control Delay	28.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	111.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	224	45	231	590	102	22	319	44	64	583	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99		1.00	0.99		1.00	1.00	0.89	1.00	1.00	0.93
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3398		1770	3435		1770	1863	1407	1770	1863	1472
Flt Permitted		0.83		0.56	1.00		0.21	1.00	1.00	0.49	1.00	1.00
Satd. Flow (perm)		2848		1036	3435		399	1863	1407	908	1863	1472
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	40	236	47	243	621	107	23	336	46	67	614	41
RTOR Reduction (vph)	0	23	0	0	23	0	0	0	26	0	0	20
Lane Group Flow (vph)	0	300	0	243	705	0	23	336	20	67	614	21
Confl. Peds. (#/hr)			54			21			59			52
Confl. Bikes (#/hr)			3			7			31			48
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1187		432	1431		173	807	610	393	807	638
v/s Ratio Prot					0.21			0.18			c0.33	
v/s Ratio Perm		0.11		c0.23			0.06		0.01	0.07		0.01
v/c Ratio		0.25		0.56	0.49		0.13	0.42	0.03	0.17	0.76	0.03
Uniform Delay, d1		11.4		13.3	12.8		10.2	11.8	9.8	10.4	14.4	9.8
Progression Factor		1.00		0.32	0.28		1.16	1.12	1.47	1.00	1.00	1.00
Incremental Delay, d2		0.5		3.4	0.8		1.3	1.3	0.1	0.9	6.7	0.1
Delay (s)		11.9		7.7	4.4		13.1	14.5	14.4	11.3	21.1	9.9
Level of Service		B		A	A		B	B	B	B	C	A
Approach Delay (s)		11.9			5.2			14.4			19.5	
Approach LOS		B			A			B			B	

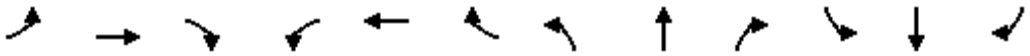
Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	106.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	63	889	27	24	1089	106	24	194	25	237	358	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			1.00			0.99		1.00	1.00	0.95
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.99			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3510			3476			1815		1770	1863	1504
Flt Permitted		0.67			0.92			0.94		0.59	1.00	1.00
Satd. Flow (perm)		2359			3196			1718		1091	1863	1504
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	67	946	29	26	1159	113	26	206	27	252	381	206
RTOR Reduction (vph)	0	3	0	0	12	0	0	7	0	0	0	18
Lane Group Flow (vph)	0	1039	0	0	1286	0	0	252	0	252	381	188
Confl. Peds. (#/hr)			15			21			46			24
Confl. Bikes (#/hr)						1			34			35
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		27.0			27.0			23.0		23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0			23.0		23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45			0.38		0.38	0.38	0.38
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1062			1438			659		418	714	577
v/s Ratio Prot											0.20	
v/s Ratio Perm		c0.44			0.40			0.15		c0.23		0.13
v/c Ratio		0.98			0.89			0.38		0.60	0.53	0.33
Uniform Delay, d1		16.2			15.2			13.4		14.8	14.3	13.0
Progression Factor		1.00			1.00			1.00		0.83	0.83	0.86
Incremental Delay, d2		22.8			8.9			1.7		4.6	2.1	1.1
Delay (s)		39.0			24.1			15.1		16.9	14.0	12.3
Level of Service		D			C			B		B	B	B
Approach Delay (s)		39.0			24.1			15.1			14.5	
Approach LOS		D			C			B			B	

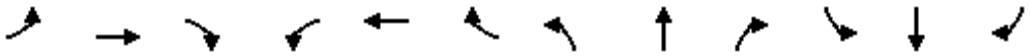
Intersection Summary			
HCM Average Control Delay	25.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	116.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	276	62	100	853	46	44	384	47	47	457	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.91		1.00			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.99		1.00	0.99	
Flt Protected		1.00	1.00		1.00			1.00		0.95	1.00	
Satd. Flow (prot)		1858	1434		3487			1819		1770	1840	
Flt Permitted		0.94	1.00		0.88			0.76		0.37	1.00	
Satd. Flow (perm)		1743	1434		3078			1396		697	1840	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	16	294	66	106	907	49	47	409	50	50	486	33
RTOR Reduction (vph)	0	0	35	0	6	0	0	7	0	0	4	0
Lane Group Flow (vph)	0	310	31	0	1056	0	0	499	0	50	515	0
Confl. Peds. (#/hr)			68			35			29			42
Confl. Bikes (#/hr)			4			6			2			3
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		813	669		1436			535		267	705	
v/s Ratio Prot											0.28	
v/s Ratio Perm		0.18	0.02		c0.34			c0.36		0.07		
v/c Ratio		0.38	0.05		0.74			0.93		0.19	0.73	
Uniform Delay, d1		10.4	8.7		13.0			17.8		12.3	15.8	
Progression Factor		1.08	1.57		0.24			1.00		1.00	1.00	
Incremental Delay, d2		1.3	0.1		2.1			25.4		1.5	6.6	
Delay (s)		12.5	13.8		5.2			43.2		13.8	22.4	
Level of Service		B	B		A			D		B	C	
Approach Delay (s)		12.8			5.2			43.2			21.6	
Approach LOS		B			A			D			C	

Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	118.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



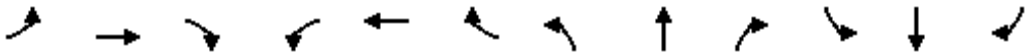
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	455	728	0	560	41	641	490	50	22	586	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.99			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1863	1474		3480		1770	1816			3508	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.61	
Satd. Flow (perm)		1863	1474		3480		1770	1816			2156	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	484	774	0	596	44	682	521	53	23	623	19
RTOR Reduction (vph)	0	0	465	0	6	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	484	309	0	634	0	682	570	0	0	663	0
Confl. Peds. (#/hr)			64			50			68			57
Confl. Bikes (#/hr)			1						3			3
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Effective Green, g (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Actuated g/C Ratio		0.33	0.33		0.33		0.33	0.33			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		621	491		1160		590	605			407	
v/s Ratio Prot		c0.26			0.18		c0.39	0.31				
v/s Ratio Perm			0.21								c0.31	
v/c Ratio		0.78	0.63		0.55		1.16	0.94			1.63	
Uniform Delay, d1		27.0	25.3		24.5		30.0	29.2			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		9.4	6.0		1.9		88.2	24.8			293.6	
Delay (s)		36.4	31.3		26.3		118.2	54.0			330.1	
Level of Service		D	C		C		F	D			F	
Approach Delay (s)		33.2			26.3			88.8			330.1	
Approach LOS		C			C			F			F	

Intersection Summary			
HCM Average Control Delay	102.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	1785	115	2754	5	767	38	333	947	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		0.98		1.00	0.98	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		0.99		1.00	0.96	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3438		1770	3334	
Flt Permitted	1.00		1.00		1.00		0.34	1.00	
Satd. Flow (perm)	3610		5084		3438		626	3334	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1859	120	2869	5	799	40	347	986	323
RTOR Reduction (vph)	5	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	1974	0	2874	0	839	0	347	1308	0
Confl. Peds. (#/hr)		45				186			89
Confl. Bikes (#/hr)		4	94			1			
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	48.0		48.0		19.0		12.0	31.0	
Effective Green, g (s)	48.0		48.0		19.0		12.0	31.0	
Actuated g/C Ratio	0.53		0.53		0.21		0.13	0.34	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1925		2711		726		83	1148	
v/s Ratio Prot	0.55				0.24			c0.39	
v/s Ratio Perm			c0.57				c0.55		
v/c Ratio	1.03		1.06		1.16		4.18	1.14	
Uniform Delay, d1	21.0		21.0		35.5		39.0	29.5	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	27.3		35.9		85.2		1459.3	73.8	
Delay (s)	48.3		56.9		120.7		1498.3	103.3	
Level of Service	D		E		F		F	F	
Approach Delay (s)			56.9		120.7			395.6	
Approach LOS			E		F			F	

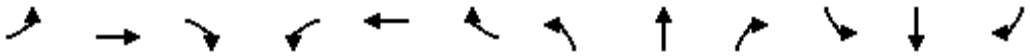
Intersection Summary			
HCM Average Control Delay	138.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	105.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1687	41	0	2445	51	63	127	65	73	284	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.97			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		5008			5015			1746			1782	
Flt Permitted		1.00			1.00			0.72			0.87	
Satd. Flow (perm)		5008			5015			1270			1562	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1776	43	0	2574	54	66	134	68	77	299	68
RTOR Reduction (vph)	0	3	0	0	2	0	0	10	0	0	1	0
Lane Group Flow (vph)	0	1816	0	0	2626	0	0	258	0	0	443	0
Confl. Peds. (#/hr)			43			22			19			20
Confl. Bikes (#/hr)			7			7			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2949			2953			395			486	
v/s Ratio Prot		0.36			c0.52							
v/s Ratio Perm								0.20			c0.28	
v/c Ratio		0.62			0.89			0.65			0.91	
Uniform Delay, d1		11.9			16.0			26.8			29.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.0			4.5			3.0			20.8	
Delay (s)		12.9			20.4			29.8			50.6	
Level of Service		B			C			C			D	
Approach Delay (s)		12.9			20.4			29.8			50.6	
Approach LOS		B			C			C			D	

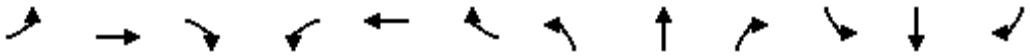
Intersection Summary			
HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	83.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	295	104	48	961	94	65	155	41	54	244	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.98			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.99			0.98			0.98	
Flt Protected		1.00	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1855	1454		3461			1769			1781	
Flt Permitted		0.82	1.00		0.92			0.83			0.91	
Satd. Flow (perm)		1526	1454		3206			1495			1634	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	30	324	114	53	1056	103	71	170	45	59	268	69
RTOR Reduction (vph)	0	0	61	0	12	0	0	11	0	0	13	0
Lane Group Flow (vph)	0	354	53	0	1200	0	0	275	0	0	383	0
Confl. Peds. (#/hr)			56			60			70			84
Confl. Bikes (#/hr)			4			2			3			2
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		712	679		1496			573			626	
v/s Ratio Prot												
v/s Ratio Perm		0.23	0.04		c0.37			0.18			c0.23	
v/c Ratio		0.50	0.08		0.80			0.48			0.61	
Uniform Delay, d1		11.1	8.9		13.6			14.0			14.9	
Progression Factor		1.33	2.74		1.00			1.00			1.00	
Incremental Delay, d2		2.4	0.2		4.6			0.6			1.8	
Delay (s)		17.1	24.4		18.3			14.6			16.7	
Level of Service		B	C		B			B			B	
Approach Delay (s)		18.9			18.3			14.6			16.7	
Approach LOS		B			B			B			B	

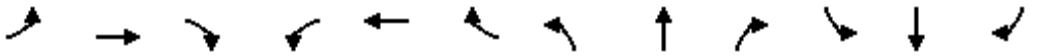
Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	89.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	1	0	88	0	91	2	168	97	123	284	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	1	0	100	0	103	2	191	110	140	323	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	203	303	463
Volume Left (vph)	0	100	2	140
Volume Right (vph)	0	103	110	0
Hadj (s)	0.02	-0.19	-0.20	0.08
Departure Headway (s)	6.3	5.6	4.9	5.0
Degree Utilization, x	0.00	0.31	0.42	0.64
Capacity (veh/h)	458	583	697	702
Control Delay (s)	9.3	11.1	11.4	16.4
Approach Delay (s)	9.3	11.1	11.4	16.4
Approach LOS	A	B	B	C

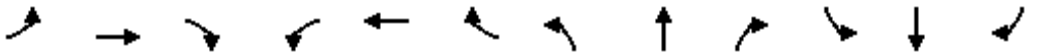
Intersection Summary				
Delay		13.7		
HCM Level of Service		B		
Intersection Capacity Utilization		68.8%	ICU Level of Service	C
Analysis Period (min)		15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	185	159	0	476	184	30	109	944	250	0	1516	286
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.69	1.00	0.98			1.00	0.55
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736	1827		3367	1827	1070	1736	3286			3471	848
Flt Permitted	0.36	1.00		0.36	1.00	1.00	1.00	1.00			1.00	1.00
Satd. Flow (perm)	664	1827		1289	1827	1070	1827	3286			3471	848
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	191	164	0	491	190	31	112	973	258	0	1563	295
RTOR Reduction (vph)	0	0	0	0	0	18	0	27	0	0	0	187
Lane Group Flow (vph)	191	164	0	491	190	13	112	1204	0	0	1563	108
Confl. Peds. (#/hr)			87			210			64			108
Confl. Bikes (#/hr)			2			8			5			2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	custom			custom		custom	custom			Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases	5			1		8	3			4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.42	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Vehicle Extension (s)	0.2	0.2		0.2	0.2	0.2	0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	81	526		158	526	452	61	1387			1273	311
v/s Ratio Prot		0.09			c0.10			0.37			c0.45	
v/s Ratio Perm	0.29			c0.38		0.01	c0.06					0.13
v/c Ratio	2.36	0.31		3.11	0.36	0.03	1.84	0.87			1.23	0.35
Uniform Delay, d1	39.5	25.1		39.5	25.5	15.2	43.5	23.7			28.5	20.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	647.5	1.5		964.9	1.9	0.0	432.6	5.8			109.6	0.2
Delay (s)	687.0	26.6		1004.4	27.4	15.2	476.1	29.5			138.1	20.9
Level of Service	F	C		F	C	B	F	C			F	C
Approach Delay (s)		381.9			700.6			66.8			119.5	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM Average Control Delay	221.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	17.1
Intersection Capacity Utilization	126.5%	ICU Level of Service	H
Analysis Period (min)	15		

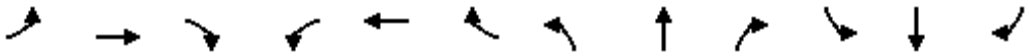
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	82	242	54	235	846	85	0	1266	59	0	1928	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1817		1787	3501			3535			3516	
Flt Permitted	0.13	1.00		0.44	1.00			1.00			1.00	
Satd. Flow (perm)	241	1817		824	3501			3535			3516	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	85	252	56	245	881	89	0	1319	61	0	2008	167
RTOR Reduction (vph)	0	3	0	0	8	0	0	4	0	0	7	0
Lane Group Flow (vph)	85	305	0	245	962	0	0	1376	0	0	2168	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.55			0.55	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	84	630		286	1214			1932			1922	
v/s Ratio Prot		0.17			0.27			0.39			c0.62	
v/s Ratio Perm	c0.35			0.30								
v/c Ratio	1.01	0.48		0.86	0.79			0.71			1.13	
Uniform Delay, d1	29.4	23.1		27.3	26.5			15.1			20.4	
Progression Factor	1.00	1.00		1.00	1.00			1.58			1.00	
Incremental Delay, d2	101.5	0.6		21.5	3.6			1.9			65.0	
Delay (s)	130.9	23.7		48.8	30.1			25.7			85.4	
Level of Service	F	C		D	C			C			F	
Approach Delay (s)		46.9			33.9			25.7			85.4	
Approach LOS		D			C			C			F	

Intersection Summary			
HCM Average Control Delay	54.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	123.4%	ICU Level of Service	H
Analysis Period (min)	15		

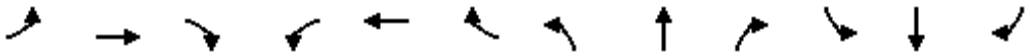
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	150	69	41	83	52	0	1264	56	0	2159	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frpb, ped/bikes		1.00	0.90		0.98			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.96			0.99			1.00	
Flt Protected		0.99	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1868	1435		1754			3538			3558	
Flt Permitted		0.95	1.00		0.89			1.00			1.00	
Satd. Flow (perm)		1780	1435		1575			3538			3558	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	26	156	72	43	86	54	0	1317	58	0	2249	48
RTOR Reduction (vph)	0	0	6	0	17	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	182	66	0	166	0	0	1371	0	0	2295	0
Confl. Peds. (#/hr)			64			33			97			64
Confl. Bikes (#/hr)			8			4			3			11
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		400	322		354			2378			2392	
v/s Ratio Prot								0.39			c0.65	
v/s Ratio Perm		0.10	0.05		c0.11							
v/c Ratio		0.46	0.20		0.47			0.58			0.96	
Uniform Delay, d1		30.1	28.4		30.2			7.9			13.6	
Progression Factor		1.00	1.00		1.00			0.78			0.54	
Incremental Delay, d2		0.8	0.3		1.0			0.8			1.5	
Delay (s)		31.0	28.7		31.2			7.0			8.9	
Level of Service		C	C		C			A			A	
Approach Delay (s)		30.3			31.2			7.0			8.9	
Approach LOS		C			C			A			A	

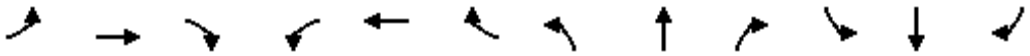
Intersection Summary			
HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	106.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	82	351	48	51	414	62	0	1195	75	0	2052	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.98			0.97			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			0.99			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3395			3365			3444			3441	
Flt Permitted		0.68			0.82			1.00			1.00	
Satd. Flow (perm)		2316			2772			3444			3441	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	85	366	50	53	431	65	0	1245	78	0	2138	174
RTOR Reduction (vph)	0	4	0	0	11	0	0	5	0	0	7	0
Lane Group Flow (vph)	0	497	0	0	538	0	0	1318	0	0	2305	0
Confl. Peds. (#/hr)			126			164			168			118
Confl. Bikes (#/hr)			3			2			2			3
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		26.2			26.2			54.7			54.7	
Effective Green, g (s)		26.2			26.2			54.7			54.7	
Actuated g/C Ratio		0.29			0.29			0.61			0.61	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		674			807			2093			2091	
v/s Ratio Prot								0.38			c0.67	
v/s Ratio Perm		c0.21			0.19							
v/c Ratio		0.74			0.67			0.63			1.10	
Uniform Delay, d1		28.8			28.1			11.2			17.6	
Progression Factor		1.00			1.00			1.00			0.35	
Incremental Delay, d2		7.1			4.3			1.4			49.3	
Delay (s)		35.9			32.4			12.7			55.5	
Level of Service		D			C			B			E	
Approach Delay (s)		35.9			32.4			12.7			55.5	
Approach LOS		D			C			B			E	

Intersection Summary			
HCM Average Control Delay	38.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	107.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	264	2351	173	0	1096	0	0	1133	853
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	
Lane Util. Factor				1.00	0.86			0.91			0.91	
Frpb, ped/bikes				1.00	1.00			1.00			0.96	
Flpb, ped/bikes				1.00	1.00			1.00			1.00	
Frt				1.00	0.99			1.00			0.94	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1770	6323			5085			4571	
Flt Permitted				0.95	1.00			1.00			1.00	
Satd. Flow (perm)				1770	6323			5085			4571	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	272	2424	178	0	1130	0	0	1168	879
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	272	2599	0	0	1130	0	0	2046	0
Confl. Peds. (#/hr)			418			28			67			75
Confl. Bikes (#/hr)						1			1			
Turn Type				Prot								
Protected Phases				1	6			4			4	
Permitted Phases												
Actuated Green, G (s)				48.7	48.7			31.4			31.4	
Effective Green, g (s)				48.7	48.7			31.4			31.4	
Actuated g/C Ratio				0.54	0.54			0.35			0.35	
Clearance Time (s)				5.3	5.3			4.6			4.6	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				958	3421			1774			1595	
v/s Ratio Prot				0.15	c0.41			0.22			c0.45	
v/s Ratio Perm												
v/c Ratio				0.28	0.76			0.64			1.62dr	
Uniform Delay, d1				11.2	16.1			24.5			29.3	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				0.7	1.6			1.8			132.1	
Delay (s)				11.9	17.7			26.3			161.4	
Level of Service				B	B			C			F	
Approach Delay (s)		0.0			17.2			26.3			161.4	
Approach LOS		A			B			C			F	

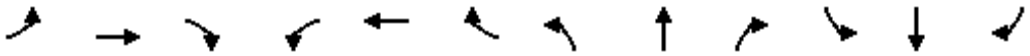
Intersection Summary			
HCM Average Control Delay	67.7	HCM Level of Service	E
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	88.6%	ICU Level of Service	E
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

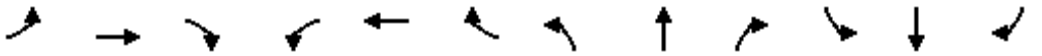
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	332	19	13	1039	21	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.92	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.99			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1845			3537	1584	
Flt Permitted	1.00			0.95	0.97	
Satd. Flow (perm)	1845			3364	1584	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	346	20	14	1082	22	11
RTOR Reduction (vph)	2	0	0	0	10	0
Lane Group Flow (vph)	364	0	0	1096	23	0
Confl. Peds. (#/hr)		26				30
Confl. Bikes (#/hr)		1				
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1445			2635	106	
v/s Ratio Prot	0.20				c0.01	
v/s Ratio Perm				c0.33		
v/c Ratio	0.25			0.42	0.21	
Uniform Delay, d1	1.8			2.1	26.5	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.4			0.5	0.4	
Delay (s)	2.2			2.6	26.9	
Level of Service	A			A	C	
Approach Delay (s)	2.2			2.6	26.9	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	3.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	373	17	16	1081	1	8	1	7	2	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			2.0	
Lane Util. Factor		1.00			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.97			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			1.00			0.94			0.93	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		1847			3536			1660			1679	
Flt Permitted		0.99			0.95			0.92			0.98	
Satd. Flow (perm)		1831			3354			1568			1672	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	4	401	18	17	1162	1	9	1	8	2	2	5
RTOR Reduction (vph)	0	3	0	0	0	0	0	5	0	0	3	0
Lane Group Flow (vph)	0	420	0	0	1180	0	0	13	0	0	6	0
Confl. Peds. (#/hr)			32			73			30			17
Confl. Bikes (#/hr)			6			5						
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		31.0			31.0			20.0			23.0	
Effective Green, g (s)		31.0			31.0			20.0			23.0	
Actuated g/C Ratio		0.52			0.52			0.33			0.38	
Clearance Time (s)		4.0			4.0			5.0			2.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		946			1733			523			641	
v/s Ratio Prot												
v/s Ratio Perm		0.23			c0.35			c0.01			0.00	
v/c Ratio		0.44			0.68			0.02			0.01	
Uniform Delay, d1		9.1			10.8			13.4			11.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.5			2.2			0.0			0.0	
Delay (s)		10.6			13.0			13.5			11.5	
Level of Service		B			B			B			B	
Approach Delay (s)		10.6			13.0			13.5			11.5	
Approach LOS		B			B			B			B	

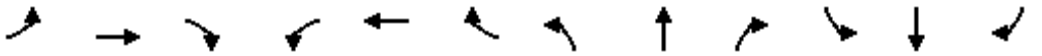
Intersection Summary			
HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2661	68	0	1278	98	39	471	104	142	330	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99		1.00	1.00	0.77	1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4909			4836		1719	1810	1186	1719	1810	1439
Flt Permitted		1.00			1.00		0.40	1.00	1.00	0.21	1.00	1.00
Satd. Flow (perm)		4909			4836		717	1810	1186	377	1810	1439
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	2743	70	0	1318	101	40	486	107	146	340	61
RTOR Reduction (vph)	0	3	0	0	10	0	0	0	1	0	0	22
Lane Group Flow (vph)	0	2810	0	0	1409	0	40	486	106	146	340	39
Confl. Peds. (#/hr)			74			61			221			35
Confl. Bikes (#/hr)			2			8			34			32
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			2			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2722			2681		233	589	386	123	589	468
v/s Ratio Prot		c0.57			0.29			0.27			0.19	
v/s Ratio Perm							0.06		0.09	c0.39		0.03
v/c Ratio		1.03			0.53		0.17	0.83	0.28	1.19	0.58	0.08
Uniform Delay, d1		20.1			12.6		21.7	28.0	22.5	30.4	25.2	21.0
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		26.2			0.7		1.6	12.4	1.8	140.0	4.1	0.3
Delay (s)		46.3			13.3		23.3	40.4	24.2	170.3	29.3	21.4
Level of Service		D			B		C	D	C	F	C	C
Approach Delay (s)		46.3			13.3			36.6			66.1	
Approach LOS		D			B			D			E	

Intersection Summary			
HCM Average Control Delay	38.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	110.8%	ICU Level of Service	H
Analysis Period (min)	15		

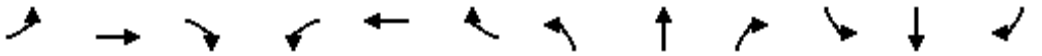
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	610	30	87	345	79	22	579	153	100	319	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		1.00		1.00	0.99		1.00	1.00	0.88	1.00	1.00	0.95
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3454		1752	3375		1752	1845	1372	1752	1845	1484
Flt Permitted		0.88		0.28	1.00		0.47	1.00	1.00	0.19	1.00	1.00
Satd. Flow (perm)		3048		518	3375		870	1845	1372	358	1845	1484
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	62	670	33	96	379	87	24	636	168	110	351	20
RTOR Reduction (vph)	0	5	0	0	33	0	0	0	50	0	0	11
Lane Group Flow (vph)	0	760	0	96	433	0	24	636	118	110	351	9
Confl. Peds. (#/hr)			58			24			64			32
Confl. Bikes (#/hr)			4			1			41			40
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1270		216	1406		377	800	595	155	800	643
v/s Ratio Prot					0.13			c0.34			0.19	
v/s Ratio Perm		c0.25		0.19			0.03		0.09	0.31		0.01
v/c Ratio		0.60		0.44	0.31		0.06	0.80	0.20	0.71	0.44	0.01
Uniform Delay, d1		13.6		12.5	11.7		9.9	14.7	10.5	13.9	11.9	9.7
Progression Factor		1.00		0.92	0.84		1.23	0.99	1.30	1.00	1.00	1.00
Incremental Delay, d2		2.1		5.3	0.5		0.2	5.1	0.5	24.0	1.7	0.0
Delay (s)		15.7		16.9	10.2		12.3	19.7	14.2	37.9	13.6	9.7
Level of Service		B		B	B		B	B	B	D	B	A
Approach Delay (s)		15.7			11.4			18.4			19.0	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	108.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	1355	13	7	881	108	13	464	48	198	185	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			0.99			0.99		1.00	1.00	0.94
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.98			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3520			3462			1826		1770	1863	1495
Flt Permitted		0.68			0.92			0.99		0.31	1.00	1.00
Satd. Flow (perm)		2399			3201			1812		570	1863	1495
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	120	1397	13	7	908	111	13	478	49	204	191	88
RTOR Reduction (vph)	0	1	0	0	16	0	0	6	0	0	0	49
Lane Group Flow (vph)	0	1529	0	0	1011	0	0	534	0	204	191	39
Confl. Peds. (#/hr)			18			29			50			28
Confl. Bikes (#/hr)			1						32			33
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		29.0			29.0			21.0		21.0	21.0	21.0
Effective Green, g (s)		29.0			29.0			21.0		21.0	21.0	21.0
Actuated g/C Ratio		0.48			0.48			0.35		0.35	0.35	0.35
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1160			1547			634		200	652	523
v/s Ratio Prot											0.10	
v/s Ratio Perm		c0.64			0.32			0.29		c0.36		0.03
v/c Ratio		1.32			0.65			0.84		1.02	0.29	0.07
Uniform Delay, d1		15.5			11.7			18.0		19.5	14.1	13.0
Progression Factor		1.00			1.00			1.00		1.19	1.18	1.98
Incremental Delay, d2		149.3			2.2			12.9		66.0	1.0	0.2
Delay (s)		164.8			13.9			30.8		89.1	17.7	25.9
Level of Service		F			B			C		F	B	C
Approach Delay (s)		164.8			13.9			30.8			49.4	
Approach LOS		F			B			C			D	

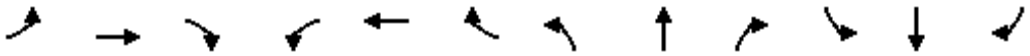
Intersection Summary			
HCM Average Control Delay	85.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	132.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	510	48	75	465	47	43	430	91	61	357	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.98		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1840	1445		3424			1784		1752	1820	
Flt Permitted		0.95	1.00		0.73			0.92		0.30	1.00	
Satd. Flow (perm)		1749	1445		2525			1640		549	1820	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	33	567	53	83	517	52	48	478	101	68	397	30
RTOR Reduction (vph)	0	0	27	0	11	0	0	12	0	0	4	0
Lane Group Flow (vph)	0	600	26	0	641	0	0	615	0	68	423	0
Confl. Peds. (#/hr)			53			41			19			31
Confl. Bikes (#/hr)			4			1			3			2
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		816	674		1178			629		210	698	
v/s Ratio Prot											0.23	
v/s Ratio Perm		c0.34	0.02		0.25			c0.38		0.12		
v/c Ratio		0.74	0.04		0.54			0.98		0.32	0.61	
Uniform Delay, d1		13.0	8.7		11.4			18.3		13.0	14.9	
Progression Factor		0.72	0.31		1.77			1.00		1.00	1.00	
Incremental Delay, d2		5.0	0.1		1.1			30.9		4.1	3.9	
Delay (s)		14.3	2.8		21.4			49.2		17.1	18.7	
Level of Service		B	A		C			D		B	B	
Approach Delay (s)		13.4			21.4			49.2			18.5	
Approach LOS		B			C			D			B	

Intersection Summary			
HCM Average Control Delay	25.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	118.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

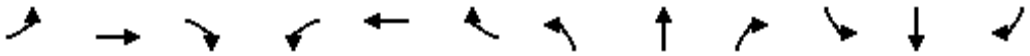


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	744	790	0	386	26	602	521	72	49	408	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		1.00		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.98			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			0.99	
Satd. Flow (prot)		1845	1452		3454		1752	1792			3470	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.54	
Satd. Flow (perm)		1845	1452		3454		1752	1792			1873	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	775	823	0	402	27	627	543	75	51	425	10
RTOR Reduction (vph)	0	0	467	0	6	0	0	6	0	0	2	0
Lane Group Flow (vph)	0	775	356	0	423	0	627	612	0	0	484	0
Confl. Peds. (#/hr)			60			45			37			39
Confl. Bikes (#/hr)			1			1			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Effective Green, g (s)		34.0	26.0		34.0		26.0	26.0			17.0	
Actuated g/C Ratio		0.38	0.29		0.38		0.29	0.29			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		697	419		1305		506	518			354	
v/s Ratio Prot		c0.42			0.12		c0.36	0.34				
v/s Ratio Perm			0.24								c0.26	
v/c Ratio		1.11	0.85		0.32		1.24	1.18			1.37	
Uniform Delay, d1		28.0	30.2		19.9		32.0	32.0			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		69.1	18.9		0.7		123.7	100.4			182.9	
Delay (s)		97.1	49.1		20.5		155.7	132.4			219.4	
Level of Service		F	D		C		F	F			F	
Approach Delay (s)		72.3			20.5			144.1			219.4	
Approach LOS		E			C			F			F	

Intersection Summary			
HCM Average Control Delay	109.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	97.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	2830	47	1632	3	1018	25	382	892	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		1.00		1.00	0.99	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		1.00		1.00	0.98	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3512		1770	3431	
Flt Permitted	1.00		1.00		1.00		0.33	1.00	
Satd. Flow (perm)	3610		5084		3512		621	3431	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	2918	48	1682	3	1049	26	394	920	143
RTOR Reduction (vph)	1	0	0	0	0	0	0	8	0
Lane Group Flow (vph)	2965	0	1685	0	1075	0	394	1055	0
Confl. Peds. (#/hr)		38				68			82
Confl. Bikes (#/hr)		90				2			4
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	46.0		46.0		21.0		12.0	33.0	
Effective Green, g (s)	46.0		46.0		21.0		12.0	33.0	
Actuated g/C Ratio	0.51		0.51		0.23		0.13	0.37	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1845		2598		819		83	1258	
v/s Ratio Prot	c0.82				c0.31			0.31	
v/s Ratio Perm			0.33				c0.63		
v/c Ratio	1.61		0.65		1.31		4.75	0.84	
Uniform Delay, d1	22.0		16.1		34.5		39.0	26.1	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	275.6		1.3		149.4		1713.2	4.8	
Delay (s)	297.6		17.4		183.9		1752.2	30.9	
Level of Service	F		B		F		F	C	
Approach Delay (s)			17.4		183.9			496.4	
Approach LOS			B		F			F	

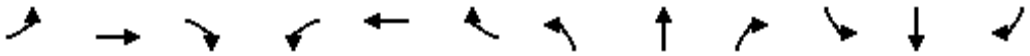
Intersection Summary			
HCM Average Control Delay	255.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	128.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2780	39	0	1254	55	55	204	59	108	168	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.99			0.98			0.98	
Flt Protected		1.00			1.00			0.99			0.98	
Satd. Flow (prot)		4925			4895			1736			1745	
Flt Permitted		1.00			1.00			0.88			0.66	
Satd. Flow (perm)		4925			4895			1535			1171	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	2896	41	0	1306	57	57	212	61	112	175	36
RTOR Reduction (vph)	0	2	0	0	5	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	2935	0	0	1358	0	0	329	0	0	318	0
Confl. Peds. (#/hr)			28			36			28			23
Confl. Bikes (#/hr)			4			1			2			3
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2900			2883			478			364	
v/s Ratio Prot		c0.60			0.28							
v/s Ratio Perm								0.21			c0.27	
v/c Ratio		1.01			0.47			0.69			0.87	
Uniform Delay, d1		18.5			10.5			27.2			29.3	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		19.8			0.6			3.3			19.6	
Delay (s)		38.3			11.1			30.5			48.9	
Level of Service		D			B			C			D	
Approach Delay (s)		38.3			11.1			30.5			48.9	
Approach LOS		D			B			C			D	

Intersection Summary			
HCM Average Control Delay	31.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		

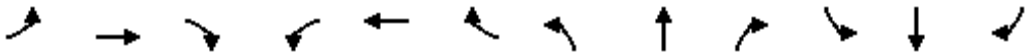
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	642	123	67	562	90	55	195	36	61	170	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.95		0.99			0.99			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.98			0.98			0.98	
Flt Protected		0.99	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1817	1477		3369			1770			1758	
Flt Permitted		0.84	1.00		0.63			0.89			0.87	
Satd. Flow (perm)		1541	1477		2124			1591			1551	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	84	721	138	75	631	101	62	219	40	69	191	45
RTOR Reduction (vph)	0	0	51	0	19	0	0	9	0	0	10	0
Lane Group Flow (vph)	0	805	87	0	788	0	0	312	0	0	295	0
Confl. Peds. (#/hr)			21			29			16			47
Confl. Bikes (#/hr)			9			1			1			
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		719	689		991			610			595	
v/s Ratio Prot												
v/s Ratio Perm		c0.52	0.06		0.37			c0.20			0.19	
v/c Ratio		1.12	0.13		0.80			0.51			0.49	
Uniform Delay, d1		16.0	9.1		13.6			14.2			14.1	
Progression Factor		0.67	0.31		1.00			1.00			1.00	
Incremental Delay, d2		69.0	0.3		6.6			0.7			0.7	
Delay (s)		79.6	3.1		20.2			14.9			14.7	
Level of Service		E	A		C			B			B	
Approach Delay (s)		68.4			20.2			14.9			14.7	
Approach LOS		E			C			B			B	

Intersection Summary			
HCM Average Control Delay	37.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	93.6%	ICU Level of Service	F
Analysis Period (min)	15		

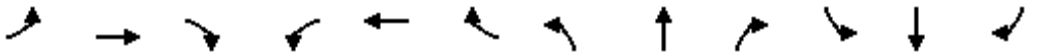
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	0	0	51	0	87	1	210	167	163	210	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	0	0	0	64	0	109	1	262	209	204	262	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	0	173	473	466
Volume Left (vph)	0	64	1	204
Volume Right (vph)	0	109	209	0
Hadj (s)	0.00	-0.27	-0.23	0.12
Departure Headway (s)	6.6	5.9	4.8	5.2
Degree Utilization, x	0.00	0.28	0.64	0.67
Capacity (veh/h)	450	544	716	678
Control Delay (s)	9.6	11.1	15.9	18.0
Approach Delay (s)	0.0	11.1	15.9	18.0
Approach LOS	A	B	C	C

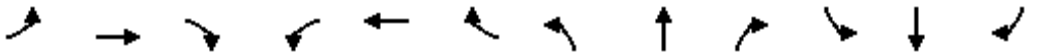
Intersection Summary				
Delay	16.1			
HCM Level of Service	C			
Intersection Capacity Utilization	66.3%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	246	259	1	200	93	23	100	1747	577	1	987	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.91	1.00	0.97			1.00	0.77
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1719	1808		3335	1810	1395	1719	3198			3438	1178
Flt Permitted	0.36	1.00		0.36	1.00	1.00	0.95	1.00			0.86	1.00
Satd. Flow (perm)	658	1808		1277	1810	1395	1719	3198			2971	1178
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	262	276	1	213	99	24	106	1859	614	1	1050	206
RTOR Reduction (vph)	0	0	0	0	0	11	0	36	0	0	0	130
Lane Group Flow (vph)	262	277	0	213	99	13	106	2437	0	0	1051	76
Confl. Peds. (#/hr)			63			72			84			53
Confl. Bikes (#/hr)			1			2			2			2
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Turn Type	custom			custom		Perm	Prot			Perm		Perm
Protected Phases		2			6		3	8			4	
Permitted Phases	5			1		6				4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	25.9	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.29	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	5.1	2.0	4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	80	520		156	521	401	57	1350			1089	432
v/s Ratio Prot		c0.15			0.05		0.06	c0.76				
v/s Ratio Perm	c0.40			0.17		0.01					0.35	0.06
v/c Ratio	3.27	0.53		1.37	0.19	0.03	1.86	1.81			0.97	0.17
Uniform Delay, d1	39.5	27.0		39.5	24.1	23.0	43.5	26.0			27.9	19.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	1055.2	3.9		199.9	0.8	0.1	446.1	365.4			19.2	0.2
Delay (s)	1094.7	30.8		239.4	25.0	23.2	489.6	391.4			47.2	19.5
Level of Service	F	C		F	C	C	F	F			D	B
Approach Delay (s)		548.0			160.8			395.4			42.6	
Approach LOS		F			F			F			D	

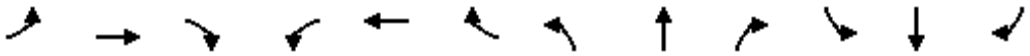
Intersection Summary			
HCM Average Control Delay	302.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	129.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	536	64	121	660	117	0	2252	128	0	1073	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.98			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1826		1770	3421			3494			3459	
Flt Permitted	0.15	1.00		0.15	1.00			1.00			1.00	
Satd. Flow (perm)	274	1826		274	3421			3494			3459	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	151	576	69	130	710	126	0	2422	138	0	1154	153
RTOR Reduction (vph)	0	5	0	0	1	0	0	4	0	0	11	0
Lane Group Flow (vph)	151	640	0	130	835	0	0	2556	0	0	1296	0
Confl. Peds. (#/hr)			24			61			78			61
Confl. Bikes (#/hr)			2			2			5			5
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Effective Green, g (s)	27.2	27.2		27.2	27.2			53.2			53.2	
Actuated g/C Ratio	0.30	0.30		0.30	0.30			0.59			0.59	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	83	552		83	1034			2065			2045	
v/s Ratio Prot		0.35			0.24			c0.73			0.37	
v/s Ratio Perm	c0.55			0.47								
v/c Ratio	1.82	1.16		1.57	0.81			1.24			0.63	
Uniform Delay, d1	31.4	31.4		31.4	29.0			18.4			12.0	
Progression Factor	1.00	1.00		1.00	1.00			0.46			1.00	
Incremental Delay, d2	411.8	90.6		304.9	4.7			107.3			1.5	
Delay (s)	443.2	122.0		336.3	33.7			115.7			13.5	
Level of Service	F	F		F	C			F			B	
Approach Delay (s)		182.9			74.4			115.7			13.5	
Approach LOS		F			E			F			B	

Intersection Summary			
HCM Average Control Delay	94.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.44		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	133.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



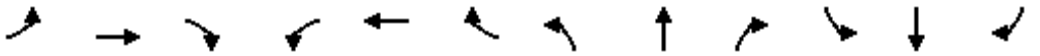
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	14	200	42	56	112	114	0	2238	125	0	1168	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frpb, ped/bikes		1.00	0.93		0.96			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.95			0.99			0.99	
Flt Protected		1.00	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1857	1467		1674			3497			3489	
Flt Permitted		0.96	1.00		0.72			1.00			1.00	
Satd. Flow (perm)		1793	1467		1217			3497			3489	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	15	217	46	61	122	124	0	2433	136	0	1270	96
RTOR Reduction (vph)	0	0	36	0	4	0	0	5	0	0	6	0
Lane Group Flow (vph)	0	232	10	0	303	0	0	2564	0	0	1360	0
Confl. Peds. (#/hr)			37			65			76			40
Confl. Bikes (#/hr)			14			2			3			5
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		402	329		273			2351			2345	
v/s Ratio Prot								c0.73			0.39	
v/s Ratio Perm		0.13	0.01		c0.25							
v/c Ratio		0.58	0.03		1.11			1.09			0.58	
Uniform Delay, d1		31.1	27.3		34.9			14.8			7.9	
Progression Factor		1.00	1.00		1.00			0.36			0.46	
Incremental Delay, d2		2.0	0.0		87.4			41.7			0.7	
Delay (s)		33.1	27.3		122.3			47.0			4.3	
Level of Service		C	C		F			D			A	
Approach Delay (s)		32.1			122.3			47.0			4.3	
Approach LOS		C			F			D			A	

Intersection Summary			
HCM Average Control Delay	38.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	112.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	151	536	33	23	283	42	0	2291	63	0	1145	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			1.00			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3421			3391			3466			3411	
Flt Permitted		0.74			0.84			1.00			1.00	
Satd. Flow (perm)		2550			2868			3466			3411	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	161	570	35	24	301	45	0	2437	67	0	1218	117
RTOR Reduction (vph)	0	4	0	0	1	0	0	2	0	0	8	0
Lane Group Flow (vph)	0	762	0	0	369	0	0	2502	0	0	1327	0
Confl. Peds. (#/hr)			101			61			143			81
Confl. Bikes (#/hr)			7						4			5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.2			28.2			52.7			52.7	
Effective Green, g (s)		28.2			28.2			52.7			52.7	
Actuated g/C Ratio		0.31			0.31			0.59			0.59	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		799			899			2030			1997	
v/s Ratio Prot								c0.72			0.39	
v/s Ratio Perm		c0.30			0.13							
v/c Ratio		0.95			0.41			1.23			0.66	
Uniform Delay, d1		30.3			24.3			18.6			12.7	
Progression Factor		1.00			1.00			1.00			0.94	
Incremental Delay, d2		22.3			1.4			109.1			1.4	
Delay (s)		52.6			25.7			127.8			13.3	
Level of Service		D			C			F			B	
Approach Delay (s)		52.6			25.7			127.8			13.3	
Approach LOS		D			C			F			B	

Intersection Summary			
HCM Average Control Delay	77.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	114.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	190	1661	295	78	1984	0	0	636	525
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	
Lane Util. Factor				1.00	0.86			0.91			0.91	
Frpb, ped/bikes				1.00	0.99			1.00			0.98	
Flpb, ped/bikes				1.00	1.00			1.00			1.00	
Frt				1.00	0.98			1.00			0.93	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1752	6166			5026			4602	
Flt Permitted				0.95	1.00			0.77			1.00	
Satd. Flow (perm)				1752	6166			3902			4602	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	200	1748	311	82	2088	0	0	669	553
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	200	2058	0	0	2170	0	0	1221	0
Confl. Peds. (#/hr)			406			24			51			29
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type				Prot			Perm					
Protected Phases				1	6			8			4	
Permitted Phases							8					
Actuated Green, G (s)				35.7	35.7			44.4			44.4	
Effective Green, g (s)				35.7	35.7			44.4			44.4	
Actuated g/C Ratio				0.40	0.40			0.49			0.49	
Clearance Time (s)				5.3	5.3			4.6			4.6	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				695	2446			1925			2270	
v/s Ratio Prot				0.11	c0.33						0.27	
v/s Ratio Perm								c0.56				
v/c Ratio				0.29	0.84			1.13			0.54	
Uniform Delay, d1				18.5	24.6			22.8			15.7	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				1.0	3.7			64.6			0.9	
Delay (s)				19.5	28.3			87.4			16.6	
Level of Service				B	C			F			B	
Approach Delay (s)		0.0			27.5			87.4			16.6	
Approach LOS		A			C			F			B	

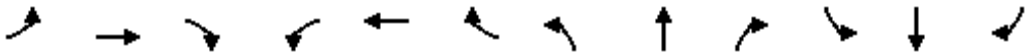
Intersection Summary			
HCM Average Control Delay	48.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	106.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	763	11	17	700	15	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.91	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.96	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1823			3467	1533	
Flt Permitted	1.00			0.93	0.97	
Satd. Flow (perm)	1823			3239	1533	
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	867	12	19	795	17	8
RTOR Reduction (vph)	0	0	0	0	7	0
Lane Group Flow (vph)	879	0	0	814	18	0
Confl. Peds. (#/hr)		29				37
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1428			2537	102	
v/s Ratio Prot	c0.48				c0.01	
v/s Ratio Perm				0.25		
v/c Ratio	0.62			0.32	0.17	
Uniform Delay, d1	2.7			1.9	26.4	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	2.0			0.3	0.3	
Delay (s)	4.7			2.2	26.7	
Level of Service	A			A	C	
Approach Delay (s)	4.7			2.2	26.7	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	3.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		

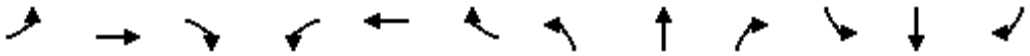
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	714	0	0	767	3	0	0	8	0	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	821	0	0	882	3	0	0	9	0	0	5
Pedestrians		26			64			46			97	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		2			5			4			8	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		268			542							
pX, platoon unblocked				0.58			0.58	0.58	0.58	0.58	0.58	
vC, conflicting volume	982			867			1338	1849	931	1874	1847	566
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	982			399			1218	2106	510	2151	2103	566
tC, single (s)	4.2			4.2			7.6	6.6	7.0	7.6	6.6	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	97	100	100	99
cM capacity (veh/h)	631			632			65	25	263	12	25	416

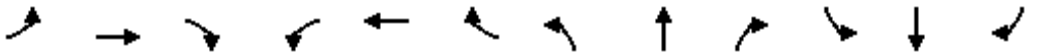
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	821	441	444	9	5
Volume Left	0	0	0	0	0
Volume Right	0	0	3	9	5
cSH	631	632	1700	263	416
Volume to Capacity	0.00	0.00	0.26	0.03	0.01
Queue Length 95th (ft)	0	0	0	3	1
Control Delay (s)	0.0	0.0	0.0	19.2	13.7
Lane LOS				C	B
Approach Delay (s)	0.0	0.0		19.2	13.7
Approach LOS				C	B

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	56.6%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	709	12	9	726	36	5	3	5	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0				
Lane Util. Factor		1.00			0.95			1.00				
Frt		1.00			0.99			0.95				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		1857			3512			1733				
Flt Permitted		0.98			0.95			0.98				
Satd. Flow (perm)		1829			3325			1733				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	771	13	10	789	39	5	3	5	0	0	0
RTOR Reduction (vph)	0	1	0	0	8	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	796	0	0	830	0	0	10	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		4			8		2	2				
Permitted Phases	4			8								
Actuated Green, G (s)		20.9			20.9			16.1				
Effective Green, g (s)		20.9			20.9			16.1				
Actuated g/C Ratio		0.46			0.46			0.36				
Clearance Time (s)		4.0			4.0			4.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		849			1544			620				
v/s Ratio Prot								c0.01				
v/s Ratio Perm		c0.44			0.25							
v/c Ratio		0.94			0.54			0.02				
Uniform Delay, d1		11.4			8.6			9.3				
Progression Factor		1.00			1.00			1.00				
Incremental Delay, d2		17.4			0.4			0.0				
Delay (s)		28.9			9.0			9.4				
Level of Service		C			A			A				
Approach Delay (s)		28.9			9.0			9.4			0.0	
Approach LOS		C			A			A			A	

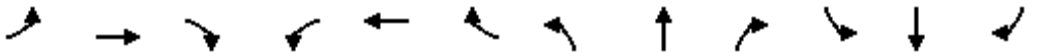
Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1772	88	0	2395	161	59	361	91	140	529	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Lane Util. Factor		0.91			0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99			0.98		1.00	1.00	0.78	1.00	1.00	0.88
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99			0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		4956			4878		1752	1845	1223	1752	1845	1376
Flt Permitted		1.00			1.00		0.14	1.00	1.00	0.35	1.00	1.00
Satd. Flow (perm)		4956			4878		252	1845	1223	653	1845	1376
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1827	91	0	2469	166	61	372	94	144	545	95
RTOR Reduction (vph)	0	6	0	0	8	0	0	0	4	0	0	1
Lane Group Flow (vph)	0	1912	0	0	2627	0	61	372	90	144	545	94
Confl. Peds. (#/hr)			143			164			216			93
Confl. Bikes (#/hr)			5			3			24			44
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm		Perm	Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases							8		8	4		4
Actuated Green, G (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Effective Green, g (s)		49.9			49.9		29.3	29.3	29.3	29.3	29.3	29.3
Actuated g/C Ratio		0.55			0.55		0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)		5.1			5.1		5.7	5.7	5.7	5.7	5.7	5.7
Vehicle Extension (s)		0.2			0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		2748			2705		82	601	398	213	601	448
v/s Ratio Prot		0.39			c0.54			0.20			c0.30	
v/s Ratio Perm							0.24		0.07	0.22		0.07
v/c Ratio		0.70			0.97		0.74	0.62	0.23	0.68	0.91	0.21
Uniform Delay, d1		14.5			19.4		27.0	25.6	22.1	26.2	29.0	22.0
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.5			11.7		45.7	4.7	1.3	15.9	19.8	1.1
Delay (s)		16.0			31.1		72.7	30.4	23.4	42.1	48.8	23.0
Level of Service		B			C		E	C	C	D	D	C
Approach Delay (s)		16.0			31.1			34.0			44.5	
Approach LOS		B			C			C			D	

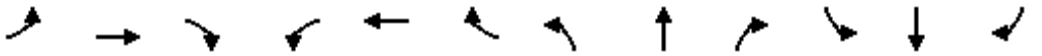
Intersection Summary			
HCM Average Control Delay	28.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.8
Intersection Capacity Utilization	111.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	224	45	233	590	106	22	320	44	65	583	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor		0.95		1.00	0.95		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.99		1.00	0.99		1.00	1.00	0.89	1.00	1.00	0.93
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.99		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		3398		1770	3431		1770	1863	1407	1770	1863	1472
Flt Permitted		0.83		0.56	1.00		0.21	1.00	1.00	0.49	1.00	1.00
Satd. Flow (perm)		2846		1036	3431		399	1863	1407	906	1863	1472
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	40	236	47	245	621	112	23	337	46	68	614	41
RTOR Reduction (vph)	0	23	0	0	25	0	0	0	26	0	0	20
Lane Group Flow (vph)	0	300	0	245	709	0	23	337	20	68	614	21
Confl. Peds. (#/hr)			54			21			59			52
Confl. Bikes (#/hr)			3			7			31			48
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Actuated Green, G (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Effective Green, g (s)		25.0		25.0	25.0		26.0	26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio		0.42		0.42	0.42		0.43	0.43	0.43	0.43	0.43	0.43
Clearance Time (s)		4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)		0.2		0.2	0.2		0.2	0.2	0.2	0.2	0.2	0.2
Lane Grp Cap (vph)		1186		432	1430		173	807	610	393	807	638
v/s Ratio Prot					0.21			0.18			c0.33	
v/s Ratio Perm		0.11		c0.24			0.06		0.01	0.08		0.01
v/c Ratio		0.25		0.57	0.50		0.13	0.42	0.03	0.17	0.76	0.03
Uniform Delay, d1		11.4		13.4	12.9		10.2	11.8	9.8	10.4	14.4	9.8
Progression Factor		1.00		0.33	0.29		1.15	1.12	1.47	1.00	1.00	1.00
Incremental Delay, d2		0.5		3.3	0.8		1.3	1.3	0.1	1.0	6.7	0.1
Delay (s)		11.9		7.8	4.5		13.1	14.5	14.4	11.4	21.1	9.9
Level of Service		B		A	A		B	B	B	B	C	A
Approach Delay (s)		11.9			5.4			14.4			19.5	
Approach LOS		B			A			B			B	

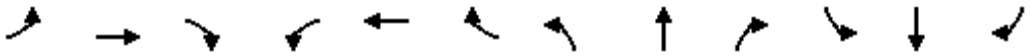
Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	106.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	63	890	27	25	1089	107	24	194	25	237	360	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	1.00
Frpb, ped/bikes		1.00			1.00			0.99		1.00	1.00	0.95
Flpb, ped/bikes		1.00			1.00			1.00		1.00	1.00	1.00
Frt		1.00			0.99			0.99		1.00	1.00	0.85
Flt Protected		1.00			1.00			1.00		0.95	1.00	1.00
Satd. Flow (prot)		3510			3476			1815		1770	1863	1504
Flt Permitted		0.67			0.92			0.94		0.59	1.00	1.00
Satd. Flow (perm)		2357			3189			1717		1091	1863	1504
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	67	947	29	27	1159	114	26	206	27	252	383	206
RTOR Reduction (vph)	0	3	0	0	12	0	0	7	0	0	0	18
Lane Group Flow (vph)	0	1040	0	0	1288	0	0	252	0	252	383	188
Confl. Peds. (#/hr)			15			21			46			24
Confl. Bikes (#/hr)						1			34			35
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		8
Actuated Green, G (s)		27.0			27.0			23.0		23.0	23.0	23.0
Effective Green, g (s)		27.0			27.0			23.0		23.0	23.0	23.0
Actuated g/C Ratio		0.45			0.45			0.38		0.38	0.38	0.38
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	5.0
Lane Grp Cap (vph)		1061			1435			658		418	714	577
v/s Ratio Prot											0.21	
v/s Ratio Perm		c0.44			0.40			0.15		c0.23		0.13
v/c Ratio		0.98			0.90			0.38		0.60	0.54	0.33
Uniform Delay, d1		16.2			15.2			13.4		14.8	14.4	13.0
Progression Factor		1.00			1.00			1.00		0.83	0.83	0.86
Incremental Delay, d2		23.2			9.2			1.7		4.6	2.1	1.1
Delay (s)		39.4			24.4			15.1		16.9	14.0	12.3
Level of Service		D			C			B		B	B	B
Approach Delay (s)		39.4			24.4			15.1			14.4	
Approach LOS		D			C			B			B	

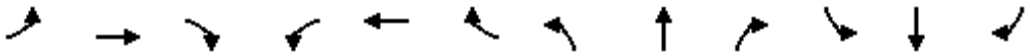
Intersection Summary			
HCM Average Control Delay	25.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	116.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	277	62	108	860	47	44	384	48	47	457	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00		1.00	1.00	
Frpb, ped/bikes		1.00	0.91		1.00			0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.99			0.99		1.00	0.99	
Flt Protected		1.00	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1858	1434		3486			1818		1770	1840	
Flt Permitted		0.93	1.00		0.87			0.76		0.37	1.00	
Satd. Flow (perm)		1741	1434		3054			1395		696	1840	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	16	295	66	115	915	50	47	409	51	50	486	33
RTOR Reduction (vph)	0	0	35	0	6	0	0	7	0	0	4	0
Lane Group Flow (vph)	0	311	31	0	1074	0	0	500	0	50	515	0
Confl. Peds. (#/hr)			68			35			29			42
Confl. Bikes (#/hr)			4			6			2			3
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0		23.0	23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38		0.38	0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0		5.0	5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)		812	669		1425			535		267	705	
v/s Ratio Prot											0.28	
v/s Ratio Perm		0.18	0.02		c0.35			c0.36		0.07		
v/c Ratio		0.38	0.05		0.75			0.93		0.19	0.73	
Uniform Delay, d1		10.4	8.7		13.2			17.8		12.3	15.8	
Progression Factor		1.08	1.57		0.25			1.00		1.00	1.00	
Incremental Delay, d2		1.4	0.1		2.2			25.7		1.5	6.6	
Delay (s)		12.6	13.8		5.4			43.5		13.8	22.4	
Level of Service		B	B		A			D		B	C	
Approach Delay (s)		12.8			5.4			43.5			21.6	
Approach LOS		B			A			D			C	

Intersection Summary			
HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	118.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



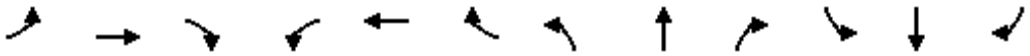
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	456	728	0	562	41	641	491	50	22	594	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00		0.95		1.00	1.00			0.95	
Frpb, ped/bikes		1.00	0.93		0.99		1.00	0.99			1.00	
Flpb, ped/bikes		1.00	1.00		1.00		1.00	1.00			1.00	
Frt		1.00	0.85		0.99		1.00	0.99			1.00	
Flt Protected		1.00	1.00		1.00		0.95	1.00			1.00	
Satd. Flow (prot)		1863	1474		3480		1770	1816			3508	
Flt Permitted		1.00	1.00		1.00		0.95	1.00			0.61	
Satd. Flow (perm)		1863	1474		3480		1770	1816			2156	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	485	774	0	598	44	682	522	53	23	632	19
RTOR Reduction (vph)	0	0	465	0	6	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	485	309	0	636	0	682	571	0	0	672	0
Confl. Peds. (#/hr)			64			50			68			57
Confl. Bikes (#/hr)			1						3			3
Turn Type			custom				Split			Perm		
Protected Phases		2			6		8	8			4	
Permitted Phases			8							4		
Actuated Green, G (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Effective Green, g (s)		30.0	30.0		30.0		30.0	30.0			17.0	
Actuated g/C Ratio		0.33	0.33		0.33		0.33	0.33			0.19	
Clearance Time (s)		5.0	4.0		5.0		4.0	4.0			4.0	
Lane Grp Cap (vph)		621	491		1160		590	605			407	
v/s Ratio Prot		c0.26			0.18		c0.39	0.31				
v/s Ratio Perm			0.21								c0.31	
v/c Ratio		0.78	0.63		0.55		1.16	0.94			1.65	
Uniform Delay, d1		27.0	25.3		24.5		30.0	29.2			36.5	
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	
Incremental Delay, d2		9.4	6.0		1.9		88.2	25.1			303.3	
Delay (s)		36.5	31.3		26.3		118.2	54.3			339.8	
Level of Service		D	C		C		F	D			F	
Approach Delay (s)		33.3			26.3			88.9			339.8	
Approach LOS		C			C			F			F	

Intersection Summary			
HCM Average Control Delay	104.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBR	EBR2	WBT	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	1785	115	2755	6	767	38	333	955	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		4.0		2.0	6.0	
Lane Util. Factor	0.76		0.91		0.95		1.00	0.95	
Frpb, ped/bikes	1.00		1.00		0.98		1.00	0.98	
Flpb, ped/bikes	1.00		1.00		1.00		1.00	1.00	
Frt	0.85		1.00		0.99		1.00	0.96	
Flt Protected	1.00		1.00		1.00		0.95	1.00	
Satd. Flow (prot)	3610		5084		3438		1770	3336	
Flt Permitted	1.00		1.00		1.00		0.34	1.00	
Satd. Flow (perm)	3610		5084		3438		626	3336	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	1859	120	2870	6	799	40	347	995	323
RTOR Reduction (vph)	5	0	0	0	0	0	0	1	0
Lane Group Flow (vph)	1974	0	2876	0	839	0	347	1317	0
Confl. Peds. (#/hr)		45				186			89
Confl. Bikes (#/hr)		4	94			1			
Turn Type	custom						custom		
Protected Phases	2				8			4	
Permitted Phases			6				7		
Actuated Green, G (s)	48.0		48.0		19.0		12.0	31.0	
Effective Green, g (s)	48.0		48.0		19.0		12.0	31.0	
Actuated g/C Ratio	0.53		0.53		0.21		0.13	0.34	
Clearance Time (s)	5.0		5.0		4.0		2.0	6.0	
Vehicle Extension (s)	0.2		0.2		0.2		0.2	0.2	
Lane Grp Cap (vph)	1925		2711		726		83	1149	
v/s Ratio Prot	0.55				0.24			c0.39	
v/s Ratio Perm			c0.57				c0.55		
v/c Ratio	1.03		1.06		1.16		4.18	1.15	
Uniform Delay, d1	21.0		21.0		35.5		39.0	29.5	
Progression Factor	1.00		1.00		1.00		1.00	1.00	
Incremental Delay, d2	27.3		36.2		85.2		1459.3	76.5	
Delay (s)	48.3		57.2		120.7		1498.3	106.0	
Level of Service	D		E		F		F	F	
Approach Delay (s)			57.2		120.7			396.2	
Approach LOS			E		F			F	

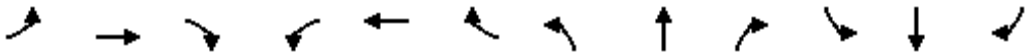
Intersection Summary			
HCM Average Control Delay	138.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	105.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1688	42	0	2445	51	65	127	68	73	284	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		0.91			0.91			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			0.96			0.98	
Flt Protected		1.00			1.00			0.99			0.99	
Satd. Flow (prot)		5008			5015			1743			1782	
Flt Permitted		1.00			1.00			0.71			0.87	
Satd. Flow (perm)		5008			5015			1258			1557	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1777	44	0	2574	54	68	134	72	77	299	68
RTOR Reduction (vph)	0	3	0	0	2	0	0	10	0	0	1	0
Lane Group Flow (vph)	0	1818	0	0	2626	0	0	264	0	0	443	0
Confl. Peds. (#/hr)			43			22			19			20
Confl. Bikes (#/hr)			7			7			2			3
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type							Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases							8			4		
Actuated Green, G (s)		53.0			53.0			28.0			28.0	
Effective Green, g (s)		53.0			53.0			28.0			28.0	
Actuated g/C Ratio		0.59			0.59			0.31			0.31	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		2949			2953			391			484	
v/s Ratio Prot		0.36			c0.52							
v/s Ratio Perm								0.21			c0.28	
v/c Ratio		0.62			0.89			0.68			0.91	
Uniform Delay, d1		11.9			16.0			27.0			29.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.0			4.5			3.6			21.4	
Delay (s)		12.9			20.4			30.7			51.3	
Level of Service		B			C			C			D	
Approach Delay (s)		12.9			20.4			30.7			51.3	
Approach LOS		B			C			C			D	

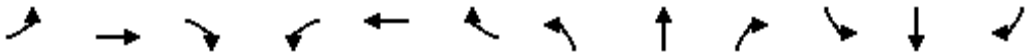
Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	299	106	62	969	95	68	156	41	55	244	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0			5.0			5.0	
Lane Util. Factor		1.00	1.00		0.95			1.00			1.00	
Frpb, ped/bikes		1.00	0.92		0.99			0.98			0.99	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.99			0.98			0.98	
Flt Protected		1.00	1.00		1.00			0.99			0.99	
Satd. Flow (prot)		1855	1454		3460			1769			1781	
Flt Permitted		0.78	1.00		0.91			0.82			0.91	
Satd. Flow (perm)		1460	1454		3165			1476			1633	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	32	329	116	68	1065	104	75	171	45	60	268	69
RTOR Reduction (vph)	0	0	62	0	11	0	0	11	0	0	12	0
Lane Group Flow (vph)	0	361	54	0	1226	0	0	280	0	0	385	0
Confl. Peds. (#/hr)			56			60			70			84
Confl. Bikes (#/hr)			4			2			3			2
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		
Actuated Green, G (s)		28.0	28.0		28.0			23.0			23.0	
Effective Green, g (s)		28.0	28.0		28.0			23.0			23.0	
Actuated g/C Ratio		0.47	0.47		0.47			0.38			0.38	
Clearance Time (s)		4.0	4.0		4.0			5.0			5.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		681	679		1477			566			626	
v/s Ratio Prot												
v/s Ratio Perm		0.25	0.04		c0.39			0.19			c0.24	
v/c Ratio		0.53	0.08		0.83			0.49			0.61	
Uniform Delay, d1		11.3	8.9		13.9			14.1			14.9	
Progression Factor		1.31	2.71		1.00			1.00			1.00	
Incremental Delay, d2		2.8	0.2		5.5			0.7			1.8	
Delay (s)		17.7	24.2		19.5			14.8			16.7	
Level of Service		B	C		B			B			B	
Approach Delay (s)		19.3			19.5			14.8			16.7	
Approach LOS		B			B			B			B	

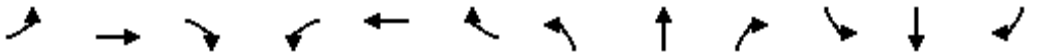
Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	90.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	1	0	82	0	85	2	171	97	130	293	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	1	0	93	0	97	2	194	110	148	333	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	1	190	307	481
Volume Left (vph)	0	93	2	148
Volume Right (vph)	0	97	110	0
Hadj (s)	0.02	-0.19	-0.20	0.08
Departure Headway (s)	6.3	5.6	4.9	5.0
Degree Utilization, x	0.00	0.30	0.42	0.66
Capacity (veh/h)	471	576	701	708
Control Delay (s)	9.3	11.0	11.4	17.1
Approach Delay (s)	9.3	11.0	11.4	17.1
Approach LOS	A	B	B	C

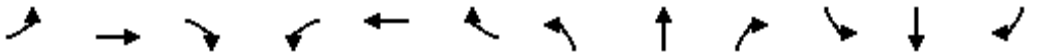
Intersection Summary				
Delay		14.1		
HCM Level of Service		B		
Intersection Capacity Utilization		69.1%	ICU Level of Service	C
Analysis Period (min)		15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	186	161	1	476	184	30	109	945	254	0	1516	286
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.69	1.00	0.98			1.00	0.55
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736	1824		3367	1827	1070	1736	3284			3471	848
Flt Permitted	0.36	1.00		0.36	1.00	1.00	1.00	1.00			1.00	1.00
Satd. Flow (perm)	664	1824		1289	1827	1070	1827	3284			3471	848
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	192	166	1	491	190	31	112	974	262	0	1563	295
RTOR Reduction (vph)	0	0	0	0	0	18	0	27	0	0	0	187
Lane Group Flow (vph)	192	167	0	491	190	13	112	1209	0	0	1563	108
Confl. Peds. (#/hr)			87			210			64			108
Confl. Bikes (#/hr)			2			8			5			2
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	custom			custom		custom	custom			Perm		Perm
Protected Phases		2			6			8			4	
Permitted Phases	5			1		8	3			4		4
Actuated Green, G (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Effective Green, g (s)	11.0	25.9		11.0	25.9	38.0	3.0	38.0			33.0	33.0
Actuated g/C Ratio	0.12	0.29		0.12	0.29	0.42	0.03	0.42			0.37	0.37
Clearance Time (s)	6.0	5.1		6.0	5.1	4.0	2.0	4.0			4.0	4.0
Vehicle Extension (s)	0.2	0.2		0.2	0.2	0.2	0.2	0.2			0.2	0.2
Lane Grp Cap (vph)	81	525		158	526	452	61	1387			1273	311
v/s Ratio Prot		0.09			c0.10			0.37			c0.45	
v/s Ratio Perm	0.29			c0.38		0.01	c0.06					0.13
v/c Ratio	2.37	0.32		3.11	0.36	0.03	1.84	0.87			1.23	0.35
Uniform Delay, d1	39.5	25.1		39.5	25.5	15.2	43.5	23.8			28.5	20.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2	653.0	1.6		964.9	1.9	0.0	432.6	6.1			109.6	0.2
Delay (s)	692.5	26.7		1004.4	27.4	15.2	476.1	29.9			138.1	20.9
Level of Service	F	C		F	C	B	F	C			F	C
Approach Delay (s)		382.8			700.6			66.9			119.5	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM Average Control Delay	221.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	17.1
Intersection Capacity Utilization	126.6%	ICU Level of Service	H
Analysis Period (min)	15		

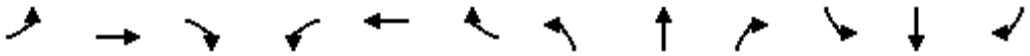
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	242	81	235	846	85	0	1270	60	0	1929	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Lane Util. Factor	1.00	1.00		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1787	1793		1787	3501			3534			3516	
Flt Permitted	0.13	1.00		0.40	1.00			1.00			1.00	
Satd. Flow (perm)	241	1793		758	3501			3534			3516	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	86	252	84	245	881	89	0	1323	62	0	2009	167
RTOR Reduction (vph)	0	3	0	0	8	0	0	4	0	0	7	0
Lane Group Flow (vph)	86	333	0	245	962	0	0	1381	0	0	2169	0
Confl. Peds. (#/hr)			30			70			85			87
Confl. Bikes (#/hr)			4			5			7			10
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Effective Green, g (s)	31.2	31.2		31.2	31.2			49.2			49.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.55			0.55	
Clearance Time (s)	4.8	4.8		4.8	4.8			4.8			4.8	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	84	622		263	1214			1932			1922	
v/s Ratio Prot		0.19			0.27			0.39			c0.62	
v/s Ratio Perm	c0.36			0.32								
v/c Ratio	1.02	0.54		0.93	0.79			0.71			1.13	
Uniform Delay, d1	29.4	23.6		28.4	26.5			15.2			20.4	
Progression Factor	1.00	1.00		1.00	1.00			1.57			1.00	
Incremental Delay, d2	104.9	0.9		37.4	3.6			1.9			65.2	
Delay (s)	134.3	24.5		65.7	30.1			25.7			85.6	
Level of Service	F	C		E	C			C			F	
Approach Delay (s)		46.9			37.3			25.7			85.6	
Approach LOS		D			D			C			F	

Intersection Summary			
HCM Average Control Delay	55.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.6
Intersection Capacity Utilization	123.4%	ICU Level of Service	H
Analysis Period (min)	15		

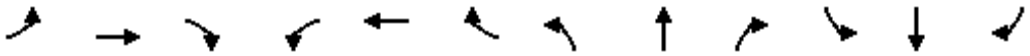
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	150	62	41	84	52	0	1266	56	0	2171	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8	4.8		4.8			4.5			4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95			0.95	
Frpb, ped/bikes		1.00	0.90		0.98			1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00			1.00	
Frt		1.00	0.85		0.96			0.99			1.00	
Flt Protected		0.99	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1867	1435		1756			3538			3552	
Flt Permitted		0.94	1.00		0.89			1.00			1.00	
Satd. Flow (perm)		1770	1435		1577			3538			3552	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	28	156	65	43	88	54	0	1319	58	0	2261	66
RTOR Reduction (vph)	0	0	6	0	16	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	184	59	0	169	0	0	1373	0	0	2325	0
Confl. Peds. (#/hr)			64			33			97			64
Confl. Bikes (#/hr)			8			4			3			11
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm		Perm	Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		20.2	20.2		20.2			60.5			60.5	
Effective Green, g (s)		20.2	20.2		20.2			60.5			60.5	
Actuated g/C Ratio		0.22	0.22		0.22			0.67			0.67	
Clearance Time (s)		4.8	4.8		4.8			4.5			4.5	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		397	322		354			2378			2388	
v/s Ratio Prot								0.39			c0.65	
v/s Ratio Perm		0.10	0.04		c0.11							
v/c Ratio		0.46	0.18		0.48			0.58			0.97	
Uniform Delay, d1		30.2	28.2		30.3			7.9			14.0	
Progression Factor		1.00	1.00		1.00			0.78			0.57	
Incremental Delay, d2		0.9	0.3		1.0			0.8			2.1	
Delay (s)		31.1	28.5		31.3			7.0			10.1	
Level of Service		C	C		C			A			B	
Approach Delay (s)		30.4			31.3			7.0			10.1	
Approach LOS		C			C			A			B	

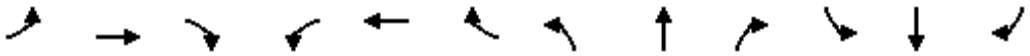
Intersection Summary			
HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.3
Intersection Capacity Utilization	107.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	351	51	51	414	63	0	1195	75	0	2057	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.8			4.8			4.3			4.3	
Lane Util. Factor		0.95			0.95			0.95			0.95	
Frpb, ped/bikes		0.98			0.97			0.98			0.98	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.98			0.99			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		3389			3363			3444			3437	
Flt Permitted		0.67			0.82			1.00			1.00	
Satd. Flow (perm)		2286			2760			3444			3437	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	88	366	53	53	431	66	0	1245	78	0	2143	182
RTOR Reduction (vph)	0	4	0	0	12	0	0	5	0	0	7	0
Lane Group Flow (vph)	0	503	0	0	538	0	0	1318	0	0	2318	0
Confl. Peds. (#/hr)			126			164			168			118
Confl. Bikes (#/hr)			3			2			2			3
Turn Type	Perm			Perm								
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		26.2			26.2			54.7			54.7	
Effective Green, g (s)		26.2			26.2			54.7			54.7	
Actuated g/C Ratio		0.29			0.29			0.61			0.61	
Clearance Time (s)		4.8			4.8			4.3			4.3	
Vehicle Extension (s)		0.2			0.2			0.2			0.2	
Lane Grp Cap (vph)		665			803			2093			2089	
v/s Ratio Prot								0.38			c0.67	
v/s Ratio Perm		c0.22			0.19							
v/c Ratio		0.76			0.67			0.63			1.11	
Uniform Delay, d1		29.0			28.1			11.2			17.6	
Progression Factor		1.00			1.00			1.00			0.35	
Incremental Delay, d2		7.9			4.4			1.4			52.1	
Delay (s)		36.9			32.5			12.7			58.3	
Level of Service		D			C			B			E	
Approach Delay (s)		36.9			32.5			12.7			58.3	
Approach LOS		D			C			B			E	

Intersection Summary			
HCM Average Control Delay	40.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.1
Intersection Capacity Utilization	107.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	264	2354	173	0	1096	0	0	1141	853
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.3	5.3			4.6			4.6	
Lane Util. Factor				1.00	0.86			0.91			0.91	
Frpb, ped/bikes				1.00	1.00			1.00			0.96	
Flpb, ped/bikes				1.00	1.00			1.00			1.00	
Frt				1.00	0.99			1.00			0.94	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1770	6323			5085			4573	
Flt Permitted				0.95	1.00			1.00			1.00	
Satd. Flow (perm)				1770	6323			5085			4573	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	272	2427	178	0	1130	0	0	1176	879
RTOR Reduction (vph)	0	0	0	0	3	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	272	2602	0	0	1130	0	0	2054	0
Confl. Peds. (#/hr)			418			28			67			75
Confl. Bikes (#/hr)						1			1			
Turn Type				Prot								
Protected Phases				1	6			4			4	
Permitted Phases												
Actuated Green, G (s)				48.7	48.7			31.4			31.4	
Effective Green, g (s)				48.7	48.7			31.4			31.4	
Actuated g/C Ratio				0.54	0.54			0.35			0.35	
Clearance Time (s)				5.3	5.3			4.6			4.6	
Vehicle Extension (s)				0.2	0.2			0.2			0.2	
Lane Grp Cap (vph)				958	3421			1774			1595	
v/s Ratio Prot				0.15	c0.41			0.22			c0.45	
v/s Ratio Perm												
v/c Ratio				0.28	0.76			0.64			1.62dr	
Uniform Delay, d1				11.2	16.1			24.5			29.3	
Progression Factor				1.00	1.00			1.00			1.00	
Incremental Delay, d2				0.7	1.6			1.8			134.3	
Delay (s)				11.9	17.7			26.3			163.6	
Level of Service				B	B			C			F	
Approach Delay (s)		0.0			17.2			26.3			163.6	
Approach LOS		A			B			C			F	

