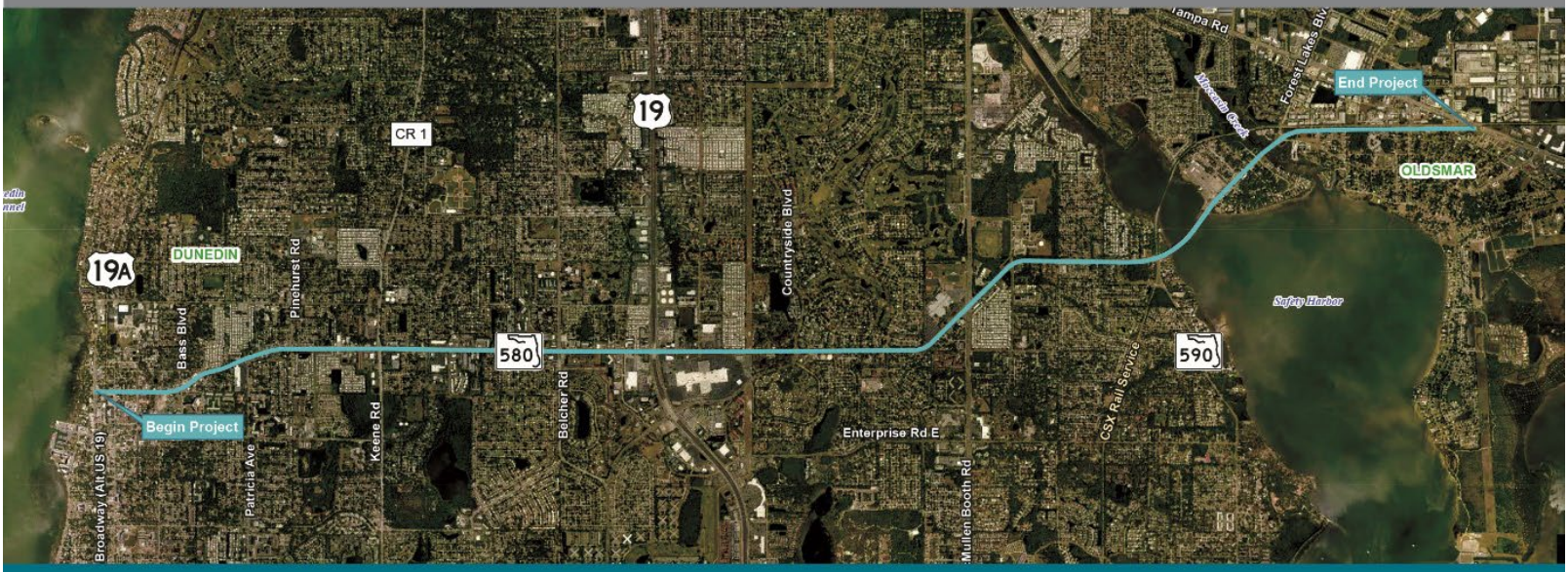
# SR580

## CORRIDOR PLANNING & CONCEPT DEVELOPMENT STUDY

FROM ALT. US 19/SR 595/BROADWAY TO TAMPA ROAD




# NO-BUILD FUTURE CONDITIONS MEMORANDUM

FDOT

**Pinellas County**

**FPID: 259109-1-12-27**

**January 2022**

# TECHNICAL MEMORANDUM

## *MEMORANDUM PURPOSE*

The purpose of this *No-Build Future Conditions Memorandum* is to identify future conditions in the No-Build scenario and identify future needs for the State Road 580 (SR 580) study corridor. This memorandum assesses the future vision, goals and objectives for the corridor, as well as future land use, travel demand and no-build traffic operations.

## *PROJECT LOCATION*

The study area extends 8.5 miles along SR 580 in Pinellas County Florida from Alternative US 19 to Tampa Road and has several typical sections that vary. Beginning at Alternate US 19 in the City of Dunedin and spanning the cities of Clearwater, Safety Harbor and Oldsmar, SR 580 is a four-lane divided urban arterial for almost a mile then transitions to a four-lane undivided urban arterial to the cross street of Pinehurst Road where an additional through lane is added in each direction of SR 580 for a total of six lanes. The six-lane SR 580 continues east until just west of SR 590/Philippe Parkway where a through lane drops in each direction to a four-lane facility and continues to the end of the project at Tampa Road.

Daily traffic volumes ranged from 10,800 vehicles per day to 48,500 vehicles per day along the corridor in the year 2018. The corridor features sidewalks on both sides of the roadway, with a few exceptions. Bike lanes are present on both sides of SR 580 from Alternate US 19 to Countryside Boulevard only. Vehicle traffic regularly mixes in the corridor with bicycles, pedestrians and transit users for access to community services, businesses, Countryside Mall, Countryside High School, and Oldsmar Elementary School along the corridor.

The project location map is shown on **Figure 1**.

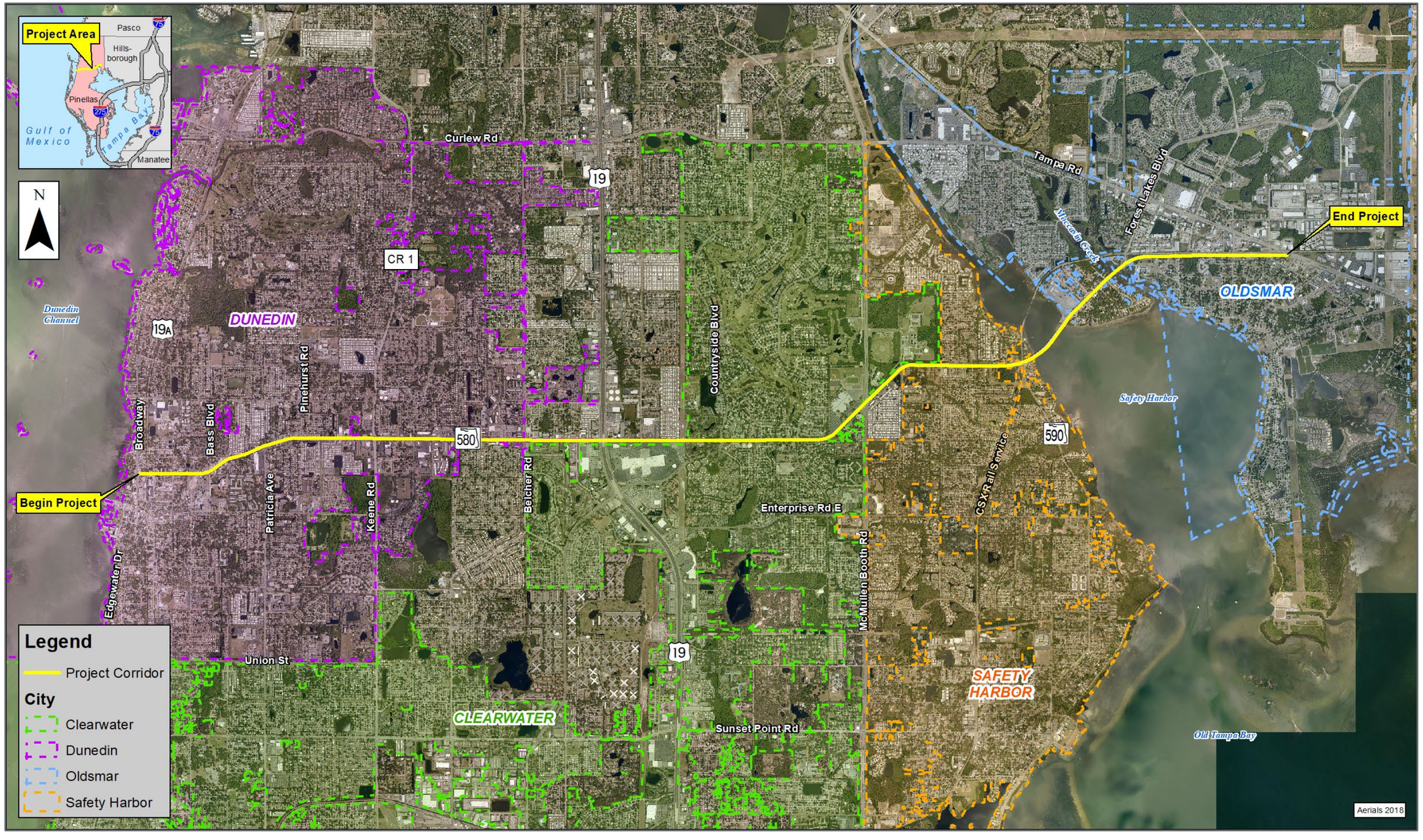



**Figure 1 Project Location Map**

## GUIDING PRINCIPLES

The guiding principles of the study will establish the vision of the corridor, identify major users of the corridor, and define the desired role of the facility for the future conditions.

### Corridor Vision

SR 580 is a major east west arterial in Pinellas County with several different adjacent land uses that attract and generate different modes of transportation users. The vision for the SR 580 corridor includes providing safe options for pedestrians, bicyclist, transit users and motorized vehicles using the corridor while not deteriorating vehicle operations or increasing delay. This vision will include providing sidewalks and bicycle facilities along the corridor and connections to other multimodal facilities and proposing transportation improvements that reduce vehicle crashes and enhance safety for all users. constraint the existing or proposed Pinellas Suncoast Transit Authority (PSTA) system.

Pinellas County and Forward Pinellas support Vision Zero for the state of Florida. Vision Zero is a policy that establishes a goal of reducing traffic fatalities and serious injuries to zero. Forward Pinellas discusses Vision Zero transportation safety philosophy in their Safe Streets Pinellas effort. All proposed concepts for the study corridor will be aligned with the corridor visions.

### Corridor Users

The SR 580 study corridor major users are listed as:

- Passenger vehicles
- Freight/Heavy trucks
- Pedestrian/Bicyclist
- Transit users (PSTA)
- Local residents
- Tourists

### Desired Role of Facility

The SR 580 corridor is classifed as an urban arterial and is a major east/west corridor in Pinellas County, Florida. The adjacent land use is mainly residential with some mixed use, commerical, institutional, industrial and transportation/utility. This adjacent land use of the roadway generates vehicular, bicyclists, pedstrians and transit users. Proposed improvements that support the role of the facility will be developed and evalauted in a Corridor Alternatives and Strategies Report.

## NEEDS ASSESSMENT

### Goals And Objectives for The Corridor

Goals and objectives for the SR 580 study corridor have been established through identifying existing deficiencies of the corridor, guiding principles, developing a purpose and need statement and through

on-going coordination with the public. The future adjacent land use, population and employment growth, increased multimodal users, safety and level of service (LOS) concerns have all led to the need of multimodal solutions to address mobility and safety concerns. The overall goal of the study is to develop context sensitive improvements to help transform SR 580 into a multimodal urban corridor in keeping with the community context it traverses.

## *Evaluation Criteria*

The evaluation criteria and measures of effectivness to be utilized for the comparative evaluation of improvement options has been determined to ensure that the needs, goals and objectives for the study corridor are met. Traffic operational measures of effectiveness that will be used to evaluate intersection improvements will be LOS and delay (seconds) for vehicle traffic using SYNCHRO software. Segment or link evaluation will use LOS results from SYNCHRO. Bicycle and pedestrian LOS will also be determined for future conditions for the study corridor and used in the evaluation criteria.

## *FUTURE LAND USE*

SR 580 is located in a heavy urbanized area. Pinellas County has designated SR 580 as a Long-Range Investment Corridor due to anticipated substantial redevelopment (specifically near the Countryside Mall). Future land use maps from Pinellas County and local municipalities (City of Dunedin, Clearwater, Safety Harbor and Oldsmar) were used to evaluate future land use changes along the SR 580 corridor. Future residential land use is forecasted to drop from 58% to 52%, commercial land use is forecasted to drop from 21% to 14% and mixed land use is expected to increase from 0% to 13%. **Figure 2** shows a breakout of the future land use for the SR 580 study corridor.

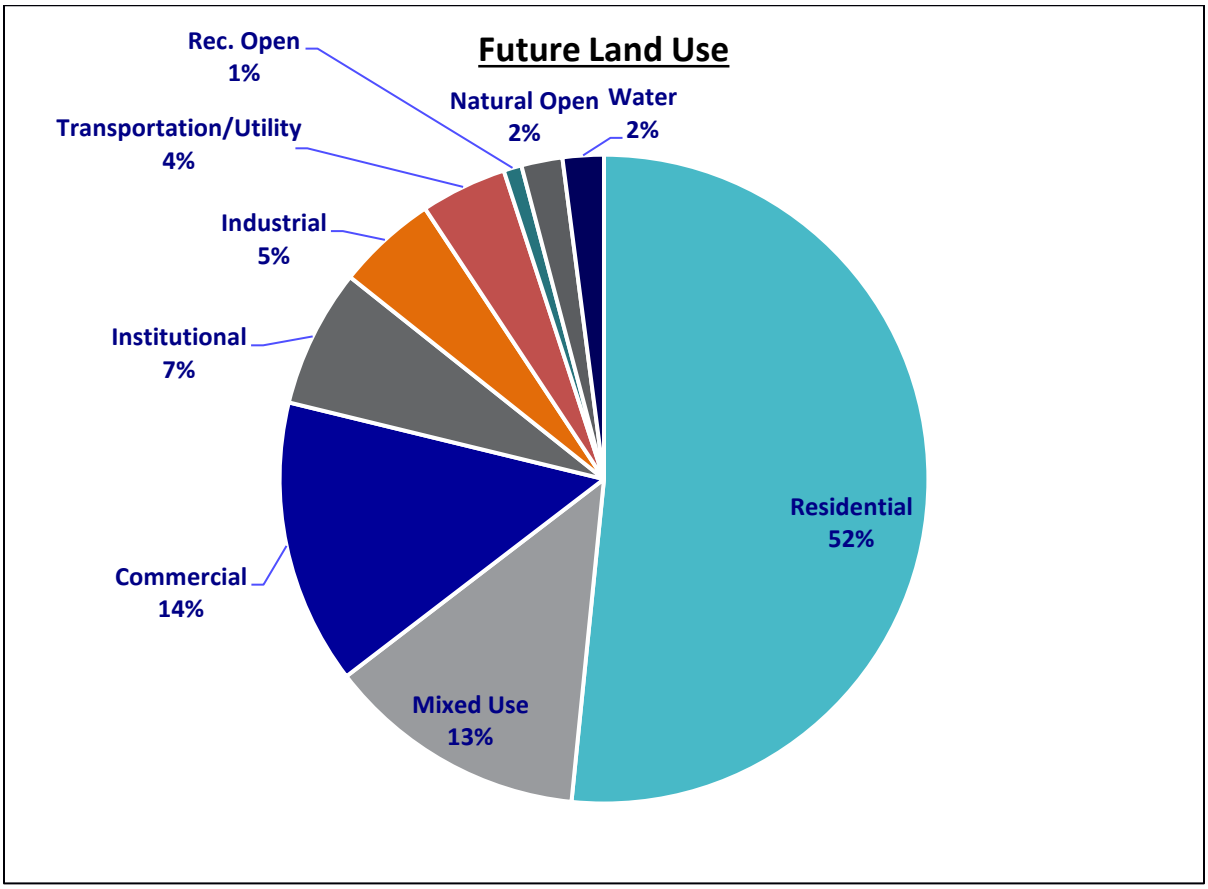



**Figure 2 Future Land Use**

**Figure 3** is a map of the existing and future land use map for the entire SR 580 study corridor. From this map it can be seen that the future mixed use parcels are located towards the west end in the City of Dunedin, on the north side of SR 580 near the US 19 interchange and Countryside Mall and the east end of the corridor in Oldsmar.

Changes to the corridor are supported by local municipalities through their local Comprehensive Plans, Future Land Use and Transportation elements of the plan. The City of Clearwater Future Land Use Element Objective A.6.5 states, “The City shall encourage improved land use compatibility through the

evaluation of traffic calming techniques, multi-modal transportation networks, and the use of transit oriented development planning." One of the policies of this objective states, "All proposed development/redevelopment initiatives shall be reviewed for opportunities to improve pedestrian and bicycle access and consider the integration of bicycle and pedestrian transportation modes in all phases of transportation planning, new roadway design, roadway construction, roadway resurfacing and other capital projects consistent with the City's *Shifting Gears Bicycle and Pedestrian Master Plan* 2006."

At the time this memorandum was completed, the Countryside Mall is planned to remain in the future condition with no documented future land use change. The Countryside Mall contains commerical and recreational land use, generating traffic from vehicles, bicyclist, pedstrians and transit.

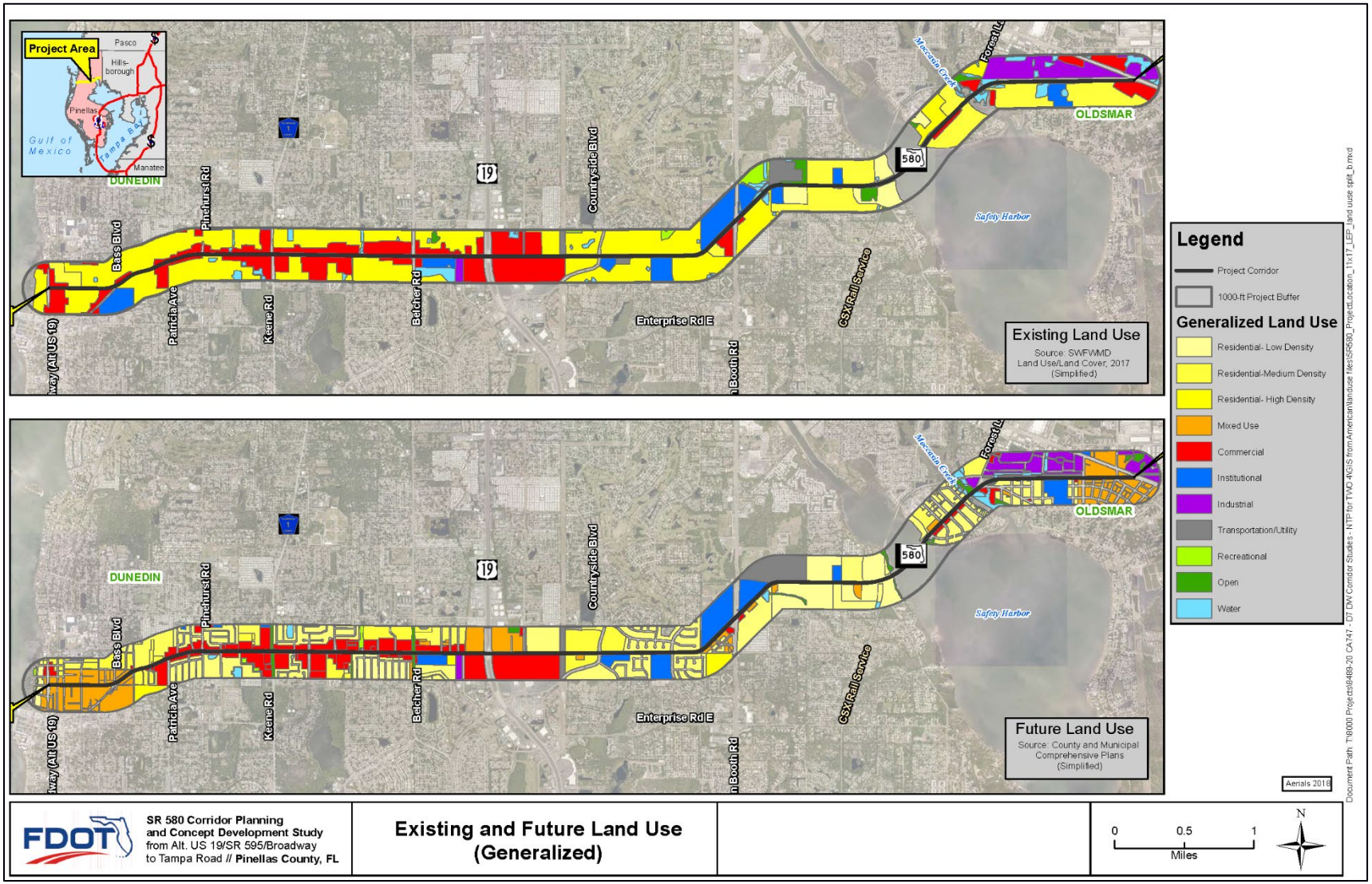



**Figure 3 Existing and Future Land Use Map of SR 580**

## PROPOSED DEVELOPMENTS AND PLANNED IMPROVEMENTS

The Forward Pinellas 2045 Long Range Transportation Plan (LRTP) is a strategic plan to improve mobility and economic opportunity countywide and is updated every five (5) years. The 2045 LRTP identifies one (1) project in the 2045 Cost Feasible Roadway Projects within the SR 580 study corridor. The county project is listed fourth and is a widening project to four (4) lanes divided for Forest Lakes Boulevard from SR 580 to SR 584. Coordination will be needed with Pinellas County for any proposed improvements at the SR 580 and Forest Lakes Boulevard intersection that arise from this study.

The Duke Energy Trail crosses SR 580 east of Countryside Mall and west of Countryside Boulevard. Pinellas County currently has a current project to provide a signalized crossing for pedestrians using this trail and crossing SR 580. This signalized trail crossing is assumed to be in place for the study analysis year of 2045.

The City of Dunedin is creating a City Multimodal Transportation Plan and currently has a project at the western end of the corridor that begins at Alternate US 19 and ends at Main Street/Bass Boulevard. The project includes proposed lane elimination along SR 580/Skinner Boulevard and roundabouts at the intersection of Douglas Avenue and Highland Avenue/Martin Luther King Jr. Avenue.

## GROWTH PROJECTIONS AND FUTURE VOLUMES

The Tampa Bay Regional Planning Model version 2.1 (TBRPM V9.0) was utilized for the SR 580 study in order to calculate growth rates. The TBRPM V9.0 was calibrated for base year 2015 at a regional level. To improve the model performance within the SR 580 study area, further refinement and calibration was conducted based on the original model.

The growth rate was developed from the validated travel demand models, using base year 2015 and future year 2045 model volumes per segment. The original growth rate was calculated for SR 580 main street segments and all side streets of the 25 study intersections. All growth rate values were reviewed and properly adjusted. Refer to **Figure 4** for the annual growth rate used for SR 580 roadway segments.

For SR 580, 21 out of the 24 SR 580 segments in the model gave a reasonable annual growth rate for the corridor. From the model, three (3) SR 580 segments near the intersection with Tampa Road gave a negative growth rate due to the increased capacity of the nearby Forest Lake Boulevard roadway segment. The future volumes for these segments of SR 580 were attracted to the Forest Lake Boulevard segment in the validated model decreasing the volume of traffic on SR 580 in the future condition. For these three (3) segments of SR 580 it is recommended to use the minimum annual growth rate (0.01%). Refer to **Table 1** for the annual growth rate for SR 580 per segment.

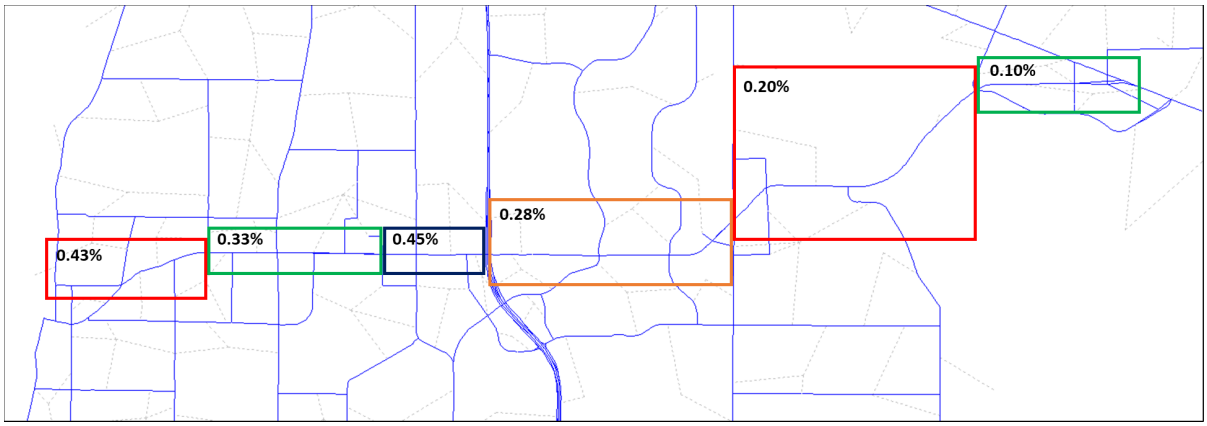



**Figure 4 Annual Growth Rate for SR 580 Segments**

**Table 1 Annual Growth Rate for SR 580 per Segment**

| No. | SR 580 Segment | Recommended Growth Rate |
|---|---|---|
| 1 | East of Alt. US 19 | 0.43% |
| 2 | East of Douglass Ave | 0.43% |
| 3 | East of Bass Blvd | 0.43% |
| 4 | West of Pinehurst Rd | 0.33% |
| 5 | East of Pinehurst Rd | 0.33% |
| 6 | East of Lake Haven | 0.33% |
| 7 | East of Keene Rd | 0.33% |
| 8 | East of Achieva Way | 0.33% |
| 9 | East of Overcash Dr | 0.33% |
| 10 | West of Belcher Rd | 0.45% |
| 11 | West of Enterprise Road | 0.45% |
| 12 | West of US 19 (East of Enterprise) | 0.45% |
| 13 | East of US 19 | 0.28% |
| 14 | West of Countryside Blvd | 0.28% |
| 15 | East of Countryside Blvd | 0.28% |
| 16 | East of Landmark Dr | 0.28% |
| 17 | Between Charles Ave and HS Bus Loop Entrance | 0.28% |
| 18 | West of McMullen Booth Rd | 0.28% |
| 19 | East of McMullen Booth Rd | 0.20% |
| 20 | West of SR 590 | 0.20% |
| 21 | East of SR 590/2nd St | 0.20% |
| 22 | East of Forest Blvd/St. Petersburg Drive | 0.10% |
| 23 | East of S Bayview Blvd | 0.10% |
| 24 | West of Tampa Rd | 0.10% |

The future project traffic was generated based on 2020 annual average daily traffic volumes (AADTs) and the calculated recommended growth rates. For the intersections and cross streets, the Turning Movement Volume (TMV) is calculated by the future directional design hour volume (DDHV) and 2020 turning movement splits (calculated from existing counts) for each direction. The future year 2045 DDHV for each approach of mainline and cross streets at the intersection is calculated using the 2020 AADT and the annual growth rate, K and D factors. The values were rounded according to the guidance in *FDOT 2019 Project Traffic Forecasting Handbook*.

For the cross streets, the final growth rate was determined based on model growth rate with adjustment by the population growth rate and employment growth rate of nearby Traffic Analysis Zones (TAZs). For most cross streets, the model growth rate was applied directly. For cross streets with negative or unreasonable model growth rate, the population and employment growth rate, as well as Google Earth of nearby TAZs were reviewed to determine an adjusted annual growth rate.

Future volumes for the SR 580 study corridor are provided in **Attachment A** of this memorandum.

## *NO-BUILD OPERATIONAL ANALYSIS (2045)*

LOS was used as the Measure of Effectiveness (MOE) for this study to determine the traffic operational conditions of the roadways and intersections analyzed. In this study, both the segment LOS and intersection LOS were determined using SYNCHRO 11 software, which uses Highway Capacity Manual (HCM) 2000 as the MOE criteria. The LOS output reports from SYNCHRO 11 are provided in **Attachment B**.

Existing signal timing plans were collected from Pinellas County and used in the intersection operational analysis for the future No-Build condition. The signal timing data included the phase plan, cycle length, minimum green, passage time, yellow time, all-red time etc. Out of the twenty-five study intersections, twenty are currently signalized intersections and are listed below:

- SR 580 at Alt US 19/Broadway
- SR 580 at Bass Blvd
- SR 580 at Patricia Ave
- SR 580 at Pinehurst Rd/Crosley Dr
- SR 580 at Lake Haven Road
- SR 580 at Keene Road
- SR 580 at Sunlight Dr/Achieva Way
- SR 580 at Overcash Dr
- SR 580 at King Arthur Ct/Pinewood Dr
- SR 580 at Belcher Road
- SR 580 at US 19 Frontage Roads
- SR 580 at Summerdale Dr
- SR 580 at Countryside Blvd
- SR 580 at Landmark Dr
- SR 580 at Charles Ave
- SR 580 at McMullen Booth Road
- SR 580 at SR 590/2nd St/Philippe Pkwy
- SR 580 at Forest Lakes Blvd./St Petersburg Dr W
- SR 580 at S Bayview Blvd
- SR 580 at Tampa Road – Northbound, Southbound, Eastbound

The existing five (5) unsignalized study intersections were assumed to remain unsignalized in the 2045 No-Build condition and were modeled with stops sign controls on the minor approaches. The five (5) unsignalized study intersections are listed below:

- SR 580 at Douglas Ave
- SR 580 at Enterprise Road
- SR 580 at Countryside HS bus loop entrance
- SR 580 at Rigby Lane
- SR 580 at State Street

**Table 2** lists the LOS results for the 2045 No-Build condition for the roadway segment operations along SR 580 within the study area. There were eight (8) segments with failing LOS in the AM peak period and seven (7) segments with failing LOS in the PM peak period. Failing LOS was taken to be LOS E or worse.

**Table 2 Roadway Segments with Failing LOS in 2045 No-Build**

| Time Period | SR 580 Segment | | |
|---|---|---|---|
| | Direction | From | To |
| AM | EB | Lake Haven Rd | Keene Rd |
| | EB | Pinewood Dr | Belcher Rd |
| | EB | Belcher Rd | Enterprise Rd |
| | EB | Enterprise Rd | US 19 Frontage Rd |
| | EB | Charles Ave | McMullen Booth Rd |
| | WB | Bayview Blvd | St Petersburg Dr |
| | WB | Summerdale | US 19 Frontage Rd |
| | WB | Achieva Way | Keene Rd |
| PM | EB | Lake Haven Rd | Keene Rd |
| | EB | Pinewood Dr | Belcher Rd |
| | EB | Belcher Rd | Enterprise Rd |
| | EB | Enterprise Rd | US 19 Frontage Rd |
| | EB | Charles Ave | McMullen Booth Rd |
| | WB | Summerdale Dr | US 19 Frontage Rd |
| | WB | Achieva Way | Keene Rd |

**Table 3** list the LOS for the intersections along the corridor. **Figure 5** and **Figure 6** show the 2045 No-Build LOS results for study segments and intersections for AM and PM peak period, respectively. **Figure 7** shows the 2045 No-Build AM and PM peak period LOS results.

**Table 3 Intersections LOS in 2045 No-Build**

| Intersection | Time Period | |
|---|---|---|
| | LOS AM | LOS PM |
| Alt US 19 | C | B |
| Bass Blvd | C | C |
| Patricia Ave | C | C |
| Pinehurst Rd | C | B |
| Lake Haven Rd | A | A |
| Keene Rd | **E** | **F** |
| Achieva Way | C | C |
| Over Cash Dr | B | B |
| Pinewood Dr | B | C |
| Belcher Rd | **E** | **E** |
| US 19 Frontage Rd | **F** | **F** |
| Summerdale Dr | B | B |
| Countryside Blvd | **E** | **F** |
| Landmark Dr | C | C |
| Charles Ave | A | A |
| McMullen Booth Rd | **F** | **F** |
| SR 590 | D | **E** |
| St. Petersburg Dr | **F** | **F** |
| S Bayview Blvd | B | B |
| Tampa Rd | B | B |

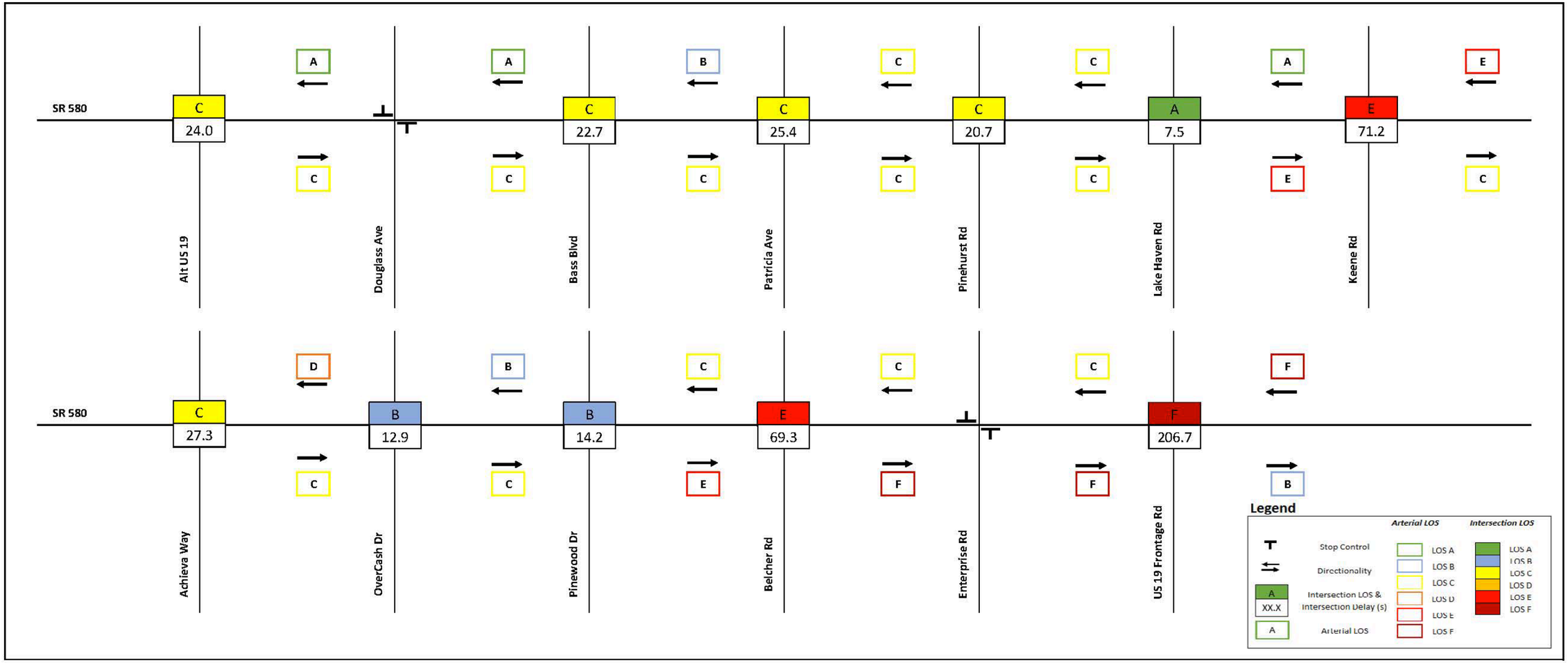



**Figure 5 2045 No-Build AM Peak Hour LOS Results**

**1 of 2**

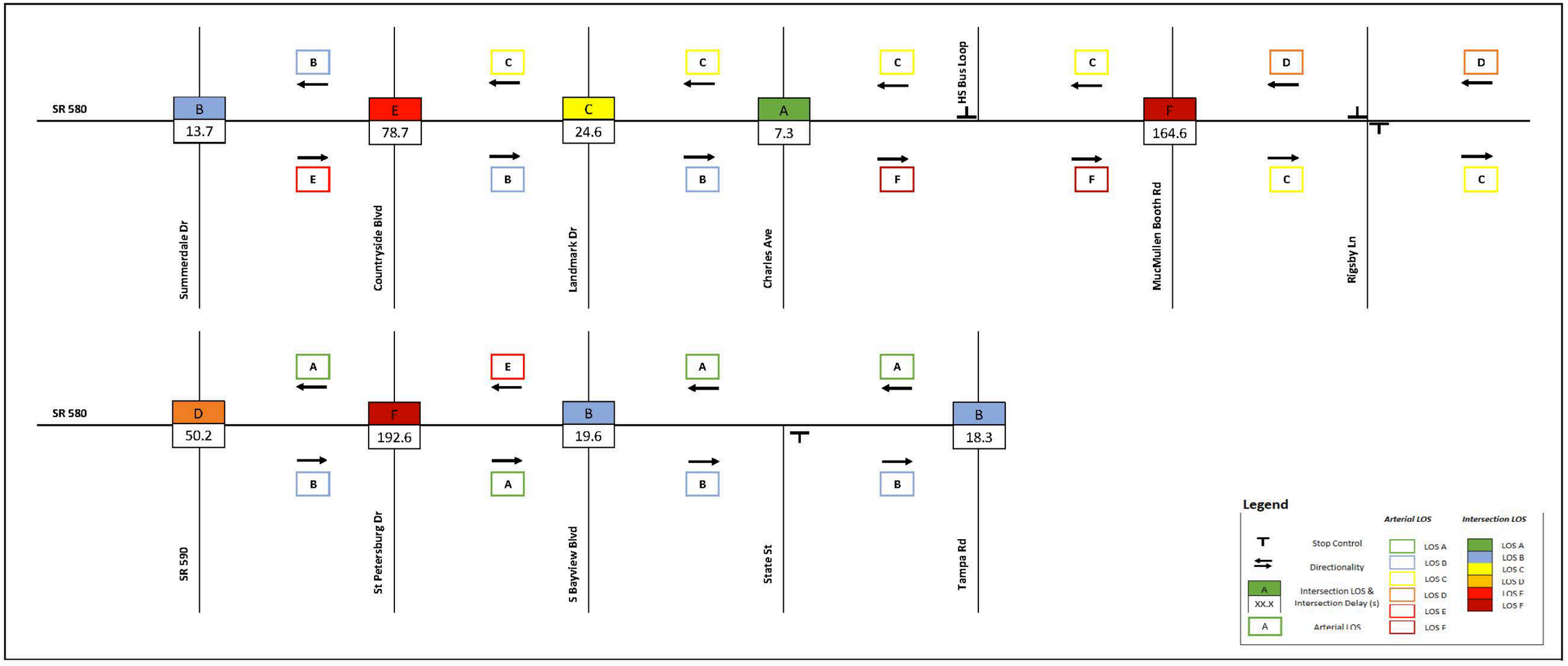



**Figure 5 2045 No-Build AM Peak Hour LOS Results**

**2 of 2**

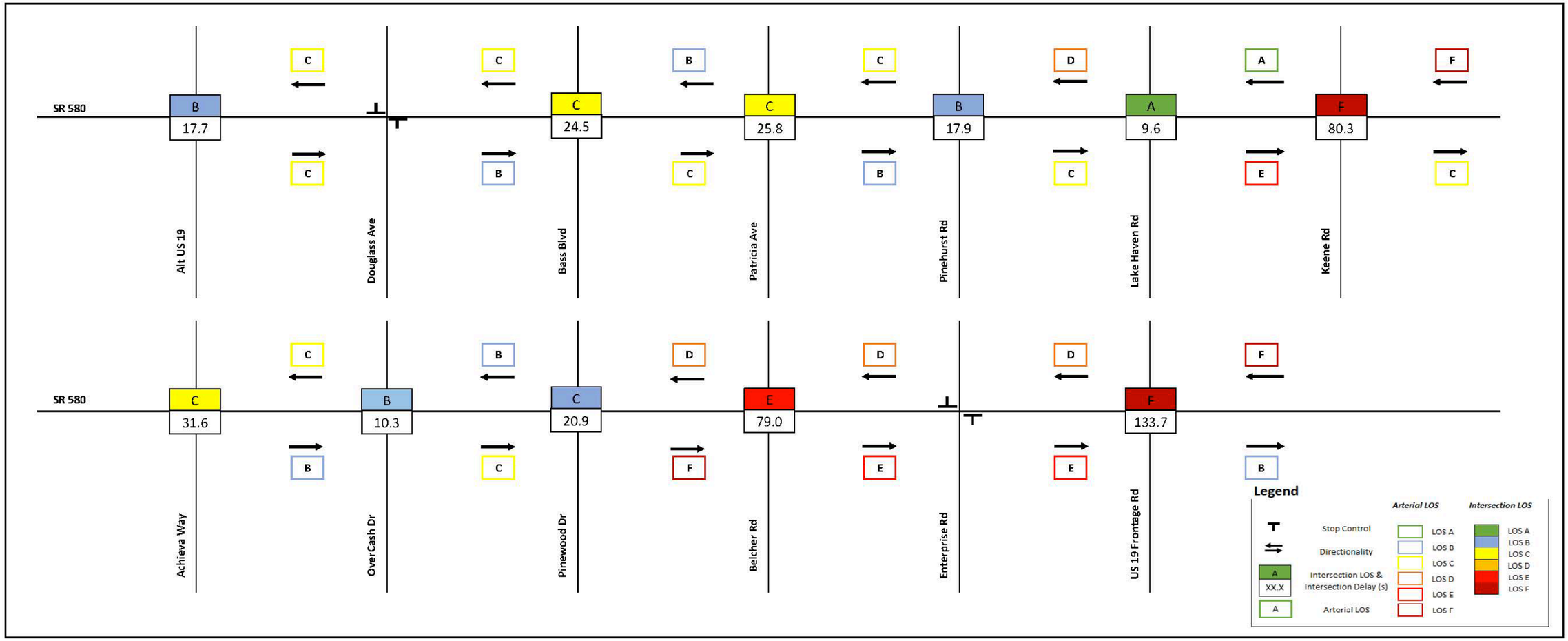



**Figure 6 2045 No-Build PM Peak Hour LOS Results**

**1 of 2**

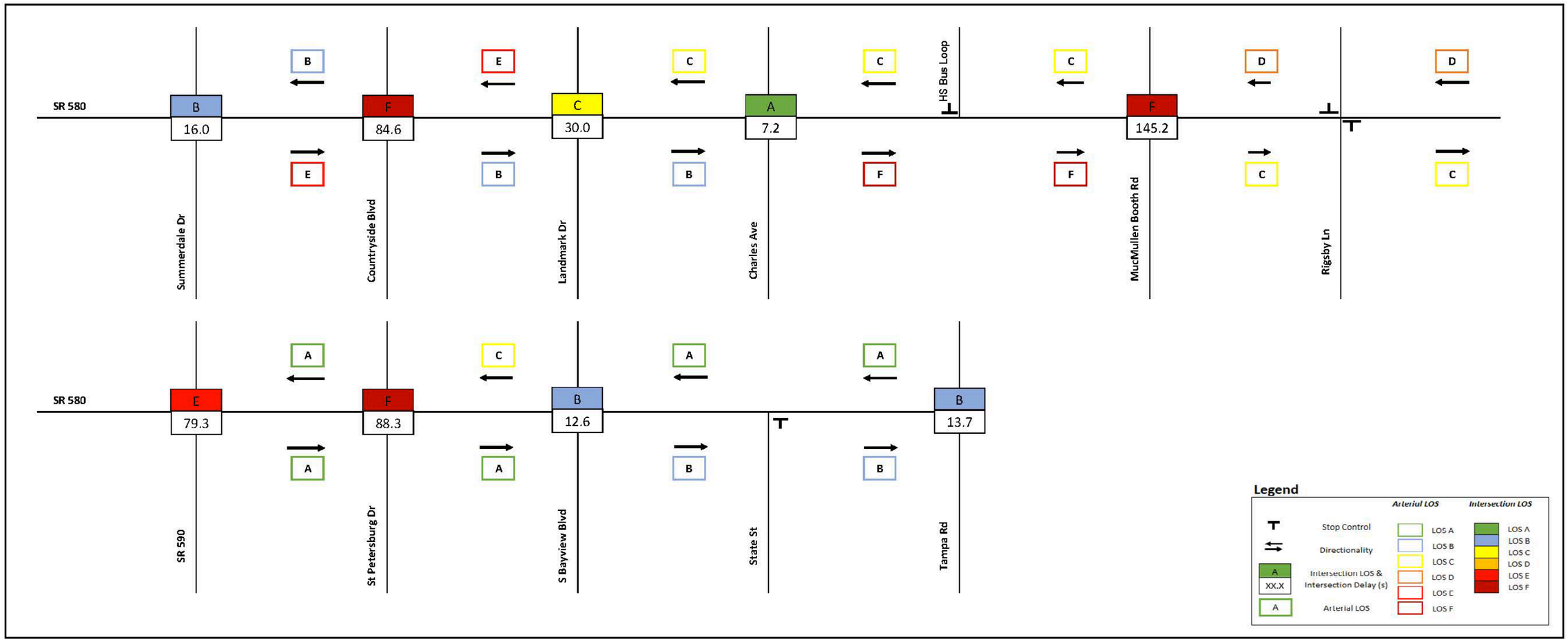



**Figure 6 2045 No-Build PM Peak Hour LOS Results**

**2 of 2**

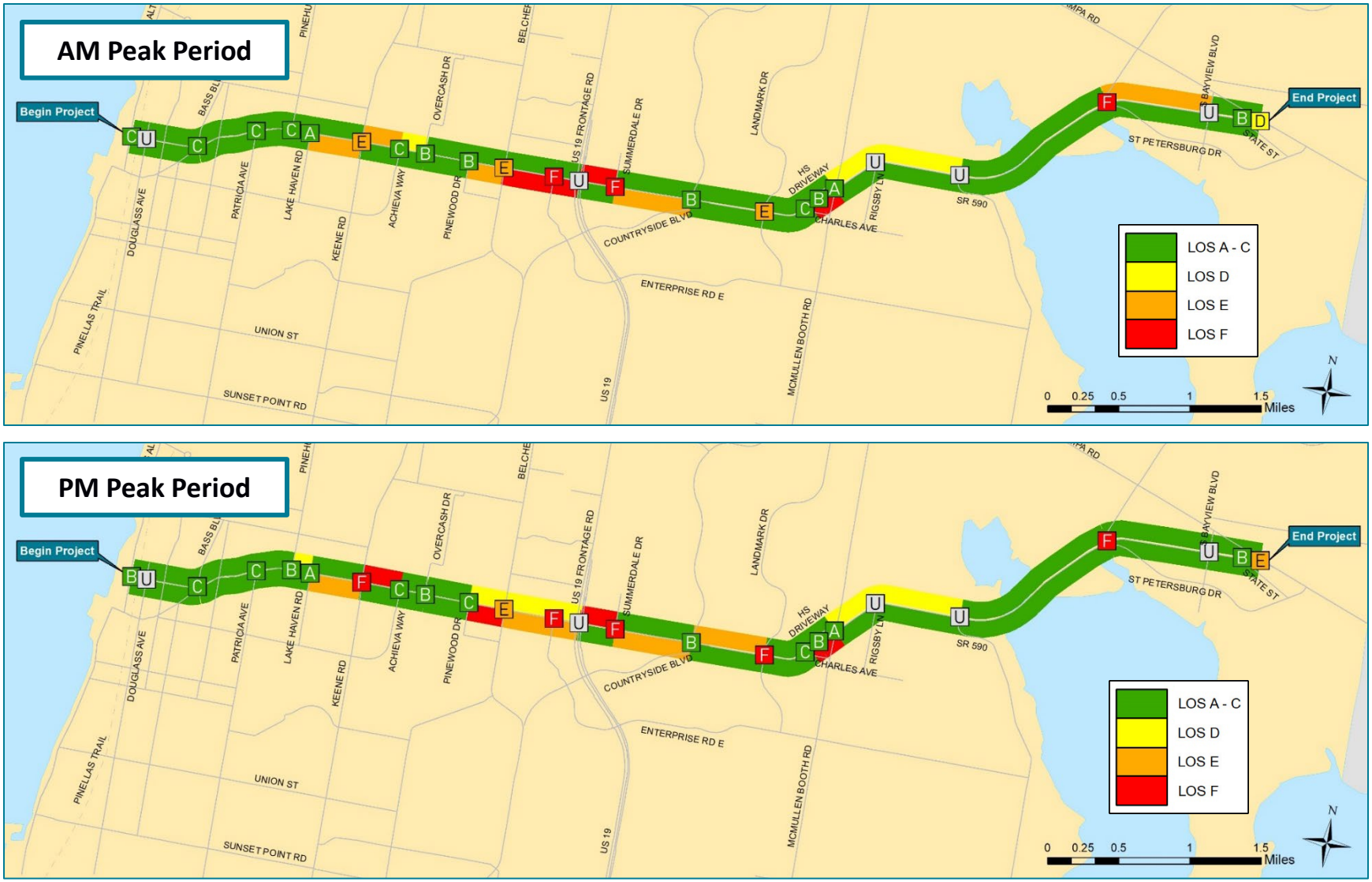



**Figure 7 2045 No-Build AM and PM Peak Period LOS Results**

Pedestrian and Bicycle LOS standards have been developed on a user-based perception of how safe and comfortable a roadway facility feels. Typically metropolitan planning organizations (MPO) bike plans use LOS C as a target LOS threshold for bike and pedestrain facilities. Pinellas County generally requests separated bike and pedestrian facilties to obtain optimal LOS on roadway facilties. For this study, any LOS identified as LOS D or greater was taken to be below target LOS.