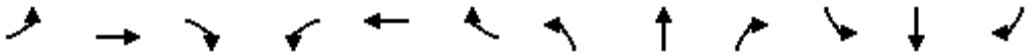
Intersection Summary			
HCM Average Control Delay	68.5	HCM Level of Service	E
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.9
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	347	10	13	1061	11	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	5.0	
Lane Util. Factor	1.00			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.92	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.95	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	1854			3537	1573	
Flt Permitted	1.00			0.95	0.97	
Satd. Flow (perm)	1854			3364	1573	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	361	10	14	1105	11	6
RTOR Reduction (vph)	1	0	0	0	6	0
Lane Group Flow (vph)	370	0	0	1119	11	0
Confl. Peds. (#/hr)		26				30
Confl. Bikes (#/hr)		1				
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Actuated Green, G (s)	47.0			47.0	4.0	
Effective Green, g (s)	47.0			47.0	4.0	
Actuated g/C Ratio	0.78			0.78	0.07	
Clearance Time (s)	4.0			4.0	5.0	
Vehicle Extension (s)	0.2			0.2	0.2	
Lane Grp Cap (vph)	1452			2635	105	
v/s Ratio Prot	0.20				c0.01	
v/s Ratio Perm				c0.33		
v/c Ratio	0.26			0.42	0.11	
Uniform Delay, d1	1.8			2.1	26.3	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.4			0.5	0.2	
Delay (s)	2.2			2.6	26.5	
Level of Service	A			A	C	
Approach Delay (s)	2.2			2.6	26.5	
Approach LOS	A			A	C	

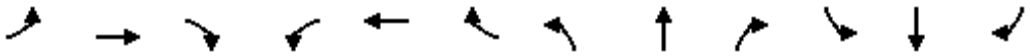
Intersection Summary			
HCM Average Control Delay	2.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	405	0	0	1097	1	0	0	5	0	0	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	435	0	0	1180	1	0	0	5	0	0	10
Pedestrians		17			30			32			73	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			3			3			6	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		268			542							
pX, platoon unblocked				0.81			0.81	0.81	0.81	0.81	0.81	
vC, conflicting volume	1254			467			1084	1721	497	1724	1721	680
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1254			224			986	1773	261	1777	1773	680
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	100	100	97
cM capacity (veh/h)	517			1057			143	61	567	36	61	364

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	435	590	591	5	10
Volume Left	0	0	0	0	0
Volume Right	0	0	1	5	10
cSH	517	1057	1700	567	364
Volume to Capacity	0.00	0.00	0.35	0.01	0.03
Queue Length 95th (ft)	0	0	0	1	2
Control Delay (s)	0.0	0.0	0.0	11.4	15.2
Lane LOS				B	C
Approach Delay (s)	0.0	0.0		11.4	15.2
Approach LOS				B	C

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	46.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	401	9	8	1080	18	4	1	4	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0				
Lane Util. Factor		1.00			0.95			1.00				
Frt		1.00			1.00			0.94				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		1856			3529			1713				
Flt Permitted		0.98			0.95			0.98				
Satd. Flow (perm)		1815			3359			1713				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	7	436	10	9	1174	20	4	1	4	0	0	0
RTOR Reduction (vph)	0	2	0	0	3	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	451	0	0	1200	0	0	7	0	0	0	0
Turn Type	Perm			Perm			Split					
Protected Phases		4			8		2	2				
Permitted Phases	4			8								
Actuated Green, G (s)		16.0			16.0			16.0				
Effective Green, g (s)		16.0			16.0			16.0				
Actuated g/C Ratio		0.40			0.40			0.40				
Clearance Time (s)		4.0			4.0			4.0				
Vehicle Extension (s)		3.0			3.0			3.0				
Lane Grp Cap (vph)		726			1344			685				
v/s Ratio Prot								c0.00				
v/s Ratio Perm		0.25			c0.36							
v/c Ratio		0.62			0.89			0.01				
Uniform Delay, d1		9.6			11.2			7.2				
Progression Factor		1.00			1.00			1.00				
Incremental Delay, d2		1.7			7.9			0.0				
Delay (s)		11.2			19.1			7.3				
Level of Service		B			B			A				
Approach Delay (s)		11.2			19.1			7.3			0.0	
Approach LOS		B			B			A			A	

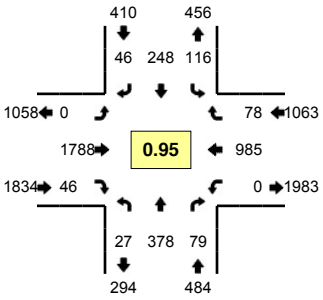
Intersection Summary			
HCM Average Control Delay	16.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

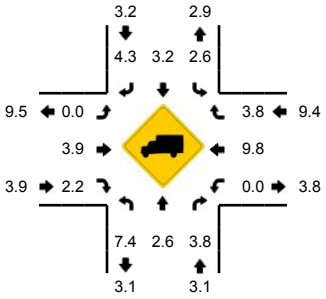
APPENDIX D: DATA COLLECTION

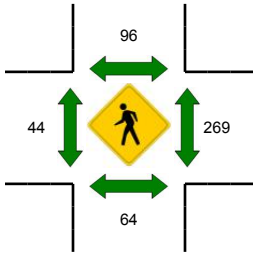
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

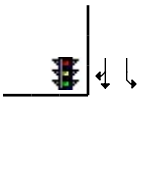
LOCATION: Arguello Blvd -- Geary Blvd | **QC JOB #:** 10652701
CITY/STATE: San Francisco, CA | **DATE:** Thu, Sep 15 2011

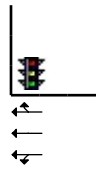
Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

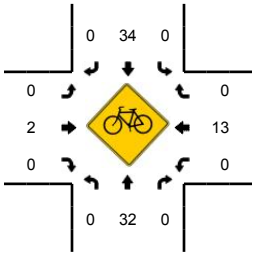


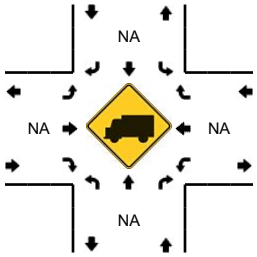


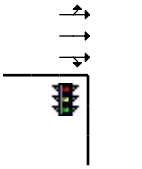


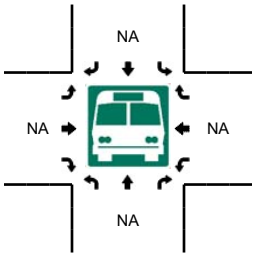












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	14	1	0	5	8	0	0	0	78	1	0	0	32	4	0	145	
7:05 AM	3	13	6	0	5	8	0	0	0	99	0	0	0	31	4	0	169	
7:10 AM	2	12	3	0	3	6	0	0	0	127	5	0	0	43	5	0	206	
7:15 AM	2	13	4	0	4	6	3	0	0	159	8	0	0	39	1	0	239	
7:20 AM	3	25	7	0	5	6	3	0	0	131	5	0	0	63	4	0	252	
7:25 AM	0	25	2	0	7	10	0	0	0	185	0	0	0	46	5	0	280	
7:30 AM	3	27	7	0	3	16	0	0	0	163	7	0	0	58	5	0	289	
7:35 AM	4	22	15	0	6	15	1	0	0	153	5	0	0	57	4	0	282	
7:40 AM	1	31	8	0	4	16	5	0	0	168	8	0	0	81	4	0	326	
7:45 AM	0	24	12	0	9	16	4	0	0	165	2	0	0	83	2	0	317	
7:50 AM	1	36	10	0	10	40	0	0	0	158	1	0	0	90	7	0	353	
7:55 AM	1	23	8	0	10	25	2	0	0	158	5	0	0	85	7	0	324	3182
8:00 AM	1	38	5	0	5	18	2	0	0	130	6	0	0	89	5	0	299	3336
8:05 AM	2	41	5	0	14	19	2	0	0	141	2	0	0	58	3	0	287	3454
8:10 AM	0	28	9	0	9	20	4	0	0	166	3	0	0	97	6	0	342	3590
8:15 AM	2	30	1	0	8	23	8	0	0	135	2	0	0	74	9	0	292	3643
8:20 AM	6	30	6	0	8	18	7	0	0	137	5	0	0	83	6	0	306	3697
8:25 AM	1	22	8	0	11	14	4	0	0	186	1	0	0	71	8	0	326	3743
8:30 AM	5	28	6	0	14	18	8	0	0	109	10	0	0	86	10	0	294	3748
8:35 AM	4	40	3	0	12	19	4	0	0	129	7	0	0	85	4	0	307	3773
8:40 AM	4	38	6	0	6	18	1	0	0	174	2	0	0	84	11	0	344	3791
8:45 AM	2	38	7	0	9	26	5	0	0	114	11	0	0	75	11	0	298	3772
8:50 AM	4	42	8	0	10	14	7	0	0	156	3	0	0	84	13	0	341	3760
8:55 AM	2	37	3	0	8	18	5	0	0	154	5	0	0	75	11	0	318	3754

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	332	120	0	116	324	24	0	0	1924	32	0	0	1032	64	0	3976
Heavy Trucks	0	12	8		0	4	0		0	64	0		0	120	0		208
Pedestrians		84				52				40				196			372
Bicycles	0	11	0		0	21	0		0	1	0		0	13	0		46
Railroad																	
Stopped Buses																	

Comments:

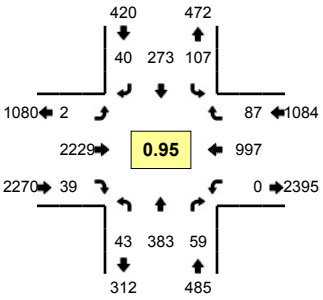
Report generated on 9/23/2011 11:46 AM

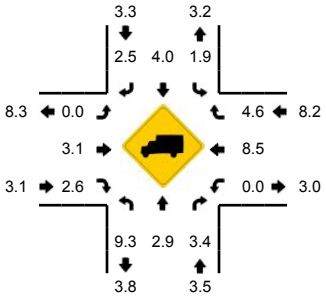
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

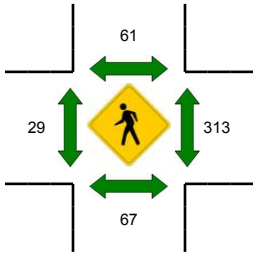
LOCATION: Arguello Blvd -- Geary Blvd | **QC JOB #:** 10652702

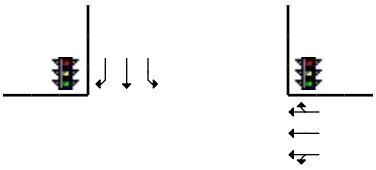
CITY/STATE: San Francisco, CA | **DATE:** Thu, Sep 08 2011

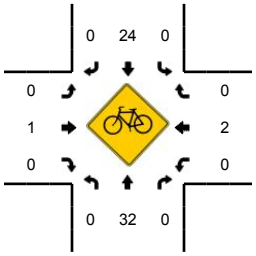
Peak-Hour: 7:55 AM -- 8:55 AM
Peak 15-Min: 8:40 AM -- 8:55 AM

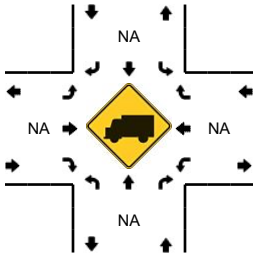


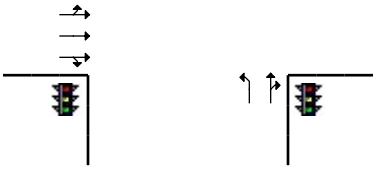


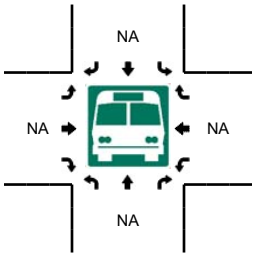












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	14	2	0	9	5	2	0	0	89	1	0	0	31	2	0	156	
7:05 AM	1	8	3	0	4	7	1	0	0	99	3	0	0	57	9	0	192	
7:10 AM	1	11	1	0	6	7	2	0	0	116	1	0	0	40	8	0	193	
7:15 AM	0	12	2	0	0	7	0	0	1	154	3	0	0	52	5	0	236	
7:20 AM	2	12	4	0	4	4	3	0	0	121	0	0	0	55	1	0	206	
7:25 AM	2	30	5	0	11	12	2	0	0	137	4	0	0	56	3	0	262	
7:30 AM	3	24	11	0	6	9	3	0	0	170	3	0	0	38	4	0	271	
7:35 AM	2	17	9	0	3	6	5	0	0	201	1	0	0	74	6	0	324	
7:40 AM	5	29	14	0	10	17	2	0	1	157	6	0	0	76	7	0	324	
7:45 AM	2	23	6	0	7	14	2	0	1	204	5	0	0	85	6	0	355	
7:50 AM	1	16	9	0	7	26	3	0	0	208	1	0	0	67	11	0	349	
7:55 AM	4	39	7	0	11	33	6	0	0	172	1	0	0	80	4	0	357	3225
8:00 AM	2	26	8	0	8	32	2	0	0	200	4	0	0	79	3	0	364	3433
8:05 AM	3	22	3	0	8	18	3	0	0	172	0	0	0	86	5	0	320	3561
8:10 AM	3	45	1	0	10	24	6	0	1	174	3	0	0	61	8	0	336	3704
8:15 AM	1	25	7	0	4	13	3	0	0	198	2	0	0	107	5	0	365	3833
8:20 AM	1	30	3	0	6	21	1	0	0	204	9	0	0	64	4	0	343	3970
8:25 AM	5	40	4	0	11	15	2	0	0	172	5	0	0	95	7	0	356	4064
8:30 AM	4	31	7	0	7	19	3	0	0	210	2	0	0	93	8	0	384	4177
8:35 AM	4	17	7	0	11	18	5	0	1	176	5	0	0	65	9	0	318	4171
8:40 AM	8	49	3	0	9	30	2	0	0	168	2	0	0	84	8	0	363	4210
8:45 AM	2	27	4	0	15	26	2	0	0	194	4	0	0	100	12	0	386	4241
8:50 AM	6	32	5	0	7	24	5	0	0	189	2	0	0	83	14	0	367	4259
8:55 AM	3	46	10	0	7	26	5	0	0	162	5	0	0	66	14	0	344	4246

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	432	48	0	124	320	36	0	0	2204	32	0	0	1068	136	0	4464
Heavy Trucks	4	16	0		4	16	0		0	76	0		0	80	8		204
Pedestrians		24				116				40				528			708
Bicycles	0	7	0		0	3	0		0	0	0		0	0	0		10
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Arguello Blvd -- Geary Blvd

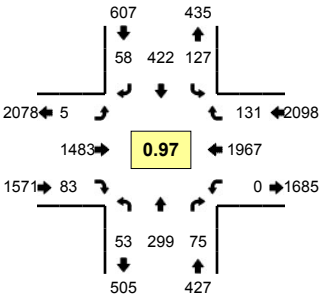
QC JOB #: 10652703

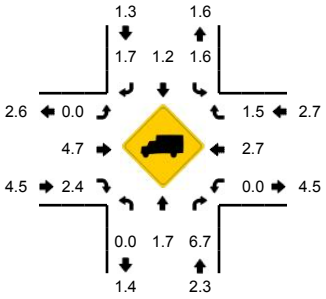
CITY/STATE: San Francisco, CA

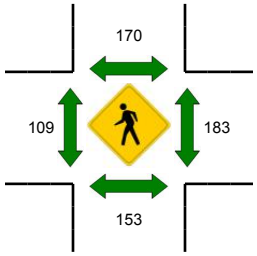
DATE: Thu, Sep 15 2011

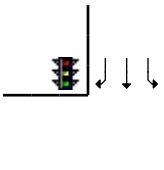
Peak-Hour: 4:55 PM -- 5:55 PM

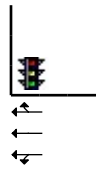
Peak 15-Min: 5:20 PM -- 5:35 PM

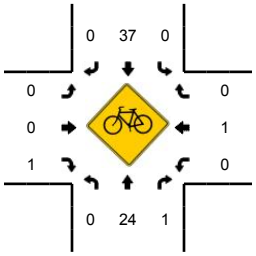


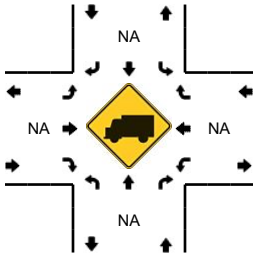


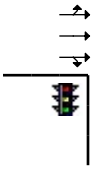


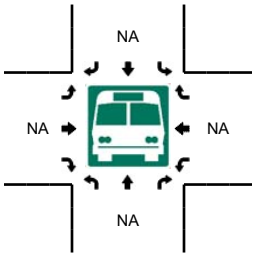












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	17	8	0	7	29	7	0	0	152	3	0	0	134	8	0	367	
4:05 PM	4	21	6	0	10	33	11	0	0	105	5	0	0	128	8	0	331	
4:10 PM	5	21	8	0	6	28	2	0	0	119	4	0	0	148	13	0	354	
4:15 PM	3	12	4	0	6	35	5	0	0	120	8	0	0	159	13	0	365	
4:20 PM	6	18	5	0	14	44	13	0	0	120	3	0	0	106	10	0	339	
4:25 PM	2	14	11	0	9	26	2	0	0	145	5	0	0	146	15	0	375	
4:30 PM	3	20	6	0	7	21	6	0	0	111	2	0	1	131	13	0	321	
4:35 PM	4	27	14	0	14	43	9	0	0	122	6	0	0	125	11	0	375	
4:40 PM	3	26	7	0	7	26	7	0	0	133	7	0	0	152	15	0	383	
4:45 PM	10	25	6	0	4	28	6	0	0	143	8	0	0	167	15	0	412	
4:50 PM	2	22	7	0	15	33	10	0	0	80	8	0	0	126	8	0	311	
4:55 PM	6	27	7	0	14	27	8	0	0	133	10	0	0	149	13	0	394	4327
5:00 PM	2	21	5	0	12	24	4	0	0	111	9	0	0	179	14	0	381	4341
5:05 PM	4	30	6	0	13	41	6	0	0	116	3	0	0	128	5	0	352	4362
5:10 PM	4	21	7	0	12	35	5	0	0	130	7	0	0	157	6	0	384	4392
5:15 PM	5	19	9	0	8	24	6	0	0	129	9	0	0	165	14	0	388	4415
5:20 PM	5	38	8	0	12	41	8	0	0	118	13	0	0	163	11	0	417	4493
5:25 PM	4	18	8	0	8	35	2	0	5	131	9	0	0	170	11	0	401	4519
5:30 PM	2	26	4	0	11	32	4	0	0	109	5	0	0	190	15	0	398	4596
5:35 PM	5	30	2	0	12	47	3	0	0	121	3	0	0	162	8	0	393	4614
5:40 PM	8	23	10	0	10	32	3	0	0	123	5	0	0	173	11	0	398	4629
5:45 PM	3	19	4	0	6	37	5	0	0	131	4	0	0	177	14	0	400	4617
5:50 PM	5	27	5	0	9	47	4	0	0	131	6	0	0	154	9	0	397	4703
5:55 PM	2	18	9	0	11	33	9	0	0	125	5	0	0	148	13	0	373	4682

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	44	328	80	0	124	432	56	0	20	1432	108	0	0	2092	148	0	4864
Heavy Trucks	0	8	4		4	4	0		0	72	0		0	40	4		136
Pedestrians		216				176				136				152			680
Bicycles	0	3	0		0	8	0		0	0	0		0	0	0		11
Railroad																	
Stopped Buses																	

Comments:

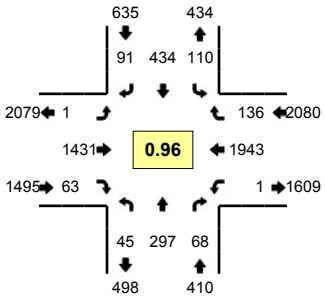
Report generated on 9/23/2011 11:46 AM

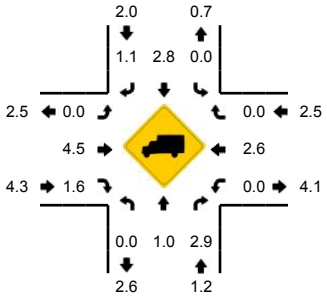
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

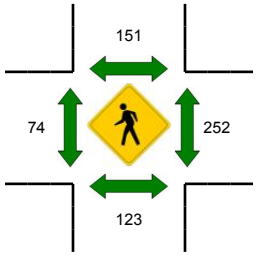
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

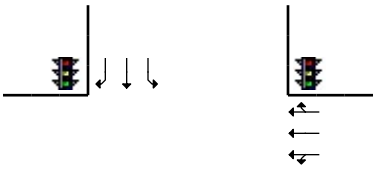
LOCATION: Arguello Blvd -- Geary Blvd | **QC JOB #:** 10652704
CITY/STATE: San Francisco, CA | **DATE:** Thu, Sep 08 2011

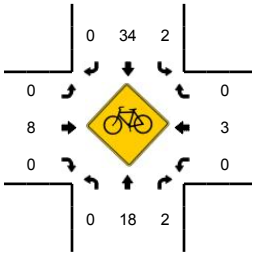
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:35 PM -- 5:50 PM

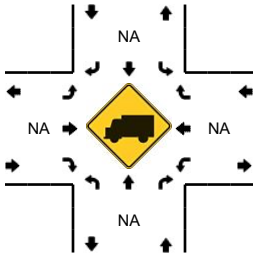


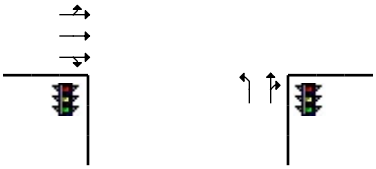


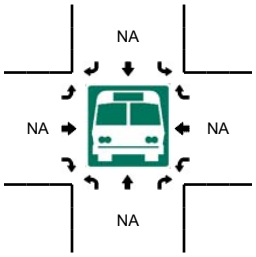












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	9	9	6	0	9	40	6	0	0	126	7	0	0	125	8	0	345	
4:05 PM	2	9	6	0	7	32	4	0	1	128	8	0	0	133	12	0	342	
4:10 PM	4	22	5	0	5	32	4	0	0	84	4	0	0	159	10	0	329	
4:15 PM	6	18	8	0	11	38	7	0	0	130	6	0	1	151	5	0	381	
4:20 PM	6	16	9	0	6	26	3	0	1	120	12	0	0	157	9	0	365	
4:25 PM	2	20	7	0	9	32	8	0	0	102	7	0	1	112	9	0	309	
4:30 PM	10	19	9	0	13	29	9	0	0	117	4	0	0	140	13	0	363	
4:35 PM	3	25	8	0	8	29	7	0	0	122	2	0	0	153	8	0	365	
4:40 PM	3	25	8	0	8	37	9	0	0	124	7	0	0	118	10	0	349	
4:45 PM	6	17	15	0	14	36	7	0	0	120	4	0	0	140	6	0	365	
4:50 PM	6	19	14	0	13	29	5	0	1	140	7	0	0	143	7	0	384	
4:55 PM	6	34	8	0	14	36	9	0	0	109	3	0	0	145	13	0	377	4274
5:00 PM	6	21	8	0	7	37	10	0	0	127	5	0	0	147	15	0	383	4312
5:05 PM	2	17	4	0	8	31	9	0	0	110	9	0	0	147	9	0	346	4316
5:10 PM	2	27	3	0	7	43	6	0	0	112	2	0	0	149	7	0	358	4345
5:15 PM	3	28	4	0	14	44	7	0	0	123	8	0	0	156	12	0	399	4363
5:20 PM	4	21	6	0	9	29	6	0	0	137	3	0	0	189	10	0	414	4412
5:25 PM	4	34	9	0	10	45	4	0	0	102	4	0	0	154	7	0	373	4476
5:30 PM	2	22	2	0	8	38	5	0	1	108	3	0	0	169	10	0	368	4481
5:35 PM	3	23	7	0	11	32	7	0	0	147	9	0	0	193	17	0	449	4565
5:40 PM	2	26	6	0	4	35	16	0	0	122	5	0	1	136	12	0	365	4581
5:45 PM	4	22	7	0	10	37	5	0	0	121	5	0	0	163	11	0	385	4601
5:50 PM	7	22	4	0	8	27	7	0	0	113	7	0	0	195	13	0	403	4620
5:55 PM	3	34	11	0	8	40	8	0	0	99	4	0	1	155	10	0	373	4616

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	284	80	0	100	416	112	0	0	1560	76	0	4	1968	160	0	4796
Heavy Trucks	0	0	4		0	12	0		0	56	0		0	64	0		136
Pedestrians		128				156				92				256			632
Bicycles	0	5	0		0	10	0		0	1	0		0	2	0		18
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Arguello Blvd -- Turk Blvd

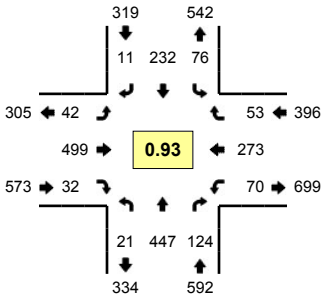
QC JOB #: 10652705

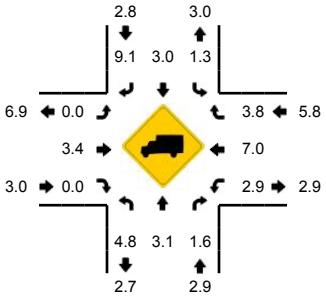
CITY/STATE: San Francisco, CA

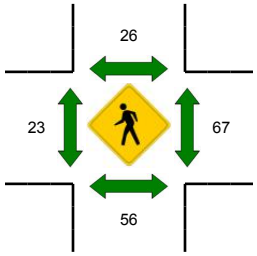
DATE: Mon, Sep 12 2011

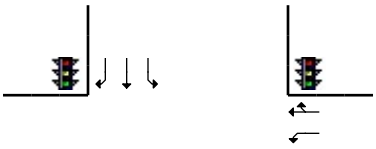
Peak-Hour: 7:45 AM -- 8:45 AM

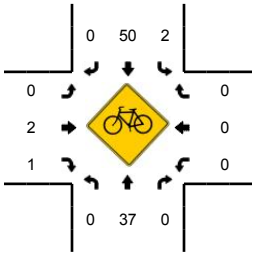
Peak 15-Min: 7:50 AM -- 8:05 AM

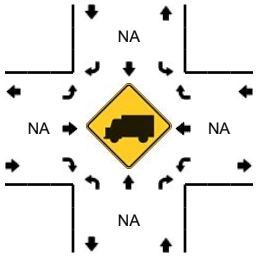


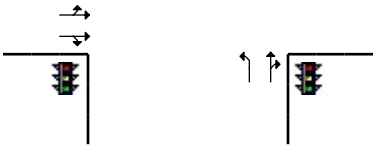


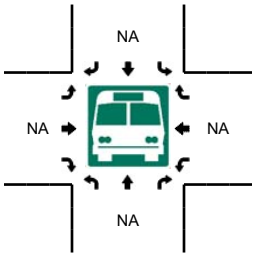












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	10	4	0	2	10	0	0	3	5	4	0	1	4	1	0	44	
7:05 AM	0	22	3	0	0	6	0	0	0	9	2	0	2	11	0	0	55	
7:10 AM	2	17	4	0	0	11	1	0	1	8	0	0	1	11	2	0	58	
7:15 AM	0	8	3	0	2	9	0	0	1	9	0	0	2	12	4	0	50	
7:20 AM	2	25	7	0	4	5	1	0	2	9	0	0	1	8	3	0	67	
7:25 AM	0	35	7	0	3	6	1	0	1	18	0	0	6	14	0	0	91	
7:30 AM	2	23	7	0	4	11	2	0	3	17	4	0	4	22	4	0	103	
7:35 AM	0	23	2	0	7	13	0	0	5	26	3	0	9	16	10	0	114	
7:40 AM	1	37	7	0	6	14	1	0	2	34	1	0	7	23	2	0	135	
7:45 AM	1	34	12	0	7	17	0	0	1	48	6	0	8	21	1	0	156	
7:50 AM	1	45	15	0	8	17	2	0	6	46	3	0	4	21	6	0	174	
7:55 AM	2	34	9	0	5	24	1	0	4	30	3	0	8	32	8	0	160	1207
8:00 AM	4	42	9	0	8	28	1	0	3	41	1	0	8	22	2	0	169	1332
8:05 AM	2	33	9	0	2	17	0	0	4	32	3	0	4	20	6	0	132	1409
8:10 AM	2	32	13	0	4	16	2	0	2	45	1	0	9	18	3	0	147	1498
8:15 AM	1	29	9	0	7	23	0	0	2	54	0	0	6	22	6	0	159	1607
8:20 AM	0	28	14	0	7	15	1	0	1	43	3	0	1	21	8	0	142	1682
8:25 AM	2	36	10	0	10	15	2	0	4	42	1	0	6	21	4	0	153	1744
8:30 AM	2	41	14	0	6	16	1	0	5	32	1	0	6	29	1	0	154	1795
8:35 AM	2	49	1	0	5	24	0	0	4	47	5	0	5	17	6	0	165	1846
8:40 AM	2	44	9	0	7	20	1	0	6	39	5	0	5	29	2	0	169	1880
8:45 AM	2	43	6	0	5	17	2	0	4	37	1	0	5	16	0	0	138	1862
8:50 AM	4	49	11	0	8	20	0	0	4	42	6	0	3	23	11	0	181	1869
8:55 AM	5	37	9	0	6	21	4	0	8	26	2	0	3	14	2	0	137	1846

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	484	132	0	84	276	16	0	52	468	28	0	80	300	64	0	2012
Heavy Trucks	0	20	4		4	4	0		0	16	0		8	12	4		72
Pedestrians		84				48				28				56			216
Bicycles	0	9	0		0	34	0		0	1	0		0	0	0		44
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Arguello Blvd -- Turk Blvd

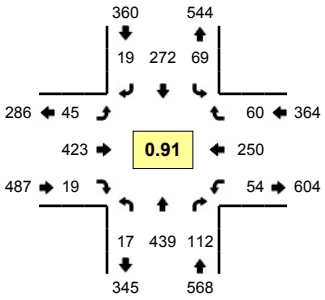
QC JOB #: 10652706

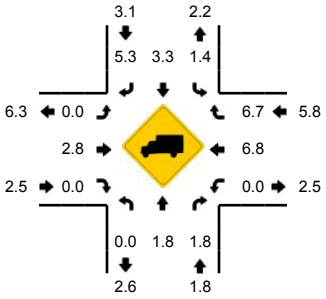
CITY/STATE: San Francisco, CA

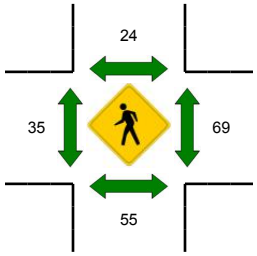
DATE: Thu, Sep 08 2011

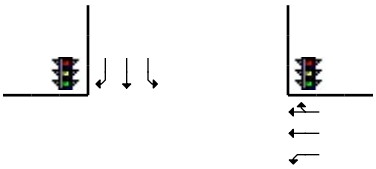
Peak-Hour: 7:50 AM -- 8:50 AM

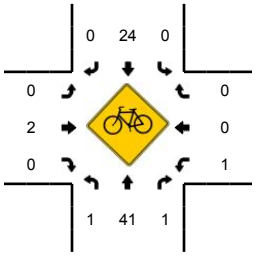
Peak 15-Min: 7:50 AM -- 8:05 AM

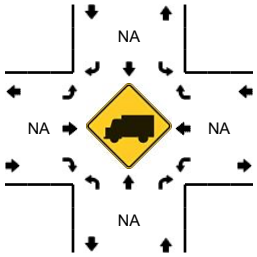


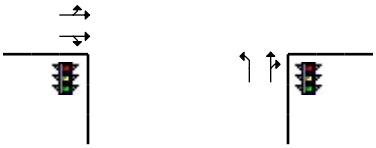


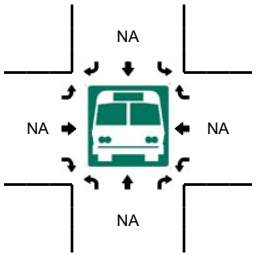












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	18	3	0	1	4	2	0	0	1	0	0	3	0	1	0	34	
7:05 AM	0	12	6	0	4	10	2	0	1	10	1	0	3	1	0	0	50	
7:10 AM	0	11	2	0	1	8	2	0	2	10	1	0	4	0	1	0	42	
7:15 AM	1	20	4	0	3	7	0	0	1	16	0	0	3	4	0	0	59	
7:20 AM	1	29	5	0	0	9	0	0	2	12	0	0	5	2	4	0	69	
7:25 AM	1	36	7	0	3	9	0	0	2	11	0	0	4	1	3	0	77	
7:30 AM	1	28	10	0	4	12	2	0	3	23	1	0	4	16	6	0	110	
7:35 AM	0	40	2	0	2	10	1	0	0	26	1	0	9	11	6	1	109	
7:40 AM	1	34	9	0	3	22	0	0	3	29	1	0	7	21	6	0	136	
7:45 AM	0	34	8	0	7	13	2	0	5	37	2	0	7	22	6	0	143	
7:50 AM	1	34	19	0	7	28	1	0	3	47	2	0	7	30	9	0	188	
7:55 AM	1	39	9	0	9	19	4	0	2	29	3	0	5	21	5	0	146	1163
8:00 AM	0	29	12	0	9	33	0	0	6	37	1	0	3	19	6	0	155	1284
8:05 AM	1	39	6	0	6	17	1	0	1	32	1	0	5	11	3	0	123	1357
8:10 AM	2	39	13	0	8	21	0	0	4	39	1	0	6	19	1	0	153	1468
8:15 AM	2	36	7	0	1	17	0	0	5	42	1	0	7	16	3	0	137	1546
8:20 AM	1	33	13	0	2	23	0	0	1	40	1	0	3	25	11	0	153	1630
8:25 AM	0	38	2	0	5	20	3	0	5	33	2	0	3	29	7	0	147	1700
8:30 AM	5	41	5	0	7	24	4	0	6	31	1	0	6	19	2	0	151	1741
8:35 AM	0	41	5	0	1	20	1	0	4	35	1	0	1	25	8	0	142	1774
8:40 AM	4	34	8	0	7	28	1	0	3	25	1	0	5	18	2	0	136	1774
8:45 AM	0	36	13	0	7	22	4	0	5	33	4	0	3	18	3	0	148	1779
8:50 AM	1	39	11	0	4	26	0	0	5	22	5	0	4	12	6	0	135	1726
8:55 AM	0	40	8	0	6	17	1	0	3	33	2	0	5	18	7	0	140	1720

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	408	160	0	100	320	20	0	44	452	24	0	60	280	80	0	1956
Heavy Trucks	0	16	8		0	12	0		0	12	0		0	16	4		68
Pedestrians		48				16				36				80			180
Bicycles	0	7	0		0	4	0		0	0	0		0	0	0		11
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Arguello Blvd -- Turk Blvd

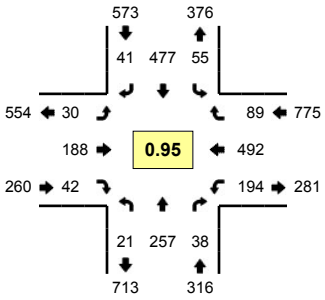
QC JOB #: 10652707

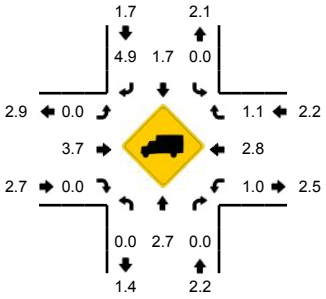
CITY/STATE: San Francisco, CA

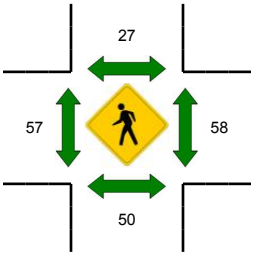
DATE: Thu, Sep 15 2011

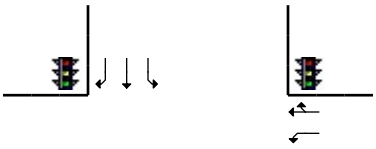
Peak-Hour: 5:00 PM -- 6:00 PM

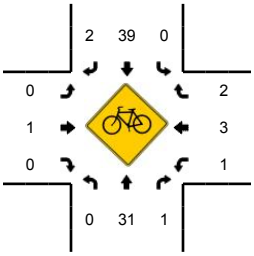
Peak 15-Min: 5:20 PM -- 5:35 PM

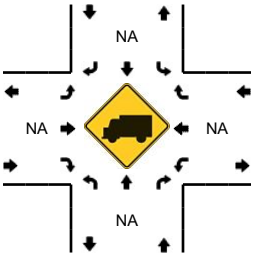


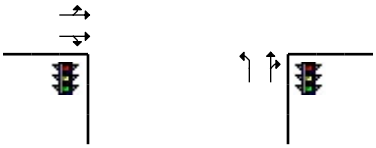


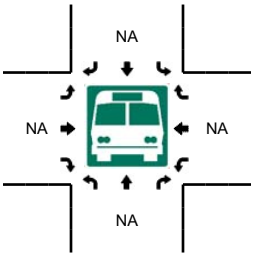












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	30	2	0	4	32	0	0	4	27	3	0	7	24	6	0	140	
4:05 PM	2	11	2	0	4	32	1	0	1	9	2	0	4	34	7	0	109	
4:10 PM	1	23	6	0	2	35	3	0	2	13	0	0	6	19	6	0	116	
4:15 PM	2	16	1	0	6	28	1	0	2	8	4	0	7	25	2	0	102	
4:20 PM	1	22	3	0	2	42	2	0	4	14	2	0	9	25	6	0	132	
4:25 PM	1	12	4	0	3	36	0	0	4	30	18	0	11	34	15	0	168	
4:30 PM	0	21	2	0	4	20	1	0	2	8	2	0	15	26	9	0	110	
4:35 PM	1	21	3	0	8	34	2	0	4	14	0	0	10	32	10	0	139	
4:40 PM	1	19	4	0	6	35	4	0	1	15	6	0	6	34	3	0	134	
4:45 PM	3	29	7	0	1	27	0	0	3	15	4	0	16	32	10	0	147	
4:50 PM	2	15	7	0	4	31	0	0	0	12	2	0	12	38	7	0	130	
4:55 PM	0	27	3	0	1	25	6	0	2	10	0	0	10	32	8	0	124	1551
5:00 PM	0	26	3	0	3	29	1	0	1	14	3	0	12	24	5	0	121	1532
5:05 PM	0	26	6	0	4	37	4	0	3	16	2	0	12	43	5	0	158	1581
5:10 PM	3	24	3	0	6	37	3	0	4	12	4	0	19	41	4	0	160	1625
5:15 PM	4	16	4	0	3	32	6	0	4	16	5	0	21	38	9	0	158	1681
5:20 PM	3	27	2	0	7	40	6	0	1	13	6	0	20	48	10	0	183	1732
5:25 PM	2	17	3	0	2	43	5	0	5	14	2	0	18	40	7	0	158	1722
5:30 PM	3	19	1	0	6	40	1	0	2	17	4	0	14	44	12	0	163	1775
5:35 PM	1	22	3	0	8	38	1	0	3	17	3	0	14	53	5	0	168	1804
5:40 PM	2	24	5	0	3	41	1	0	3	16	3	0	19	41	5	0	163	1833
5:45 PM	1	20	3	0	5	42	1	0	1	15	4	0	15	41	6	0	154	1840
5:50 PM	2	18	3	0	3	46	3	0	2	19	3	0	11	38	8	0	156	1866
5:55 PM	0	18	2	0	5	52	9	0	1	19	3	0	19	41	13	0	182	1924

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	252	24	0	60	492	48	0	32	176	48	0	208	528	116	0	2016
Heavy Trucks	0	4	0		0	4	4		0	4	0		8	16	0		40
Pedestrians		56				16				52				48			172
Bicycles	0	7	1		0	12	1		0	0	0		0	0	1		22
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Arguello Blvd -- Turk Blvd

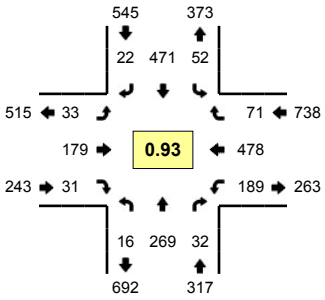
QC JOB #: 10652708

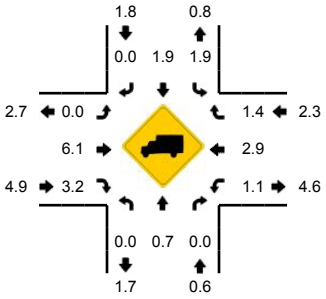
CITY/STATE: San Francisco, CA

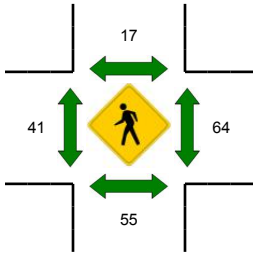
DATE: Thu, Sep 08 2011

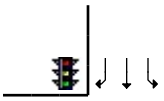
Peak-Hour: 4:55 PM -- 5:55 PM

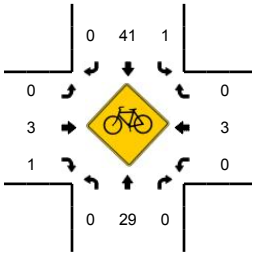
Peak 15-Min: 5:10 PM -- 5:25 PM

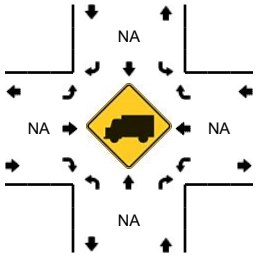


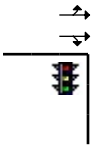


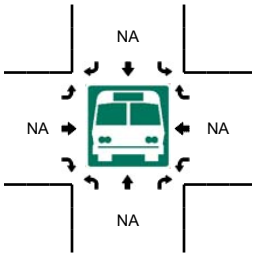












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	19	3	0	7	40	3	0	0	17	3	0	9	26	8	0	135	
4:05 PM	0	13	2	0	3	23	5	0	2	11	4	0	9	22	6	0	100	
4:10 PM	1	19	7	0	2	33	6	0	7	15	3	0	8	24	3	0	128	
4:15 PM	2	12	3	0	8	35	1	0	4	12	2	0	14	17	10	0	120	
4:20 PM	2	23	2	0	6	29	2	0	1	21	2	0	7	25	9	0	129	
4:25 PM	1	24	1	0	2	31	3	0	3	12	3	0	18	33	12	0	143	
4:30 PM	1	21	2	0	7	31	2	0	1	12	2	0	8	21	10	0	118	
4:35 PM	4	21	3	0	4	29	2	0	4	12	3	0	17	43	12	0	154	
4:40 PM	0	11	5	0	8	33	5	0	1	12	2	0	9	28	4	0	118	
4:45 PM	4	25	5	0	2	37	3	0	2	20	2	0	11	32	7	0	150	
4:50 PM	1	19	4	0	5	31	4	0	4	12	2	0	14	39	12	0	147	
4:55 PM	2	26	2	0	5	28	2	0	4	11	2	0	20	34	4	0	140	1582
5:00 PM	1	28	1	0	4	34	2	0	2	11	2	0	16	31	6	0	138	1585
5:05 PM	2	17	1	0	3	41	2	0	1	15	3	0	11	38	7	0	141	1626
5:10 PM	2	20	4	0	5	50	0	0	2	16	0	0	14	50	4	0	167	1665
5:15 PM	3	30	3	0	3	43	1	0	4	14	6	0	13	39	5	0	164	1709
5:20 PM	0	23	2	0	3	38	1	0	2	19	2	0	22	46	6	0	164	1744
5:25 PM	0	18	2	0	7	42	4	0	5	16	4	0	7	41	4	0	150	1751
5:30 PM	0	27	6	0	6	36	0	0	2	17	3	0	15	43	10	0	165	1798
5:35 PM	3	24	4	1	4	37	3	0	1	11	4	0	14	36	2	0	144	1788
5:40 PM	0	20	4	0	3	44	2	0	5	15	1	0	16	41	7	0	158	1828
5:45 PM	0	18	2	0	6	42	4	0	2	20	2	0	25	39	4	0	164	1842
5:50 PM	2	18	1	0	3	36	1	0	3	14	2	0	16	40	12	0	148	1843
5:55 PM	0	24	3	0	4	35	2	0	2	10	3	0	15	32	10	0	140	1843

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	292	36	0	44	524	8	0	32	196	32	0	196	540	60	0	1980
Heavy Trucks	0	0	0		4	8	0		0	4	0		8	12	0		36
Pedestrians		44				12				48				68			172
Bicycles	0	12	0		0	5	0		0	0	0		0	0	0		17
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

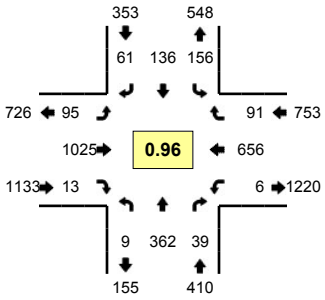
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

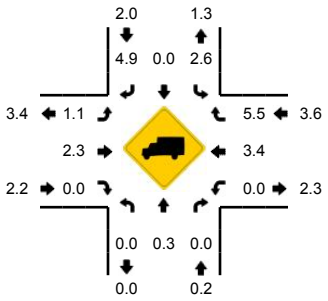
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

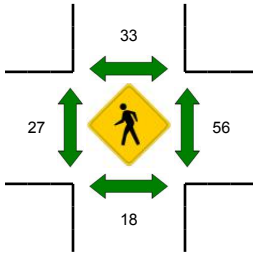
LOCATION: Arguello Blvd -- Fulton St | **QC JOB #:** 10652709

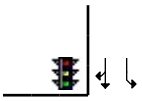
CITY/STATE: San Francisco, CA | **DATE:** Wed, Sep 14 2011

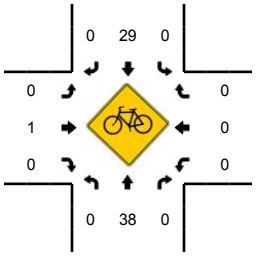
Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

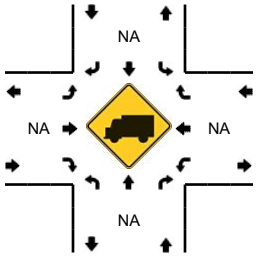


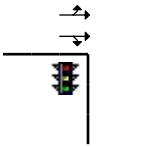


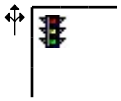


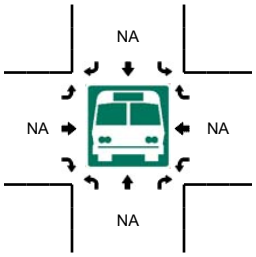












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	12	3	0	6	4	5	0	3	43	0	0	0	21	2	0	99	
7:05 AM	0	7	0	0	14	0	3	0	5	35	0	0	0	21	5	0	90	
7:10 AM	0	10	0	0	8	1	1	0	9	41	0	0	0	31	3	0	104	
7:15 AM	1	14	0	0	4	3	2	0	8	51	1	0	0	37	3	0	124	
7:20 AM	0	12	2	0	4	5	2	0	10	58	1	0	0	41	2	0	137	
7:25 AM	0	17	5	0	4	7	3	0	10	53	0	0	0	47	2	0	148	
7:30 AM	0	19	3	0	12	3	3	0	5	85	0	0	0	45	2	0	177	
7:35 AM	0	24	1	0	14	6	5	0	8	84	0	0	1	52	8	0	203	
7:40 AM	1	28	2	0	12	11	5	0	7	100	0	0	1	50	6	0	223	
7:45 AM	0	27	5	0	13	11	4	0	14	63	1	0	0	48	8	0	194	
7:50 AM	1	36	4	0	7	11	5	0	10	89	6	0	1	53	4	0	227	
7:55 AM	1	32	4	0	14	15	6	0	5	96	0	0	1	46	10	0	230	1956
8:00 AM	1	32	5	0	12	14	6	0	12	89	0	0	1	50	8	0	230	2087
8:05 AM	0	34	4	0	15	13	5	0	9	72	1	0	0	53	7	0	213	2210
8:10 AM	0	37	3	0	13	11	3	0	5	98	0	0	1	66	10	0	247	2353
8:15 AM	1	26	3	0	13	14	3	0	5	89	0	0	1	52	5	0	212	2441
8:20 AM	0	35	3	0	11	8	7	0	8	88	0	0	0	59	10	0	229	2533
8:25 AM	0	21	2	0	17	8	7	0	5	72	1	0	0	57	3	0	193	2578
8:30 AM	1	29	4	0	15	8	7	0	6	87	3	0	0	56	9	0	225	2626
8:35 AM	3	25	0	0	14	12	3	0	9	82	1	0	0	66	11	0	226	2649
8:40 AM	1	24	0	0	10	9	4	0	7	69	4	0	0	57	6	0	191	2617
8:45 AM	2	30	5	0	16	6	7	0	11	79	2	0	0	59	9	0	226	2649
8:50 AM	1	27	4	0	14	7	2	0	9	75	3	0	0	60	10	0	212	2634
8:55 AM	1	28	0	0	12	10	4	0	8	73	4	0	0	57	10	0	207	2611

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	412	48	0	160	152	56	0	104	1036	4	0	8	676	100	0	2760
Heavy Trucks	0	0	0		8	0	4		0	20	0		0	24	0		56
Pedestrians		28				44				32				44			148
Bicycles	0	10	0		0	8	0		0	0	0		0	0	0		18
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Arguello Blvd -- Fulton St

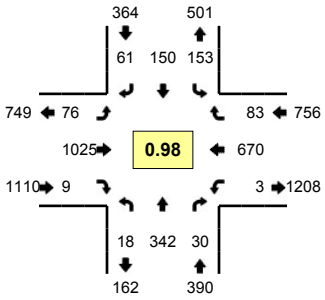
QC JOB #: 10652710

CITY/STATE: San Francisco, CA

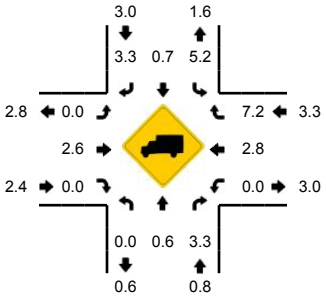
DATE: Thu, Sep 08 2011

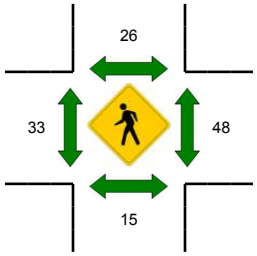
Peak-Hour: 7:50 AM -- 8:50 AM

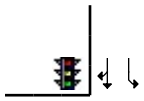
Peak 15-Min: 7:50 AM -- 8:05 AM

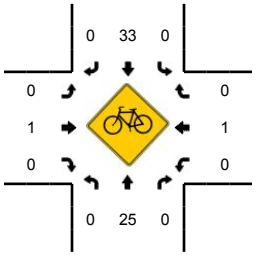


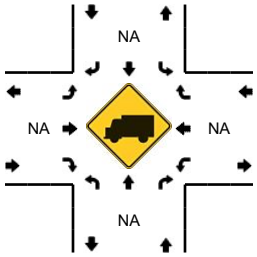
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

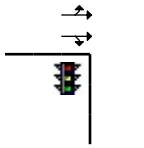


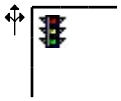


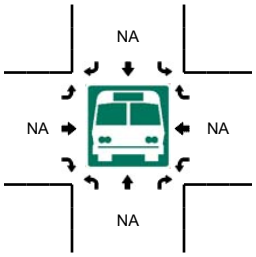












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	11	1	0	6	1	4	0	4	38	1	0	1	24	3	0	95	
7:05 AM	0	12	0	0	7	4	8	0	4	55	0	0	0	32	1	0	123	
7:10 AM	0	8	0	0	9	2	3	0	5	52	0	0	0	29	4	0	112	
7:15 AM	0	12	1	0	8	3	4	0	6	59	0	0	0	46	4	0	143	
7:20 AM	0	21	4	0	8	3	2	0	7	65	0	0	0	39	6	0	155	
7:25 AM	0	23	4	0	3	9	3	0	7	53	0	0	0	44	4	0	150	
7:30 AM	0	18	3	0	8	5	6	0	10	74	0	0	0	33	4	0	161	
7:35 AM	0	28	3	0	8	8	11	0	9	85	0	0	0	39	6	0	197	
7:40 AM	1	26	2	0	12	8	8	0	4	94	0	0	0	59	4	0	218	
7:45 AM	1	25	6	0	12	8	8	0	10	76	0	0	0	67	5	0	218	
7:50 AM	1	32	6	0	15	13	7	0	11	81	1	0	0	64	5	0	236	
7:55 AM	2	34	1	0	11	13	3	0	4	69	1	0	1	61	4	0	204	2012
8:00 AM	2	29	2	0	11	19	2	0	5	95	0	0	1	56	8	0	230	2147
8:05 AM	0	30	3	0	11	13	5	0	3	93	1	0	0	50	7	0	216	2240
8:10 AM	0	32	3	0	11	7	4	0	5	87	1	0	0	41	7	0	198	2326
8:15 AM	1	37	2	0	8	17	7	0	6	96	0	0	0	62	8	0	244	2427
8:20 AM	1	24	2	0	13	13	7	0	9	92	2	0	0	51	8	0	222	2494
8:25 AM	0	21	1	0	14	8	6	0	7	80	0	0	1	44	5	0	187	2531
8:30 AM	2	22	4	0	15	17	6	0	6	75	1	0	0	64	3	0	215	2585
8:35 AM	0	29	3	0	11	8	4	0	9	84	0	0	0	63	9	0	220	2608
8:40 AM	2	23	1	0	17	11	6	0	3	83	0	0	0	55	10	0	211	2601
8:45 AM	7	29	2	0	16	11	4	0	8	90	2	0	0	59	9	0	237	2620
8:50 AM	1	35	2	0	16	12	7	0	11	63	1	0	0	55	4	0	207	2591
8:55 AM	0	23	6	0	11	11	4	0	13	63	1	0	1	50	16	0	199	2586

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	380	36	0	148	180	48	0	80	980	8	0	8	724	68	0	2680
Heavy Trucks	0	4	4		8	4	0		0	28	0		0	12	8		68
Pedestrians		8				20				36				36			100
Bicycles	0	3	0		0	9	0		0	1	0		0	0	0		13
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Arguello Blvd -- Fulton St

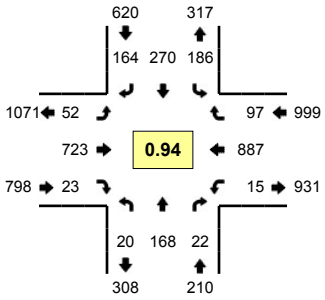
QC JOB #: 10652711

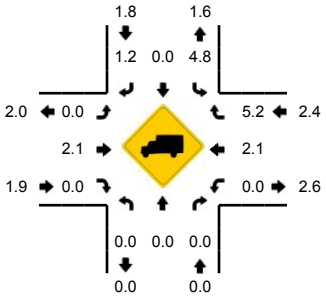
CITY/STATE: San Francisco, CA

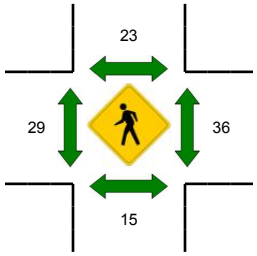
DATE: Wed, Sep 14 2011

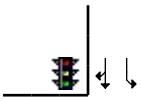
Peak-Hour: 4:50 PM -- 5:50 PM

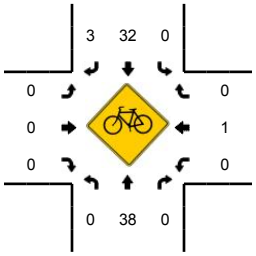
Peak 15-Min: 5:10 PM -- 5:25 PM

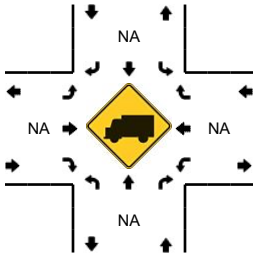


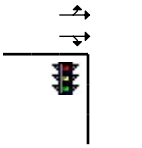


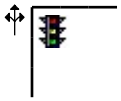


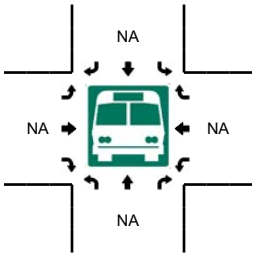












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	7	3	0	10	12	14	0	5	53	1	0	2	68	5	0	182	
4:05 PM	4	9	2	0	18	14	8	0	2	48	1	0	0	48	8	0	162	
4:10 PM	0	11	2	0	19	16	8	0	2	61	0	0	1	56	9	0	185	
4:15 PM	1	11	3	0	14	20	14	0	4	57	0	0	1	71	2	0	198	
4:20 PM	0	11	2	0	10	16	16	0	4	60	2	0	2	52	10	0	185	
4:25 PM	3	11	3	0	11	13	6	0	3	50	0	0	2	64	7	0	173	
4:30 PM	0	8	2	0	8	13	12	0	5	67	2	0	0	63	5	0	185	
4:35 PM	3	10	1	0	17	21	10	0	5	66	2	0	2	66	3	0	206	
4:40 PM	2	9	3	0	20	15	9	0	2	56	2	0	1	67	7	0	193	
4:45 PM	0	8	2	0	14	17	10	0	3	59	2	0	2	63	9	0	189	
4:50 PM	2	10	3	0	17	16	16	0	2	68	4	0	0	67	11	0	216	
4:55 PM	2	17	3	0	11	15	10	0	5	69	0	0	0	74	9	0	215	2289
5:00 PM	1	14	1	0	16	20	10	0	4	62	2	0	0	87	3	0	220	2327
5:05 PM	2	13	2	0	12	26	10	0	5	60	1	0	2	60	11	0	204	2369
5:10 PM	1	11	2	0	17	25	24	0	9	57	2	0	2	84	6	0	240	2424
5:15 PM	1	11	2	0	21	26	17	0	4	64	3	0	0	82	3	0	234	2460
5:20 PM	5	13	1	0	14	22	10	0	7	64	0	0	1	72	12	0	221	2496
5:25 PM	1	16	1	0	19	27	9	0	4	80	3	0	0	69	9	0	238	2561
5:30 PM	1	15	3	0	18	25	12	0	4	47	2	0	1	75	4	0	207	2583
5:35 PM	2	13	1	0	13	22	15	0	1	51	2	0	1	74	8	0	203	2580
5:40 PM	1	18	2	0	12	23	15	0	5	54	2	0	5	64	10	0	211	2598
5:45 PM	1	17	1	0	16	23	16	0	2	47	2	0	3	79	11	0	218	2627
5:50 PM	2	11	0	0	18	18	15	0	5	46	4	0	3	64	8	0	194	2605
5:55 PM	2	17	0	0	9	16	18	0	3	58	4	0	0	67	8	0	202	2592

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	140	20	0	208	292	204	0	80	740	20	0	12	952	84	0	2780
Heavy Trucks	0	0	0		8	0	4		0	24	0		0	20	8		64
Pedestrians		24				16				44				40			124
Bicycles	0	15	0		0	9	1		0	0	0		0	1	0		26
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Arguello Blvd -- Fulton St

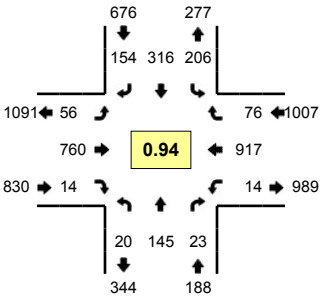
QC JOB #: 10652712

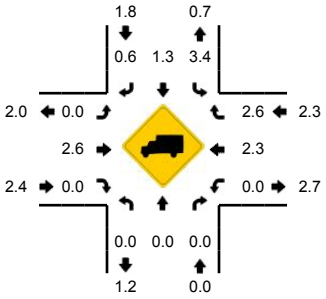
CITY/STATE: San Francisco, CA

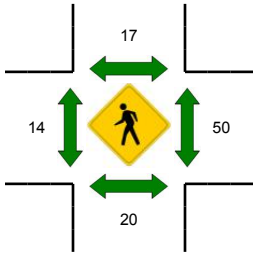
DATE: Thu, Sep 08 2011

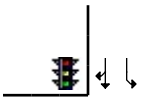
Peak-Hour: 4:50 PM -- 5:50 PM

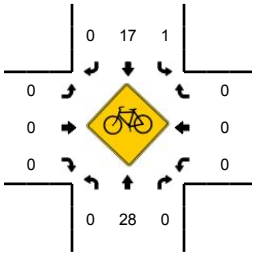
Peak 15-Min: 5:15 PM -- 5:30 PM

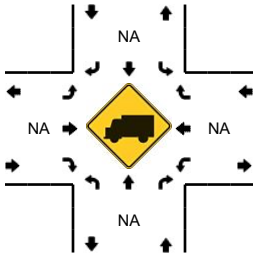


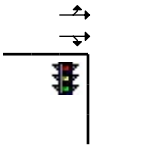


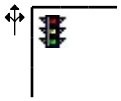


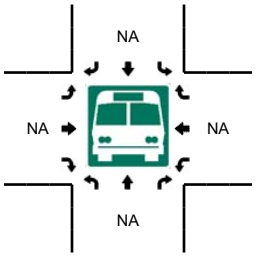












5-Min Count Period Beginning At	Arguello Blvd (Northbound)				Arguello Blvd (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	11	2	0	13	14	7	0	5	53	0	0	1	63	6	0	175	
4:05 PM	2	7	1	0	8	16	10	0	2	47	0	0	0	69	5	0	167	
4:10 PM	2	15	3	0	13	20	12	0	3	56	2	0	1	51	6	0	184	
4:15 PM	3	9	2	0	12	21	9	0	2	38	1	0	2	52	7	0	158	
4:20 PM	4	11	0	0	16	10	13	0	3	62	3	0	2	74	11	0	209	
4:25 PM	1	12	2	0	13	19	14	0	2	63	1	0	0	52	7	0	186	
4:30 PM	2	9	1	0	13	20	9	0	6	42	0	0	1	71	10	0	184	
4:35 PM	3	14	1	0	19	15	11	0	8	55	2	0	1	67	4	0	200	
4:40 PM	3	14	4	0	16	16	8	0	2	68	2	0	2	69	9	0	213	
4:45 PM	0	16	1	0	15	19	5	0	4	66	0	0	2	80	3	0	211	
4:50 PM	4	14	0	0	17	15	18	0	6	46	1	0	0	73	4	0	198	
4:55 PM	0	9	0	0	11	19	17	0	5	69	1	0	2	76	8	0	217	2302
5:00 PM	2	10	1	0	18	20	9	0	3	63	1	0	0	67	7	0	201	2328
5:05 PM	3	14	1	0	17	18	9	0	10	62	1	0	0	75	7	0	217	2378
5:10 PM	1	12	3	0	18	29	9	0	5	60	3	0	3	72	4	0	219	2413
5:15 PM	2	18	3	0	20	29	13	0	4	62	0	0	3	82	10	0	246	2501
5:20 PM	0	12	2	0	21	33	12	0	7	72	1	0	1	74	7	0	242	2534
5:25 PM	3	11	2	0	24	31	6	0	1	69	1	0	3	73	6	0	230	2578
5:30 PM	1	13	2	0	12	30	8	0	6	62	2	0	0	97	7	0	240	2634
5:35 PM	2	12	6	0	16	34	10	0	0	71	0	0	1	69	1	0	222	2656
5:40 PM	1	15	2	0	15	30	20	0	5	66	3	0	0	91	5	0	253	2696
5:45 PM	1	5	1	0	17	28	23	0	4	58	0	0	1	68	10	0	216	2701
5:50 PM	3	13	1	0	14	13	16	0	1	60	2	0	5	63	7	0	198	2701
5:55 PM	0	13	2	0	10	18	11	0	4	61	3	0	4	76	10	0	212	2696

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	164	28	0	260	372	124	0	48	812	8	0	28	916	92	0	2872
Heavy Trucks	0	0	0		0	8	4		0	12	0		0	12	4		40
Pedestrians		32				12				12				68			124
Bicycles	0	4	0		0	0	0		0	0	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

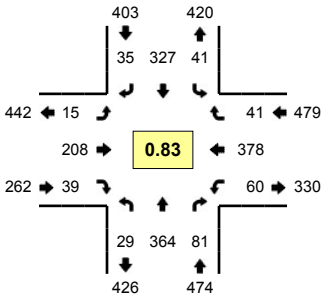
Method for determining peak hour: Total Entering Volume

LOCATION: Stanyan St -- Turk Blvd

QC JOB #: 10652713

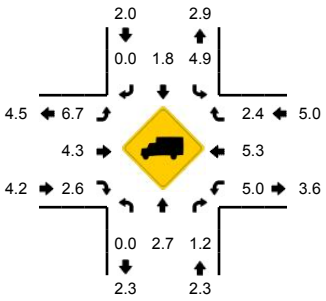
CITY/STATE: San Francisco, CA

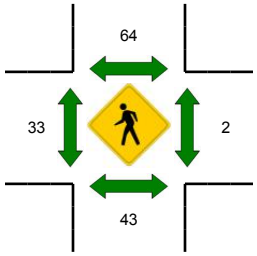
DATE: Thu, Sep 15 2011

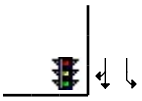


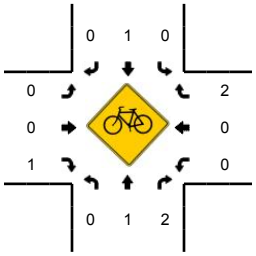
Peak-Hour: 7:35 AM -- 8:35 AM

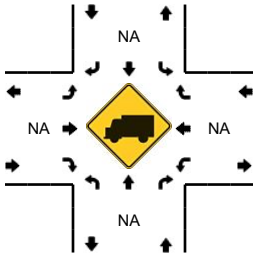
Peak 15-Min: 7:55 AM -- 8:10 AM

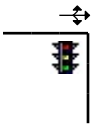


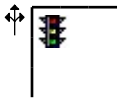


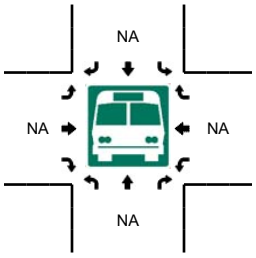












5-Min Count Period Beginning At	Stanyan St (Northbound)				Stanyan St (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	14	2	0	3	29	5	0	2	22	1	0	6	9	1	0	95	
7:05 AM	0	6	0	0	1	15	5	0	1	21	1	0	0	11	0	0	61	
7:10 AM	1	15	1	0	5	26	5	0	0	14	5	0	1	13	0	0	86	
7:15 AM	0	12	3	0	0	35	2	0	1	16	2	0	2	15	1	0	89	
7:20 AM	2	21	2	0	1	20	7	0	1	17	3	0	2	12	0	0	88	
7:25 AM	0	15	2	0	2	22	3	0	1	15	2	0	3	16	1	0	82	
7:30 AM	1	21	3	0	2	28	3	0	1	17	2	0	1	24	2	0	105	
7:35 AM	0	29	7	0	2	24	1	0	2	22	2	0	2	26	3	0	120	
7:40 AM	1	25	4	0	3	29	1	0	2	23	5	0	2	26	4	0	125	
7:45 AM	1	26	4	0	1	29	4	0	2	16	3	0	2	32	0	0	120	
7:50 AM	1	25	7	0	2	27	3	0	0	22	2	0	2	30	5	0	126	
7:55 AM	0	29	8	0	5	27	5	0	0	11	3	0	3	33	1	0	125	1222
8:00 AM	2	28	5	0	1	36	1	0	1	16	3	0	4	30	2	0	129	1256
8:05 AM	16	62	16	0	2	19	4	0	1	13	3	0	26	63	9	0	234	1429
8:10 AM	0	29	5	0	5	19	5	0	2	17	2	0	3	25	5	0	117	1460
8:15 AM	1	26	4	0	2	35	2	0	0	16	5	0	4	21	1	0	117	1488
8:20 AM	3	26	7	0	7	27	3	0	3	22	3	0	5	28	4	0	138	1538
8:25 AM	3	29	7	0	7	29	2	0	1	16	5	0	7	25	4	0	135	1591
8:30 AM	1	30	7	0	4	26	4	0	1	14	3	0	0	39	3	0	132	1618
8:35 AM	2	20	4	0	3	25	0	0	0	21	5	0	5	18	3	0	106	1604
8:40 AM	4	28	8	0	1	23	3	0	2	18	4	0	5	30	3	0	129	1608
8:45 AM	2	25	3	0	2	23	11	0	2	15	3	0	6	21	4	0	117	1605
8:50 AM	2	32	3	0	3	23	1	0	2	22	4	0	1	33	0	0	126	1605
8:55 AM	0	21	6	0	1	13	4	0	0	22	7	0	2	22	1	0	99	1579

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	72	476	116	0	32	328	40	0	8	160	36	0	132	504	48	0	1952
Heavy Trucks	0	16	4		0	12	0		0	12	4		12	20	0		80
Pedestrians		32				88				64				0			184
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Stanyan St -- Turk Blvd

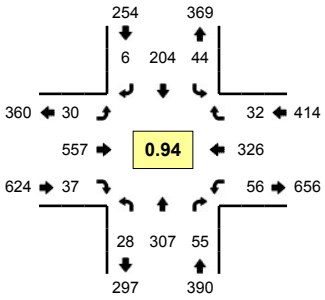
QC JOB #: 10652714

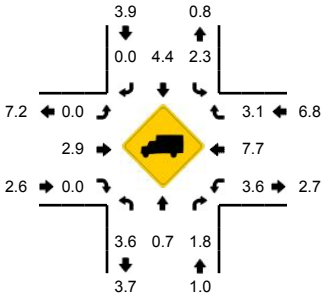
CITY/STATE: San Francisco, CA

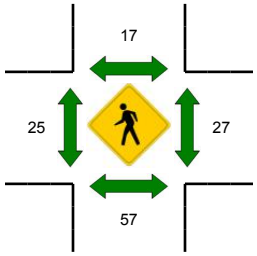
DATE: Thu, Sep 08 2011

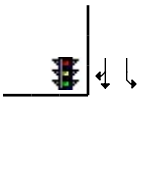
Peak-Hour: 7:45 AM -- 8:45 AM

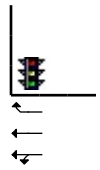
Peak 15-Min: 7:50 AM -- 8:05 AM

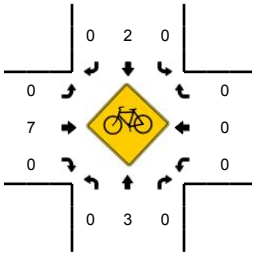


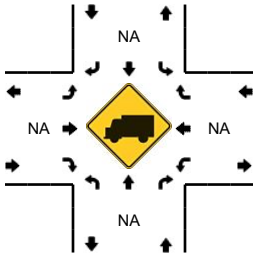


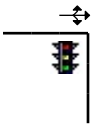


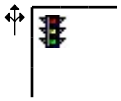


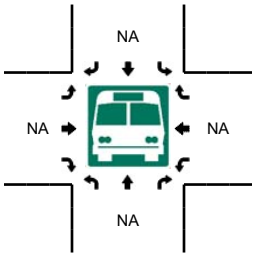












5-Min Count Period Beginning At	Stanyan St (Northbound)				Stanyan St (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	9	2	0	1	13	0	0	1	9	0	0	1	13	0	0	50	
7:05 AM	0	15	1	0	3	6	0	0	1	18	2	0	3	10	0	0	59	
7:10 AM	0	17	1	0	0	13	0	0	0	10	3	0	3	10	1	0	58	
7:15 AM	0	15	3	0	1	11	0	0	0	16	2	0	0	16	0	0	64	
7:20 AM	2	17	1	0	1	9	1	0	0	18	3	0	3	15	0	0	70	
7:25 AM	1	30	8	0	1	12	0	0	4	20	1	0	2	21	1	0	101	
7:30 AM	1	20	3	0	4	12	0	0	2	36	1	0	3	23	2	0	107	
7:35 AM	2	26	4	0	3	19	1	0	4	33	0	0	5	24	0	0	121	
7:40 AM	1	15	4	0	5	18	2	0	5	36	0	0	1	32	2	0	121	
7:45 AM	1	28	4	0	6	18	0	0	1	46	2	0	0	33	0	0	139	
7:50 AM	5	29	3	0	3	15	0	0	2	56	3	0	3	39	3	0	161	
7:55 AM	0	21	5	0	3	19	0	0	6	49	1	0	2	26	3	0	135	1186
8:00 AM	3	29	7	0	6	14	0	0	2	47	5	0	8	26	5	0	152	1288
8:05 AM	2	29	1	0	3	21	0	0	1	47	3	0	8	18	3	0	136	1365
8:10 AM	3	28	1	0	3	21	1	0	2	49	3	0	3	21	0	0	135	1442
8:15 AM	2	29	3	0	2	11	1	0	4	52	4	0	5	17	2	0	132	1510
8:20 AM	2	30	4	0	4	22	1	0	0	46	2	0	8	34	6	0	159	1599
8:25 AM	2	20	6	0	5	11	0	0	4	44	3	0	5	37	1	0	138	1636
8:30 AM	3	22	7	0	3	21	0	0	2	41	4	0	5	26	3	0	137	1666
8:35 AM	3	19	6	0	4	20	3	0	3	41	2	0	3	26	3	0	133	1678
8:40 AM	2	23	8	0	2	11	0	0	3	39	5	0	6	23	3	0	125	1682
8:45 AM	5	26	4	0	2	24	0	0	3	39	1	0	3	21	3	0	131	1674
8:50 AM	2	26	5	0	5	22	1	0	3	45	5	0	2	18	2	0	136	1649
8:55 AM	1	27	4	0	3	23	2	0	3	38	2	0	2	27	3	0	135	1649

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	32	316	60	0	48	192	0	0	40	608	36	0	52	364	44	0	1792
Heavy Trucks	0	0	0		0	8	0		0	16	0		0	20	0		44
Pedestrians		64				12				20				16			112
Bicycles	0	2	0		0	0	0		0	1	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Stanyan Street -- Turk Blvd