The Bicycle and Pedestrian LOS for each segment was determined using the LOS equations from NCHRP Report 616. **Table 4** summarizes the bicycle and pedestrian LOS for each SR 580 segment in the 2045 No-Build condition. Each segment has two rows to represent eastbound and westbound respectively due to differences in geometry, traffic volume, etc. Pedestrian and Bicycle Level of Service are calculated numerically, then are stratified on an "A" through "F" scale, with "A" being the most accommodating. The numerical stratification for bicycle and pedestrian scores is as follows:

A <= 1.5
B >1.5 < = 2.5
C >2.5 < = 3.5
D >3.5 < = 4.5
E >4.5 < = 5.5
F >5.5

**Table 4 Bicycle and Pedestrian LOS for 2045 No-Build**

| SR 580 Segments | | | | | | | |
|---|---|---|---|---|---|---|---|
| Road Name | Direction | From | To | Bicycle LOS | | Pedestrian LOS | |
| | | | | Score | Grade | Score | Grade |
| Skinner Blvd | Eastbound | Broadway (Alt 19) | Douglas Ave | 2.36 | B | 2.49 | B |
| Skinner Blvd | Westbound | Broadway (Alt 19) | Douglas Ave | 2.36 | B | 2.49 | B |
| Skinner Blvd | Eastbound | Howard Ave | Main St | 2.05 | B | 2.61 | C |
| Skinner Blvd | Westbound | Howard Ave | Main St | 2.25 | B | 2.56 | C |
| Main St | Eastbound | Skinner Blvd/Bass Blvd | Patricia Ave | 2.59 | C | 3.03 | C |
| Main St | Westbound | Skinner Blvd/Bass Blvd | Patricia Ave | 2.59 | C | 3.03 | C |
| Main St | Eastbound | Patricia Ave | Crosley Dr/Pinehurst Rd | 2.83 | C | **3.64** | **D** |
| Main St | Westbound | Patricia Ave | Crosley Dr/Pinehurst Rd | 2.83 | C | **3.64** | **D** |
| Main St | Eastbound | Crosley Dr/Pinehurst Rd | Keene Rd/CR 1 | 2.52 | C | 3.36 | C |
| Main St | Westbound | Crosley Dr/Pinehurst Rd | Keene Rd/CR 1 | 2.52 | C | 3.36 | C |
| Main St | Eastbound | Keene Rd/CR 1 | Belcher Rd | 2.82 | C | **3.96** | **D** |
| Main St | Westbound | Keene Rd/CR 2 | Belcher Rd | 2.82 | C | **3.96** | **D** |

| SR 580 Segments | | | | | | | |
|---|---|---|---|---|---|---|---|
| Road Name | Direction | From | To | Bicycle LOS | | Pedestrian LOS | |
| | | | | Score | Grade | Score | Grade |
| Main St | Eastbound | Belcher Rd | US 19 | 2.84 | C | **3.99** | **D** |
| Main St | Westbound | Belcher Rd | US 19 | 2.84 | C | **3.99** | **D** |
| SR 580 | Eastbound | US 19 | Countryside Blvd | 2.73 | C | **3.67** | **D** |
| SR 580 | Westbound | US 19 | Countryside Blvd | 2.73 | C | **3.67** | **D** |
| SR 580 | Eastbound | Countryside Blvd | McMullen Booth Rd | **3.67** | **D** | **3.65** | **D** |
| SR 580 | Westbound | Countryside Blvd | McMullen Booth Rd | **3.67** | **D** | **3.67** | **D** |
| SR 580 | Eastbound | McMullen Booth Rd | Muellers Lane | **3.66** | **D** | **3.73** | **D** |
| SR 580 | Westbound | McMullen Booth Rd | Muellers Lane | **3.66** | **D** | **3.73** | **D** |
| SR 580 | Eastbound | Muellers Lane | Phillippe Pkwy | 3.11 | C | **4.39** | **D** |
| SR 580 | Westbound | Muellers Lane | Phillippe Pkwy | 2.90 | C | **3.72** | **D** |
| SR 580 | Eastbound | Phillippe | W end bridge | 3.14 | C | **4.59** | **E** |
| SR 580 | Westbound | Phillippe | W end bridge | 3.14 | C | **4.59** | **E** |
| SR 580 | Eastbound | W end bridge | E end bridge | 0.00 | A | **3.58** | **D** |
| SR 580 | Westbound | W end bridge | E end bridge | 0.00 | A | **3.58** | **D** |
| SR 580 | Eastbound | E end bridge | St Clair Ave | 3.14 | C | **4.59** | **E** |
| SR 580 | Westbound | E end bridge | St Clair Ave | 3.14 | C | **4.59** | **E** |
| SR 580 | Eastbound | St Clair Ave | St Petersburg Dr/Forest Lakes Blvd | **3.97** | **D** | **4.65** | **E** |
| SR 580 | Westbound | St Clair Ave | St Petersburg Dr/Forest Lakes Blvd | **3.97** | **D** | **4.65** | **E** |
| State St | Eastbound | St Petersburg Dr/Forest Lakes Blvd | Hillsborough Ave | **3.70** | **D** | **3.64** | **D** |
| State St | Westbound | St Petersburg Dr/Forest Lakes Blvd | Hillsborough Ave | **3.70** | **D** | **3.64** | **D** |

## *CONCLUSION*

SR 580 from Alternative US 19 to Tampa Road is a major east-west urban arterial in Pinellas County Florida. Future residential land use adjacent to the study SR 580 corridor is forecasted to drop from 58% to 52%, commercial land use is forecasted to drop from 21% to 14% and mixed land use is expected to increase from 0% to 13%. Future mixed use land use areas along SR 580 (specifically at the west end of the corridor in the City of Dunedin, surrounding areas of the US 19 interchange and Countryside Mall and east end of the corridor in the City of Oldsmar) are expected to be future generators and attractors of multimodal traffic.

The vision for the SR 580 corridor includes providing safe options for pedestrians, bicyclist, transit users and motorized vehicles using the corridor while not deteriorating vehicle operations or increasing delay. This vision will include providing sidewalks and bicycle facilities along the corridor and connections to other multimodal facilities and proposing transportation improvements that reduce vehicle crashes and enhance safety for all users. The overall goal of the study is to develop context sensitive improvements to help transform SR 580 into a multimodal urban corridor in keeping with the community context it traverses.

The Forward Pinellas 2045 LRTP identifies one (1) project within the study corridor; Forest Lakes Boulevard from SR 580 to SR 584 is identified as a widening project to become a four-lane divided roadway. Other projects currently active along the SR 580 study corridor include the pedestrian signal crossing for the Duke Energy Trail and a complete streets project in the City of Dunedin from Alternative US 19 to Main Street/Bass Boulevard.

Future year 2045 traffic volumes were developed from growth rates established from the TBRPM V9.0. Using SYNCHRO 11 software, no-build 2045 LOS evaluation found eight (8) segments and six (6) intersections have failing LOS in the AM peak period and seven (7) segments and intersections have failing LOS in the PM peak period. Bicycle and Pedestrain LOS evaluation for the 2045 no-build condition found four (4) SR 580 segments below target LOS for bicycles and twelve (12) SR 580 segments below target LOS for pedestrians.

Due to future land use changes and the vision and goals for the SR 580 study corridor, improvements that enhance safety and operation for all users of the roadway facility are recommended.

# ATTACHMENTS

Attachment A 2045 Volumes

Attachment B LOS Results

# Attachment A

| SR 580 | 11,800 | 14,600 | 19,800 | 31,000 | 34,100 | 34,200 | 46,900 |
|---|---|---|---|---|---|---|---|
| | Alt US 19 | Douglass Ave | Bass Blvd | Patricia Ave | Pinehurst Rd | Lake Haven Rd | Keene Rd |

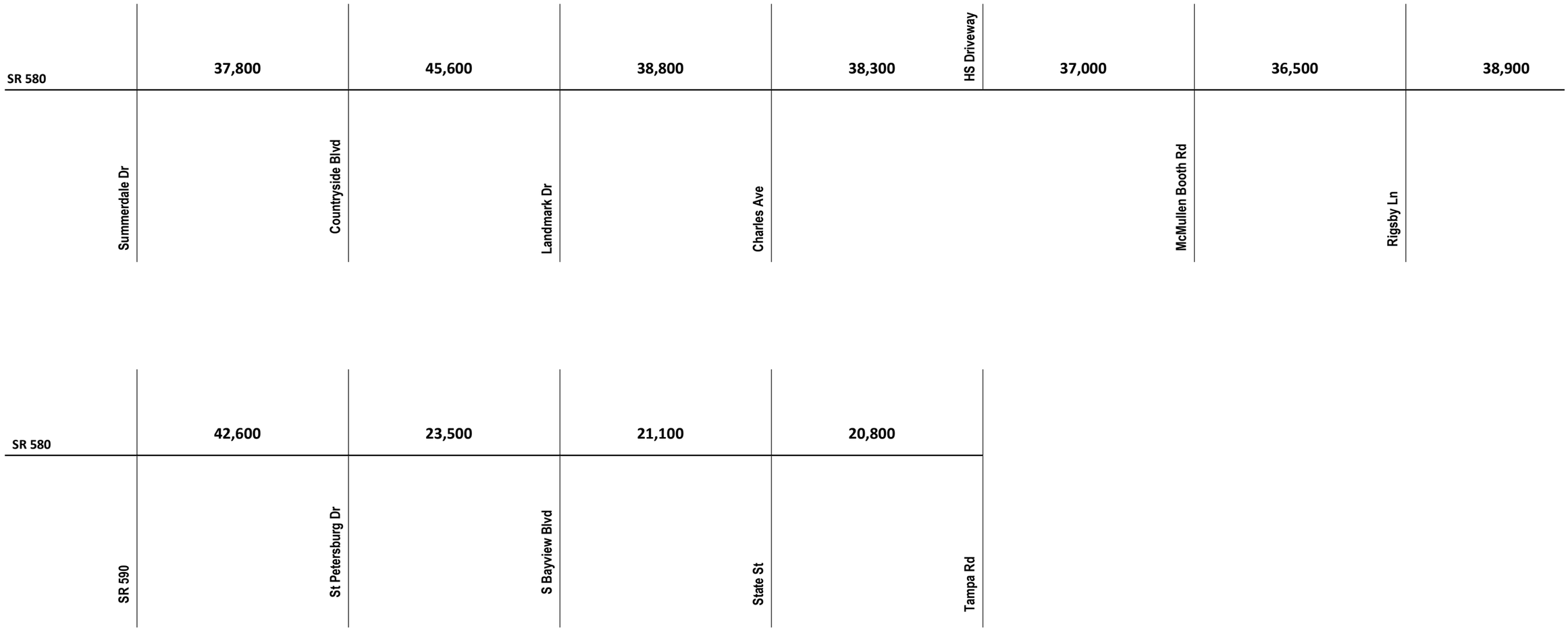
| SR 580 | 52,700 | 53,100 | 53,100 | 54,200 | 53,300 | 42,900 |
|---|---|---|---|---|---|---|
| | Achieva Way | Overcash Dr | Pinewood Dr | Belcher Rd | Enterprise Rd | US 19 Frontage Rd |

**SR 580 Corridor Planning and Concept Development Study**

Pinellas County, Florida

***Future 2045 AADT***

***Figure 1***

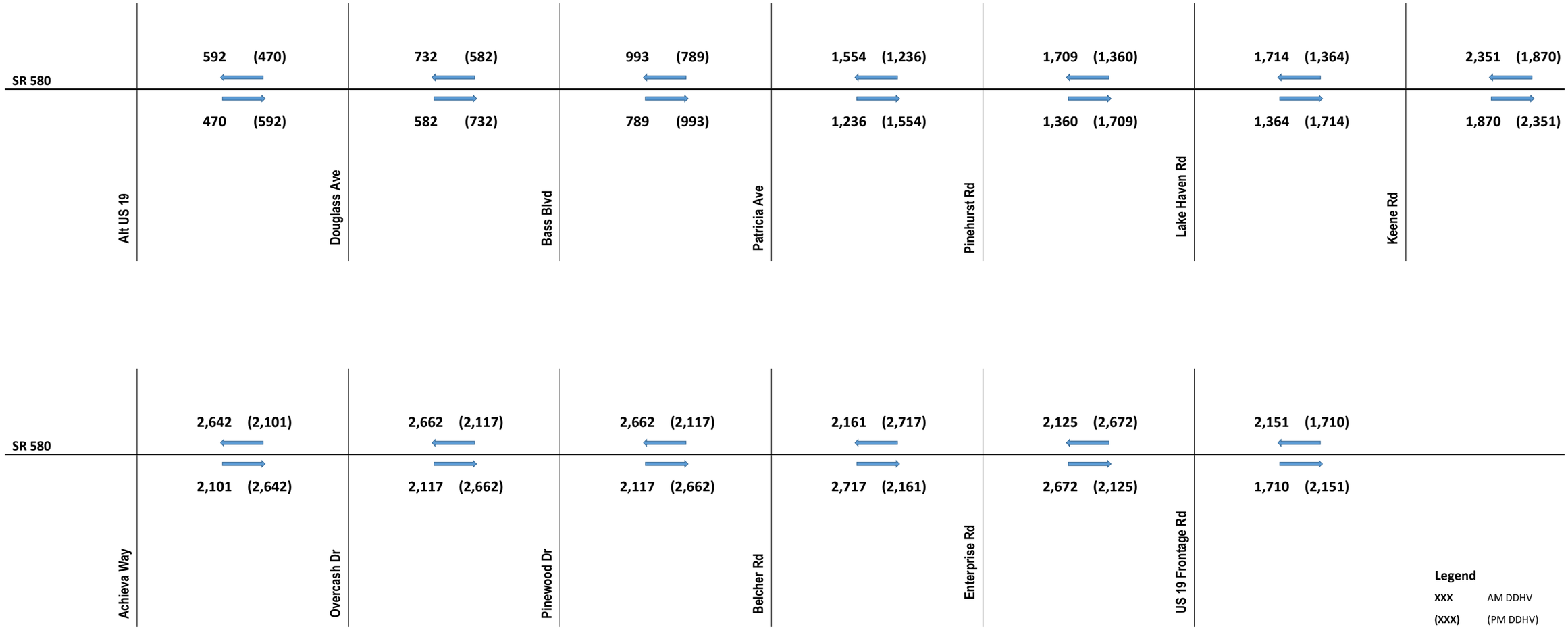



**SR 580 Corridor Planning and Concept Development Study**

Pinellas County, Florida

***Future 2045 AADT***

***Figure 2***

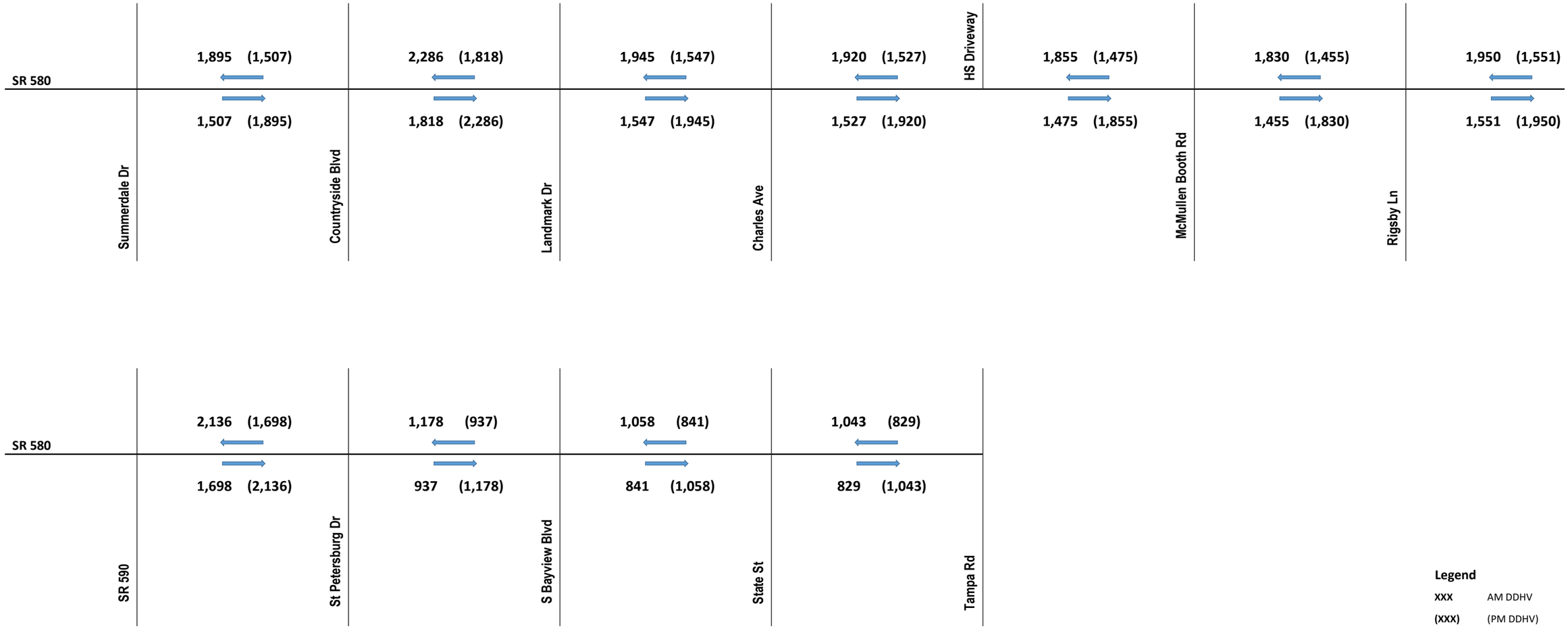



**SR 580 Corridor Planning and Concept Development Study**

Pinellas County, Florida

***Future 2045 DDHV***

***Figure 1***

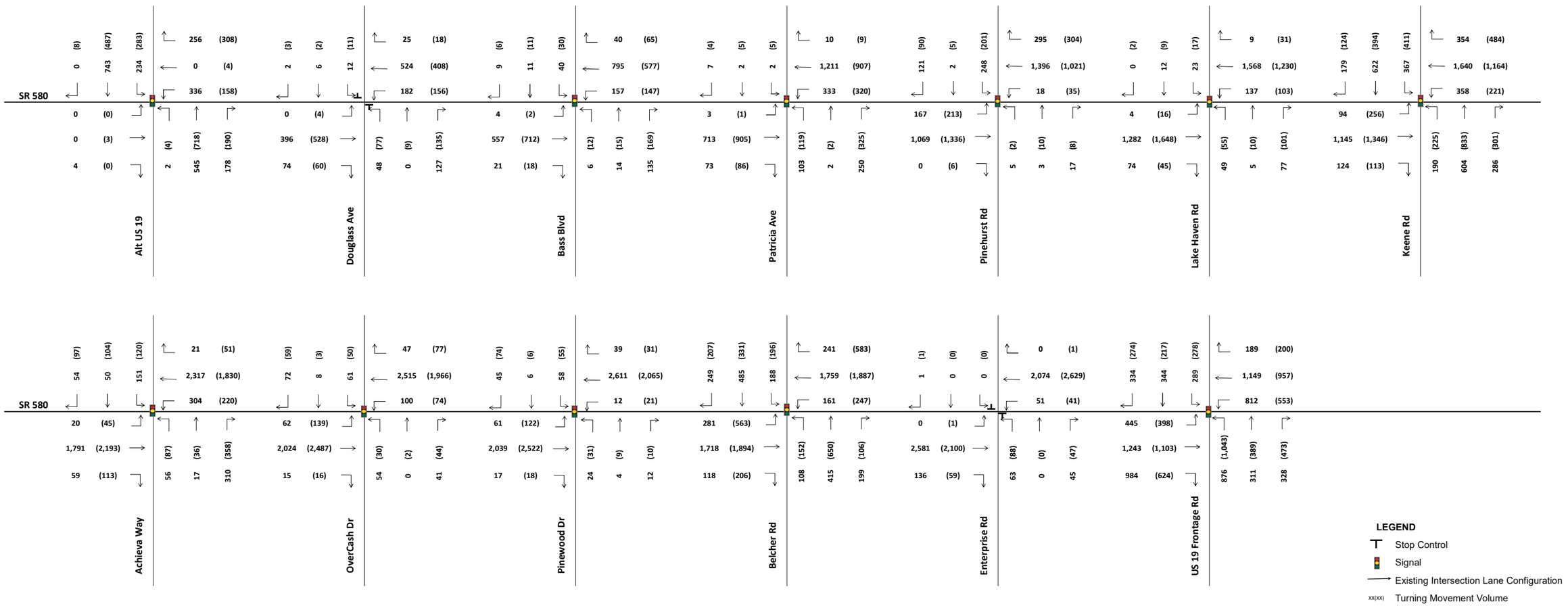



**SR 580 Corridor Planning and Concept Development Study**

Pinellas County, Florida

***Future 2045 DDHV***

***Figure 2***

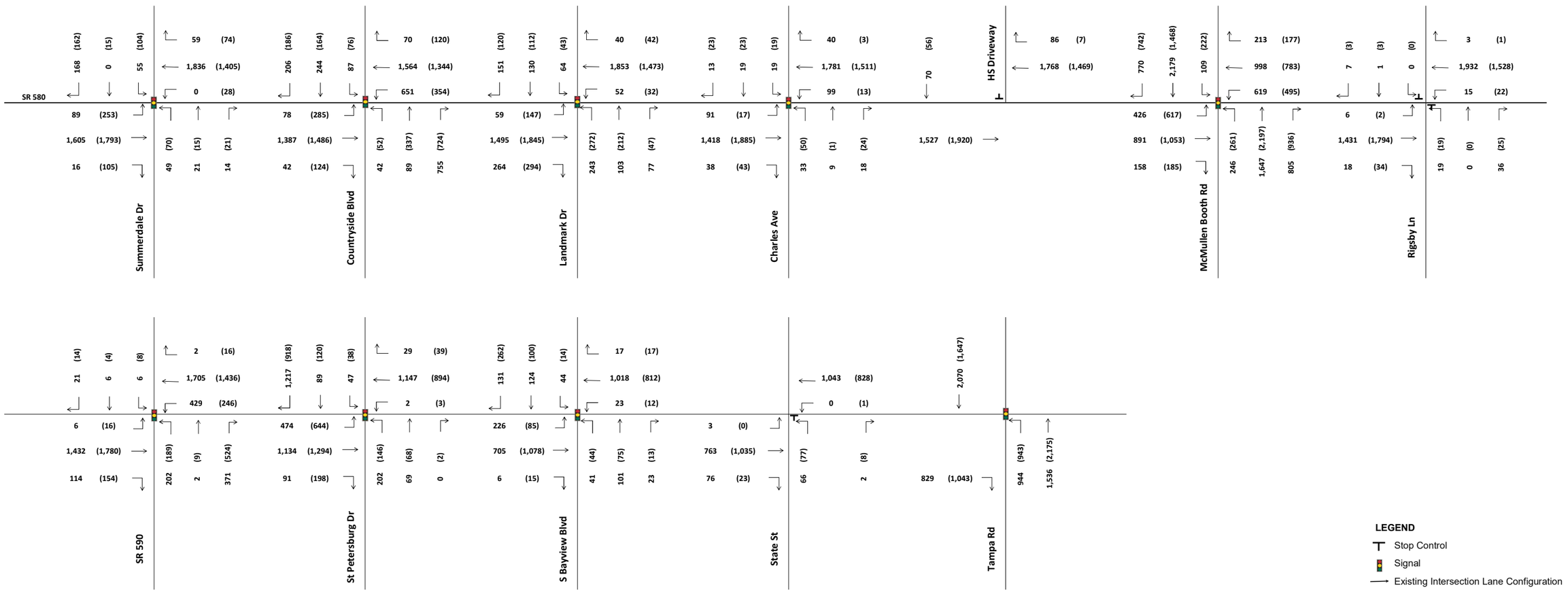



**SR 580 Corridor Planning and Concept Development Study**

Pinellas County, Florida

***Future 2045 AM and PM Peak Hour Traffic Volumes***

***Figure 1***




**SR 580 Corridor Planning and Concept Development Study**

Pinellas County, Florida

***Future 2045 AM and PM Peak Hour Traffic Volumes***

***Figure 2***

| | Roadway | | 2045 Peak Hour TMV for U-turn & Left-turn | | | |
|---|---|---|---|---|---|---|
| | | | AM | | PM | |
| | | | U | L | U | L |
| A | Alt US 19/Broadway | EB | - | - | - | - |
| | | WB | 2 | 334 | - | 158 |
| | | NB | 2 | - | 1 | 3 |
| | | SB | - | 234 | - | 283 |
| B | Douglas Ave | EB | - | - | - | 4 |
| | | WB | 2 | 181 | - | 156 |
| | | NB | - | 48 | - | 77 |
| | | SB | - | 12 | - | 11 |
| C | Bass Blvd | EB | - | 4 | - | 2 |
| | | WB | - | 157 | 1 | 145 |
| | | NB | - | 6 | - | 12 |
| | | SB | - | 40 | - | 30 |
| D | Patricia Ave | EB | 2 | 2 | - | 1 |
| | | WB | 8 | 325 | 10 | 310 |
| | | NB | 5 | 98 | 2 | 116 |
| | | SB | - | 2 | - | 5 |
| E | Pinehurst Rd/Crosley Dr | EB | 4 | 162 | 7 | 205 |
| | | WB | - | 18 | 3 | 32 |
| | | NB | - | 5 | - | 2 |
| | | SB | - | 248 | - | 201 |
| F | Lake Haven Rd | EB | - | 4 | 8 | 8 |
| | | WB | 5 | 132 | 7 | 96 |
| | | NB | - | 49 | - | 55 |
| | | SB | - | 23 | - | 17 |
| G | Keene Road | EB | 4 | 91 | 7 | 249 |
| | | WB | - | 358 | 1 | 220 |
| | | NB | 2 | 188 | - | 225 |
| | | SB | - | 367 | - | 411 |
| H | Sunlight Dr/Achieva Way | EB | - | 20 | 3 | 42 |
| | | WB | - | 304 | 2 | 217 |
| | | NB | 5 | 51 | 6 | 82 |
| | | SB | - | 151 | - | 120 |
| I | Overcash Dr | EB | 33 | 30 | 13 | 125 |
| | | WB | 4 | 96 | 8 | 65 |
| | | NB | - | 54 | 1 | 29 |
| | | SB | - | 61 | - | 50 |
| J | King Arthur Ct/Pinewood Dr | EB | - | 61 | 1 | 120 |
| | | WB | 2 | 10 | 2 | 19 |
| | | NB | - | 24 | - | 31 |
| | | SB | - | 58 | - | 55 |
| K | Belcher Road | EB | 10 | 272 | 10 | 553 |
| | | WB | 3 | 157 | 11 | 236 |
| | | NB | - | 108 | - | 152 |
| | | SB | - | 188 | 5 | 191 |
| L | Enterprise Road | EB | - | - | - | 1 |
| | | WB | 3 | 48 | 7 | 34 |
| | | NB | - | 63 | - | 88 |
| | | SB | - | - | - | - |

| Roadway | | | 2045 Peak Hour TMV for U-turn & Left-turn | | | |
|---|---|---|---|---|---|---|
| | | | AM | | PM | |
| | | | U | L | U | L |
| M | US 19 Frontage Roads | EB | 6 | 439 | 5 | 393 |
| | | WB | - | 812 | - | 553 |
| | | NB | 84 | 791 | 96 | 947 |
| | | SB | 103 | 186 | 44 | 234 |
| N | Summerdale Dr | EB | - | 89 | 3 | 250 |
| | | WB | - | - | - | 28 |
| | | NB | - | 49 | - | 70 |
| | | SB | - | 55 | - | 104 |
| O | Countryside Blvd | EB | - | 78 | 3 | 282 |
| | | WB | - | 651 | 1 | 352 |
| | | NB | - | 42 | - | 52 |
| | | SB | - | 87 | - | 76 |
| P | Landmark Dr | EB | - | 59 | 9 | 138 |
| | | WB | - | 52 | - | 32 |
| | | NB | - | 243 | - | 272 |
| | | SB | - | 64 | - | 43 |
| Q | Charles Ave | EB | 1 | 89 | 7 | 11 |
| | | WB | 65 | 34 | 8 | 5 |
| | | NB | - | 33 | - | 50 |
| | | SB | - | 19 | - | 19 |
| R | School DW | EB | - | - | - | - |
| | | WB | - | - | - | - |
| | | SB | - | - | - | - |
| S | McMullen Booth Road | EB | 7 | 420 | 3 | 615 |
| | | WB | 3 | 616 | 1 | 494 |
| | | NB | 17 | 229 | 16 | 245 |
| | | SB | - | 109 | 2 | 220 |
| T | Rigby Lane | EB | 1 | 4 | 1 | 1 |
| | | WB | 2 | 14 | 2 | 20 |
| | | NB | - | 19 | - | 19 |
| | | SB | - | - | - | - |
| U | SR 590/2nd St | EB | - | 6 | - | 16 |
| | | WB | - | 429 | - | 246 |
| | | NB | 2 | 200 | 4 | 186 |
| | | SB | - | 6 | - | 8 |
| V | Forest Lakes Blvd./St Petersburg Dr W | EB | - | 474 | 1 | 643 |
| | | WB | - | 2 | - | 3 |
| | | NB | - | 202 | - | 146 |
| | | SB | - | 47 | - | 38 |
| W | S Bayview Blvd | EB | 1 | 225 | 1 | 84 |
| | | WB | - | 23 | 1 | 11 |
| | | NB | - | 41 | - | 44 |
| | | SB | - | 44 | - | 14 |
| X | State Street | EB | 3 | - | - | - |
| | | WB | - | - | 1 | - |
| | | NB | - | 66 | - | 77 |
| Y | Tampa Rd | EB | - | - | - | - |
| | | NB | - | 944 | 1 | 942 |
| | | SB | - | - | - | - |