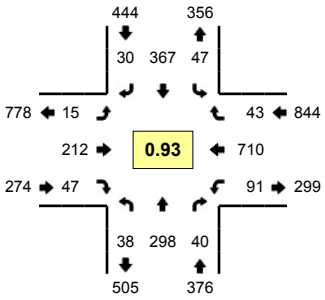
CITY/STATE: San Francisco, CA

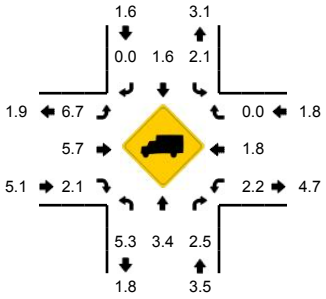
QC JOB #: 10652715

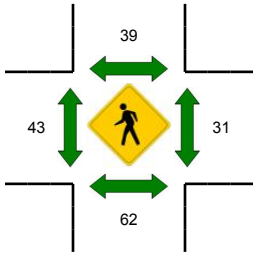
DATE: Thu, Sep 15 2011

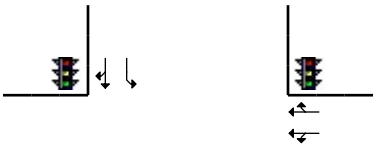
Peak-Hour: 5:00 PM -- 6:00 PM

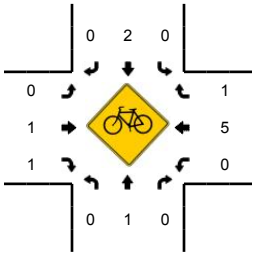
Peak 15-Min: 5:15 PM -- 5:30 PM

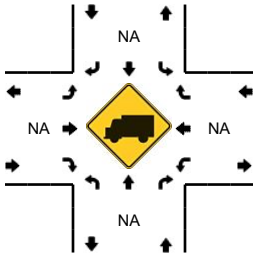


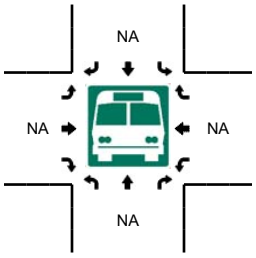












5-Min Count Period Beginning At	Stanyan Street (Northbound)				Stanyan Street (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	29	5	0	1	22	0	0	2	22	1	0	4	36	6	0	131	
4:05 PM	1	15	5	0	1	28	0	0	1	21	1	0	3	31	4	0	111	
4:10 PM	5	26	5	0	4	38	0	0	0	14	5	0	4	34	3	0	138	
4:15 PM	0	35	2	0	5	27	0	0	1	16	2	0	8	35	3	0	134	
4:20 PM	1	20	7	0	0	21	1	0	1	17	3	0	3	35	4	0	113	
4:25 PM	2	22	3	0	4	24	0	0	1	15	2	0	2	30	3	0	108	
4:30 PM	2	28	3	0	1	28	0	0	1	17	2	0	3	40	4	0	129	
4:35 PM	2	24	1	0	4	31	1	0	2	22	2	0	6	56	2	0	153	
4:40 PM	3	29	1	0	5	19	0	0	2	23	5	0	3	40	3	0	133	
4:45 PM	1	29	4	0	4	36	0	0	2	16	3	0	8	60	5	0	168	
4:50 PM	2	27	3	0	0	26	1	0	0	22	2	0	8	54	6	0	151	
4:55 PM	5	27	5	0	5	31	1	0	0	11	3	0	6	44	3	0	141	1610
5:00 PM	1	36	1	0	3	30	2	0	1	16	3	0	6	45	2	0	146	1625
5:05 PM	2	19	4	0	2	32	2	0	1	13	3	0	9	54	5	0	146	1660
5:10 PM	5	19	5	0	3	30	1	0	2	17	2	0	5	51	5	0	145	1667
5:15 PM	2	35	2	0	2	33	2	0	0	16	5	0	8	72	3	0	180	1713
5:20 PM	7	27	3	0	4	33	4	0	3	22	3	0	5	58	3	0	172	1772
5:25 PM	7	29	2	0	4	28	5	0	1	16	5	0	7	59	5	0	168	1832
5:30 PM	4	26	4	0	7	31	1	0	1	14	3	0	5	55	5	0	156	1859
5:35 PM	3	25	0	0	6	31	6	0	0	21	5	0	8	66	5	0	176	1882
5:40 PM	1	23	3	0	5	29	0	0	2	18	4	0	16	58	3	0	162	1911
5:45 PM	2	23	11	0	2	30	2	0	2	15	3	0	6	69	1	0	166	1909
5:50 PM	3	23	1	0	2	29	1	0	2	22	4	0	8	56	2	0	153	1911
5:55 PM	1	13	4	0	7	31	4	0	0	22	7	0	8	67	4	0	168	1938

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	364	28	0	40	376	44	0	16	216	52	0	80	756	44	0	2080
Heavy Trucks	8	8	0		0	8	0		4	12	0		4	16	0		60
Pedestrians		52				36				32				28			148
Bicycles	0	1	0		0	1	0		0	0	0		0	2	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Stanyan St -- Turk Blvd

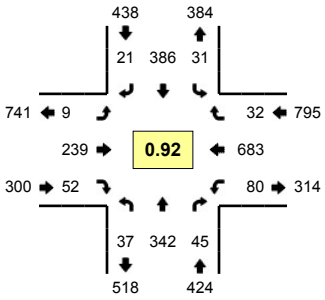
QC JOB #: 10652716

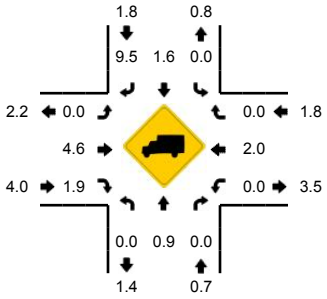
CITY/STATE: San Francisco, CA

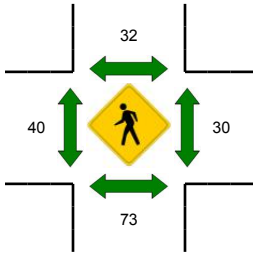
DATE: Thu, Sep 08 2011

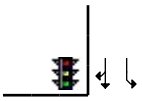
Peak-Hour: 4:55 PM -- 5:55 PM

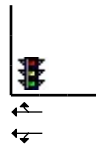
Peak 15-Min: 5:30 PM -- 5:45 PM

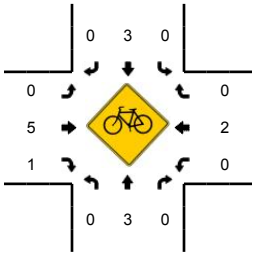


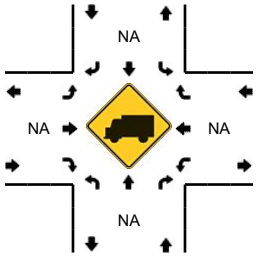


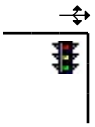


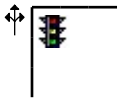


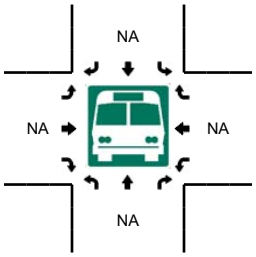












5-Min Count Period Beginning At	Stanyan St (Northbound)				Stanyan St (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	22	4	0	3	24	1	0	1	20	6	0	5	37	4	0	129	
4:05 PM	6	31	3	0	5	23	0	0	0	16	7	0	10	35	1	0	137	
4:10 PM	1	27	7	0	0	24	0	0	0	12	5	0	10	35	1	0	122	
4:15 PM	2	33	4	0	1	19	1	0	0	21	4	0	9	36	2	1	133	
4:20 PM	2	26	2	0	3	37	0	0	2	21	3	0	2	37	1	0	136	
4:25 PM	3	29	4	0	0	21	2	0	1	19	2	0	6	54	3	0	144	
4:30 PM	2	32	4	0	1	22	2	0	2	16	2	0	6	42	2	0	133	
4:35 PM	6	19	2	0	4	36	0	0	1	22	3	0	6	59	7	0	165	
4:40 PM	3	37	1	0	1	37	1	0	2	13	5	0	9	39	4	0	152	
4:45 PM	2	25	1	0	4	27	1	0	2	23	3	0	8	42	6	0	144	
4:50 PM	7	27	1	0	1	38	2	0	2	19	5	0	4	55	5	0	166	
4:55 PM	3	28	8	0	2	27	2	0	1	11	3	0	15	52	4	0	156	1717
5:00 PM	1	23	1	0	2	34	1	0	0	24	1	0	6	48	2	0	143	1731
5:05 PM	3	30	4	0	2	29	0	0	1	14	2	0	7	58	1	0	151	1745
5:10 PM	7	24	1	0	0	24	3	0	0	28	12	0	8	63	2	0	172	1795
5:15 PM	3	26	3	0	4	30	2	0	2	17	6	0	5	51	2	0	151	1813
5:20 PM	1	22	5	0	2	43	4	0	1	26	3	0	7	59	5	0	178	1855
5:25 PM	2	33	5	0	3	29	0	0	2	19	5	0	4	49	1	0	152	1863
5:30 PM	3	40	3	0	3	33	2	0	1	21	4	0	5	71	1	0	187	1917
5:35 PM	2	31	5	0	5	37	1	0	0	24	4	0	3	56	0	0	168	1920
5:40 PM	4	32	4	0	0	36	1	0	1	21	4	0	9	59	5	0	176	1944
5:45 PM	1	30	2	0	1	30	1	0	0	17	5	0	3	56	3	0	149	1949
5:50 PM	7	23	4	0	6	34	4	1	0	17	3	0	8	61	6	0	174	1957
5:55 PM	0	16	1	0	1	23	3	0	1	11	6	0	7	57	4	0	130	1931

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	36	412	48	0	32	424	16	0	8	264	48	0	68	744	24	0	2124
Heavy Trucks	0	0	0		0	8	0		0	16	0		0	20	0		44
Pedestrians		56				40				44				16			156
Bicycles	0	2	0		0	0	0		0	1	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

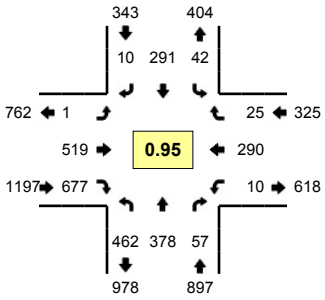
LOCATION: Stanyan St -- Fulton St

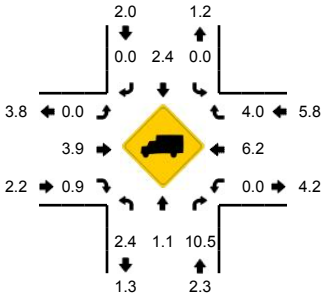
QC JOB #: 10652717

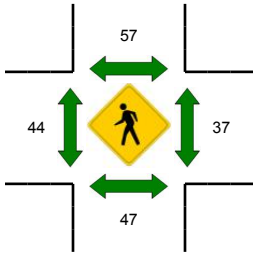
CITY/STATE: San Francisco, CA

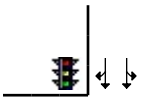
DATE: Wed, Sep 14 2011

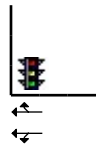
Peak-Hour: 7:50 AM -- 8:50 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

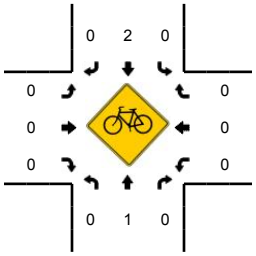


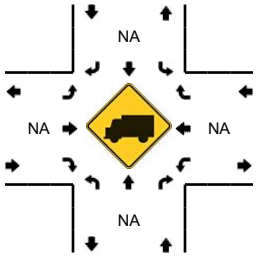


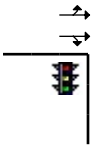


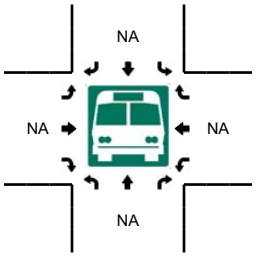












5-Min Count Period Beginning At	Stanyan St (Northbound)				Stanyan St (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	21	6	2	0	0	22	0	0	0	17	39	0	0	12	0	0	119	
7:05 AM	13	14	1	0	0	19	1	0	1	13	26	0	0	7	1	0	96	
7:10 AM	23	15	1	0	2	9	1	0	1	20	29	0	0	13	0	0	114	
7:15 AM	20	16	5	0	2	19	0	0	0	23	37	0	0	16	1	0	139	
7:20 AM	43	21	3	0	1	18	0	0	0	30	39	0	1	12	0	0	168	
7:25 AM	28	19	3	0	2	24	0	0	1	32	25	0	0	17	4	0	155	
7:30 AM	29	20	2	0	1	23	1	0	0	40	63	0	1	25	1	0	206	
7:35 AM	40	29	0	0	2	36	0	0	0	41	59	0	1	14	2	0	224	
7:40 AM	30	26	4	0	4	38	1	0	0	45	39	0	0	19	2	0	208	
7:45 AM	31	33	2	0	3	20	0	0	0	37	20	0	1	28	1	0	176	
7:50 AM	37	35	3	0	5	33	0	0	0	44	72	0	1	17	2	0	249	
7:55 AM	36	34	5	0	5	36	1	0	0	51	53	0	1	18	3	0	243	2097
8:00 AM	37	28	4	0	2	22	0	0	0	59	64	0	1	16	0	0	233	2211
8:05 AM	48	43	4	0	1	27	1	0	0	44	48	0	1	26	4	0	247	2362
8:10 AM	35	25	6	0	6	27	2	0	1	51	65	0	0	27	5	0	250	2498
8:15 AM	37	34	3	0	0	23	1	0	0	50	51	0	2	26	2	0	229	2588
8:20 AM	40	37	8	0	2	21	0	0	0	45	57	0	0	24	2	0	236	2656
8:25 AM	38	29	3	0	4	17	2	0	0	38	57	0	0	27	0	0	215	2716
8:30 AM	38	20	9	0	0	10	0	0	0	31	58	0	2	25	4	0	197	2707
8:35 AM	45	37	4	0	5	29	1	0	0	38	48	0	1	28	2	0	238	2721
8:40 AM	34	24	7	0	6	23	0	0	0	36	46	0	0	28	1	0	205	2718
8:45 AM	37	32	1	0	6	23	2	0	0	32	58	0	1	28	0	0	220	2762
8:50 AM	44	38	3	0	3	28	3	0	0	38	52	0	0	24	4	0	237	2750
8:55 AM	33	27	4	0	4	29	2	0	0	35	43	0	0	35	3	0	215	2722

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	480	384	56	0	36	304	12	0	4	616	708	0	8	276	36	0	2920
Heavy Trucks	16	4	8		0	4	0		0	20	12		0	12	4		80
Pedestrians		56				44				40				40			180
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

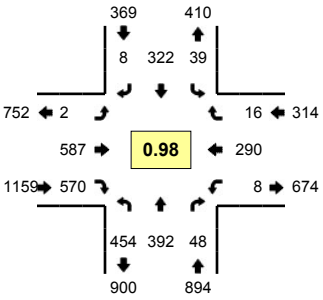
LOCATION: Stanyan St -- Fulton St

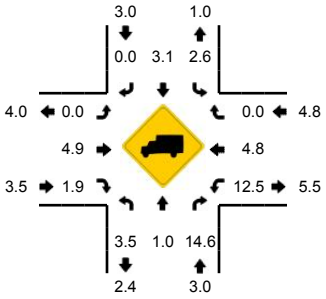
QC JOB #: 10652718

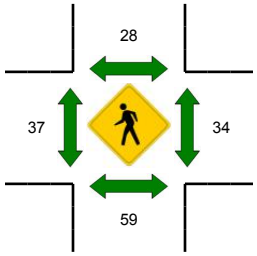
CITY/STATE: San Francisco, CA

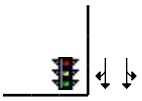
DATE: Thu, Sep 08 2011

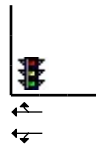
Peak-Hour: 7:45 AM -- 8:45 AM
Peak 15-Min: 7:55 AM -- 8:10 AM

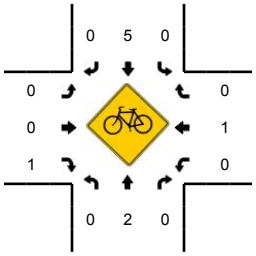


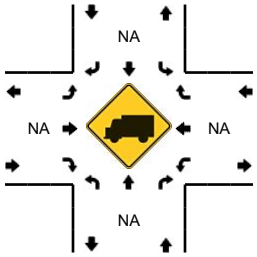


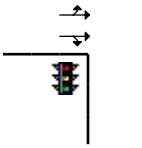


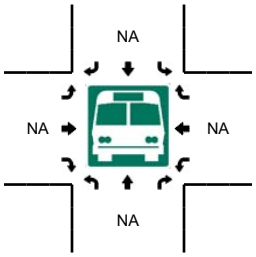












5-Min Count Period Beginning At	Stanyan St (Northbound)				Stanyan St (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	16	14	0	0	0	13	1	0	1	17	27	0	2	9	0	0	100	
7:05 AM	23	24	2	0	1	8	1	0	0	34	40	0	0	9	0	0	142	
7:10 AM	33	17	2	0	4	22	2	0	0	16	34	0	1	16	0	0	147	
7:15 AM	25	13	3	0	0	18	1	0	0	30	33	0	0	12	3	0	138	
7:20 AM	33	37	3	0	1	10	0	0	1	34	44	0	1	13	1	0	178	
7:25 AM	31	21	1	0	2	22	1	0	0	27	42	0	1	14	0	0	162	
7:30 AM	21	24	0	0	1	23	0	0	0	39	39	0	2	20	1	0	170	
7:35 AM	38	27	3	0	3	19	2	0	1	43	54	0	2	20	0	0	212	
7:40 AM	43	29	1	0	3	24	0	0	0	43	42	0	1	26	0	0	212	
7:45 AM	34	30	0	0	0	24	1	0	0	59	50	0	0	34	2	0	234	
7:50 AM	40	40	5	0	4	19	0	0	0	46	38	0	0	24	0	0	216	
7:55 AM	36	34	3	0	6	35	0	0	0	47	39	0	2	23	1	0	226	2137
8:00 AM	37	32	3	0	4	24	0	0	0	59	57	0	0	25	1	0	242	2279
8:05 AM	41	41	4	0	2	21	1	0	0	48	51	0	1	16	1	0	227	2364
8:10 AM	38	30	6	0	4	31	3	0	0	39	46	0	0	13	1	0	211	2428
8:15 AM	32	28	4	0	4	24	2	0	1	59	54	0	1	30	0	0	239	2529
8:20 AM	48	36	7	0	3	32	0	0	0	44	52	0	1	18	0	0	241	2592
8:25 AM	30	28	4	0	4	31	0	0	1	42	48	0	1	16	1	0	206	2636
8:30 AM	33	27	6	0	1	29	0	0	0	55	45	0	2	34	4	0	236	2702
8:35 AM	49	39	3	0	4	21	0	0	0	41	45	0	0	25	1	0	228	2718
8:40 AM	36	27	3	0	3	31	1	0	0	48	45	0	0	32	4	0	230	2736
8:45 AM	35	28	3	0	4	20	0	0	0	49	48	0	1	28	0	0	216	2718
8:50 AM	46	37	4	0	4	22	0	0	0	34	42	0	3	23	2	0	217	2719
8:55 AM	34	33	5	0	2	28	5	0	0	46	33	0	0	24	1	0	211	2704

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	456	428	40	0	48	320	4	0	0	616	588	0	12	256	12	0	2780
Heavy Trucks	28	8	8		0	8	0		0	20	8		0	20	0		100
Pedestrians		60				8				16				28			112
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Stanyan St -- Fulton St

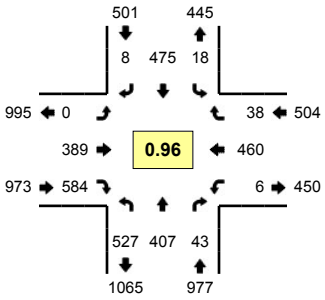
QC JOB #: 10652719

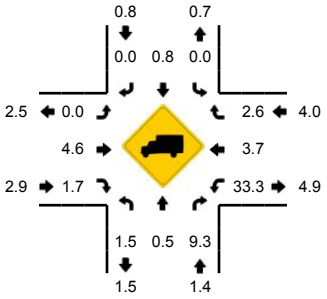
CITY/STATE: San Francisco, CA

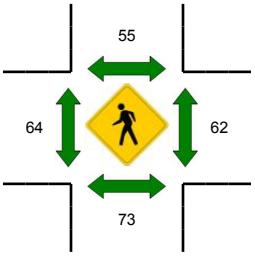
DATE: Wed, Sep 14 2011

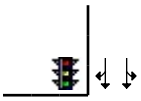
Peak-Hour: 4:45 PM -- 5:45 PM

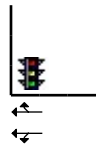
Peak 15-Min: 5:15 PM -- 5:30 PM

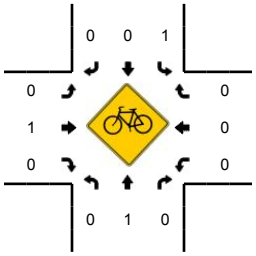


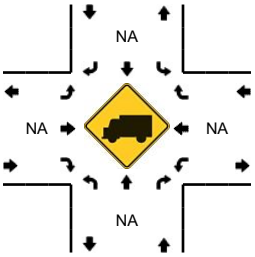


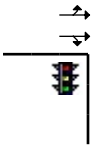


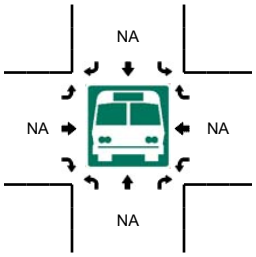












5-Min Count Period Beginning At	Stanyan St (Northbound)				Stanyan St (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	39	35	4	0	2	20	2	0	0	36	44	0	0	22	1	0	205	
4:05 PM	45	27	5	0	0	32	1	0	1	25	40	0	0	18	6	0	200	
4:10 PM	34	25	3	0	4	37	2	0	0	33	45	0	0	38	2	0	223	
4:15 PM	42	27	3	0	2	30	0	0	0	35	41	0	1	18	2	0	201	
4:20 PM	48	42	1	0	4	30	2	0	0	23	44	0	0	33	2	0	229	
4:25 PM	39	31	5	0	0	38	2	0	0	26	40	0	0	17	3	0	201	
4:30 PM	44	33	0	0	2	31	2	0	0	38	34	0	1	21	1	0	207	
4:35 PM	45	33	4	0	2	28	2	0	0	31	59	0	0	40	1	0	245	
4:40 PM	35	32	6	0	0	52	3	0	0	27	47	0	1	28	5	0	236	
4:45 PM	43	39	1	0	2	40	2	0	0	43	38	0	0	35	4	0	247	
4:50 PM	48	33	3	0	0	41	0	0	0	34	46	0	0	31	5	0	241	
4:55 PM	39	26	6	0	2	39	0	0	0	30	57	0	2	48	1	0	250	2685
5:00 PM	43	30	6	0	1	25	0	0	0	29	49	0	1	31	1	0	216	2696
5:05 PM	53	39	3	0	0	37	0	0	0	22	43	0	1	31	3	0	232	2728
5:10 PM	41	29	2	0	2	49	1	0	0	28	46	0	1	47	3	0	249	2754
5:15 PM	42	27	4	0	1	34	0	0	0	36	55	0	0	41	3	0	243	2796
5:20 PM	52	45	3	0	2	37	0	0	0	36	44	0	1	42	6	0	268	2835
5:25 PM	40	29	6	0	3	53	1	0	0	34	60	0	0	28	4	0	258	2892
5:30 PM	42	34	6	0	3	30	1	0	0	36	47	0	0	34	4	0	237	2922
5:35 PM	42	42	2	0	1	44	0	0	0	25	44	0	0	44	3	0	247	2924
5:40 PM	42	34	1	0	1	46	3	0	0	36	55	0	0	48	1	0	267	2955
5:45 PM	40	28	3	0	0	41	1	0	0	26	48	0	0	34	2	0	223	2931
5:50 PM	51	35	4	0	0	34	1	0	1	29	54	0	0	35	3	0	247	2937
5:55 PM	37	23	4	0	0	46	0	0	0	27	36	0	0	31	4	0	208	2895

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	536	404	52	0	24	496	4	0	0	424	636	0	4	444	52	0	3076
Heavy Trucks	12	4	4		0	0	0		0	12	16		0	24	0		72
Pedestrians		64				60				80				80			284
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Stanyan St -- Fulton St

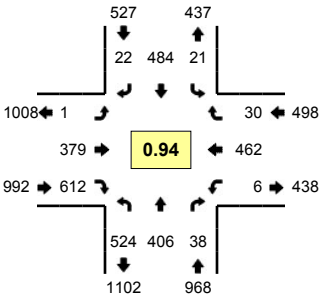
QC JOB #: 10652720

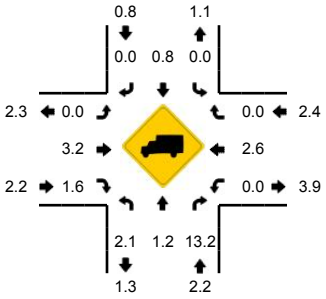
CITY/STATE: San Francisco, CA

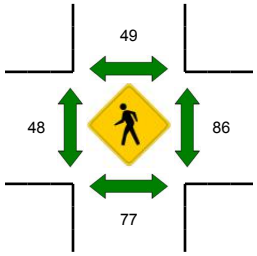
DATE: Thu, Sep 08 2011

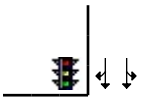
Peak-Hour: 5:00 PM -- 6:00 PM

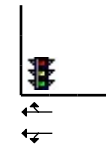
Peak 15-Min: 5:15 PM -- 5:30 PM

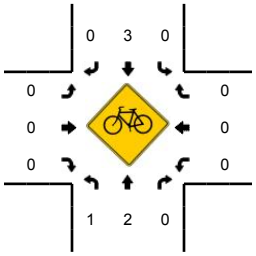


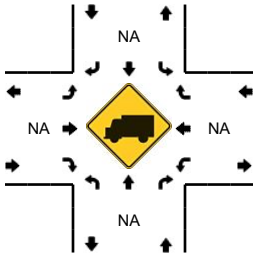


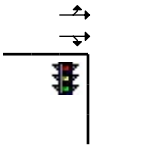


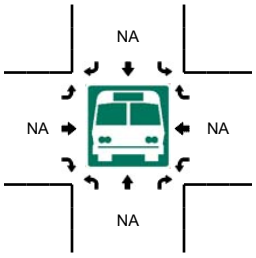












5-Min Count Period Beginning At	Stanyan St (Northbound)				Stanyan St (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	38	31	3	0	1	32	0	0	0	28	46	0	0	28	2	0	209	
4:05 PM	43	38	4	0	1	34	0	0	0	20	27	0	0	29	1	0	197	
4:10 PM	35	35	2	0	2	33	2	0	0	32	25	0	0	20	1	0	187	
4:15 PM	29	23	5	0	2	28	2	0	0	28	39	0	0	38	5	0	199	
4:20 PM	52	38	1	0	0	37	2	0	0	35	37	0	0	20	3	0	225	
4:25 PM	32	33	4	0	0	35	2	0	0	25	47	0	1	30	2	0	211	
4:30 PM	40	26	3	0	0	27	2	0	0	29	37	0	1	42	4	0	211	
4:35 PM	48	42	5	0	1	38	3	0	0	24	49	0	0	24	0	0	234	
4:40 PM	43	33	4	0	2	52	1	0	0	32	48	0	0	41	2	0	258	
4:45 PM	35	33	3	0	1	36	1	0	0	35	51	0	0	38	2	0	235	
4:50 PM	56	40	5	0	1	35	1	0	0	19	42	0	0	31	4	0	234	
4:55 PM	40	27	4	0	4	44	2	0	0	27	46	0	0	32	5	0	231	2631
5:00 PM	37	26	4	0	4	30	3	0	0	34	52	0	0	37	2	0	229	2651
5:05 PM	47	34	0	0	0	33	2	0	0	28	44	0	0	34	0	0	222	2676
5:10 PM	45	33	2	0	4	48	0	0	0	29	40	0	1	35	1	0	238	2727
5:15 PM	41	28	4	0	3	39	2	0	0	43	57	0	0	52	4	0	273	2801
5:20 PM	49	41	1	0	1	32	3	0	0	30	69	0	1	35	2	0	264	2840
5:25 PM	38	45	2	0	1	46	4	0	0	34	46	0	0	39	6	0	261	2890
5:30 PM	43	35	1	0	1	36	0	0	1	38	56	0	0	41	4	0	256	2935
5:35 PM	48	41	4	0	0	37	2	0	0	35	59	0	2	45	3	0	276	2977
5:40 PM	42	31	5	0	2	52	0	0	0	28	46	0	0	29	2	0	237	2956
5:45 PM	38	34	4	0	0	40	2	0	0	31	52	0	1	44	3	0	249	2970
5:50 PM	55	27	5	0	3	40	4	0	0	22	46	0	0	29	2	0	233	2969
5:55 PM	41	31	6	0	2	51	0	0	0	27	45	0	1	42	1	0	247	2985

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	512	456	28	0	20	468	36	0	0	428	688	0	4	504	48	0	3192
Heavy Trucks	8	0	4		0	0	0		0	12	0		0	12	0		36
Pedestrians		80				36				44				68			228
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

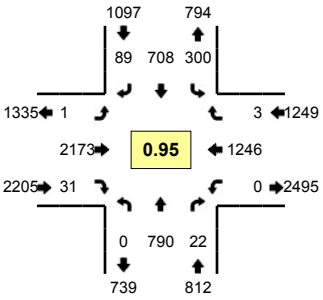
LOCATION: Stanyan St -- John F Kennedy Dr

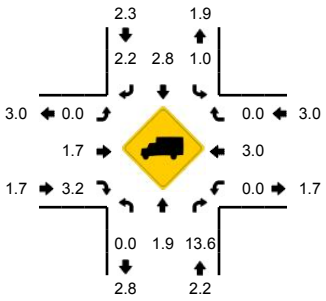
QC JOB #: 10652721

CITY/STATE: San Francisco, CA

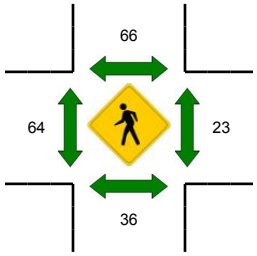
DATE: Tue, Sep 13 2011

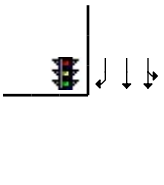
Peak-Hour: 7:50 AM -- 8:50 AM
Peak 15-Min: 8:00 AM -- 8:15 AM

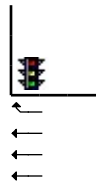


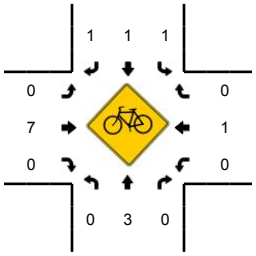


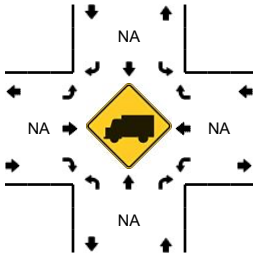
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

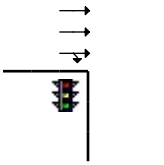


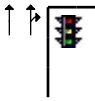


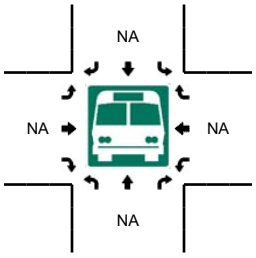












5-Min Count Period Beginning At	Stanyan St (Northbound)				Stanyan St (Southbound)				John F Kennedy Dr (Eastbound)				John F Kennedy Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	12	0	0	30	27	4	0	0	93	0	0	0	54	0	0	220	
7:05 AM	0	23	4	0	26	27	7	0	0	136	3	0	0	47	0	0	273	
7:10 AM	0	40	2	0	25	38	3	0	0	119	5	0	0	53	0	0	285	
7:15 AM	0	23	2	0	21	25	6	0	0	147	3	0	0	74	0	0	301	
7:20 AM	0	35	0	0	23	25	8	0	0	149	3	0	0	68	0	0	311	
7:25 AM	0	59	3	0	22	45	8	0	0	152	4	0	0	64	1	0	358	
7:30 AM	0	32	4	0	35	49	5	0	0	167	3	0	0	76	0	0	371	
7:35 AM	0	50	0	0	23	59	3	0	0	196	5	0	0	106	0	0	442	
7:40 AM	0	73	0	0	24	74	15	0	0	149	2	0	0	87	0	0	424	
7:45 AM	0	54	1	0	16	40	11	0	0	172	2	0	0	120	0	0	416	
7:50 AM	0	58	2	0	22	64	4	0	0	209	5	0	0	94	0	0	458	
7:55 AM	0	79	2	0	26	82	7	0	0	161	3	0	0	89	0	0	449	4308
8:00 AM	0	62	1	0	31	59	9	0	0	174	3	0	0	111	0	0	450	4538
8:05 AM	0	62	1	0	25	63	6	0	0	197	3	0	0	123	0	0	480	4745
8:10 AM	0	82	0	0	23	69	15	0	0	189	0	0	0	103	1	0	482	4942
8:15 AM	0	60	3	0	25	60	8	0	1	172	1	0	0	100	1	0	431	5072
8:20 AM	0	60	0	0	21	51	5	0	0	190	2	0	0	119	0	0	448	5209
8:25 AM	0	81	5	0	25	61	6	0	0	173	2	0	0	77	0	0	430	5281
8:30 AM	0	59	1	0	27	49	6	0	0	173	3	0	0	120	1	0	439	5349
8:35 AM	0	55	2	0	22	48	7	0	0	201	4	0	0	113	0	0	452	5359
8:40 AM	0	76	3	0	20	54	11	0	0	161	2	0	0	87	0	0	414	5349
8:45 AM	0	56	2	0	33	48	5	0	0	173	3	0	0	110	0	0	430	5363
8:50 AM	0	56	2	0	20	56	11	0	0	188	8	0	0	85	0	0	426	5331
8:55 AM	0	81	0	0	21	47	11	0	0	146	2	0	0	85	0	0	393	5275

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	824	8	0	316	764	120	0	0	2240	24	0	0	1348	4	0	5648
Heavy Trucks	0	16	0		0	28	4		0	40	4		0	40	0		132
Pedestrians		32				48				72				8			160
Bicycles	0	1	0		0	0	0		0	2	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

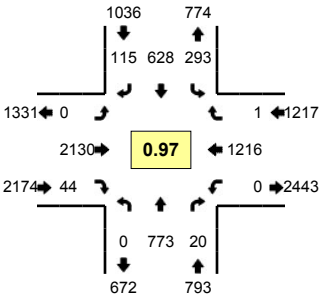
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

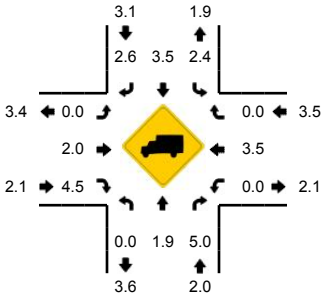
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

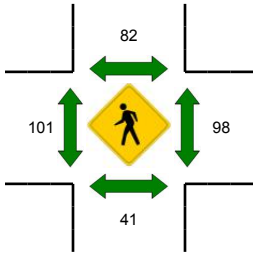
LOCATION: Stanyon St -- John F Kennedy Dr | **QC JOB #:** 10652722

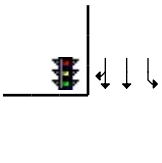
CITY/STATE: San Francisco, CA | **DATE:** Thu, Sep 08 2011

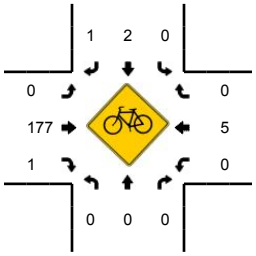
Peak-Hour: 7:50 AM -- 8:50 AM
Peak 15-Min: 8:10 AM -- 8:25 AM

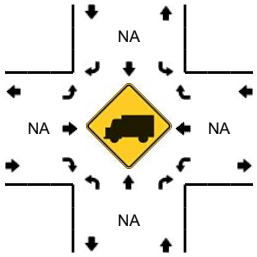


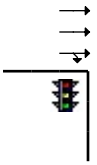


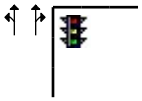


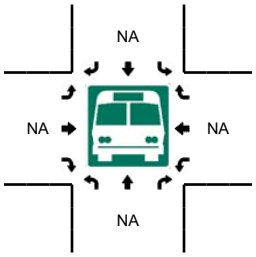












5-Min Count Period Beginning At	Stanyon St (Northbound)				Stanyon St (Southbound)				John F Kennedy Dr (Eastbound)				John F Kennedy Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	23	1	0	21	29	4	0	0	108	5	0	0	65	0	0	256	
7:05 AM	0	33	1	0	34	37	6	0	0	140	5	0	0	44	0	0	300	
7:10 AM	0	33	1	0	27	35	6	0	0	140	1	0	0	74	1	0	318	
7:15 AM	0	21	4	0	22	31	0	0	0	170	3	0	0	71	0	0	322	
7:20 AM	0	57	1	0	30	37	7	0	0	162	1	0	1	57	0	0	353	
7:25 AM	0	40	3	0	22	27	8	0	0	182	1	0	0	62	0	0	345	
7:30 AM	0	39	2	0	25	42	6	0	0	193	4	0	0	72	0	0	383	
7:35 AM	0	56	1	0	26	52	10	0	1	159	6	0	0	83	0	0	394	
7:40 AM	0	57	1	0	28	59	7	0	0	171	2	0	0	95	0	0	420	
7:45 AM	0	43	3	0	23	42	5	0	0	197	4	0	0	89	0	0	406	
7:50 AM	0	75	0	0	21	65	10	0	0	165	5	0	0	86	0	0	427	
7:55 AM	0	61	3	0	24	42	10	0	0	184	3	0	0	108	0	0	435	4359
8:00 AM	0	62	2	0	24	45	12	0	0	190	4	0	0	104	0	0	443	4546
8:05 AM	0	62	5	0	22	66	12	0	0	158	3	0	0	98	0	0	426	4672
8:10 AM	0	59	0	0	28	44	8	0	0	177	3	0	0	124	0	0	443	4797
8:15 AM	0	58	1	0	24	51	5	0	0	195	3	0	0	131	0	0	468	4943
8:20 AM	0	81	1	0	27	67	12	0	0	163	2	0	0	85	0	0	438	5028
8:25 AM	0	59	1	0	29	50	7	0	0	174	5	0	0	99	0	0	424	5107
8:30 AM	0	61	1	0	22	50	11	0	0	191	4	0	0	105	0	0	445	5169
8:35 AM	0	82	1	0	20	53	13	0	0	172	3	0	0	97	0	0	441	5216
8:40 AM	0	58	3	0	29	40	8	0	0	166	5	0	0	92	1	0	402	5198
8:45 AM	0	55	2	0	23	55	7	0	0	195	4	0	0	87	0	0	428	5220
8:50 AM	1	80	1	0	21	47	17	0	0	151	4	0	0	94	1	0	417	5210
8:55 AM	0	55	4	0	24	54	13	0	0	166	1	1	0	97	0	0	415	5190

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	792	8	0	316	648	100	0	0	2140	32	0	0	1360	0	0	5396
Heavy Trucks	0	4	0		4	16	8		0	32	4		0	36	0		104
Pedestrians		60				44				108				96			308
Bicycles	0	0	0		0	1	0		0	52	0		0	1	0		54
Railroad																	
Stopped Buses																	

Comments:

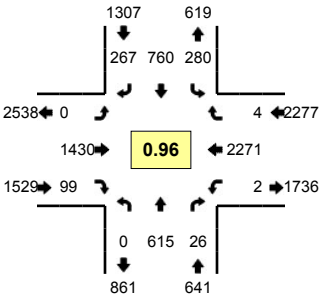
Report generated on 9/23/2011 11:46 AM

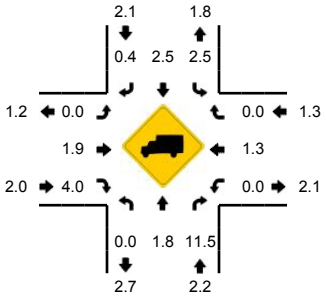
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

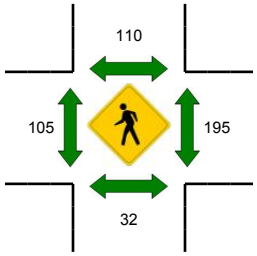
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

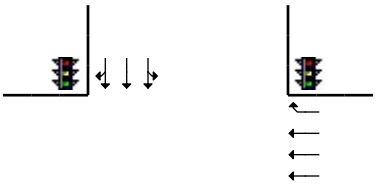
LOCATION: Stanyan St -- John F Kennedy Dr | **QC JOB #:** 10652723
CITY/STATE: San Francisco, CA | **DATE:** Tue, Sep 13 2011

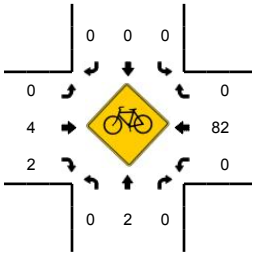
Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:20 PM -- 5:35 PM

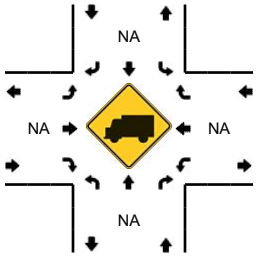


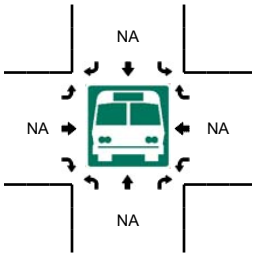












5-Min Count Period Beginning At	Stanyan St (Northbound)				Stanyan St (Southbound)				John F Kennedy Dr (Eastbound)				John F Kennedy Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	54	1	0	13	60	14	0	0	119	11	0	0	130	1	0	403	
4:05 PM	0	37	5	0	18	38	13	0	0	113	7	0	0	157	0	0	388	
4:10 PM	0	54	6	0	18	66	20	0	0	110	5	0	0	133	0	0	412	
4:15 PM	0	51	0	0	26	56	23	0	0	130	8	0	0	136	0	0	430	
4:20 PM	0	50	1	0	18	38	17	0	0	112	16	0	0	183	0	0	435	
4:25 PM	0	62	1	0	19	67	13	0	0	106	8	0	0	150	0	0	426	
4:30 PM	0	48	7	0	25	63	18	0	0	93	5	0	0	151	0	0	410	
4:35 PM	0	42	3	0	17	44	20	0	0	125	12	0	0	158	0	0	421	
4:40 PM	0	61	4	0	20	63	21	0	1	103	9	0	2	155	0	0	439	
4:45 PM	0	49	3	0	22	66	24	0	0	103	7	0	0	153	0	0	427	
4:50 PM	0	46	1	0	19	62	20	0	0	157	9	0	0	164	0	0	478	
4:55 PM	0	66	1	0	20	55	12	0	0	114	6	0	0	148	0	0	422	5091
5:00 PM	0	43	0	0	31	70	20	0	0	104	10	0	2	182	0	0	462	5150
5:05 PM	0	44	3	0	22	42	19	0	0	130	8	0	0	188	0	0	456	5218
5:10 PM	0	61	2	0	18	62	24	0	0	109	3	0	0	196	1	0	476	5282
5:15 PM	0	42	4	0	25	51	26	0	0	97	6	0	0	175	0	0	426	5278
5:20 PM	0	48	1	0	20	65	18	0	0	143	9	0	0	217	0	0	521	5364
5:25 PM	0	57	2	0	21	68	25	0	0	128	8	0	0	177	0	0	486	5424
5:30 PM	0	53	1	0	31	70	28	0	0	107	7	0	0	191	0	0	488	5502
5:35 PM	0	47	1	0	22	54	28	0	0	109	11	0	0	219	2	0	493	5574
5:40 PM	0	64	2	0	23	74	19	0	0	124	12	0	0	169	0	0	487	5622
5:45 PM	0	43	7	0	24	71	20	0	0	121	12	0	0	171	1	0	470	5665
5:50 PM	0	52	0	0	21	59	20	0	0	141	10	0	0	213	0	0	516	5703
5:55 PM	0	61	3	0	22	74	20	0	0	117	3	0	0	173	0	0	473	5754

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	632	16	0	288	812	284	0	0	1512	96	0	0	2340	0	0	5980
Heavy Trucks	0	8	0		20	12	0		0	24	4		0	28	0		96
Pedestrians		32				148				88				188			456
Bicycles	0	1	0		0	0	0		0	0	0		0	34	0		35
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:46 AM

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Stanyan St -- John F Kennedy Dr

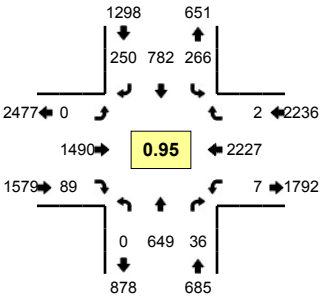
QC JOB #: 10652724

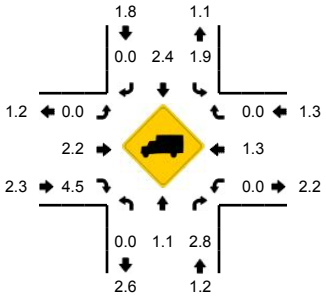
CITY/STATE: San Francisco, CA

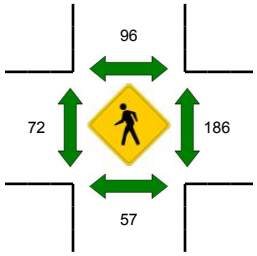
DATE: Thu, Sep 08 2011

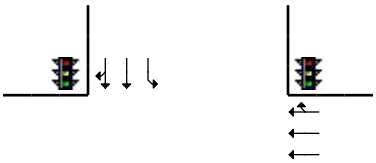
Peak-Hour: 4:50 PM -- 5:50 PM

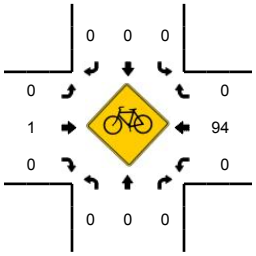
Peak 15-Min: 5:20 PM -- 5:35 PM

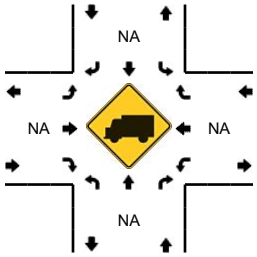


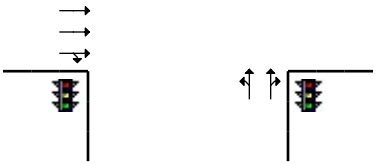


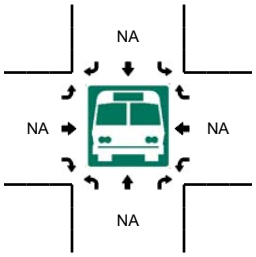












5-Min Count Period Beginning At	Stanyan St (Northbound)				Stanyan St (Southbound)				John F Kennedy Dr (Eastbound)				John F Kennedy Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	42	4	0	16	52	22	0	0	142	7	0	0	185	0	0	470	
4:05 PM	0	66	1	0	4	46	14	0	0	116	6	0	0	152	0	0	405	
4:10 PM	0	51	3	0	24	57	18	0	0	121	6	0	0	153	1	0	434	
4:15 PM	0	43	5	0	16	40	13	0	0	114	9	0	0	198	0	0	438	
4:20 PM	0	69	3	0	13	59	26	0	0	79	6	0	0	148	0	0	403	
4:25 PM	0	54	3	0	24	54	17	0	0	123	5	0	0	148	1	0	429	
4:30 PM	0	45	3	0	18	48	19	0	0	112	5	0	0	180	1	0	431	
4:35 PM	0	64	5	0	19	57	20	0	0	116	8	0	0	174	1	0	464	
4:40 PM	0	51	2	0	22	72	20	0	0	110	6	0	0	179	1	0	463	
4:45 PM	0	49	0	0	19	58	19	0	0	139	11	0	0	206	0	0	501	
4:50 PM	0	69	3	0	22	66	30	0	0	103	11	0	0	180	0	0	484	
4:55 PM	0	48	3	0	26	58	27	0	0	115	6	0	0	162	0	0	445	5367
5:00 PM	0	47	2	0	19	50	14	0	0	135	7	0	0	182	0	0	456	5353
5:05 PM	0	53	4	0	23	77	16	0	0	108	5	0	0	167	0	0	453	5401
5:10 PM	0	47	1	0	23	60	18	0	0	136	13	0	0	166	0	0	464	5431
5:15 PM	0	51	5	0	18	68	13	0	0	124	10	0	0	187	0	0	476	5469
5:20 PM	0	65	3	0	24	69	25	0	0	119	9	0	0	177	1	0	492	5558
5:25 PM	0	56	2	0	24	63	23	0	0	139	2	0	0	196	0	0	505	5634
5:30 PM	0	41	4	0	21	59	20	0	0	135	6	0	0	237	0	0	523	5726
5:35 PM	0	69	4	0	24	74	22	0	0	116	3	0	0	179	0	0	491	5753
5:40 PM	0	48	4	0	21	67	24	0	0	122	8	0	7	192	1	0	494	5784
5:45 PM	0	55	1	0	21	71	18	0	0	138	9	0	0	202	0	0	515	5798
5:50 PM	0	56	3	0	24	72	29	0	0	90	7	0	0	167	1	0	449	5763
5:55 PM	0	52	3	0	24	62	18	0	0	132	10	0	0	178	1	0	480	5798

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	648	36	0	276	764	272	0	0	1572	68	0	0	2440	4	0	6080
Heavy Trucks	0	12	0		0	16	0		0	44	8		0	24	0		104
Pedestrians		80				120				104				180			484
Bicycles	0	0	0		0	0	0		0	1	0		0	29	0		30
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

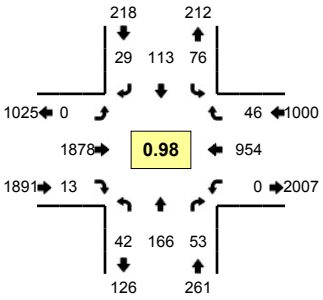
LOCATION: Parker St -- Geary Blvd

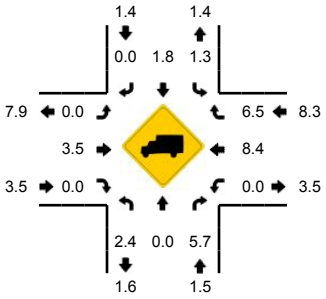
QC JOB #: 10652725

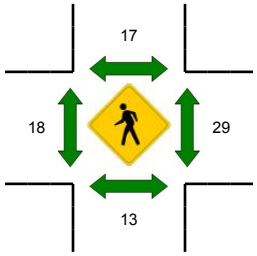
CITY/STATE: San Francisco, CA

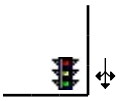
DATE: Wed, Sep 14 2011

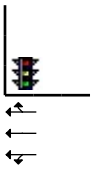
Peak-Hour: 7:50 AM -- 8:50 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

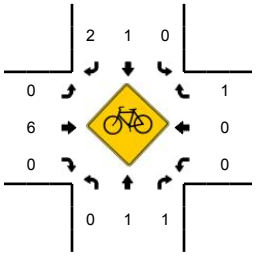


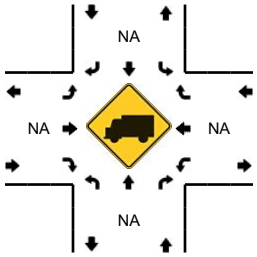


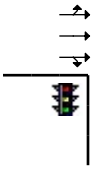


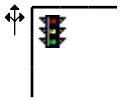


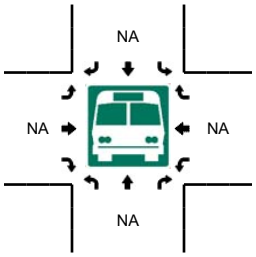












5-Min Count Period Beginning At	Parker St (Northbound)				Parker St (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	2	1	0	0	3	3	0	0	93	1	0	0	33	1	0	138	
7:05 AM	0	4	2	0	2	3	1	0	0	107	1	0	0	45	1	0	166	
7:10 AM	1	4	2	0	0	3	0	0	0	101	2	0	0	54	0	0	167	
7:15 AM	1	3	1	0	4	4	0	0	0	122	0	0	0	43	0	0	178	
7:20 AM	2	6	2	0	3	5	1	0	0	138	3	0	0	57	1	0	218	
7:25 AM	0	9	5	0	2	6	3	0	0	132	0	0	0	45	2	0	204	
7:30 AM	4	10	7	0	4	5	0	0	0	167	1	0	0	82	1	0	281	
7:35 AM	2	13	2	0	5	4	4	0	0	171	0	0	0	69	4	0	274	
7:40 AM	2	15	5	0	14	12	0	0	0	136	1	0	0	66	2	0	253	
7:45 AM	1	11	1	0	7	14	1	0	0	164	2	0	0	74	2	0	277	
7:50 AM	2	10	3	0	5	16	3	0	0	171	4	0	0	72	3	0	289	
7:55 AM	2	23	7	0	10	10	5	0	0	144	3	0	0	81	0	0	285	2730
8:00 AM	3	13	3	0	9	14	1	0	0	166	0	0	0	76	5	0	290	2882
8:05 AM	3	8	4	0	5	11	5	0	0	155	0	0	0	62	2	0	255	2971
8:10 AM	3	12	1	0	5	10	2	0	0	141	1	0	0	66	4	0	245	3049
8:15 AM	3	12	2	0	8	7	0	0	0	169	0	0	0	88	4	0	293	3164
8:20 AM	4	17	8	0	5	11	2	0	0	168	0	0	0	83	5	0	303	3249
8:25 AM	6	12	5	0	7	13	2	0	0	151	1	0	0	65	6	0	268	3313
8:30 AM	5	11	4	0	6	7	3	0	0	152	0	0	0	89	7	0	284	3316
8:35 AM	2	15	5	0	1	7	2	0	0	166	1	0	0	84	5	0	288	3330
8:40 AM	6	20	5	0	10	2	3	0	0	136	1	0	0	86	1	0	270	3347
8:45 AM	3	13	6	0	5	5	1	0	0	159	2	0	0	102	4	0	300	3370
8:50 AM	1	8	3	0	6	7	3	0	0	164	1	0	1	73	9	0	276	3357
8:55 AM	5	15	6	0	12	8	2	0	0	140	1	0	0	78	5	0	272	3344

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	184	52	0	96	160	36	0	0	1924	28	0	0	916	32	0	3456
Heavy Trucks	0	0	0		0	8	0		0	68	0		0	104	0		180
Pedestrians		4				16				16				8			44
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Parker St -- Geary Blvd

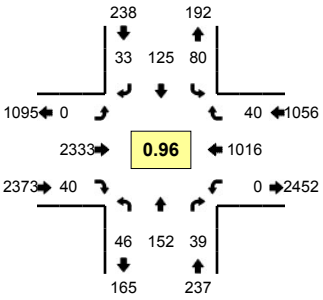
QC JOB #: 10652726

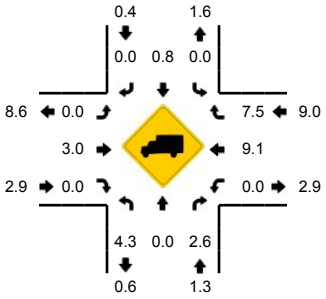
CITY/STATE: San Francisco, CA

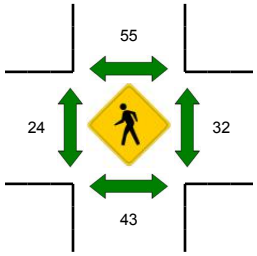
DATE: Thu, Sep 08 2011

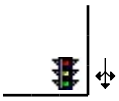
Peak-Hour: 7:45 AM -- 8:45 AM

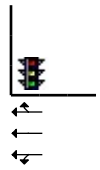
Peak 15-Min: 7:45 AM -- 8:00 AM

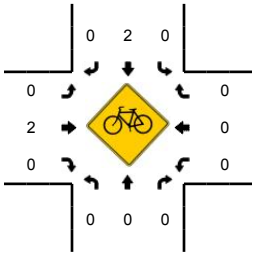


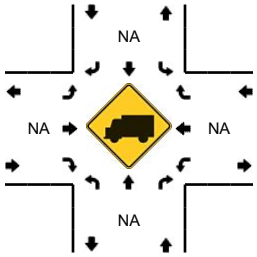


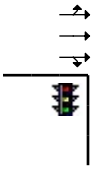


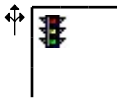


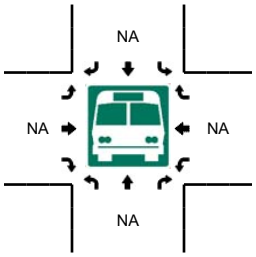












5-Min Count Period Beginning At	Parker St (Northbound)				Parker St (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	5	1	0	1	1	1	0	0	86	1	0	0	43	1	0	143	
7:05 AM	2	5	1	0	3	2	0	0	0	97	3	0	0	48	3	0	164	
7:10 AM	1	6	0	0	0	3	2	0	0	104	3	0	0	44	2	0	165	
7:15 AM	1	4	0	0	3	5	2	0	0	138	1	0	0	56	1	0	211	
7:20 AM	0	2	3	0	3	4	1	0	0	136	0	0	0	64	0	0	213	
7:25 AM	0	9	4	0	1	5	2	0	0	156	1	0	0	48	1	0	227	
7:30 AM	1	5	2	0	1	2	0	0	0	149	2	0	0	49	2	0	213	
7:35 AM	2	9	4	0	10	7	1	0	0	212	2	0	0	83	3	0	333	
7:40 AM	4	14	3	0	12	10	0	0	0	179	4	0	0	72	1	0	299	
7:45 AM	3	7	3	0	7	10	1	0	0	202	4	0	0	90	4	0	331	
7:50 AM	3	8	7	0	6	14	5	0	0	218	4	0	0	72	3	0	340	
7:55 AM	6	20	2	0	9	14	1	0	0	187	5	0	0	100	3	0	347	2986
8:00 AM	2	7	2	0	6	16	2	0	0	195	2	0	0	64	3	0	299	3142
8:05 AM	4	11	3	0	7	12	2	0	0	194	2	0	0	80	1	0	316	3294
8:10 AM	3	15	1	0	6	7	2	0	0	189	6	0	0	89	4	0	322	3451
8:15 AM	3	15	2	0	6	10	3	0	0	203	4	0	0	89	4	0	339	3579
8:20 AM	3	11	3	0	2	7	2	0	0	208	1	0	0	81	6	0	324	3690
8:25 AM	5	16	7	0	12	10	2	0	0	177	2	0	0	90	4	0	325	3788
8:30 AM	6	12	3	0	8	10	3	0	0	174	0	0	0	86	2	0	304	3879
8:35 AM	4	14	4	0	1	2	4	0	0	213	5	0	0	85	1	0	333	3879
8:40 AM	4	16	2	0	10	13	6	0	0	173	5	0	0	90	5	0	324	3904
8:45 AM	6	11	2	0	6	6	6	0	0	167	1	0	0	100	6	0	311	3884
8:50 AM	3	16	3	0	5	14	3	0	0	195	7	0	0	94	2	0	342	3886
8:55 AM	4	16	3	0	7	11	2	0	0	167	4	0	0	86	7	0	307	3846

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	48	140	48	0	88	152	28	0	0	2428	52	0	0	1048	40	0	4072
Heavy Trucks	0	0	0		0	4	0		0	92	0		0	108	0		204
Pedestrians		40				44				16				24			124
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Parker St -- Geary Blvd

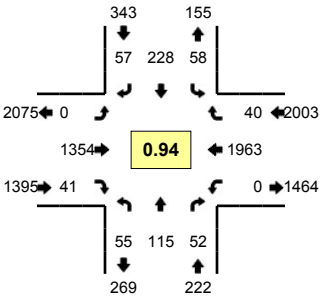
QC JOB #: 10652727

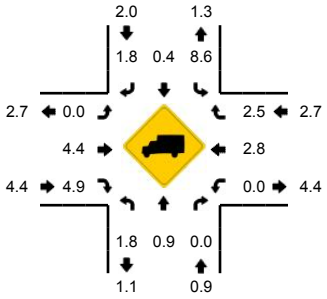
CITY/STATE: San Francisco, CA

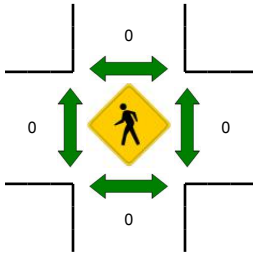
DATE: Wed, Sep 14 2011

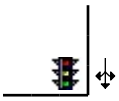
Peak-Hour: 4:55 PM -- 5:55 PM

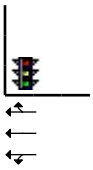
Peak 15-Min: 5:10 PM -- 5:25 PM

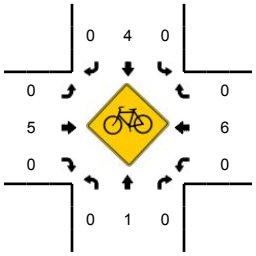


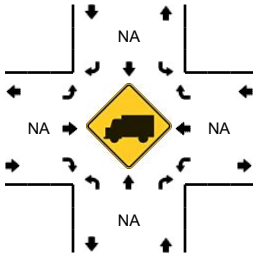


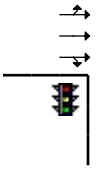


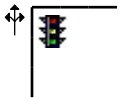


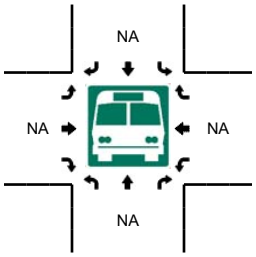












5-Min Count Period Beginning At	Parker St (Northbound)				Parker St (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	8	8	4	0	2	15	2	0	0	110	3	0	1	130	6	0	289	
4:05 PM	6	9	8	0	2	14	0	0	0	99	3	0	0	151	2	0	294	
4:10 PM	6	7	2	0	4	18	3	0	0	117	0	0	1	182	0	0	340	
4:15 PM	5	9	4	0	2	16	2	0	0	104	2	0	1	131	4	0	280	
4:20 PM	2	9	1	0	1	16	2	0	0	108	3	0	0	154	3	0	299	
4:25 PM	2	4	5	0	3	16	2	0	0	100	3	0	0	148	2	0	285	
4:30 PM	5	8	8	0	1	16	4	0	0	98	1	0	0	128	1	0	270	
4:35 PM	10	4	6	0	4	16	3	0	0	95	3	0	0	132	1	0	274	
4:40 PM	2	11	10	0	2	14	5	0	0	103	5	0	0	157	4	0	313	
4:45 PM	11	9	11	0	5	20	6	0	0	136	2	0	0	157	1	0	358	
4:50 PM	4	8	6	0	5	14	3	0	0	102	0	0	0	138	2	0	282	
4:55 PM	3	4	3	0	1	11	4	0	0	107	4	0	0	140	3	0	280	3564
5:00 PM	6	12	5	0	3	23	3	0	0	96	3	0	0	144	3	0	298	3573
5:05 PM	4	9	5	0	7	21	7	0	0	113	3	0	0	157	2	0	328	3607
5:10 PM	3	7	2	0	5	17	7	0	0	124	3	0	0	189	6	0	363	3630
5:15 PM	10	11	8	0	5	19	6	0	0	117	0	0	0	154	8	0	338	3688
5:20 PM	7	7	5	0	5	21	9	0	0	130	4	0	0	164	1	0	353	3742
5:25 PM	4	12	5	0	1	17	5	0	0	121	3	0	0	182	1	0	351	3808
5:30 PM	4	17	9	0	7	24	3	0	0	100	3	0	0	153	1	0	321	3859
5:35 PM	3	6	1	0	8	18	5	0	0	110	6	0	0	179	4	0	340	3925
5:40 PM	5	12	3	0	2	23	2	0	0	118	5	0	0	170	2	0	342	3954
5:45 PM	4	9	2	0	10	23	1	0	0	109	2	0	0	157	1	0	318	3914
5:50 PM	2	9	4	0	4	11	5	0	0	109	5	0	0	174	8	0	331	3963
5:55 PM	0	1	2	0	1	11	1	0	0	92	1	0	0	164	3	0	276	3959

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	80	100	60	0	60	228	88	0	0	1484	28	0	0	2028	60	0	4216
Heavy Trucks	4	0	0		0	0	0		0	64	4		0	24	0		96
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	1	0		0	1	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Parker St -- Geary Blvd

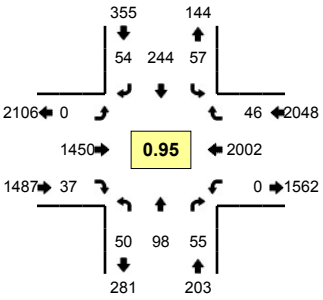
QC JOB #: 10652728

CITY/STATE: San Francisco, CA

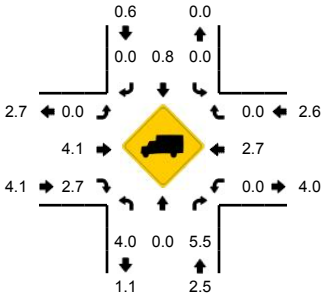
DATE: Thu, Sep 08 2011

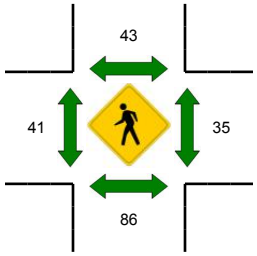
Peak-Hour: 4:55 PM -- 5:55 PM

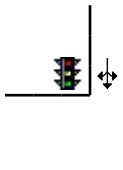
Peak 15-Min: 5:25 PM -- 5:40 PM

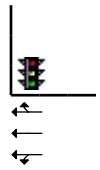


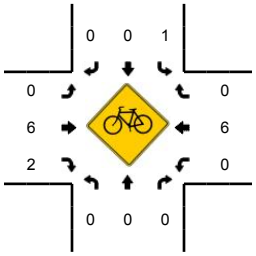
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

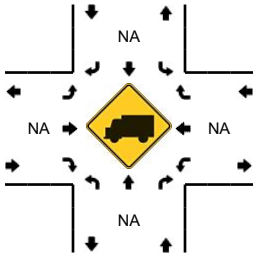


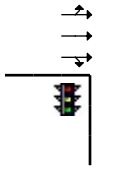


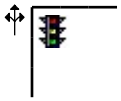


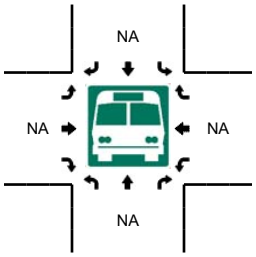












5-Min Count Period Beginning At	Parker St (Northbound)				Parker St (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	4	14	5	0	2	19	4	0	0	112	7	0	0	118	3	0	288	
4:05 PM	6	13	6	0	4	19	3	0	0	127	3	0	0	142	3	0	326	
4:10 PM	6	1	5	0	3	12	4	0	1	111	0	0	0	166	5	0	314	
4:15 PM	9	7	2	0	2	14	5	0	0	124	3	0	0	149	1	0	316	
4:20 PM	3	5	5	0	3	15	2	0	0	116	4	0	0	137	4	0	294	
4:25 PM	8	7	7	0	4	12	4	0	0	116	2	0	0	141	2	0	303	
4:30 PM	6	9	4	0	6	12	1	0	0	125	3	0	0	142	2	0	310	
4:35 PM	5	11	6	0	2	13	3	0	0	102	4	0	0	139	6	0	291	
4:40 PM	4	10	4	0	4	10	6	0	0	131	7	0	0	139	6	0	321	
4:45 PM	6	15	4	0	4	15	4	0	0	119	7	0	0	159	4	0	337	
4:50 PM	6	4	8	0	0	14	2	0	0	125	8	0	0	136	3	0	306	
4:55 PM	5	5	1	0	1	17	2	0	0	129	9	0	0	167	4	0	340	3746
5:00 PM	2	9	8	0	1	13	4	0	0	115	2	0	0	132	2	0	288	3746
5:05 PM	5	13	8	0	6	19	2	0	0	122	3	0	0	142	1	0	321	3741
5:10 PM	3	8	3	0	6	19	10	0	0	116	2	0	0	170	5	0	342	3769
5:15 PM	3	3	8	0	7	30	6	0	0	126	2	0	0	166	3	0	354	3807
5:20 PM	9	9	9	0	5	22	8	0	0	110	2	0	0	166	2	0	342	3855
5:25 PM	5	5	5	0	5	21	5	0	0	127	5	0	0	180	6	0	364	3916
5:30 PM	1	12	5	0	3	24	2	0	0	116	3	0	0	189	2	0	357	3963
5:35 PM	9	13	3	0	7	21	4	0	0	121	2	0	0	175	5	0	360	4032
5:40 PM	3	8	3	0	3	24	4	0	0	136	1	0	0	172	5	0	359	4070
5:45 PM	3	8	0	0	8	13	1	0	0	121	5	0	0	179	6	0	344	4077
5:50 PM	2	5	2	0	5	21	6	0	0	111	1	0	0	164	5	0	322	4093
5:55 PM	6	2	3	0	3	11	2	0	0	104	2	0	0	183	1	0	317	4070

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	60	120	52	0	60	264	44	0	0	1456	40	0	0	2176	52	0	4324
Heavy Trucks	4	0	0		0	4	0		0	64	0		0	56	0		128
Pedestrians		84				28				24				40			176
Bicycles	0	0	0		1	0	0		0	1	0		0	2	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

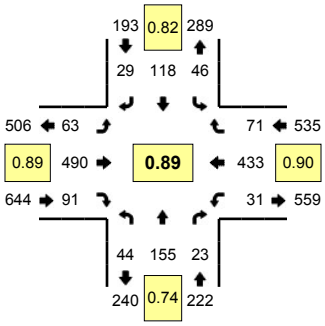
Method for determining peak hour: Total Entering Volume

LOCATION: Parker Ave -- Turk Blvd

QC JOB #: 10545943

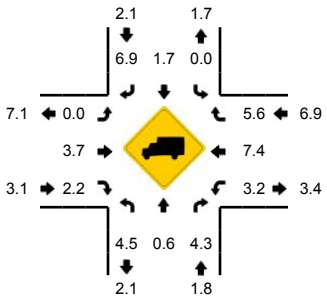
CITY/STATE: San Francisco, CA

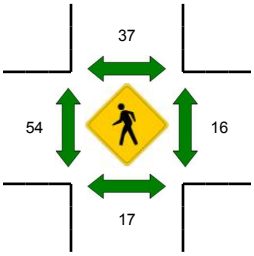
DATE: 10/19/2010

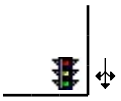


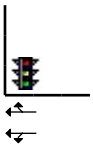
Peak-Hour: 7:45 AM -- 8:45 AM

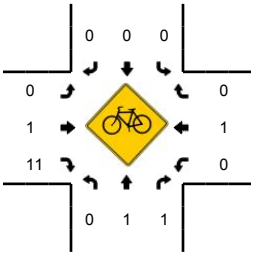
Peak 15-Min: 7:45 AM -- 8:00 AM

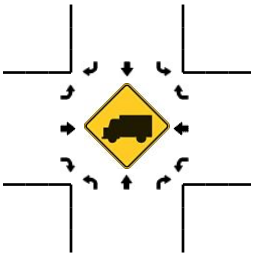


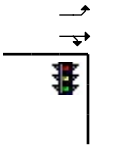


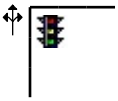


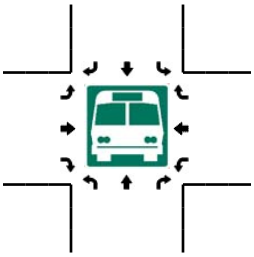












5-Min Count Period Beginning At	Parker Ave (Northbound)				Parker Ave (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	1	0	0	6	1	0	0	6	1	0	0	15	1	0	31	
7:05 AM	0	3	1	0	0	3	1	0	1	12	4	0	2	13	1	0	41	
7:10 AM	1	6	3	0	1	11	1	0	3	4	3	0	3	15	2	0	53	
7:15 AM	2	6	1	0	3	4	0	0	0	20	3	0	1	23	1	0	64	
7:20 AM	3	9	3	0	2	4	1	0	2	20	3	0	3	12	3	0	65	
7:25 AM	3	7	1	0	2	4	2	0	2	21	5	0	3	15	2	0	67	
7:30 AM	2	9	1	0	9	12	1	0	3	16	3	0	1	15	6	0	78	
7:35 AM	2	8	2	0	6	5	3	0	4	36	3	0	2	15	8	0	94	
7:40 AM	2	3	2	0	2	6	1	0	6	38	2	0	3	26	6	0	97	
7:45 AM	5	10	3	0	4	10	4	0	7	42	8	0	4	28	5	0	130	
7:50 AM	9	18	2	0	7	12	0	0	4	42	13	0	6	33	11	0	157	
7:55 AM	5	20	3	0	6	15	2	0	9	45	10	0	1	43	4	0	163	1040
8:00 AM	6	10	2	0	0	4	3	0	5	43	3	0	2	45	4	0	127	1136
8:05 AM	4	14	1	0	3	13	4	0	5	46	9	0	2	33	3	0	137	1232
8:10 AM	3	9	1	0	4	11	3	0	5	37	14	0	0	40	9	0	136	1315
8:15 AM	1	11	1	0	4	12	1	0	2	37	10	0	2	35	9	0	125	1376
8:20 AM	1	17	1	0	6	9	3	0	2	41	6	0	3	32	6	0	127	1438
8:25 AM	4	11	1	0	4	5	3	0	7	33	1	0	2	36	6	0	113	1484
8:30 AM	4	15	1	0	4	5	3	0	8	39	2	0	2	37	5	0	125	1531
8:35 AM	1	12	4	0	3	14	2	0	6	40	9	0	5	38	5	0	139	1576
8:40 AM	1	8	3	0	1	8	1	0	3	45	6	0	2	33	4	0	115	1594
8:45 AM	3	13	3	0	2	8	0	0	0	54	0	0	2	36	3	0	124	1588
8:50 AM	4	9	2	0	3	10	3	0	5	37	8	0	1	31	3	0	116	1547
8:55 AM	6	9	2	0	1	11	1	0	5	41	7	0	3	26	7	0	119	1503

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	76	192	32	0	68	148	24	0	80	516	124	0	44	416	80	0	1800
Heavy Trucks	0	0	0		0	0	4		0	28	0		0	20	4		56
Pedestrians		20				40				88				12			160
Bicycles	0	0	0		0	0	0		0	0	3		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

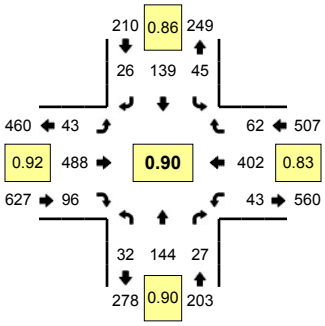
Method for determining peak hour: Total Entering Volume

LOCATION: Parker Ave -- Turk Blvd

QC JOB #: 10545945

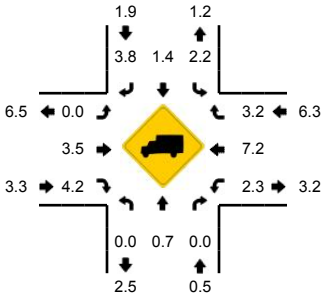
CITY/STATE: San Francisco, CA

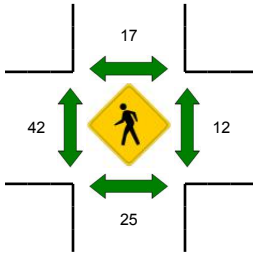
DATE: 10/14/2010

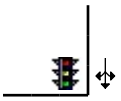


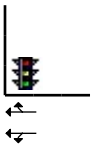
Peak-Hour: 7:40 AM -- 8:40 AM

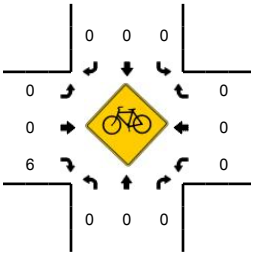
Peak 15-Min: 7:50 AM -- 8:05 AM

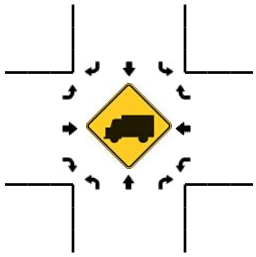


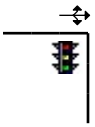


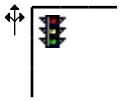


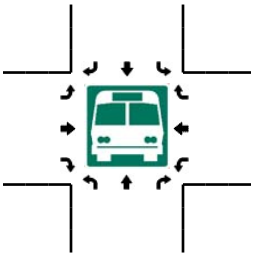












5-Min Count Period Beginning At	Parker Ave (Northbound)				Parker Ave (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	5	1	0	2	5	0	0	0	8	2	0	1	15	5	0	45	
7:05 AM	1	3	2	0	2	4	2	0	2	14	5	0	4	14	2	0	55	
7:10 AM	2	5	0	0	0	4	2	0	2	12	2	0	4	16	3	0	52	
7:15 AM	1	6	1	0	6	4	2	0	2	14	5	0	2	15	3	0	61	
7:20 AM	1	6	0	0	1	4	0	0	2	16	2	0	2	16	4	0	54	
7:25 AM	3	10	1	0	1	3	2	0	4	19	5	0	0	16	1	0	65	
7:30 AM	6	14	0	0	2	9	0	0	5	29	8	0	5	18	7	0	103	
7:35 AM	2	10	5	0	4	8	1	0	4	28	2	0	2	23	3	0	92	
7:40 AM	1	16	3	0	9	12	1	0	3	41	5	0	3	24	6	0	124	
7:45 AM	3	8	3	0	10	8	3	0	5	37	7	0	2	36	2	0	124	
7:50 AM	2	14	1	0	3	10	2	0	4	39	9	0	0	33	5	0	122	
7:55 AM	5	8	2	0	3	20	0	0	4	44	10	0	9	44	7	0	156	1053
8:00 AM	7	20	0	0	2	13	4	0	3	50	8	0	5	34	8	0	154	1162
8:05 AM	2	8	2	0	1	17	2	0	1	34	9	0	1	38	7	0	122	1229
8:10 AM	2	15	4	0	3	5	4	0	3	41	9	0	2	21	7	0	116	1293
8:15 AM	2	12	5	0	2	9	4	0	3	40	10	0	5	31	6	0	129	1361
8:20 AM	5	13	1	0	4	11	2	0	3	48	10	0	2	46	5	0	150	1457
8:25 AM	1	9	2	0	4	7	0	0	5	30	7	0	4	26	2	0	97	1489
8:30 AM	1	7	2	0	3	20	3	0	7	46	5	0	5	32	4	0	135	1521
8:35 AM	1	14	2	0	1	7	1	0	2	38	7	0	5	37	3	0	118	1547
8:40 AM	1	6	4	0	3	4	0	0	3	32	6	0	1	26	5	0	91	1514
8:45 AM	2	8	2	0	3	8	1	0	2	42	5	0	7	22	7	0	109	1499
8:50 AM	2	9	2	0	2	10	0	0	4	39	2	0	2	30	6	0	108	1485
8:55 AM	3	12	3	0	7	5	0	0	5	33	7	0	1	20	10	0	106	1435

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	56	168	12	0	32	172	24	0	44	532	108	0	56	444	80	0	1728
Heavy Trucks	0	0	0		0	0	4		0	24	0		0	20	0		48
Pedestrians		12				20				32				8			72
Bicycles	0	0	0		0	0	0		0	0	2		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

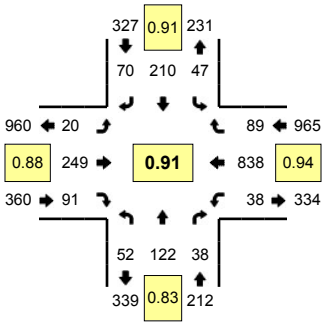
Method for determining peak hour: Total Entering Volume

LOCATION: Parker Ave -- Turk Blvd

QC JOB #: 10545946

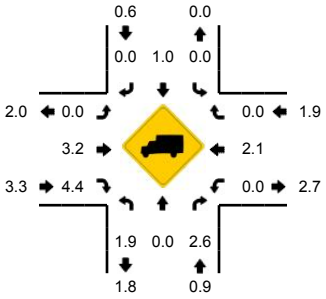
CITY/STATE: San Francisco, CA

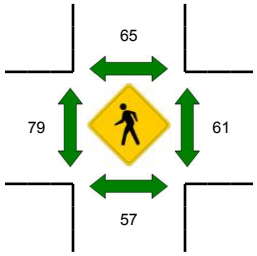
DATE: 10/19/2010

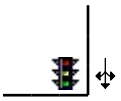


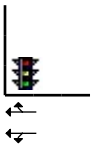
Peak-Hour: 5:00 PM -- 6:00 PM

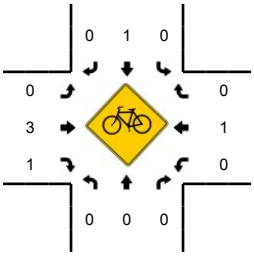
Peak 15-Min: 5:10 PM -- 5:25 PM

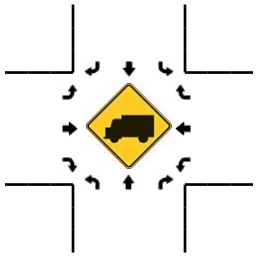


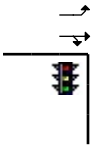


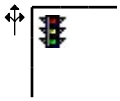


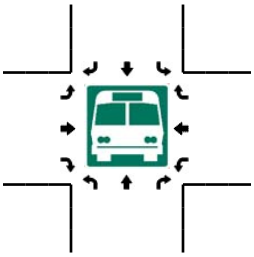












5-Min Count Period Beginning At	Parker Ave (Northbound)				Parker Ave (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	7	9	4	0	2	6	1	0	4	19	7	0	3	40	3	0	105	
4:05 PM	4	9	2	0	5	12	2	0	3	19	5	0	3	24	2	0	90	
4:10 PM	3	13	5	0	2	16	2	0	1	17	7	0	1	42	4	0	113	
4:15 PM	2	13	3	0	3	12	6	0	0	19	2	0	4	42	3	0	109	
4:20 PM	4	14	3	0	4	8	3	0	3	19	5	0	7	49	3	0	122	
4:25 PM	3	11	3	0	1	14	6	0	1	17	9	0	3	40	7	0	115	
4:30 PM	9	11	1	0	0	19	4	0	4	16	3	0	3	54	5	0	129	
4:35 PM	7	11	7	0	2	7	5	0	4	22	6	0	5	50	6	0	132	
4:40 PM	5	9	4	0	1	20	1	0	3	19	2	0	6	51	4	0	125	
4:45 PM	5	7	1	0	4	13	5	0	1	15	5	0	2	45	4	0	107	
4:50 PM	6	11	2	0	0	22	4	0	1	20	5	0	4	60	4	0	139	
4:55 PM	5	13	0	0	0	9	1	0	2	16	5	0	6	52	7	0	116	1402
5:00 PM	4	10	2	0	4	15	9	0	0	14	9	0	4	58	7	0	136	1433
5:05 PM	3	15	3	0	4	17	7	0	4	27	4	0	2	74	9	0	169	1512
5:10 PM	8	9	3	0	3	18	6	0	3	22	7	0	5	73	10	0	167	1566
5:15 PM	5	17	5	0	5	19	6	0	2	21	6	0	3	71	6	0	166	1623
5:20 PM	5	15	6	0	5	18	8	0	0	29	12	0	3	69	7	0	177	1678
5:25 PM	4	8	2	0	5	17	7	0	2	20	6	0	1	82	12	0	166	1729
5:30 PM	4	8	2	0	4	16	6	0	1	14	5	0	1	73	9	0	143	1743
5:35 PM	6	6	3	0	1	21	3	0	1	21	11	0	0	68	7	0	148	1759
5:40 PM	1	9	6	0	6	14	2	0	5	19	8	0	3	76	3	0	152	1786
5:45 PM	2	9	2	0	7	19	3	0	1	19	9	0	6	82	6	0	165	1844
5:50 PM	6	4	0	0	2	16	3	0	1	23	10	0	3	59	7	0	134	1839
5:55 PM	4	12	4	0	1	20	10	0	0	20	4	0	7	53	6	0	141	1864

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	72	164	56	0	52	220	80	0	20	288	100	0	44	852	92	0	2040
Heavy Trucks	4	0	0		0	8	0		0	8	8		0	4	0		32
Pedestrians		44				60				92				56			252
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

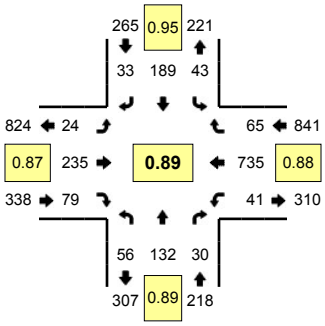
Method for determining peak hour: Total Entering Volume

LOCATION: Parker Ave -- Turk Blvd

QC JOB #: 10545948

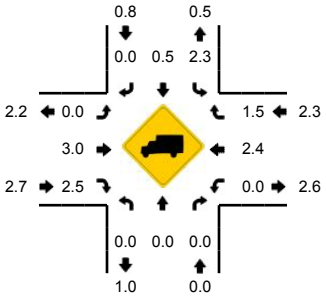
CITY/STATE: San Francisco, CA

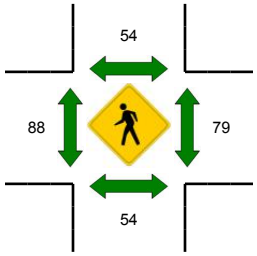
DATE: 10/14/2010

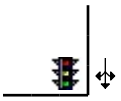


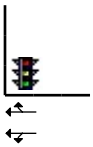
Peak-Hour: 5:00 PM -- 6:00 PM

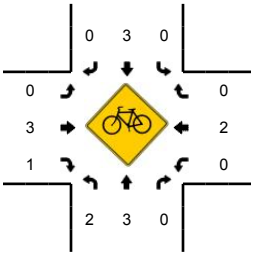
Peak 15-Min: 5:15 PM -- 5:30 PM

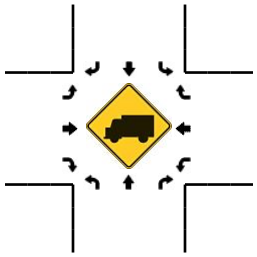


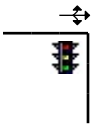


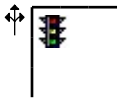


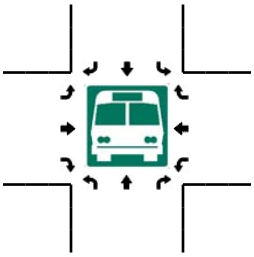












5-Min Count Period Beginning At	Parker Ave (Northbound)				Parker Ave (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	6	8	3	0	3	13	2	0	4	18	6	1	2	45	6	0	117	
4:05 PM	5	7	1	0	4	11	6	0	4	28	3	0	0	51	5	0	125	
4:10 PM	4	10	1	0	0	19	0	0	2	16	3	0	2	42	7	0	106	
4:15 PM	6	5	4	0	3	19	1	0	2	14	5	0	6	44	0	0	109	
4:20 PM	3	13	5	0	3	17	2	0	2	17	6	0	3	43	4	0	118	
4:25 PM	5	8	4	0	1	14	6	0	0	26	3	0	3	41	6	0	117	
4:30 PM	9	9	2	0	4	10	3	0	2	22	7	0	2	48	5	0	123	
4:35 PM	4	15	0	0	4	18	2	0	0	20	6	0	4	46	2	0	121	
4:40 PM	4	10	5	0	3	10	4	0	1	17	6	0	4	49	4	0	117	
4:45 PM	7	16	5	0	3	14	3	0	3	19	8	0	4	55	5	0	142	
4:50 PM	9	8	4	0	3	20	1	2	0	16	3	0	3	58	5	1	133	
4:55 PM	3	8	4	0	4	6	1	2	3	18	7	0	2	49	4	0	111	1439
5:00 PM	2	9	5	0	8	18	2	0	2	17	2	0	4	59	3	0	131	1453
5:05 PM	7	14	2	0	2	16	3	0	5	13	8	0	2	54	6	0	132	1460
5:10 PM	7	12	3	0	3	16	2	0	0	17	5	0	3	60	4	0	132	1486
5:15 PM	5	11	5	0	4	19	1	0	2	22	7	0	6	67	8	1	158	1535
5:20 PM	5	14	0	0	3	18	1	0	3	25	12	0	1	70	4	0	156	1573
5:25 PM	5	11	2	0	6	11	4	0	2	22	2	0	1	75	10	0	151	1607
5:30 PM	5	10	2	0	4	20	2	0	1	21	5	0	1	60	5	1	137	1621
5:35 PM	3	9	3	0	2	12	1	0	3	21	6	0	7	74	3	0	144	1644
5:40 PM	6	11	1	0	1	13	3	0	2	18	4	0	3	60	6	0	128	1655
5:45 PM	1	5	1	0	3	18	3	0	2	24	11	0	6	65	5	0	144	1657
5:50 PM	4	14	5	0	3	14	2	0	1	18	7	0	3	47	7	0	125	1649
5:55 PM	6	12	1	0	4	14	9	0	1	17	10	0	2	44	4	0	124	1662

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	60	144	28	0	52	192	24	0	28	276	84	0	32	848	88	4	1860
Heavy Trucks	0	0	0		4	0	0		0	16	4		0	16	0		40
Pedestrians		32				44				84				68			228
Bicycles	1	1	0		0	0	0		0	1	0		0	2	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

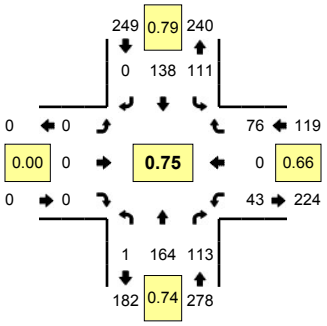
Method for determining peak hour: Total Entering Volume

LOCATION: Parker Ave -- Golden Gate Ave

QC JOB #: 10545901

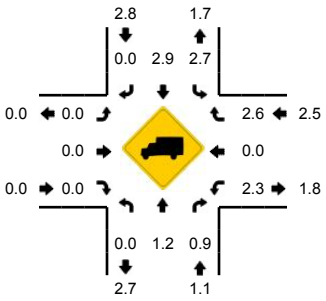
CITY/STATE: San Francisco, CA

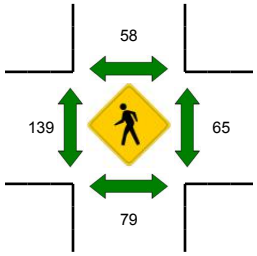
DATE: 10/19/2010

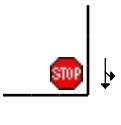


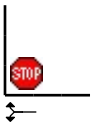
Peak-Hour: 7:45 AM -- 8:45 AM

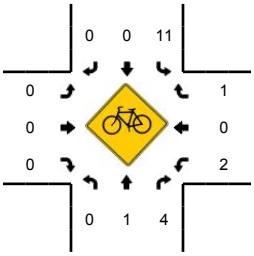
Peak 15-Min: 7:45 AM -- 8:00 AM

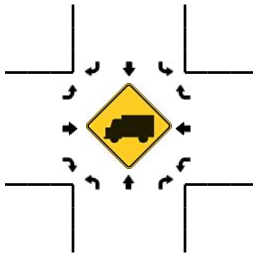


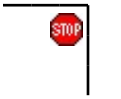


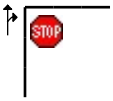


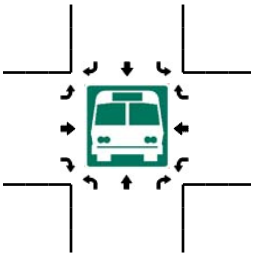












5-Min Count Period Beginning At	Parker Ave (Northbound)				Parker Ave (Southbound)				Golden Gate Ave (Eastbound)				Golden Gate Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	1	5	1	4	3	0	0	0	0	0	0	3	0	1	0	18	
7:05 AM	0	4	5	0	2	6	0	0	0	0	0	0	1	0	1	1	20	
7:10 AM	0	8	3	0	5	13	0	0	0	0	0	0	5	0	1	0	35	
7:15 AM	0	9	3	0	4	5	0	0	0	0	0	0	2	0	4	0	27	
7:20 AM	0	10	6	0	3	5	0	0	0	0	0	0	4	0	1	0	29	
7:25 AM	0	6	8	0	6	6	0	0	0	0	0	0	2	0	5	0	33	
7:30 AM	0	11	6	0	9	7	0	0	0	0	0	0	4	0	2	0	39	
7:35 AM	0	9	7	0	4	5	0	0	0	0	0	0	1	0	6	0	32	
7:40 AM	0	6	13	0	11	3	0	0	0	0	0	0	4	0	2	0	39	
7:45 AM	0	15	11	0	10	14	0	0	0	0	0	0	4	0	7	0	61	
7:50 AM	0	18	12	0	15	11	0	0	0	0	0	0	5	0	12	0	73	
7:55 AM	0	22	15	0	19	10	0	0	0	0	0	0	4	0	11	0	81	487
8:00 AM	0	11	15	1	3	7	0	0	0	0	0	0	4	0	9	0	50	519
8:05 AM	0	12	12	0	7	19	0	0	0	0	0	0	2	0	6	0	58	557
8:10 AM	0	12	7	0	12	8	0	0	0	0	0	0	1	0	5	0	45	567
8:15 AM	0	10	6	0	9	16	0	0	0	0	0	0	3	0	5	0	49	589
8:20 AM	0	16	9	0	7	13	0	0	0	0	0	0	8	0	6	0	59	619
8:25 AM	0	13	5	0	5	5	0	0	0	0	0	0	0	0	2	0	30	616
8:30 AM	0	14	8	0	11	16	0	0	0	0	0	0	2	0	6	0	57	634
8:35 AM	0	7	6	0	9	10	0	0	0	0	0	0	6	0	5	0	43	645
8:40 AM	0	14	7	0	4	9	0	0	0	0	0	0	4	0	2	0	40	646
8:45 AM	0	12	8	0	5	14	0	0	0	0	0	0	2	0	2	0	43	628
8:50 AM	0	15	5	0	10	11	0	0	0	0	0	0	6	0	4	0	51	606
8:55 AM	0	8	8	0	11	10	0	0	0	0	0	0	2	0	3	0	42	567

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	220	152	0	176	140	0	0	0	0	0	0	52	0	120	0	860
Heavy Trucks	0	0	0		0	4	0		0	0	0		0	0	0		4
Pedestrians		100				68				152				64			384
Bicycles	0	0	0		5	0	0		0	0	0		0	0	0		5
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

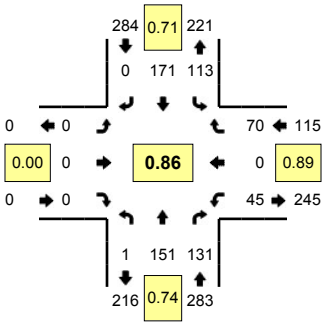
Method for determining peak hour: Total Entering Volume

LOCATION: Parker Ave -- Golden Gate Ave

QC JOB #: 10545903

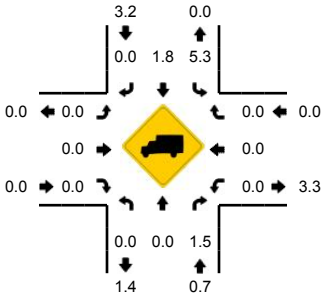
CITY/STATE: San Francisco, CA

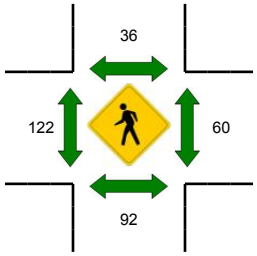
DATE: 10/14/2010

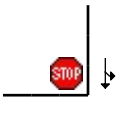


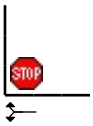
Peak-Hour: 7:40 AM -- 8:40 AM

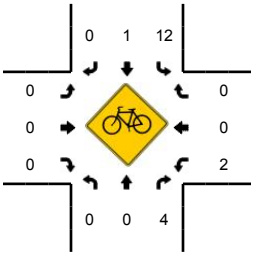
Peak 15-Min: 7:50 AM -- 8:05 AM

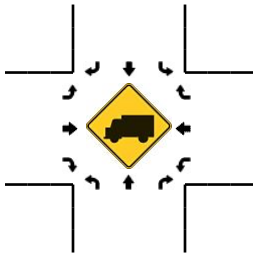


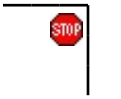


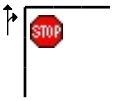


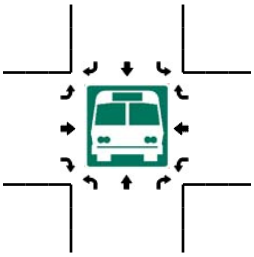












5-Min Count Period Beginning At	Parker Ave (Northbound)				Parker Ave (Southbound)				Golden Gate Ave (Eastbound)				Golden Gate Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	5	4	0	4	6	0	0	0	0	0	0	4	0	2	0	25	
7:05 AM	0	4	3	0	4	7	0	0	0	0	0	0	3	0	2	0	23	
7:10 AM	0	6	4	0	1	8	0	0	0	0	0	0	0	0	0	0	19	
7:15 AM	0	4	5	0	2	9	0	0	0	0	0	0	4	0	3	0	27	
7:20 AM	0	6	5	0	5	5	0	0	0	0	0	0	3	0	3	0	27	
7:25 AM	0	8	8	0	5	3	0	1	0	0	0	0	1	0	5	0	31	
7:30 AM	0	16	6	0	9	9	0	0	0	0	0	0	3	0	7	0	50	
7:35 AM	0	10	11	0	7	7	0	0	0	0	0	0	2	0	7	0	44	
7:40 AM	0	17	12	1	6	10	0	0	0	0	0	0	8	0	4	0	58	
7:45 AM	0	14	19	0	10	10	0	0	0	0	0	0	6	0	7	0	66	
7:50 AM	0	13	21	0	7	10	0	0	0	0	0	0	4	0	5	0	60	
7:55 AM	0	13	10	0	24	15	0	0	0	0	0	0	4	0	6	0	72	502
8:00 AM	0	18	8	0	5	22	0	0	0	0	0	0	2	0	12	0	67	544
8:05 AM	0	6	6	0	17	17	0	0	0	0	0	0	3	0	7	0	56	577
8:10 AM	0	19	8	0	6	10	0	0	0	0	0	0	2	0	5	0	50	608
8:15 AM	0	9	10	0	11	11	0	0	0	0	0	0	2	0	7	0	50	631
8:20 AM	0	12	13	0	6	18	0	0	0	0	0	0	0	0	8	1	58	662
8:25 AM	0	11	3	0	7	13	0	0	0	0	0	0	5	0	4	0	43	674
8:30 AM	0	7	11	0	3	24	0	0	0	0	0	0	3	0	3	0	51	675
8:35 AM	0	12	10	0	11	11	0	0	0	0	0	0	5	0	2	0	51	682
8:40 AM	0	7	9	0	5	7	0	0	0	0	0	0	3	0	5	0	36	660
8:45 AM	0	9	4	0	6	11	0	0	0	0	0	0	2	0	1	0	33	627
8:50 AM	0	14	4	0	7	9	0	0	0	0	0	0	3	0	2	0	39	606
8:55 AM	0	16	5	0	5	12	0	0	0	0	0	0	1	0	4	0	43	577

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	176	156	0	144	188	0	0	0	0	0	0	40	0	92	0	796
Heavy Trucks	0	0	0		4	0	0		0	0	0		0	0	0		4
Pedestrians		120				64				144				92			420
Bicycles	0	0	3		4	0	0		0	0	0		0	0	0		7
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

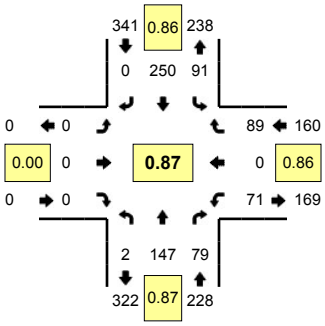
Method for determining peak hour: Total Entering Volume

LOCATION: Parker Ave -- Golden Gate Ave

QC JOB #: 10545904

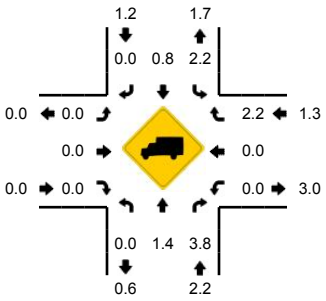
CITY/STATE: San Francisco, CA

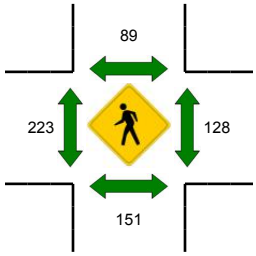
DATE: 10/19/2010

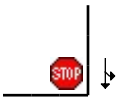


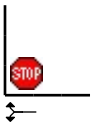
Peak-Hour: 4:25 PM -- 5:25 PM

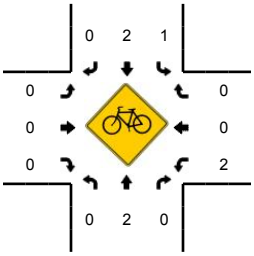
Peak 15-Min: 5:10 PM -- 5:25 PM

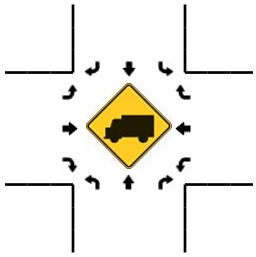


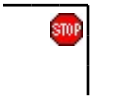


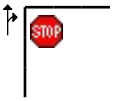


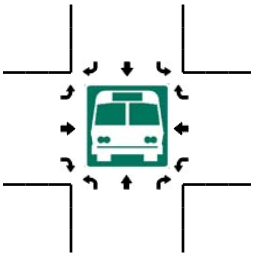












5-Min Count Period Beginning At	Parker Ave (Northbound)				Parker Ave (Southbound)				Golden Gate Ave (Eastbound)				Golden Gate Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	14	5	0	4	13	0	1	0	0	0	0	3	0	7	0	47	
4:05 PM	0	8	10	0	5	15	0	0	0	0	0	0	6	0	7	0	51	
4:10 PM	0	12	7	0	6	20	0	0	0	0	0	0	6	0	10	0	61	
4:15 PM	0	16	6	0	7	13	0	0	0	0	0	0	4	0	3	0	49	
4:20 PM	0	9	7	0	5	17	0	0	0	0	0	0	12	0	10	0	60	
4:25 PM	0	11	6	0	9	23	0	0	0	0	0	0	5	0	8	0	62	
4:30 PM	0	16	7	0	9	20	0	0	0	0	0	0	7	0	7	0	66	
4:35 PM	0	16	9	0	7	14	0	0	0	0	0	0	9	0	9	0	64	
4:40 PM	0	9	7	1	9	24	0	0	0	0	0	0	6	0	10	0	66	
4:45 PM	0	8	9	0	4	16	0	0	0	0	0	0	6	0	3	0	46	
4:50 PM	0	10	6	0	8	22	0	0	0	0	0	0	2	0	7	0	55	
4:55 PM	0	11	6	0	3	18	0	2	0	0	0	0	5	0	4	0	49	676
5:00 PM	0	10	6	0	7	21	0	0	0	0	0	0	7	0	8	0	59	688
5:05 PM	0	14	5	0	6	18	0	0	0	0	0	0	4	0	5	0	52	689
5:10 PM	0	10	4	0	7	28	0	0	0	0	0	0	7	0	9	1	66	694
5:15 PM	0	15	6	0	6	24	0	0	0	0	0	0	5	0	12	0	68	713
5:20 PM	0	17	8	1	14	22	0	0	0	0	0	0	7	0	7	0	76	729
5:25 PM	0	10	9	0	6	19	0	0	0	0	0	0	9	0	4	0	57	724
5:30 PM	0	10	9	0	6	16	0	2	0	0	0	0	3	0	4	0	50	708
5:35 PM	0	5	8	0	9	20	0	0	0	0	0	0	9	0	12	0	63	707
5:40 PM	0	16	11	0	7	18	0	0	0	0	0	0	6	0	1	0	59	700
5:45 PM	0	7	10	0	10	14	0	0	0	0	0	0	5	0	5	0	51	705
5:50 PM	0	3	6	0	11	20	0	0	0	0	0	0	2	0	7	0	49	699
5:55 PM	0	16	9	0	13	21	0	1	0	0	0	0	9	0	5	0	74	724

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	168	72	4	108	296	0	0	0	0	0	0	76	0	112	4	840
Heavy Trucks	0	4	0		4	4	0		0	0	0		0	0	4		16
Pedestrians		108				76				180				96			460
Bicycles	0	0	0		0	1	0		0	0	0		1	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

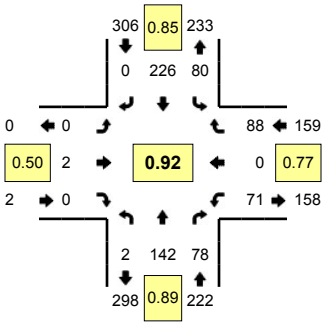
Method for determining peak hour: Total Entering Volume

LOCATION: Parker Ave -- Golden Gate Ave

QC JOB #: 10545906

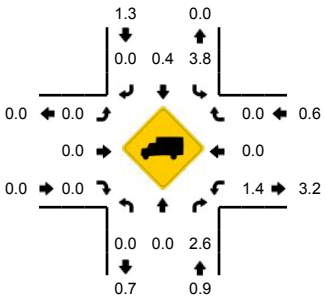
CITY/STATE: San Francisco, CA

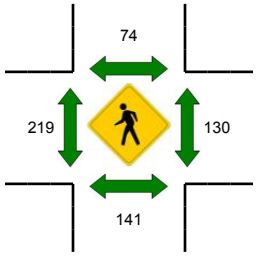
DATE: 10/14/2010

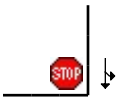


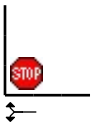
Peak-Hour: 4:25 PM -- 5:25 PM

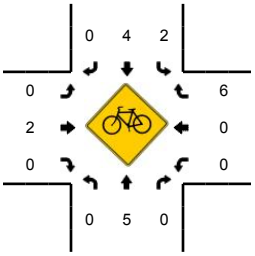
Peak 15-Min: 4:35 PM -- 4:50 PM

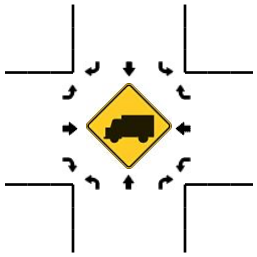


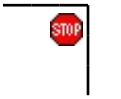


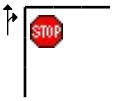


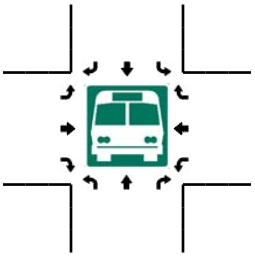












5-Min Count Period Beginning At	Parker Ave (Northbound)				Parker Ave (Southbound)				Golden Gate Ave (Eastbound)				Golden Gate Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	7	4	0	7	15	0	1	0	0	0	0	5	0	9	0	48	
4:05 PM	0	10	8	0	2	16	0	0	0	0	0	0	5	0	4	0	45	
4:10 PM	0	7	4	0	5	12	0	0	0	0	0	0	1	0	6	0	35	
4:15 PM	0	10	9	0	9	25	0	0	0	0	0	0	7	0	8	0	68	
4:20 PM	0	19	4	0	9	17	0	0	0	0	0	0	4	0	4	0	57	
4:25 PM	0	10	7	0	5	14	0	0	0	0	0	0	7	0	8	0	51	
4:30 PM	0	10	5	0	6	20	0	0	0	0	0	0	4	0	8	0	53	
4:35 PM	0	9	9	0	8	18	0	0	0	0	0	0	8	0	9	0	61	
4:40 PM	0	10	9	0	3	18	0	0	0	1	0	0	9	0	9	0	59	
4:45 PM	0	17	9	0	8	15	0	0	0	0	0	0	9	0	9	0	67	
4:50 PM	0	12	5	1	3	23	0	1	0	0	0	0	4	0	10	0	59	
4:55 PM	0	8	7	0	3	16	0	0	0	1	0	0	4	0	6	0	45	648
5:00 PM	0	9	4	0	6	16	0	0	0	0	0	0	5	0	4	1	45	645
5:05 PM	0	11	7	0	9	20	0	0	0	0	0	0	6	0	9	0	62	662
5:10 PM	0	15	3	0	8	19	0	0	0	0	0	0	5	0	6	0	56	683
5:15 PM	0	16	7	1	8	19	0	1	0	0	0	0	4	0	6	0	62	677
5:20 PM	0	15	6	0	10	28	0	1	0	0	0	0	5	0	4	0	69	689
5:25 PM	0	8	4	0	4	9	0	0	0	2	0	0	4	0	10	0	41	679
5:30 PM	0	14	6	0	10	12	0	0	0	0	0	0	6	0	4	0	52	678
5:35 PM	0	9	6	0	4	21	0	0	0	0	0	0	10	0	6	0	56	673
5:40 PM	0	16	5	0	6	17	0	0	0	0	0	0	4	0	3	0	51	665
5:45 PM	0	5	7	0	10	28	0	0	0	0	0	0	8	0	3	0	61	659
5:50 PM	0	16	7	0	10	19	0	0	0	0	0	0	5	0	6	0	63	663
5:55 PM	0	9	5	1	9	17	0	0	0	0	0	0	4	0	7	1	53	671

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	144	108	0	76	204	0	0	0	4	0	0	104	0	108	0	748
Heavy Trucks	0	0	8		0	0	0		0	0	0		4	0	0		12
Pedestrians		120				76				168				80			444
Bicycles	0	0	0		0	0	0		0	1	0		0	0	3		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

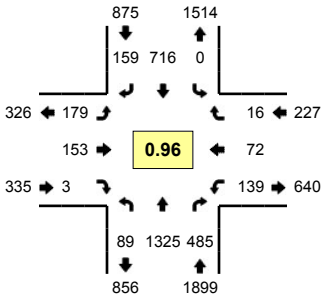
LOCATION: Masonic Ave -- Geary Blvd

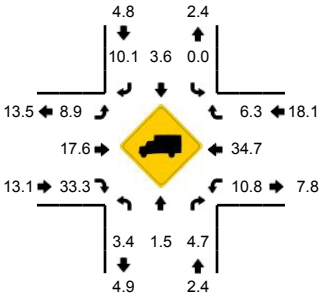
QC JOB #: 10652729

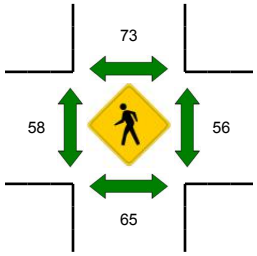
CITY/STATE: San Francisco, CA

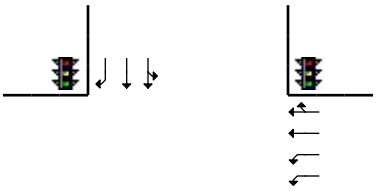
DATE: Tue, Sep 13 2011

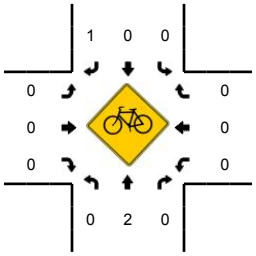
Peak-Hour: 7:55 AM -- 8:55 AM
Peak 15-Min: 8:15 AM -- 8:30 AM

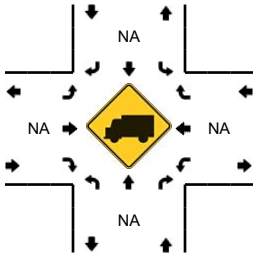


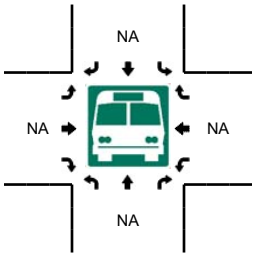












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	41	12	0	0	23	7	0	6	11	0	0	7	5	0	0	116	
7:05 AM	3	39	8	0	0	32	4	0	14	7	0	0	7	1	0	0	115	
7:10 AM	3	51	15	0	0	27	9	0	12	4	1	0	4	8	0	0	134	
7:15 AM	4	56	9	0	0	29	9	0	10	6	1	0	6	4	2	1	137	
7:20 AM	10	79	19	0	0	23	8	0	11	7	1	0	11	3	2	0	174	
7:25 AM	1	74	11	0	0	34	4	0	8	12	0	0	8	4	3	0	159	
7:30 AM	5	105	25	0	0	31	7	0	13	11	0	0	11	7	0	0	215	
7:35 AM	7	99	20	0	0	53	2	0	13	7	1	1	12	3	0	0	218	
7:40 AM	3	87	20	0	0	59	9	0	17	19	0	0	9	6	1	0	230	
7:45 AM	4	109	29	0	0	54	7	0	13	18	0	1	10	5	2	0	252	
7:50 AM	3	126	35	0	0	53	8	0	12	11	0	0	20	1	2	0	271	
7:55 AM	7	92	29	0	0	72	11	0	18	16	1	0	10	6	0	0	262	2283
8:00 AM	6	120	41	0	0	74	11	0	14	12	0	1	7	3	2	0	291	2458
8:05 AM	9	115	39	0	0	71	16	0	15	12	0	0	10	3	2	1	293	2636
8:10 AM	9	101	46	0	0	56	13	0	11	14	0	1	5	8	0	0	264	2766
8:15 AM	8	116	36	0	0	75	7	0	13	13	0	0	11	8	2	0	289	2918
8:20 AM	7	123	43	0	0	66	22	0	16	6	0	1	15	3	2	0	304	3048
8:25 AM	10	94	39	0	0	55	19	0	16	20	0	0	10	12	0	0	275	3164
8:30 AM	6	123	35	0	0	54	11	0	12	15	0	1	14	6	1	0	278	3227
8:35 AM	8	111	38	0	0	52	10	0	16	5	0	1	16	4	3	0	264	3273
8:40 AM	7	92	45	0	0	45	12	0	13	11	1	0	13	9	0	0	248	3291
8:45 AM	2	117	46	0	0	53	18	0	17	17	0	0	10	7	2	0	289	3328
8:50 AM	10	121	48	0	0	43	9	0	12	12	1	1	16	3	2	1	279	3336
8:55 AM	8	96	32	0	0	49	12	0	13	20	0	1	10	10	0	0	251	3325

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	100	1332	472	0	0	784	192	0	180	156	0	4	144	92	16	0	3472
Heavy Trucks	0	28	20		0	28	24		24	24	0		20	32	4		204
Pedestrians		68				76				76				28			248
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

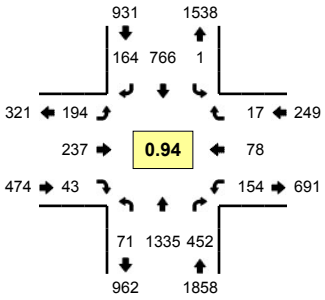
LOCATION: Masonic Ave -- Geary Blvd

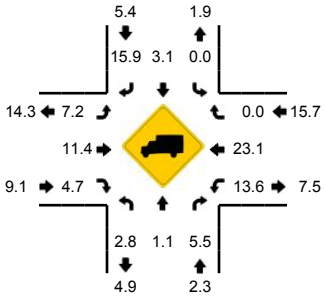
QC JOB #: 10652730

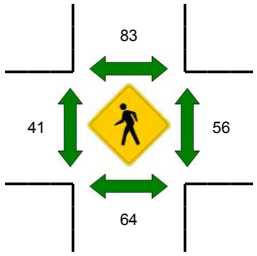
CITY/STATE: San Francisco, CA

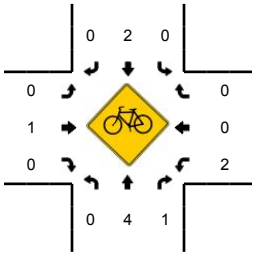
DATE: Thu, Sep 08 2011

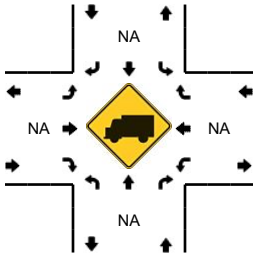
Peak-Hour: 7:50 AM -- 8:50 AM
Peak 15-Min: 8:15 AM -- 8:30 AM

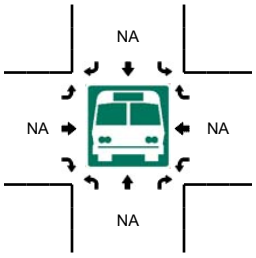












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	44	16	0	0	29	4	0	4	6	2	1	6	4	0	0	118	
7:05 AM	3	36	10	0	0	19	3	0	12	9	3	0	10	7	0	0	112	
7:10 AM	1	54	12	0	0	34	5	0	8	6	2	0	2	4	1	0	129	
7:15 AM	2	57	21	0	0	21	8	0	13	13	2	0	8	4	0	1	150	
7:20 AM	3	63	18	0	0	20	5	0	16	12	3	0	8	4	1	0	153	
7:25 AM	1	88	18	0	0	30	11	0	4	11	5	0	9	4	2	0	183	
7:30 AM	6	105	26	0	0	37	6	0	9	9	2	1	7	2	1	0	211	
7:35 AM	5	83	29	0	0	42	8	0	12	13	9	3	15	3	0	0	222	
7:40 AM	4	119	27	0	0	51	7	0	17	16	10	0	11	5	1	0	268	
7:45 AM	5	123	28	0	0	60	5	0	12	15	8	1	10	2	3	0	272	
7:50 AM	5	105	30	0	1	49	8	0	21	25	5	0	19	4	2	0	274	
7:55 AM	4	116	30	0	0	64	17	0	18	24	4	0	13	3	2	0	295	2387
8:00 AM	9	119	49	0	0	73	14	0	15	19	2	0	7	7	0	0	314	2583
8:05 AM	5	98	41	0	0	58	16	0	19	15	9	1	15	5	1	0	283	2754
8:10 AM	9	103	44	0	0	72	18	0	8	19	4	1	14	6	2	1	301	2926
8:15 AM	6	129	36	0	0	85	10	0	16	16	0	2	13	9	1	0	323	3099
8:20 AM	3	105	36	0	0	64	16	0	20	26	4	1	14	11	2	0	302	3248
8:25 AM	7	108	53	0	0	69	14	0	18	17	6	1	8	5	1	0	307	3372
8:30 AM	8	117	38	0	0	71	15	0	17	19	1	1	15	9	2	0	313	3474
8:35 AM	6	95	34	0	0	37	10	0	20	20	5	1	19	7	2	0	256	3508
8:40 AM	4	113	34	0	0	61	11	0	5	15	1	0	7	5	2	0	258	3498
8:45 AM	5	127	27	0	0	63	15	0	9	22	2	0	9	7	0	0	286	3512
8:50 AM	10	95	39	0	0	42	6	0	13	8	2	0	19	12	1	0	247	3485
8:55 AM	10	109	32	0	0	50	15	0	10	17	6	0	8	6	1	0	264	3454

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	1368	500	0	0	872	160	0	216	236	40	16	140	100	16	0	3728
Heavy Trucks	4	16	32		0	28	20		8	24	0		32	16	0		180
Pedestrians		36				80				32				24			172
Bicycles	0	1	0		0	0	0		0	1	0		1	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Geary Blvd

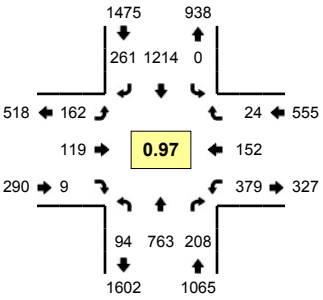
QC JOB #: 10652731

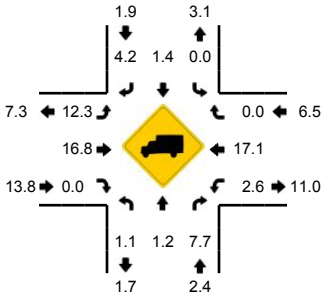
CITY/STATE: San Francisco, CA

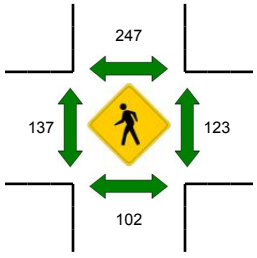
DATE: Tue, Sep 13 2011

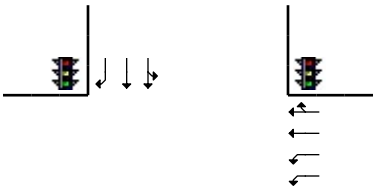
Peak-Hour: 5:00 PM -- 6:00 PM

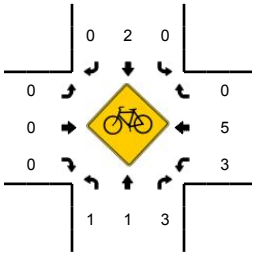
Peak 15-Min: 5:30 PM -- 5:45 PM

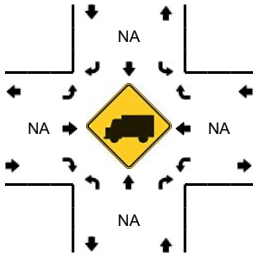


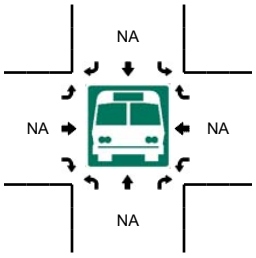












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	7	70	16	0	0	90	16	0	5	7	2	0	25	9	0	0	247	
4:05 PM	8	53	15	1	0	59	14	0	8	12	1	0	36	7	1	0	215	
4:10 PM	5	52	24	0	0	85	18	0	9	7	0	1	31	5	3	0	240	
4:15 PM	6	68	20	0	0	103	27	0	9	16	0	1	28	10	1	0	289	
4:20 PM	6	54	17	0	0	70	15	0	11	11	0	0	38	4	1	1	228	
4:25 PM	4	62	20	0	0	90	29	0	7	11	0	0	22	15	0	0	260	
4:30 PM	12	72	15	0	0	79	14	0	13	9	0	1	31	13	0	0	259	
4:35 PM	5	54	13	0	0	85	17	0	14	15	0	1	37	16	1	0	258	
4:40 PM	9	49	16	0	0	89	19	0	14	7	0	0	30	6	0	0	239	
4:45 PM	8	58	12	0	0	109	24	0	9	9	1	2	28	9	3	0	272	
4:50 PM	4	64	16	0	0	99	17	0	15	11	0	0	28	13	1	1	269	
4:55 PM	4	57	13	0	0	97	22	0	8	7	0	1	28	5	2	0	244	3020
5:00 PM	9	71	22	0	0	118	21	0	8	5	1	0	27	8	0	0	290	3063
5:05 PM	7	48	16	0	0	92	27	0	13	9	1	1	34	10	2	0	260	3108
5:10 PM	8	65	16	0	0	96	14	0	12	14	1	1	25	11	1	0	264	3132
5:15 PM	3	74	18	0	0	114	24	0	14	10	1	0	30	7	2	0	297	3140
5:20 PM	10	62	17	0	0	89	31	0	17	9	1	0	40	17	4	0	297	3209
5:25 PM	10	45	16	0	0	101	22	0	13	11	0	0	32	10	1	0	261	3210
5:30 PM	9	78	21	0	0	115	20	0	11	9	0	3	28	18	0	0	312	3263
5:35 PM	8	66	14	0	0	92	18	0	15	8	1	0	39	14	2	0	277	3282
5:40 PM	6	66	22	0	0	93	19	0	13	11	1	1	26	22	4	0	284	3327
5:45 PM	7	79	15	0	0	111	22	0	9	10	0	3	29	10	6	0	301	3356
5:50 PM	8	51	16	0	0	92	22	0	18	12	0	1	41	14	1	0	276	3363
5:55 PM	9	58	15	0	0	101	21	0	8	11	2	1	28	11	1	0	266	3385

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	92	840	228	0	0	1200	228	0	156	112	8	16	372	216	24	0	3492
Heavy Trucks	0	12	20		0	8	12		20	28	0		16	28	0		144
Pedestrians		84				272				96				120			572
Bicycles	1	0	0		0	0	0		0	0	0		1	1	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Geary Blvd

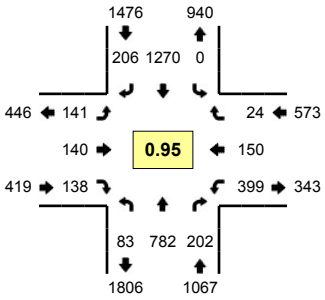
QC JOB #: 10652732

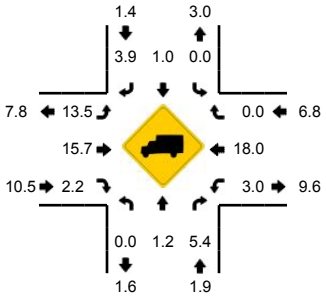
CITY/STATE: San Francisco, CA

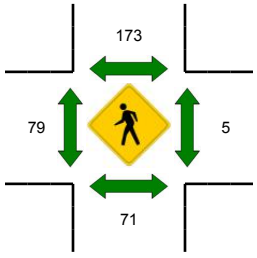
DATE: Thu, Sep 08 2011

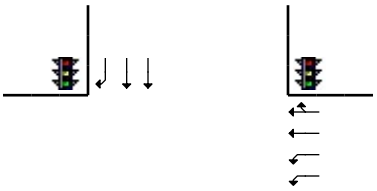
Peak-Hour: 5:00 PM -- 6:00 PM

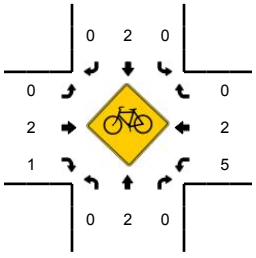
Peak 15-Min: 5:15 PM -- 5:30 PM

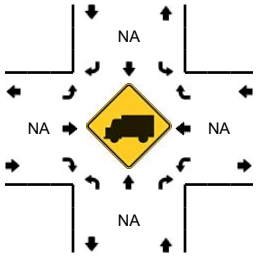


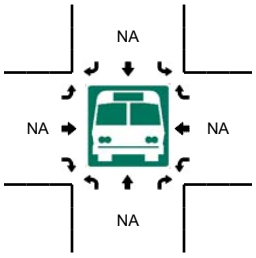












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Geary Blvd (Eastbound)				Geary Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	9	53	15	0	0	80	21	0	16	10	7	0	40	7	1	1	260	
4:05 PM	7	48	15	0	0	63	19	0	5	9	5	2	30	11	0	0	214	
4:10 PM	4	57	11	0	0	113	17	0	13	23	14	1	30	11	2	0	296	
4:15 PM	9	52	21	0	0	91	19	0	12	8	10	0	38	11	2	0	273	
4:20 PM	4	72	12	0	0	77	23	0	6	9	5	1	28	14	2	0	253	
4:25 PM	10	64	18	0	0	106	16	0	9	15	6	1	28	9	1	0	283	
4:30 PM	8	51	11	0	0	86	31	0	11	12	12	0	35	4	2	0	263	
4:35 PM	7	66	18	0	0	75	22	0	12	13	5	1	31	10	0	0	260	
4:40 PM	8	65	18	0	0	110	18	0	10	12	7	0	31	6	2	0	287	
4:45 PM	9	52	24	0	0	103	16	0	11	12	6	2	38	7	0	0	280	
4:50 PM	10	54	13	0	0	85	22	0	11	9	8	0	29	19	0	0	260	
4:55 PM	13	73	15	0	0	105	24	0	12	14	12	0	25	9	2	0	304	3233
5:00 PM	11	42	19	0	0	78	21	0	6	13	5	0	37	13	3	1	249	3222
5:05 PM	2	57	14	0	0	90	16	0	10	7	18	1	31	19	1	0	266	3274
5:10 PM	7	57	29	0	0	121	15	0	12	10	8	1	28	8	1	0	297	3275
5:15 PM	9	66	15	0	0	111	20	0	15	14	22	1	41	11	4	0	329	3331
5:20 PM	7	68	21	0	0	93	9	0	12	14	11	1	30	22	1	0	289	3367
5:25 PM	4	92	13	0	0	124	21	0	4	13	13	0	27	3	2	0	316	3400
5:30 PM	8	65	16	0	0	105	17	0	14	14	11	0	37	12	2	0	301	3438
5:35 PM	7	51	18	0	0	95	13	0	11	12	8	0	28	19	2	0	264	3442
5:40 PM	6	80	16	0	0	123	23	0	16	11	11	0	31	14	3	0	334	3489
5:45 PM	8	69	15	0	0	107	25	0	19	4	15	1	39	8	1	0	311	3520
5:50 PM	4	60	12	0	0	98	13	0	6	13	8	1	34	14	2	0	265	3525
5:55 PM	10	75	14	0	0	125	13	0	9	15	8	1	35	7	2	0	314	3535

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	80	904	196	0	0	1312	200	0	124	164	184	8	392	144	28	0	3736
Heavy Trucks	0	8	8		0	4	8		12	28	4		16	28	0		116
Pedestrians		68				124				72				0			264
Bicycles	0	0	0		0	0	0		0	2	0		2	2	0		6
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

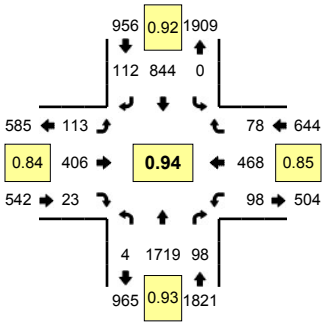
Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Turk Blvd

QC JOB #: 10545925

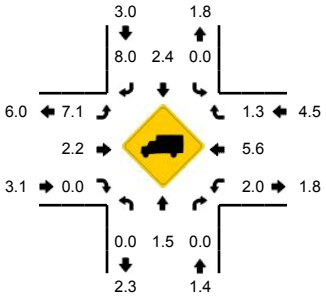
CITY/STATE: San Francisco, CA

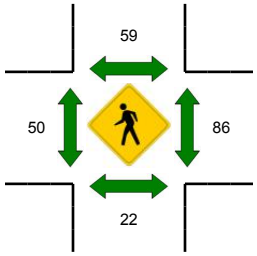
DATE: 10/19/2010

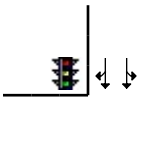


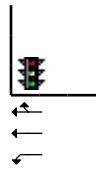
Peak-Hour: 7:40 AM -- 8:40 AM

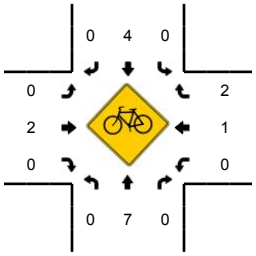
Peak 15-Min: 7:45 AM -- 8:00 AM

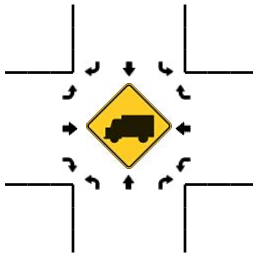


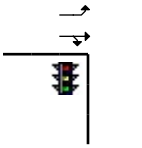


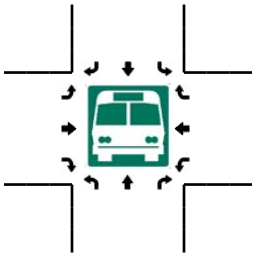












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	58	1	0	1	19	4	0	3	1	1	0	4	15	4	0	112	
7:05 AM	0	49	3	0	0	24	6	0	1	10	1	0	4	11	5	0	114	
7:10 AM	1	54	3	0	0	31	5	0	2	4	5	0	6	14	2	0	127	
7:15 AM	0	88	3	0	0	33	7	0	5	10	1	0	3	17	0	0	167	
7:20 AM	0	86	3	0	0	30	5	0	6	16	3	0	8	12	3	0	172	
7:25 AM	0	78	3	0	0	76	1	0	11	15	0	0	7	18	2	0	211	
7:30 AM	1	128	11	0	0	33	1	0	8	13	0	0	8	17	6	0	226	
7:35 AM	0	121	7	0	0	48	6	0	5	21	1	0	12	23	7	0	251	
7:40 AM	0	130	6	0	0	51	7	0	10	41	0	0	6	39	8	0	298	
7:45 AM	0	163	15	0	0	68	16	0	9	31	1	0	11	33	6	0	353	
7:50 AM	2	149	13	0	0	71	6	0	8	37	6	0	7	53	8	0	360	
7:55 AM	1	133	12	0	0	65	7	0	11	41	3	0	11	48	12	0	344	2735
8:00 AM	0	138	14	0	0	85	7	0	14	40	1	0	7	33	8	0	347	2970
8:05 AM	0	147	8	0	0	79	10	0	7	40	1	0	9	33	6	0	340	3196
8:10 AM	0	127	5	0	0	75	9	0	10	41	1	0	12	45	5	0	330	3399
8:15 AM	1	171	7	0	0	68	7	0	5	26	3	0	8	37	7	0	340	3572
8:20 AM	0	145	4	0	0	66	7	0	7	29	0	1	4	38	6	0	307	3707
8:25 AM	0	124	6	0	0	79	10	0	11	27	2	0	8	38	5	0	310	3806
8:30 AM	0	153	4	0	0	81	21	0	8	30	2	0	6	41	2	0	348	3928
8:35 AM	0	139	4	0	0	56	5	0	12	23	3	0	9	30	5	0	286	3963
8:40 AM	0	129	5	0	0	65	11	0	10	31	3	0	4	30	5	0	293	3958
8:45 AM	0	154	0	0	0	63	8	0	8	32	0	0	5	36	13	0	319	3924
8:50 AM	0	138	7	0	0	67	8	0	6	33	3	0	9	34	10	0	315	3879
8:55 AM	0	114	6	0	0	58	7	0	12	28	0	0	5	27	7	0	264	3799

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	1780	160	0	0	816	116	0	112	436	40	0	116	536	104	0	4228
Heavy Trucks	0	32	0		0	16	12		12	12	0		0	12	4		100
Pedestrians		24				116				56				96			292
Bicycles	0	3	0		0	1	0		0	0	0		0	0	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

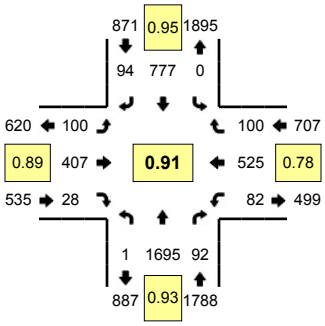
Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Turk Blvd

QC JOB #: 10545927

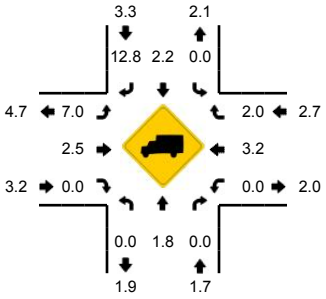
CITY/STATE: San Francisco, CA

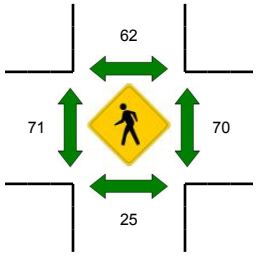
DATE: 10/14/2010

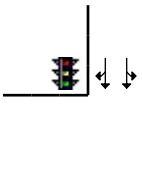


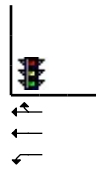
Peak-Hour: 7:40 AM -- 8:40 AM

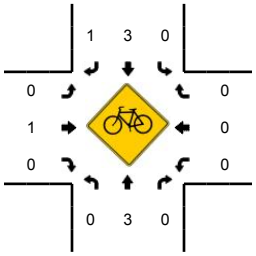
Peak 15-Min: 7:50 AM -- 8:05 AM

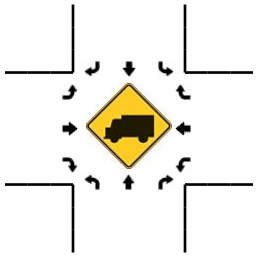


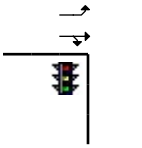


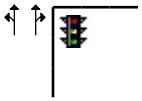


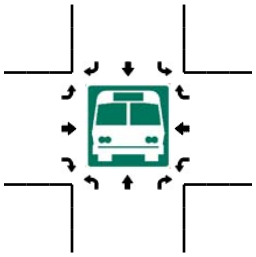












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	53	2	0	0	32	7	0	5	9	2	0	4	15	4	0	133	
7:05 AM	0	56	2	0	0	26	2	0	3	11	2	0	3	14	1	0	120	
7:10 AM	1	69	2	0	0	31	6	0	4	14	0	0	2	20	3	0	152	
7:15 AM	0	68	2	0	0	23	3	0	4	10	0	0	8	16	5	0	139	
7:20 AM	0	90	2	0	0	30	7	0	7	12	1	0	3	11	2	0	165	
7:25 AM	0	102	3	0	0	34	9	0	7	9	0	0	7	23	3	0	197	
7:30 AM	0	87	8	0	0	39	4	0	13	19	4	0	6	28	4	0	212	
7:35 AM	0	128	4	0	0	53	12	0	4	26	1	0	3	22	8	0	261	
7:40 AM	0	154	11	0	0	54	8	0	8	31	2	0	9	35	9	0	321	
7:45 AM	0	130	7	0	0	52	6	0	9	45	3	0	9	51	11	0	323	
7:50 AM	0	148	22	0	0	69	12	0	6	28	3	0	6	53	7	0	354	
7:55 AM	1	146	11	0	0	74	7	0	5	37	1	0	9	58	12	0	361	2738
8:00 AM	0	143	10	0	0	57	9	0	9	44	0	0	9	61	11	0	353	2958
8:05 AM	0	146	5	0	0	80	10	0	10	41	3	0	8	31	9	0	343	3181
8:10 AM	0	152	5	0	0	65	7	0	4	31	0	0	5	30	8	0	307	3336
8:15 AM	0	133	5	0	0	68	7	0	7	37	2	0	5	44	11	0	319	3516
8:20 AM	0	134	2	0	0	76	10	0	7	36	7	0	5	43	5	0	325	3676
8:25 AM	0	144	6	0	0	57	6	0	19	28	4	0	7	41	8	0	320	3799
8:30 AM	0	118	1	0	0	58	6	0	10	21	1	0	4	42	7	0	268	3855
8:35 AM	0	147	7	0	0	67	6	0	6	28	2	0	6	36	2	0	307	3901
8:40 AM	0	130	5	0	0	61	7	0	11	26	1	0	4	28	4	0	277	3857
8:45 AM	0	126	4	0	0	68	6	0	2	31	2	0	7	40	14	0	300	3834
8:50 AM	0	153	2	0	0	78	9	0	9	32	2	0	4	28	6	0	323	3803
8:55 AM	2	123	2	0	0	58	5	0	9	25	0	0	6	26	3	0	259	3701

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	1748	172	0	0	800	112	0	80	436	16	0	96	688	120	0	4272
Heavy Trucks	0	16	0		0	24	20		16	8	0		0	8	0		92
Pedestrians		24				68				64				108			264
Bicycles	0	1	0		0	1	0		0	0	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

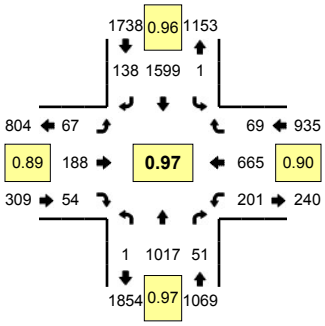
Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Turk Blvd

QC JOB #: 10545928

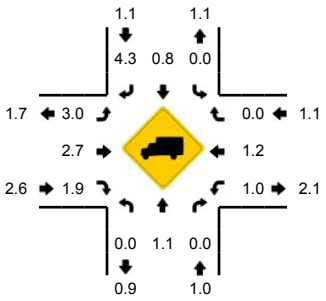
CITY/STATE: San Francisco, CA

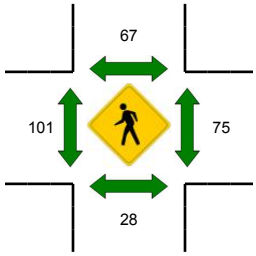
DATE: 10/20/2010

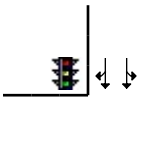


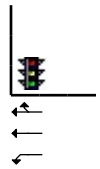
Peak-Hour: 5:00 PM -- 6:00 PM

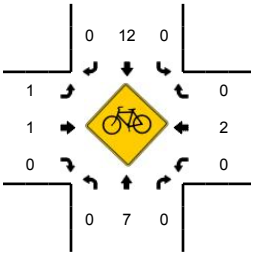
Peak 15-Min: 5:20 PM -- 5:35 PM

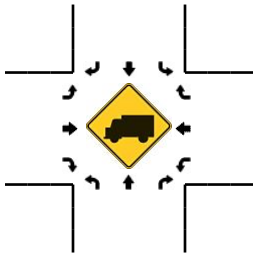


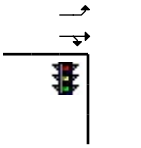


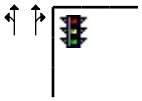


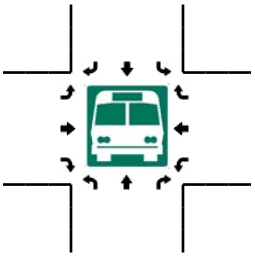












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	86	1	0	1	118	9	0	6	19	6	0	11	33	5	0	296	
4:05 PM	0	99	4	0	0	87	10	0	3	20	1	0	12	44	4	0	284	
4:10 PM	0	63	5	0	0	100	13	0	8	20	5	0	11	49	5	0	279	
4:15 PM	0	82	4	0	0	107	16	0	5	14	1	0	8	30	5	0	272	
4:20 PM	0	91	2	0	0	109	11	0	9	15	4	0	12	48	6	0	307	
4:25 PM	0	74	3	0	0	82	16	0	4	20	4	0	15	46	7	0	271	
4:30 PM	0	101	3	0	1	139	13	0	5	10	2	0	15	35	4	0	328	
4:35 PM	2	91	5	0	0	132	11	0	4	13	4	0	21	43	6	0	332	
4:40 PM	0	73	2	0	0	117	16	0	9	24	7	0	25	50	7	0	330	
4:45 PM	0	99	5	0	0	123	15	0	6	18	1	0	15	45	3	0	330	
4:50 PM	0	91	3	0	0	123	7	0	4	12	4	0	15	38	4	0	301	
4:55 PM	0	64	5	0	0	112	10	0	5	11	1	0	14	52	4	0	278	3608
5:00 PM	1	92	2	0	0	135	13	0	4	17	4	0	6	52	6	0	332	3644
5:05 PM	0	88	5	0	0	145	13	0	5	15	3	0	17	56	5	0	352	3712
5:10 PM	0	69	10	0	0	112	11	0	7	23	7	0	22	63	6	0	330	3763
5:15 PM	0	83	4	0	0	154	9	0	8	14	5	0	18	47	5	0	347	3838
5:20 PM	0	101	1	0	0	137	11	0	2	14	6	0	22	58	8	0	360	3891
5:25 PM	0	68	2	0	1	122	14	0	6	16	3	0	19	73	4	0	328	3948
5:30 PM	0	80	9	0	0	155	9	0	2	16	5	0	19	54	3	0	352	3972
5:35 PM	0	72	2	0	0	142	10	0	4	14	3	0	16	58	3	0	324	3964
5:40 PM	0	89	5	0	0	124	12	0	8	16	4	0	18	41	7	0	324	3958
5:45 PM	0	100	3	0	0	124	13	0	6	17	4	0	10	51	1	0	329	3957
5:50 PM	0	97	2	0	0	126	15	0	5	16	6	0	11	57	10	0	345	4001
5:55 PM	0	78	6	0	0	123	8	0	10	10	4	0	23	55	11	0	328	4051

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	996	48	0	4	1656	136	0	40	184	56	0	240	740	60	0	4160
Heavy Trucks	0	8	0		0	4	8		0	4	4		0	8	0		36
Pedestrians		16				16				100				40			172
Bicycles	0	4	0		0	1	0		0	0	0		0	1	0		6
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

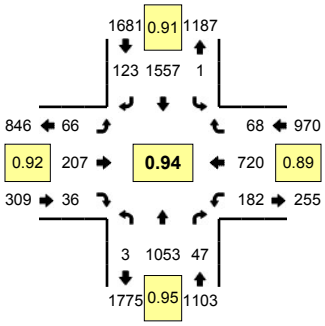
Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Turk Blvd

QC JOB #: 10545930

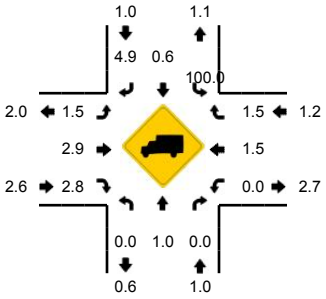
CITY/STATE: San Francisco, CA

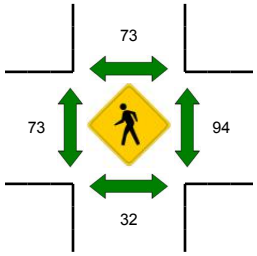
DATE: 10/14/2010

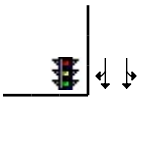


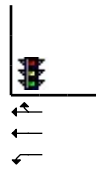
Peak-Hour: 5:00 PM -- 6:00 PM

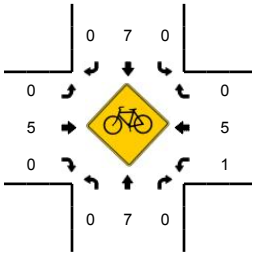
Peak 15-Min: 5:15 PM -- 5:30 PM

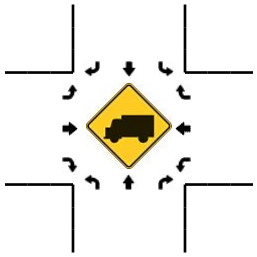


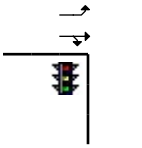


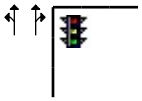


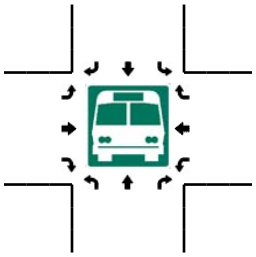












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	71	4	0	1	86	12	0	5	21	4	0	14	41	9	0	269	
4:05 PM	2	79	5	0	1	106	10	0	3	27	5	0	11	40	2	0	291	
4:10 PM	0	73	2	0	0	109	13	0	4	14	4	0	16	40	1	0	276	
4:15 PM	0	72	3	0	0	86	9	0	3	13	3	0	20	39	4	0	252	
4:20 PM	0	89	2	0	0	110	10	0	6	13	5	0	11	38	11	0	295	
4:25 PM	0	89	2	0	0	116	11	0	7	12	5	0	10	36	2	0	290	
4:30 PM	0	79	4	0	0	106	8	0	5	27	3	0	15	45	14	0	306	
4:35 PM	0	94	3	0	0	114	14	0	5	12	3	0	11	45	8	0	309	
4:40 PM	0	88	3	0	0	123	13	0	10	17	1	0	18	38	7	0	318	
4:45 PM	0	80	1	0	0	110	13	0	9	17	4	0	18	56	5	0	313	
4:50 PM	0	92	4	0	0	122	10	0	4	18	3	0	24	49	8	0	334	
4:55 PM	0	71	2	0	0	122	16	0	3	18	2	0	12	55	7	0	308	3561
5:00 PM	1	83	5	0	0	110	18	0	5	18	5	0	14	54	4	0	317	3609
5:05 PM	0	91	7	0	0	131	4	0	3	15	4	0	10	50	5	0	320	3638
5:10 PM	1	75	5	0	0	116	8	0	5	11	2	0	13	46	7	0	289	3651
5:15 PM	0	93	3	0	0	119	10	0	8	24	3	0	20	79	4	0	363	3762
5:20 PM	0	90	1	0	0	165	7	0	9	19	2	0	14	63	8	0	378	3845
5:25 PM	0	81	7	0	0	142	7	0	0	16	4	0	13	62	5	0	337	3892
5:30 PM	0	70	4	0	0	132	10	0	6	25	4	0	20	72	6	0	349	3935
5:35 PM	1	92	7	0	1	126	10	0	5	16	2	0	18	66	2	0	346	3972
5:40 PM	0	98	3	0	0	139	13	0	7	19	3	0	19	65	8	0	374	4028
5:45 PM	0	83	1	0	0	119	14	0	9	19	4	0	19	58	7	0	333	4048
5:50 PM	0	104	1	0	0	127	11	0	6	6	0	0	11	58	8	0	332	4046
5:55 PM	0	93	3	0	0	131	11	0	3	19	3	0	11	47	4	0	325	4063

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1056	44	0	0	1704	96	0	68	236	36	0	188	816	68	0	4312
Heavy Trucks	0	20	0		0	8	4		0	16	4		0	16	0		68
Pedestrians		24				88				76				120			308
Bicycles	0	0	0		0	3	0		0	0	0		1	2	0		6
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