# Attachment B

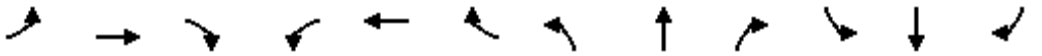
| Movement | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 4 | 2 | 336 | 0 | 256 | 2 | 2 | 545 | 178 | 234 |
| Future Volume (vph) | 0 | 0 | 4 | 2 | 336 | 0 | 256 | 2 | 2 | 545 | 178 | 234 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.3 | | | | 6.7 | 6.7 | | | 6.7 | 6.7 | 6.5 |
| Lane Util. Factor | | 1.00 | | | | 1.00 | 1.00 | | | 0.95 | 1.00 | 1.00 |
| Frt | | 0.86 | | | | 1.00 | 0.85 | | | 1.00 | 0.85 | 1.00 |
| Flt Protected | | 1.00 | | | | 0.95 | 1.00 | | | 1.00 | 1.00 | 0.95 |
| Satd. Flow (prot) | | 1611 | | | | 1770 | 1583 | | | 3538 | 1583 | 1770 |
| Flt Permitted | | 1.00 | | | | 0.76 | 1.00 | | | 0.95 | 1.00 | 0.28 |
| Satd. Flow (perm) | | 1611 | | | | 1407 | 1583 | | | 3357 | 1583 | 520 |
| 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) | 0 | 0 | 4 | 2 | 361 | 0 | 275 | 2 | 2 | 586 | 191 | 252 |
| RTOR Reduction (vph) | 0 | 3 | 0 | 0 | 0 | 0 | 196 | 0 | 0 | 0 | 132 | 0 |
| Lane Group Flow (vph) | 0 | 1 | 0 | 0 | 0 | 363 | 79 | 0 | 0 | 590 | 59 | 252 |
| Turn Type | | NA | | Perm | Perm | NA | Perm | Perm | Perm | NA | Perm | pm+pt |
| Protected Phases | | 8 | | | | 4 | | | | 6 | | 5 |
| Permitted Phases | 8 | | | 4 | 4 | | 4 | 6 | 6 | | 6 | 2 |
| Actuated Green, G (s) | | 19.2 | | | | 19.8 | 19.8 | | | 21.4 | 21.4 | 35.9 |
| Effective Green, g (s) | | 19.2 | | | | 19.8 | 19.8 | | | 21.4 | 21.4 | 35.9 |
| Actuated g/C Ratio | | 0.28 | | | | 0.29 | 0.29 | | | 0.31 | 0.31 | 0.52 |
| Clearance Time (s) | | 7.3 | | | | 6.7 | 6.7 | | | 6.7 | 6.7 | 6.5 |
| Vehicle Extension (s) | | 3.0 | | | | 3.0 | 3.0 | | | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | | 447 | | | | 403 | 453 | | | 1039 | 490 | 414 |
| v/s Ratio Prot | | 0.00 | | | | | | | | | | 0.07 |
| v/s Ratio Perm | | | | | | c0.26 | 0.05 | | | 0.18 | 0.04 | 0.25 |
| v/c Ratio | | 0.00 | | | | 0.90 | 0.17 | | | 0.57 | 0.12 | 0.61 |
| Uniform Delay, d1 | | 18.0 | | | | 23.7 | 18.5 | | | 20.0 | 17.1 | 10.3 |
| Progression Factor | | 1.00 | | | | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 0.0 | | | | 22.6 | 0.2 | | | 2.3 | 0.5 | 2.5 |
| Delay (s) | | 18.0 | | | | 46.3 | 18.7 | | | 22.2 | 17.6 | 12.8 |
| Level of Service | | B | | | | D | B | | | C | B | B |
| Approach Delay (s) | | 18.0 | | | | 34.4 | | | | 21.1 | | |
| Approach LOS | | B | | | | C | | | | C | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 24.0 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.98 | | |
| Actuated Cycle Length (s) | 69.1 | Sum of lost time (s) | 20.5 |
| Intersection Capacity Utilization | 97.8% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 743 | 0 |
| Future Volume (vph) | 743 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 6.7 | |
| Lane Util. Factor | 1.00 | |
| Frt | 1.00 | |
| Flt Protected | 1.00 | |
| Satd. Flow (prot) | 1863 | |
| Flt Permitted | 1.00 | |
| Satd. Flow (perm) | 1863 | |
| Peak-hour factor, PHF | 0.93 | 0.93 |
| Adj. Flow (vph) | 799 | 0 |
| RTOR Reduction (vph) | 0 | 0 |
| Lane Group Flow (vph) | 799 | 0 |
| Turn Type | NA | |
| Protected Phases | 2 | |
| Permitted Phases | | |
| Actuated Green, G (s) | 35.9 | |
| Effective Green, g (s) | 35.9 | |
| Actuated g/C Ratio | 0.52 | |
| Clearance Time (s) | 6.7 | |
| Vehicle Extension (s) | 3.0 | |
| Lane Grp Cap (vph) | 967 | |
| v/s Ratio Prot | c0.43 | |
| v/s Ratio Perm | | |
| v/c Ratio | 0.83 | |
| Uniform Delay, d1 | 14.0 | |
| Progression Factor | 1.00 | |
| Incremental Delay, d2 | 8.0 | |
| Delay (s) | 22.0 | |
| Level of Service | C | |
| Approach Delay (s) | 19.8 | |
| Approach LOS | B | |

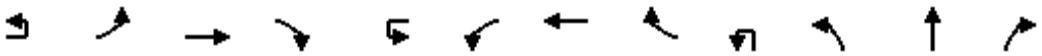
| Intersection Summary |
|---|



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 557 | 21 | 157 | 795 | 40 | 6 | 14 | 135 | 40 | 11 | 9 |
| Future Volume (vph) | 4 | 557 | 21 | 157 | 795 | 40 | 6 | 14 | 135 | 40 | 11 | 9 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.1 | 7.1 | | 7.1 | 7.1 | | | 9.1 | 9.1 | 7.0 | 7.0 | |
| Lane Util. Factor | 1.00 | 0.95 | | 1.00 | 0.95 | | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Frt | 1.00 | 0.99 | | 1.00 | 0.99 | | | 1.00 | 0.85 | 1.00 | 0.93 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.99 | 1.00 | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1593 | 3168 | | 1593 | 3162 | | | 1653 | 1425 | 1593 | 1562 | |
| Flt Permitted | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.99 | 1.00 | 0.95 | 1.00 | |
| Satd. Flow (perm) | 1593 | 3168 | | 1593 | 3162 | | | 1653 | 1425 | 1593 | 1562 | |
| 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 | 599 | 23 | 169 | 855 | 43 | 6 | 15 | 145 | 43 | 12 | 10 |
| RTOR Reduction (vph) | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 138 | 0 | 9 | 0 |
| Lane Group Flow (vph) | 4 | 620 | 0 | 169 | 896 | 0 | 0 | 21 | 7 | 43 | 13 | 0 |
| Turn Type | Prot | NA | | Prot | NA | | Split | NA | Perm | Split | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 | |
| Permitted Phases | | | | | | | | | 4 | | | |
| Actuated Green, G (s) | 1.0 | 51.3 | | 21.9 | 72.2 | | | 5.6 | 5.6 | 5.9 | 5.9 | |
| Effective Green, g (s) | 1.0 | 51.3 | | 21.9 | 72.2 | | | 5.6 | 5.6 | 5.9 | 5.9 | |
| Actuated g/C Ratio | 0.01 | 0.45 | | 0.19 | 0.63 | | | 0.05 | 0.05 | 0.05 | 0.05 | |
| Clearance Time (s) | 7.1 | 7.1 | | 7.1 | 7.1 | | | 9.1 | 9.1 | 7.0 | 7.0 | |
| Vehicle Extension (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lane Grp Cap (vph) | 13 | 1413 | | 303 | 1985 | | | 80 | 69 | 81 | 80 | |
| v/s Ratio Prot | 0.00 | 0.20 | | c0.11 | c0.28 | | | c0.01 | | c0.03 | 0.01 | |
| v/s Ratio Perm | | | | | | | | | 0.00 | | | |
| v/c Ratio | 0.31 | 0.44 | | 0.56 | 0.45 | | | 0.26 | 0.10 | 0.53 | 0.16 | |
| Uniform Delay, d1 | 56.7 | 21.9 | | 42.2 | 11.1 | | | 52.7 | 52.3 | 53.2 | 52.2 | |
| Progression Factor | 1.00 | 1.00 | | 1.22 | 0.74 | | | 1.00 | 1.00 | 1.00 | 1.00 | |
| Incremental Delay, d2 | 4.8 | 1.0 | | 1.1 | 0.6 | | | 0.6 | 0.2 | 3.3 | 0.3 | |
| Delay (s) | 61.5 | 22.9 | | 52.4 | 8.8 | | | 53.3 | 52.5 | 56.5 | 52.5 | |
| Level of Service | E | C | | D | A | | | D | D | E | D | |
| Approach Delay (s) | | 23.2 | | | 15.7 | | | 52.6 | | | 55.2 | |
| Approach LOS | | C | | | B | | | D | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 22.7 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.50 | | |
| Actuated Cycle Length (s) | 115.0 | Sum of lost time (s) | 30.3 |
| Intersection Capacity Utilization | 56.8% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBU | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 3 | 713 | 73 | 8 | 325 | 1211 | 10 | 5 | 98 | 2 | 250 |
| Future Volume (vph) | 2 | 3 | 713 | 73 | 8 | 325 | 1211 | 10 | 5 | 98 | 2 | 250 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.9 | 6.9 | 6.9 | | 6.9 | 6.9 | | | | 6.7 | 6.7 |
| Lane Util. Factor | | 1.00 | 0.95 | 1.00 | | 0.97 | 0.95 | | | | 1.00 | 0.88 |
| Frt | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | | | | 1.00 | 0.85 |
| Flt Protected | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | | | | 0.95 | 1.00 |
| Satd. Flow (prot) | | 1770 | 3539 | 1583 | | 3433 | 3535 | | | | 1776 | 2787 |
| Flt Permitted | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | | | | 0.72 | 1.00 |
| Satd. Flow (perm) | | 1770 | 3539 | 1583 | | 3433 | 3535 | | | | 1344 | 2787 |
| 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) | 2 | 3 | 767 | 78 | 9 | 349 | 1302 | 11 | 5 | 105 | 2 | 269 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 239 |
| Lane Group Flow (vph) | 0 | 5 | 767 | 20 | 0 | 358 | 1313 | 0 | 0 | 0 | 112 | 30 |
| Turn Type | Prot | Prot | NA | Perm | Prot | Prot | NA | | Perm | Perm | NA | Perm |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | | | 4 | |
| Permitted Phases | | | | 6 | | | | | 4 | 4 | | 4 |
| Actuated Green, G (s) | | 1.0 | 30.1 | 30.1 | | 42.4 | 71.5 | | | | 13.0 | 13.0 |
| Effective Green, g (s) | | 1.0 | 30.1 | 30.1 | | 42.4 | 71.5 | | | | 13.0 | 13.0 |
| Actuated g/C Ratio | | 0.01 | 0.26 | 0.26 | | 0.37 | 0.62 | | | | 0.11 | 0.11 |
| Clearance Time (s) | | 6.9 | 6.9 | 6.9 | | 6.9 | 6.9 | | | | 6.7 | 6.7 |
| Vehicle Extension (s) | | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | | | | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 15 | 926 | 414 | | 1265 | 2197 | | | | 151 | 315 |
| v/s Ratio Prot | | 0.00 | c0.22 | | | 0.10 | c0.37 | | | | | |
| v/s Ratio Perm | | | | 0.01 | | | | | | | c0.08 | 0.01 |
| v/c Ratio | | 0.33 | 0.83 | 0.05 | | 0.28 | 0.60 | | | | 0.74 | 0.10 |
| Uniform Delay, d1 | | 56.7 | 40.0 | 31.7 | | 25.6 | 13.1 | | | | 49.4 | 45.7 |
| Progression Factor | | 0.71 | 0.67 | 1.00 | | 0.81 | 1.02 | | | | 1.00 | 1.00 |
| Incremental Delay, d2 | | 4.5 | 5.6 | 0.0 | | 0.0 | 1.0 | | | | 15.7 | 0.0 |
| Delay (s) | | 45.0 | 32.6 | 31.8 | | 20.9 | 14.3 | | | | 65.1 | 45.8 |
| Level of Service | | D | C | C | | C | B | | | | E | D |
| Approach Delay (s) | | | 32.6 | | | | 15.7 | | | | 51.4 | |
| Approach LOS | | | C | | | | B | | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 25.4 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.70 | | |
| Actuated Cycle Length (s) | 115.0 | Sum of lost time (s) | 27.5 |
| Intersection Capacity Utilization | 67.5% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBL | SBT | SBR |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 2 | 2 | 7 |
| Future Volume (vph) | 2 | 2 | 7 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.0 | |
| Lane Util. Factor | | 1.00 | |
| Frt | | 0.91 | |
| Flt Protected | | 0.99 | |
| Satd. Flow (prot) | | 1681 | |
| Flt Permitted | | 0.96 | |
| Satd. Flow (perm) | | 1629 | |
| Peak-hour factor, PHF | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 2 | 2 | 8 |
| RTOR Reduction (vph) | 0 | 6 | 0 |
| Lane Group Flow (vph) | 0 | 6 | 0 |
| Turn Type | Perm | NA | |
| Protected Phases | | 3 8 | |
| Permitted Phases | 3 8 | | |
| Actuated Green, G (s) | | 21.7 | |
| Effective Green, g (s) | | 21.7 | |
| Actuated g/C Ratio | | 0.19 | |
| Clearance Time (s) | | | |
| Vehicle Extension (s) | | | |
| Lane Grp Cap (vph) | | 307 | |
| v/s Ratio Prot | | | |
| v/s Ratio Perm | | c0.00 | |
| v/c Ratio | | 0.02 | |
| Uniform Delay, d1 | | 38.0 | |
| Progression Factor | | 1.00 | |
| Incremental Delay, d2 | | 0.0 | |
| Delay (s) | | 38.0 | |
| Level of Service | | D | |
| Approach Delay (s) | | 38.0 | |
| Approach LOS | | D | |

| Intersection Summary |
|---|

| Movement | EBU | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 162 | 1069 | 0 | 18 | 1396 | 295 | 5 | 3 | 17 | 248 | 2 |
| Future Volume (vph) | 4 | 162 | 1069 | 0 | 18 | 1396 | 295 | 5 | 3 | 17 | 248 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.2 | 7.2 | | 6.8 | 7.2 | 7.2 | | 7.4 | 7.4 | 7.5 | 7.5 |
| Lane Util. Factor | | 1.00 | 0.95 | | 1.00 | 0.95 | 1.00 | | 1.00 | 1.00 | 0.95 | 0.95 |
| Frt | | 1.00 | 1.00 | | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 | 1.00 |
| Flt Protected | | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.97 | 1.00 | 0.95 | 0.95 |
| Satd. Flow (prot) | | 1770 | 3539 | | 1770 | 3539 | 1583 | | 1806 | 1583 | 1681 | 1687 |
| Flt Permitted | | 0.13 | 1.00 | | 0.20 | 1.00 | 1.00 | | 0.97 | 1.00 | 0.95 | 0.95 |
| Satd. Flow (perm) | | 246 | 3539 | | 375 | 3539 | 1583 | | 1806 | 1583 | 1681 | 1687 |
| 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 | 174 | 1149 | 0 | 19 | 1501 | 317 | 5 | 3 | 18 | 267 | 2 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 0 | 0 | 18 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 178 | 1149 | 0 | 19 | 1501 | 268 | 0 | 8 | 0 | 133 | 136 |
| Turn Type | pm+pt | pm+pt | NA | | pm+pt | NA | Perm | Split | NA | Perm | Split | NA |
| Protected Phases | 1 | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 |
| Permitted Phases | 6 | 6 | | | 2 | | 2 | | | 4 | | |
| Actuated Green, G (s) | | 171.7 | 171.7 | | 160.5 | 160.5 | 160.5 | | 4.3 | 4.3 | 22.0 | 22.0 |
| Effective Green, g (s) | | 171.7 | 171.7 | | 160.5 | 160.5 | 160.5 | | 4.3 | 4.3 | 22.0 | 22.0 |
| Actuated g/C Ratio | | 0.75 | 0.75 | | 0.70 | 0.70 | 0.70 | | 0.02 | 0.02 | 0.10 | 0.10 |
| Clearance Time (s) | | 7.2 | 7.2 | | 6.8 | 7.2 | 7.2 | | 7.4 | 7.4 | 7.5 | 7.5 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 275 | 2641 | | 280 | 2469 | 1104 | | 33 | 29 | 160 | 161 |
| v/s Ratio Prot | | c0.04 | 0.32 | | 0.00 | c0.42 | | | c0.00 | | 0.08 | c0.08 |
| v/s Ratio Perm | | c0.44 | | | 0.05 | | 0.17 | | | 0.00 | | |
| v/c Ratio | | 0.65 | 0.44 | | 0.07 | 0.61 | 0.24 | | 0.24 | 0.01 | 0.83 | 0.84 |
| Uniform Delay, d1 | | 44.3 | 10.9 | | 12.5 | 18.2 | 12.6 | | 111.2 | 110.8 | 102.2 | 102.3 |
| Progression Factor | | 0.79 | 0.57 | | 0.35 | 0.26 | 0.15 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 3.6 | 0.0 | | 0.0 | 1.1 | 0.5 | | 1.4 | 0.1 | 28.1 | 30.2 |
| Delay (s) | | 38.7 | 6.3 | | 4.5 | 5.8 | 2.4 | | 112.6 | 110.8 | 130.3 | 132.5 |
| Level of Service | | D | A | | A | A | A | | F | F | F | F |
| Approach Delay (s) | | | 10.7 | | | 5.2 | | | 111.4 | | | 119.5 |
| Approach LOS | | | B | | | A | | | F | | | F |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 20.7 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.67 | | |
| Actuated Cycle Length (s) | 230.0 | Sum of lost time (s) | 29.3 |
| Intersection Capacity Utilization | 83.9% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 121 |
| Future Volume (vph) | 121 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | 7.5 |
| Lane Util. Factor | 1.00 |
| Frt | 0.85 |
| Flt Protected | 1.00 |
| Satd. Flow (prot) | 1583 |
| Flt Permitted | 1.00 |
| Satd. Flow (perm) | 1583 |
| Peak-hour factor, PHF | 0.93 |
| Adj. Flow (vph) | 130 |
| RTOR Reduction (vph) | 118 |
| Lane Group Flow (vph) | 12 |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 8 |
| Actuated Green, G (s) | 22.0 |
| Effective Green, g (s) | 22.0 |
| Actuated g/C Ratio | 0.10 |
| Clearance Time (s) | 7.5 |
| Vehicle Extension (s) | 1.0 |
| Lane Grp Cap (vph) | 151 |
| v/s Ratio Prot | |
| v/s Ratio Perm | 0.01 |
| v/c Ratio | 0.08 |
| Uniform Delay, d1 | 94.8 |
| Progression Factor | 1.00 |
| Incremental Delay, d2 | 0.1 |
| Delay (s) | 94.9 |
| Level of Service | F |
| Approach Delay (s) | |
| Approach LOS | |

| Intersection Summary |
|---|

| Movement | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 1282 | 74 | 5 | 132 | 1568 | 9 | 49 | 5 | 77 | 23 | 12 |
| Future Volume (vph) | 4 | 1282 | 74 | 5 | 132 | 1568 | 9 | 49 | 5 | 77 | 23 | 12 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.8 | 6.8 | 6.8 | | 6.8 | 6.8 | | | 8.0 | 8.0 | 8.0 | 8.0 |
| Lane Util. Factor | 1.00 | 0.91 | 1.00 | | 1.00 | 0.91 | | | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | | | 1.00 | 0.85 | 1.00 | 1.00 |
| Flt Protected | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | | | 0.96 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 5085 | 1583 | | 1770 | 5081 | | | 1781 | 1583 | 1770 | 1863 |
| Flt Permitted | 0.13 | 1.00 | 1.00 | | 0.18 | 1.00 | | | 0.74 | 1.00 | 0.72 | 1.00 |
| Satd. Flow (perm) | 235 | 5085 | 1583 | | 337 | 5081 | | | 1369 | 1583 | 1340 | 1863 |
| 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 | 1378 | 80 | 5 | 142 | 1686 | 10 | 53 | 5 | 83 | 25 | 13 |
| RTOR Reduction (vph) | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 0 | 0 |
| Lane Group Flow (vph) | 4 | 1378 | 70 | 0 | 147 | 1696 | 0 | 0 | 58 | 5 | 25 | 13 |
| Turn Type | Perm | NA | Perm | Perm | Perm | NA | | Perm | NA | Perm | Perm | NA |
| Protected Phases | | 6 | | | | 2 | | | 4 | | | 8 |
| Permitted Phases | 6 | | 6 | 2 | 2 | | | 4 | | 4 | 8 | |
| Actuated Green, G (s) | 202.0 | 202.0 | 202.0 | | 202.0 | 202.0 | | | 13.2 | 13.2 | 13.2 | 13.2 |
| Effective Green, g (s) | 202.0 | 202.0 | 202.0 | | 202.0 | 202.0 | | | 13.2 | 13.2 | 13.2 | 13.2 |
| Actuated g/C Ratio | 0.88 | 0.88 | 0.88 | | 0.88 | 0.88 | | | 0.06 | 0.06 | 0.06 | 0.06 |
| Clearance Time (s) | 6.8 | 6.8 | 6.8 | | 6.8 | 6.8 | | | 8.0 | 8.0 | 8.0 | 8.0 |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 206 | 4465 | 1390 | | 295 | 4462 | | | 78 | 90 | 76 | 106 |
| v/s Ratio Prot | | 0.27 | | | | 0.33 | | | | | | 0.01 |
| v/s Ratio Perm | 0.02 | | 0.04 | | c0.44 | | | | c0.04 | 0.00 | 0.02 | |
| v/c Ratio | 0.02 | 0.31 | 0.05 | | 0.50 | 0.38 | | | 0.74 | 0.05 | 0.33 | 0.12 |
| Uniform Delay, d1 | 1.7 | 2.3 | 1.8 | | 3.0 | 2.6 | | | 106.7 | 102.5 | 104.1 | 102.9 |
| Progression Factor | 1.17 | 1.08 | 2.01 | | 1.56 | 0.15 | | | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.0 | 0.0 | 0.0 | | 3.6 | 0.1 | | | 28.0 | 0.1 | 0.9 | 0.2 |
| Delay (s) | 2.0 | 2.5 | 3.6 | | 8.3 | 0.5 | | | 134.7 | 102.6 | 105.1 | 103.1 |
| Level of Service | A | A | A | | A | A | | | F | F | F | F |
| Approach Delay (s) | | 2.6 | | | | 1.1 | | | 115.8 | | | 104.4 |
| Approach LOS | | A | | | | A | | | F | | | F |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 7.5 | HCM 2000 Level of Service | A |
| HCM 2000 Volume to Capacity ratio | 0.51 | | |
| Actuated Cycle Length (s) | 230.0 | Sum of lost time (s) | 14.8 |
| Intersection Capacity Utilization | 66.7% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 0 |
| Future Volume (vph) | 0 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | |
| Lane Util. Factor | |
| Frt | |
| Flt Protected | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Peak-hour factor, PHF | 0.93 |
| Adj. Flow (vph) | 0 |
| RTOR Reduction (vph) | 0 |
| Lane Group Flow (vph) | 0 |
| Turn Type | |
| Protected Phases | |
| Permitted Phases | |
| Actuated Green, G (s) | |
| Effective Green, g (s) | |
| Actuated g/C Ratio | |
| Clearance Time (s) | |
| Vehicle Extension (s) | |
| Lane Grp Cap (vph) | |
| v/s Ratio Prot | |
| v/s Ratio Perm | |
| v/c Ratio | |
| Uniform Delay, d1 | |
| Progression Factor | |
| Incremental Delay, d2 | |
| Delay (s) | |
| Level of Service | |
| Approach Delay (s) | |
| Approach LOS | |
| Intersection Summary | |