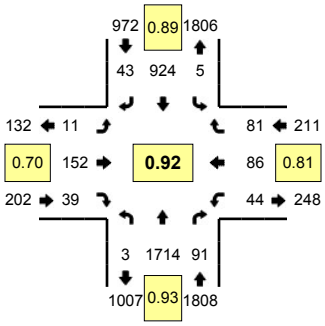
Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Golden Gate Ave

QC JOB #: 10545919

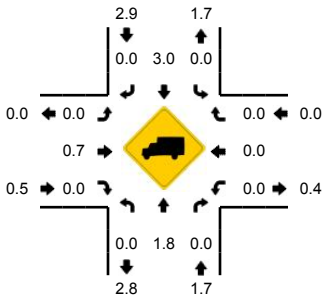
CITY/STATE: San Francisco, CA

DATE: 10/19/2010

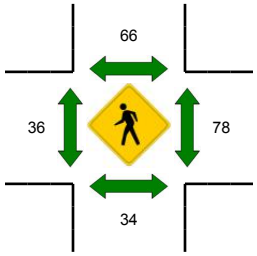


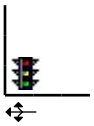
Peak-Hour: 7:40 AM -- 8:40 AM

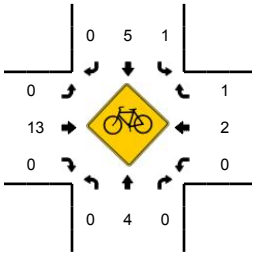
Peak 15-Min: 7:45 AM -- 8:00 AM

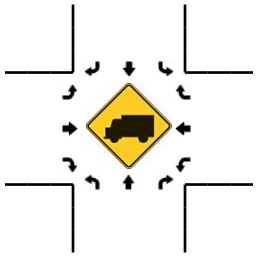


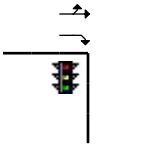
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

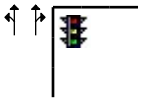


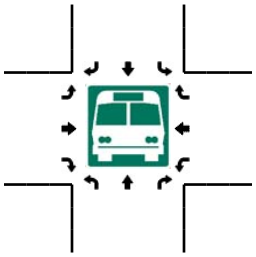












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Golden Gate Ave (Eastbound)				Golden Gate Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	53	0	0	3	28	0	0	0	3	2	0	1	1	0	0	91	
7:05 AM	1	61	4	0	1	34	0	0	0	5	4	0	0	0	1	0	111	
7:10 AM	0	50	3	0	2	33	2	0	1	2	1	0	1	6	0	0	101	
7:15 AM	0	97	2	0	0	31	1	0	0	3	1	0	0	4	0	0	139	
7:20 AM	0	90	5	0	0	42	4	0	0	3	1	0	4	6	3	0	158	
7:25 AM	1	79	3	0	0	40	2	0	2	8	3	0	2	9	5	0	154	
7:30 AM	0	128	10	0	0	56	0	0	0	10	1	0	2	3	6	0	216	
7:35 AM	1	141	10	0	2	54	3	0	0	4	1	0	6	12	6	0	240	
7:40 AM	0	120	7	0	1	61	1	0	3	11	2	0	3	14	7	0	230	
7:45 AM	0	166	5	0	0	73	4	0	0	11	6	0	7	10	7	0	289	
7:50 AM	1	169	6	0	0	86	6	0	1	16	4	0	4	10	5	0	308	
7:55 AM	0	137	4	0	1	74	6	0	0	24	5	0	6	8	10	0	275	2312
8:00 AM	0	129	11	0	0	76	6	0	2	13	7	0	7	3	13	0	267	2488
8:05 AM	0	145	10	0	2	105	4	0	0	11	3	0	5	6	2	0	293	2670
8:10 AM	0	128	8	0	0	63	1	0	0	17	2	0	0	10	14	0	243	2812
8:15 AM	1	152	10	0	0	72	3	0	0	11	4	0	4	5	8	0	270	2943
8:20 AM	0	153	6	0	0	87	4	0	0	10	1	0	2	7	4	0	274	3059
8:25 AM	1	123	7	0	0	73	3	0	2	4	2	0	2	2	6	0	225	3130
8:30 AM	0	142	10	0	1	83	1	0	2	10	1	0	3	7	3	0	263	3177
8:35 AM	0	150	7	0	0	71	4	0	1	14	2	0	1	4	2	0	256	3193
8:40 AM	0	133	5	0	0	61	1	0	2	10	2	0	1	4	4	0	223	3186
8:45 AM	0	137	6	0	0	73	2	0	0	4	1	0	1	4	2	0	230	3127
8:50 AM	1	160	6	0	0	74	2	0	1	11	7	0	0	5	2	0	269	3088
8:55 AM	1	123	4	0	0	55	1	0	1	15	5	0	1	5	7	0	218	3031

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	1888	60	0	4	932	64	0	4	204	60	0	68	112	88	0	3488
Heavy Trucks	0	24	0		0	12	0		0	0	0		0	0	0		36
Pedestrians		48				112				44				52			256
Bicycles	0	3	0		0	1	0		0	3	0		0	0	1		8
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

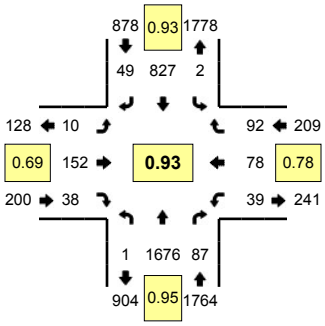
Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Golden Gate Ave

QC JOB #: 10545921

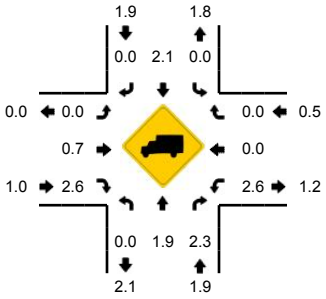
CITY/STATE: San Francisco, CA

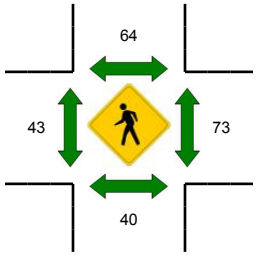
DATE: 10/14/2010

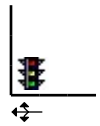


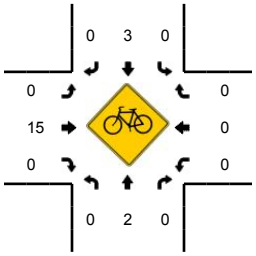
Peak-Hour: 7:40 AM -- 8:40 AM

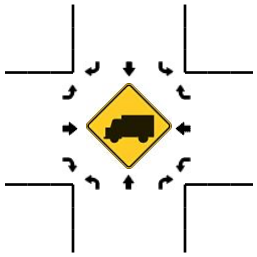
Peak 15-Min: 7:45 AM -- 8:00 AM

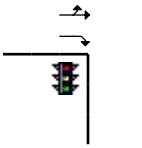


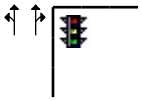


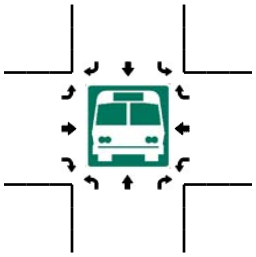












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Golden Gate Ave (Eastbound)				Golden Gate Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	51	2	0	0	30	5	0	0	5	1	0	0	1	0	0	98	
7:05 AM	1	66	7	0	2	29	0	0	0	1	2	0	0	2	0	0	110	
7:10 AM	0	63	3	0	2	27	0	0	1	3	0	0	0	5	4	0	108	
7:15 AM	1	78	2	0	1	26	1	0	0	2	0	0	0	3	1	0	115	
7:20 AM	1	99	7	0	0	37	2	0	0	3	5	0	0	2	0	0	156	
7:25 AM	0	89	4	0	3	34	1	0	0	4	2	0	2	5	3	0	147	
7:30 AM	0	96	2	0	1	52	1	0	1	7	4	0	1	6	2	0	173	
7:35 AM	1	139	12	0	0	60	0	0	0	10	4	0	6	6	6	0	244	
7:40 AM	0	146	7	0	0	61	4	0	0	13	1	0	4	2	7	0	245	
7:45 AM	0	138	7	0	0	56	6	0	2	11	8	0	4	12	8	0	252	
7:50 AM	0	159	6	0	0	74	5	0	1	18	7	0	6	8	10	0	294	
7:55 AM	0	141	4	0	0	74	9	0	0	21	7	0	8	5	9	0	278	2220
8:00 AM	0	137	6	0	0	56	5	0	2	11	5	0	5	11	7	0	245	2367
8:05 AM	0	146	8	0	1	94	2	0	0	18	2	0	2	7	9	0	289	2546
8:10 AM	0	129	9	0	0	67	1	0	0	14	0	0	2	4	12	0	238	2676
8:15 AM	0	127	7	0	0	69	0	0	2	9	2	0	1	6	10	0	233	2794
8:20 AM	0	144	11	0	1	81	6	0	0	11	1	0	3	5	5	0	268	2906
8:25 AM	1	125	7	0	0	63	3	0	1	13	0	0	0	9	8	0	230	2989
8:30 AM	0	129	8	0	0	61	2	0	0	6	1	0	2	5	3	0	217	3033
8:35 AM	0	155	7	0	0	71	6	0	2	7	4	0	2	4	4	0	262	3051
8:40 AM	2	122	10	0	0	62	2	0	0	13	4	0	3	3	0	0	221	3027
8:45 AM	0	132	5	0	2	76	1	0	2	11	1	0	0	1	2	0	233	3008
8:50 AM	1	158	1	0	1	80	3	0	0	9	1	0	0	6	2	0	262	2976
8:55 AM	1	115	10	0	1	55	6	0	0	4	1	0	0	7	1	0	201	2899

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1752	68	0	0	816	80	0	12	200	88	0	72	100	108	0	3296
Heavy Trucks	0	32	0		0	24	0		0	4	0		0	0	0		60
Pedestrians		40				88				36				104			268
Bicycles	0	1	0		0	1	0		0	4	0		0	0	0		6
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:23 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

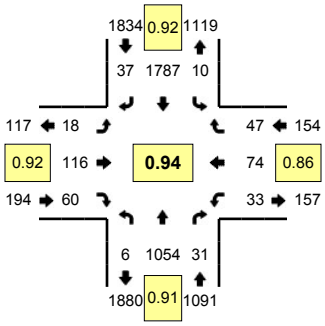
Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Golden Gate Ave

QC JOB #: 10545922

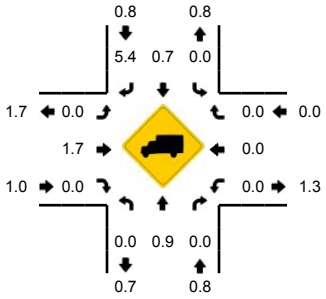
CITY/STATE: San Francisco, CA

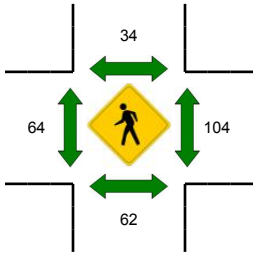
DATE: 10/19/2010

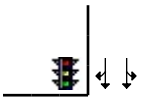


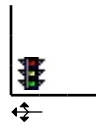
Peak-Hour: 5:00 PM -- 6:00 PM

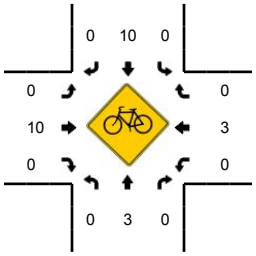
Peak 15-Min: 5:30 PM -- 5:45 PM

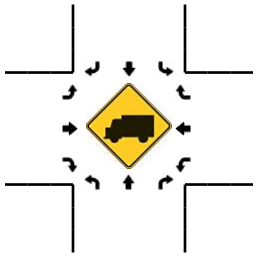


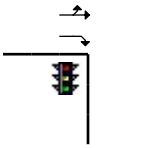


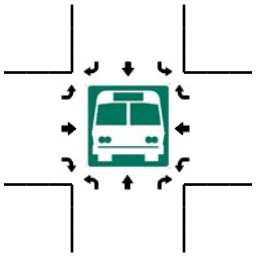












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Golden Gate Ave (Eastbound)				Golden Gate Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	73	5	0	2	80	1	0	3	2	7	0	0	2	3	0	179	
4:05 PM	0	78	2	0	0	113	3	0	3	8	2	0	2	5	3	0	219	
4:10 PM	2	78	3	0	0	109	2	0	0	11	5	0	4	4	6	0	224	
4:15 PM	0	89	7	0	0	120	6	0	1	5	6	0	2	4	3	0	243	
4:20 PM	0	90	3	0	0	125	2	0	1	4	3	0	1	13	5	0	247	
4:25 PM	1	79	3	0	0	94	2	0	3	9	6	0	2	9	3	0	211	
4:30 PM	0	75	5	0	1	90	3	0	3	7	5	0	0	4	2	0	195	
4:35 PM	0	102	6	0	0	139	2	0	3	6	6	0	2	7	1	0	274	
4:40 PM	1	84	3	0	1	129	3	0	3	9	5	0	2	4	4	0	248	
4:45 PM	0	85	5	0	2	137	1	0	2	8	3	0	2	5	1	0	251	
4:50 PM	0	74	3	0	0	139	5	0	0	7	4	0	2	4	4	0	242	
4:55 PM	0	56	2	0	0	115	2	0	2	12	1	0	5	7	3	0	205	2738
5:00 PM	1	80	2	0	1	142	2	0	0	5	2	0	2	8	4	0	249	2808
5:05 PM	0	90	5	0	2	145	1	0	1	12	8	0	6	5	4	0	279	2868
5:10 PM	0	75	1	0	1	137	2	0	0	11	4	0	6	9	4	0	250	2894
5:15 PM	0	79	2	0	2	149	2	0	1	4	7	0	3	6	3	0	258	2909
5:20 PM	0	84	5	0	0	170	4	0	3	14	5	0	0	10	7	0	302	2964
5:25 PM	0	76	2	0	0	156	5	0	2	8	4	0	0	5	4	0	262	3015
5:30 PM	2	96	1	0	1	158	3	0	6	4	4	0	3	3	6	0	287	3107
5:35 PM	0	96	5	0	0	162	4	0	3	8	4	0	5	7	4	0	298	3131
5:40 PM	0	87	1	0	1	158	1	0	1	18	5	0	4	7	7	0	290	3173
5:45 PM	0	105	2	0	2	130	3	0	0	10	4	0	1	6	2	0	265	3187
5:50 PM	1	97	2	0	0	158	5	0	0	9	5	0	1	4	1	0	283	3228
5:55 PM	2	89	3	0	0	122	5	0	1	13	8	0	2	4	1	0	250	3273

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	1116	28	0	8	1912	32	0	40	120	52	0	48	68	68	0	3500
Heavy Trucks	0	12	0		0	8	0		0	4	0		0	0	0		24
Pedestrians		84				48				60				164			356
Bicycles	0	0	0		0	5	0		0	1	0		0	0	0		6
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

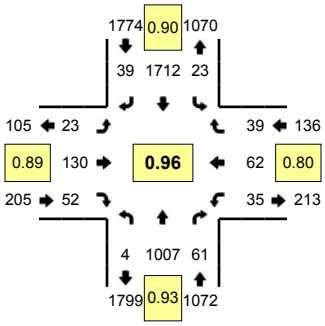
Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Golden Gate Ave

QC JOB #: 10545924

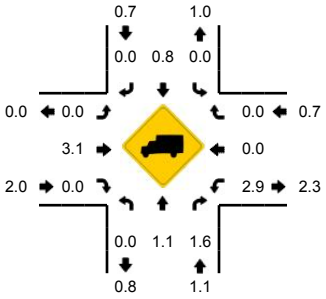
CITY/STATE: San Francisco, CA

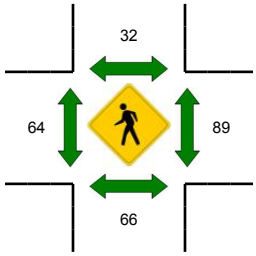
DATE: 10/14/2010

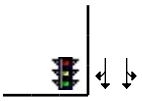


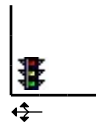
Peak-Hour: 5:00 PM -- 6:00 PM

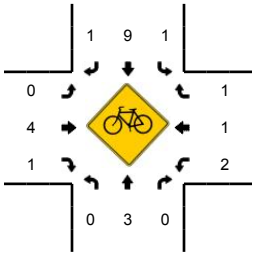
Peak 15-Min: 5:20 PM -- 5:35 PM

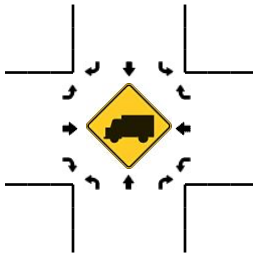


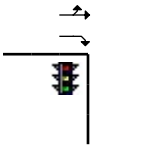


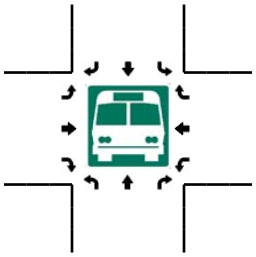












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Golden Gate Ave (Eastbound)				Golden Gate Ave (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	83	5	0	0	98	7	0	0	12	3	0	0	2	4	0	215	
4:05 PM	0	73	3	0	0	124	3	0	1	7	2	0	0	3	7	0	223	
4:10 PM	0	67	10	0	1	118	3	0	3	7	3	0	0	5	4	0	221	
4:15 PM	2	73	1	0	0	106	3	0	1	12	2	0	1	5	3	0	209	
4:20 PM	0	78	6	0	2	123	4	0	4	9	3	0	1	3	1	0	234	
4:25 PM	0	82	5	0	0	121	6	0	3	1	5	0	1	3	4	0	231	
4:30 PM	0	81	6	0	1	127	1	0	2	13	4	0	2	8	7	0	252	
4:35 PM	0	85	2	0	0	132	2	0	4	9	8	0	2	6	3	0	253	
4:40 PM	0	78	13	0	0	131	3	0	4	13	5	0	1	14	4	0	266	
4:45 PM	0	82	4	0	1	137	1	0	3	9	2	0	1	6	3	0	249	
4:50 PM	0	84	2	0	0	148	2	0	2	7	3	0	0	3	2	0	253	
4:55 PM	0	76	4	0	0	130	3	0	2	10	5	0	3	5	3	0	241	2847
5:00 PM	0	85	3	0	1	123	3	0	0	9	7	0	5	2	7	0	245	2877
5:05 PM	2	80	5	0	4	140	1	0	2	10	5	0	5	11	5	0	270	2924
5:10 PM	0	78	7	0	2	139	3	0	0	12	1	0	2	3	6	0	253	2956
5:15 PM	0	89	5	0	3	140	3	0	1	13	6	0	3	4	4	0	271	3018
5:20 PM	0	77	3	0	2	174	2	0	3	5	5	0	1	4	1	0	277	3061
5:25 PM	0	73	11	0	2	155	3	1	2	20	1	0	4	8	3	0	283	3113
5:30 PM	0	78	5	0	2	152	2	0	2	17	4	0	4	5	2	0	273	3134
5:35 PM	1	94	3	0	1	137	4	0	2	8	3	0	1	4	6	0	264	3145
5:40 PM	0	87	6	0	2	154	3	0	3	9	6	0	6	2	1	0	279	3158
5:45 PM	0	81	6	0	1	129	4	0	5	10	5	0	0	15	3	0	259	3168
5:50 PM	1	103	3	0	1	141	5	0	1	7	4	0	1	2	1	0	270	3185
5:55 PM	0	82	4	0	1	128	6	0	2	10	5	0	3	2	0	0	243	3187

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	912	76	0	24	1924	28	4	28	168	40	0	36	68	24	0	3332
Heavy Trucks	0	16	0		0	8	0		0	4	0		0	0	0		28
Pedestrians		52				36				72				104			264
Bicycles	0	0	0		0	4	0		0	2	0		1	0	0		7
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

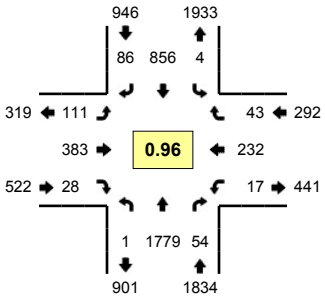
Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Fulton St

QC JOB #: 10652733

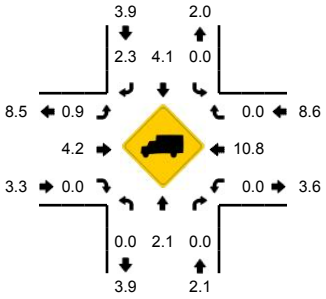
CITY/STATE: San Francisco, CA

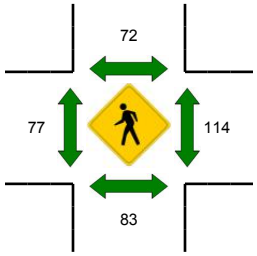
DATE: Wed, Sep 14 2011

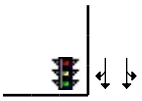


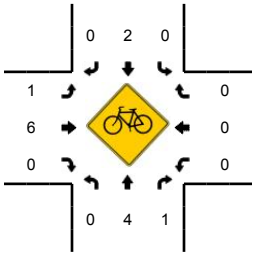
Peak-Hour: 7:50 AM -- 8:50 AM

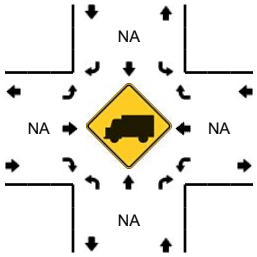
Peak 15-Min: 7:55 AM -- 8:10 AM

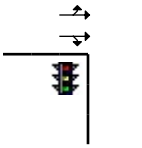


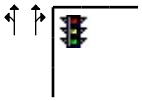


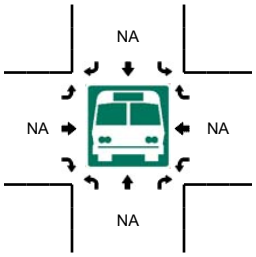












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	55	4	0	0	35	2	0	1	9	0	0	0	4	1	0	112	
7:05 AM	0	57	3	0	0	38	1	0	2	11	0	0	2	7	1	0	122	
7:10 AM	0	56	1	0	0	37	3	0	5	10	3	0	1	11	1	0	128	
7:15 AM	0	85	5	0	0	40	0	0	5	12	0	0	1	13	2	0	163	
7:20 AM	0	89	2	0	0	42	2	0	6	18	2	0	1	7	4	0	173	
7:25 AM	0	90	3	0	0	40	3	0	10	30	0	0	2	16	2	0	196	
7:30 AM	0	137	4	0	0	51	3	0	14	18	1	0	2	21	0	0	251	
7:35 AM	0	131	1	0	0	64	3	0	12	20	2	0	1	13	1	0	248	
7:40 AM	0	129	4	0	0	63	5	0	14	43	2	0	0	18	5	0	283	
7:45 AM	1	139	2	0	1	64	5	0	9	20	1	0	2	14	2	0	260	
7:50 AM	0	170	8	0	0	69	7	0	7	36	2	0	1	15	1	0	316	
7:55 AM	0	136	4	0	0	65	9	0	14	45	3	0	1	15	4	0	296	2548
8:00 AM	0	164	4	0	1	84	2	0	10	35	3	0	0	12	5	0	320	2756
8:05 AM	0	139	3	0	1	93	8	0	9	37	0	0	4	22	2	0	318	2952
8:10 AM	0	123	7	0	1	59	4	0	7	46	3	0	2	17	3	0	272	3096
8:15 AM	0	163	3	0	0	85	9	0	15	28	4	0	1	22	2	0	332	3265
8:20 AM	0	151	3	0	0	79	7	0	9	27	1	0	0	21	5	0	303	3395
8:25 AM	0	127	3	0	0	57	7	0	9	35	4	0	2	19	3	0	266	3465
8:30 AM	1	154	4	0	0	70	10	0	8	16	1	0	2	19	4	0	289	3503
8:35 AM	0	147	8	0	0	91	5	0	6	27	3	0	1	22	2	0	312	3567
8:40 AM	0	132	5	0	0	47	10	0	12	32	2	0	3	24	7	0	274	3558
8:45 AM	0	173	2	0	1	57	8	0	5	19	2	0	0	24	5	0	296	3594
8:50 AM	2	135	3	0	0	72	13	0	7	31	2	0	2	22	9	0	298	3576
8:55 AM	1	123	1	0	0	50	9	0	7	38	1	0	1	30	11	0	272	3552

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1756	44	0	8	968	76	0	132	468	24	0	20	196	44	0	3736
Heavy Trucks	0	32	0		0	32	0		0	16	0		0	20	0		100
Pedestrians		92				128				96				136			452
Bicycles	0	1	0		0	1	0		0	1	0		0	0	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

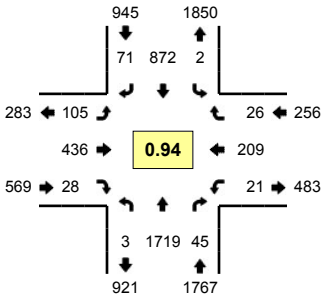
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

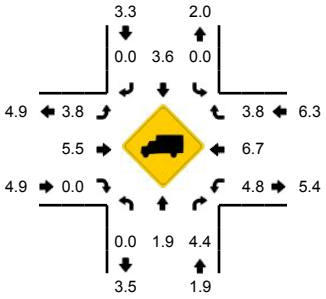
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

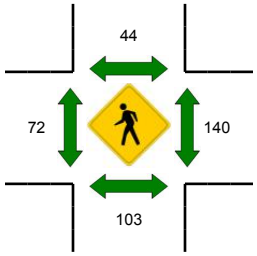
LOCATION: Masonic Ave -- Fulton St | **QC JOB #:** 10652734

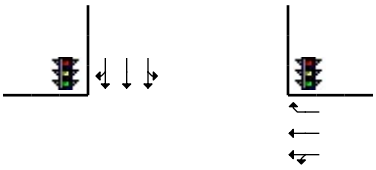
CITY/STATE: San Francisco, CA | **DATE:** Thu, Sep 08 2011

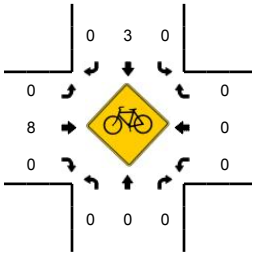
Peak-Hour: 7:55 AM -- 8:55 AM
Peak 15-Min: 7:55 AM -- 8:10 AM

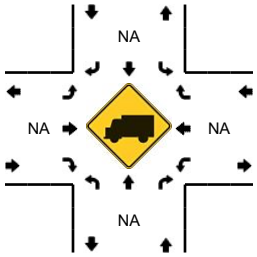


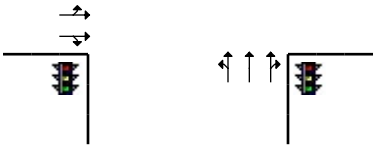


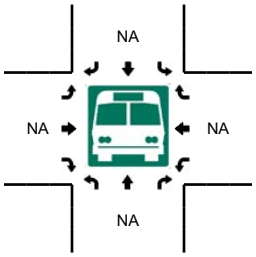












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	2	53	2	0	0	31	2	0	5	6	0	0	0	8	2	0	111	
7:05 AM	0	50	6	0	0	36	1	0	3	11	2	0	4	5	2	0	120	
7:10 AM	0	62	0	0	0	33	1	0	6	20	3	0	5	11	2	0	143	
7:15 AM	0	93	1	0	0	37	6	0	4	5	2	0	1	6	0	0	155	
7:20 AM	0	77	4	0	0	31	3	0	6	19	2	0	0	17	2	0	161	
7:25 AM	1	96	3	0	0	37	3	0	14	16	0	0	0	13	0	0	183	
7:30 AM	0	145	2	0	0	44	4	0	5	19	1	0	1	10	5	0	236	
7:35 AM	0	116	6	0	0	65	3	0	8	24	2	0	2	21	3	0	250	
7:40 AM	1	143	1	0	0	58	4	0	12	29	0	0	2	17	1	0	268	
7:45 AM	0	159	7	0	0	59	10	0	12	22	1	0	1	17	2	0	290	
7:50 AM	0	133	3	0	0	61	5	0	6	35	2	0	3	23	3	0	274	
7:55 AM	0	156	6	0	0	78	9	0	15	32	1	0	3	20	1	0	321	2512
8:00 AM	0	177	0	0	0	93	3	0	6	39	0	0	0	16	1	0	335	2736
8:05 AM	0	131	4	0	0	68	5	0	10	41	2	0	2	17	2	0	282	2898
8:10 AM	0	137	1	0	1	83	3	0	10	37	2	0	1	13	2	0	290	3045
8:15 AM	2	148	2	0	0	79	9	0	6	38	3	0	3	16	3	0	309	3199
8:20 AM	0	128	4	0	0	74	6	0	12	41	4	0	1	15	1	0	286	3324
8:25 AM	1	142	6	0	0	66	5	0	10	36	3	0	1	18	1	0	289	3430
8:30 AM	0	133	3	0	1	71	9	0	7	27	1	0	3	13	2	0	270	3464
8:35 AM	0	133	2	0	0	64	5	0	6	42	4	0	0	24	4	0	284	3498
8:40 AM	0	142	5	0	0	61	7	0	9	37	4	0	1	25	2	0	293	3523
8:45 AM	0	144	6	0	0	65	5	0	4	28	3	0	3	11	2	0	271	3504
8:50 AM	0	148	6	0	0	70	5	0	10	38	1	0	3	21	5	0	307	3537
8:55 AM	1	115	6	0	0	43	8	0	8	32	4	0	1	19	12	0	249	3465

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1856	40	0	0	956	68	0	124	448	12	0	20	212	16	0	3752
Heavy Trucks	0	28	0		0	32	0		0	36	0		0	16	0		112
Pedestrians		124				64				84				160			432
Bicycles	0	0	0		0	1	0		0	1	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Fulton St

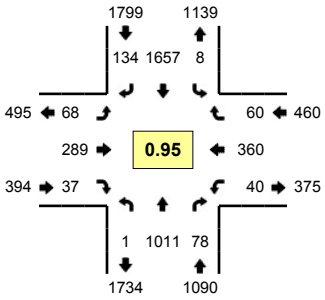
QC JOB #: 10652735

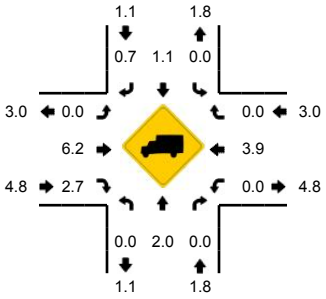
CITY/STATE: San Francisco, CA

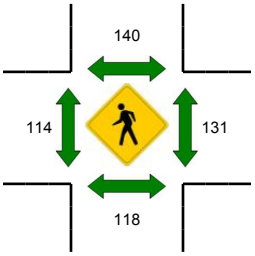
DATE: Wed, Sep 14 2011

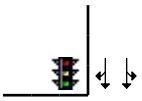
Peak-Hour: 4:55 PM -- 5:55 PM

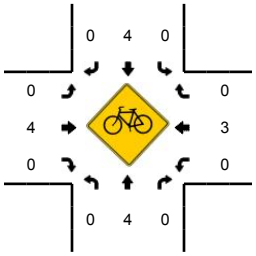
Peak 15-Min: 5:30 PM -- 5:45 PM

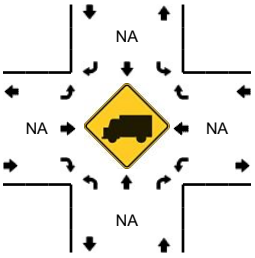


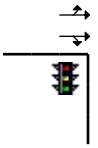


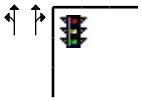


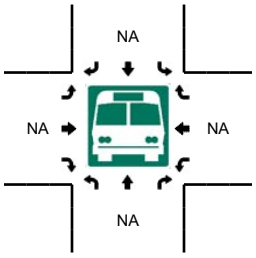












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	93	5	0	1	104	6	0	3	30	1	0	2	19	0	0	264	
4:05 PM	0	76	5	0	0	82	6	0	4	21	7	0	2	16	3	0	222	
4:10 PM	0	68	6	0	0	97	4	0	7	22	5	0	6	29	3	0	247	
4:15 PM	2	79	5	0	0	131	11	0	3	28	3	0	6	17	3	0	288	
4:20 PM	0	70	5	0	1	136	12	0	6	21	1	0	1	16	6	0	275	
4:25 PM	0	71	5	0	0	120	6	0	13	19	5	0	3	21	5	0	268	
4:30 PM	0	64	8	0	1	103	12	0	3	19	2	0	2	18	2	0	234	
4:35 PM	0	85	7	0	1	122	10	0	4	25	4	0	3	26	5	0	292	
4:40 PM	1	65	2	0	0	120	17	0	4	22	1	0	2	26	5	0	265	
4:45 PM	1	85	5	0	2	111	11	0	2	20	1	0	4	24	6	0	272	
4:50 PM	0	73	3	0	0	119	11	0	5	32	4	0	2	23	5	0	277	
4:55 PM	1	86	7	0	0	121	10	0	7	28	3	0	2	35	6	0	306	3210
5:00 PM	0	93	3	0	0	133	9	0	10	19	5	0	4	23	2	0	301	3247
5:05 PM	0	75	7	0	0	124	8	0	5	20	5	0	2	19	4	0	269	3294
5:10 PM	0	77	8	0	0	126	10	0	7	26	2	0	4	46	3	0	309	3356
5:15 PM	0	91	4	0	0	142	11	0	2	26	4	0	2	25	4	0	311	3379
5:20 PM	0	80	6	0	0	167	10	0	2	26	3	0	5	23	3	0	325	3429
5:25 PM	0	78	3	0	4	117	11	0	7	28	5	0	4	39	6	0	302	3463
5:30 PM	0	91	6	0	2	154	9	0	5	29	1	0	3	30	7	0	337	3566
5:35 PM	0	89	10	0	1	156	13	0	6	23	3	0	1	30	4	0	336	3610
5:40 PM	0	76	7	0	0	130	16	0	6	29	2	0	7	35	8	0	316	3661
5:45 PM	0	90	8	0	1	151	14	0	7	14	2	0	4	27	8	0	326	3715
5:50 PM	0	85	9	0	0	136	13	0	4	21	2	0	2	28	5	0	305	3743
5:55 PM	0	71	1	0	0	125	8	0	5	20	3	0	5	29	11	0	278	3715

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	1024	92	0	12	1760	152	0	68	324	24	0	44	380	76	0	3956
Heavy Trucks	0	28	0		0	20	0		0	24	0		0	8	0		80
Pedestrians		140				132				108				160			540
Bicycles	0	0	0		0	1	0		0	1	0		0	1	0		3
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Fulton St

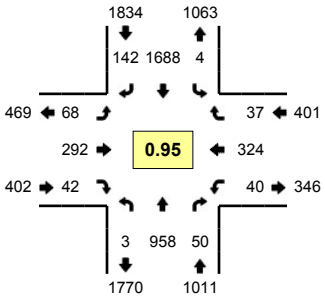
QC JOB #: 10652736

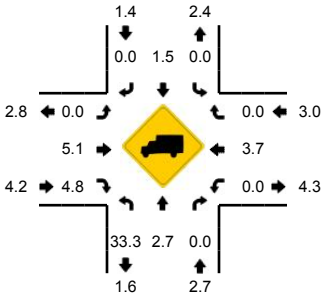
CITY/STATE: San Francisco, CA

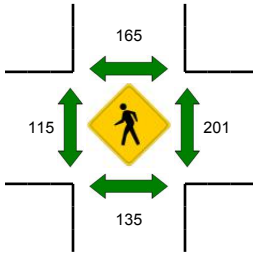
DATE: Thu, Sep 08 2011

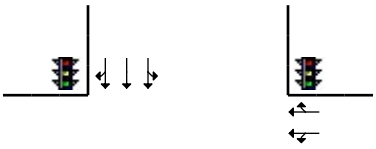
Peak-Hour: 5:00 PM -- 6:00 PM

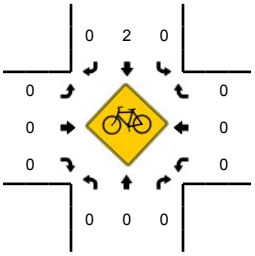
Peak 15-Min: 5:15 PM -- 5:30 PM

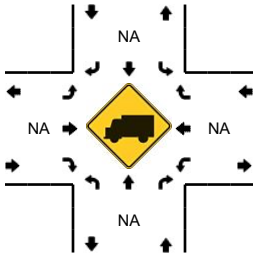


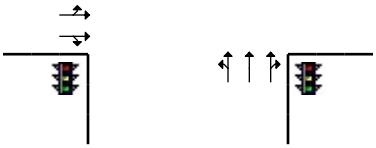


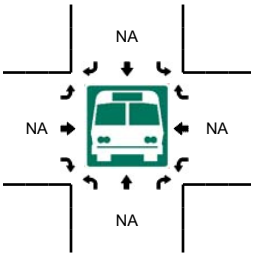












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Fulton St (Eastbound)				Fulton St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	78	3	0	0	128	9	0	8	20	2	0	4	24	2	0	278	
4:05 PM	0	64	9	0	1	112	5	0	7	24	2	0	3	30	3	0	260	
4:10 PM	0	71	4	0	1	116	5	0	3	18	2	0	5	18	3	0	246	
4:15 PM	0	87	8	0	1	140	12	0	7	23	5	0	2	25	3	0	313	
4:20 PM	0	71	3	0	2	116	6	0	7	22	3	0	4	25	10	0	269	
4:25 PM	1	52	3	0	0	107	8	0	5	18	4	0	6	24	4	0	232	
4:30 PM	0	73	7	0	0	142	6	0	5	23	7	0	3	19	3	0	288	
4:35 PM	0	94	3	0	0	134	7	0	4	17	5	0	3	26	6	0	299	
4:40 PM	0	81	2	0	0	108	9	0	8	28	3	0	1	24	2	0	266	
4:45 PM	0	60	1	0	0	141	13	0	3	12	5	0	4	20	5	0	264	
4:50 PM	1	74	3	0	0	126	10	0	2	36	3	0	2	19	3	0	279	
4:55 PM	0	76	7	0	0	130	4	0	4	18	1	0	8	24	4	0	276	3270
5:00 PM	0	68	6	0	0	122	18	0	2	27	3	0	1	20	2	0	269	3261
5:05 PM	0	75	4	0	0	129	12	0	7	25	4	0	4	22	2	0	284	3285
5:10 PM	0	75	3	0	1	138	8	0	8	19	1	0	6	22	2	0	283	3322
5:15 PM	0	99	4	0	0	158	9	0	3	9	1	0	3	30	2	0	318	3327
5:20 PM	1	79	5	0	1	154	17	0	8	30	5	0	3	24	2	0	329	3387
5:25 PM	0	74	7	0	0	130	8	0	8	28	6	0	5	39	4	0	309	3464
5:30 PM	1	70	6	0	0	150	17	0	8	31	2	0	5	23	2	0	315	3491
5:35 PM	0	96	1	0	0	128	13	0	4	28	1	0	5	27	6	0	309	3501
5:40 PM	0	83	6	0	0	132	10	0	6	26	4	0	3	36	8	0	314	3549
5:45 PM	0	79	3	0	1	158	12	0	4	21	5	0	1	31	1	0	316	3601
5:50 PM	1	87	1	0	0	154	9	0	4	29	6	0	1	21	2	0	315	3637
5:55 PM	0	73	4	0	1	135	9	0	6	19	4	0	3	29	4	0	287	3648

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	1008	64	0	4	1768	136	0	76	268	48	0	44	372	32	0	3824
Heavy Trucks	4	20	0		0	20	0		0	12	0		0	8	0		64
Pedestrians		140				140				128				208			616
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Fell St

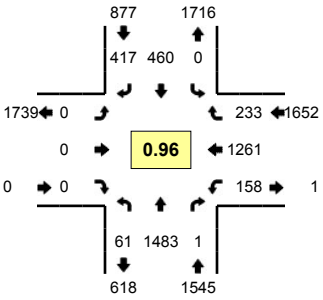
CITY/STATE: San Francisco, CA

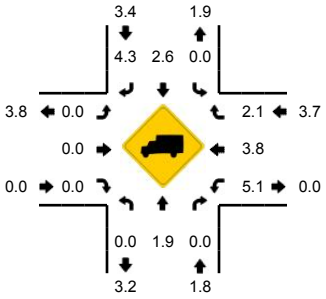
QC JOB #: 10652737

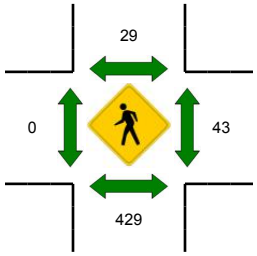
DATE: Thu, Sep 15 2011

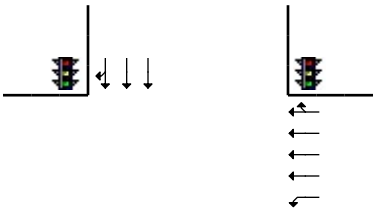
Peak-Hour: 7:50 AM -- 8:50 AM

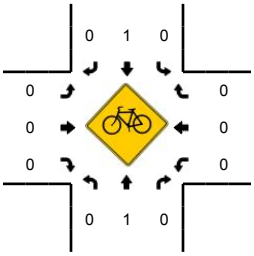
Peak 15-Min: 8:00 AM -- 8:15 AM

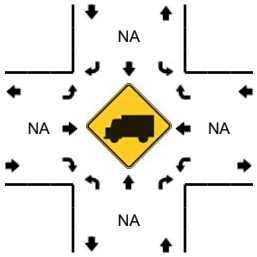


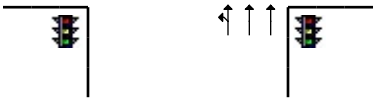


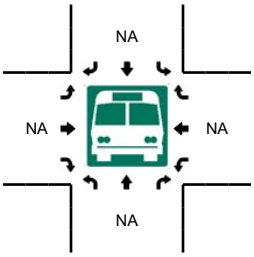












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Fell St (Eastbound)				Fell St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	48	0	0	0	19	14	0	0	0	0	0	3	51	10	0	145	
7:05 AM	3	39	0	0	0	14	13	0	0	0	0	0	9	67	15	0	160	
7:10 AM	3	65	0	0	0	19	17	0	0	0	0	0	3	64	10	0	181	
7:15 AM	0	81	0	0	0	11	14	0	0	0	0	0	6	74	12	0	198	
7:20 AM	3	64	0	0	0	20	17	0	0	0	0	0	9	101	11	0	225	
7:25 AM	3	114	0	0	0	22	17	0	0	0	0	0	2	77	17	0	252	
7:30 AM	2	86	0	0	0	31	21	0	0	0	0	0	9	77	16	0	242	
7:35 AM	4	98	0	0	0	16	33	0	0	0	0	0	11	100	19	0	281	
7:40 AM	7	142	0	0	0	36	36	0	0	0	0	0	11	82	17	0	331	
7:45 AM	4	118	0	0	0	38	25	0	0	0	0	0	9	100	22	0	316	
7:50 AM	1	117	0	0	0	28	34	0	0	0	0	0	19	123	18	0	340	
7:55 AM	5	135	0	0	0	51	42	0	0	0	0	0	7	95	16	0	351	3022
8:00 AM	5	127	0	0	0	54	34	0	0	0	0	0	15	94	24	0	353	3230
8:05 AM	6	108	0	0	0	26	35	0	0	0	0	0	17	128	17	0	337	3407
8:10 AM	7	144	0	0	0	45	33	0	0	0	0	0	17	99	22	0	367	3593
8:15 AM	3	114	1	0	0	37	43	0	0	0	0	0	7	97	20	0	322	3717
8:20 AM	2	121	0	0	0	35	32	0	0	0	0	0	20	115	23	0	348	3840
8:25 AM	9	134	0	0	0	43	37	0	0	0	0	0	10	96	24	0	353	3941
8:30 AM	4	111	0	0	0	42	26	0	0	0	0	0	15	108	14	0	320	4019
8:35 AM	6	107	0	0	0	35	34	0	0	0	0	0	13	114	17	0	326	4064
8:40 AM	9	143	0	0	0	32	28	0	0	0	0	0	8	79	22	0	321	4054
8:45 AM	4	122	0	0	0	32	39	0	0	0	0	0	10	113	16	0	336	4074
8:50 AM	5	121	0	0	0	27	28	0	0	0	0	0	8	107	23	0	319	4053
8:55 AM	10	128	0	0	0	42	32	0	0	0	0	0	11	89	14	0	326	4028

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	72	1516	0	0	0	500	408	0	0	0	0	0	196	1284	252	0	4228
Heavy Trucks	0	16	0		0	20	16		0	0	0		8	40	4		104
Pedestrians		408				20				0				56			484
Bicycles	0	1	0		0	0	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

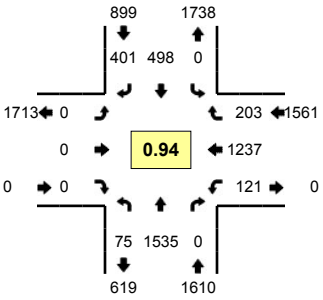
Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Fell St

QC JOB #: 10652738

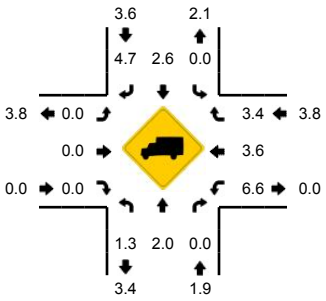
CITY/STATE: San Francisco, CA

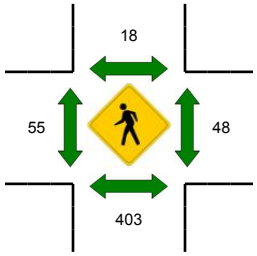
DATE: Thu, Sep 08 2011

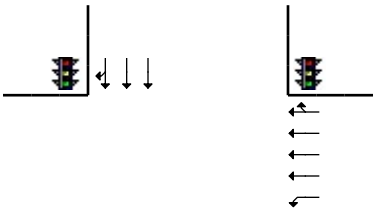


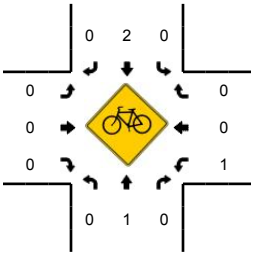
Peak-Hour: 7:55 AM -- 8:55 AM

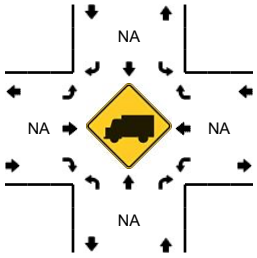
Peak 15-Min: 7:55 AM -- 8:10 AM

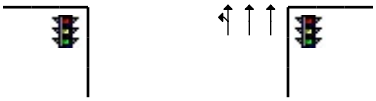


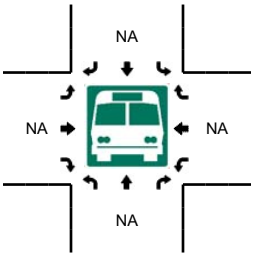












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Fell St (Eastbound)				Fell St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	3	42	0	0	0	14	20	0	0	0	0	0	4	76	6	0	165	
7:05 AM	3	48	0	0	0	24	17	0	0	0	0	0	7	70	14	0	183	
7:10 AM	1	48	0	0	0	21	21	0	0	0	0	0	6	66	18	0	181	
7:15 AM	2	72	0	0	0	12	16	0	0	0	0	0	4	94	15	0	215	
7:20 AM	3	84	0	0	0	25	15	0	0	0	0	0	14	86	13	0	240	
7:25 AM	2	100	0	0	0	22	22	0	0	0	0	0	9	66	7	0	228	
7:30 AM	3	107	0	0	0	24	17	0	0	0	0	0	8	86	16	0	261	
7:35 AM	0	112	0	0	0	33	30	0	0	0	0	0	14	88	26	0	303	
7:40 AM	1	133	0	0	0	43	34	0	0	0	0	0	7	88	18	0	324	
7:45 AM	5	113	0	0	0	24	30	0	0	0	0	0	12	114	26	0	324	
7:50 AM	1	126	0	0	0	36	21	0	0	0	0	0	10	83	15	0	292	
7:55 AM	5	155	0	0	0	47	34	0	0	0	0	0	12	92	19	0	364	3080
8:00 AM	3	127	0	0	0	45	33	0	0	0	0	0	9	106	15	0	338	3253
8:05 AM	8	122	0	0	0	49	32	0	0	0	0	0	17	126	22	0	376	3446
8:10 AM	4	134	0	0	0	37	48	0	0	0	0	0	10	105	16	0	354	3619
8:15 AM	3	114	0	0	0	39	34	0	0	0	0	0	7	117	14	0	328	3732
8:20 AM	7	127	0	0	0	45	36	0	0	0	0	0	12	98	15	0	340	3832
8:25 AM	8	141	0	0	0	44	27	0	0	0	0	0	11	92	13	0	336	3940
8:30 AM	7	108	0	0	0	44	26	0	0	0	0	0	7	122	15	0	329	4008
8:35 AM	7	124	0	0	0	43	31	0	0	0	0	0	13	106	16	0	340	4045
8:40 AM	6	141	0	0	0	35	33	0	0	0	0	0	7	84	17	0	323	4044
8:45 AM	8	109	0	0	0	35	29	0	0	0	0	0	6	91	25	0	303	4023
8:50 AM	9	133	0	0	0	35	38	0	0	0	0	0	10	98	16	0	339	4070
8:55 AM	8	120	0	0	0	27	31	0	0	0	0	0	10	84	12	0	292	3998

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	1616	0	0	0	564	396	0	0	0	0	0	152	1296	224	0	4312
Heavy Trucks	0	24	0		0	8	24		0	0	0		4	68	4		132
Pedestrians		360				8				48				36			452
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Fell St

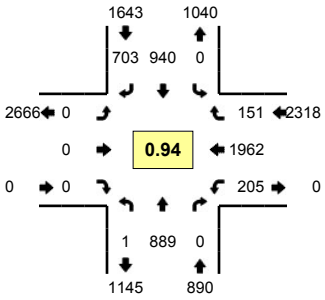
QC JOB #: 10652739

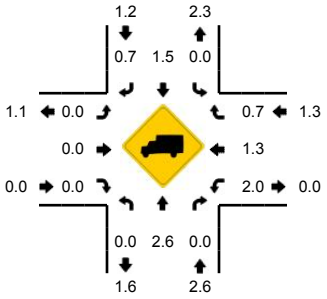
CITY/STATE: San Francisco, CA

DATE: Thu, Sep 15 2011

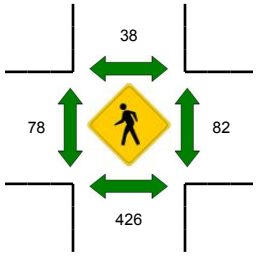
Peak-Hour: 5:00 PM -- 6:00 PM

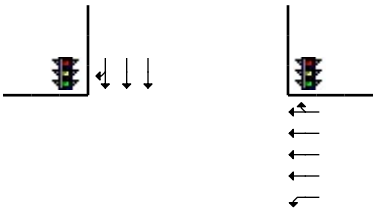
Peak 15-Min: 5:40 PM -- 5:55 PM

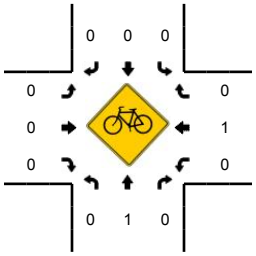


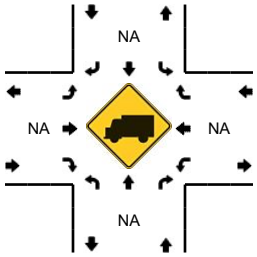


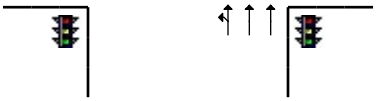
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

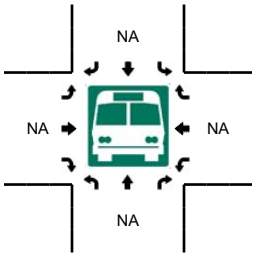












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Fell St (Eastbound)				Fell St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	72	0	0	0	67	57	0	0	0	0	0	13	115	16	0	341	
4:05 PM	0	80	0	0	0	76	58	0	0	0	0	0	16	122	14	0	366	
4:10 PM	1	57	0	0	0	58	54	0	0	0	0	0	17	109	12	0	308	
4:15 PM	0	59	0	0	0	66	48	0	0	0	0	0	22	106	15	0	316	
4:20 PM	0	85	0	0	0	82	67	0	0	0	0	0	13	124	20	0	391	
4:25 PM	0	72	0	0	0	54	53	0	0	0	0	0	11	150	18	0	358	
4:30 PM	0	72	0	0	0	66	60	0	0	0	0	0	20	174	12	0	404	
4:35 PM	1	82	0	0	0	73	55	0	0	0	0	0	11	132	15	0	369	
4:40 PM	0	65	0	0	0	59	58	0	0	0	0	0	14	186	15	0	397	
4:45 PM	0	81	0	0	0	69	53	0	0	0	0	0	22	151	11	0	387	
4:50 PM	0	90	0	0	0	75	65	0	0	0	0	0	17	150	19	0	416	
4:55 PM	0	67	0	0	0	55	50	0	0	0	0	0	17	155	12	0	356	4409
5:00 PM	0	68	0	0	0	69	63	0	0	0	0	0	20	143	9	0	372	4440
5:05 PM	1	83	0	0	0	76	50	0	0	0	0	0	14	135	12	0	371	4445
5:10 PM	0	66	0	0	0	72	52	0	0	0	0	0	11	171	10	0	382	4519
5:15 PM	0	65	0	0	0	81	63	0	0	0	0	0	18	170	13	0	410	4613
5:20 PM	0	76	0	0	0	94	62	0	0	0	0	0	10	164	12	0	418	4640
5:25 PM	0	76	0	0	0	68	52	0	0	0	0	0	17	174	10	0	397	4679
5:30 PM	0	79	0	0	0	85	45	0	0	0	0	0	27	146	12	0	394	4669
5:35 PM	0	76	0	0	0	75	68	0	0	0	0	0	19	157	10	0	405	4705
5:40 PM	0	71	0	0	0	71	64	0	0	0	0	0	19	162	22	0	409	4717
5:45 PM	0	91	0	0	0	92	55	0	0	0	0	0	18	177	9	0	442	4772
5:50 PM	0	85	0	0	0	86	72	0	0	0	0	0	16	167	18	0	444	4800
5:55 PM	0	53	0	0	0	71	57	0	0	0	0	0	16	196	14	0	407	4851

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	988	0	0	0	996	764	0	0	0	0	0	212	2024	196	0	5180
Heavy Trucks	0	24	0		0	8	0		0	0	0		4	16	0		52
Pedestrians		416				32				76				76			600
Bicycles	0	0	0		0	0	0		0	0	0		0	1	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Masonic Ave -- Fell St

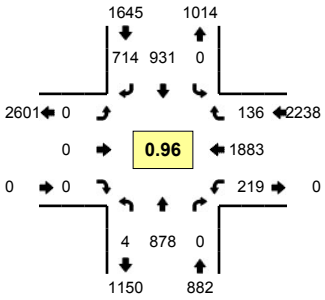
QC JOB #: 10652740

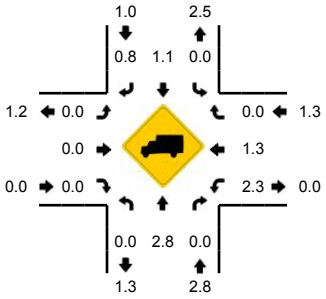
CITY/STATE: San Francisco, CA

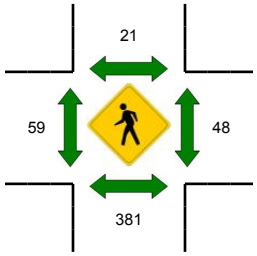
DATE: Thu, Sep 08 2011

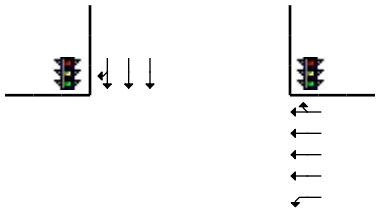
Peak-Hour: 4:45 PM -- 5:45 PM

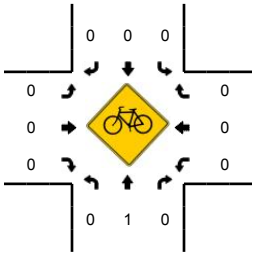
Peak 15-Min: 5:25 PM -- 5:40 PM

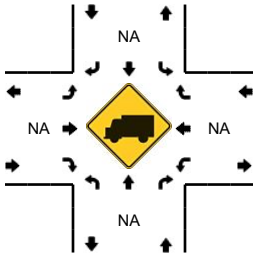


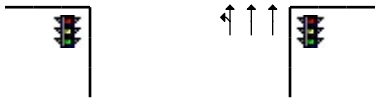


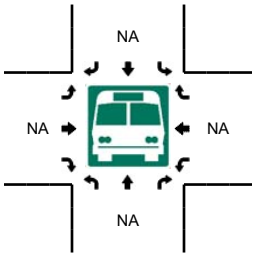












5-Min Count Period Beginning At	Masonic Ave (Northbound)				Masonic Ave (Southbound)				Fell St (Eastbound)				Fell St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	72	0	0	0	62	70	0	0	0	0	0	17	122	11	0	356	
4:05 PM	2	67	0	0	0	74	68	0	0	0	0	0	17	161	17	0	406	
4:10 PM	0	69	0	0	0	71	58	0	0	0	0	0	20	118	14	0	350	
4:15 PM	0	89	0	0	0	68	52	0	0	0	0	0	13	129	14	0	365	
4:20 PM	0	58	0	0	0	78	58	0	0	0	0	0	16	132	16	0	358	
4:25 PM	1	41	0	0	0	65	53	0	0	0	0	0	21	151	12	0	344	
4:30 PM	1	85	0	0	0	71	65	0	0	0	0	0	20	121	10	0	373	
4:35 PM	0	70	0	0	0	85	59	0	0	0	0	0	18	151	20	0	403	
4:40 PM	0	61	0	0	0	74	49	0	0	0	0	0	24	170	16	0	394	
4:45 PM	0	73	0	0	0	65	65	0	0	0	0	0	17	165	10	0	395	
4:50 PM	0	71	0	0	0	92	51	0	0	0	0	0	14	142	9	0	379	
4:55 PM	2	57	0	0	0	71	57	0	0	0	0	0	23	148	20	0	378	4501
5:00 PM	0	75	0	0	0	61	55	0	0	0	0	0	19	117	10	0	337	4482
5:05 PM	0	58	0	0	0	90	78	0	0	0	0	0	21	148	9	0	404	4480
5:10 PM	0	70	0	0	0	77	65	0	0	0	0	0	14	171	15	0	412	4542
5:15 PM	0	101	0	0	0	68	57	0	0	0	0	0	17	140	8	0	391	4568
5:20 PM	0	68	0	0	0	96	67	0	0	0	0	0	17	158	9	0	415	4625
5:25 PM	1	71	0	0	0	78	58	0	0	0	0	0	22	179	9	0	418	4699
5:30 PM	0	80	0	0	0	70	51	0	0	0	0	0	19	175	7	0	402	4728
5:35 PM	1	86	0	0	0	86	61	0	0	0	0	0	17	156	11	0	418	4743
5:40 PM	0	68	0	0	0	77	49	0	0	0	0	0	19	184	19	0	416	4765
5:45 PM	0	91	0	0	0	70	55	0	0	0	0	0	17	138	10	0	381	4751
5:50 PM	0	76	0	0	0	70	46	0	0	0	0	0	20	158	11	0	381	4753
5:55 PM	0	58	0	0	0	72	52	0	0	0	0	0	25	165	15	0	387	4762

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	948	0	0	0	936	680	0	0	0	0	0	232	2040	108	0	4952
Heavy Trucks	0	12	0		0	12	4		0	0	0		4	16	0		48
Pedestrians		408				24				68				48			548
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Chabot Terr -- Turk Blvd

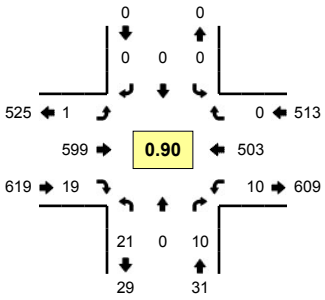
QC JOB #: 10652741

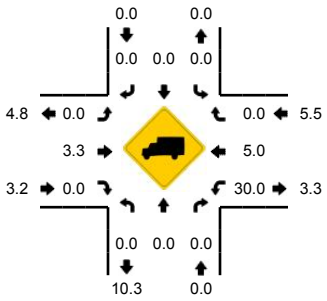
CITY/STATE: San Francisco, CA

DATE: Thu, Sep 15 2011

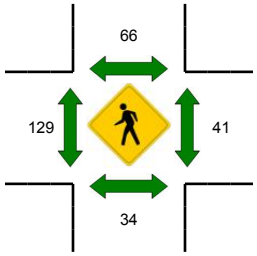
Peak-Hour: 7:40 AM -- 8:40 AM

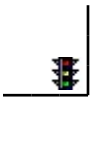
Peak 15-Min: 7:45 AM -- 8:00 AM

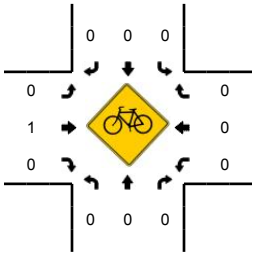


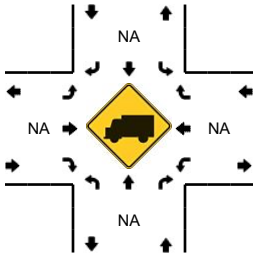


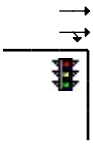
Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

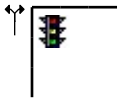


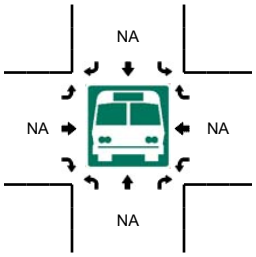












5-Min Count Period Beginning At	Chabot Terr (Northbound)				Chabot Terr (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	0	1	0	0	0	0	0	0	12	0	0	0	13	0	0	27	
7:05 AM	1	0	0	0	0	0	0	0	0	15	0	0	0	18	0	1	35	
7:10 AM	0	0	1	0	0	0	0	0	0	19	0	0	0	20	0	0	40	
7:15 AM	0	0	0	0	0	0	0	0	0	16	0	0	0	19	0	0	35	
7:20 AM	1	0	0	0	0	0	0	0	0	25	0	0	0	21	0	0	47	
7:25 AM	1	0	0	0	0	0	0	0	0	33	1	0	0	21	0	0	56	
7:30 AM	3	0	1	0	0	0	0	0	0	29	0	0	0	36	0	0	69	
7:35 AM	0	0	1	0	0	0	0	0	0	42	0	0	0	43	0	0	86	
7:40 AM	0	0	1	0	0	0	0	0	0	46	3	0	0	39	0	0	89	
7:45 AM	2	0	0	0	0	0	0	0	0	52	4	0	0	42	0	0	100	
7:50 AM	2	0	1	0	0	0	0	0	0	57	3	0	3	39	0	0	105	
7:55 AM	3	0	3	0	0	0	0	0	0	55	2	0	2	52	0	0	117	806
8:00 AM	2	0	2	0	0	0	0	0	0	52	3	0	0	41	0	0	100	879
8:05 AM	1	0	1	0	0	0	0	0	0	46	0	0	1	48	0	0	97	941
8:10 AM	0	0	1	0	0	0	0	0	0	48	2	0	1	36	0	0	88	989
8:15 AM	4	0	0	0	0	0	0	0	0	50	0	1	0	32	0	0	87	1041
8:20 AM	2	0	1	0	0	0	0	0	0	43	1	0	0	46	0	0	93	1087
8:25 AM	2	0	0	0	0	0	0	0	0	49	0	0	1	39	0	0	91	1122
8:30 AM	0	0	0	0	0	0	0	0	0	54	0	0	1	39	0	0	94	1147
8:35 AM	3	0	0	0	0	0	0	0	0	47	1	0	1	50	0	0	102	1163
8:40 AM	1	0	1	0	0	0	0	0	0	48	2	0	0	35	0	0	87	1161
8:45 AM	0	0	0	0	0	0	0	0	0	47	1	0	2	41	0	0	91	1152
8:50 AM	1	0	1	0	0	0	0	0	0	37	0	0	0	45	0	0	84	1131
8:55 AM	1	0	0	0	0	0	0	0	0	38	2	0	0	41	0	0	82	1096

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	0	16	0	0	0	0	0	0	656	36	0	20	532	0	0	1288
Heavy Trucks	0	0	0		0	0	0		0	24	0		12	20	0		56
Pedestrians		72				148				308				92			620
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

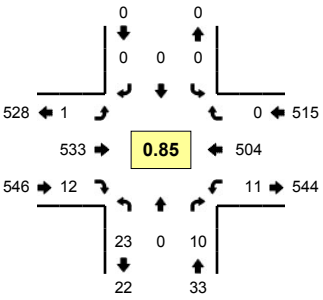
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

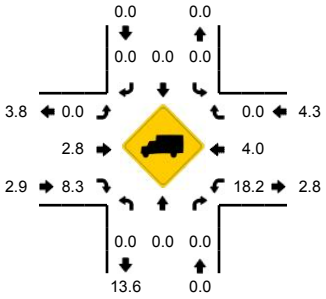
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

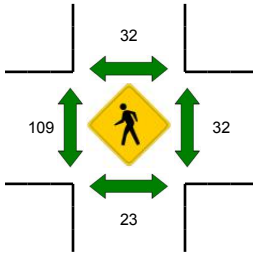
LOCATION: Chabot Ter -- Turk Blvd | **QC JOB #:** 10652742

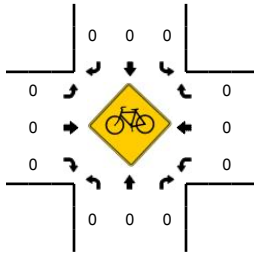
CITY/STATE: San Francisco, CA | **DATE:** Thu, Sep 08 2011

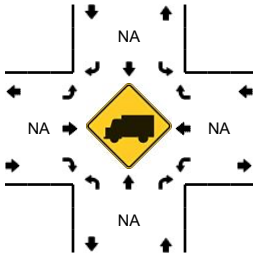
Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 7:50 AM -- 8:05 AM

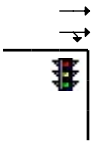


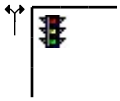


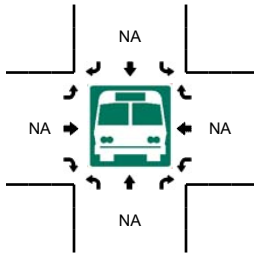












5-Min Count Period Beginning At	Chabot Ter (Northbound)				Chabot Ter (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	9	0	0	0	8	0	0	17	
7:05 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	16	0	0	23	
7:10 AM	0	0	0	0	0	0	0	0	0	18	0	0	0	17	0	0	35	
7:15 AM	0	0	0	0	0	0	0	0	0	16	0	0	0	17	0	0	33	
7:20 AM	0	0	0	0	0	0	0	0	0	13	0	0	2	20	0	0	35	
7:25 AM	0	0	0	0	0	0	0	0	0	18	0	0	0	27	0	1	46	
7:30 AM	2	0	1	0	0	0	0	0	0	30	0	0	0	28	0	0	61	
7:35 AM	1	0	1	0	0	0	0	0	0	29	1	0	0	29	0	0	61	
7:40 AM	1	0	0	0	0	0	0	0	0	46	0	1	0	49	0	0	97	
7:45 AM	2	0	1	0	0	0	0	0	0	43	2	0	0	42	0	0	90	
7:50 AM	2	0	0	0	0	0	0	0	0	57	3	0	1	58	0	0	121	
7:55 AM	4	0	0	0	0	0	0	0	0	49	2	0	3	44	0	0	102	721
8:00 AM	1	0	1	0	0	0	0	0	0	46	0	0	2	48	0	0	98	802
8:05 AM	0	0	2	0	0	0	0	0	0	50	0	0	2	35	0	0	89	868
8:10 AM	0	0	2	0	0	0	0	0	0	48	1	0	0	25	0	0	76	909
8:15 AM	2	0	1	0	0	0	0	0	0	45	0	0	0	34	0	0	82	958
8:20 AM	0	0	1	0	0	0	0	0	0	39	1	0	1	46	0	0	88	1011
8:25 AM	2	0	1	0	0	0	0	0	0	46	2	0	0	50	0	0	101	1066
8:30 AM	5	0	0	0	0	0	0	0	0	26	0	0	0	37	0	1	69	1074
8:35 AM	4	0	1	0	0	0	0	0	0	38	1	0	1	36	0	0	81	1094
8:40 AM	4	0	0	0	0	0	0	0	0	40	1	1	1	41	0	0	88	1085
8:45 AM	1	0	0	0	0	0	0	0	0	39	1	0	1	36	0	0	78	1073
8:50 AM	0	0	0	0	0	0	0	0	0	38	2	0	0	35	0	0	75	1027
8:55 AM	4	0	0	0	0	0	0	0	0	35	3	0	0	40	0	0	82	1007

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	0	4	0	0	0	0	0	0	608	20	0	24	600	0	0	1284
Heavy Trucks	0	0	0		0	0	0		0	16	4		8	12	0		40
Pedestrians		44				80				208				32			364
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Chabot Terr -- Turk Blvd

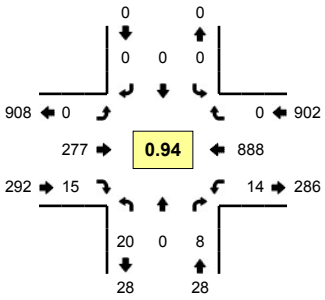
QC JOB #: 10652743

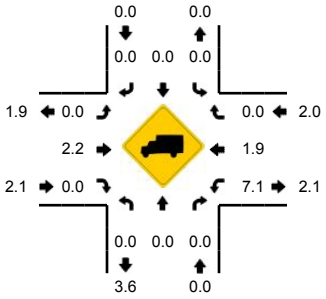
CITY/STATE: San Francisco, CA

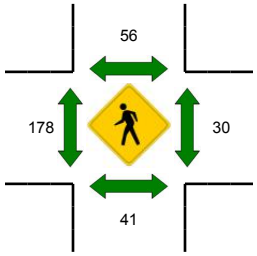
DATE: Thu, Sep 15 2011

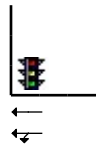
Peak-Hour: 5:00 PM -- 6:00 PM

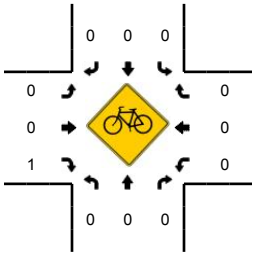
Peak 15-Min: 5:10 PM -- 5:25 PM

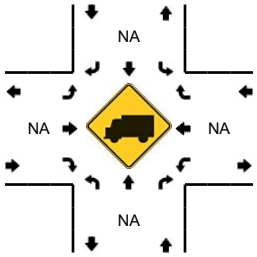


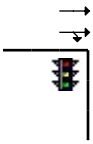


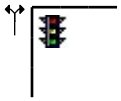


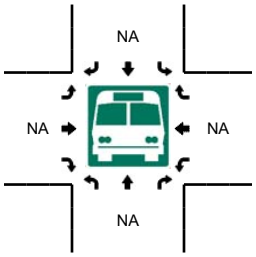












5-Min Count Period Beginning At	Chabot Terr (Northbound)				Chabot Terr (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	0	1	0	0	0	0	0	0	28	0	0	3	48	0	0	81	
4:05 PM	1	0	3	0	0	0	0	0	0	15	0	0	2	50	0	0	71	
4:10 PM	1	0	3	0	0	0	0	0	0	19	3	0	1	36	0	0	63	
4:15 PM	3	0	0	0	0	0	0	0	0	24	0	0	1	42	0	0	70	
4:20 PM	3	0	1	0	0	0	0	0	0	19	1	0	1	38	0	0	63	
4:25 PM	1	0	2	0	0	0	0	0	0	25	1	0	1	54	0	0	84	
4:30 PM	2	0	3	0	0	0	0	0	0	20	1	0	3	64	0	0	93	
4:35 PM	3	0	2	0	0	0	0	0	0	25	1	0	0	47	0	0	78	
4:40 PM	1	0	1	0	0	0	0	0	0	22	4	0	2	61	0	1	92	
4:45 PM	2	0	4	0	0	0	0	0	0	20	0	0	2	83	0	0	111	
4:50 PM	1	0	2	0	0	0	0	0	0	25	1	0	1	39	0	0	69	
4:55 PM	2	0	1	0	0	0	0	0	0	13	1	0	0	64	0	0	81	956
5:00 PM	2	0	1	0	0	0	0	0	0	28	0	0	0	64	0	0	95	970
5:05 PM	1	0	1	0	0	0	0	0	0	27	2	0	0	70	0	0	101	1000
5:10 PM	1	0	0	0	0	0	0	0	0	19	0	0	1	80	0	1	102	1039
5:15 PM	5	0	0	0	0	0	0	0	0	20	3	0	2	81	0	0	111	1080
5:20 PM	1	0	1	0	0	0	0	0	0	27	1	0	4	77	0	0	111	1128
5:25 PM	1	0	0	0	0	0	0	0	0	20	1	0	1	54	0	0	77	1121
5:30 PM	2	0	1	0	0	0	0	0	0	23	1	0	0	89	0	0	116	1144
5:35 PM	1	0	0	0	0	0	0	0	0	21	1	0	2	79	0	0	104	1170
5:40 PM	2	0	1	0	0	0	0	0	0	19	0	0	1	73	0	0	96	1174
5:45 PM	2	0	0	0	0	0	0	0	0	21	5	0	0	85	0	0	113	1176
5:50 PM	2	0	3	0	0	0	0	0	0	20	1	0	1	66	0	0	93	1200
5:55 PM	0	0	0	0	0	0	0	0	0	32	0	0	1	70	0	0	103	1222

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	28	0	4	0	0	0	0	0	0	264	16	0	28	952	0	4	1296
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	16	0		20
Pedestrians		16				40				104				28			188
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

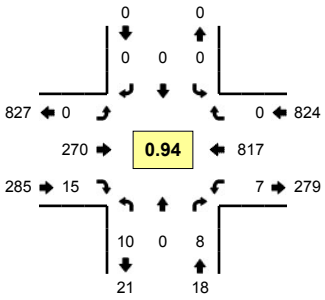
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

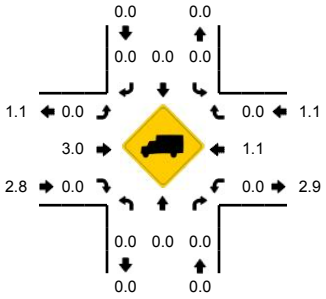
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

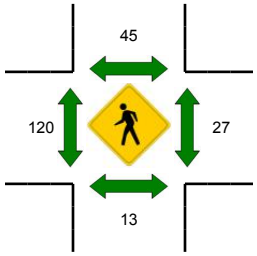
LOCATION: Chabot Ter -- Turk Blvd | **QC JOB #:** 10652744

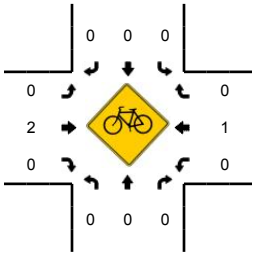
CITY/STATE: San Francisco, CA | **DATE:** Thu, Sep 08 2011

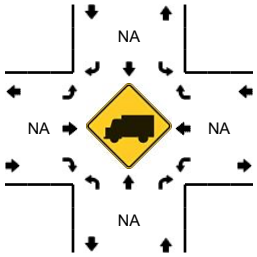
Peak-Hour: 4:55 PM -- 5:55 PM
Peak 15-Min: 5:40 PM -- 5:55 PM

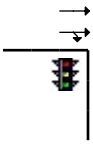


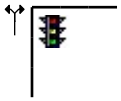


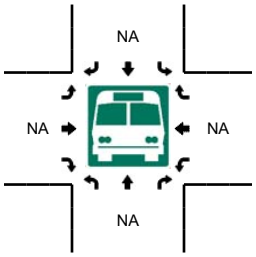












5-Min Count Period Beginning At	Chabot Ter (Northbound)				Chabot Ter (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	0	0	0	0	0	0	0	0	20	0	0	0	55	0	0	77	
4:05 PM	2	0	0	0	0	0	0	0	0	23	2	0	2	49	0	0	78	
4:10 PM	2	0	3	0	0	0	0	0	0	21	1	0	0	37	0	0	64	
4:15 PM	4	0	2	0	0	0	0	0	0	18	2	0	1	49	0	1	77	
4:20 PM	0	0	1	0	0	0	0	0	0	25	0	0	1	57	0	0	84	
4:25 PM	1	0	1	0	0	0	0	0	0	29	0	0	0	61	0	0	92	
4:30 PM	2	0	4	0	0	0	0	0	0	18	0	0	2	58	0	0	84	
4:35 PM	1	0	1	0	0	0	0	0	0	20	3	0	1	83	0	0	109	
4:40 PM	1	0	2	0	0	0	0	0	0	15	0	0	1	54	0	0	73	
4:45 PM	2	0	1	0	0	0	0	0	0	27	0	0	2	54	0	1	87	
4:50 PM	1	0	0	0	0	0	0	0	0	26	0	0	0	63	0	0	90	
4:55 PM	0	0	0	0	0	0	0	0	0	23	0	0	0	70	0	0	93	1008
5:00 PM	0	0	1	0	0	0	0	0	0	18	3	0	1	54	0	0	77	1008
5:05 PM	0	0	2	0	0	0	0	0	0	19	1	0	0	77	0	0	99	1029
5:10 PM	0	0	0	0	0	0	0	0	0	26	3	0	0	60	0	0	89	1054
5:15 PM	1	0	2	0	0	0	0	0	0	21	1	0	0	62	0	0	87	1064
5:20 PM	3	0	0	0	0	0	0	0	0	24	0	0	1	85	0	1	114	1094
5:25 PM	2	0	0	0	0	0	0	0	0	23	3	0	1	59	0	0	88	1090
5:30 PM	0	0	0	0	0	0	0	0	0	20	0	0	1	66	0	0	87	1093
5:35 PM	1	0	1	0	0	0	0	0	0	25	1	0	0	65	0	0	93	1077
5:40 PM	2	0	1	0	0	0	0	0	0	34	1	0	1	74	0	0	113	1117
5:45 PM	0	0	0	0	0	0	0	0	0	18	0	0	0	59	0	0	77	1107
5:50 PM	1	0	1	0	0	0	0	0	0	19	2	0	1	86	0	0	110	1127
5:55 PM	3	0	1	0	0	0	0	0	0	20	2	0	0	66	0	0	92	1126

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	0	8	0	0	0	0	0	0	284	12	0	8	876	0	0	1200
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	8	0		20
Pedestrians		8				48				144				32			232
Bicycles	0	0	0		0	0	0		0	2	0		0	0	0		2
Railroad																	
Stopped Buses																	

Comments:

Report generated on 9/23/2011 11:47 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

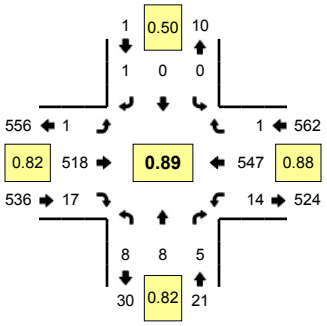
Method for determining peak hour: Total Entering Volume

LOCATION: Tamalpais Ter -- Turk Blvd

QC JOB #: 10545931

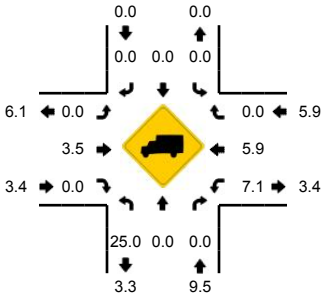
CITY/STATE: San Francisco, CA

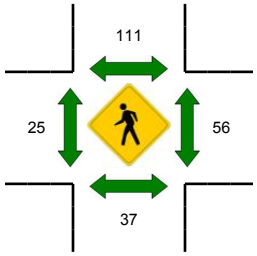
DATE: 10/19/2010

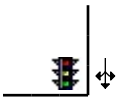


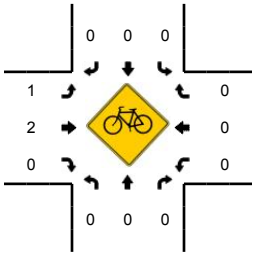
Peak-Hour: 7:35 AM -- 8:35 AM

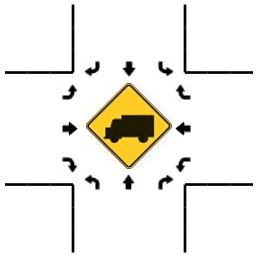
Peak 15-Min: 7:45 AM -- 8:00 AM

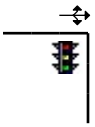


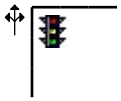


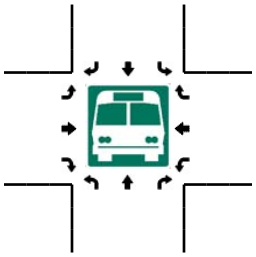












5-Min Count Period Beginning At	Tamalpais Ter (Northbound)				Tamalpais Ter (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	24	0	0	30	
7:05 AM	0	0	0	0	0	0	0	0	0	13	0	0	1	18	0	0	32	
7:10 AM	0	0	1	0	0	0	0	0	0	8	0	0	0	19	0	0	28	
7:15 AM	1	0	0	0	0	0	0	0	0	21	0	0	1	23	0	0	46	
7:20 AM	1	0	2	0	0	0	0	0	0	22	0	0	1	19	1	0	46	
7:25 AM	0	0	0	0	0	0	0	0	0	21	4	0	0	14	0	0	39	
7:30 AM	1	0	0	0	0	0	0	0	0	24	1	0	0	24	0	0	50	
7:35 AM	0	0	0	0	0	0	0	0	0	39	0	0	0	31	0	1	71	
7:40 AM	2	1	0	0	0	0	0	0	0	38	1	0	0	37	0	0	79	
7:45 AM	2	1	0	0	0	0	0	0	1	47	1	0	2	52	0	0	106	
7:50 AM	0	0	0	0	0	0	0	0	0	58	2	0	2	54	0	0	116	
7:55 AM	0	2	0	0	0	0	0	0	0	43	6	0	2	40	0	0	93	736
8:00 AM	1	1	1	0	0	0	0	0	0	53	2	0	1	41	0	0	100	806
8:05 AM	0	1	0	0	0	0	0	0	0	51	0	0	3	43	0	0	98	872
8:10 AM	0	1	0	0	0	0	0	0	0	32	0	0	0	41	0	0	74	918
8:15 AM	1	0	1	0	0	0	0	0	0	36	0	0	2	50	0	0	90	962
8:20 AM	1	0	0	0	0	0	0	0	0	41	2	0	1	56	0	0	101	1017
8:25 AM	1	0	2	0	0	0	0	0	0	37	1	0	0	39	0	0	80	1058
8:30 AM	0	1	1	0	0	0	1	0	0	43	2	0	0	63	1	0	112	1120
8:35 AM	0	0	2	0	0	0	0	0	1	31	1	0	1	35	0	0	71	1120
8:40 AM	0	0	0	0	0	0	0	0	0	39	3	0	1	29	0	0	72	1113
8:45 AM	0	0	0	0	0	0	1	0	1	45	1	0	0	50	0	0	98	1105
8:50 AM	1	0	0	0	0	0	0	0	0	35	1	0	1	36	0	0	74	1063
8:55 AM	1	0	1	0	0	0	0	0	0	46	1	0	1	31	0	0	81	1051

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	12	0	0	0	0	0	0	4	592	36	0	24	584	0	0	1260
Heavy Trucks	4	0	0		0	0	0		0	24	0		0	16	0		44
Pedestrians		80				220				52				124			476
Bicycles	0	0	0		0	0	0		1	0	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

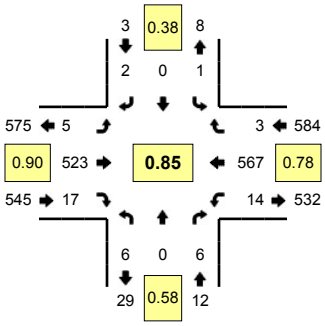
Method for determining peak hour: Total Entering Volume

LOCATION: Tamalpais Ter -- Turk Blvd

QC JOB #: 10545933

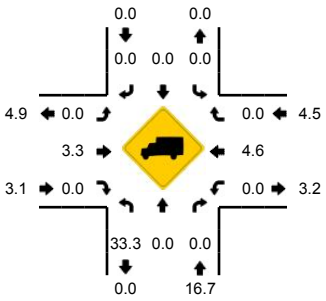
CITY/STATE: San Francisco, CA

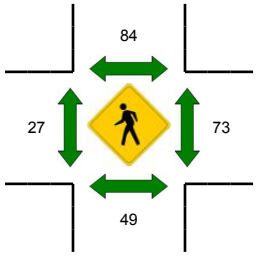
DATE: 10/14/2010

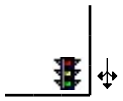


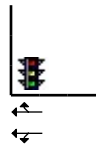
Peak-Hour: 7:40 AM -- 8:40 AM

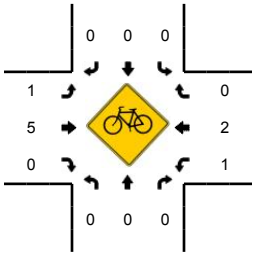
Peak 15-Min: 7:50 AM -- 8:05 AM

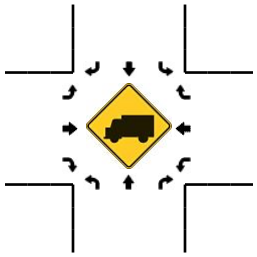


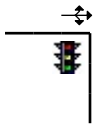


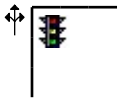


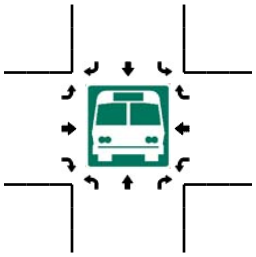












5-Min Count Period Beginning At	Tamalpais Ter (Northbound)				Tamalpais Ter (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	1	0	0	0	0	0	0	10	0	0	0	26	0	0	37	
7:05 AM	0	0	0	0	0	0	0	0	0	12	0	0	0	20	3	1	36	
7:10 AM	0	0	0	0	0	0	0	0	0	19	0	0	0	25	0	0	44	
7:15 AM	1	0	0	0	0	0	0	0	0	13	0	0	0	17	0	0	31	
7:20 AM	0	0	1	0	0	0	0	0	0	21	0	0	0	19	0	0	41	
7:25 AM	0	0	0	0	0	0	0	0	0	21	1	0	2	33	1	0	58	
7:30 AM	0	0	0	0	0	0	0	0	0	28	0	0	1	22	0	0	51	
7:35 AM	1	0	0	0	0	0	0	0	0	37	0	0	0	32	0	0	70	
7:40 AM	0	0	0	0	1	0	0	0	0	40	1	0	1	33	1	0	77	
7:45 AM	1	0	0	0	0	0	0	0	1	53	2	0	1	55	0	0	113	
7:50 AM	0	0	0	0	0	0	0	0	1	37	2	0	1	44	0	0	85	
7:55 AM	0	0	0	0	0	0	0	0	0	39	3	0	2	67	0	1	112	755
8:00 AM	2	0	0	0	0	0	0	0	0	65	2	0	2	69	0	1	141	859
8:05 AM	1	0	1	0	0	0	0	0	0	39	1	0	2	34	1	0	79	902
8:10 AM	0	0	0	0	0	0	0	0	0	45	0	0	1	35	0	0	81	939
8:15 AM	0	0	1	0	0	0	0	0	0	33	1	0	0	38	0	0	73	981
8:20 AM	2	0	0	0	0	0	0	0	0	50	1	0	1	58	1	0	113	1053
8:25 AM	0	0	3	0	0	0	1	0	2	44	1	0	1	40	0	0	92	1087
8:30 AM	0	0	0	0	0	0	0	0	1	35	1	0	0	54	0	0	91	1127
8:35 AM	0	0	1	0	0	0	1	0	0	43	2	0	0	40	0	0	87	1144
8:40 AM	0	0	0	0	0	0	0	0	0	38	1	0	0	32	0	0	71	1138
8:45 AM	1	0	0	0	0	0	0	0	1	33	2	0	0	43	0	0	80	1105
8:50 AM	1	0	1	0	0	0	1	0	0	36	1	0	0	38	1	0	79	1099
8:55 AM	0	0	0	0	0	0	0	0	0	33	0	0	1	31	0	0	65	1052

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	0	0	0	0	0	0	0	4	564	28	0	20	720	0	8	1352
Heavy Trucks	0	0	0		0	0	0		0	24	0		0	24	0		48
Pedestrians		80				148				76				196			500
Bicycles	0	0	0		0	0	0		0	3	0		0	1	0		4
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

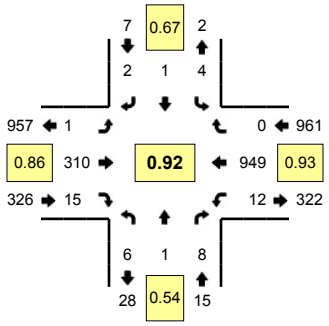
Method for determining peak hour: Total Entering Volume

LOCATION: Tamalpais Ter -- Turk Blvd

QC JOB #: 10545934

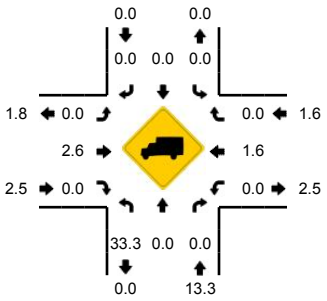
CITY/STATE: San Francisco, CA

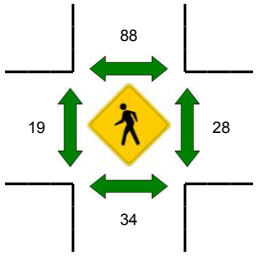
DATE: 10/19/2010

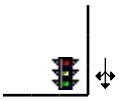


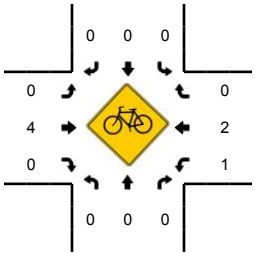
Peak-Hour: 4:55 PM -- 5:55 PM

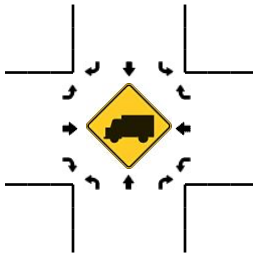
Peak 15-Min: 5:10 PM -- 5:25 PM

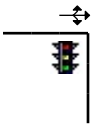


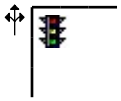


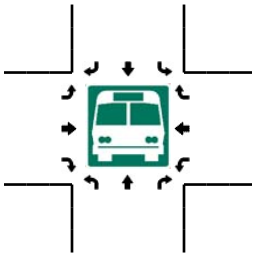












5-Min Count Period Beginning At	Tamalpais Ter (Northbound)				Tamalpais Ter (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	0	0	0	0	0	0	0	2	16	1	0	0	56	0	0	76	
4:05 PM	0	0	0	0	2	0	0	0	1	22	2	0	1	34	0	0	62	
4:10 PM	3	0	2	0	1	0	1	0	2	22	5	0	1	42	0	0	79	
4:15 PM	0	0	3	0	0	0	1	0	0	27	3	0	0	67	1	0	102	
4:20 PM	0	0	1	0	0	1	2	0	0	19	1	0	3	54	2	0	83	
4:25 PM	3	0	2	0	0	0	1	0	1	20	9	0	2	41	0	0	79	
4:30 PM	3	0	1	0	0	1	1	0	0	22	2	0	3	55	2	0	90	
4:35 PM	1	0	3	0	0	1	0	0	1	20	1	0	1	51	0	0	79	
4:40 PM	2	0	0	0	0	0	1	0	3	22	3	0	3	54	1	0	89	
4:45 PM	0	0	0	0	0	0	0	0	1	20	2	0	2	59	1	0	85	
4:50 PM	0	0	1	0	1	0	2	0	0	22	1	0	1	69	1	0	98	
4:55 PM	0	0	1	0	0	0	0	0	1	17	1	0	0	58	0	0	78	1000
5:00 PM	1	0	0	0	0	0	0	0	0	17	0	0	2	55	0	0	75	999
5:05 PM	0	0	1	0	0	0	0	0	0	33	1	0	2	81	0	0	118	1055
5:10 PM	0	0	0	0	1	1	1	0	0	36	1	0	0	82	0	0	122	1098
5:15 PM	0	0	0	0	0	0	0	0	0	24	1	0	1	88	0	0	114	1110
5:20 PM	0	1	0	0	1	0	1	0	0	33	2	0	1	81	0	0	120	1147
5:25 PM	2	0	0	0	0	0	0	0	0	31	1	0	1	75	0	0	110	1178
5:30 PM	1	0	0	0	0	0	0	0	0	15	2	0	0	91	0	0	109	1197
5:35 PM	0	0	2	0	1	0	0	0	0	26	2	0	2	88	0	0	121	1239
5:40 PM	0	0	1	0	1	0	0	0	0	29	1	0	1	71	0	0	104	1254
5:45 PM	1	0	0	0	0	0	0	0	0	18	1	0	1	88	0	0	109	1278
5:50 PM	1	0	3	0	0	0	0	0	0	31	2	0	1	91	0	0	129	1309
5:55 PM	0	0	0	0	0	0	0	0	0	23	4	0	1	48	0	0	76	1307

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	4	0	0	8	4	8	0	0	372	16	0	8	1004	0	0	1424
Heavy Trucks	0	0	0		0	0	0		0	4	0		0	16	0		20
Pedestrians		56				60				16				48			180
Bicycles	0	0	0		0	0	0		0	1	0		0	0	0		1
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of peak hour being reported: Intersection Peak

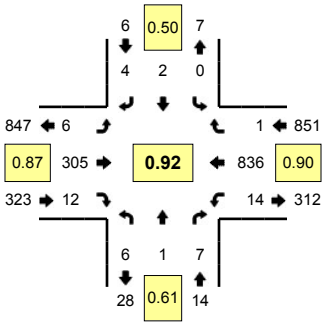
Method for determining peak hour: Total Entering Volume

LOCATION: Tamalpais Ter -- Turk Blvd

QC JOB #: 10545936

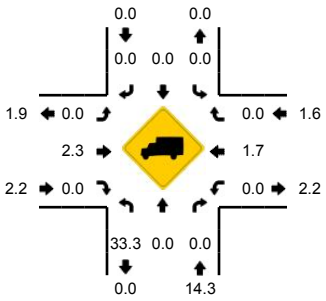
CITY/STATE: San Francisco, CA

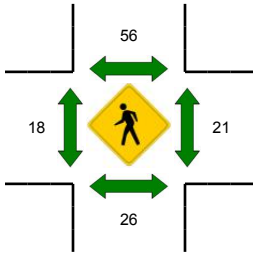
DATE: 10/14/2010

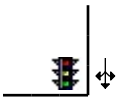


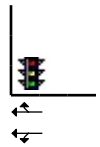
Peak-Hour: 4:50 PM -- 5:50 PM

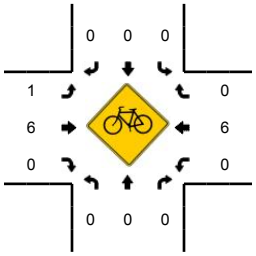
Peak 15-Min: 5:15 PM -- 5:30 PM

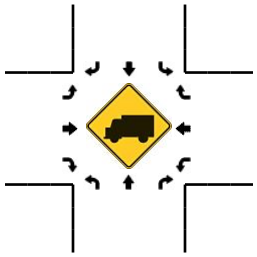


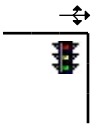


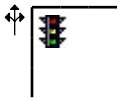


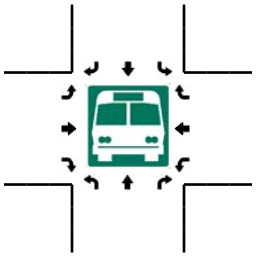












5-Min Count Period Beginning At	Tamalpais Ter (Northbound)				Tamalpais Ter (Southbound)				Turk Blvd (Eastbound)				Turk Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	3	0	0	1	2	0	1	29	1	0	2	45	0	0	84	
4:05 PM	1	0	0	0	0	0	0	0	0	40	0	0	1	61	0	0	103	
4:10 PM	1	0	0	0	2	0	0	0	1	17	2	0	2	42	0	0	67	
4:15 PM	0	0	1	0	0	0	0	0	0	17	3	0	0	48	0	0	69	
4:20 PM	1	0	1	0	0	0	0	0	0	22	0	0	1	53	0	1	79	
4:25 PM	0	2	1	0	0	0	1	0	2	36	3	0	1	45	0	0	91	
4:30 PM	0	0	0	0	0	0	0	0	0	26	2	0	1	42	3	0	74	
4:35 PM	0	0	1	0	1	0	2	0	1	25	2	0	1	48	0	0	81	
4:40 PM	0	1	4	0	0	0	2	0	1	16	3	0	1	37	0	0	65	
4:45 PM	0	0	1	0	0	0	1	0	2	29	1	0	1	62	0	0	97	
4:50 PM	1	0	2	0	0	0	0	0	1	24	3	0	2	62	0	0	95	
4:55 PM	0	1	0	0	0	0	0	0	0	28	0	0	2	64	0	0	95	1000
5:00 PM	1	0	2	0	0	0	1	0	0	26	2	0	0	73	1	0	106	1022
5:05 PM	1	0	0	0	0	0	0	0	0	23	0	0	1	54	0	0	79	998
5:10 PM	1	0	0	0	0	0	1	0	0	21	0	0	0	54	0	0	77	1008
5:15 PM	0	0	0	0	0	1	0	0	0	32	1	1	0	74	0	0	109	1048
5:20 PM	0	0	0	0	0	0	0	0	0	27	1	0	1	87	0	0	116	1085
5:25 PM	0	0	0	0	0	0	0	0	0	28	2	0	0	68	0	0	98	1092
5:30 PM	1	0	0	0	0	0	2	0	1	26	1	0	3	68	0	0	102	1120
5:35 PM	0	0	1	0	0	0	0	0	2	24	1	0	2	86	0	0	116	1155
5:40 PM	1	0	1	0	0	1	0	0	0	26	1	0	2	71	0	0	103	1193
5:45 PM	0	0	1	0	0	0	0	0	1	20	0	0	1	75	0	0	98	1194
5:50 PM	2	0	0	0	0	0	2	0	1	21	0	0	1	63	0	0	90	1189
5:55 PM	0	0	0	0	0	1	0	0	0	19	0	0	2	58	1	0	81	1175

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	0	0	0	0	4	0	0	0	348	16	4	4	916	0	0	1292
Heavy Trucks	0	0	0		0	0	0		0	8	0		0	16	0		24
Pedestrians		20				76				20				0			116
Bicycles	0	0	0		0	0	0		0	3	0		0	3	0		6
Railroad																	
Stopped Buses																	

Comments:

Report generated on 11/18/2010 3:24 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

Location: USF Campus Parking Lots
Date: 4/19/2011

Tuesday April 19th		**Number of Cars parked on Street**																
USF Campus Parking Lots 1-8	Available Spots	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
#1 Kendrick Hall Garage Upper Level (Regular Spaces)	37	6	14	37	37	37	37	37	37	37	36	30	31	32	30	12	6	0
#1 Kendrick Hall Garage Upper Level (Handicapped Spaces)	2	0	0	0	1	1	1	1	2	2	2	2	1	0	0	0	0	0
#1 Kendrick Hall Garage Upper Level (Reserved Space)	2	0	0	2	2	2	2	2	2	2	2	2	1	0	0	0	0	0
#2 Kendrick Hall Garage Lower Level (Regular Spaces)	62	4	8	26	49	62	62	61	62	62	60	52	41	33	27	12	4	3
#2 Kendrick Hall Garage Lower Level (Handicapped Spaces)	2	0	0	0	0	1	1	1	1	1	1	2	2	1	1	1	0	0
#3 Gleeson Library Lot (Regular Spaces)	13	5	9	13	12	12	11	10	9	10	7	8	13	13	9	4	3	1
#3 Gleeson Library Lot (Handicapped Spaces)	3	0	0	0	1	3	2	1	2	2	0	2	0	1	0	0	0	0
#3 Gleeson Library Lot (Loading Zone Spaces)	6	1	3	6	6	5	5	2	2	3	4	3	2	0	1	1	1	1
#4 The University Center Parking Lot (Regular Spaces)	24	University Center Parking Lot Closed for Construction All Day.																
#4 The University Center Parking Lot (Handicapped Spaces)	2																	
#4 The University Center Parking Lot (Loading Zone Spaces)	7																	
#5 The Memorial Gym Parking Lot (Regular Spaces)	32	8	11	30	30	32	32	31	28	27	26	8	9	9	9	8	3	3
#5 The Memorial Gym Parking Lot (Handicapped Spaces)	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0
#5 The Memorial Gym Parking Lot (Reserved Spaces)	5	3	4	5	5	4	5	5	4	5	4	2	2	2	2	2	2	2
#5 The Memorial Gym Parking Lot (Loading Zone Spaces)	7	3	3	3	6	3	3	2	1	1	3	4	4	3	4	3	3	3
Parking Lot #5 two spaces blocked all day to make room for shuttle turn around																		
#6 The Hayes Healy Garage Level B and C (Regular Spaces)	53	36	52	52	53	63	35	59	57	52	49	38	39	38	29	18	11	8
#6 The Hayes Healy Garage Level B and C (Reserved Spaces)	7	5	2	6	2	2	3	3	5	5	5	5	5	5	5	5	5	5
#6 The Hayes Healy Garage Level B and C (Motorcyle Spaces)	4	4	4	4	5	5	5	5	5	5	5	3	3	3	3	3	3	3
Lot #6 gets very busy starting at 10 AM. Garage attendant begins double parking cars. That is why for some time periods there are more cars parked than available spots.																		
#7 The Hayes Healy Garage Level D and E (Regular Spaces)	56	12	22	43	55	49	51	50	52	51	42	38	23	17	13	10	9	6
#8 The School of Education Parking Lot (Regular Spaces)	32	1	1	5	9	16	17	19	17	17	12	18	10	8	5	5	2	2
#8 The School of Education Parking Lot (Handicapped Spaces)	2	0	0	0	1	0	0	1	1	0	0	1	0	1	1	1	0	0
#8 The School of Education Parking Lot (Motorcycle Spaces)	4	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0
#8 The School of Education Parking Lot (Loading Zone Spaces)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

Location: USF Campus Parking Lots
Date: 4/19/2011

Tuesday April 19th		Number of Cars parked on Street																
USF Campus Parking Lots 9-17	Available Spots	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
#9 Lone Mountain Entrance Ramp (Regular Spaces)	16	2	2	14	15	15	16	16	15	15	13	10	8	4	0	0	0	0
#10 Lone Mountain Pacific Wing Parking Lot (Regular Spaces)	8	4	4	8	8	8	8	8	8	8	9	6	5	5	4	4	4	0
#10 Lone Mountain Pacific Wing Parking Lot (Loading Zone Spaces)	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#10 Lone Mountain Pacific Wing Parking Lot (Electric Cart Spaces)	4	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2
#10 Lone Mountain Pacific Wing Parking Lot (Security Spaces)	10	4	4	6	4	7	5	6	5	7	7	5	6	7	5	5	6	6
#11 Lone Mountain Fee Lot (Regular Spaces)	38	5	5	17	37	38	33	32	37	37	31	19	11	5	4	2	2	2
#11 Lone Mountain Fee Lot (Handicapped Spaces)	4	0	1	2	2	4	4	1	3	3	2	0	1	0	0	0	0	0
#11 Lone Mountain Fee Lot (Loading Zone Spaces)	5	1	2	2	3	5	2	3	3	1	0	1	0	1	0	0	0	0
#12 Lone Mountain Entrance Ramp East Side (Regular Spaces)	35	4	22	32	35	35	34	32	34	32	30	15	8	8	5	1	0	0
#12 Lone Mountain Entrance Ramp East Side (Loading Zone Spaces)	3	0	0	2	0	1	0	0	1	0	1	0	0	0	0	0	0	0
Jesuit Community Parking Lot (Regular Spaces)	15	8	8	8	9	10	8	6	6	7	9	7	6	7	8	9	9	9
Jesuit Community Parking Lot (Handicapped Spaces)	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
#13 Loyola Parking Lot (Regular Spaces)	71	5	16	48	71	74	81	75	73	65	58	36	18	13	6	2	0	0
#13 Loyola Parking Lot (Zip Car Spaces)	2	2	2	2	2	2	2	2	2	1	1	0	1	1	1	1	2	2
#13 Loyola Parking Lot (Jesuit Community Spaces)	7	2	2	3	4	4	3	3	3	2	3	2	2	2	2	1	1	1
Lot #13 When it got busy cars were being double parked by a lot attendant. This is why for some time periods there are more cars parked than available spots																		
#14 The Lone Mountain Rear Ramp West Side (Regular Spaces)	16	2	4	11	12	16	16	14	15	13	13	5	3	2	1	1	1	1
#15 The Lone Mountain Rear Ramp East Side (Regular Spaces)	8	1	6	8	8	8	7	6	7	8	7	2	2	2	1	2	2	1
#15 The Lone Mountain Rear Ramp East Side (Handicapped Space)	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0
#15 The Lone Mountain Rear Ramp East Side (Reserved Spaces)	4	4	4	4	3	3	2	4	3	4	4	4	4	4	4	4	4	4
#15 The Lone Mountain Rear Ramp East Side (Electric Cart Spaces)	4	4	4	4	4	2	1	2	2	2	2	2	2	3	3	3	3	3
#16 Koret Parking Lot Lower Level (Regular Spaces)	140	42	44	71	102	106	103	106	111	108	98	76	71	50	27	16	8	7
#16 Koret Parking Lot Lower Level (Handicapped Spaces)	4	2	3	2	1	4	1	0	0	0	0	0	0	0	0	0	0	0
#16 Koret Parking Lot Lower Level (Motorcylcle Spaces)	15	1	0	0	0	0	0	1	0	0	0	1	1	2	2	0	0	0
#17 Koret Parking Lot Upper Level (Regular Spaces)	69	18	31	43	64	65	65	66	67	64	60	44	36	31	20	9	2	2
#17 Koret Parking Lot Upper Level (Handicapped Spaces)	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
#17 Koret Parking Lot Upper Level (Carpool Spaces)	25	3	4	6	10	11	13	13	16	19	17	12	11	10	8	6	5	4
#17 Koret Parking Lot Upper Level (Zip Car Spaces)	2	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

Location: USF Campus and surrounding area
Date: 7AM-3PM Thursday 3/31, 4 PM-11PM Thursday March 24 2011

Thursday March 24th		**Number of Cars parked on Street**																
Area #1	Available Spots	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
Geary Blvd Btwn Arguello Blvd and Parker Ave	71	10	13	21	29	34	43	42	29	38	37	27	38	44	35	30	36	32
Arguello Blvd Btwn Geary Blvd and Fulton St	122	97	93	97	94	97	96	85	93	90	95	51	108	109	108	103	103	102
Fulton St Btwn Arguello Blvd and Parker Ave	102	84	67	83	78	80	69	65	73	70	72	55	59	54	62	53	55	49
Beaumont Ave Btwn Geary Blvd and Turk Blvd	73	52	48	47	57	55	55	51	55	42	61	60	64	68	67	57	55	51
Stanyan St Btwn Geary Blvd and Fulton St	144	105	105	112	124	120	116	124	113	107	103	99	112	107	118	132	116	112
N Willard St Btwn Fulton and Edward St	80	66	51	33	35	37	50	41	45	46	56	52	68	71	74	73	76	76
Parson St Btwn Fulton St and McAllister St	27	19	17	14	15	18	20	17	20	13	15	17	15	25	24	31	26	26
Alamaden Ct North of Anza St	29	12	11	2	6	7	7	6	5	3	7	4	2	4	8	10	11	11
Loraine Ct North of Anza St	18	9	4	0	0	2	3	4	4	4	4	6	4	5	7	7	8	8
Rossi Ave Btwn Anza St and Turk Blvd	51	13	15	19	24	23	21	24	20	23	12	15	16	12	18	17	18	20
Anza St Btwn Parker Ave and Arguello Blvd	72	62	67	65	65	60	65	64	65	64	52	51	57	62	63	64	58	58
Edward St Btwn Arguello Blvd and N Willard St	37	25	20	11	18	19	24	25	26	25	20	15	24	27	28	28	29	30
Turk Blvd Btwn Arguello Blvd and Parker Ave	66	58	52	57	55	48	48	47	48	44	47	46	51	56	54	46	45	48
Golden Gate Ave Btwn N. Willard St and Stanyan St	27	25	21	21	21	17	13	18	13	12	21	16	20	22	25	20	22	26
Golden Gate Ave Btwn Arguello Blvd and N. Willard St	38	33	35	33	28	26	26	26	24	28	25	26	34	39	33	35	31	32
Dwy West of Stanyan St (Off of Stanyan South of Golden Gate Ave)	19	16	16	12	15	14	15	14	15	13	14	10	9	10	9	11	11	11
McAllister St Btwn Arguello Blvd and Parker Ave	91	88	89	87	86	87	88	67	76	84	87	95	101	85	107	102	99	101
Total	1067																	

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

Location: USF Campus and surrounding area
Date: Thursday March 24 2011

Thursday March 24th		Number of Cars parked on Street																
Area #2	Available Spots	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
Geary Blvd Btwn Parker Ave and Masonic Ave	70	22	34	39	56	63	60	51	42	45	41	55	44	54	56	60	45	34
Masonic Ave Btwn Geary Blvd and Golden Gate Ave	70	18	22	53	59	58	60	58	56	57	52	45	40	40	34	31	20	18
Golden Gate Ave Btwn Central Ave and Parker Ave	162	123	147	156	160	155	162	158	160	161	157	154	164	153	146	139	127	123
Turk Blvd Btwn Parker Ave and Central Ave	100	77	131	91	95	178	85	88	90	97	91	86	92	90	82	80	66	65
Anza St Btwn Parker Ave and Masonic Ave	230	203	206	216	213	212	212	213	214	224	221	222	217	219	220	223	225	226
Temescal Terrace Btwn Golden Gate Ave and Turk Blvd	22	15	17	22	20	19	18	19	20	20	20	20	18	20	14	13	7	6
Chabot Terrace Btwn Golden Gate Ave and Turk Blvd	18	8	17	18	15	16	14	15	15	17	15	16	16	15	15	13	6	8
Kittredge Terrace Btwn Golden Gate Ave and Turk Blvd	18	8	12	16	16	16	16	15	17	17	17	16	17	17	14	10	11	8
Roselyn Terrace Btwn Golden Gate Ave and Turk Blvd	20	10	14	20	20	19	23	21	19	21	20	17	17	15	15	12	7	6
Tamalpais Terace Btwn Golden Gate Ave and Turk Blvd	21	9	10	18	18	19	19	20	18	19	20	21	21	19	19	18	13	12
Annapolis Terrace Btwn Golden Gate Ave and Turk Blvd	20	9	11	19	20	20	19	21	18	19	18	18	19	16	14	17	13	12
Ewing Terrace West of Masonic Ave	55	44	35	40	33	27	27	27	25	29	29	38	36	37	41	41	45	44
Spruce St Btwn Geary Blvd and Anza St	22	21	22	20	20	19	19	17	16	19	21	18	22	18	18	20	22	24
Cook St Btwn Geary Blvd and Anza St	26	20	20	18	20	26	20	19	23	24	26	23	24	17	18	15	20	21
Blake St Btwn Geary Blvd and Anza St	22	17	17	20	20	21	17	17	18	18	15	16	15	11	10	14	13	14
Collins St Btwn Geary Blvd and Anza St	21	19	18	19	20	19	21	19	21	19	17	20	22	18	18	19	20	18
Wood St Btwn Geary Blvd and Anza St	26	22	21	18	24	22	27	23	21	20	24	26	23	24	24	24	24	22
USF Dwy System North of Turk	200	39	124	179	191	193	176	174	175	166	160	98	81	63	57	50	30	30
Parker Ave Btwn Geary Blvd and Fulton ST	195	166	158	181	179	177	165	178	167	175	184	178	174	176	173	155	121	116
Total	1318																	

Quality Counts
TRANSPORTATION DATA COLLECTION SERVICES

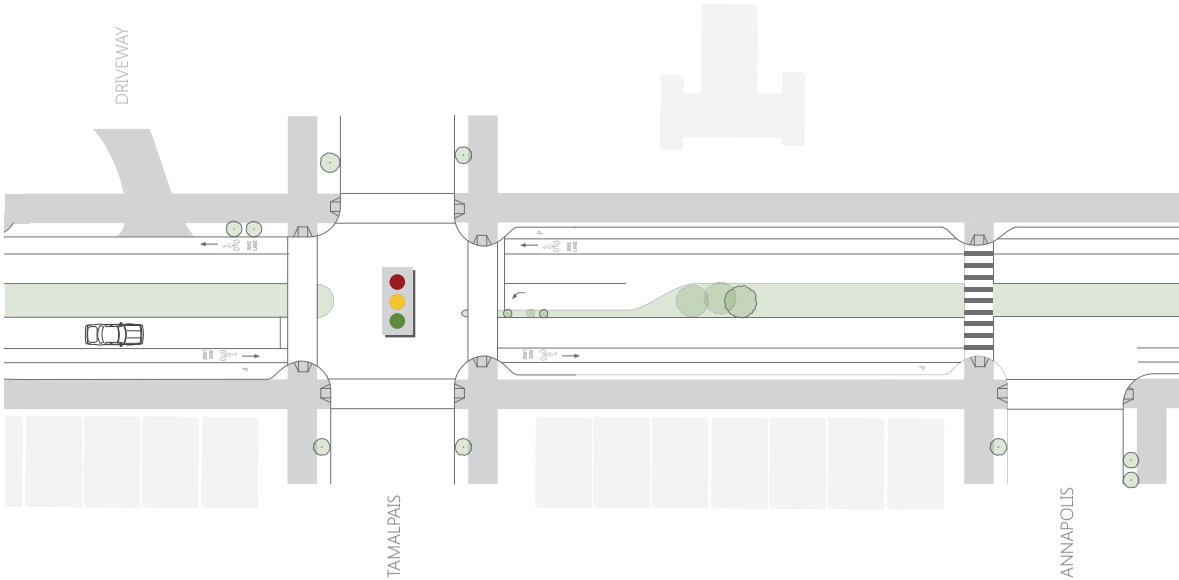
Location: USF Campus and surrounding area
Date: Thursday March 24 2011

Thursday March 24th		**Number of Cars parked on Street**																
Area #3	Available Spots	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
Central Ave Btwn Turk Blvd and Fell St	138	126	127	128	119	104	120	116	111	111	121	129	122	123	133	132	133	133
Fell St Btwn Central Ave and Stanyan St	215	199	203	200	196	181	192	189	193	197	190	192	196	202	205	207	206	208
Stanyan St Btwn Fell St and Fulton St	25	24	25	24	24	24	24	21	23	22	20	19	22	22	23	21	16	15
Masonic Ave Btwn Golden Gate Ave and Fell St	83	27	37	61	66	72	54	54	56	51	48	53	45	55	52	57	63	68
Ashbury St Btwn Fell St and Fulton St	61	59	58	59	59	49	50	55	56	54	55	54	58	58	57	56	58	59
Clayton St Btwn Fell St and Fulton St	70	57	64	66	65	57	64	65	65	64	61	66	68	69	69	67	63	65
Cole St Btwn Fell St and Fulton St	79	72	75	77	72	72	65	72	71	74	74	74	75	76	75	75	77	77
Shrader St Btwn Fell St and Fulton St	67	60	65	66	66	63	62	66	63	59	65	60	64	63	64	59	64	63
Hayes St Btwn Stanyan St and Central Ave	183	153	140	156	162	168	162	158	163	173	173	178	173	176	176	177	173	176
Grove St Btwn Shrader St and Central Ave	150	120	101	102	125	127	126	136	131	137	138	136	142	146	143	143	144	143
Fulton St Btwn Parker Ave and Central Ave	146	101	97	104	95	108	109	114	115	115	114	117	136	135	136	122	95	94
McAllister St Btwn Masonic Ave and Central Ave	32	28	22	20	25	32	32	32	32	29	31	31	29	31	31	32	31	31
Atalaya Terrace North of Fulton St	19	14	13	18	14	14	12	14	13	16	15	17	19	19	18	19	19	19
Hemway Terrace North of Fulton St	6	6	6	6	6	5	6	5	6	6	6	5	6	5	6	6	6	6
Loyola Terrace North of Fulton St	10	9	9	9	10	9	10	10	10	9	9	10	9	10	10	9	10	10
Total	1284																	

APPENDIX E: TRAFFIC CALMING STUDY

UNIVERSITY OF SAN FRANCISCO

Traffic Calming Project



Prepared for:

University of San Francisco

Prepared by:

FEHR PEERS

In Association With:

Urban Design +

332 Pine Street, Floor 4

San Francisco, CA 94104

March 2012

University of San Francisco and University Terrace Neighborhood Traffic Calming Study

Prepared for:

UNIVERSITY OF SAN FRANCISCO

CHANGE THE WORLD FROM HERE

Prepared by:

FEHR PEERS

In association with:

SASAKI

URBAN DESIGN+

March 2012

Documentation and technical analysis prepared by:

Fehr & Peers

332 Pine Street, 4th Floor

San Francisco, California 94104

415.348.0300

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EXECUTIVE SUMMARY

Traffic calming seeks to reduce vehicle speeds, improve safety, and enhance quality of life. Measures to achieve these goals are typically focused on engineering solutions that oblige drivers to slow down or take an alternate route, though enforcement and education can also modify traffic movement. When carefully planned and designed, traffic calming initiatives also improve neighborhood character. Many traffic calming measures create more space for pedestrian movement, neighborhood activities and landscape features.

In San Francisco, the climate for improving pedestrian and bicyclist safety and reducing the impacts of traffic on neighborhood streets is particularly strong. The City has recently adopted the Better Streets Plan to guide decision-making on street improvements across City agencies, including the Municipal Transportation Agency (SFMTA), Planning Department, Public Works, and the County Transportation Authority. The Better Streets Plan provides guidelines and design recommendations to create street designs that are appropriate for the people who use them and for the adjacent neighborhood. Goals of the Better Streets Plan include safe streets that support diverse public life, promote human use and comfort, and create convenient connections.

USF and the University Terrace Association began conducting a traffic calming study to identify potential traffic and transportation safety improvements in the University Terrace neighborhood beginning in June 2010 as part of the University's planning efforts. Residents of University Terrace and members of the USF community had expressed concern about safety in the neighborhood, primarily caused by driver behavior and pedestrian activity, particularly in the University Terrace neighborhood, which is located between the Upper and Lower Campuses and is bound by Turk Boulevard on the north, Golden Gate Avenue on the south, Parker Avenue on the west and Masonic Avenue on the east.

The transportation conditions and specific traffic issues and opportunities in the study area were evaluated by Fehr & Peers, transportation planners and engineers, and Urban Design +, a design, planning and sustainability firm. They were tasked with identifying stakeholder concerns; reviewing applicable City policies; and collecting traffic data, including speeds, volumes, and collision information.

In order to develop a clear understanding of the vehicular and pedestrian issues effecting University Terrace and the USF campus, the project team conducted a wide analysis that focused on issues that affect circulation, safety and livability in four main zones: the University Terrace neighborhood, along Turk Boulevard, Golden Gate Avenue, and the USF campus. The analysis included a walking tour of the neighborhood with University Terrace Association and USF representatives, site observation on multiple occasions, traffic data collection, review of overview materials provided by UTA members, and a survey of neighbor and USF communities.

To understand the concerns and details about the issues in the project area, a comprehensive community outreach process was employed. This entailed approximately twenty meetings involving the University, University Terrace Association, students, and the City of San Francisco. The goal of the meetings was to identify and prioritize community concerns in the study area and discuss potential traffic calming measures to alleviate concerns.

In addition to the neighborhood meetings, a survey was distributed to University Terrace residents as well as USF faculty, staff and students. The purpose of this survey was to assist in identifying community concerns in the study area. This qualitative data was considered in conjunction to inputs from the neighborhood meetings among members of the University and UTA. The survey included questions about transportation patterns, safety concerns, travel behavior and challenges to accessing campus and residences, among others. Survey questions can be found in the Appendix. A total of 1,076 respondents provided input on the survey.

The traffic calming study also included a robust data collection effort, including vehicle traffic counts, speed surveys, pedestrian and bicyclist counts, parking analysis, and collision data, within the University Terrace neighborhood.

1.1 SITE ANALYSIS SUMMARY

This study identified a series of issues in five general categories:

Parking Management in the UT Neighborhood Parking in the UT neighborhood is impacted by members of the public, including the USF community, parking throughout the UT. These impacts include lack of parking for visitors, high traffic volumes created by people looking for parking, unsafe driving maneuvers including mid-block U-turns and inattentive and high speed turns, and blocking of residents' driveways.

Traffic Management in the UT Neighborhood The residential parking permit area in University Terrace (i.e., "BB") has a 2-hour time limit for non-residents which leads to regular turnover of the parking spaces. This space turnover ensures that if one looks long enough, odds are eventually a space will be found. The corollary to this turnover is that it creates traffic throughout the University Terrace streets as vehicles circulate looking for parking.

Pedestrian Volumes in the UT Neighborhood Throughout the day, members of the USF community walk back and forth between the Upper and Lower campuses. The resulting pedestrian volumes are significant. As the sidewalks in the University Terrace neighborhood were not designed for such volumes and are generally narrow and often obstructed, many people walk in the street, creating a potentially hazardous condition given the traffic volumes and frequently observed unsafe driving maneuvers.

Pedestrian Safety on Golden Gate Avenue and Turk Boulevard The high volume of pedestrians moving between the two USF campuses is evident on both Golden Gate and Turk and is impacted by dangerous conditions on each. On Turk, crossing signal timing at the signalized crosswalks is too short for the distance and volumes (22 seconds at Chabot Terrace); the medians are insufficient for safe refuge; the grade and sun angles impede sight distances on the street and for drivers making turns to/from the street; the downhill eastbound grade and unnecessarily wide street encourage speeding; the sidewalks at the bus stops are narrow; the bike lanes are not continuous; and distracted pedestrians jaywalk at both the intersections and mid-block (contributing are Upper Campus paths that are not aligned to the crosswalks). On Golden Gate, the street is unnecessarily wide (which encourages unsafe driving maneuvers such as mid-block U-turns); there are no signalized intersections; there is a high volume of pedestrians crossing in all directions; the bike lanes are not continuous; and the downhill grade encourages high vehicular speeds (including bikes and skateboards).

Vehicular Impacts on USF Campus Edges The edges of each of the campuses are inordinately impacted by vehicles. These impacts include parking, driveways, service vehicles, and the traffic volumes on both Golden Gate and Turk. Parking and services, which dominate the campus edges, create obstacles for pedestrians and cyclists, as does the interruption in public space between the two campuses. These issues challenge the university to provide safe, efficient operations and maintain a curb appeal within the community.

There is a broad menu of traffic calming devices that can effectively address some of the traffic issues identified as a result of the data collection and public outreach in University Terrace. These could be as simple as revised lane striping or more prominent crosswalk markings for the directional guidance of cars, bicycles and pedestrians; reducing speed and volume through various narrowing and volume devices; bulbouts that narrow the travel lane at intersections and create shorter crossing distance for pedestrians; and "road diets," which reduce the number of automobile travel lanes to benefit transportation modes (e.g. bike lanes, wider sidewalks.) or alternative uses (e.g. parklets, stormwater management). One of the more effective tools of traffic calming is full or partial-street closures that restrict the quantity and sometimes the type of travel on a given right-of-way.

The study team developed four alternative traffic calming scenarios. Each alternative is a combination of possibilities from an overall menu of ideas—the alternatives are organized around general themes, but many of the components can be recombined to generate other scenarios. A full description of the alternatives may be found in the Appendix. Regardless of the methods implemented, the ultimate evaluation of effectiveness is how well the measures meet the needs of street users and residents and provide consistency with community values and city policy. Potential traffic calming measures were identified and combined to form four alternatives for the communities to evaluate through a series of public and campus meetings. Neighborhood residents and other stakeholders evaluated the alternatives, selected the measures that were most effective to meet the project goals, and developed a preferred alternative.

Recognizing that no one idea will solve neighborhood and USF traffic issues, the community combined the most palatable elements of the four alternatives to develop a comprehensive plan that results in changes to address existing traffic behavior and retains appropriate access to University Terrace and USF. A successful solution will be a comprehensive solution that both mitigates the identified issues and creates a safer and more welcoming community. The Preferred Plan, which represents a combination of elements from all four initial scenarios, is described in this report.

1.2 PREFERRED PLAN

The Preferred Plan, which is acceptable to the UTA and USF, combines components of each of the four draft alternatives to create a plan focused on safe and welcoming neighborhood. This Preferred Plan, "A Great Neighborhood" includes a number of key concepts such as restricting the turning movements on Turk Boulevard to prevent cut-through traffic; pedestrian crosswalk enhancements along Turk Boulevard; bus stop improvements; gateway treatments; and the reframing of the streets in the University Terrace neighborhood and adjacent to USF.

To create a welcoming, high quality university and residential neighborhood, the preferred alternative includes a planted median along Turk Street and gateway treatments at both Parker and near Masonic on Golden Gate Avenue. Each of the Terrace streets would have a partial closure at the southern end to restrict vehicles from entering Terrace streets from Golden Gate Avenue. One westbound lane would be removed from Turk Boulevard, such that Turk would only have one lane westbound and one lane eastbound.

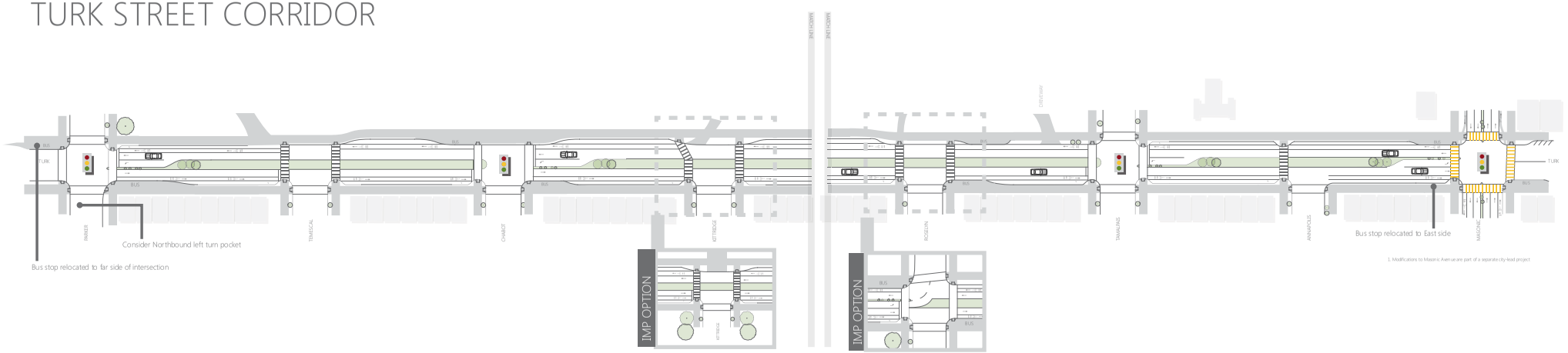
The combination of a median restricting certain turning movements on Turk Boulevard and the partial closures of the Terraces would maintain access for residents while discouraging vehicles from circulating through the Terrace streets looking for parking. Combined with managed parking restrictions – including the reduced time limit on BB parking – this plan would significantly decrease the amount of vehicular traffic on University Terrace streets and create a neighborhood-oriented environment for the community and safer environment for pedestrians.

On Golden Gate Avenue, bulbouts at crosswalks and gateway treatments at Parker and Annapolis will highlight and create clear entries into the neighborhood. There would also be an enlarged and enhanced crosswalk at Chabot Street that would align with the pedestrian path within the Lower Campus. This crosswalk would create an inviting and continuous pedestrian connection between the Lower Campus and Upper Campus along Chabot Terrace. Each of the Terraces would have at least one marked crosswalk with bulbouts shortening the distance required to cross Golden Gate. There would also be a large planted median in the center of Golden Gate, just east of Annapolis Terrace. This median would act as both a traffic calming and gateway feature into the neighborhood.

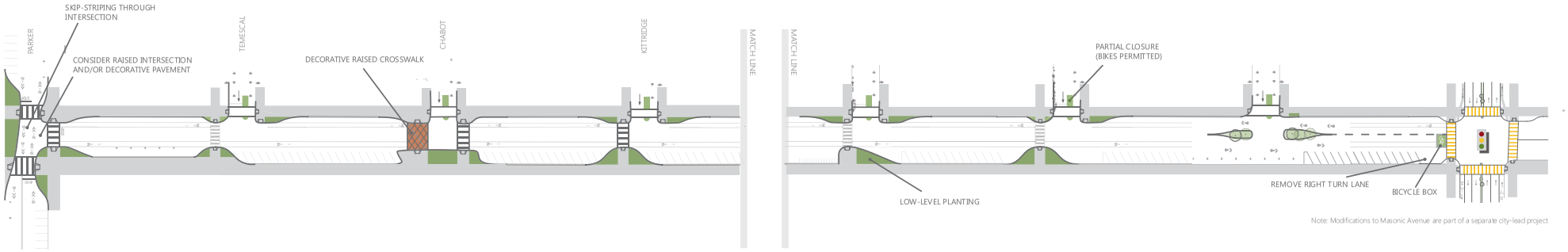
Enhancements on Parker Street will create safer conditions for the campus community, enhance connections to the Koret Center and soccer field, and create a more attractive campus entry and edge. Curb extensions into the intersection of Parker and Golden Gate would create a much smaller intersection than what exists today. Planted areas between curb ramps could help channel pedestrians into the crosswalks at the intersection.

This Preferred Plan is comprehensive concept for improvements in the University Terrace and USF district, one that can both address parking and traffic safety issues and create a more welcoming environment for residents and members of the University Terrace and USF community. This preferred plan, as voted on by the University Terrace, will guide the development of the future design of streetscape improvements in the neighborhood.

TURK STREET CORRIDOR



1. Modifications to Masonic Avenue are part of a separate city-lead project



Note: Modifications to Masonic Avenue are part of a separate city-lead project

GOLDEN GATE AVENUE CORRIDOR

Not to Scale

DRAFT - FOR DISCUSSION PURPOSES ONLY

CHAPTER 1. INTRODUCTION

The USF Traffic Calming Plan presents a comprehensive range of ideas to reduce traffic in the University Terrace neighborhood and create a safer and more respectful environment for neighbors and the USF community. The ultimate goal of the improvements suggested in this Plan is to improve safety, minimize vehicle, pedestrian, bicycle, and parking impacts on the University Terrace area, and to ensure that the area has the welcoming qualities of a university and residential neighborhood.

This study was initiated by a Settlement Agreement between USF and the University Terrace Association (UTA) dated June 24, 2010 and identifies traffic and transportation safety improvements in the University Terrace neighborhood as part of University planning efforts. This study is being conducted in coordination with the University's Institutional Master Plan (IMP), which addresses other transportation improvements for the University and its impacts on the surrounding neighborhoods, including parking, transportation demand management and delivery access.

The project area encompasses the University Terrace neighborhood, which is located between the USF Upper and Lower Campuses and bound by Turk Boulevard on the north, Golden Gate Avenue on the south, Parker Avenue on the west, and Masonic Avenue on the east.

Residents of University Terrace and members of the USF community, including faculty, staff and students, have expressed concern about safety in the neighborhood primarily caused by driver behavior and pedestrian activity. With construction of the new Center of Science and Innovation on USF's lower campus, south of the existing Harney Science Center, UTA requested (as part of the Settlement Agreement) that USF consider traffic calming improvements adjacent to the new center and throughout the University Terrace neighborhood.

1.3 BACKGROUND DOCUMENTS

This Plan encompasses previous planning efforts conducted to date:

- 2010 USF/UTA Settlement Agreement
- 2010 SFMTA Masonic Avenue Street Design Study
- 2010 Temescal Terrace SFMTA Parking Striping Request
- 2010 Ideas for USF/UTA Transportation & Traffic Calming Study by Marty MacIntyre
- 2010 Transportation Packet from Marty MacIntyre for Traffic Calming kick-off including:
  - 2010 SF Chronicle Article, Cars to take a backseat in SF by M. Cabanatuan
  - 2002 Intersection Survey of vehicles and pedestrians
  - Survey of UT parking spaces
  - 2002, 2003 Survey of parking violations by location, type and frequency
  - 2000 Pedestrian and Traffic Safety Analysis
  - 2000 University Terrace Housing Survey
  - 2000 Related Comments from Resident Survey
- 2009-2010 Student Parking Packet
- 2009-2010 Faculty/Staff Parking Packet
- 2005 Policy Board Parking Survey
- 2003 Vehicle-Pedestrian Confrontations in University Terrace by Marty MacIntyre
- 2003 Traffic Calming Request to MTA
- 2003 Charrette for University Terrace Traffic Calming
- 2002 Letter from SF Planning Department re: Comments on Preliminary Draft Transportation Memorandum for USF McLaren Hall
- 2002 McLaren Hall Transportation Memo
- 2002 Institutional Plan
- 2002 Details on Chabot and Turk accident by Marty MacIntyre
- 1993 Institutional Plan Transportation Impact Analysis

urban design planning sustainability
URBAN DESIGN +

USF-Traffic Calming, Phase 1

Study Area

Project Team:
Urban Design +
Fehr and Peers
Sasaki Associates

Client:
University of San Francisco

1.4 TRAFFIC CALMING 101

Traffic calming seeks to reduce vehicle speeds, improve safety and enhance quality of life. Measures to achieve these goals are typically focused on engineering that oblige drivers to slow down or take an alternate route, yet enforcement and education can also modify traffic movement.

When carefully planned and designed, effective traffic calming is also concerned with improving neighborhood character. Many traffic calming measures create more space for pedestrian movement, neighborhood activities and landscape features. As important, multiple studies have shown that slower moving and/or less vehicular traffic creates both safer and more connected neighborhoods.

The pioneering San Francisco livable streets research conducted by Donald Appleyard, which led to a wide range of ideas championed by the former City Planning Director, Allen Jacobs, including significant traffic calming projects such as the improvements in the Duboce Triangle, have shown to greatly increase neighborhood quality and long-term property values.

Perhaps the best-known method for calming traffic is the speed bump, which has evolved to various forms and materials that provide a vertical deflection forcing traffic to physically slow down. In contemporary practice, simple speed bumps have generally given way to more design-oriented and effective measures such as raised crosswalks and speed tables.

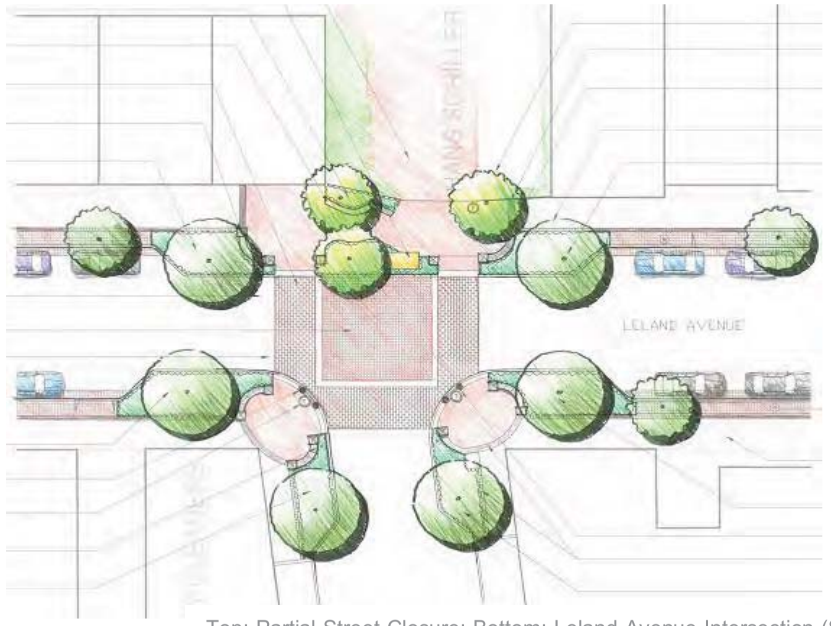
There is now a broad menu of traffic calming devices that can be equally effective seeking to reduce traffic speeds. These may be as simple as revised lane striping or more prominent crosswalk markings for the directional guidance of cars, bicycles and pedestrians.

Reducing speed and volume can also be achieved through various narrowing and volume devices. Some examples include bulbouts that narrow the travel lane at intersections and create shorter crossing distance for pedestrians, and "road diets," which reduce the number of automobile travel lanes in exchange for other transportation modes (e.g. bike lanes, wider sidewalks.) or alternative uses (e.g. parklets, stormwater management).

One of the more effective tools is full or partial-street closures that restrict the quantity and sometimes the type of travel on a given right-of-way. Such measures can be appropriate on less-traveled streets and can dramatically affect quality of life by reducing cut-through and non-local traffic.

Regardless of the methods implemented, the ultimate evaluation of effectiveness is how well the measures meet the needs of all street users and residents while ensuring consistency with both community values and city policy.

A sample traffic calming toolbox for the USF area is included as **Appendix 1**.



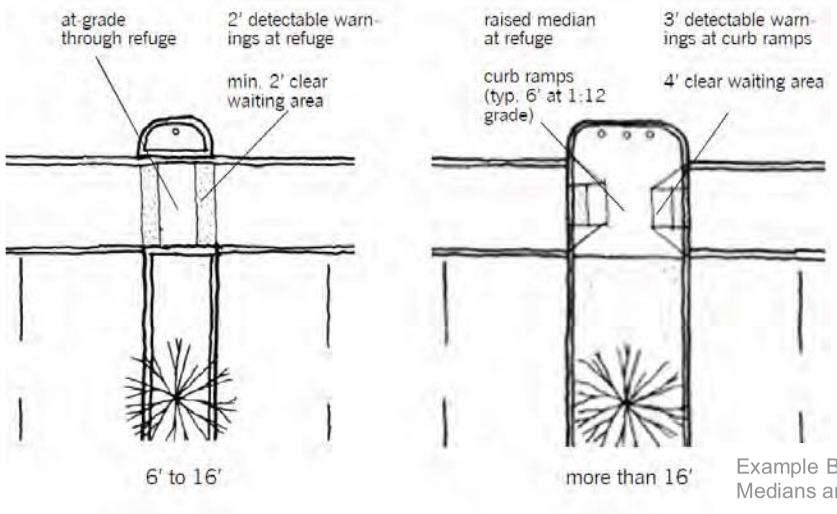
Top: Partial Street Closure; Bottom: Leland Avenue Intersection (SF Planning)

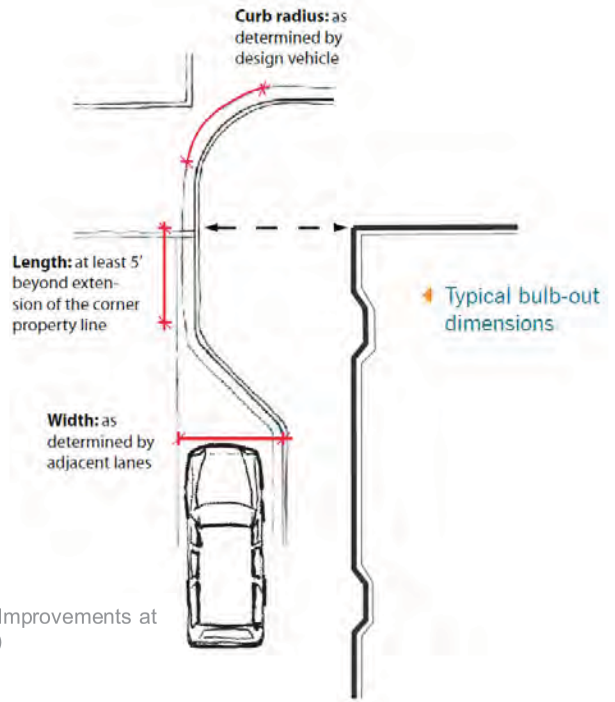
1.4.1 Traffic Calming in San Francisco

In San Francisco, the climate for improving pedestrian safety and reducing the impacts of traffic on neighborhoods is particularly strong. The City recently adopted the Better Streets Plan to guide decision-making on street improvements, and both the Metropolitan Transportation Agency and the Planning Department are focused on creating more livable streets. Specific programs in the Livable Streets initiative include a Traffic Calming Program, Bicycle Program, Pedestrian Program, and School Area Safety Program at the SFMTA and the Pavement to Parks and Better Streets Plan at the Planning Department.

The Better Streets Plan, intended to assist in coordinated decision-making for better streets, provides guidelines and design recommendations to create pedestrian-oriented and multi-functional streets. It includes elements from the City's Transit-First, Better Streets and Complete Streets Policies, all adopted by the City of San Francisco to prioritize street improvements that enhance transit, pedestrian, bicycle, and carpool trips over other transportation modes. Goals of the Better Streets Plan include safe streets that support diverse public life, promote human use and comfort, and create convenient connections.

Plan highlights include: distinctive, unified overall design; space for public life; pedestrian safety and priority; universal design; integrating pedestrians and transit; and reclaiming excess street space. The Better Streets Plan includes a range of approved strategies for improving streets, including traffic calming, sidewalk improvements, and sustainability measures such as visible and shorter pedestrian crossings, slower vehicular turning speeds, unobstructed sidewalks, bus bulbouts and boarding islands, traffic circles and landscaped medians, parklets, and innovative stormwater management. The ideas presented in the Traffic Calming Plan are based on city-endorsed ideas in the Better Streets Plan.





Example Better Streets Plan Pedestrian Improvements at Medians and Corner Curbs (SF Planning)

1.5 POLICY FRAMEWORK

The following policies were reviewed and applied throughout the traffic calming process.

1.5.1 San Francisco General Plan

The City of San Francisco's General Plan specifies the following policies and implementation programs related to transportation, safety and traffic calming:

General

POLICY 1.1 *Involve citizens in planning and developing transportation facilities and services, and in further defining objectives and policies as they relate to district plans and specific projects.*

POLICY 1.2 *Ensure the safety and comfort of pedestrians throughout the city.*

POLICY 2.4 *Organize the transportation system to reinforce community identity, improve linkages among interrelated activities and provide focus for community activities.*

Transportation Performance Measures

POLICY 10.1 *Assess the performance of the city's transportation system by measuring the movement of people and goods rather than merely the movement of vehicles.*

Transportation Systems Management

POLICY 14.2 *Ensure that traffic signals are timed and phased to emphasize transit, pedestrian, and bicycle traffic as part of a balanced multi-modal transportation system.*

POLICY 15.1 *Discourage excessive automobile traffic on residential streets by incorporating traffic-calming treatments.*

POLICY 15.2 *Consider partial closure of certain residential streets to automobile traffic where the nature and level of automobile traffic impairs livability and safety, provided that there is an abundance of alternative routes such that the closure will not create undue congestion on parallel streets.*

Parking Management

POLICY 16.1 *Reduce parking demand through the provision of comprehensive information that encourages the use of alternative modes of transportation.*

POLICY 17.2 *Encourage collaboration and cooperation between property owners, neighboring uses and developers to allow for the most efficient use of existing and new parking facilities.*

Vehicle Circulation

POLICY 18.2 *Design streets for a level of traffic that serves, but will not cause a detrimental impact on adjacent land uses, nor eliminate the efficient and safe movement of transit vehicles and bicycles.*

POLICY 18.4 *Discourage high-speed through traffic on local streets in residential areas through traffic "calming" measures that are designed not to disrupt transit service or bicycle movement.*

POLICY 19.2 *Promote increased traffic safety, with special attention to hazards that could cause personal injury.*

Pedestrians

POLICY 23.1 *Provide sufficient pedestrian movement space with a minimum of pedestrian congestion in accordance with a pedestrian street classification system.*

POLICY 23.2 *Widen sidewalks where intensive commercial, recreational, or institutional activity is present, sidewalks are congested, where sidewalks are less than adequately wide to provide appropriate pedestrian amenities, or where residential densities are high.*

POLICY 23.6 *Ensure convenient and safe pedestrian crossings by minimizing the distance pedestrians must walk to cross a street.*

POLICY 23.7 *Ensure safe pedestrian crossings at signaled intersections by providing sufficient time for pedestrians to cross streets at a moderate pace.*

POLICY 23.9 *Implement the provisions of the Americans with Disabilities Act and the city's curb ramp program to improve pedestrian access for all people.*

POLICY 25.6 *Provide enforcement of traffic and parking regulations to ensure pedestrian safety, particularly on streets within the Citywide Pedestrian and Neighborhood Networks***.**

Bicycles

POLICY 27.1 *Expand and improve access for bicycles on city streets and develop a well-marked, comprehensive system of bike routes in San Francisco.*

Citywide Parking

POLICY 33.2 *Protect residential neighborhoods from the parking impacts of nearby traffic generators.*

1.5.2 Better Streets Plan

In December 2010, the Mayor and Board of Supervisors adopted the Better Streets Plan and accompanying legislation. The legislation took effect on January 16, 2011.

The Better Streets Plan is now an official plan of the City and County of San Francisco. It describes design guidelines for pedestrian and streetscape features in the public right-of-way in San Francisco.

1.5.3 San Francisco Municipal Transportation Agency Livable Streets Program

SFMTA's Traffic Calming Program, part of the Livable Streets division, is working on improving safety on San Francisco's streets. This program addresses some of the traffic problems associated with the growing number of cars in the City, by redesigning streets and sidewalks to make them friendlier for pedestrians, children, bicyclists, and motorists.

livable streets

SFMTA home >
Livable Streets

1.5.4 San Francisco Bicycle Plan

The 2009 San Francisco Bicycle Plan is an update of the 1997 San Francisco Bicycle Plan. By maintaining an approved bicycle plan, the City and County of San Francisco is eligible for selected State and regional funds to develop bikeways and related facilities. Additionally, San Francisco City Charter Section 16.102 and Section 8A.113 state that San Francisco should develop "a safe, interconnected bicycle circulation network;" and that travel… "by bicycle and on foot must be an attractive alternative to travel by private automobile." The City Charter also states that "bicycling shall be promoted by encouraging safe streets for riding, convenient access to transit, bicycle lanes, and secure bicycle parking."

The Bicycle Plan contains specific proposed near-term bicycle route network improvement projects as well as long-term projects. Current bicycle facilities in the project area include Class II on-street bike lanes on Turk Boulevard and Golden Gate Avenue with Class III signed routes on Masonic Avenue and Parker Avenue as shown in **Figure 2**. The 2009 Bicycle Plan recommends near-term improvements on Masonic Avenue to improve bicycle facilities and create a safe cycling route.

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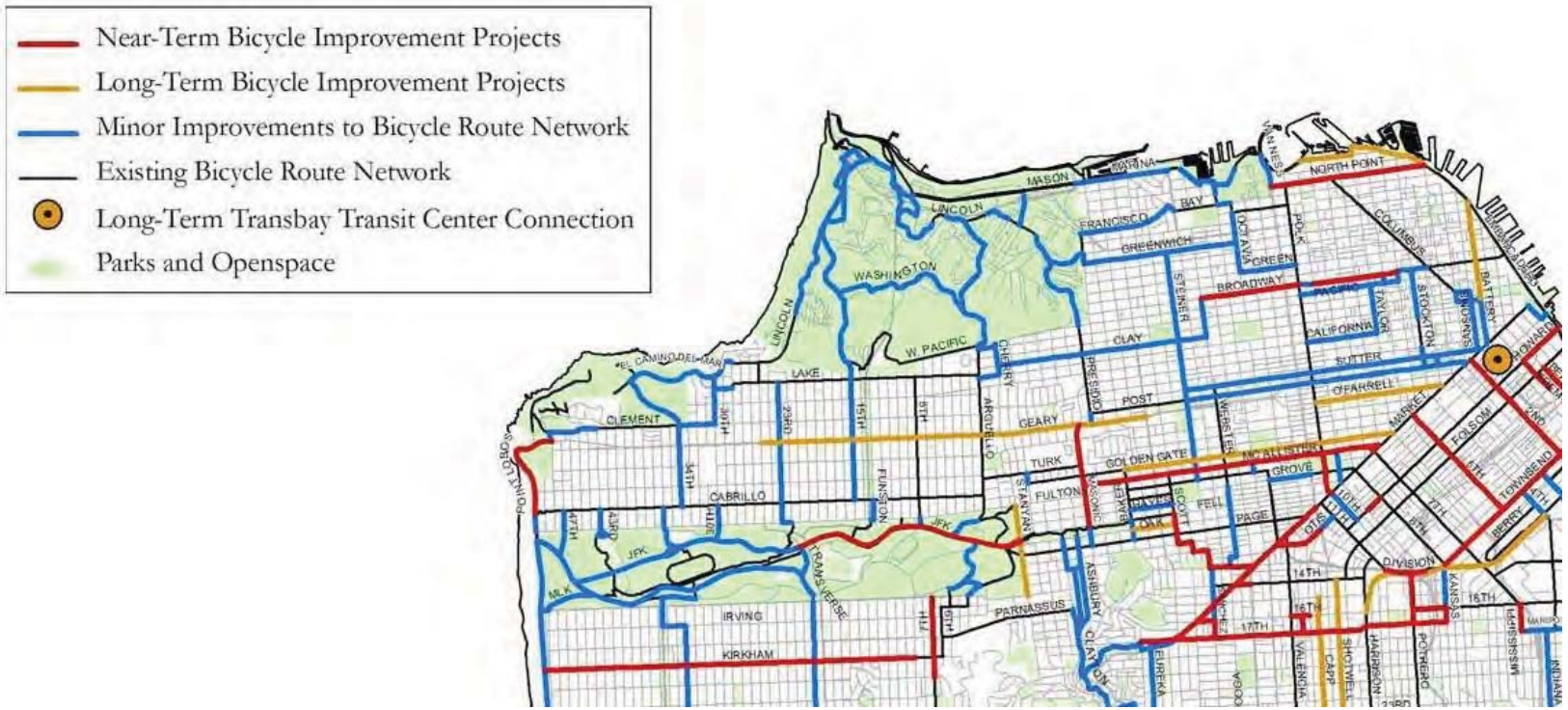
Figure 2 San Francisco Bike Plan



CHAPTER 2. SITE ANALYSIS

In order to develop a clear understanding of the vehicular and pedestrian issues effecting University Terrace and the USF campus, the project team conducted a wide analysis that focused on issues that affect circulation, safety and livability in four main zones: the University Terrace neighborhood, along Turk Boulevard, Golden Gate Avenue, and the USF campus. The analysis included a walking tour of the neighborhood with University Terrace Association and USF representatives, site observation on multiple occasions, traffic data collection, review of overview materials provided by UTA members, and a survey of neighbor and USF communities.