| Movement | EBU | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 94 | 1145 | 124 | 358 | 1640 | 354 | 2 | 190 | 604 | 286 | 367 |
| Future Volume (vph) | 4 | 94 | 1145 | 124 | 358 | 1640 | 354 | 2 | 190 | 604 | 286 | 367 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.3 | 7.3 | | 7.3 | 7.3 | 7.3 | | 7.1 | 7.1 | 7.1 | 7.4 |
| Lane Util. Factor | | 0.97 | 0.91 | | 0.97 | 0.91 | 1.00 | | 1.00 | 0.95 | 1.00 | 0.91 |
| Frt | | 1.00 | 0.99 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 | 1.00 |
| Flt Protected | | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (prot) | | 3433 | 5011 | | 3433 | 5085 | 1583 | | 1770 | 3539 | 1583 | 1610 |
| Flt Permitted | | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (perm) | | 3433 | 5011 | | 3433 | 5085 | 1583 | | 1770 | 3539 | 1583 | 1610 |
| 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 | 101 | 1231 | 133 | 385 | 1763 | 381 | 2 | 204 | 649 | 308 | 395 |
| RTOR Reduction (vph) | 0 | 0 | 5 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 111 | 0 |
| Lane Group Flow (vph) | 0 | 105 | 1359 | 0 | 385 | 1763 | 328 | 0 | 206 | 649 | 197 | 344 |
| Turn Type | Prot | Prot | NA | | Prot | NA | Perm | Split | Split | NA | Perm | Split |
| Protected Phases | 1 | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 | | 8 |
| Permitted Phases | | | | | | | 2 | | | | 4 | |
| Actuated Green, G (s) | | 9.7 | 74.4 | | 28.9 | 93.6 | 93.6 | | 44.9 | 44.9 | 44.9 | 52.7 |
| Effective Green, g (s) | | 9.7 | 74.4 | | 28.9 | 93.6 | 93.6 | | 44.9 | 44.9 | 44.9 | 52.7 |
| Actuated g/C Ratio | | 0.04 | 0.32 | | 0.13 | 0.41 | 0.41 | | 0.20 | 0.20 | 0.20 | 0.23 |
| Clearance Time (s) | | 7.3 | 7.3 | | 7.3 | 7.3 | 7.3 | | 7.1 | 7.1 | 7.1 | 7.4 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 144 | 1620 | | 431 | 2069 | 644 | | 345 | 690 | 309 | 368 |
| v/s Ratio Prot | | 0.03 | 0.27 | | c0.11 | c0.35 | | | 0.12 | c0.18 | | c0.21 |
| v/s Ratio Perm | | | | | | | 0.21 | | | | 0.12 | |
| v/c Ratio | | 0.73 | 0.84 | | 0.89 | 0.85 | 0.51 | | 0.60 | 0.94 | 0.64 | 0.93 |
| Uniform Delay, d1 | | 108.9 | 72.2 | | 99.0 | 61.9 | 51.0 | | 84.3 | 91.2 | 85.1 | 87.0 |
| Progression Factor | | 0.98 | 0.75 | | 0.72 | 0.62 | 0.46 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 14.0 | 5.2 | | 16.1 | 3.6 | 2.2 | | 1.9 | 20.7 | 3.2 | 30.2 |
| Delay (s) | | 120.3 | 59.1 | | 87.3 | 41.9 | 25.7 | | 86.2 | 112.0 | 88.2 | 117.2 |
| Level of Service | | F | E | | F | D | C | | F | F | F | F |
| Approach Delay (s) | | | 63.5 | | | 46.4 | | | | 101.1 | | |
| Approach LOS | | | E | | | D | | | | F | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 71.2 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 0.92 | | |
| Actuated Cycle Length (s) | 230.0 | Sum of lost time (s) | 29.1 |
| Intersection Capacity Utilization | 95.4% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 622 | 179 |
| Future Volume (vph) | 622 | 179 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 7.4 | 7.4 |
| Lane Util. Factor | 0.91 | 1.00 |
| Frt | 1.00 | 0.85 |
| Flt Protected | 1.00 | 1.00 |
| Satd. Flow (prot) | 3378 | 1583 |
| Flt Permitted | 1.00 | 1.00 |
| Satd. Flow (perm) | 3378 | 1583 |
| Peak-hour factor, PHF | 0.93 | 0.93 |
| Adj. Flow (vph) | 669 | 192 |
| RTOR Reduction (vph) | 0 | 140 |
| Lane Group Flow (vph) | 720 | 52 |
| Turn Type | NA | Perm |
| Protected Phases | 8 | |
| Permitted Phases | | 8 |
| Actuated Green, G (s) | 52.7 | 52.7 |
| Effective Green, g (s) | 52.7 | 52.7 |
| Actuated g/C Ratio | 0.23 | 0.23 |
| Clearance Time (s) | 7.4 | 7.4 |
| Vehicle Extension (s) | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 774 | 362 |
| v/s Ratio Prot | 0.21 | |
| v/s Ratio Perm | | 0.03 |
| v/c Ratio | 0.93 | 0.14 |
| Uniform Delay, d1 | 86.8 | 70.6 |
| Progression Factor | 1.00 | 1.00 |
| Incremental Delay, d2 | 17.4 | 0.1 |
| Delay (s) | 104.3 | 70.7 |
| Level of Service | F | E |
| Approach Delay (s) | 102.7 | |
| Approach LOS | F | |

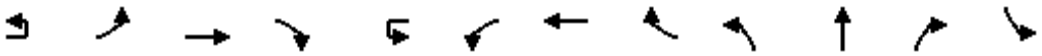
| Intersection Summary |
|---|

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 20 | 1791 | 59 | 304 | 2317 | 21 | 5 | 51 | 17 | 310 | 151 | 50 |
| Future Volume (vph) | 20 | 1791 | 59 | 304 | 2317 | 21 | 5 | 51 | 17 | 310 | 151 | 50 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.2 | 7.2 | | 7.2 | 7.2 | | | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 |
| Lane Util. Factor | 1.00 | 0.91 | | 1.00 | 0.91 | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 1.00 | | | 1.00 | 1.00 | 0.85 | 1.00 | 0.92 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1770 | 5061 | | 1770 | 5078 | | | 1770 | 1863 | 1583 | 1770 | 1718 |
| Flt Permitted | 0.05 | 1.00 | | 0.05 | 1.00 | | | 0.56 | 1.00 | 1.00 | 0.75 | 1.00 |
| Satd. Flow (perm) | 87 | 5061 | | 100 | 5078 | | | 1039 | 1863 | 1583 | 1389 | 1718 |
| 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) | 22 | 1926 | 63 | 327 | 2491 | 23 | 5 | 55 | 18 | 333 | 162 | 54 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 289 | 0 | 18 |
| Lane Group Flow (vph) | 22 | 1988 | 0 | 327 | 2514 | 0 | 0 | 60 | 18 | 44 | 162 | 94 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | 4 | | | 8 |
| Permitted Phases | 6 | | | 2 | | | 4 | 4 | | 4 | 8 | |
| Actuated Green, G (s) | 142.4 | 136.8 | | 184.8 | 172.0 | | | 30.4 | 30.4 | 30.4 | 30.4 | 30.4 |
| Effective Green, g (s) | 142.4 | 136.8 | | 184.8 | 172.0 | | | 30.4 | 30.4 | 30.4 | 30.4 | 30.4 |
| Actuated g/C Ratio | 0.62 | 0.59 | | 0.80 | 0.75 | | | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| Clearance Time (s) | 7.2 | 7.2 | | 7.2 | 7.2 | | | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 |
| Vehicle Extension (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 94 | 3010 | | 376 | 3797 | | | 137 | 246 | 209 | 183 | 227 |
| v/s Ratio Prot | 0.01 | 0.39 | | c0.15 | 0.49 | | | | 0.01 | | | 0.05 |
| v/s Ratio Perm | 0.14 | | | c0.54 | | | | 0.06 | | 0.03 | c0.12 | |
| v/c Ratio | 0.23 | 0.66 | | 0.87 | 0.66 | | | 0.44 | 0.07 | 0.21 | 0.89 | 0.41 |
| Uniform Delay, d1 | 17.8 | 31.1 | | 71.8 | 14.5 | | | 91.9 | 87.5 | 89.1 | 98.1 | 91.6 |
| Progression Factor | 0.41 | 0.30 | | 0.75 | 1.05 | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.3 | 0.7 | | 14.1 | 0.7 | | | 0.8 | 0.0 | 0.2 | 35.3 | 0.4 |
| Delay (s) | 7.6 | 10.1 | | 67.9 | 15.8 | | | 92.7 | 87.5 | 89.3 | 133.4 | 92.1 |
| Level of Service | A | B | | E | B | | | F | F | F | F | F |
| Approach Delay (s) | | 10.1 | | | 21.8 | | | | 89.7 | | | 116.5 |
| Approach LOS | | B | | | C | | | | F | | | F |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 27.3 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.88 | | |
| Actuated Cycle Length (s) | 230.0 | Sum of lost time (s) | 22.0 |
| Intersection Capacity Utilization | 86.1% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 54 |
| Future Volume (vph) | 54 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | |
| Lane Util. Factor | |
| Frt | |
| Flt Protected | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Peak-hour factor, PHF | 0.93 |
| Adj. Flow (vph) | 58 |
| RTOR Reduction (vph) | 0 |
| Lane Group Flow (vph) | 0 |
| Turn Type | |
| Protected Phases | |
| Permitted Phases | |
| Actuated Green, G (s) | |
| Effective Green, g (s) | |
| Actuated g/C Ratio | |
| Clearance Time (s) | |
| Vehicle Extension (s) | |
| Lane Grp Cap (vph) | |
| v/s Ratio Prot | |
| v/s Ratio Perm | |
| v/c Ratio | |
| Uniform Delay, d1 | |
| Progression Factor | |
| Incremental Delay, d2 | |
| Delay (s) | |
| Level of Service | |
| Approach Delay (s) | |
| Approach LOS | |
| Intersection Summary | |



| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 33 | 30 | 2024 | 15 | 4 | 96 | 2515 | 47 | 54 | 0 | 41 | 61 |
| Future Volume (vph) | 33 | 30 | 2024 | 15 | 4 | 96 | 2515 | 47 | 54 | 0 | 41 | 61 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.2 | 7.2 | | | 7.2 | 7.2 | 7.2 | | 7.6 | 7.6 | |
| Lane Util. Factor | | 1.00 | 0.91 | | | 1.00 | 0.91 | 1.00 | | 1.00 | 1.00 | |
| Frt | | 1.00 | 1.00 | | | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | |
| Flt Protected | | 0.95 | 1.00 | | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | | 1770 | 5080 | | | 1770 | 5085 | 1583 | | 1770 | 1583 | |
| Flt Permitted | | 0.03 | 1.00 | | | 0.06 | 1.00 | 1.00 | | 0.64 | 1.00 | |
| Satd. Flow (perm) | | 61 | 5080 | | | 109 | 5085 | 1583 | | 1185 | 1583 | |
| 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) | 35 | 32 | 2176 | 16 | 4 | 103 | 2704 | 51 | 58 | 0 | 44 | 66 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 41 | 0 |
| Lane Group Flow (vph) | 0 | 67 | 2192 | 0 | 0 | 107 | 2704 | 39 | 0 | 58 | 3 | 0 |
| Turn Type | pm+pt | pm+pt | NA | | pm+pt | pm+pt | NA | Perm | Perm | NA | Perm | Perm |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | | 4 | | |
| Permitted Phases | 6 | 6 | | | 2 | 2 | | 2 | 4 | | 4 | 8 |
| Actuated Green, G (s) | | 181.3 | 181.3 | | | 176.7 | 176.7 | 176.7 | | 16.5 | 16.5 | |
| Effective Green, g (s) | | 181.3 | 181.3 | | | 176.7 | 176.7 | 176.7 | | 16.5 | 16.5 | |
| Actuated g/C Ratio | | 0.79 | 0.79 | | | 0.77 | 0.77 | 0.77 | | 0.07 | 0.07 | |
| Clearance Time (s) | | 7.2 | 7.2 | | | 7.2 | 7.2 | 7.2 | | 7.6 | 7.6 | |
| Vehicle Extension (s) | | 1.0 | 1.0 | | | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lane Grp Cap (vph) | | 158 | 4004 | | | 157 | 3906 | 1216 | | 85 | 113 | |
| v/s Ratio Prot | | 0.03 | c0.43 | | | 0.03 | c0.53 | | | | | |
| v/s Ratio Perm | | 0.30 | | | | 0.49 | | 0.02 | | 0.05 | 0.00 | |
| v/c Ratio | | 0.42 | 0.55 | | | 0.68 | 0.69 | 0.03 | | 0.68 | 0.03 | |
| Uniform Delay, d1 | | 42.4 | 9.1 | | | 19.8 | 13.2 | 6.3 | | 104.2 | 99.3 | |
| Progression Factor | | 0.60 | 0.74 | | | 1.73 | 0.46 | 0.61 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 0.5 | 0.4 | | | 5.9 | 0.6 | 0.0 | | 16.5 | 0.0 | |
| Delay (s) | | 26.0 | 7.1 | | | 40.3 | 6.7 | 3.9 | | 120.7 | 99.3 | |
| Level of Service | | C | A | | | D | A | A | | F | F | |
| Approach Delay (s) | | | 7.7 | | | | 7.9 | | | 111.5 | | |
| Approach LOS | | | A | | | | A | | | F | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 12.9 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.70 | | |
| Actuated Cycle Length (s) | 230.0 | Sum of lost time (s) | 22.0 |
| Intersection Capacity Utilization | 90.8% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 8 | 72 |
| Future Volume (vph) | 8 | 72 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 7.6 | 7.6 |
| Lane Util. Factor | 1.00 | 1.00 |
| Frt | 1.00 | 0.85 |
| Flt Protected | 0.96 | 1.00 |
| Satd. Flow (prot) | 1784 | 1583 |
| Flt Permitted | 0.71 | 1.00 |
| Satd. Flow (perm) | 1323 | 1583 |
| Peak-hour factor, PHF | 0.93 | 0.93 |
| Adj. Flow (vph) | 9 | 77 |
| RTOR Reduction (vph) | 0 | 71 |
| Lane Group Flow (vph) | 75 | 6 |
| Turn Type | NA | Perm |
| Protected Phases | 8 | |
| Permitted Phases | | 8 |
| Actuated Green, G (s) | 16.5 | 16.5 |
| Effective Green, g (s) | 16.5 | 16.5 |
| Actuated g/C Ratio | 0.07 | 0.07 |
| Clearance Time (s) | 7.6 | 7.6 |
| Vehicle Extension (s) | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 94 | 113 |
| v/s Ratio Prot | | |
| v/s Ratio Perm | c0.06 | 0.00 |
| v/c Ratio | 0.80 | 0.05 |
| Uniform Delay, d1 | 105.1 | 99.4 |
| Progression Factor | 1.00 | 1.00 |
| Incremental Delay, d2 | 34.1 | 0.1 |
| Delay (s) | 139.2 | 99.5 |
| Level of Service | F | F |
| Approach Delay (s) | 119.1 | |
| Approach LOS | F | |

| Intersection Summary |
|---|

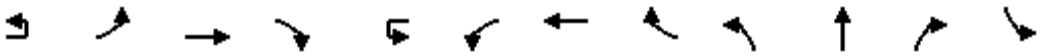
| Movement | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 61 | 2039 | 17 | 2 | 10 | 2611 | 39 | 24 | 4 | 12 | 58 | 6 |
| Future Volume (vph) | 61 | 2039 | 17 | 2 | 10 | 2611 | 39 | 24 | 4 | 12 | 58 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.4 | 7.4 | | | 7.4 | 7.4 | | | 7.2 | | | 7.2 |
| Lane Util. Factor | 1.00 | 0.91 | | | 1.00 | 0.91 | | | 1.00 | | | 1.00 |
| Frt | 1.00 | 1.00 | | | 1.00 | 1.00 | | | 0.96 | | | 1.00 |
| Flt Protected | 0.95 | 1.00 | | | 0.95 | 1.00 | | | 0.97 | | | 0.96 |
| Satd. Flow (prot) | 1770 | 5079 | | | 1770 | 5074 | | | 1734 | | | 1782 |
| Flt Permitted | 0.95 | 1.00 | | | 0.95 | 1.00 | | | 0.78 | | | 0.71 |
| Satd. Flow (perm) | 1770 | 5079 | | | 1770 | 5074 | | | 1386 | | | 1329 |
| 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) | 66 | 2192 | 18 | 2 | 11 | 2808 | 42 | 26 | 4 | 13 | 62 | 6 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 12 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 66 | 2209 | 0 | 0 | 13 | 2849 | 0 | 0 | 31 | 0 | 0 | 68 |
| Turn Type | Prot | NA | | Prot | Prot | NA | | Perm | NA | | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | | | | | | | | 4 | | | 8 | |
| Actuated Green, G (s) | 9.2 | 81.7 | | | 2.8 | 75.3 | | | 8.5 | | | 8.5 |
| Effective Green, g (s) | 9.2 | 81.7 | | | 2.8 | 75.3 | | | 8.5 | | | 8.5 |
| Actuated g/C Ratio | 0.08 | 0.71 | | | 0.02 | 0.65 | | | 0.07 | | | 0.07 |
| Clearance Time (s) | 7.4 | 7.4 | | | 7.4 | 7.4 | | | 7.2 | | | 7.2 |
| Vehicle Extension (s) | 1.0 | 1.0 | | | 1.0 | 1.0 | | | 1.0 | | | 1.0 |
| Lane Grp Cap (vph) | 141 | 3608 | | | 43 | 3322 | | | 102 | | | 98 |
| v/s Ratio Prot | 0.04 | c0.44 | | | 0.01 | c0.56 | | | | | | |
| v/s Ratio Perm | | | | | | | | | 0.02 | | | c0.05 |
| v/c Ratio | 0.47 | 0.61 | | | 0.30 | 0.86 | | | 0.30 | | | 0.69 |
| Uniform Delay, d1 | 50.6 | 8.5 | | | 55.1 | 15.6 | | | 50.4 | | | 52.0 |
| Progression Factor | 0.97 | 1.28 | | | 1.35 | 0.68 | | | 1.00 | | | 1.00 |
| Incremental Delay, d2 | 0.8 | 0.7 | | | 1.0 | 2.1 | | | 0.6 | | | 15.8 |
| Delay (s) | 49.6 | 11.6 | | | 75.6 | 12.7 | | | 51.1 | | | 67.7 |
| Level of Service | D | B | | | E | B | | | D | | | E |
| Approach Delay (s) | | 12.7 | | | | 13.0 | | | 51.1 | | | 60.2 |
| Approach LOS | | B | | | | B | | | D | | | E |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 14.2 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.83 | | |
| Actuated Cycle Length (s) | 115.0 | Sum of lost time (s) | 22.0 |
| Intersection Capacity Utilization | 81.1% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 45 |
| Future Volume (vph) | 45 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | 7.2 |
| Lane Util. Factor | 1.00 |
| Frt | 0.85 |
| Flt Protected | 1.00 |
| Satd. Flow (prot) | 1583 |
| Flt Permitted | 1.00 |
| Satd. Flow (perm) | 1583 |
| Peak-hour factor, PHF | 0.93 |
| Adj. Flow (vph) | 48 |
| RTOR Reduction (vph) | 44 |
| Lane Group Flow (vph) | 4 |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 8 |
| Actuated Green, G (s) | 8.5 |
| Effective Green, g (s) | 8.5 |
| Actuated g/C Ratio | 0.07 |
| Clearance Time (s) | 7.2 |
| Vehicle Extension (s) | 1.0 |
| Lane Grp Cap (vph) | 117 |
| v/s Ratio Prot | |
| v/s Ratio Perm | 0.00 |
| v/c Ratio | 0.03 |
| Uniform Delay, d1 | 49.4 |
| Progression Factor | 1.00 |
| Incremental Delay, d2 | 0.0 |
| Delay (s) | 49.5 |
| Level of Service | D |
| Approach Delay (s) | |
| Approach LOS | |

| Intersection Summary |
|---|



| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 272 | 1718 | 118 | 3 | 157 | 1759 | 241 | 108 | 415 | 199 | 188 |
| Future Volume (vph) | 10 | 272 | 1718 | 118 | 3 | 157 | 1759 | 241 | 108 | 415 | 199 | 188 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.4 | 7.4 | 7.4 | | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 |
| Lane Util. Factor | | 0.97 | 0.91 | 1.00 | | 0.97 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Frt | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 |
| Flt Protected | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (prot) | | 3433 | 5085 | 1583 | | 3433 | 5085 | 1583 | 1770 | 3539 | 1583 | 1770 |
| Flt Permitted | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (perm) | | 3433 | 5085 | 1583 | | 3433 | 5085 | 1583 | 1770 | 3539 | 1583 | 1770 |
| 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) | 11 | 292 | 1847 | 127 | 3 | 169 | 1891 | 259 | 116 | 446 | 214 | 202 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 76 | 0 | 0 | 0 | 161 | 0 | 0 | 183 | 0 |
| Lane Group Flow (vph) | 0 | 303 | 1847 | 51 | 0 | 172 | 1891 | 98 | 116 | 446 | 31 | 202 |
| Turn Type | Prot | Prot | NA | Perm | Prot | Prot | NA | Perm | Prot | NA | Perm | Prot |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | 7 | 4 | | 3 |
| Permitted Phases | | | | 6 | | | | 2 | | | 4 | |
| Actuated Green, G (s) | | 10.9 | 46.6 | 46.6 | | 7.6 | 43.3 | 43.3 | 9.7 | 16.7 | 16.7 | 14.5 |
| Effective Green, g (s) | | 10.9 | 46.6 | 46.6 | | 7.6 | 43.3 | 43.3 | 9.7 | 16.7 | 16.7 | 14.5 |
| Actuated g/C Ratio | | 0.09 | 0.41 | 0.41 | | 0.07 | 0.38 | 0.38 | 0.08 | 0.15 | 0.15 | 0.13 |
| Clearance Time (s) | | 7.4 | 7.4 | 7.4 | | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 |
| Vehicle Extension (s) | | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 325 | 2060 | 641 | | 226 | 1914 | 596 | 149 | 513 | 229 | 223 |
| v/s Ratio Prot | | 0.09 | c0.36 | | | 0.05 | c0.37 | | 0.07 | c0.13 | | 0.11 |
| v/s Ratio Perm | | | | 0.03 | | | | 0.06 | | | 0.02 | |
| v/c Ratio | | 0.93 | 0.90 | 0.08 | | 0.76 | 0.99 | 0.16 | 0.78 | 0.87 | 0.14 | 0.91 |
| Uniform Delay, d1 | | 51.7 | 31.9 | 21.0 | | 52.8 | 35.6 | 23.8 | 51.6 | 48.1 | 42.9 | 49.6 |
| Progression Factor | | 0.99 | 1.01 | 61.93 | | 0.77 | 0.83 | 0.69 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 28.9 | 5.7 | 0.2 | | 3.3 | 7.7 | 0.1 | 20.4 | 14.1 | 0.1 | 34.9 |
| Delay (s) | | 80.3 | 37.8 | 1302.4 | | 43.9 | 37.3 | 16.5 | 72.0 | 62.2 | 43.0 | 84.5 |
| Level of Service | | F | D | F | | D | D | B | E | E | D | F |
| Approach Delay (s) | | | 114.0 | | | | 35.5 | | | 58.3 | | |
| Approach LOS | | | F | | | | D | | | E | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 69.3 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 1.01 | | |
| Actuated Cycle Length (s) | 115.0 | Sum of lost time (s) | 29.6 |
| Intersection Capacity Utilization | 88.6% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 485 | 249 |
| Future Volume (vph) | 485 | 249 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 7.4 | 7.4 |
| Lane Util. Factor | 0.95 | 1.00 |
| Frt | 1.00 | 0.85 |
| Flt Protected | 1.00 | 1.00 |
| Satd. Flow (prot) | 3539 | 1583 |
| Flt Permitted | 1.00 | 1.00 |
| Satd. Flow (perm) | 3539 | 1583 |
| Peak-hour factor, PHF | 0.93 | 0.93 |
| Adj. Flow (vph) | 522 | 268 |
| RTOR Reduction (vph) | 0 | 205 |
| Lane Group Flow (vph) | 522 | 63 |
| Turn Type | NA | Perm |
| Protected Phases | 8 | |
| Permitted Phases | | 8 |
| Actuated Green, G (s) | 21.5 | 21.5 |
| Effective Green, g (s) | 21.5 | 21.5 |
| Actuated g/C Ratio | 0.19 | 0.19 |
| Clearance Time (s) | 7.4 | 7.4 |
| Vehicle Extension (s) | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 661 | 295 |
| v/s Ratio Prot | c0.15 | |
| v/s Ratio Perm | | 0.04 |
| v/c Ratio | 0.79 | 0.21 |
| Uniform Delay, d1 | 44.6 | 39.6 |
| Progression Factor | 1.00 | 1.00 |
| Incremental Delay, d2 | 5.8 | 0.1 |
| Delay (s) | 50.4 | 39.7 |
| Level of Service | D | D |
| Approach Delay (s) | 54.4 | |
| Approach LOS | D | |