2.1 METHODOLOGY

To evaluate the transportation conditions and specific traffic issues in the study area, the following steps, consistent with best practices for traffic calming programs[1] throughout the U.S., were conducted:

1. **Project Initiation**
   a. Review neighborhood concerns (identified in the settlement agreement and reinforced in subsequent discussions)
   b. Review previous planning efforts in the area
   c. Review city policies applicable to project
   d. Community outreach
2. **Project Development**
   a. Collected traffic data including speeds, volumes and collision data
   b. Observed conditions in the field
   c. Identified specific concerns through survey[2] of neighborhood and stakeholders
   d. Evaluated issues and identify potential traffic calming measures
   e. Evaluated alternatives through a series of workshops and public meetings.
3. **Project Approval**
   a. Neighborhood Traffic Committee formed to evaluate the four alternatives and to assist in building community consensus
   b. Neighborhood support for the plans assessed via ballot-like surveys
   c. Community consensus was reached and support from the City is currently being solicited
   d. Funding sources are currently being identified

[1] Based on U.S. Traffic Calming Manual, co-authored by Steve Brown, Principal at Fehr & Peers.

[2] See Appendix for Community Survey.

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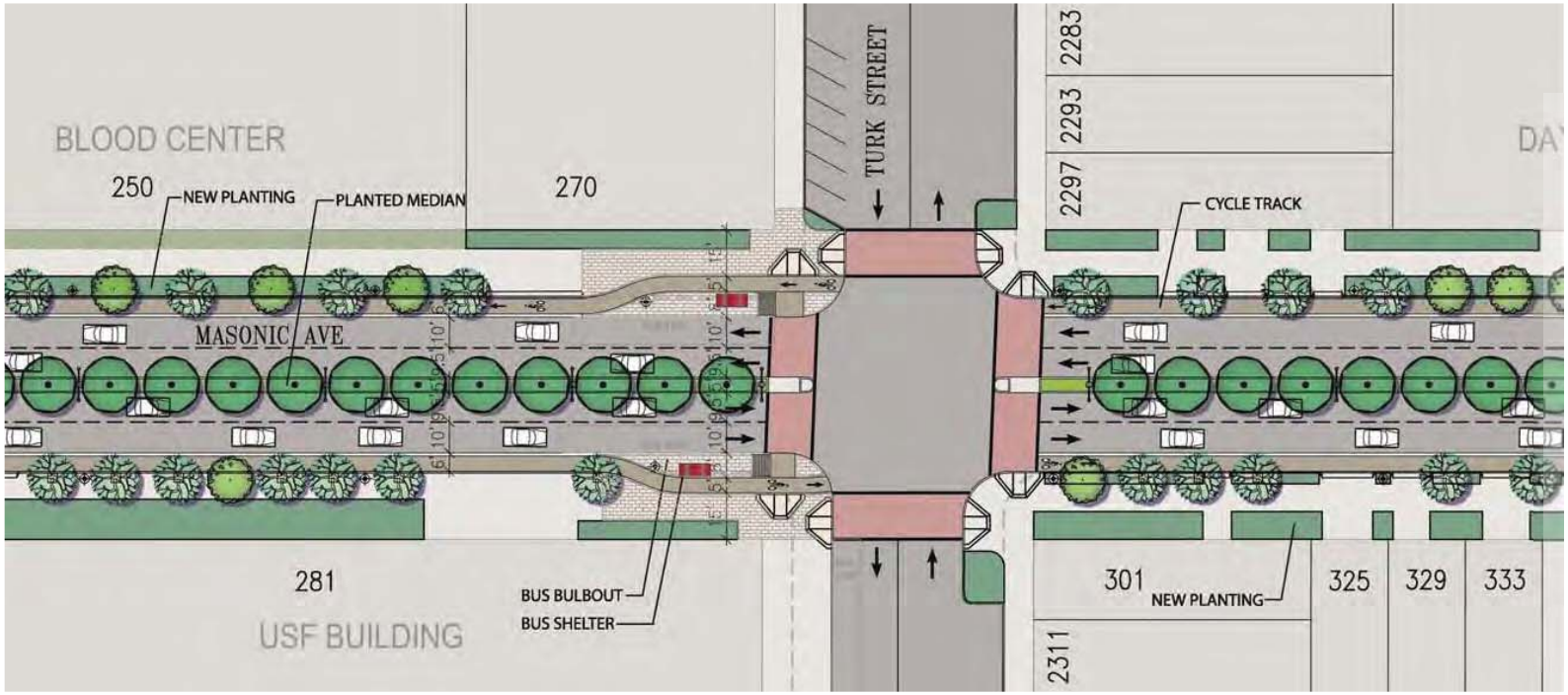
2.2 DATA COLLECTION

The project study area includes two major arterial street segments (Masonic Avenue and Turk Boulevard) and eight residential streets:

- Masonic Avenue, between Turk Boulevard and Golden Gate Avenue
- Turk Boulevard, between Parker Avenue and Masonic Avenue
- Golden Gate Avenue, between Parker Avenue and Masonic Avenue
- Parker Avenue, between Turk Boulevard and Golden Gate Avenue
- Temescal Terrace
- Chabot Terrace
- Kittredge Terrace
- Roselyn Terrace
- Tamalpais Terrace
- Annapolis Terrace

Figure 3 Masonic Avenue Street Redesign Study



Source: SF Planning Department, SFMTA, SFDPW; 2011

Masonic Avenue has recently been evaluated by the City of San Francisco Municipal Transportation Agency (MTA) and is undergoing a planning process for traffic calming improvements as shown in **Figure 3.** This traffic calming study is being coordinated with the City's efforts and therefore did not consider additional traffic calming measures on Masonic Avenue.

To evaluate the traffic volumes and vehicle speeds in the study area, Fehr & Peers collected vehicular, pedestrian, and bicycle data in October 2010 on two typical weekdays while school was in session. The data collection efforts are summarized in this section.

2.2.1 Vehicle Turning Movement Volume Data

Vehicular turning movement counts were conducted on Thursday October 14th, 2010 and Tuesday October 19th, 2010 during morning and evening peak-hour periods: 7:00 to 9:00 AM and 4:00 to 6:00 PM. See **Figure 4** for the AM and PM peak hour average vehicular turning movement volumes at the following eight locations:

1. Golden Gate Avenue at Parker Avenue
2. Golden Gate Avenue at Chabot Terrace
3. Golden Gate Avenue at Roselyn Terrace
4. Golden Gate Avenue at Masonic Avenue
5. Turk Boulevard at Masonic Avenue
6. Turk Boulevard at Tamalpais Terrace
7. Turk Boulevard at Kittredge Terrace
8. Turk Boulevard at Parker Avenue

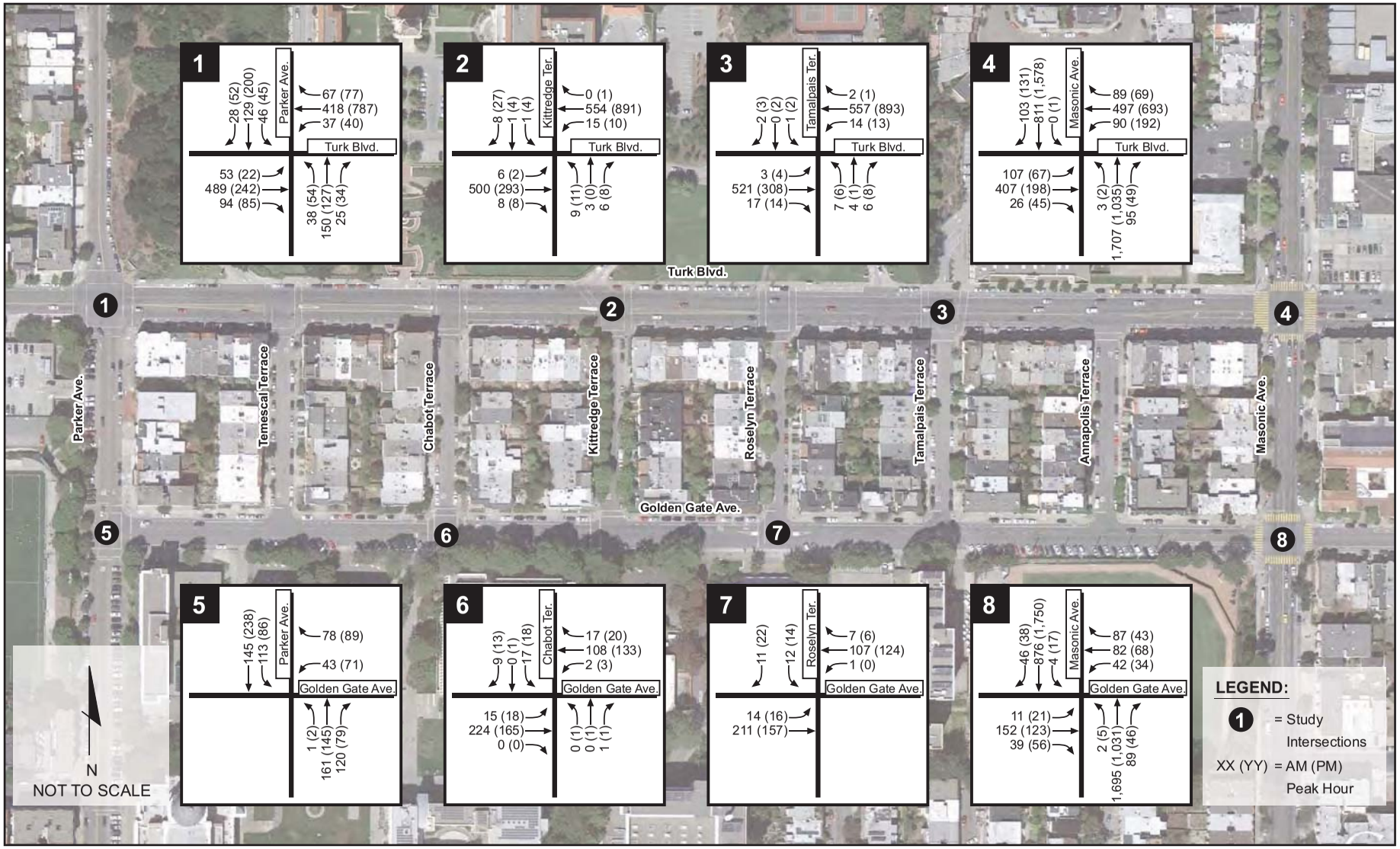
As shown in **Figure 4**, the intersection of Turk Boulevard at Masonic Avenue has the highest volume of turning movements. The turning movements to and from Turk Boulevard to the six residential terrace intersections range between 50 and 75 turns during the peak hour.

Although traffic analysis is typically based on the morning and evening peak hours, the travel patterns near universities often depend on class schedules and may have higher volumes of activity mid-day. Therefore, Fehr & Peers also conducted vehicular movement counts on Thursday October 19th, 2010 from 11:00AM to 1:00 PM.

Figure 5 presents the mid-day peak hour turning movement volumes at the following locations:

1. Golden Gate Avenue at Parker Avenue
2. Golden Gate Avenue at Chabot Terrace
3. Golden Gate Avenue at Roselyn Terrace
5. Turk Boulevard at Masonic Avenue
6. Turk Boulevard at Tamalpais Terrace
7. Turk Boulevard at Kittredge Terrace

As shown in Figure 6, the highest number of vehicles was observed at the intersection of Turk Boulevard at Parker Avenue (395 turns). The peak hour turns on the residential terrace intersections ranges between 75 and 98 turns, which is approximately 1.5 times as many turns as are observed during either AM or PM peak hour. This equates to roughly 1.5 turns per minute for each intersection within the University Terrace neighborhood.



USF Traffic Calming

FEHR & PEERS

USF STUDY AREA TURNING MOVEMENT AM (PM) PEAK HOUR VOLUMES

Dec 2010
SF10-0532\graphics\Tech Memo\0518-1

FIGURE 4

USF Traffic Calming

FEHR PEERS

USF STUDY AREA TURNING MOVEMENT MID-DAY PEAK HOUR VOLUMES

Dec 2010
SF10-0532\graphics\Tech Memo\0518-2

FIGURE 5

2.2.2 Vehicle Volume and Speed Data

In conjunction with the vehicular turning movement counts, Fehr & Peers also conducted 24-hour vehicle "tube counts" for the following four segments on Turk Boulevard and Golden Gate Avenue on October 14th, 2010 and October 19th, 2010:

1. Golden Gate Avenue from Temescal and Chabot
2. Golden Gate Avenue from Roselyn and Tamalpais
3. Turk Boulevard from Temescal and Chabot
4. Turk Boulevard from Roselyn and Tamalpais

Overall, traffic impacts the USF and UT communities significantly. The major streets leading to USF – Masonic Avenue, Turk Boulevard, Fulton Street, and Stanyan Street – carry approximately 34,000 vehicles, 10,000 vehicles, 9,000 vehicles, and 9,600 vehicles per day, respectively. Comparatively, the entire USF Hilltop Campus generates approximately 6,700 vehicle trips per day. The streets around USF have a substantially higher volume of pedestrians compared to surrounding neighborhood residential streets because of students walking between classes, and pedestrians cross these streets daily at both marked and unmarked crosswalks. Key factors were identified as speed, right-of-way violations by drivers, and the non-compliance with signals/signs.

The "tube data" includes all vehicle counts in both directions as summarized in **Table 1**.

TABLE 1: EXISTING VEHICULAR VOLUME DATA

Location	Direction	Peak Hour Volume			Daily Volume
		AM[1]	Midday[2]	PM[1]	
Golden Gate Avenue	EB	147 (7%)	163 (8%)	150 (8%)	1,976
(Temescal – Chabot Terrace)	WB	189 (8%)	187 (8%)	166 (7%)	2,281
Golden Gate Avenue	EB	169 (7%)	179 (8%)	171 (7%)	2,325
(Roselyn – Tamalpais Terrace)	WB	121 (7%)	172 (9%)	141 (8%)	1,827
Turk Boulevard	EB	434 (11%)	251 (6%)	277 (7%)	3,962
(Temescal – Chabot Terrace)	WB	405 (6%)	413 (6%)	572 (9%)	6,564
Turk Boulevard	EB	466 (11%)	276 (7%)	328 (8%)	4,191
(Roselyn – Tamalpais Terrace)	WB	476 (7%)	440 (6%)	775 (11%)	7,129

Notes:

1 AM and PM peak hour vehicle counts are determined based on 24-hour tube counts conducted at the four designated locations on Thursday, October 14th, 2010.

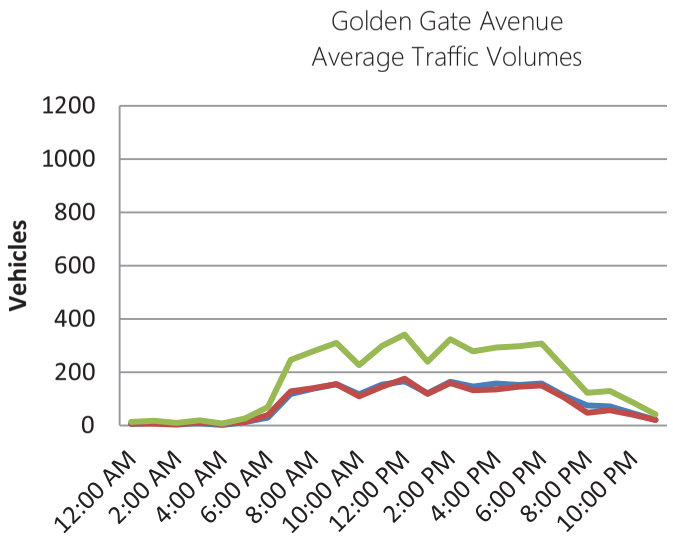
2 Mid-day peak hour vehicle counts are determined based on tube counts conducted at the four designated locations on Tuesday, October 19th 2010 from 11:00AM to 1:00PM.

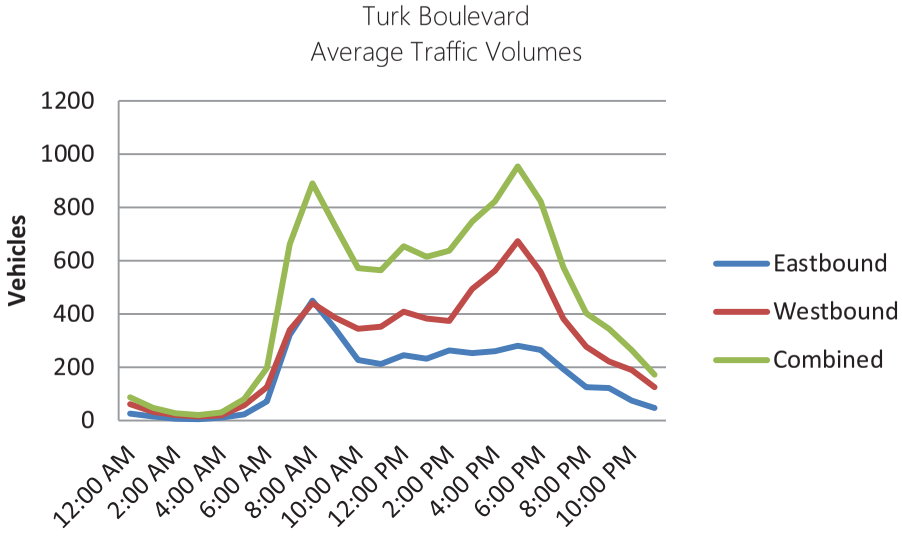
3 The speed limit along Turk Boulevard and Golden Gate Avenue is 25 mph.

Source: Fehr & Peers, 2010

As shown in **Table 1**, Turk Boulevard carries the heaviest vehicle volumes in the study area[3]. For all segments, between six and 11 percent of daily traffic occurs in either AM, mid-day, or PM peak hour, which is typical for local roadways. The highest peak hour volume happens on Turk Boulevard between Roselyn Terrace and Tamalpais Terrace; 775 vehicles (11%) travel westbound in the PM peak hour. This is equivalent to about one vehicle every five seconds. **Figure 6** illustrates the average vehicle volume profiles by time of day for Turk Boulevard and Golden Gate Avenue.

Figure 6 Average Daily Traffic Volume Profiles





[3] Masonic Avenue carries the highest vehicle volumes in the study area; however, traffic calming measures are currently being evaluated on Masonic Avenue by MTA and therefore was not included in this study.

TABLE 2: EXISTING MAJOR ROADWAY VOLUMES AND SPEEDS

Location	Direction	Median Speed (mph)	85th Percentile Speed [2]	Maximum Speed [3]
Golden Gate Avenue (Temescal to Chabot Terrace)	EB	19	24	**43**
	WB	16	22	**38**
Golden Gate Avenue (Roselyn to Tamalpais Terrace)	EB	19	**27**	**43**
	WB	18	**26**	**63**
Turk Boulevard (Temescal to Chabot Terrace)	EB	24	**29**	**43**
	WB	22	**29**	**48**
Turk Boulevard (Roselyn to Tamalpais Terrace)	EB	23	**29**	**53**
	WB	**27**	**33**	**53**

Notes:
1. Speed data are collected at the four designated locations on October 14th, 2010 during the 24-hour period.
2. The 85th percentile speed reflects the speed at which 85 percent of all traffic was operating at or below.
3. The maximum speed is the highest speed recorded on the segment during the 24-hour period
4. The speed limit on this street is 25 mph. **Bold** values exceed speed limit.

Source: Fehr & Peers, 2010

In addition to volume data, speed data was collected along Turk Boulevard and Golden Gate Avenue. Three speed profiles were captured for the roadway segments – median speed, 85th percentile speed, and maximum speed – and are shown in **Table 2**.

With the exception of Turk Boulevard east of Roselyn Terrace, which recorded a median speed of 27 miles per hour (mph), the median speeds on the other three street segments are below the posted speed limit of 25 mph. However, the 85th percentile speeds on Golden Gate Avenue east of Roselyn Terrace and on all study segments of Turk Boulevard exceed the speed limit of 25 mph.

The 85th percentile speed on Turk Boulevard east of Roselyn Terrace is 33 mph in the westbound direction. This is likely a function of the segment's two-lane operation, which results in a wider travel lane and provides more opportunity for vehicles to accelerate.

In general, the median and the 85th percentile speeds increase as vehicles travel east along both corridors from Parker Avenue to Masonic Avenue, and decrease as they travel westbound from Masonic Avenue. This is likely due to the roadway grades, which range between five and 10 percent on both Turk Boulevard and Golden Gate Avenue with a vertical crest near Chabot Terrace. The 85th percentile speeds of the study area are in the range of 22 to 33 mph with maximum speeds up to 63 mph.

2.2.3 Pedestrian Volume Data

Figure 7 illustrates the AM and PM peak hour volume of pedestrians that use the crosswalks at the eight intersections counted. During AM and PM, the intersection of Golden Gate Avenue at Parker Avenue had the most pedestrian traffic. The crosswalks at Turk Boulevard and Kittredge Terrace were used by the fewest number of pedestrians. Other intersections in the study area indicate heavy pedestrian use, as expected near a university.

During mid-day, the highest number of crossing pedestrians occurs at the Golden Gate Avenue/Chabot Terrace intersection (772, and likely continue across the Turk Avenue/Chabot Terrace intersection) as shown in **Figure 8**. Compared to the vehicle volumes at this intersection, there are nearly twice as many pedestrians as vehicles. All intersections had nearly twice as many pedestrians crossing during mid-day peak hour as during AM or PM peak hour.

TABLE 3: BICYCLE EXISTING VOLUME DATA

Intersection	Parker	Temescal	Chabot	Kittredge	Roselyn	Tamalpais	Annapolis	Masonic
AM (PM) Peak Hour Volumes[1]								
Turk Boulevard	11 (10)	--	--	1 (4)	--	6 (10)	--	12 (24)
Golden Gate Avenue	19 (13)	--	19 (5)	--	19 (9)	--	--	23 (25)
Mid-Day Peak Hour Volumes[2]								
Turk Boulevard	8	--	--	3	--	4	--	--
Golden Gate Avenue	7	--	10	--	8	--	--	--

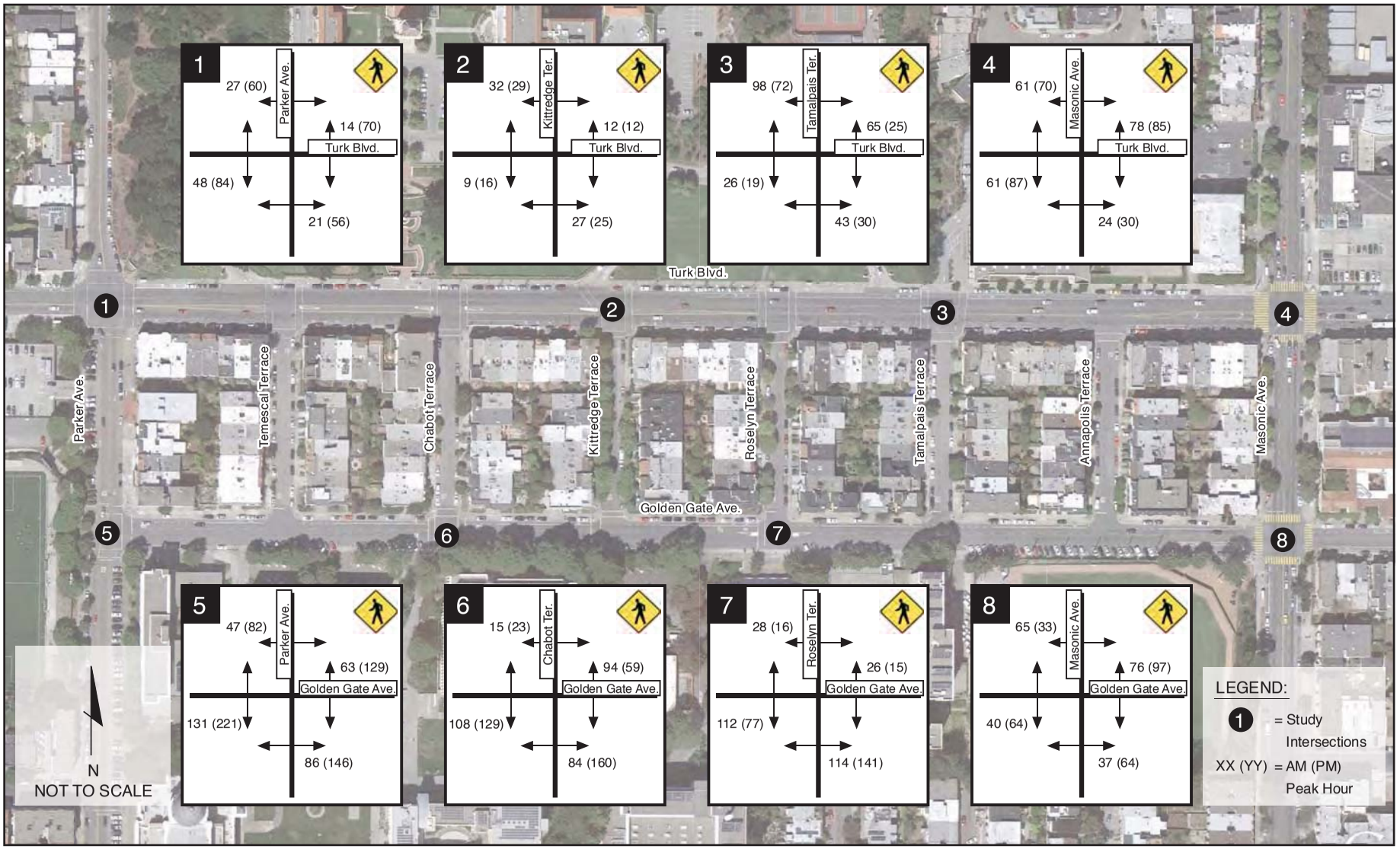
Notes:

1. AM and PM peak hour bicycle counts were collected on Thursday, October 14th, 2010.
2. Mid-day peak hour bicycle counts were collected on Tuesday, October 19th 2010 from 11:00AM to 1:00PM.

Source: Fehr & Peers, 2010

2.2.4 Bicycle Volume Data

In addition to vehicle and pedestrian counts, AM, mid-day, and PM peak hour bicycle volumes were collected at eight intersections in the study area. As shown in **Table 3**, the number of bicyclists riding along Golden Gate Avenue is notably higher in AM peak hour than during mid-day and PM peak hour. The use of the bicycle lanes on Turk Boulevard is generally low. **Figure 9** illustrates the AM and PM peak hour counts for bicycles and **Figure 10** shows the mid-day peak hour volumes at these intersections.



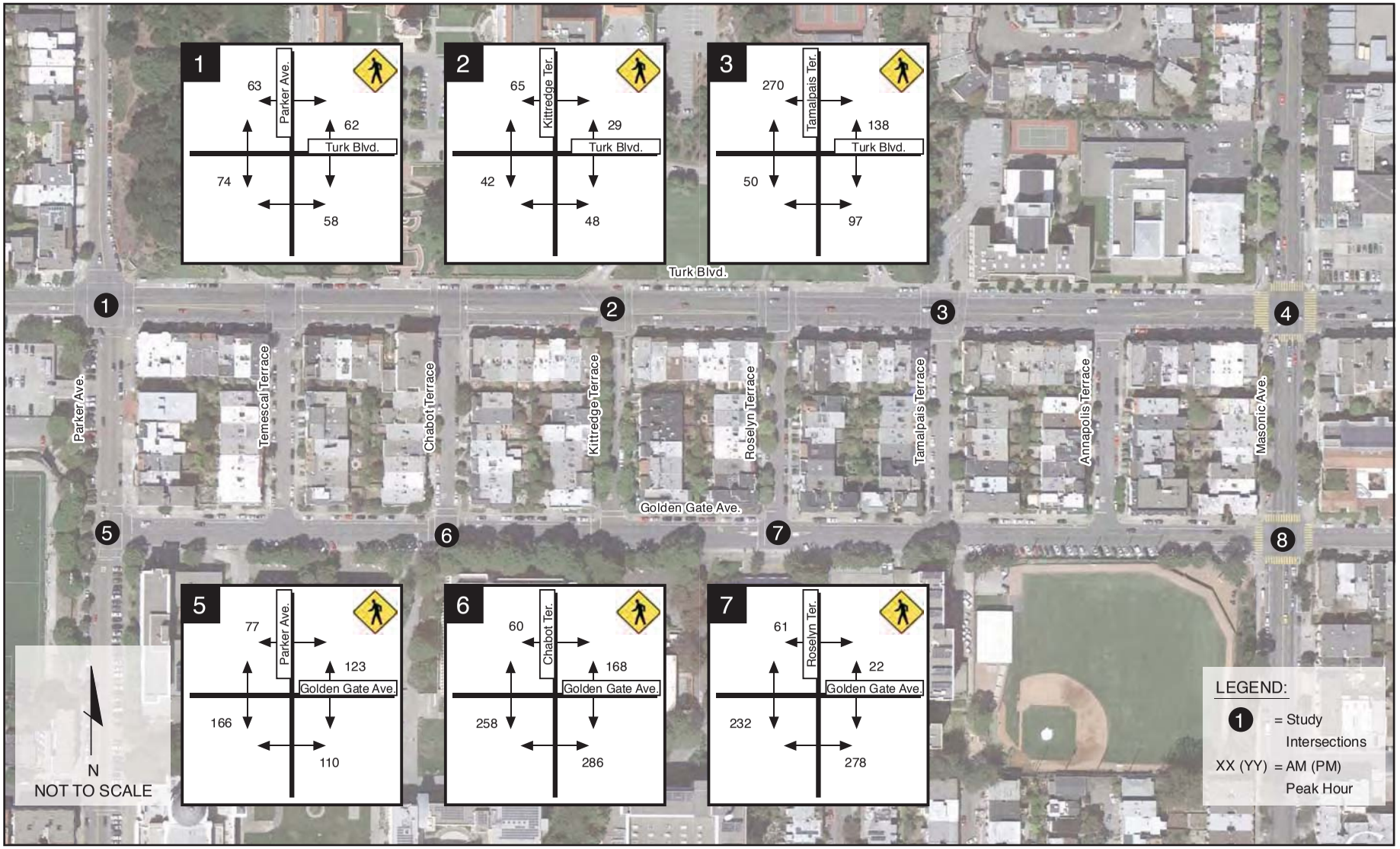
FEHR & PEERS

USF Traffic Calming

USF STUDY AREA PEDESTRIAN AM (PM) PEAK HOUR COUNTS

Dec 2010
SF10-0532\graphics\Tech Memo\0518-3

FIGURE 7



FEHR PEERS

USF Traffic Calming

USF STUDY AREA PEDESTRIAN MID DAY PEAK HOUR COUNTS

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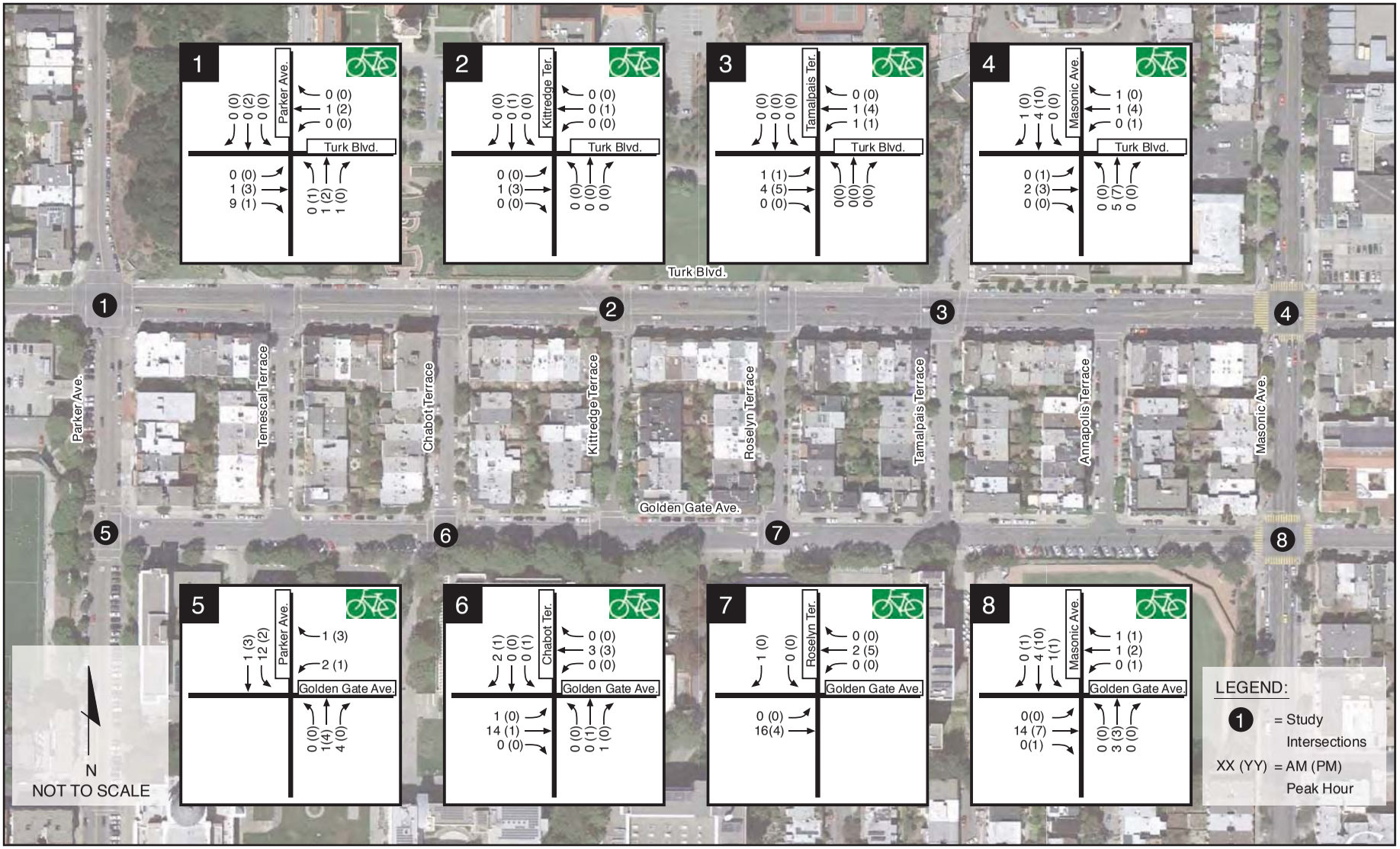
FIGURE 8



USF Traffic Calming

FEHR & PEERS

USF STUDY AREA TURNING MO EMENT
BIKE AM (PM) PEAK HOUR OL

Dec 2010
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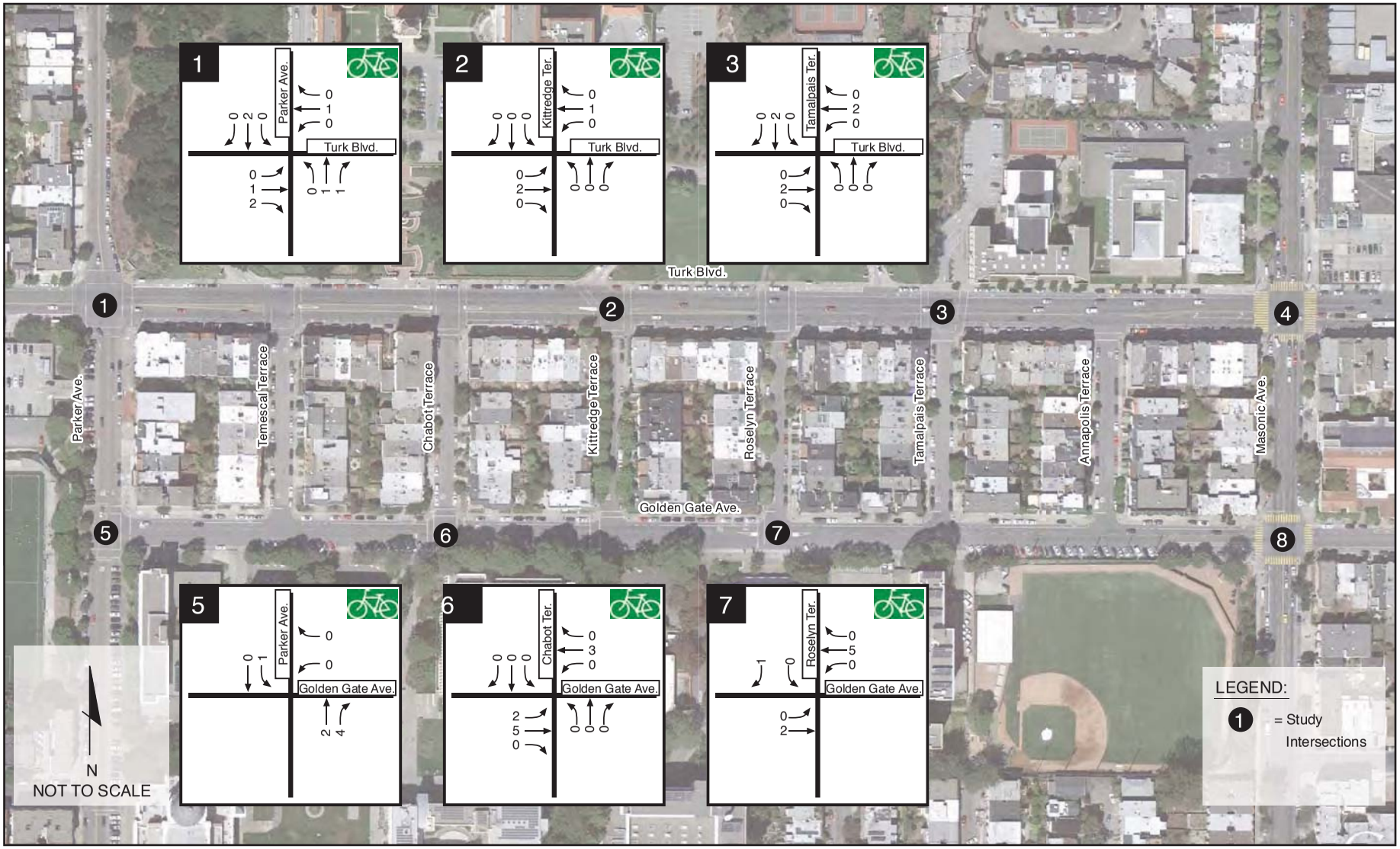
FIGURE



USF Traffic Calming

FEHR & PEERS

USF STUDY AREA TURNING MO EMENT BIKE MID DAY PEAK HOUR OL

Dec 2010
SF10-0532\graphics\Tech Memo\0518-2

FIGURE 1

2.2.5 Collision Data

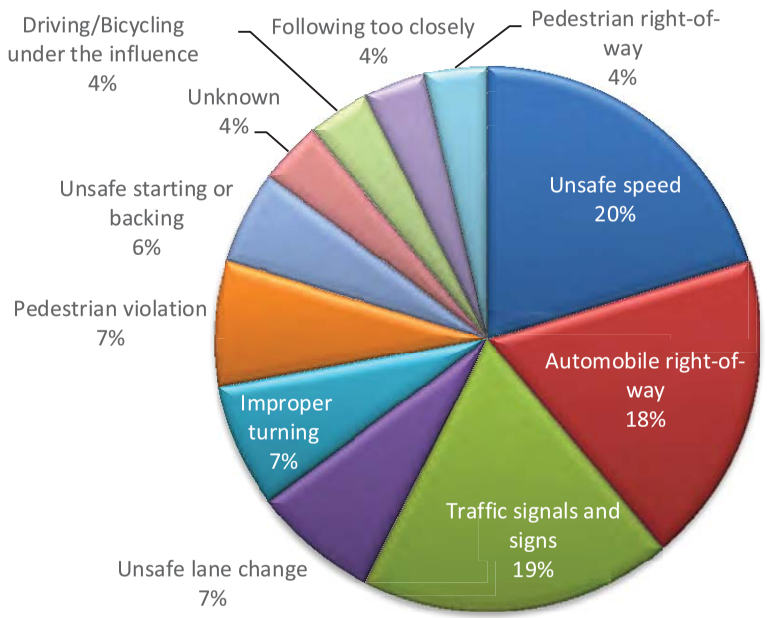
Fehr & Peers requested recent collision history for the roadway segments and intersections included within the study area. Collision data was obtained from the Statewide Integrated Traffic Records System (SWITRS), a database maintained by the California Highway Patrol (CHP) that collects and reports state-wide collision data gathered from a collision scene.

Figure 11 summarizes the collision locations for the study area between January 2005 and December 2009. During the five-year period, 49 collisions were reported in the study area. The majority of the collisions (96%) occurred at intersections and mid-block locations along Turk Boulevard (61%) and Golden Gate Avenue (35%). The Turk Boulevard/Masonic Avenue intersection was the intersection with the highest number of collisions (24%).

Among the 49 reported collisions in the study area, 10 collisions involved at least one pedestrian (20%). In most cases, the pedestrians were crossing at an intersection. Three of these incidents resulted in severe injury; City staff also identified a fatal, sideswipe collision in 2007 at the intersection of Turk Boulevard and Chabot Terrace due to improper turning by the vehicle. The incident involved two vehicles and two pedestrians on the sidewalk and resulted in a fatality of an elderly pedestrian. Nine collisions involved a bicyclist (18%), one of which resulted in severe injury.

A summary of collisions in the study area are summarized by collision factor in **Figure 12**. The most common causes of collisions were unsafe speed (20%), disregard for traffic signals and signs (20%), and automobile right of way (18%). The collisions involving pedestrians occurred mostly at the intersections or mid-block location of small residential streets, and were mainly caused by vehicles not yielding to pedestrian right-of-way. The collisions involving bicyclists were mainly caused by vehicles improperly turning at intersections or driving at unsafe speeds.

Figure 12 Collision Summary by Collision Factor



USF Traffic Calming

FEHR PEERS

LOCATION OF COLLISIONS (2 5 2)

Dec 2010
SF10-0532\graphics\Tech Memo\0518-5

FIGURE 11

2.2.6 Parking

The University Terrace streets currently experience higher than expected vehicle volumes primarily due to the availability of on-street parking in the area. Free parking is permitted throughout the neighborhood for up to two hours; vehicles with a "BB" permit may park on the street without time restrictions. The permits are part of the preferential residential parking system established by the City of San Francisco. The program is designed to reduce unnecessary personal motor vehicle travel, noise and pollution; promote improvements in air quality, convenience and attractiveness of urban residential living; and increase use of public mass transit. The main goal of the program is to provide more parking spaces for residents by discouraging long-term parking by people who do not live in the area.

Table 4 summarizes the total number of available parking spaces in the University Terrace neighborhood.[4]

TABLE 4: EXISTING ON-STREET PARKING SUPPLY

Street	On-street Parking Spaces
Parker Avenue	33
Temescal Terrace	20
Chabot Terrace	16
Kittredge Terrace	18
Roselyn Terrace	18
Tamalpais Terrace	21
Annapolis Terrace	21
Turk Boulevard	93
Golden Gate Avenue	158
TOTAL	**398**

Notes:

Parking on Masonic Avenue was not included in parking inventory due to potential changes that may result from the on-going Masonic Avenue streetscape project.

[4] A comprehensive parking supply and demand study is being conducted as part of the University Institutional Plan process. Recommendations from this traffic calming study related to parking will be considered for implementation during the IMP process.

2.3 FIELD OBSERVATIONS

General site observations throughout the study area are presented below.

2.3.1 USF Campus

The University Terrace neighborhood is situated between the upper and lower campuses of USF and is used daily by students, faculty, staff, delivery vehicles and service vehicles traveling between the two campuses. During several field visits to observe travel patterns and behaviors, students were often jaywalking, walking in the middle of the Terrace streets and generally treating the neighborhood as part of the campus.

Throughout the week, numerous delivery vehicles were observed traveling to and from USF, particularly along Golden Gate Avenue where loading zones for deliveries and vendors are designated. Loading and service vehicles are often double-parked on Golden Gate Avenue, creating a less pedestrian-friendly environment along the campus edge.

2.3.2 University Terrace streets

Due to the proximity to campus, the University Terrace neighborhood has become a highly-desirable area for parking for the USF community. Parking is permitted on both sides of all University Terrace streets. However, due to the limited number of parking spaces available (114 on the Terrace streets), vehicles often circulate through the neighborhood in search of available parking. In some cases, vehicles were observed blocking driveways to residences in the study area.

Many vehicles were observed using Temescal Terrace as a cut-through trying to avoid the traffic lights on Turk Boulevard at Parker Avenue and Chabot Terrace. Similarly, vehicles use Annapolis Terrace as a cut-through to avoid the signals at Masonic Avenue. Several USF maintenance vehicles were observed on University Terrace Streets traveling between the upper and lower campuses.

Drivers circling the Terrace streets looking for parking or traveling between campuses were often not paying attention to pedestrians on the street or vehicles entering or exiting the driveways. In addition, several vehicles were observed travel along the Terrace streets at higher speeds than appropriate for a residential street, made wide turns across the opposing lane, and accelerated to reach the other end of the block. At the end of the block, many drivers did not make a complete stop before turning onto Golden Gate Avenue or Turk Boulevard.

Although the sidewalks in the area were initially designed for residential streets, they are not sufficient to accommodate the volumes of pedestrians adjacent to an institution and many are not compliant with the Americans with Disabilities Act (ADA) as their widths are less than the minimum requirement. The minimum width for an ADA-compliant sidewalk is 36 inches (three feet); if sidewalks are less than 60 inches (five feet) across, passing spaces for wheelchairs must be constructed at set intervals. These passing spaces must measure at least 60 inches on all sides, and must be located at least every 200 feet.

There are frequently obstructions in the pedestrian right-of-way including several trees that uproot the sidewalks, particularly on Kittredge Terrace and Roselyn Terrace, making it inconvenient and challenging to travel on sidewalks. Although some crosswalks are present in the neighborhood, they are typically faded and not always placed in locations where pedestrians typically cross.

2.3.3 Turk Boulevard

Turk Boulevard is 70 feet wide with limited facilities for pedestrians. Most crosswalks are faded and not aligned with pedestrian desire lines to campus. The existing medians provide little refuge for pedestrians and signal timing along the corridor often provides just enough crossing time. The signal at Chabot Terrace only allocates 22 seconds of crossing time for pedestrians; the industry standard requires a minimum of seven seconds of green (walk) time plus a clearance interval (walk + flashing don't walk) that is calculated at 3.5 feet/second. Therefore a pedestrian typically should have at least 27 seconds of clearance to cross Turk Boulevard adequately. Given the high volumes of pedestrian near the University, the signal timing is insufficient.

A Class II on-street bike lane is provided on Turk Boulevard in each direction within the study area. However, the striping is not continuous due to the presence of Muni bus facilities (Route 31, 31AX and 31BX) along Turk Boulevard. Cyclists must often maneuver

around buses into vehicular travel lanes, creating a potential conflict between numerous modes. As noted in the previous section, bicycle use on Turk is generally low and is less desirable given the high vehicle volumes and limited bicycle facilities.

In the study area, Turk Boulevard has significant grades (5-10%) with a peak at the Turk Boulevard/Chabot Terrace intersection. The grade creates sightline issues for vehicles in both directions as vehicles approach a vertical crest at Chabot Terrace, particularly during morning and evening commutes when the glare from sunshine can be very challenging to see approaching vehicles or pedestrians crossing ahead.

Parking is permitted on both sides of Turk Boulevard.

2.3.4 Golden Gate Avenue

Golden Gate Avenue is 55 feet wide with one travel lane in each direction. A bike lane is present in the westbound direction for the entire length of Golden Gate Avenue within the study area. In the eastbound direction, there are no bicycle facilities with the exception of the section approximately 100 feet west of Golden Gate Avenue/Masonic Avenue intersection.

Along the north side of Golden Gate Avenue, parallel parking is permitted along the curb. The south side of the street is designated as angled parking. Since the eastbound travel lane is excessively wide to accommodate the parking aisle, it may encourage driver speeds due to the wide expanse of pavement available.

The wide roadway also creates long crossing distances for pedestrians at Chabot, Kittredge, and Roselyn Terrace intersections. There is a lack of crosswalks at the east end of the corridor. The roadway centerline is faded and does not clearly separate the opposing lanes. Students generally perceive Golden Gate Avenue as an extension of the USF campus and were observed jaywalking. Due to the grade on Golden Gate Avenue and limited traffic volumes, the street is generally popular with skateboarders.

2.3.5 Parker Avenue

Parker Avenue is the western boundary of the University Terrace neighborhood and experiences moderate vehicle volumes due to the proximity to St. Ignatius Church at Fulton Street, the Fromm Xavier building at Golden Gate Avenue, the Koret Health and Recreation Center at Turk Boulevard and Negoesco Stadium located on the west side the street. The intersection of Parker Avenue and Golden Gate Avenue experiences high pedestrian volumes as students travel between the lower campus and the athletic facilities. The street is 56 feet wide with perpendicular parking on the west side of the street and parallel parking on the east side.

Residents noted that vehicles often queue at the intersection of Parker Avenue and Turk Boulevard and block driveways on the east side of the street, particularly during the afternoon and evening.

2.4 COMMUNITY OUTREACH

To understand the concerns and details about the issues in the project area, a comprehensive community outreach process was employed. We met with members of the University, University Terrace Association, students and the City of San Francisco on the following dates:

- Tuesday, September 14, 2010 (Kick-off meeting)
- Thursday, September 30, 2010 (Site Walk/Stakeholder Meeting)
- Wednesday, October 27, 2010 (USF client meeting)
- Friday, October 29, 2010 (SFMTA meeting)
- Wednesday, November 10, 2010 (UTA board)
- Monday, November 15, 2010 (USF client meeting)
- Monday, November 15, 2010 (UTA community meeting #1)
- Tuesday, December 21, 2010 (USF client meeting)
- Thursday, January 06, 2011 (USF client meeting)
- Wednesday, January 12, 2011 (Working committee)
- Wednesday, January 19, 2011 (Cabinet preparation)
- Wednesday, January 26, 2011 (Cabinet meeting)
- Wednesday, February 02, 2011 (UTA board)
- Monday, February 28, 2011 (Student senate)
- Monday, February 28, 2011 (UTA community meeting #2)
- Thursday, March 31, 2011 (Campus Town Hall)
- Thursday, March 31, 2011 (UTA Traffic Committee, work session 1)
- Thursday, April 07, 2011 (Campus Town Hall)
- Wednesday, April 27,2011 (UTA Traffic Committee, work session 2)
- Tuesday, June 14, 2011 (UTA Traffic Committee, work session 3)
- Wednesday, August 3, 2011 (UTA Traffic Committee, work session 4)
- Wednesday, September 14, 2011 (UTA Traffic Committee, work session 5)
- Wednesday, October 5, 2011 (UTA community meeting #3 Plan Review)

The goal of the meetings was to identify and prioritize community concerns in the study area and discuss potential traffic calming measures to alleviate concerns. The University Terrace Association appointed a Traffic Committee to evaluate the four alternatives on behalf of the UT community. The Committee met with Fehr & Peers, Urban Design+ and USF to evaluate the elements in each Alternative and determine which would be proposed to the University Terrace Community at-large.

In addition to the meetings listed above, we coordinated with the community and stakeholders including the San Francisco Planning Department and Campus Delivery Coordinator throughout the planning process via conference calls and emails.

2.5 SURVEY RESULTS

In addition to the neighborhood meetings, the project team conducted a survey via Survey Monkey that was distributed to University Terrace residents as well as USF faculty, staff and students. The purpose of this survey was to assist in identifying community concerns in the study area. This qualitative data was considered in conjunction to inputs from the neighborhood meetings among members of the University and UTA.

The survey included questions about transportation patterns, safety concerns, travel behavior and challenges to accessing campus and residences, among others. A copy of the survey questions can be found in the Appendix. A total of 1,076 respondents provided input on the survey. Highlights from the survey results are shown in the figures below.

Figure 13 shows the mode share split among respondents who access the USF campus. Over two-thirds of the respondents access campus by modes other than automobile. Almost one-third of the respondents arrive by car despite the limited number of parking spaces available around the campus.

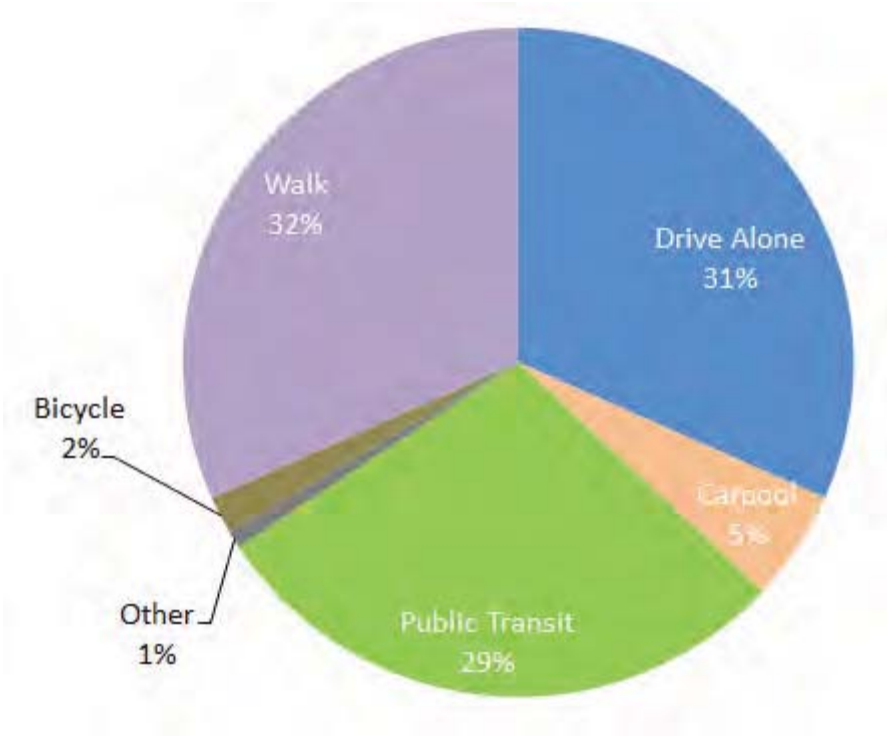


Figure 13 Mode Share of Survey Respondents (Weighted)

Figure 14 identifies what respondents perceive to be the cause of the greatest safety issues in the study area. Approximately 60% of the respondents believe that driving under distraction, drivers' failure to yield right-of-way to pedestrians, and drivers looking for parking are the factors contributing to the greatest safety issues. These results are consistent with the major collision factors reported in the collision history records.

Figure 15 indicates the types of street improvements the respondents believe should be prioritized. More than half of the respondents believe that increasing the number of on-street and off-street parking should receive the highest consideration. Sixty percent of the respondents also perceive pedestrian safety to be the top concerns when considering street treatments.

Figure 14 Causes of Greatest Survey Respondent Safety Concerns

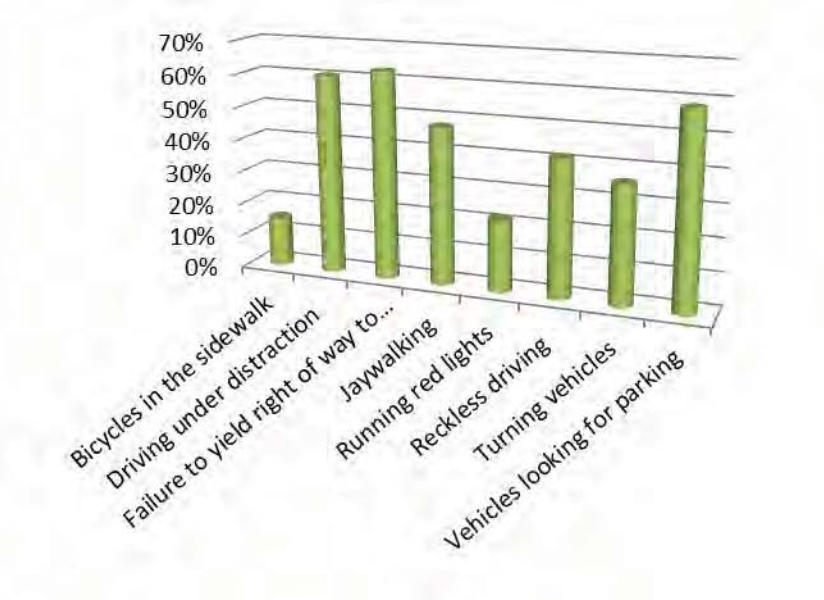
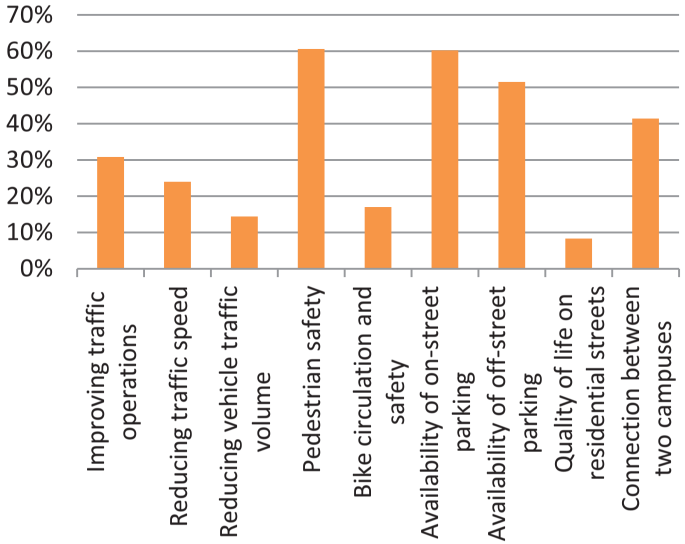


Figure 15 Street Improvement Types, by Priority



2.6 SITE ANALYSIS SUMMARY

This analysis identified a series of issues in five general categories:

Parking Management in the UT Neighborhood

Parking in the UT neighborhood is impacted by members of the public, including the USF community, parking throughout the UT. These impacts include lack of parking for visitors, high traffic volumes created by people looking for parking, unsafe driving maneuvers including mid-block U-turns and inattentive and high speed turns, and blocking of residents' driveways.

Traffic Management in the UT Neighborhood

The residential parking permit area in University Terrace (i.e., "BB") has a 2-hour time limit for non-residents which leads to regular turnover of the parking spaces. This space turnover ensures that if one looks long enough, odds are eventually a space will be found. The corollary to this turnover is that it creates traffic throughout the University Terrace streets as vehicles circulate looking for parking.

Pedestrian Volumes in the UT Neighborhood

Throughout the day, members of the USF community walk back and forth between the Upper and Lower campuses. The resulting pedestrian volumes are significant. As the sidewalks in the University Terrace neighborhood were not designed for such volumes and are generally narrow and often obstructed, many people walk in the street, creating a potentially hazardous condition given the traffic volumes and frequently observed unsafe driving maneuvers.

Pedestrian Safety on Golden Gate Avenue and Turk Boulevard

The high volume of pedestrians moving between the two USF campuses is evident on both Golden Gate and Turk and is impacted by dangerous conditions on each. On Turk, crossing signal timing at the signalized crosswalks is too short for the distance and volumes (22 seconds at Chabot Terrace); the medians are insufficient for safe refuge; the grade and sun angles impede sight distances on the street and for drivers making turns to/from the street; the downhill eastbound grade and unnecessarily wide street encourage speeding; the sidewalks at the bus stops are narrow; the bike lanes are not continuous; and distracted pedestrians jaywalk at both the intersections and mid-block (contributing are Upper Campus paths that are not aligned to the crosswalks). On Golden Gate, the street is unnecessarily wide (which encourages unsafe driving maneuvers such as mid-block U-turns); there are no signalized intersections; there is a high volume of pedestrians crossing in all directions; the bike lanes are not continuous; and the downhill grade encourages high vehicular speeds (including bikes and skateboards).

Vehicular Impacts on USF Campus Edges

The edges of each of the campuses are inordinately impacted by vehicles. These impacts include parking, driveways, service vehicles, and the traffic volumes on both Golden Gate and Turk. Parking and services, which dominate the campus edges, create obstacles for pedestrians and cyclists, as does the interruption in public space between the two campuses. These issues challenge the university to provide safe, efficient operations and maintain a curb appeal within the community.

There is a broad menu of traffic calming devices that can effectively address some of the traffic issues identified as a result of the data collection and public outreach in University Terrace. These could be as simple as revised lane striping or more prominent crosswalk markings for the directional guidance of cars, bicycles and pedestrians; reducing speed and volume through various narrowing and volume devices; bulbouts that narrow the travel lane at intersections and create shorter crossing distance for pedestrians; and "road diets," which reduce the number of automobile travel lanes to benefit transportation modes (e.g. bike lanes, wider sidewalks.) or alternative uses (e.g. parklets, stormwater management). One of the more effective tools of traffic calming is full or partial-street closures that restrict the quantity and sometimes the type of travel on a given right-of-way.

The study team developed four alternative traffic calming scenarios. Each alternative is a combination of possibilities from an overall menu of ideas—the alternatives are organized around general themes, but many of the components can be recombined to generate other scenarios. A full description of the alternatives may be found in the Appendix. Regardless of the methods implemented, the ultimate evaluation of effectiveness is how well the measures meet the needs of street users and residents and provide consistency with community values and city policy. Potential traffic calming measures were identified and combined to form four alternatives for the communities to evaluate through a series of public and campus meetings. Neighborhood residents and other stakeholders evaluated the alternatives, selected the measures that were most effective to meet the project goals, and developed a preferred alternative.

Recognizing that no one idea will solve neighborhood and USF traffic issues, the community combined the most palatable elements of the four alternatives to develop a comprehensive plan that results in changes to address existing traffic behavior and retains appropriate access to University Terrace and USF. A successful solution will be a comprehensive solution that both mitigates the identified issues and creates a safer and more welcoming community.

CHAPTER 3. ALTERNATIVES

At the outset, it is important to recognize that no one idea will solve the neighborhood and USF issues. A successful solution will be an integrated mix of ideas will be a comprehensive solution that both mitigates the identified issues and creates a safer and more welcoming community. Pedestrian safety, parking management, and traffic calming are integrally linked in the community, and no one issue can be solved in isolation. A comprehensive plan will involve changes in existing traffic movement and access in the University Terrace and USF neighborhoods.

While a piece meal approach will not address the range of issues, it is possible to develop low-cost and/or temporary measures that can be used to evaluate various proposals. Such an approach has precedent in San Francisco and is a reasonable idea for interim improvements. Equally as valid is an approach that incorporates a long-term goal with a range of phased improvements that will build that end result in time as funding becomes available.

The study team has developed four alternatives for discussion with the UT and USF communities. Each of these alternatives is a combination of possibilities from an overall menu of ideas—the alternatives are organized around general themes, but many of the components can be recombined to generate other scenarios. One could look at the alternatives as specific approaches or as a phased sequence of ideas leading to a comprehensive long-term solution.

Each of the ideas presented here are framed in this context with an underlying commitment to not just resolving the specific concerns, but also in creating a more livable and harmonious UT/USF community.

3.1 ALTERNATIVE 1: IMPROVE CURRENT CONDITIONS

Alternative 1 is designed as a menu of ideas that could be quickly implemented to mitigate immediate concerns at minimal cost. This alternative includes crosswalk restriping on Turk and Golden Gate to improve pedestrian safety, driveway striping (indicating the boundaries of legal parking spaces) and enhanced PCO enforcement in UT to slightly better manage parking in the neighborhood, back-in angled parking on Golden Gate to improve pedestrian and bicycle safety, a dedicated left turn lane from Parker to Turk to ease traffic flow, and a range of low-cost demonstration projects to test more capital intensive ideas such as sidewalk widening on UT streets, partial street closures, and turning restrictions.

Alternative 1 represents a starting point in solving the issues, but is not a comprehensive, long-term solution. While the demonstration projects may have significant short-term effect, they are not permanent solutions. Thus, although the overall cost of Alternative 1 is relatively low, the long-term impact on pedestrian safety and resolution of parking management concerns may be minimal.

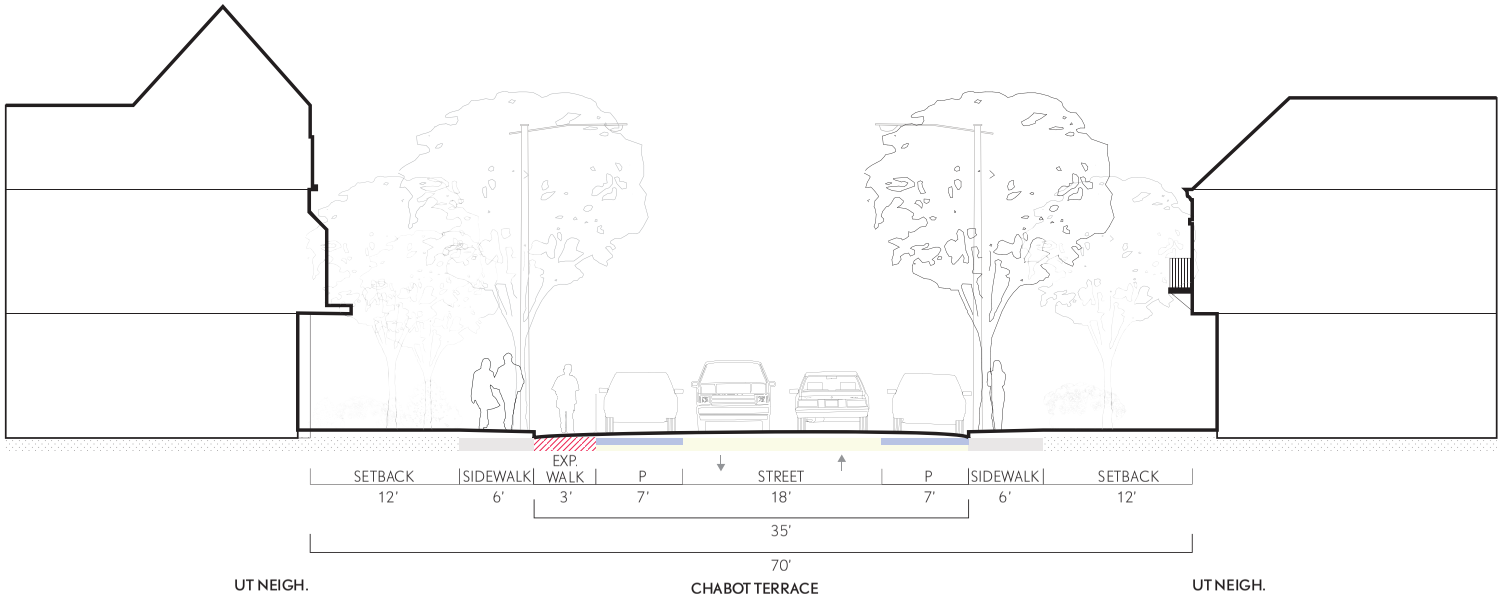
urban design planning sustainability
URBAN DESIGN+

USF-Traffic Calming, Phase 1
Alternative 1: Improve Current Conditions

Project Team:
Urban Design+
Fehr and Peers
Sasaki Associates

Client:
University of San Francisco

Alternative 1: Improve Current Conditions
Demonstration Projects, Partial Sidewalk Widening



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For illustrative purposes only
and subject to change
06. January, 2011

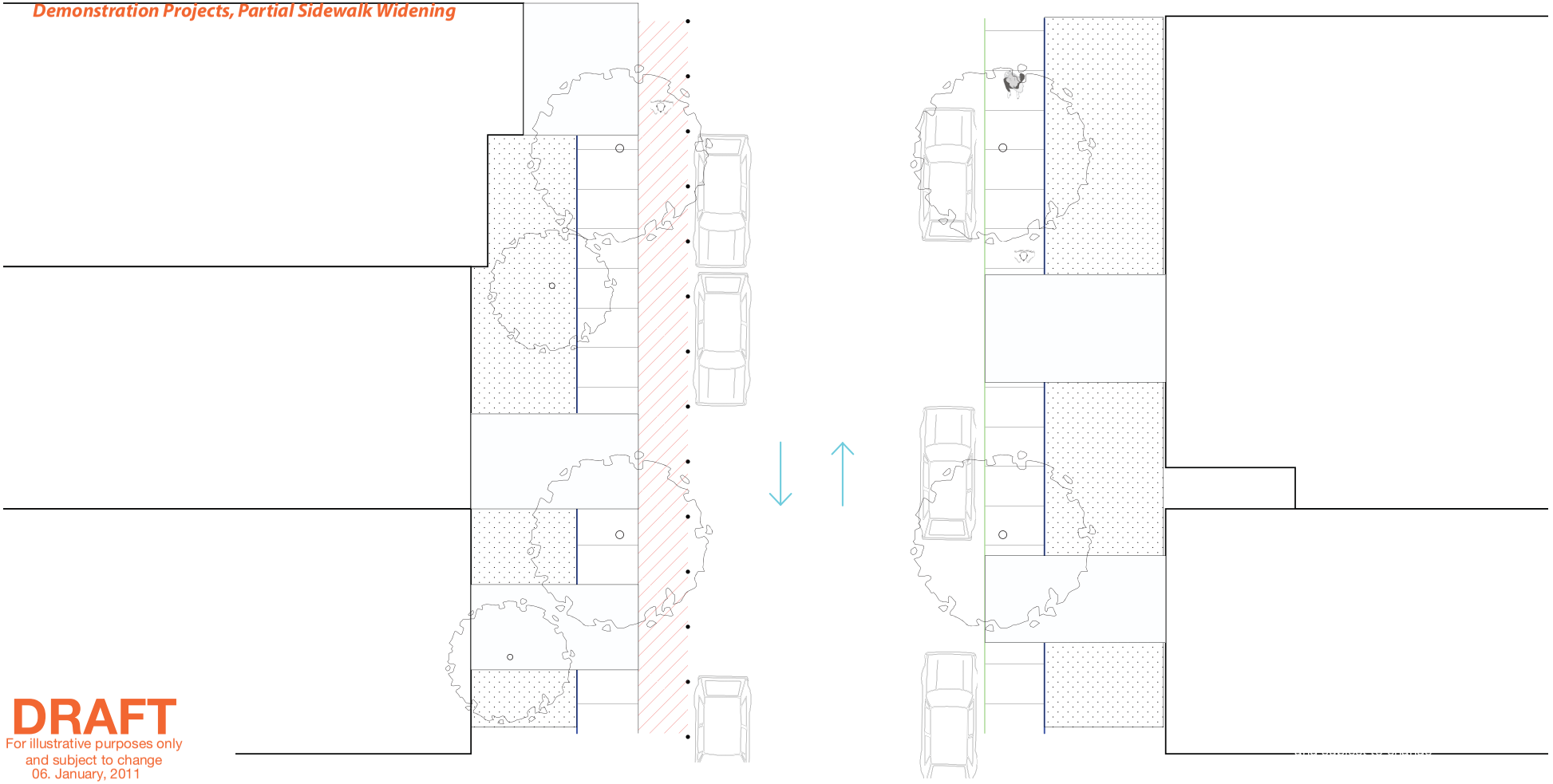
urban design planning sustainability
URBAN DESIGN+

USF-Traffic Calming Master Plan
Traffic Calming Ideas Matrix

Project Team:
Urban Design+
Fehr and Peers
Sasaki Associates

Client:
University of San Francisco

Alternative 1: Improve Current Conditions
Demonstration Projects, Partial Sidewalk Widening



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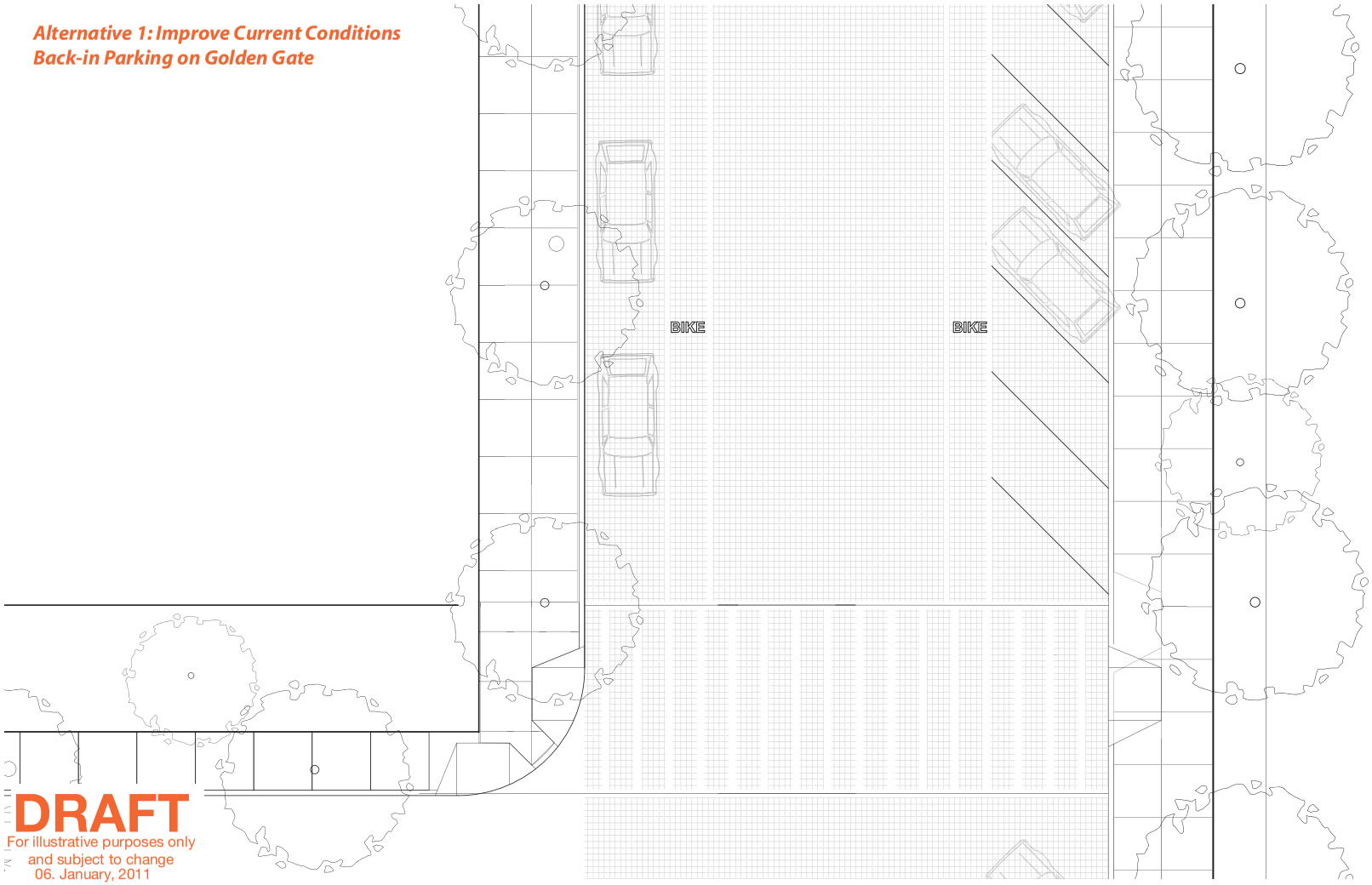
USF-Traffic Calming Master Plan
Traffic Calming Ideas Matrix

Project Team:
Urban Design+
Fehr and Peers
Sasaki Associates

Client:
University of San Francisco

Alternative 1: Improve Current Conditions
Back-in Parking on Golden Gate



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Traffic Calming Ideas Matrix

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Sasaki Associates

Client:
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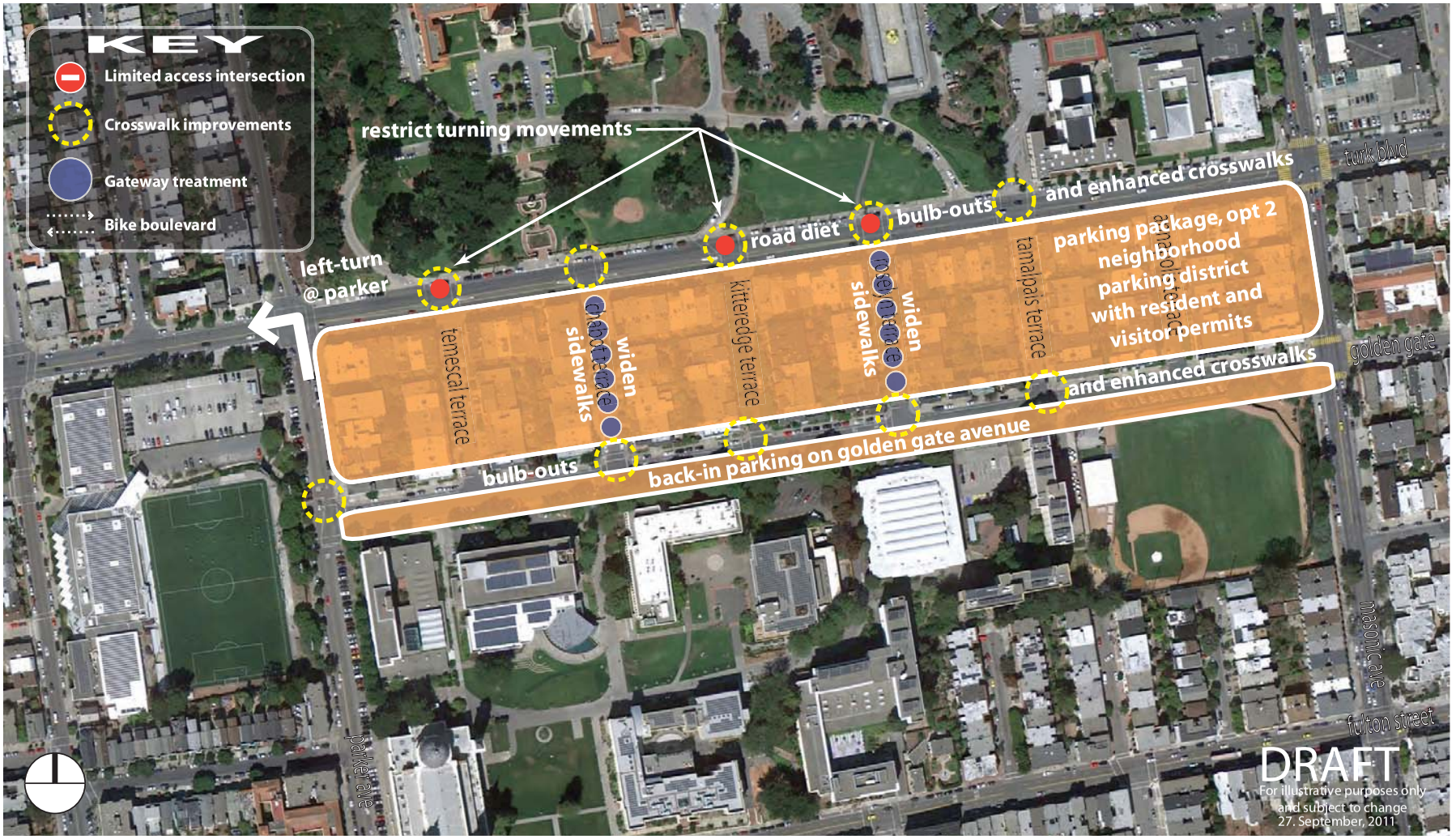
3.2 ALTERNATIVE 2: PARKING MANAGEMENT ON UT STREETS

Alternative 2 presents a more comprehensive model for resolving the most significant parking issues in University Terrace. The central idea is to reduce the time limit for non-resident parking such that it makes parking for USF community members difficult, if not impossible, on UT streets. Removing the UT streets from the everyday USF parking pattern will resolved neighborhood concerns with cars blocking driveways and insufficient available parking for visitors. As important, this idea will reduce the traffic volumes in the neighborhood and minimize the unsafe driving maneuvers generated by people looking for parking, both of which will minimize the identified impacts on the neighborhood and create a safer environment for the high volume of pedestrians.