| Intersection Summary |
|---|

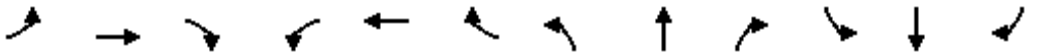
| Movement | EBU | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 6 | 439 | 1243 | 984 | 812 | 1149 | 189 | 876 | 311 | 328 | 289 | 344 |
| Future Volume (vph) | 6 | 439 | 1243 | 984 | 812 | 1149 | 189 | 876 | 311 | 328 | 289 | 344 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 10.5 | 10.5 | | 10.5 | 10.5 | | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 |
| Lane Util. Factor | | 0.97 | 0.91 | | 0.97 | 0.91 | | 0.91 | 0.91 | 1.00 | 0.91 | 0.91 |
| Frt | | 1.00 | 0.93 | | 1.00 | 0.98 | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 |
| Flt Protected | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.97 | 1.00 | 0.95 | 0.99 |
| Satd. Flow (prot) | | 3433 | 4748 | | 3433 | 4978 | | 1610 | 3294 | 1583 | 1610 | 3357 |
| Flt Permitted | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.97 | 1.00 | 0.95 | 0.99 |
| Satd. Flow (perm) | | 3433 | 4748 | | 3433 | 4978 | | 1610 | 3294 | 1583 | 1610 | 3357 |
| 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) | 6 | 472 | 1337 | 1058 | 873 | 1235 | 203 | 942 | 334 | 353 | 311 | 370 |
| RTOR Reduction (vph) | 0 | 0 | 62 | 0 | 0 | 10 | 0 | 0 | 0 | 146 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 478 | 2333 | 0 | 873 | 1428 | 0 | 471 | 805 | 207 | 221 | 460 |
| Turn Type | Prot | Prot | NA | | Prot | NA | | Split | NA | Perm | Split | NA |
| Protected Phases | 1 | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | | 38.8 | 80.5 | | 42.5 | 84.2 | | 45.9 | 45.9 | 45.9 | 19.9 | 19.9 |
| Effective Green, g (s) | | 38.8 | 80.5 | | 42.5 | 84.2 | | 45.9 | 45.9 | 45.9 | 19.9 | 19.9 |
| Actuated g/C Ratio | | 0.17 | 0.35 | | 0.18 | 0.37 | | 0.20 | 0.20 | 0.20 | 0.09 | 0.09 |
| Clearance Time (s) | | 10.5 | 10.5 | | 10.5 | 10.5 | | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 579 | 1661 | | 634 | 1822 | | 321 | 657 | 315 | 139 | 290 |
| v/s Ratio Prot | | 0.14 | c0.49 | | c0.25 | 0.29 | | c0.29 | 0.24 | | c0.14 | 0.14 |
| v/s Ratio Perm | | | | | | | | | | 0.13 | | |
| v/c Ratio | | 0.83 | 1.72dr | | 1.38 | 0.78 | | 1.47 | 1.41dl | 0.66 | 1.59 | 1.59 |
| Uniform Delay, d1 | | 92.3 | 74.8 | | 93.8 | 64.8 | | 92.0 | 92.0 | 84.8 | 105.0 | 105.0 |
| Progression Factor | | 0.83 | 0.78 | | 0.75 | 0.83 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 7.0 | 185.0 | | 178.0 | 2.9 | | 226.6 | 114.6 | 3.7 | 296.7 | 279.6 |
| Delay (s) | | 83.7 | 243.6 | | 247.9 | 56.5 | | 318.7 | 206.6 | 88.5 | 401.7 | 384.7 |
| Level of Service | | F | F | | F | E | | F | F | F | F | F |
| Approach Delay (s) | | | 217.0 | | | 128.8 | | | 213.4 | | | 339.7 |
| Approach LOS | | | F | | | F | | | F | | | F |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 206.7 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.43 | | |
| Actuated Cycle Length (s) | 230.0 | Sum of lost time (s) | 41.2 |
| Intersection Capacity Utilization | 139.8% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 344 |
| Future Volume (vph) | 344 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | 10.1 |
| Lane Util. Factor | 1.00 |
| Frt | 0.85 |
| Flt Protected | 1.00 |
| Satd. Flow (prot) | 1583 |
| Flt Permitted | 1.00 |
| Satd. Flow (perm) | 1583 |
| Peak-hour factor, PHF | 0.93 |
| Adj. Flow (vph) | 370 |
| RTOR Reduction (vph) | 206 |
| Lane Group Flow (vph) | 164 |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 8 |
| Actuated Green, G (s) | 19.9 |
| Effective Green, g (s) | 19.9 |
| Actuated g/C Ratio | 0.09 |
| Clearance Time (s) | 10.1 |
| Vehicle Extension (s) | 1.0 |
| Lane Grp Cap (vph) | 136 |
| v/s Ratio Prot | |
| v/s Ratio Perm | 0.10 |
| v/c Ratio | 1.20 |
| Uniform Delay, d1 | 105.0 |
| Progression Factor | 1.00 |
| Incremental Delay, d2 | 141.7 |
| Delay (s) | 246.8 |
| Level of Service | F |
| Approach Delay (s) | |
| Approach LOS | |

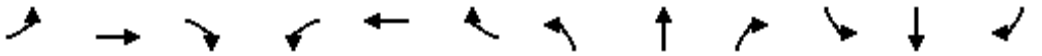
| Intersection Summary |
|---|



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 89 | 1605 | 16 | 0 | 1836 | 59 | 49 | 21 | 14 | 55 | 0 | 168 |
| Future Volume (vph) | 89 | 1605 | 16 | 0 | 1836 | 59 | 49 | 21 | 14 | 55 | 0 | 168 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.8 | 7.0 | | | 7.0 | | 7.5 | 7.5 | | 7.5 | 7.5 | |
| Lane Util. Factor | 1.00 | 0.91 | | | 0.91 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Frt | 1.00 | 1.00 | | | 1.00 | | 1.00 | 0.94 | | 1.00 | 0.85 | |
| Flt Protected | 0.95 | 1.00 | | | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 5078 | | | 5062 | | 1770 | 1752 | | 1770 | 1583 | |
| Flt Permitted | 0.06 | 1.00 | | | 1.00 | | 0.41 | 1.00 | | 0.73 | 1.00 | |
| Satd. Flow (perm) | 118 | 5078 | | | 5062 | | 768 | 1752 | | 1364 | 1583 | |
| 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) | 96 | 1726 | 17 | 0 | 1974 | 63 | 53 | 23 | 15 | 59 | 0 | 181 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 14 | 0 | 0 | 166 | 0 |
| Lane Group Flow (vph) | 96 | 1743 | 0 | 0 | 2035 | 0 | 53 | 24 | 0 | 59 | 15 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 4 | | | 8 | |
| Permitted Phases | 6 | | | 2 | | | 4 | | | 8 | | |
| Actuated Green, G (s) | 90.8 | 90.8 | | | 78.2 | | 9.7 | 9.7 | | 9.7 | 9.7 | |
| Effective Green, g (s) | 90.8 | 90.8 | | | 78.2 | | 9.7 | 9.7 | | 9.7 | 9.7 | |
| Actuated g/C Ratio | 0.79 | 0.79 | | | 0.68 | | 0.08 | 0.08 | | 0.08 | 0.08 | |
| Clearance Time (s) | 6.8 | 7.0 | | | 7.0 | | 7.5 | 7.5 | | 7.5 | 7.5 | |
| Vehicle Extension (s) | 1.0 | 1.0 | | | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lane Grp Cap (vph) | 176 | 4009 | | | 3442 | | 64 | 147 | | 115 | 133 | |
| v/s Ratio Prot | 0.03 | c0.34 | | | c0.40 | | | 0.01 | | | 0.01 | |
| v/s Ratio Perm | 0.40 | | | | | | c0.07 | | | 0.04 | | |
| v/c Ratio | 0.55 | 0.43 | | | 0.59 | | 0.83 | 0.17 | | 0.51 | 0.11 | |
| Uniform Delay, d1 | 9.4 | 3.9 | | | 9.8 | | 51.8 | 48.9 | | 50.4 | 48.7 | |
| Progression Factor | 3.45 | 0.29 | | | 1.59 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 0.2 | 0.0 | | | 0.6 | | 54.0 | 0.2 | | 1.6 | 0.1 | |
| Delay (s) | 32.6 | 1.2 | | | 16.3 | | 105.8 | 49.1 | | 52.0 | 48.8 | |
| Level of Service | C | A | | | B | | F | D | | D | D | |
| Approach Delay (s) | | 2.8 | | | 16.3 | | | 82.1 | | | 49.6 | |
| Approach LOS | | A | | | B | | | F | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 13.7 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.63 | | |
| Actuated Cycle Length (s) | 115.0 | Sum of lost time (s) | 21.4 |
| Intersection Capacity Utilization | 80.3% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

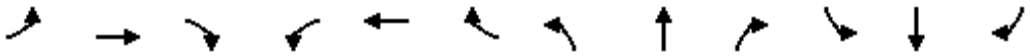
c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 78 | 1387 | 42 | 651 | 1564 | 70 | 42 | 89 | 755 | 87 | 244 | 206 |
| Future Volume (vph) | 78 | 1387 | 42 | 651 | 1564 | 70 | 42 | 89 | 755 | 87 | 244 | 206 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.9 | 7.2 | | 7.0 | 7.2 | | 6.9 | 7.3 | 7.3 | 6.7 | 7.3 | 7.3 |
| Lane Util. Factor | 1.00 | 0.91 | | 1.00 | 0.91 | | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | 1.00 | 1.00 | | 1.00 | 0.99 | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1770 | 5063 | | 1770 | 5053 | | 1770 | 3539 | 1583 | 1770 | 3539 | 1583 |
| Flt Permitted | 0.12 | 1.00 | | 0.07 | 1.00 | | 0.51 | 1.00 | 1.00 | 0.67 | 1.00 | 1.00 |
| Satd. Flow (perm) | 229 | 5063 | | 131 | 5053 | | 948 | 3539 | 1583 | 1257 | 3539 | 1583 |
| 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) | 84 | 1491 | 45 | 700 | 1682 | 75 | 45 | 96 | 812 | 94 | 262 | 222 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 496 | 0 | 0 | 111 |
| Lane Group Flow (vph) | 84 | 1535 | 0 | 700 | 1755 | 0 | 45 | 96 | 316 | 94 | 262 | 111 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | | 2 | | | 4 | | 4 | 8 | | 8 |
| Actuated Green, G (s) | 69.8 | 69.5 | | 135.9 | 135.9 | | 51.7 | 47.6 | 47.6 | 54.3 | 48.8 | 48.8 |
| Effective Green, g (s) | 69.8 | 69.5 | | 135.9 | 135.9 | | 51.7 | 47.6 | 47.6 | 54.3 | 48.8 | 48.8 |
| Actuated g/C Ratio | 0.30 | 0.30 | | 0.59 | 0.59 | | 0.22 | 0.21 | 0.21 | 0.24 | 0.21 | 0.21 |
| Clearance Time (s) | 6.9 | 7.2 | | 7.0 | 7.2 | | 6.9 | 7.3 | 7.3 | 6.7 | 7.3 | 7.3 |
| Vehicle Extension (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 155 | 1529 | | 641 | 2985 | | 227 | 732 | 327 | 309 | 750 | 335 |
| v/s Ratio Prot | 0.03 | c0.30 | | c0.38 | 0.35 | | 0.00 | 0.03 | | c0.01 | 0.07 | |
| v/s Ratio Perm | 0.13 | | | c0.27 | | | 0.04 | | c0.20 | 0.06 | | 0.07 |
| v/c Ratio | 0.54 | 1.00 | | 1.09 | 0.59 | | 0.20 | 0.13 | 0.96 | 0.30 | 0.35 | 0.33 |
| Uniform Delay, d1 | 76.1 | 80.2 | | 68.5 | 29.5 | | 71.7 | 74.3 | 90.4 | 71.6 | 77.1 | 76.8 |
| Progression Factor | 0.85 | 0.83 | | 0.93 | 1.01 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 1.9 | 23.0 | | 57.1 | 0.6 | | 0.2 | 0.0 | 39.9 | 0.2 | 0.1 | 0.2 |
| Delay (s) | 66.4 | 89.7 | | 120.6 | 30.2 | | 71.8 | 74.4 | 130.3 | 71.8 | 77.2 | 77.0 |
| Level of Service | E | F | | F | C | | E | E | F | E | E | E |
| Approach Delay (s) | | 88.5 | | | 56.0 | | | 121.9 | | | 76.2 | |
| Approach LOS | | F | | | E | | | F | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 78.7 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 1.02 | | |
| Actuated Cycle Length (s) | 230.0 | Sum of lost time (s) | 28.4 |
| 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 | | | | | | | | | | | | |
| Traffic Volume (vph) | 59 | 1495 | 264 | 52 | 1853 | 40 | 243 | 103 | 77 | 64 | 130 | 151 |
| Future Volume (vph) | 59 | 1495 | 264 | 52 | 1853 | 40 | 243 | 103 | 77 | 64 | 130 | 151 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.9 | 6.9 | | 6.9 | 6.9 | | 6.2 | 6.8 | | 6.2 | 6.8 | |
| Lane Util. Factor | 1.00 | 0.91 | | 1.00 | 0.91 | | 1.00 | 0.95 | | 1.00 | 0.95 | |
| Frt | 1.00 | 0.98 | | 1.00 | 1.00 | | 1.00 | 0.94 | | 1.00 | 0.92 | |
| Flt Protected | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 4971 | | 1770 | 5069 | | 1770 | 3312 | | 1770 | 3254 | |
| Flt Permitted | 0.07 | 1.00 | | 0.08 | 1.00 | | 0.26 | 1.00 | | 0.63 | 1.00 | |
| Satd. Flow (perm) | 137 | 4971 | | 140 | 5069 | | 475 | 3312 | | 1173 | 3254 | |
| 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) | 63 | 1608 | 284 | 56 | 1992 | 43 | 261 | 111 | 83 | 69 | 140 | 162 |
| RTOR Reduction (vph) | 0 | 19 | 0 | 0 | 1 | 0 | 0 | 68 | 0 | 0 | 112 | 0 |
| Lane Group Flow (vph) | 63 | 1873 | 0 | 56 | 2034 | 0 | 261 | 126 | 0 | 69 | 190 | 0 |
| Turn Type | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | | 2 | | | 4 | | | 8 | | |
| Actuated Green, G (s) | 59.4 | 59.4 | | 58.6 | 58.6 | | 30.9 | 20.1 | | 15.6 | 11.0 | |
| Effective Green, g (s) | 59.4 | 59.4 | | 58.6 | 58.6 | | 30.9 | 20.1 | | 15.6 | 11.0 | |
| Actuated g/C Ratio | 0.52 | 0.52 | | 0.51 | 0.51 | | 0.27 | 0.17 | | 0.14 | 0.10 | |
| Clearance Time (s) | 6.9 | 6.9 | | 6.9 | 6.9 | | 6.2 | 6.8 | | 6.2 | 6.8 | |
| Vehicle Extension (s) | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | |
| Lane Grp Cap (vph) | 140 | 2567 | | 129 | 2582 | | 281 | 578 | | 183 | 311 | |
| v/s Ratio Prot | 0.02 | c0.38 | | 0.02 | c0.40 | | c0.11 | 0.04 | | 0.02 | 0.06 | |
| v/s Ratio Perm | 0.21 | | | 0.21 | | | c0.14 | | | 0.04 | | |
| v/c Ratio | 0.45 | 0.73 | | 0.43 | 0.79 | | 0.93 | 0.22 | | 0.38 | 0.61 | |
| Uniform Delay, d1 | 21.8 | 21.6 | | 31.9 | 23.1 | | 37.1 | 40.7 | | 44.7 | 49.9 | |
| Progression Factor | 1.67 | 0.85 | | 0.66 | 0.64 | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 0.3 | 0.6 | | 0.7 | 2.1 | | 34.5 | 0.1 | | 0.5 | 2.5 | |
| Delay (s) | 36.6 | 19.0 | | 21.8 | 17.0 | | 71.6 | 40.8 | | 45.2 | 52.4 | |
| Level of Service | D | B | | C | B | | E | D | | D | D | |
| Approach Delay (s) | | 19.6 | | | 17.1 | | | 58.5 | | | 51.1 | |
| Approach LOS | | B | | | B | | | E | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 24.6 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.90 | | |
| Actuated Cycle Length (s) | 115.0 | Sum of lost time (s) | 26.8 |
| Intersection Capacity Utilization | 85.1% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEU | NEL | NET | NER | SWU | SWL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 19 | 19 | 13 | 33 | 9 | 18 | 1 | 89 | 1418 | 38 | 65 | 34 |
| Future Volume (vph) | 19 | 19 | 13 | 33 | 9 | 18 | 1 | 89 | 1418 | 38 | 65 | 34 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.6 | 7.6 | | 7.6 | | | 6.9 | 6.9 | | | 7.1 |
| Lane Util. Factor | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 0.91 | | | 1.00 |
| Frt | | 1.00 | 0.85 | | 0.96 | | | 1.00 | 1.00 | | | 1.00 |
| Flt Protected | | 0.98 | 1.00 | | 0.97 | | | 0.95 | 1.00 | | | 0.95 |
| Satd. Flow (prot) | | 1817 | 1583 | | 1740 | | | 1770 | 5065 | | | 1770 |
| Flt Permitted | | 0.83 | 1.00 | | 0.81 | | | 0.09 | 1.00 | | | 0.11 |
| Satd. Flow (perm) | | 1549 | 1583 | | 1444 | | | 171 | 5065 | | | 196 |
| 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) | 20 | 20 | 14 | 35 | 10 | 19 | 1 | 96 | 1525 | 41 | 70 | 37 |
| RTOR Reduction (vph) | 0 | 0 | 13 | 0 | 15 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 40 | 1 | 0 | 49 | 0 | 0 | 97 | 1564 | 0 | 0 | 107 |
| Turn Type | Perm | NA | Perm | Perm | NA | | pm+pt | pm+pt | NA | | pm+pt | pm+pt |
| Protected Phases | | 8 | | | 4 | | 1 | 1 | 6 | | 5 | 5 |
| Permitted Phases | 8 | | 8 | 4 | | | 6 | 6 | | | 2 | 2 |
| Actuated Green, G (s) | | 9.0 | 9.0 | | 9.0 | | | 74.8 | 74.8 | | | 72.5 |
| Effective Green, g (s) | | 9.0 | 9.0 | | 9.0 | | | 74.8 | 74.8 | | | 72.5 |
| Actuated g/C Ratio | | 0.08 | 0.08 | | 0.08 | | | 0.65 | 0.65 | | | 0.63 |
| Clearance Time (s) | | 7.6 | 7.6 | | 7.6 | | | 6.9 | 6.9 | | | 7.1 |
| Vehicle Extension (s) | | 4.0 | 4.0 | | 4.0 | | | 4.0 | 5.0 | | | 4.0 |
| Lane Grp Cap (vph) | | 121 | 123 | | 113 | | | 279 | 3294 | | | 254 |
| v/s Ratio Prot | | | | | | | | 0.04 | c0.31 | | | 0.04 |
| v/s Ratio Perm | | 0.03 | 0.00 | | c0.03 | | | 0.19 | | | | 0.23 |
| v/c Ratio | | 0.33 | 0.01 | | 0.44 | | | 0.35 | 0.47 | | | 0.42 |
| Uniform Delay, d1 | | 50.1 | 48.9 | | 50.6 | | | 18.3 | 10.2 | | | 10.9 |
| Progression Factor | | 1.00 | 1.00 | | 1.00 | | | 0.35 | 0.28 | | | 1.61 |
| Incremental Delay, d2 | | 2.2 | 0.0 | | 3.6 | | | 0.8 | 0.4 | | | 0.7 |
| Delay (s) | | 52.3 | 48.9 | | 54.2 | | | 7.1 | 3.2 | | | 18.2 |
| Level of Service | | D | D | | D | | | A | A | | | B |
| Approach Delay (s) | | 51.5 | | | 54.2 | | | | 3.5 | | | |
| Approach LOS | | D | | | D | | | | A | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 7.3 | HCM 2000 Level of Service | A |
| HCM 2000 Volume to Capacity ratio | 0.59 | | |
| Actuated Cycle Length (s) | 115.0 | Sum of lost time (s) | 21.6 |
| Intersection Capacity Utilization | 72.8% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SWT | SWR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1781 | 40 |
| Future Volume (vph) | 1781 | 40 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 6.9 | |
| Lane Util. Factor | 0.91 | |
| Frt | 1.00 | |
| Flt Protected | 1.00 | |
| Satd. Flow (prot) | 5069 | |
| Flt Permitted | 1.00 | |
| Satd. Flow (perm) | 5069 | |
| Peak-hour factor, PHF | 0.93 | 0.93 |
| Adj. Flow (vph) | 1915 | 43 |
| RTOR Reduction (vph) | 1 | 0 |
| Lane Group Flow (vph) | 1957 | 0 |
| Turn Type | NA | |
| Protected Phases | 2 | |
| Permitted Phases | | |
| Actuated Green, G (s) | 72.5 | |
| Effective Green, g (s) | 72.5 | |
| Actuated g/C Ratio | 0.63 | |
| Clearance Time (s) | 6.9 | |
| Vehicle Extension (s) | 5.0 | |
| Lane Grp Cap (vph) | 3195 | |
| v/s Ratio Prot | c0.39 | |
| v/s Ratio Perm | | |
| v/c Ratio | 0.61 | |
| Uniform Delay, d1 | 12.8 | |
| Progression Factor | 0.53 | |
| Incremental Delay, d2 | 0.4 | |
| Delay (s) | 7.2 | |
| Level of Service | A | |
| Approach Delay (s) | 7.8 | |
| Approach LOS | A | |

| Intersection Summary |
|---|

| Movement | NBU | NBL | NBT | NBR | SBL | SBT | SBR | NEU | NEL | NET | NER | SWU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 17 | 229 | 1647 | 805 | 109 | 2179 | 770 | 7 | 420 | 891 | 158 | 3 |
| Future Volume (vph) | 17 | 229 | 1647 | 805 | 109 | 2179 | 770 | 7 | 420 | 891 | 158 | 3 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | | 9.8 | 9.8 | 9.8 | |
| Lane Util. Factor | | 0.97 | 0.91 | 1.00 | 0.97 | 0.91 | 1.00 | | 0.97 | 0.91 | 1.00 | |
| Frt | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 | |
| Flt Protected | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | |
| Satd. Flow (prot) | | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | 3433 | 5085 | 1583 | |
| Flt Permitted | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | |
| Satd. Flow (perm) | | 3433 | 5085 | 1583 | 3433 | 5085 | 1583 | | 3433 | 5085 | 1583 | |
| 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) | 18 | 246 | 1771 | 866 | 117 | 2343 | 828 | 8 | 452 | 958 | 170 | 3 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 182 | 0 | 0 | 166 | 0 | 0 | 0 | 115 | 0 |
| Lane Group Flow (vph) | 0 | 264 | 1771 | 684 | 117 | 2343 | 662 | 0 | 460 | 958 | 55 | 0 |
| Turn Type | Prot | Prot | NA | Perm | Prot | NA | Perm | Prot | Prot | NA | Perm | Prot |
| Protected Phases | 1 | 1 | 6 | | 5 | 2 | | 3 | 3 | 8 | | 7 |
| Permitted Phases | | | | 6 | | | 2 | | | | 8 | |
| Actuated Green, G (s) | | 10.2 | 84.0 | 84.0 | 7.6 | 81.4 | 81.4 | | 40.4 | 74.0 | 74.0 | |
| Effective Green, g (s) | | 10.2 | 84.0 | 84.0 | 7.6 | 81.4 | 81.4 | | 40.4 | 74.0 | 74.0 | |
| Actuated g/C Ratio | | 0.04 | 0.37 | 0.37 | 0.03 | 0.35 | 0.35 | | 0.18 | 0.32 | 0.32 | |
| Clearance Time (s) | | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | | 9.8 | 9.8 | 9.8 | |
| 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) | | 152 | 1857 | 578 | 113 | 1799 | 560 | | 603 | 1636 | 509 | |
| v/s Ratio Prot | | 0.08 | 0.35 | | 0.03 | c0.46 | | | c0.13 | 0.19 | | |
| v/s Ratio Perm | | | | c0.43 | | | 0.42 | | | | 0.03 | |
| v/c Ratio | | 1.74 | 0.95 | 1.18 | 1.04 | 1.30 | 1.18 | | 0.76 | 0.59 | 0.11 | |
| Uniform Delay, d1 | | 109.9 | 71.1 | 73.0 | 111.2 | 74.3 | 74.3 | | 90.2 | 65.2 | 54.8 | |
| Progression Factor | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | 0.78 | 0.74 | 2.05 | |
| Incremental Delay, d2 | | 357.5 | 12.5 | 99.1 | 94.5 | 140.3 | 99.2 | | 5.2 | 0.5 | 0.1 | |
| Delay (s) | | 467.4 | 83.6 | 172.1 | 205.7 | 214.6 | 173.5 | | 75.9 | 48.5 | 112.4 | |
| Level of Service | | F | F | F | F | F | F | | E | D | F | |
| Approach Delay (s) | | | 144.9 | | | 203.9 | | | | 63.3 | | |
| Approach LOS | | | F | | | F | | | | E | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 164.6 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.17 | | |
| Actuated Cycle Length (s) | 230.0 | Sum of lost time (s) | 39.2 |
| Intersection Capacity Utilization | 121.6% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SWL | SWT | SWR |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 616 | 998 | 213 |
| Future Volume (vph) | 616 | 998 | 213 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 |
| Total Lost time (s) | 9.8 | 9.8 | 9.8 |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 3433 | 5085 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 3433 | 5085 | 1583 |
| Peak-hour factor, PHF | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 662 | 1073 | 229 |
| RTOR Reduction (vph) | 0 | 0 | 128 |
| Lane Group Flow (vph) | 665 | 1073 | 101 |
| Turn Type | Prot | NA | Perm |
| Protected Phases | 7 | 4 | |
| Permitted Phases | | | 4 |
| Actuated Green, G (s) | 25.2 | 58.8 | 58.8 |
| Effective Green, g (s) | 25.2 | 58.8 | 58.8 |
| Actuated g/C Ratio | 0.11 | 0.26 | 0.26 |
| Clearance Time (s) | 9.8 | 9.8 | 9.8 |
| Vehicle Extension (s) | 4.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 376 | 1299 | 404 |
| v/s Ratio Prot | c0.19 | c0.21 | |
| v/s Ratio Perm | | | 0.06 |
| v/c Ratio | 1.77 | 0.83 | 0.25 |
| Uniform Delay, d1 | 102.4 | 80.8 | 68.1 |
| Progression Factor | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 356.6 | 4.4 | 0.3 |
| Delay (s) | 459.0 | 85.2 | 68.4 |
| Level of Service | F | F | E |
| Approach Delay (s) | | 209.6 | |
| Approach LOS | | F | |

| Intersection Summary |
|---|

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 47 | 89 | 1217 | 202 | 69 | 0 | 474 | 1134 | 91 | 2 | 1147 | 29 |
| Future Volume (vph) | 47 | 89 | 1217 | 202 | 69 | 0 | 474 | 1134 | 91 | 2 | 1147 | 29 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.2 | 7.2 | | 7.2 | | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 |
| Lane Util. Factor | | 1.00 | 1.00 | | 1.00 | | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frt | | 1.00 | 0.85 | | 1.00 | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.98 | 1.00 | | 0.96 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1831 | 1583 | | 1796 | | 1770 | 3539 | 1583 | 1770 | 3539 | 1583 |
| Flt Permitted | | 0.81 | 1.00 | | 0.66 | | 0.07 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 1517 | 1583 | | 1238 | | 127 | 3539 | 1583 | 1770 | 3539 | 1583 |
| 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) | 51 | 96 | 1309 | 217 | 74 | 0 | 510 | 1219 | 98 | 2 | 1233 | 31 |
| RTOR Reduction (vph) | 0 | 0 | 233 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 21 |
| Lane Group Flow (vph) | 0 | 147 | 1076 | 0 | 291 | 0 | 510 | 1219 | 59 | 2 | 1233 | 10 |
| Turn Type | Perm | NA | Perm | Perm | NA | | pm+pt | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 8 | | | 4 | | 1 | 6 | | 5 | 2 | |
| Permitted Phases | 8 | | 8 | 4 | | | 6 | | 6 | | | 2 |
| Actuated Green, G (s) | | 53.8 | 53.8 | | 53.8 | | 87.6 | 79.7 | 79.7 | 1.0 | 51.6 | 51.6 |
| Effective Green, g (s) | | 53.8 | 53.8 | | 53.8 | | 87.6 | 79.7 | 79.7 | 1.0 | 51.6 | 51.6 |
| Actuated g/C Ratio | | 0.35 | 0.35 | | 0.35 | | 0.56 | 0.51 | 0.51 | 0.01 | 0.33 | 0.33 |
| Clearance Time (s) | | 7.2 | 7.2 | | 7.2 | | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 |
| Vehicle Extension (s) | | 3.0 | 3.0 | | 3.0 | | 4.0 | 4.0 | 4.0 | 3.0 | 5.0 | 5.0 |
| Lane Grp Cap (vph) | | 524 | 547 | | 428 | | 379 | 1813 | 811 | 11 | 1174 | 525 |
| v/s Ratio Prot | | | | | | | c0.25 | 0.34 | | 0.00 | 0.35 | |
| v/s Ratio Perm | | 0.10 | c0.68 | | 0.24 | | c0.50 | | 0.04 | | | 0.01 |
| v/c Ratio | | 0.28 | 1.97 | | 0.68 | | 1.35 | 0.67 | 0.07 | 0.18 | 1.05 | 0.02 |
| Uniform Delay, d1 | | 36.8 | 50.9 | | 43.5 | | 52.5 | 28.2 | 19.2 | 76.8 | 52.0 | 34.9 |
| Progression Factor | | 1.00 | 1.00 | | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 0.3 | 441.4 | | 4.3 | | 172.2 | 2.0 | 0.2 | 7.8 | 40.5 | 0.1 |
| Delay (s) | | 37.1 | 492.2 | | 47.8 | | 224.8 | 30.2 | 19.4 | 84.7 | 92.5 | 35.0 |
| Level of Service | | D | F | | D | | F | C | B | F | F | D |
| Approach Delay (s) | | 446.3 | | | 47.8 | | | 83.9 | | | 91.0 | |
| Approach LOS | | F | | | D | | | F | | | F | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 192.6 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.62 | | |
| Actuated Cycle Length (s) | 155.5 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 139.6% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 6 | 1432 | 114 | 429 | 1705 | 2 | 2 | 200 | 2 | 371 | 6 | 6 |
| Future Volume (vph) | 6 | 1432 | 114 | 429 | 1705 | 2 | 2 | 200 | 2 | 371 | 6 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | | | | 8.3 | 8.3 | | 8.3 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | | | | 1.00 | 1.00 | | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | | | | 1.00 | 0.85 | | 1.00 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | | | | 0.95 | 1.00 | | 0.98 |
| Satd. Flow (prot) | 1770 | 3539 | 1583 | 1770 | 3539 | | | | 1775 | 1583 | | 1817 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | | | | 0.72 | 1.00 | | 0.76 |
| Satd. Flow (perm) | 1770 | 3539 | 1583 | 1770 | 3539 | | | | 1341 | 1583 | | 1414 |
| 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) | 6 | 1540 | 123 | 461 | 1833 | 2 | 2 | 215 | 2 | 399 | 6 | 6 |
| RTOR Reduction (vph) | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 276 | 0 | 0 |
| Lane Group Flow (vph) | 6 | 1540 | 54 | 461 | 1835 | 0 | 0 | 0 | 219 | 123 | 0 | 12 |
| Turn Type | Prot | NA | Perm | Prot | NA | | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | | 4 | 4 | | 4 | 8 | |
| Actuated Green, G (s) | 1.4 | 55.6 | 55.6 | 29.1 | 83.3 | | | | 18.7 | 18.7 | | 18.7 |
| Effective Green, g (s) | 1.4 | 55.6 | 55.6 | 29.1 | 83.3 | | | | 18.7 | 18.7 | | 18.7 |
| Actuated g/C Ratio | 0.01 | 0.44 | 0.44 | 0.23 | 0.66 | | | | 0.15 | 0.15 | | 0.15 |
| Clearance Time (s) | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | | | | 8.3 | 8.3 | | 8.3 |
| Vehicle Extension (s) | 2.0 | 4.0 | 4.0 | 3.0 | 4.0 | | | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | 19 | 1567 | 701 | 410 | 2348 | | | | 199 | 235 | | 210 |
| v/s Ratio Prot | 0.00 | c0.44 | | c0.26 | 0.52 | | | | | | | |
| v/s Ratio Perm | | | 0.03 | | | | | | c0.16 | 0.08 | | 0.01 |
| v/c Ratio | 0.32 | 0.98 | 0.08 | 1.12 | 0.78 | | | | 1.10 | 0.52 | | 0.06 |
| Uniform Delay, d1 | 61.6 | 34.5 | 20.2 | 48.2 | 14.7 | | | | 53.4 | 49.3 | | 45.8 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | 3.5 | 19.0 | 0.2 | 82.8 | 2.7 | | | | 93.3 | 2.1 | | 0.1 |
| Delay (s) | 65.0 | 53.5 | 20.4 | 131.0 | 17.4 | | | | 146.7 | 51.4 | | 45.9 |
| Level of Service | E | D | C | F | B | | | | F | D | | D |
| Approach Delay (s) | | 51.1 | | | 40.2 | | | | 85.2 | | | 45.7 |
| Approach LOS | | D | | | D | | | | F | | | D |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 50.2 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 1.04 | | |
| Actuated Cycle Length (s) | 125.5 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 99.7% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 21 |
| Future Volume (vph) | 21 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | 8.3 |
| Lane Util. Factor | 1.00 |
| Frt | 0.85 |
| Flt Protected | 1.00 |
| Satd. Flow (prot) | 1583 |
| Flt Permitted | 1.00 |
| Satd. Flow (perm) | 1583 |
| Peak-hour factor, PHF | 0.93 |
| Adj. Flow (vph) | 23 |
| RTOR Reduction (vph) | 20 |
| Lane Group Flow (vph) | 3 |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 8 |
| Actuated Green, G (s) | 18.7 |
| Effective Green, g (s) | 18.7 |
| Actuated g/C Ratio | 0.15 |
| Clearance Time (s) | 8.3 |
| Vehicle Extension (s) | 3.0 |
| Lane Grp Cap (vph) | 235 |
| v/s Ratio Prot | |
| v/s Ratio Perm | 0.00 |
| v/c Ratio | 0.01 |
| Uniform Delay, d1 | 45.5 |
| Progression Factor | 1.00 |
| Incremental Delay, d2 | 0.0 |
| Delay (s) | 45.6 |
| Level of Service | D |
| Approach Delay (s) | |
| Approach LOS | |

| Intersection Summary |
|---|

| Movement | EBU | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 225 | 705 | 6 | 23 | 1018 | 17 | 41 | 101 | 23 | 44 | 124 |
| Future Volume (vph) | 1 | 225 | 705 | 6 | 23 | 1018 | 17 | 41 | 101 | 23 | 44 | 124 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.9 | 6.9 | | 6.9 | 6.9 | | 7.5 | 7.5 | | | 7.5 |
| Lane Util. Factor | | 1.00 | 0.95 | | 1.00 | 0.95 | | 1.00 | 1.00 | | | 1.00 |
| Frt | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 0.97 | | | 0.94 |
| Flt Protected | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | | 0.99 |
| Satd. Flow (prot) | | 1770 | 3535 | | 1770 | 3531 | | 1770 | 1811 | | | 1740 |
| Flt Permitted | | 0.22 | 1.00 | | 0.34 | 1.00 | | 0.32 | 1.00 | | | 0.92 |
| Satd. Flow (perm) | | 410 | 3535 | | 642 | 3531 | | 589 | 1811 | | | 1614 |
| 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) | 1 | 242 | 758 | 6 | 25 | 1095 | 18 | 44 | 109 | 25 | 47 | 133 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 0 | 24 |
| Lane Group Flow (vph) | 0 | 243 | 764 | 0 | 25 | 1112 | 0 | 44 | 127 | 0 | 0 | 297 |
| Turn Type | Perm | Perm | NA | | Perm | NA | | Perm | NA | | Perm | NA |
| Protected Phases | | | 6 | | | 2 | | | 4 | | | 8 |
| Permitted Phases | 6 | 6 | | | 2 | | | 4 | | | 8 | |
| Actuated Green, G (s) | | 78.1 | 78.1 | | 78.1 | 78.1 | | 22.5 | 22.5 | | | 22.5 |
| Effective Green, g (s) | | 78.1 | 78.1 | | 78.1 | 78.1 | | 22.5 | 22.5 | | | 22.5 |
| Actuated g/C Ratio | | 0.68 | 0.68 | | 0.68 | 0.68 | | 0.20 | 0.20 | | | 0.20 |
| Clearance Time (s) | | 6.9 | 6.9 | | 6.9 | 6.9 | | 7.5 | 7.5 | | | 7.5 |
| Vehicle Extension (s) | | 5.0 | 5.0 | | 5.0 | 5.0 | | 4.0 | 4.0 | | | 4.0 |
| Lane Grp Cap (vph) | | 278 | 2400 | | 436 | 2398 | | 115 | 354 | | | 315 |
| v/s Ratio Prot | | | 0.22 | | | 0.31 | | | 0.07 | | | |
| v/s Ratio Perm | | c0.59 | | | 0.04 | | | 0.07 | | | | c0.18 |
| v/c Ratio | | 0.87 | 0.32 | | 0.06 | 0.46 | | 0.38 | 0.36 | | | 0.94 |
| Uniform Delay, d1 | | 14.6 | 7.6 | | 6.2 | 8.6 | | 40.2 | 40.0 | | | 45.6 |
| Progression Factor | | 1.00 | 1.00 | | 0.15 | 0.11 | | 1.00 | 1.00 | | | 1.00 |
| Incremental Delay, d2 | | 29.5 | 0.3 | | 0.2 | 0.4 | | 2.9 | 0.8 | | | 35.9 |
| Delay (s) | | 44.1 | 7.9 | | 1.1 | 1.4 | | 43.1 | 40.9 | | | 81.5 |
| Level of Service | | D | A | | A | A | | D | D | | | F |
| Approach Delay (s) | | | 16.6 | | | 1.4 | | | 41.4 | | | 81.5 |
| Approach LOS | | | B | | | A | | | D | | | F |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 19.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.89 | | |
| Actuated Cycle Length (s) | 115.0 | Sum of lost time (s) | 14.4 |
| Intersection Capacity Utilization | 93.0% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 131 |
| Future Volume (vph) | 131 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | |
| Lane Util. Factor | |
| Frt | |
| Flt Protected | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Peak-hour factor, PHF | 0.93 |
| Adj. Flow (vph) | 141 |
| RTOR Reduction (vph) | 0 |
| Lane Group Flow (vph) | 0 |
| Turn Type | |
| Protected Phases | |
| Permitted Phases | |
| Actuated Green, G (s) | |
| Effective Green, g (s) | |
| Actuated g/C Ratio | |
| Clearance Time (s) | |
| Vehicle Extension (s) | |
| Lane Grp Cap (vph) | |
| v/s Ratio Prot | |
| v/s Ratio Perm | |
| v/c Ratio | |
| Uniform Delay, d1 | |
| Progression Factor | |
| Incremental Delay, d2 | |
| Delay (s) | |
| Level of Service | |
| Approach Delay (s) | |
| Approach LOS | |
| Intersection Summary | |

| Movement | EBL | EBR | SET | SER | NWL | NWT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 829 | 2070 | 0 | 944 | 1536 |
| Future Volume (vph) | 0 | 829 | 2070 | 0 | 944 | 1536 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 8.1 | 8.1 | | 8.4 | 8.1 |
| Lane Util. Factor | | 1.00 | 0.91 | | 0.97 | 0.91 |
| Frt | | 0.86 | 1.00 | | 1.00 | 1.00 |
| Flt Protected | | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | | 1611 | 5085 | | 3433 | 5085 |
| Flt Permitted | | 1.00 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (perm) | | 1611 | 5085 | | 3433 | 5085 |
| Peak-hour factor, PHF | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Adj. Flow (vph) | 0 | 891 | 2226 | 0 | 1015 | 1652 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 891 | 2226 | 0 | 1015 | 1652 |
| Turn Type | | Perm | NA | | Prot | NA |
| Protected Phases | | | 6 | | 5 | 2 |
| Permitted Phases | | 2 5 6 | | | | |
| Actuated Green, G (s) | | 115.0 | 57.9 | | 40.6 | 115.0 |
| Effective Green, g (s) | | 115.0 | 57.9 | | 40.6 | 115.0 |
| Actuated g/C Ratio | | 1.00 | 0.50 | | 0.35 | 1.00 |
| Clearance Time (s) | | | 8.1 | | 8.4 | 8.1 |
| Vehicle Extension (s) | | | 1.0 | | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 1611 | 2560 | | 1211 | 5085 |
| v/s Ratio Prot | | | c0.44 | | c0.30 | 0.32 |
| v/s Ratio Perm | | 0.55 | | | | |
| v/c Ratio | | 0.55 | 0.87 | | 0.84 | 0.32 |
| Uniform Delay, d1 | | 0.0 | 25.2 | | 34.2 | 0.0 |
| Progression Factor | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | | 0.2 | 4.4 | | 5.0 | 0.2 |
| Delay (s) | | 0.2 | 29.6 | | 39.2 | 0.2 |
| Level of Service | | A | C | | D | A |
| Approach Delay (s) | 0.2 | | 29.6 | | | 15.0 |
| Approach LOS | A | | C | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 18.3 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.86 | | |
| Actuated Cycle Length (s) | 115.0 | Sum of lost time (s) | 16.5 |
| Intersection Capacity Utilization | 104.8% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |

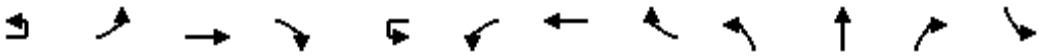
c Critical Lane Group

| Movement | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 396 | 74 | 2 | 181 | 524 | 25 | 48 | 0 | 127 | 12 | 6 |
| Future Volume (Veh/h) | 0 | 396 | 74 | 2 | 181 | 524 | 25 | 48 | 0 | 127 | 12 | 6 |
| 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 | 426 | 80 | 0 | 195 | 563 | 27 | 52 | 0 | 137 | 13 | 6 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | 4 | | |
| Median type | | None | | | | TWLTL | | | | | | |
| Median storage veh) | | | | | | 2 | | | | | | |
| Upstream signal (ft) | | 618 | | | | | | | | | | |
| pX, platoon unblocked | | | | 0.00 | | | | | | | | |
| vC, conflicting volume | 590 | | | 0 | 506 | | | 1140 | 1446 | 253 | 1180 | 1472 |
| vC1, stage 1 conf vol | | | | | | | | 466 | 466 | | 966 | 966 |
| vC2, stage 2 conf vol | | | | | | | | 674 | 980 | | 213 | 506 |
| vCu, unblocked vol | 590 | | | 0 | 506 | | | 1140 | 1446 | 253 | 1180 | 1472 |
| tC, single (s) | 4.1 | | | 0.0 | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 |
| tC, 2 stage (s) | | | | | | | | 6.5 | 5.5 | | 6.5 | 5.5 |
| tF (s) | 2.2 | | | 0.0 | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 |
| p0 queue free % | 100 | | | 0 | 82 | | | 82 | 100 | 82 | 94 | 97 |
| cM capacity (veh/h) | 982 | | | 0 | 1055 | | | 293 | 246 | 746 | 207 | 227 |

| Direction, Lane # | EB 1 | EB 2 | EB 3 | WB 1 | WB 2 | WB 3 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|---|---|
| Volume Total | 0 | 284 | 222 | 195 | 375 | 215 | 189 | 21 |
| Volume Left | 0 | 0 | 0 | 195 | 0 | 0 | 52 | 13 |
| Volume Right | 0 | 0 | 80 | 0 | 0 | 27 | 137 | 2 |
| cSH | 1700 | 1700 | 1700 | 1055 | 1700 | 1700 | 1030 | 236 |
| Volume to Capacity | 0.00 | 0.17 | 0.13 | 0.18 | 0.22 | 0.13 | 0.18 | 0.09 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 7 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 9.2 | 0.0 | 0.0 | 13.4 | 22.2 |
| Lane LOS | | | | A | | | B | C |
| Approach Delay (s) | 0.0 | | | 2.3 | | | 13.4 | 22.2 |
| Approach LOS | | | | | | | B | C |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 3.2 | | | |
| Intersection Capacity Utilization | 48.0% | ICU Level of Service | | A |
| Analysis Period (min) | 15 | | | |

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (veh/h) | 2 |
| Future Volume (Veh/h) | 2 |
| Sign Control | |
| Grade | |
| Peak Hour Factor | 0.93 |
| Hourly flow rate (vph) | 2 |
| Pedestrians | |
| Lane Width (ft) | |
| Walking Speed (ft/s) | |
| Percent Blockage | |
| Right turn flare (veh) | 4 |
| Median type | |
| Median storage veh) | |
| Upstream signal (ft) | |
| pX, platoon unblocked | |
| vC, conflicting volume | 295 |
| vC1, stage 1 conf vol | |
| vC2, stage 2 conf vol | |
| vCu, unblocked vol | 295 |
| tC, single (s) | 6.9 |
| tC, 2 stage (s) | |
| tF (s) | 3.3 |
| p0 queue free % | 100 |
| cM capacity (veh/h) | 701 |
| Direction, Lane # | |



| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 1 | 4 | 1431 | 18 | 2 | 14 | 1932 | 3 | 19 | 0 | 36 | 0 |
| Future Volume (Veh/h) | 1 | 4 | 1431 | 18 | 2 | 14 | 1932 | 3 | 19 | 0 | 36 | 0 |
| Sign Control | | | Free | | | | Free | | | Stop | | |
| Grade | | | 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 | 4 | 1539 | 19 | 0 | 15 | 2077 | 3 | 20 | 0 | 39 | 0 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | | None | | | | None | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | 0.00 | | | | 0.00 | | | | | | | |
| vC, conflicting volume | 0 | 2080 | | | 0 | 1558 | | | 2287 | 3666 | 522 | 2668 |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 0 | 2080 | | | 0 | 1558 | | | 2287 | 3666 | 522 | 2668 |
| tC, single (s) | 0.0 | 4.1 | | | 0.0 | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.5 |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 0.0 | 2.2 | | | 0.0 | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 |
| p0 queue free % | 0 | 98 | | | 0 | 96 | | | 0 | 100 | 92 | 100 |
| cM capacity (veh/h) | 0 | 263 | | | 0 | 421 | | | 17 | 5 | 499 | 10 |

| Direction, Lane # | EB 1 | EB 2 | EB 3 | EB 4 | WB 1 | WB 2 | WB 3 | WB 4 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|---|---|---|---|
| Volume Total | 4 | 616 | 616 | 327 | 15 | 831 | 831 | 418 | 59 | 9 |
| Volume Left | 4 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 20 | 0 |
| Volume Right | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 3 | 39 | 8 |
| cSH | 263 | 1700 | 1700 | 1700 | 421 | 1700 | 1700 | 1700 | 46 | 37 |
| Volume to Capacity | 0.02 | 0.36 | 0.36 | 0.19 | 0.04 | 0.49 | 0.49 | 0.25 | 1.28 | 0.24 |
| Queue Length 95th (ft) | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 140 | 20 |
| Control Delay (s) | 18.9 | 0.0 | 0.0 | 0.0 | 13.9 | 0.0 | 0.0 | 0.0 | 368.5 | 131.7 |
| Lane LOS | C | | | | B | | | | F | F |
| Approach Delay (s) | 0.0 | | | | 0.1 | | | | 368.5 | 131.7 |
| Approach LOS | | | | | | | | | F | F |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 6.2 | | | |
| Intersection Capacity Utilization | 54.0% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (veh/h) | 1 | 7 |
| Future Volume (Veh/h) | 1 | 7 |
| Sign Control | Stop | |
| Grade | 0% | |
| Peak Hour Factor | 0.93 | 0.93 |
| Hourly flow rate (vph) | 1 | 8 |
| Pedestrians | | |
| Lane Width (ft) | | |
| Walking Speed (ft/s) | | |
| Percent Blockage | | |
| Right turn flare (veh) | | |
| Median type | | |
| Median storage veh) | | |
| Upstream signal (ft) | | |
| pX, platoon unblocked | | |
| vC, conflicting volume | 3674 | 694 |
| vC1, stage 1 conf vol | | |
| vC2, stage 2 conf vol | | |
| vCu, unblocked vol | 3674 | 694 |
| tC, single (s) | 6.5 | 6.9 |
| tC, 2 stage (s) | | |
| tF (s) | 4.0 | 3.3 |
| p0 queue free % | 78 | 98 |
| cM capacity (veh/h) | 4 | 385 |
| Direction, Lane # | | |

| Movement | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 2581 | 136 | 3 | 48 | 2074 | 0 | 63 | 0 | 45 | 0 | 0 |
| Future Volume (Veh/h) | 0 | 2581 | 136 | 3 | 48 | 2074 | 0 | 63 | 0 | 45 | 0 | 0 |
| 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 | 2775 | 146 | 0 | 52 | 2230 | 0 | 68 | 0 | 48 | 0 | 0 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | TWLTL | | | | None | | | | | | |
| Median storage veh) | | 2 | | | | | | | | | | |
| Upstream signal (ft) | | | | | | 926 | | | | | | |
| pX, platoon unblocked | 0.76 | | | 0.00 | | | | 0.76 | 0.76 | | 0.76 | 0.76 |
| vC, conflicting volume | 2230 | | | 0 | 2921 | | | 3696 | 5182 | 998 | 3307 | 5255 |
| vC1, stage 1 conf vol | | | | | | | | 2848 | 2848 | | 2334 | 2334 |
| vC2, stage 2 conf vol | | | | | | | | 848 | 2334 | | 973 | 2921 |
| vCu, unblocked vol | 1527 | | | 0 | 2921 | | | 3447 | 5393 | 998 | 2937 | 5489 |
| tC, single (s) | 4.1 | | | 0.0 | 4.1 | | | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 |
| tC, 2 stage (s) | | | | | | | | 6.5 | 5.5 | | 6.5 | 5.5 |
| tF (s) | 2.2 | | | 0.0 | 2.2 | | | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 |
| p0 queue free % | 100 | | | 0 | 57 | | | 0 | 100 | 80 | 100 | 100 |
| cM capacity (veh/h) | 330 | | | 0 | 122 | | | 17 | 30 | 242 | 41 | 0 |

| Direction, Lane # | EB 1 | EB 2 | EB 3 | EB 4 | WB 1 | WB 2 | WB 3 | NB 1 | SB 1 |
|---|---|---|---|---|---|---|---|---|---|
| Volume Total | 0 | 1110 | 1110 | 701 | 610 | 1115 | 558 | 116 | 1 |
| Volume Left | 0 | 0 | 0 | 0 | 52 | 0 | 0 | 68 | 0 |
| Volume Right | 0 | 0 | 0 | 146 | 0 | 0 | 0 | 48 | 1 |
| cSH | 1700 | 1700 | 1700 | 1700 | 122 | 1700 | 1700 | 27 | 828 |
| Volume to Capacity | 0.00 | 0.65 | 0.65 | 0.41 | 0.43 | 0.66 | 0.33 | 4.26 | 0.00 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 46 | 0 | 0 | Err | 0 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 36.7 | 0.0 | 0.0 | Err | 9.4 |
| Lane LOS | | | | | E | | | F | A |
| Approach Delay (s) | 0.0 | | | | 9.8 | | | Err | 9.4 |
| Approach LOS | | | | | | | | F | A |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 222.2 | | | |
| Intersection Capacity Utilization | 96.2% | ICU Level of Service | | F |
| Analysis Period (min) | 15 | | | |