Complementary enhancement on adjacent streets will further enhance safety, including a road diet for Turk Boulevard that will reduce traffic lanes and create more space for pedestrians and bicyclists—such space could be used for corner bulb outs to reduce crossing distances, bus stop improvements, and/or bicycle lanes; enhanced crosswalks on Turk and Golden Gate including possible crosswalk flashers; a new traffic light on Turk Boulevard at Roselyn Terrace in conjunction with left turn restrictions at Temescal and Kittredge to prevent neighborhood cut-throughs and unsafe turning movements; pedestrian safety and speed reducing improvements on Golden Gate including raised crosswalks and/or speed cushions and a gateway "choker" at Masonic; and potential sidewalk widening (one or both sides) on Chabot and Roselyn Terraces, the streets with the highest pedestrian volumes (and signalized crosswalks at Turk).

If the parking restrictions are targeted correctly, Alternative 2 may significantly minimize the parking impacts on the neighborhood and reduce the overall traffic volumes. However, without more substantial traffic movement restrictions, the neighborhood may still have relative high traffic volumes as people looking for parking on Turk and Golden Gate and others cutting through the neighborhood will still use the UT streets. This potential traffic will continue to create unsafe conditions for pedestrians.



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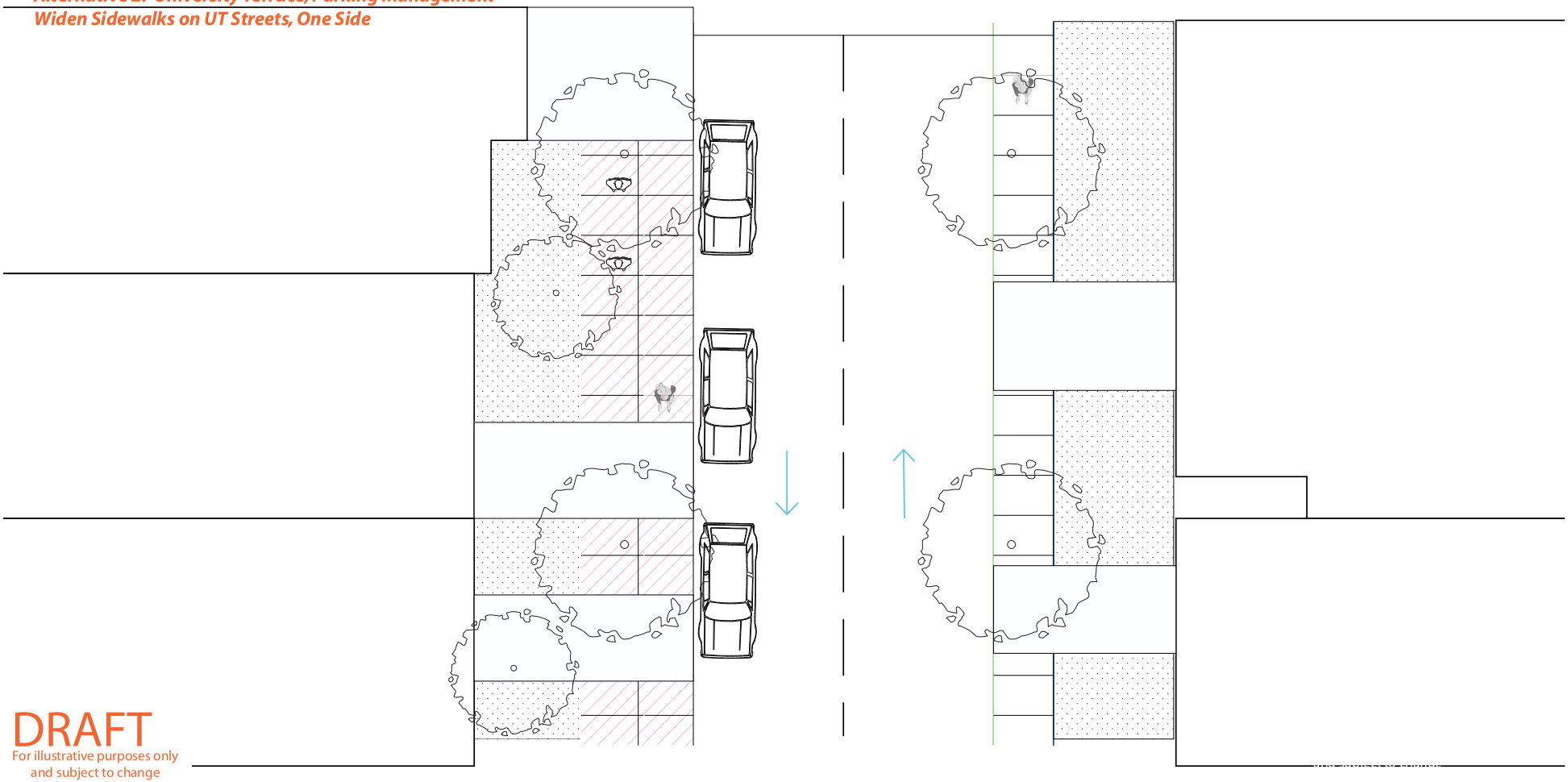
USF-Traffic Calming Master Plan
Alternative 2: University Terrace, Parking Management

Project Team:
Urban Design+
Fehr and Peers
Sasaki Associates

Client:
University of San Francisco

Alternative 2: University Terrace, Parking Management
Widen Sidewalks on UT Streets, One Side



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Project Team:
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Client:
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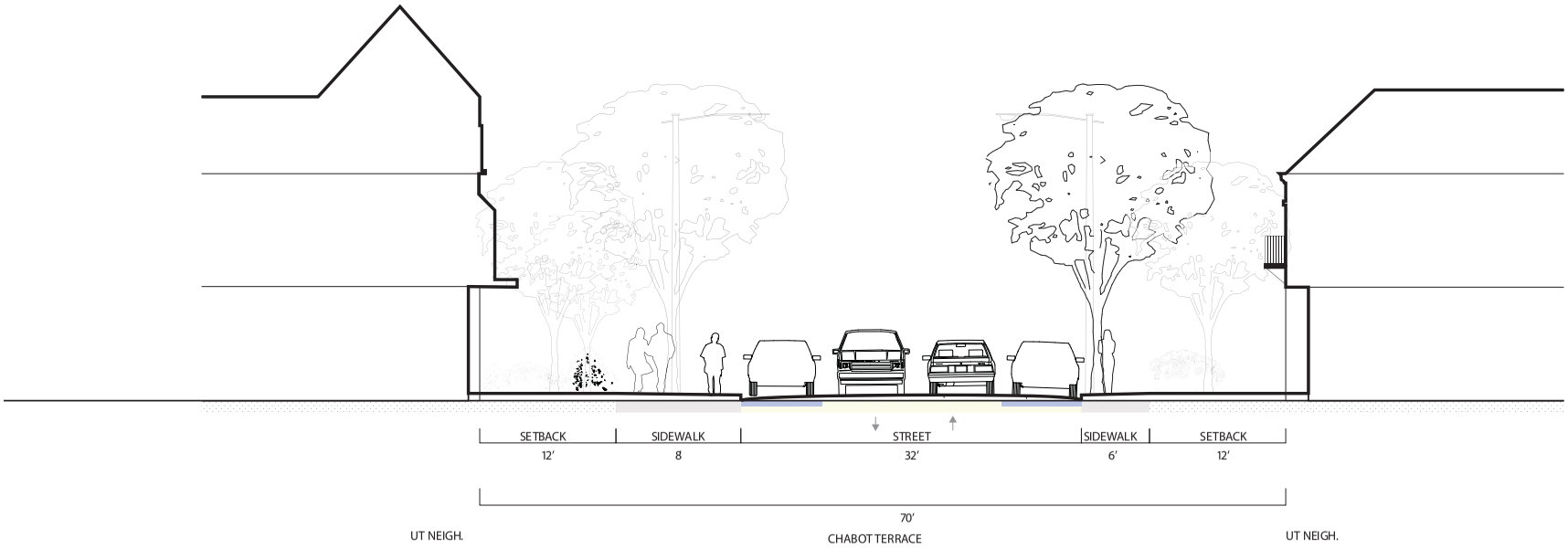
Alternative 2: University Terrace, Parking Management
Widen Sidewalks on UT Streets, One Side



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Traffic Calming Ideas Matrix

Project Team:
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Client:
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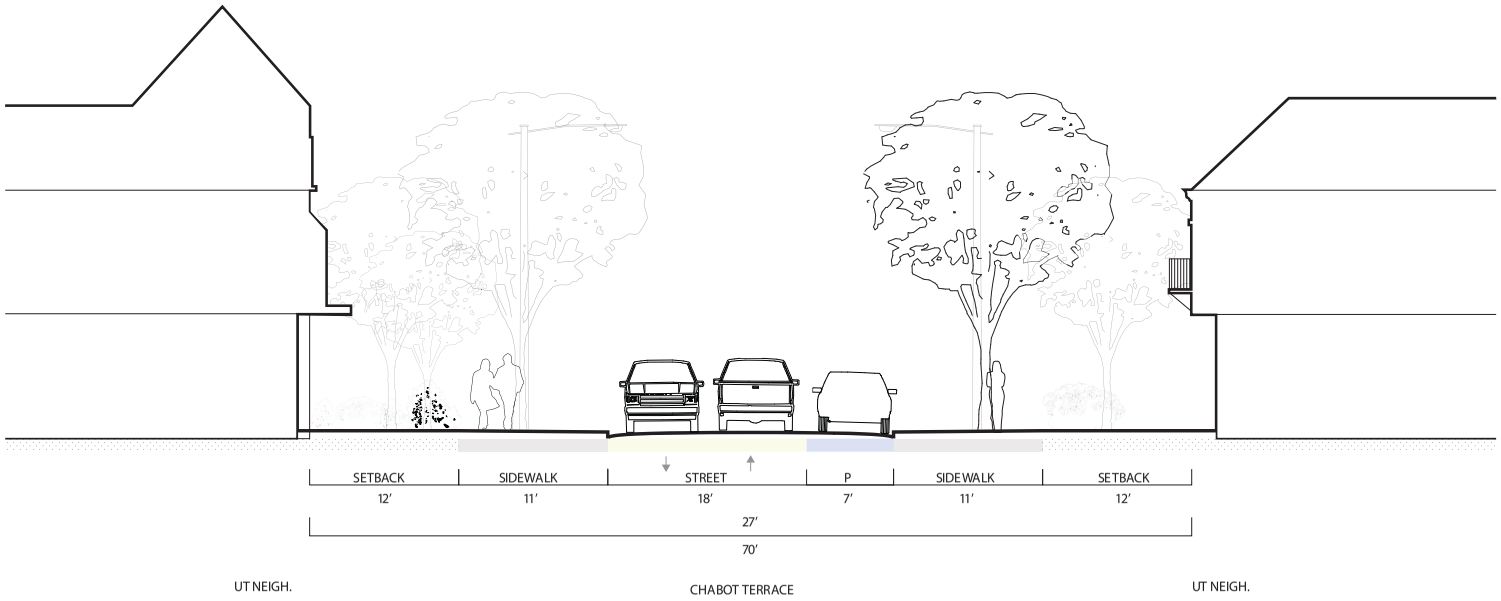
Alternative 2: University Terrace, Parking Management
Widen Sidewalks on UT Streets, Both Sides



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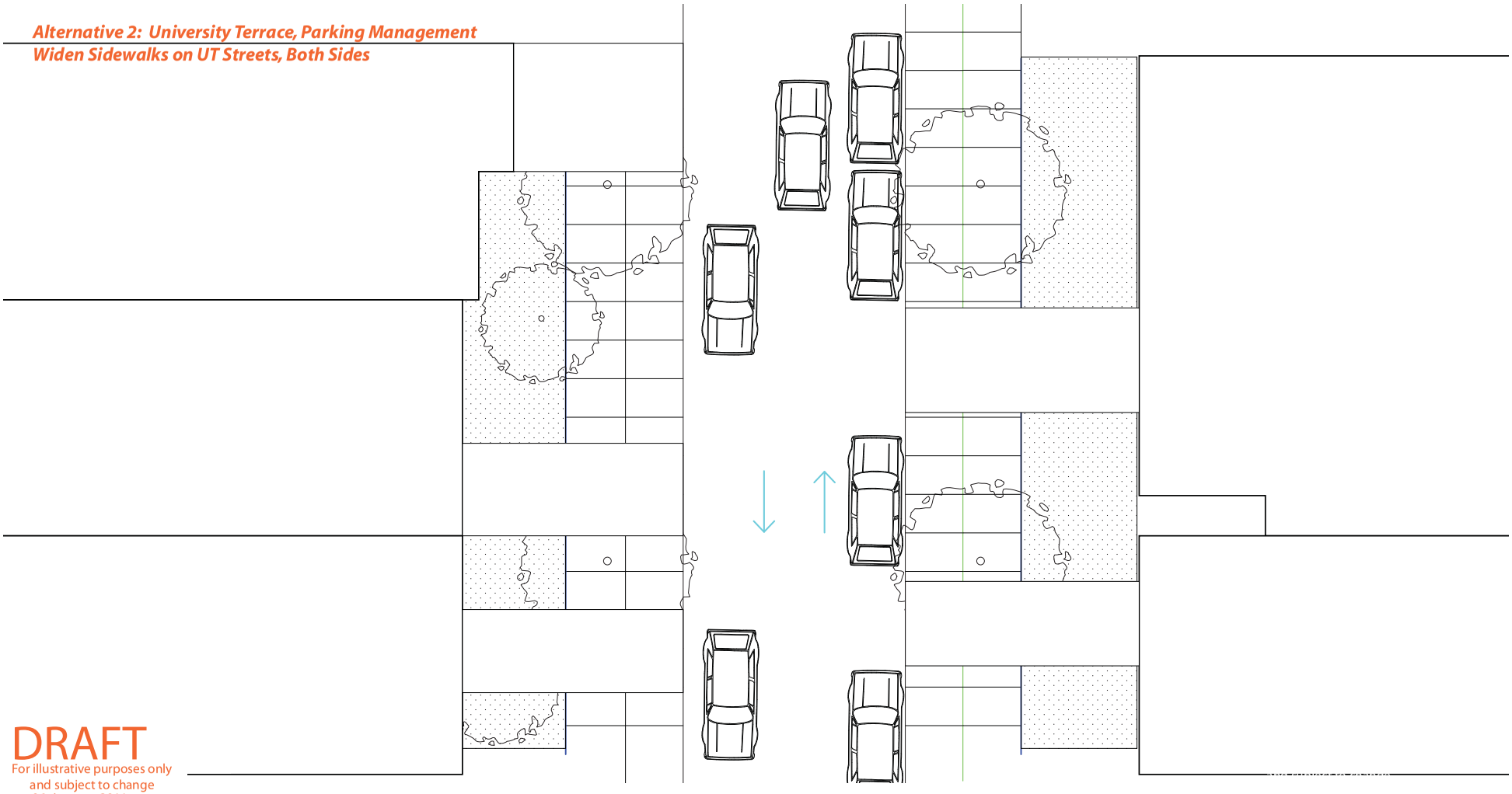
Widen Sidewalks on UT Streets, Both Sides



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Project Team:
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Sasaki Associates

Client:
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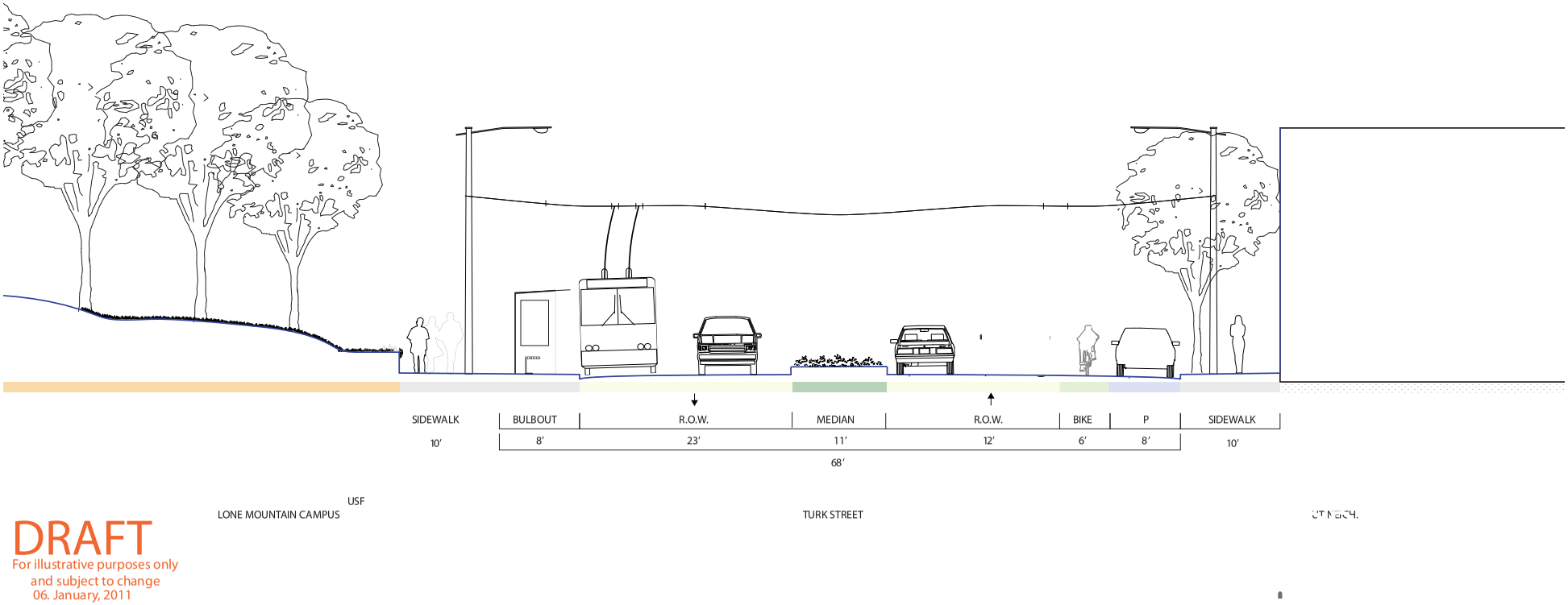
Alternative 2: University Terrace, Parking Management Bulbouts and Enhanced Crossings on Turk



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Project Team:
Urban Design+
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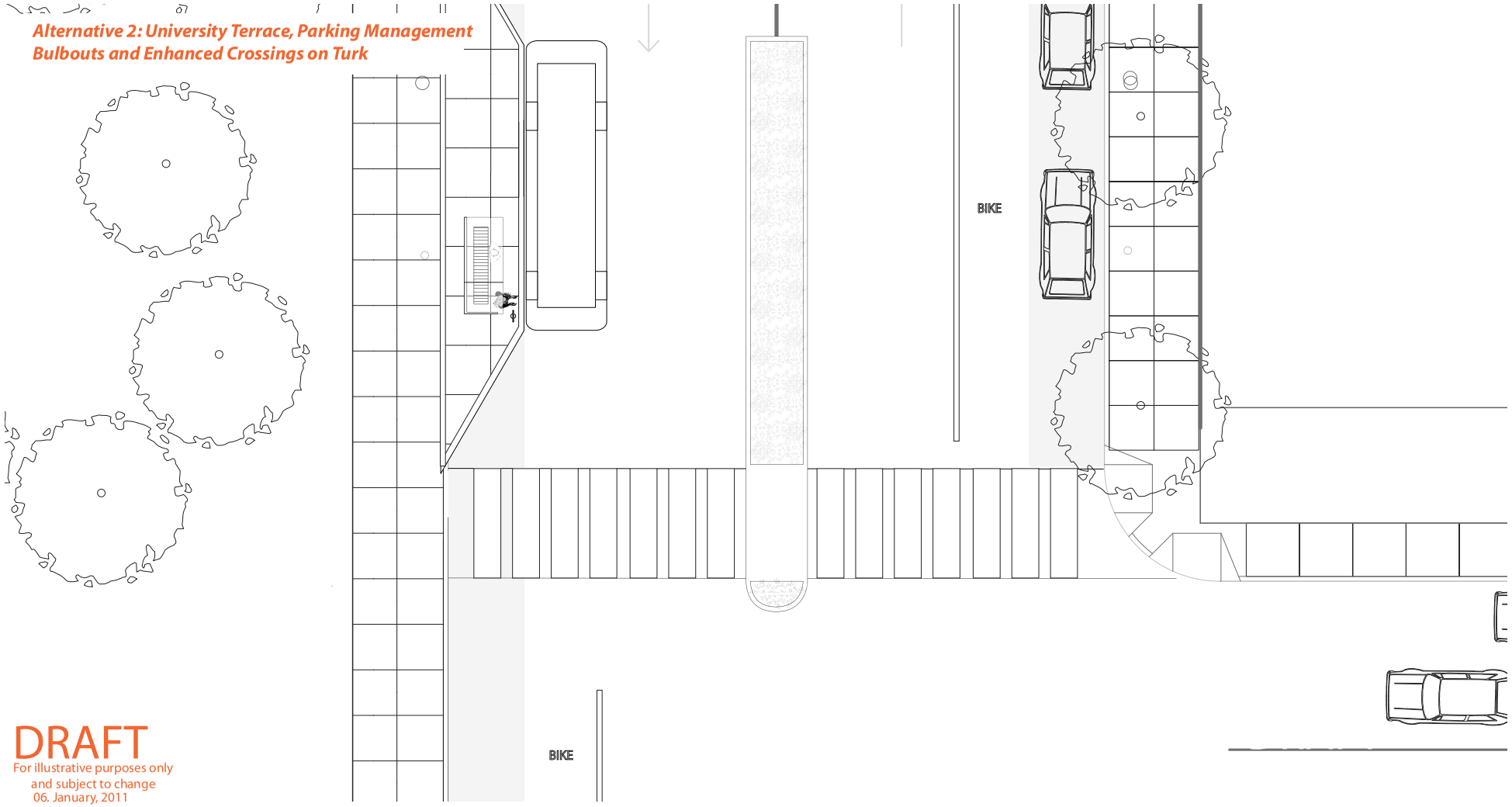
Client:
University of San Francisco

Alternative 2: University Terrace, Parking Management Bulbouts and Enhanced Crossings on Turk



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Traffic Calming Ideas Matrix

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Client:
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3.3 ALTERNATIVE 3: ENHANCE GOLDEN GATE AND TURK

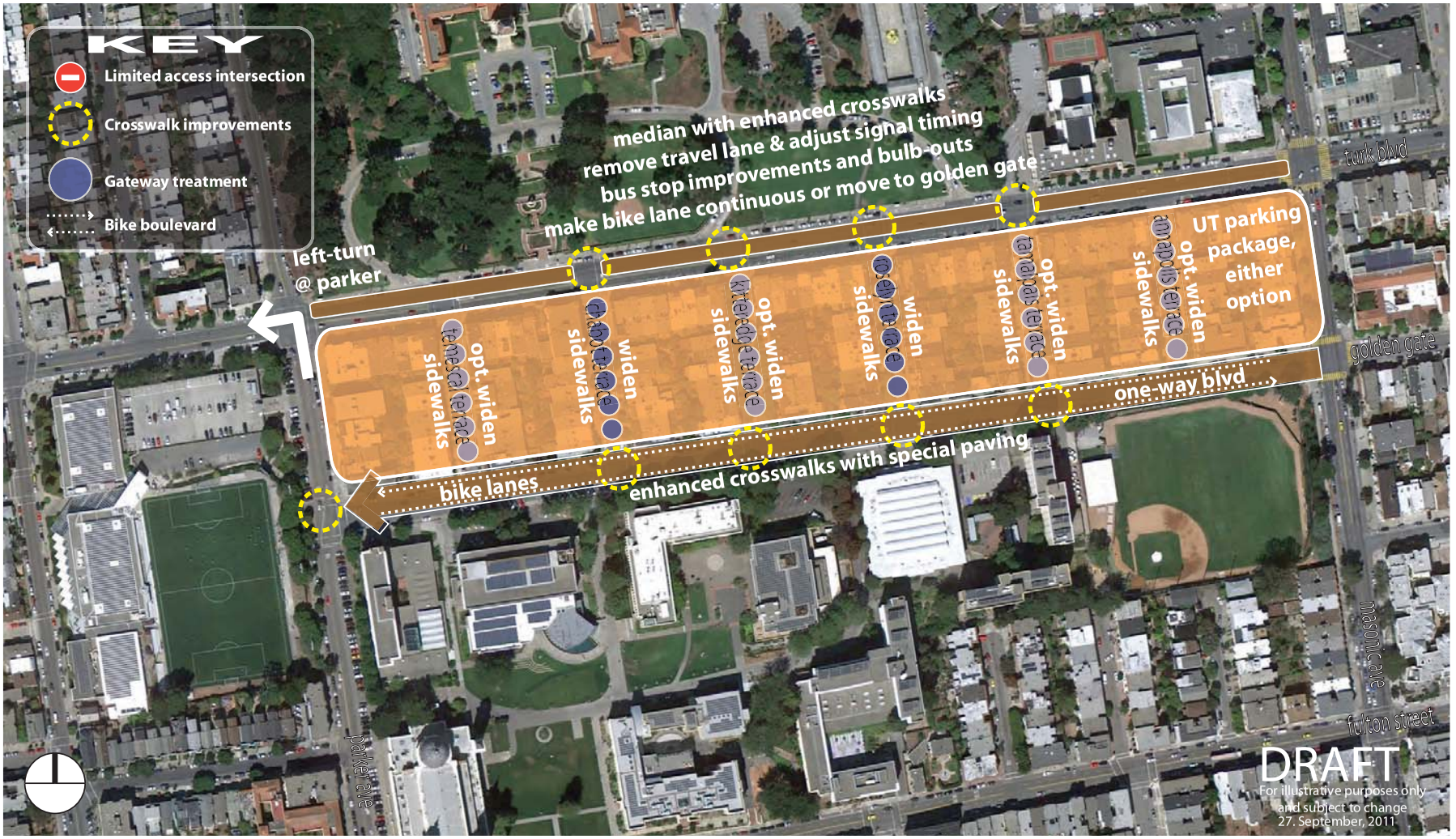
Alternative 3 is directed to improvements that will maximize pedestrian safety on the east-west streets, recognizing that the vehicular speeds on these streets present the greatest hazard to pedestrians. The alternative could work with either of the parking management ideas outlined in alternatives 1 and 2.

On Turk Boulevard, a continuous planted median will reduce traffic space (and speeds), offer safe havens for pedestrians in the crosswalks, and create an opportunity to significantly enhance the character of the neighborhood and the university community. This proposed median would be continuous with breaks only at signalized intersections (that may have adjusted signal timing to increase pedestrian crossing times), thereby reducing a number of the unsafe turning movements along the street. Across the City, existing and new planted medians define neighborhoods and create safer streetscapes—it is envisioned that there is enough space on Turk to create a substantial median, one that could feature signature trees and sustainable landscaping. Moreover, the addition of parallel parking spaces along the median will nearly match the number of spaces currently found on the UT streets.

Complementing the median, the reduction in traffic space offers opportunities to install corner bulbouts to further reduce pedestrian crossing distance and bus bulbouts to create more space for riders and make transit movements more efficient in the street.

Improvements on Golden Gate would include enhanced crosswalks (raised crosswalks, corner bulb outs, special paving) that would slow traffic, make for safer pedestrian movement, and create a distinct design identity for the street (and the campus edge); continuous bike lanes in both directions (these could be designed as a bike boulevard and could replace the discontinuous bike lanes on Turk); and the option to make Golden Gate a one way street to further discourage through traffic and free more space for pedestrian/bicycle improvements.

Within the University Terrace, Alternative 3 envisions potential sidewalk widenings on the streets with the most significant pedestrian volumes, Chabot and Roselyn Terraces, with an option to widen the sidewalks on the remaining four Terrace streets.



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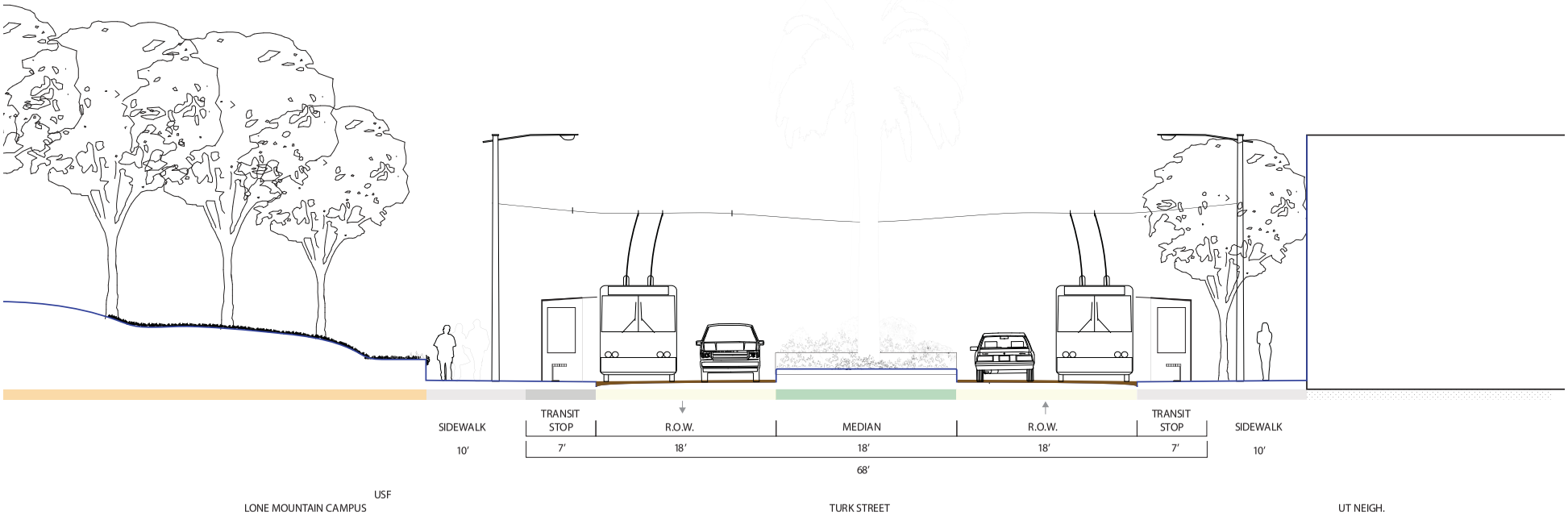
USF-Traffic Calming Master Plan
Alternative 3: Enhance Golden Gate and Turk

Project Team:
Urban Design+
Fehr and Peers
Sasaki Associates

Client:
University of San Francisco

Alternative 3: Enhance Golden Gate and Turk
Median on Turk, broken only at Chabot and Tamalpais



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USF-Traffic Calming Master Plan
Traffic Calming Ideas Matrix

Project Team:
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Sasaki Associates

Client:
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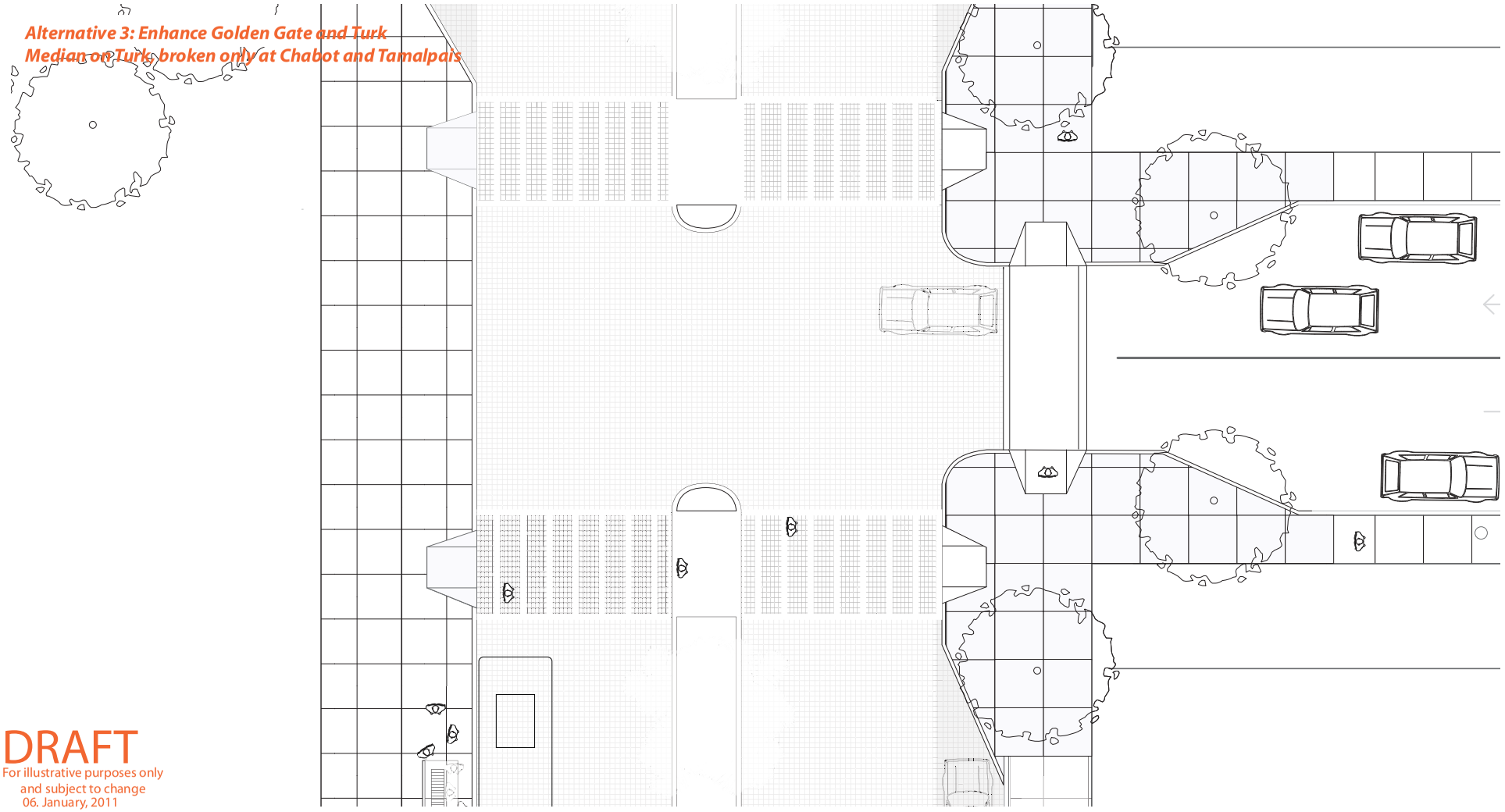
Alternative 3: Enhance Golden Gate and Turk
Median on Turk, broken only at Chabot and Tamalpais



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Traffic Calming Ideas Matrix

Project Team:
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Fehr and Peers
Sasaki Associates

Client:
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3.4 ALTERNATIVE 4: LIMITED ACCESS STREETS

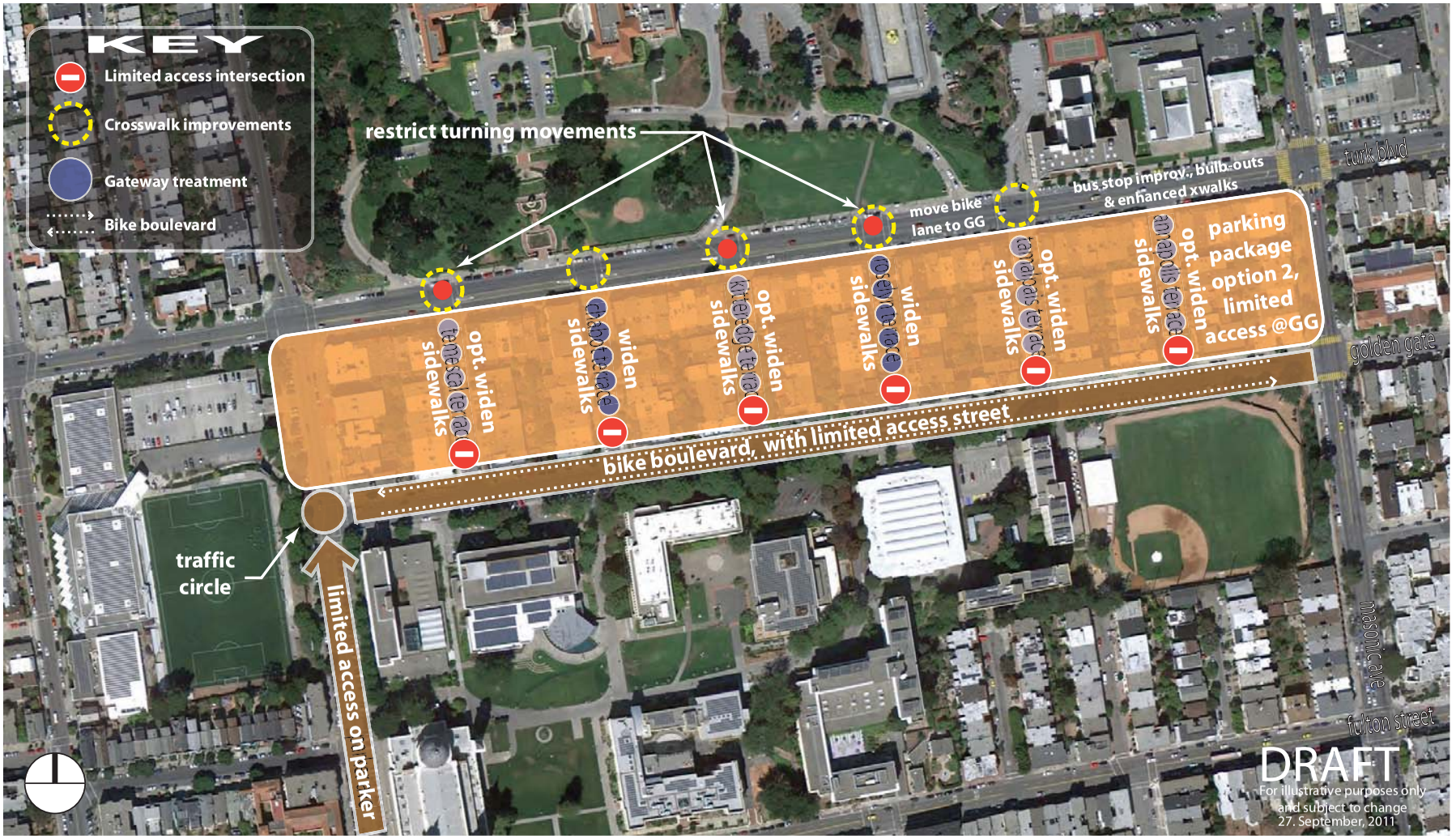
Alternative 4 builds on the ideas in the other alternatives to enhance and calm the streets. These include restricting the turning movements to signalized intersections on Turk Boulevard to prevent cut-through traffic on the University Terrace streets, pedestrian and bus stop enhancements along Turk Boulevard, and sidewalk widening on the Terrace streets.

The key element in this alternative, though, is a reframing of the streets in the University Terrace neighborhood and adjacent to USF. To truly minimize traffic impacts, this alternative proposes to restrict through traffic movement in the neighborhood and on Golden Gate and Parker. Each of the UT streets would become limited access at Golden Gate and Golden Gate and Parker would be limited access, no through traffic streets within the overall city street network. Essentially, the UT streets would become dead end streets at Golden Gate (one option is a complete dead end, another option is southbound traffic can enter Golden Gate), similar to the dead end streets on the south side of the USF campus.

Combined with the managed parking restrictions proposed in Alternative 2, this idea would significantly decrease the amount of vehicular traffic on UT streets and create a more neighborly environment for the community and a much safer environment for pedestrians.

On Golden Gate Avenue, limiting access along the street offers multiple opportunities for pedestrian, bicycle, and crosswalk enhancements such as those identified in Alternative 3. In addition, an option of repaving the street from Parker to Masonic might create a more attractive and seamless edge between the UT and USF.

Similarly, limiting access on Parker Street will create much safer conditions for the campus community, enhance connections to the Koret Center and soccer field, and create a more attractive campus entry and edge.



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USF-Traffic Calming Master Plan
Alternative 4: Limited Access Streets

Project Team:
Urban Design+
Fehr and Peers
Sasaki Associates

Client:
University of San Francisco

3.5 SUMMARY OF BENEFITS

Alternative 1, Improve Current Conditions has minimal safety benefits. Increased enforcement may reduce some of the more dramatic student/UT incidents, but it will not improve pedestrian safety. The most significant feature of Alternative 1 is that the recommended demonstration projects will facilitate the study of unintended consequences of traffic changes setting the stage for more permanent improvements.

The strategies in Alternative 2, Manage Parking will reduce the parking for students, but will be a major improvement in pedestrian safety by reducing turning movements and traffic on UT streets. The widening of University Terrace sidewalks may slightly reduce parking spaces for the neighborhood. Reducing traffic volume and speeds on Turk Boulevard and added turning restrictions on the Boulevard may increase traffic on Chabot and Tamalpais Terraces. Crosswalk improvements on Turk and Golden Gate will increase pedestrian safety.

Alternative 3, Enhancing Golden Gate Avenue and Turk Boulevard would significantly improve bicycle and pedestrian safety on both Turk and Golden Gate while enhancing neighborhood character and increasing parking capacity. Depending on how parking is managed on the UT streets, this alternative may have limited impact on specific UT concerns.

Alternative 4, Limited Access on Golden Gate and Parker Avenues will maximize pedestrian and bicycle safety, but may increase traffic on Turk and Fulton. This alternative removes most USF traffic from University Terrace Streets, which will have a short-term impact on established traffic patterns, but will significantly improve pedestrian safety. Crosswalk improvements on Turk Boulevard will also increase pedestrian safety.

CHAPTER 4. PREFERRED PLAN

The University Terrace Association appointed a Traffic Committee to evaluate the four traffic calming alternatives. The Committee met over the course of the spring and summer of 2011. Representatives from Fehr & Peers, Urban Design+, and USF attended most meetings. The Committee developed a fifth alternative (the "Preferred Plan"), which included elements from each of the four original plans that the Committee judged to most effectively address the traffic calming goals of the University Terrace Association. The Preferred Plan was presented to the University Terrace community at-large at a public meeting on October 5, 2011. The UT community was then asked to vote on each of the major elements in the Plan. The voting process was implemented by the University Terrace Association and ballots were delivered to each University Terrace address. Thirty-nine ballots were returned; each major element of the Plan was approved by majority vote.

The Preferred Plan includes components of each of the four draft alternatives to create an alternative focused on safe and welcoming university neighborhood. This Preferred Plan, "A Great Neighborhood" includes a number of key concepts such as restricting the turning movements to signalized intersections on Turk Boulevard to prevent cut-through traffic on the University Terrace streets, pedestrian and bus stop enhancements along Turk Boulevard, and the reframing of the streets in the University Terrace neighborhood and adjacent to USF.

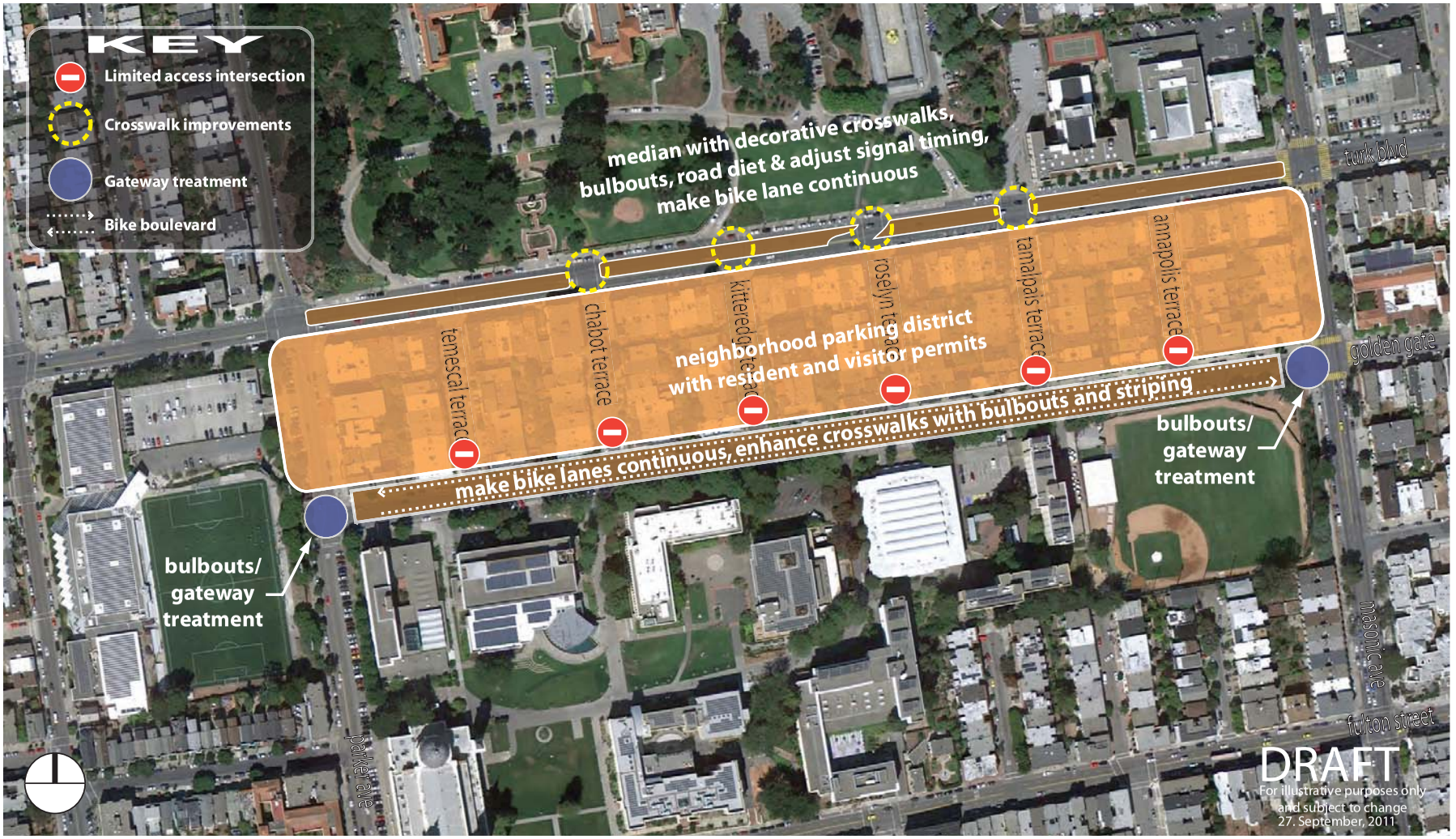
On Turk Boulevard, a continuous planted median will reduce traffic space (and speeds), offer safe havens for pedestrians in the crosswalks, and create an opportunity to significantly enhance the character of the neighborhood and the university community. This proposed median would be continuous with breaks only at signalized intersections, thereby reducing a number of the turning movements along the street. Continuous bicycle lanes could also be accommodated with a westbound lane reduction. To accommodate the median and the continuous bike lanes, one westbound travel lane would be removed, such that Turk would have only one vehicle travel lane in each direction.

To create a very welcoming, high quality university neighborhood, this Preferred Plan restricts through traffic movement in the neighborhood and on Golden Gate. Each of the UT streets would become limited access at Golden Gate with southbound access from the Terraces to Golden Gate allowed, but no access from Golden Gate in the northbound direction would be permitted.

Combined with the managed parking restrictions (including a modified BB permit being proposed separately by the UTA, with support from USF) proposed in Alternative 2, this idea would significantly decrease the amount of vehicular traffic on UT streets and create a more neighborhood-oriented environment for the community and a much safer environment for pedestrians.

On Golden Gate Avenue, bulbouts and/or gateway treatments at Parker and Masonic will highlight and create clear entries into the neighborhood. There are also locations along the street that offer opportunities for pedestrian, bicycle, and crosswalk enhancements such as those identified in Alternative 3. In addition, an option of repaving the street from Parker to Masonic might create a more attractive and seamless edge between the UT and USF.

This Preferred Plan represents an overall concept for improvements in the University Terrace and USF district, one that can both resolve the parking and traffic safety issues and create a more welcoming environment for residents and members of the USF community alike. Going forward, concept development will develop each of the design ideas in more detail, working closely with the community to ensure that all ideas work together, are relatively easily implemented, and can be maintained over time.



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USF-Traffic Calming, Phase 1
Preferred Plan: A Great Neighborhood

Project Team:
Urban Design+
Fehr and Peers
Sasaki Associates

Client:
University of San Francisco

APPENDIX A: TRAFFIC CALMING TOOLBOX

UNIVERSITY TERRACE TRAFFIC CALMING TOOLBOX

The traffic calming measures that are most appropriate for the University Terrace neighborhood are those that balance the interests of UTA with the University community and are consistent with the City of San Francisco's policies and guidelines. Based on the data collected and analyzed, measures that control volume are recommended along the Terrace streets, while measures to control speed are recommended primarily along the east-west corridors on Turk Boulevard and Golden Gate Boulevard. "Non-physical" measures, including increased enforcement and education to the community, are recommended throughout the study area.

For each device in the toolbox, the following discussions are provided:

- Description of the measure
- Photograph and/or schematic
- List of advantages and disadvantages
- Data sheet indicating speed, volume, or collision reduction potential

NON-PHYSICAL DEVICES

Non-physical devices include any measure that does not require physical changes to the roadway. Non-physical devices are intended to increase drivers' awareness of surroundings and influence driver behavior without physical devices. Because these devices are not self enforcing, they have limited effectiveness as stand alone devices. Non-physical devices should be used to supplement physical devices. This category includes the following devices:

- Targeted Speed Enforcement
- Speed Feedback Sign
- Centerline/Edgeline Lane Striping
- Signage

Targeted Speed Enforcement

Staff or Neighborhood Traffic Committee (NTC) identifies locations for temporary targeted enforcement, based on personal observations and survey comments. A request can be submitted to the City of Anaheim Police Department for the desired enforcement. Depending on police department resources, the targeted enforcement may be limited in duration. Targeted enforcement may also be used in conjunction with new neighborhood traffic management devices to help drivers become aware of the new restrictions.

Advantages

- Inexpensive if used temporarily
- Does not physically slow emergency vehicles or buses
- Quick implementation

Disadvantages

- Expensive to maintain an increased level of enforcement
- Effectiveness may be temporary

Speed Feedback Sign

Speed feedback signs measure each approaching vehicle's speed. Real-time speeds are relayed to drivers and flash when speeds exceed the limit. Speed feedback signs are typically mounted on or near speed limit signs and are most common in school zones.

Advantages

- Real-time speed feedback
- Does not physically slow emergency vehicles or buses
- Permanent installation

Disadvantages

- May require power source
- Only effective for one direction of travel
- Long-term effectiveness uncertain
- Subject to vandalism

Centerline/Edgeline Lane Striping

Lane striping can be used to create formal bicycle lanes, parking lanes, or edge lines. As a neighborhood traffic management measure, they are used to narrow the travel lanes for vehicles, thereby inducing drivers to lower their speeds. However, the past evidence on speed reductions is inconclusive.

Advantages

- Inexpensive
- Can be used to create bicycle lanes or delineate on-street parking
- Does not slow emergency vehicles

Disadvantages

- Has not been shown to significantly reduce travel speeds
- Requires regular maintenance

Signage

Signage that can be used as a neighborhood traffic management measure include:

- Truck Restriction Signs
- "Not a Through Street" Signs

Note Turn-movement restriction signs have been included in the Volume Control Devices section.

Advantages

- Inexpensive
- Truck restrictions can reduce through truck traffic
- Does not slow emergency vehicles or buses

Disadvantages

- Requires regular maintenance
- Speed limit signs are not applicable because they do not necessarily change driver behavior. If speed limit is set unreasonably low, drivers are more likely to exceed it.

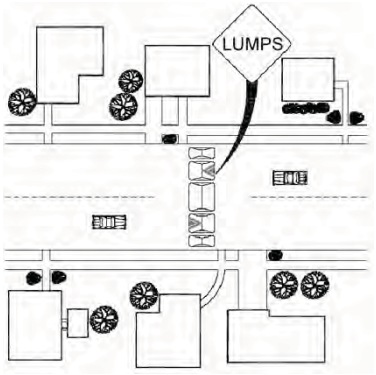
SPEED CONTROL - VERTICAL DEVICES

Vertical deflection devices use variations in pavement height and alternative paving materials to physically reduce travel speeds. These devices are designed for travel speeds over the device of approximately 15 to 20 MPH depending on the device. The vertical deflection devices in the toolbox include:

- Speed Lumps
- Speed Table
- Raised Crosswalk

Speed Lumps

Speed lumps are rounded raised areas placed across the road with two wheel cut-outs designed to allow large vehicles, such as emergency vehicles and buses, to pass with minimal slowing. The design limits passenger cars and mid-size SUVs from fully passing through the cut-outs and requires travel over the lump. They are slightly less than four inches high, typically parabolic in shape, and have a design speed of 15 to 20 MPH. They are usually constructed with a taper on each side to allow unimpeded drainage between the lump and curb. When placed on a street with rolled curbs or no curbs, bollards are placed at the ends of the speed lump to discourage vehicles from veering outside of the travel lane to avoid the device.



The magnitude of reduction in speed is dependent of the spacing of speed lumps between points that require drivers to slow (see page 35).

Speed lumps are similar when compared to speed humps, therefore, the measured effectiveness of speed humps is shown (there is insufficient data to predict the effectiveness of speed lumps).

Advantages

- Effective in reducing speeds
- Maintains rapid emergency response times
- Relatively easy for bicyclists to cross

Disadvantages

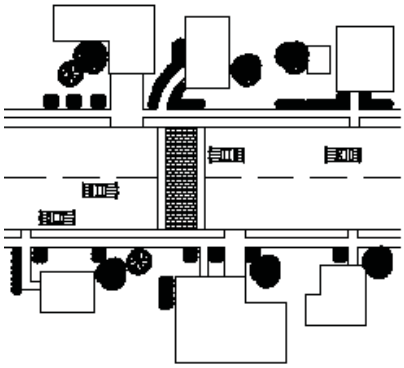
- Vehicles with wide wheel base can pass through the lump using the wheel cut-outs
- Increased noise
- Aesthetics
- Signs may be unwelcome by adjacent residents

.

Measured Effectiveness (of Speed Humps)		
Speed Impacts	**Reduction in 85th Percentile Speeds between Slow Points**	**-22%**
Volume Impacts	**Reduction in Average Daily Traffic**	**-18%**
Safety Impacts	**Reduction in Average Annual Number of Collisions**	**-13%**
Source: *Traffic Calming: State of the Practice*, 1999.		

Speed Table

Speed tables are flat-topped speed humps approximately 22 feet long, which is typically long enough for the entire wheelbase of a passenger car to rest on top. Their long flat fields, plus ramps that are more gently sloped than speed lumps, give speed tables higher design speeds than lumps and thus may be more appropriate for streets with higher ambient speeds. Brick or other textured materials improve the appearance of speed tables, draw attention to them, and may enhance safety and speed reduction.



The magnitude of reduction in speed is dependent of the spacing of speed tables between points that require drivers to slow (see page 35). On average speed tables achieve an 18% reduction in speeds.

Measured Effectiveness		
Speed Impacts	**Reduction in 85th Percentile Speeds between Slow Points**	**-18%**
Volume Impacts	**Reduction in Vehicles per Day**	**-12%**
Safety Impacts	**Reduction in Average Annual Number of Collisions**	**-45%**
Source: *Traffic Calming: State of the Practice*, 1999.		

Advantages

- Effective in reducing speeds, though not to the extent of speed lumps

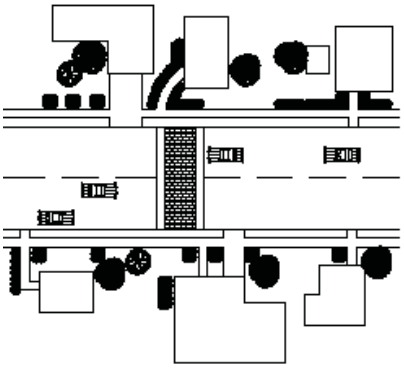
Disadvantages

- Aesthetics of device
- Increased noise
- Textured materials, if used, can be expensive
- Signs may be unwelcome by adjacent residents

Raised Crosswalk

Raised Crosswalks are speed tables striped with crosswalk markings and signage to channelize pedestrian crossings, providing pedestrians with a level street crossing. Also, by raising the level of the crossing, pedestrians are more visible to approaching motorists.

The magnitude of reduction in speed is dependent of the spacing of raised crosswalks between points that require drivers to slow (see page 35). On average raised crosswalks achieve an 18% reduction in speeds.



Measured Effectiveness		
Speed Impacts	**Reduction in 85th Percentile Speeds between Slow Points**	**-18%**
Volume Impacts	**Reduction in Vehicles per Day**	**-12%**
Safety Impacts	**Reduction in Average Annual Number of Collisions**	**-45%**
Source: *Traffic Calming: State of the Practice*, 1999.		

Advantages

- Improve safety for both vehicles and pedestrians
- Aesthetic upgrades can have positive aesthetic value
- Effective in reducing speeds, though not to the extent of speed lumps

Disadvantages

- Textured materials, if used, can be expensive
- Impact to drainage needs to be considered
- Textured pavement can increase noise to adjacent residences
- Signs may be unwelcome by adjacent residents

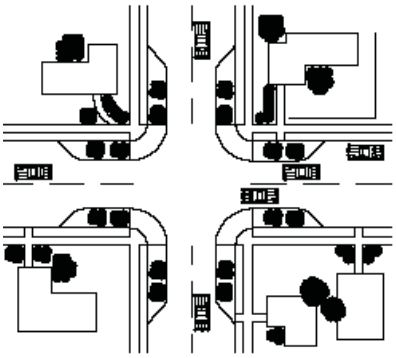
SPEED CONTROL - NARROWING DEVICES

Narrowing devices use raised islands and curb extensions to narrow the travel lane for motorists. The narrowing devices in the toolbox include:

- Neckdown/Bulbout
- Center Island Narrowing/Entry Feature
- Two-Lane Choker

Neckdown/Bulbout

Neckdowns/bulbouts are raised curb extensions that narrow the travel lane at intersections or mid-block locations. Neckdowns/bulbouts "pedestrianize" intersections by shortening the crossing distance and decreasing the curb radii, thus reducing turning vehicle speeds. Both of these effects increase pedestrian comfort and safety at the intersection.



The magnitude of reduction in speed is dependent of the spacing of neckdowns between points that require drivers to slow. On average neckdowns achieve a 7% reduction in speeds.

Measured Effectiveness		
Speed Reduction	**Reduction in 85th Percentile Speeds between Slow Points**	**-7%**
Volume Reduction	**Reduction in Vehicles per Day**	**-10%**
Safety Reduction	**Reduction in Average Annual Number of Collisions**	**I/D**

Note: I/D = Insufficient data to predict reduction effect.
Source: *Traffic Calming: State of the Practice*, 1999.

Advantages

- Reduces pedestrian crossing distance and exposure to vehicles
- Through and left-turn movements are easily negotiable by large vehicles
- Creates protected on-street parking bays
- Reduces speeds (especially right-turning vehicles) and traffic volumes

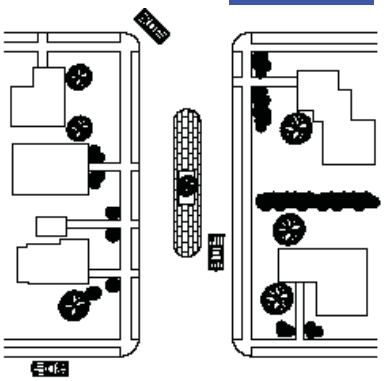
Disadvantages

- Effectiveness is limited by the absence of vertical or horizontal deflection
- May slow right-turning emergency vehicles
- Potential loss of on-street parking
- May require bicyclists to briefly merge with vehicular traffic

Center Island Narrowing/Entry Feature

Center island narrowings are raised islands located along the centerline of a street that narrow the travel lanes at that location. Placed at the entrance to a neighborhood, and often combined with textured pavement, they are referred to as "Entry Features." Fitted with a gap to allow pedestrians to walk through at a crosswalk, they are often called "pedestrian refuges." They can also be landscaped to increase visual aesthetics.

The magnitude of reduction in speed is dependent of the spacing of center island narrowings between points that require drivers to slow. On average center island narrowings achieve a 7% reduction in speeds.



Measured Effectiveness		
Speed Reduction	**Reduction in 85th Percentile Speeds between Slow Points**	**-7%**
Volume Reduction	**Reduction in Vehicles per Day**	**-10%**
Safety Reduction	**Reduction in Average Annual Number of Collisions**	**I/D**

Note: I/D = Insufficient data to predict reduction effect.
Source: *Traffic Calming: State of the Practice*, 1999.

Center Island as "Pedestrian Refuge"

Center Island as "Entry Feature"

Advantages

- Can increase pedestrian safety
- Aesthetic upgrades can have positive aesthetic value
- Reduces traffic volumes if alternative routes are available

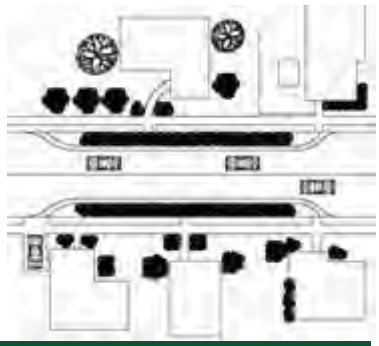
Disadvantages

- Effect on vehicle speeds is limited by the absence of vertical or horizontal deflection
- Potential loss of on-street parking

Two-Lane Choker

Chokers are curb extensions at midblock that narrow a street. Chokers leave the street cross section with two lanes that are narrower than the normal cross section.

The magnitude of reduction in speed is dependant of the spacing of two-lane chokers between points that require drivers to slow. On average two-lane chokers achieve a 7% reduction in speeds.



Measured Effectiveness		
Speed Reduction	**Reduction in 85th Percentile Speeds between Slow Points**	**-7%**
Volume Reduction	**Reduction in Vehicles per Day**	**-10%**
Safety Reduction	**Reduction in Average Annual Number of Collisions**	**I/D**

Note: I/D = Insufficient Data to predict reduction effect.
Source: *Traffic Calming: State of the Practice*, 1999.

Advantages

- Easily negotiable by emergency vehicles and buses
- Can have positive aesthetic value
- Reduces both speeds and volumes

Disadvantages

- Effect on vehicle speeds is limited by the absence of vertical or horizontal deflection
- May require bicyclists to briefly merge with vehicular traffic
- Loss of on-street parking
- Build-up of debris in gutter

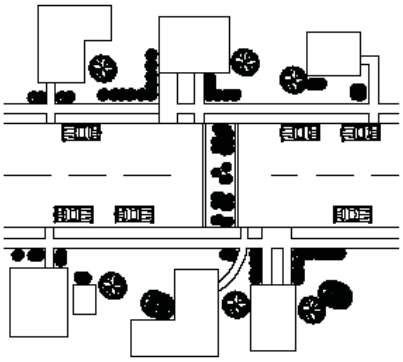
VOLUME CONTROL DEVICES

Diversion devices use raised islands and curb extensions to preclude particular vehicle movements, such as left-turn or through movements, usually at an intersection. The volume control devices in the toolbox include:

- Full Closure
- Partial Closure
- Diagonal Diverter
- Forced-Turn Island
- Turn-Movement Restrictions

Full Closure

Full street closures are barriers placed across a street to close the street completely to through traffic, usually leaving only sidewalks or bicycle paths open. The barriers may consist of landscaped islands, walls, gates, side-by-side bollards, or any other obstructions that leave an opening smaller than the width of a passenger car. Emergency vehicles are accommodated via removable bollards or similar devices.



Measured Effectiveness		
Speed Reduction	**Reduction in 85th Percentile Speeds between Slow Points**	**I/D**
Volume Reduction	**Reduction in Vehicles per Day**	**-44%**
Safety Reduction	**Reduction in Average Annual Number of Collisions**	**I/D**

Note: I/D = Insufficient data to predict reduction effect.
Source: *Traffic Calming: State of the Practice*, 1999.

Advantages

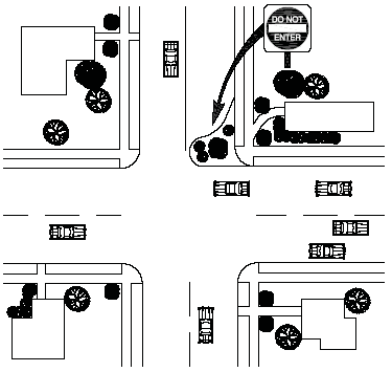
- Very effective in reducing cut-through traffic volumes
- Able to maintain pedestrian and bicycle connectivity

Disadvantages

- Requires statutory actions for public street closures
- Causes circuitous routes for local residents
- Diverts traffic to another street
- Delays for emergency services unless through access is provided for
- May limit access to businesses
- Cost

Partial Closure

Partial closures (or half street closures) are barriers that block travel in one direction for a short distance on otherwise two-way streets. Partial closures are the most common volume control measure after full street closures. Partial closures are often used in sets to make travel through neighborhoods with "gridded" streets circuitous rather than direct.



Measured Effectiveness		
Speed Reduction	**Reduction in 85th Percentile Speeds between Slow Points**	**-19%**
Volume Reduction	**Reduction in Vehicles per Day**	**-42%**
Safety Reduction	**Reduction in Average Annual Number of Collisions**	**I/D**

Note: I/D = Insufficient data to predict reduction effect.
Source: *Traffic Calming: State of the Practice*, 1999.

Advantages

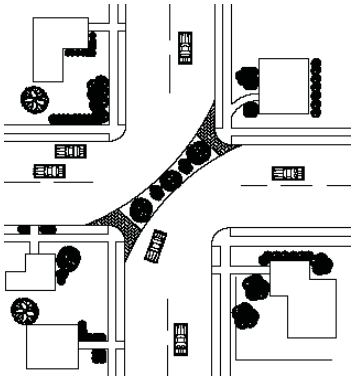
- Able to maintain two-way bicycle access
- Effective in reducing traffic volumes

Disadvantages

- Causes circuitous routes for local residents
- May limit access to businesses
- Drivers can bypass the barrier

Diagonal Diverter

Diagonal diverters are barriers placed diagonally across an intersection, blocking through movement. Like half closures, diagonal diverters are usually staggered to create circuitous routes through neighborhoods.



Measured Effectiveness		
Speed Reduction	**Reduction in 85th Percentile Speeds between Slow Points**	**-4%**
Volume Reduction	**Reduction in Vehicles per Day**	**-35%**
Safety Reduction	**Reduction in Average Annual Number of Collisions**	**I/D**

Note: I/D = Insufficient data to predict reduction effect.
Source: *Traffic Calming: State of the Practice*, 1999.

Advantages

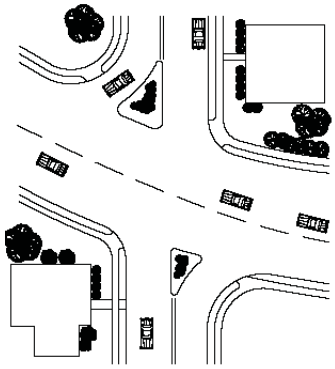
- Able to maintain full pedestrian and bicycle access
- Reduces traffic volumes

Disadvantages

- Causes circuitous routes for local residents
- Delays for emergency services
- May be expensive
- May require reconstruction of corner curbs

Forced-Turn Island

Forced-turn islands are raised islands that prohibit certain movements on approaches to an intersection.



Measured Effectiveness		
Speed Reduction	**Reduction in 85th Percentile Speeds between Slow Points**	**I/D**
Volume Reduction	**Reduction in Vehicles per Day**	**-31%**
Safety Reduction	**Reduction in Average Annual Number of Collisions**	**I/D**

Note: I/D = Insufficient data to predict reduction effect.
Source: *Traffic Calming: State of the Practice*, 1999.

Advantages

- Can improve safety at an intersection by prohibiting critical turning movements
- Reduces traffic volumes

Disadvantages

- If designed improperly, drivers can maneuver around the island to make an illegal movement
- May divert a traffic problem to a different street

Turn-Movement Restrictions

Turn-movement restrictions involve the use of signs to prevent undesired turning movements without the use of physical devices. The restrictions may generally apply to turning movements in or out of a residential street to a larger street. The turn-movement restrictions may be permanent or only during peak commute hours.

Measured Effectiveness		
Speed Reduction	**Reduction in 85th Percentile Speeds between Slow Points**	**I/D**
Volume Reduction	**Reduction in Vehicles per Day**	**I/D**
Safety Reduction	**Reduction in Average Annual Number of Collisions**	**I/D**
Note: I/D = Insufficient data to predict reduction effect.		

Advantages

- Can reduce cut-through traffic at specific time-of-day
- Can increase safety at an intersection by prohibiting certain turning movements
- Low cost

Disadvantages

- Restrictions apply to resident and non-residents
- Requires enforcement during time of restriction to be effective
- May divert a traffic problem to another street