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (veh/h) | 1 |
| Future Volume (Veh/h) | 1 |
| Sign Control | |
| Grade | |
| Peak Hour Factor | 0.93 |
| Hourly flow rate (vph) | 1 |
| Pedestrians | |
| Lane Width (ft) | |
| Walking Speed (ft/s) | |
| Percent Blockage | |
| Right turn flare (veh) | |
| Median type | |
| Median storage veh) | |
| Upstream signal (ft) | |
| pX, platoon unblocked | 0.76 |
| vC, conflicting volume | 743 |
| vC1, stage 1 conf vol | |
| vC2, stage 2 conf vol | |
| vCu, unblocked vol | 0 |
| tC, single (s) | 6.9 |
| tC, 2 stage (s) | |
| tF (s) | 3.3 |
| p0 queue free % | 100 |
| cM capacity (veh/h) | 828 |
| Direction, Lane # | |

| Movement | EBU | EBT | EBR | WBL | WBT | NWL | NWR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 3 | 763 | 74 | 0 | 1043 | 66 | 2 |
| Future Volume (Veh/h) | 3 | 763 | 74 | 0 | 1043 | 66 | 2 |
| Sign Control | | Free | | | Free | Stop | |
| Grade | | 0% | | | 0% | 0% | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 | 0.93 |
| Hourly flow rate (vph) | 0 | 820 | 80 | 0 | 1122 | 71 | 2 |
| Pedestrians | | | | | | | |
| Lane Width (ft) | | | | | | | |
| Walking Speed (ft/s) | | | | | | | |
| Percent Blockage | | | | | | | |
| Right turn flare (veh) | | | | | | | |
| Median type | | None | | | None | | |
| Median storage veh) | | | | | | | |
| Upstream signal (ft) | | 1225 | | | 915 | | |
| pX, platoon unblocked | 0.00 | | | 0.92 | | 0.92 | 0.92 |
| vC, conflicting volume | 0 | | | 900 | | 1421 | 450 |
| vC1, stage 1 conf vol | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | |
| vCu, unblocked vol | 0 | | | 727 | | 1291 | 240 |
| tC, single (s) | 0.0 | | | 4.1 | | 6.8 | 6.9 |
| tC, 2 stage (s) | | | | | | | |
| tF (s) | 0.0 | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | 0 | | | 100 | | 50 | 100 |
| cM capacity (veh/h) | 0 | | | 806 | | 143 | 703 |

| Direction, Lane # | EB 1 | EB 2 | EB 3 | WB 1 | WB 2 | WB 3 | NW 1 |
|---|---|---|---|---|---|---|---|
| Volume Total | 547 | 353 | 0 | 0 | 561 | 561 | 73 |
| Volume Left | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| Volume Right | 0 | 80 | 0 | 0 | 0 | 0 | 2 |
| cSH | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 146 |
| Volume to Capacity | 0.32 | 0.21 | 0.00 | 0.00 | 0.33 | 0.33 | 0.50 |
| Queue Length 95th (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 59 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 51.9 |
| Lane LOS | | | | | | | F |
| Approach Delay (s) | 0.0 | | | 0.0 | | | 51.9 |
| Approach LOS | | | | | | | F |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.8 | | |
| Intersection Capacity Utilization | 39.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

## Arterial Level of Service: EB SR 580

| Cross Street | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---|---|---|---|---|---|---|---|---|
| Main St | II | 39 | 44.7 | 20.2 | 64.9 | 0.48 | 26.6 | C |
| Patricia Ave | II | 40 | 40.8 | 24.0 | 64.8 | 0.42 | 23.6 | C |
| Crosley Dr | II | 40 | 27.8 | 6.7 | 34.5 | 0.25 | 26.4 | C |
| Lake Haven Rd | II | 40 | 15.2 | 2.9 | 18.1 | 0.13 | 26.3 | C |
| Keene Rd | II | 45 | 35.4 | 59.5 | 94.9 | 0.37 | 14.0 | E |
| Achieva Way | II | 45 | 27.9 | 10.9 | 38.8 | 0.27 | 24.9 | C |
| Overcash Dr | II | 45 | 20.0 | 7.7 | 27.7 | 0.18 | 23.9 | C |
| Pinewood Dr | II | 45 | 30.8 | 10.4 | 41.2 | 0.31 | 27.2 | C |
| Belcher Rd | II | 45 | 26.4 | 38.3 | 64.7 | 0.25 | 14.1 | E |
| US 19 Frontage | II | 45 | 42.4 | 218.7 | 261.1 | 0.53 | 7.3 | F |
| Summerdale Dr | II | 45 | 26.8 | 1.2 | 28.0 | 0.26 | 33.2 | B |
| Countryside Blvd | II | 45 | 43.6 | 81.8 | 125.4 | 0.55 | 15.7 | E |
| Landmark Dr | II | 45 | 45.8 | 17.8 | 63.6 | 0.52 | 29.5 | B |
| Charles Ave | II | 45 | 32.5 | 3.3 | 35.8 | 0.34 | 34.0 | B |
| McMullen Booth Rd | II | 45 | 23.7 | 49.6 | 73.3 | 0.22 | 10.7 | F |
| SR 590 | II | 45 | 75.7 | 70.0 | 145.7 | 0.95 | 23.4 | C |
| St Petersburg Dr | II | 45 | 97.2 | 27.8 | 125.0 | 1.22 | 35.0 | B |
| S Bayview Blvd | II | 45 | 58.7 | 8.0 | 66.7 | 0.73 | 39.6 | A |
| Tampa Rd | II | 45 | 38.1 | 4.5 | 42.6 | 0.41 | 34.3 | B |
| Total | II | | 753.5 | 663.3 | 1416.8 | 8.39 | 21.3 | D |

## Arterial Level of Service: WB SR 580

| Cross Street | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---|---|---|---|---|---|---|---|---|
| S Bayview Blvd | II | 45 | 38.1 | 1.4 | 39.5 | 0.41 | 36.9 | A |
| Forest Lakes Blvd | II | 45 | 58.7 | 118.6 | 177.3 | 0.73 | 14.9 | E |
| 2nd St | II | 45 | 97.2 | 15.1 | 112.3 | 1.22 | 39.0 | A |
| McMullen Booth Rd | II | 45 | 75.7 | 86.4 | 162.1 | 0.95 | 21.0 | D |
| Charles Ave | II | 45 | 23.7 | 7.2 | 30.9 | 0.22 | 25.4 | C |
| Landmark Dr | II | 45 | 32.5 | 16.1 | 48.6 | 0.34 | 25.0 | C |
| Countryside Blvd | II | 45 | 45.8 | 30.4 | 76.2 | 0.52 | 24.6 | C |
| Summerdale Dr | II | 45 | 43.6 | 17.1 | 60.7 | 0.55 | 32.3 | B |
| US 19 Frontage | II | 45 | 26.8 | 56.2 | 83.0 | 0.26 | 11.2 | F |
| Belcher Rd | II | 45 | 42.4 | 38.0 | 80.4 | 0.53 | 23.8 | C |
| King Arthur Ct | II | 45 | 26.4 | 10.6 | 37.0 | 0.25 | 24.7 | C |
| Overcash Dr | II | 45 | 30.8 | 7.0 | 37.8 | 0.31 | 29.6 | B |
| Sunlight Dr | II | 45 | 20.0 | 16.6 | 36.6 | 0.18 | 18.1 | D |
| CR 1 | II | 45 | 27.9 | 42.7 | 70.6 | 0.27 | 13.7 | E |
| Lake Haven Rd | II | 45 | 35.4 | 0.5 | 35.9 | 0.37 | 37.0 | A |
| Pinehurst Rd | II | 40 | 15.2 | 5.7 | 20.9 | 0.13 | 22.8 | C |
| Patricia Ave | II | 40 | 27.8 | 11.1 | 38.9 | 0.25 | 23.4 | C |
| Bass Blvd | II | 40 | 40.8 | 7.1 | 47.9 | 0.42 | 31.9 | B |
| Alt 19 | II | 39 | 44.7 | 0.0 | 44.7 | 0.48 | 38.7 | A |
| Total | II | | 753.5 | 487.8 | 1241.3 | 8.39 | 24.3 | C |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 3 | 0 | 158 | 4 | 308 | 1 | 3 | 718 | 190 | 283 | 487 |
| Future Volume (vph) | 0 | 3 | 0 | 158 | 4 | 308 | 1 | 3 | 718 | 190 | 283 | 487 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.3 | | | 6.7 | 6.7 | | | 6.7 | 6.7 | 6.5 | 6.7 |
| Lane Util. Factor | | 1.00 | | | 1.00 | 1.00 | | | 0.95 | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | | | 1.00 | 0.85 | | | 1.00 | 0.85 | 1.00 | 1.00 |
| Flt Protected | | 1.00 | | | 0.95 | 1.00 | | | 1.00 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | | 1863 | | | 1776 | 1583 | | | 3538 | 1583 | 1770 | 1858 |
| Flt Permitted | | 1.00 | | | 0.73 | 1.00 | | | 0.95 | 1.00 | 0.20 | 1.00 |
| Satd. Flow (perm) | | 1863 | | | 1359 | 1583 | | | 3369 | 1583 | 381 | 1858 |
| 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 | 3 | 0 | 168 | 4 | 328 | 1 | 3 | 764 | 202 | 301 | 518 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 261 | 0 | 0 | 0 | 134 | 0 | 1 |
| Lane Group Flow (vph) | 0 | 3 | 0 | 0 | 172 | 67 | 0 | 0 | 768 | 68 | 301 | 526 |
| Turn Type | | NA | | Perm | NA | Perm | Perm | Perm | NA | Perm | pm+pt | NA |
| Protected Phases | | 8 | | | 4 | | | | 6 | | 5 | 2 |
| Permitted Phases | 8 | | | 4 | | 4 | 6 | 6 | | 6 | 2 | |
| Actuated Green, G (s) | | 12.6 | | | 13.2 | 13.2 | | | 21.8 | 21.8 | 38.2 | 38.2 |
| Effective Green, g (s) | | 12.6 | | | 13.2 | 13.2 | | | 21.8 | 21.8 | 38.2 | 38.2 |
| Actuated g/C Ratio | | 0.19 | | | 0.20 | 0.20 | | | 0.34 | 0.34 | 0.59 | 0.59 |
| Clearance Time (s) | | 7.3 | | | 6.7 | 6.7 | | | 6.7 | 6.7 | 6.5 | 6.7 |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | 3.0 | | | 3.0 | 3.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | | 362 | | | 276 | 322 | | | 1133 | 532 | 436 | 1095 |
| v/s Ratio Prot | | 0.00 | | | | | | | | | c0.11 | 0.28 |
| v/s Ratio Perm | | | | | c0.13 | 0.04 | | | 0.23 | 0.04 | c0.30 | |
| v/c Ratio | | 0.01 | | | 0.62 | 0.21 | | | 0.68 | 0.13 | 0.69 | 0.48 |
| Uniform Delay, d1 | | 21.1 | | | 23.5 | 21.5 | | | 18.5 | 14.9 | 8.7 | 7.6 |
| Progression Factor | | 1.00 | | | 1.00 | 1.00 | | | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 0.0 | | | 4.3 | 0.3 | | | 3.3 | 0.5 | 4.7 | 1.5 |
| Delay (s) | | 21.1 | | | 27.9 | 21.8 | | | 21.8 | 15.4 | 13.3 | 9.1 |
| Level of Service | | C | | | C | C | | | C | B | B | A |
| Approach Delay (s) | | 21.1 | | | 23.9 | | | | 20.4 | | | 10.7 |
| Approach LOS | | C | | | C | | | | C | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 17.7 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.73 | | |
| Actuated Cycle Length (s) | 64.8 | Sum of lost time (s) | 20.5 |
| Intersection Capacity Utilization | 78.5% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 8 |
| Future Volume (vph) | 8 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | |
| Lane Util. Factor | |
| Frt | |
| Flt Protected | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Peak-hour factor, PHF | 0.94 |
| Adj. Flow (vph) | 9 |
| RTOR Reduction (vph) | 0 |
| Lane Group Flow (vph) | 0 |
| Turn Type | |
| Protected Phases | |
| Permitted Phases | |
| Actuated Green, G (s) | |
| Effective Green, g (s) | |
| Actuated g/C Ratio | |
| Clearance Time (s) | |
| Vehicle Extension (s) | |
| Lane Grp Cap (vph) | |
| v/s Ratio Prot | |
| v/s Ratio Perm | |
| v/c Ratio | |
| Uniform Delay, d1 | |
| Progression Factor | |
| Incremental Delay, d2 | |
| Delay (s) | |
| Level of Service | |
| Approach Delay (s) | |
| Approach LOS | |

| Intersection Summary |
|---|

| Movement | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 2 | 712 | 18 | 1 | 145 | 577 | 65 | 12 | 15 | 169 | 30 | 11 |
| Future Volume (vph) | 2 | 712 | 18 | 1 | 145 | 577 | 65 | 12 | 15 | 169 | 30 | 11 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.1 | 7.1 | | | 7.1 | 7.1 | | | 9.1 | 9.1 | 7.0 | 7.0 |
| Lane Util. Factor | 1.00 | 0.95 | | | 1.00 | 0.95 | | | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | | | 1.00 | 0.98 | | | 1.00 | 0.85 | 1.00 | 0.95 |
| Flt Protected | 0.95 | 1.00 | | | 0.95 | 1.00 | | | 0.98 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 1593 | 3174 | | | 1593 | 3137 | | | 1640 | 1425 | 1593 | 1593 |
| Flt Permitted | 0.95 | 1.00 | | | 0.95 | 1.00 | | | 0.98 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 1593 | 3174 | | | 1593 | 3137 | | | 1640 | 1425 | 1593 | 1593 |
| 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) | 2 | 757 | 19 | 1 | 154 | 614 | 69 | 13 | 16 | 180 | 32 | 12 |
| RTOR Reduction (vph) | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 171 | 0 | 6 |
| Lane Group Flow (vph) | 2 | 775 | 0 | 0 | 155 | 678 | 0 | 0 | 29 | 9 | 32 | 12 |
| Turn Type | Prot | NA | | Prot | Prot | NA | | Split | NA | Perm | Split | NA |
| Protected Phases | 1 | 6 | | 5 | 5 | 2 | | 4 | 4 | | 8 | 8 |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | 1.2 | 63.2 | | | 15.1 | 77.1 | | | 6.1 | 6.1 | 5.3 | 5.3 |
| Effective Green, g (s) | 1.2 | 63.2 | | | 15.1 | 77.1 | | | 6.1 | 6.1 | 5.3 | 5.3 |
| Actuated g/C Ratio | 0.01 | 0.53 | | | 0.13 | 0.64 | | | 0.05 | 0.05 | 0.04 | 0.04 |
| Clearance Time (s) | 7.1 | 7.1 | | | 7.1 | 7.1 | | | 9.1 | 9.1 | 7.0 | 7.0 |
| Vehicle Extension (s) | 1.0 | 1.0 | | | 1.0 | 1.0 | | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 15 | 1671 | | | 200 | 2015 | | | 83 | 72 | 70 | 70 |
| v/s Ratio Prot | 0.00 | c0.24 | | | c0.10 | 0.22 | | | c0.02 | | c0.02 | 0.01 |
| v/s Ratio Perm | | | | | | | | | | 0.01 | | |
| v/c Ratio | 0.13 | 0.46 | | | 0.78 | 0.34 | | | 0.35 | 0.13 | 0.46 | 0.18 |
| Uniform Delay, d1 | 58.9 | 17.8 | | | 50.8 | 9.8 | | | 55.0 | 54.4 | 55.9 | 55.2 |
| Progression Factor | 1.00 | 1.00 | | | 0.82 | 1.20 | | | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 1.5 | 0.9 | | | 14.6 | 0.4 | | | 0.9 | 0.3 | 1.7 | 0.4 |
| Delay (s) | 60.4 | 18.7 | | | 56.4 | 12.2 | | | 56.0 | 54.7 | 57.7 | 55.7 |
| Level of Service | E | B | | | E | B | | | E | D | E | E |
| Approach Delay (s) | | 18.8 | | | | 20.4 | | | 54.9 | | | 57.0 |
| Approach LOS | | B | | | | C | | | D | | | E |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 24.5 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.51 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 30.3 |
| Intersection Capacity Utilization | 72.5% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 6 |
| Future Volume (vph) | 6 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | |
| Lane Util. Factor | |
| Frt | |
| Flt Protected | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Peak-hour factor, PHF | 0.94 |
| Adj. Flow (vph) | 6 |
| RTOR Reduction (vph) | 0 |
| Lane Group Flow (vph) | 0 |
| Turn Type | |
| Protected Phases | |
| Permitted Phases | |
| Actuated Green, G (s) | |
| Effective Green, g (s) | |
| Actuated g/C Ratio | |
| Clearance Time (s) | |
| Vehicle Extension (s) | |
| Lane Grp Cap (vph) | |
| v/s Ratio Prot | |
| v/s Ratio Perm | |
| v/c Ratio | |
| Uniform Delay, d1 | |
| Progression Factor | |
| Incremental Delay, d2 | |
| Delay (s) | |
| Level of Service | |
| Approach Delay (s) | |
| Approach LOS | |

| Intersection Summary |
|---|

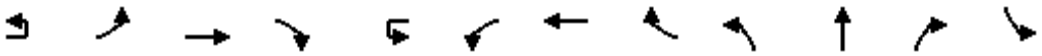
| Movement | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 905 | 86 | 10 | 310 | 907 | 8 | 2 | 116 | 2 | 325 | 5 |
| Future Volume (vph) | 1 | 905 | 86 | 10 | 310 | 907 | 8 | 2 | 116 | 2 | 325 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.9 | 6.9 | 6.9 | | 6.9 | 6.9 | | | | 6.7 | 6.7 | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | | 0.97 | 0.95 | | | | 1.00 | 0.88 | |
| Frt | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | | | | 1.00 | 0.85 | |
| Flt Protected | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | | | | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 3539 | 1583 | | 3433 | 3534 | | | | 1775 | 2787 | |
| Flt Permitted | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | | | | 0.72 | 1.00 | |
| Satd. Flow (perm) | 1770 | 3539 | 1583 | | 3433 | 3534 | | | | 1340 | 2787 | |
| 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) | 1 | 963 | 91 | 11 | 330 | 965 | 9 | 2 | 123 | 2 | 346 | 5 |
| RTOR Reduction (vph) | 0 | 0 | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 303 | 0 |
| Lane Group Flow (vph) | 1 | 963 | 29 | 0 | 341 | 974 | 0 | 0 | 0 | 127 | 43 | 0 |
| Turn Type | Prot | NA | Perm | Prot | Prot | NA | | Perm | Perm | NA | Perm | Perm |
| Protected Phases | 1 | 6 | | 5 | 5 | 2 | | | | 4 | | |
| Permitted Phases | | | 6 | | | | | 4 | 4 | | 4 | 3 8 |
| Actuated Green, G (s) | 1.0 | 37.6 | 37.6 | | 38.1 | 74.7 | | | | 14.8 | 14.8 | |
| Effective Green, g (s) | 1.0 | 37.6 | 37.6 | | 38.1 | 74.7 | | | | 14.8 | 14.8 | |
| Actuated g/C Ratio | 0.01 | 0.31 | 0.31 | | 0.32 | 0.62 | | | | 0.12 | 0.12 | |
| Clearance Time (s) | 6.9 | 6.9 | 6.9 | | 6.9 | 6.9 | | | | 6.7 | 6.7 | |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | | | | 1.0 | 1.0 | |
| Lane Grp Cap (vph) | 14 | 1108 | 496 | | 1089 | 2199 | | | | 165 | 343 | |
| v/s Ratio Prot | 0.00 | c0.27 | | | 0.10 | c0.28 | | | | | | |
| v/s Ratio Perm | | | 0.02 | | | | | | | c0.09 | 0.02 | |
| v/c Ratio | 0.07 | 0.87 | 0.06 | | 0.31 | 0.44 | | | | 0.77 | 0.12 | |
| Uniform Delay, d1 | 59.0 | 38.9 | 28.8 | | 31.0 | 11.8 | | | | 50.9 | 46.8 | |
| Progression Factor | 1.51 | 0.64 | 1.00 | | 0.83 | 0.48 | | | | 1.00 | 1.00 | |
| Incremental Delay, d2 | 0.7 | 6.7 | 0.0 | | 0.1 | 0.6 | | | | 17.5 | 0.1 | |
| Delay (s) | 89.9 | 31.7 | 28.8 | | 25.7 | 6.3 | | | | 68.4 | 46.9 | |
| Level of Service | F | C | C | | C | A | | | | E | D | |
| Approach Delay (s) | | 31.5 | | | | 11.4 | | | | 52.7 | | |
| Approach LOS | | C | | | | B | | | | D | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 25.8 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.67 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 27.5 |
| Intersection Capacity Utilization | 72.6% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 5 | 4 |
| Future Volume (vph) | 5 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 7.0 | |
| Lane Util. Factor | 1.00 | |
| Frt | 0.96 | |
| Flt Protected | 0.98 | |
| Satd. Flow (prot) | 1759 | |
| Flt Permitted | 0.91 | |
| Satd. Flow (perm) | 1626 | |
| Peak-hour factor, PHF | 0.94 | 0.94 |
| Adj. Flow (vph) | 5 | 4 |
| RTOR Reduction (vph) | 3 | 0 |
| Lane Group Flow (vph) | 11 | 0 |
| Turn Type | NA | |
| Protected Phases | 3 8 | |
| Permitted Phases | | |
| Actuated Green, G (s) | 23.5 | |
| Effective Green, g (s) | 23.5 | |
| Actuated g/C Ratio | 0.20 | |
| Clearance Time (s) | | |
| Vehicle Extension (s) | | |
| Lane Grp Cap (vph) | 318 | |
| v/s Ratio Prot | | |
| v/s Ratio Perm | c0.01 | |
| v/c Ratio | 0.03 | |
| Uniform Delay, d1 | 39.1 | |
| Progression Factor | 1.00 | |
| Incremental Delay, d2 | 0.0 | |
| Delay (s) | 39.1 | |
| Level of Service | D | |
| Approach Delay (s) | 39.1 | |
| Approach LOS | D | |

| Intersection Summary |
|---|



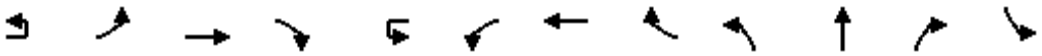
| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 205 | 1336 | 6 | 3 | 32 | 1021 | 304 | 2 | 10 | 8 | 201 |
| Future Volume (vph) | 7 | 205 | 1336 | 6 | 3 | 32 | 1021 | 304 | 2 | 10 | 8 | 201 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.2 | 7.2 | | | 6.8 | 7.2 | 7.2 | | 7.4 | 7.4 | 7.5 |
| Lane Util. Factor | | 1.00 | 0.95 | | | 1.00 | 0.95 | 1.00 | | 1.00 | 1.00 | 0.95 |
| Frt | | 1.00 | 1.00 | | | 1.00 | 1.00 | 0.85 | | 1.00 | 0.85 | 1.00 |
| Flt Protected | | 0.95 | 1.00 | | | 0.95 | 1.00 | 1.00 | | 0.99 | 1.00 | 0.95 |
| Satd. Flow (prot) | | 1770 | 3537 | | | 1770 | 3539 | 1583 | | 1849 | 1583 | 1681 |
| Flt Permitted | | 0.22 | 1.00 | | | 0.16 | 1.00 | 1.00 | | 0.99 | 1.00 | 0.95 |
| Satd. Flow (perm) | | 412 | 3537 | | | 297 | 3539 | 1583 | | 1849 | 1583 | 1681 |
| 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) | 7 | 218 | 1421 | 6 | 3 | 34 | 1086 | 323 | 2 | 11 | 9 | 214 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51 | 0 | 0 | 9 | 0 |
| Lane Group Flow (vph) | 0 | 225 | 1427 | 0 | 0 | 37 | 1086 | 272 | 0 | 13 | 0 | 109 |
| Turn Type | pm+pt | pm+pt | NA | | pm+pt | pm+pt | NA | Perm | Split | NA | Perm | Split |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | 4 | 4 | | 8 |
| Permitted Phases | 6 | 6 | | | 2 | 2 | | 2 | | | 4 | |
| Actuated Green, G (s) | | 195.0 | 184.2 | | | 181.2 | 177.1 | 177.1 | | 3.7 | 3.7 | 19.1 |
| Effective Green, g (s) | | 195.0 | 184.2 | | | 181.2 | 177.1 | 177.1 | | 3.7 | 3.7 | 19.1 |
| Actuated g/C Ratio | | 0.81 | 0.77 | | | 0.75 | 0.74 | 0.74 | | 0.02 | 0.02 | 0.08 |
| Clearance Time (s) | | 7.2 | 7.2 | | | 6.8 | 7.2 | 7.2 | | 7.4 | 7.4 | 7.5 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 395 | 2714 | | | 249 | 2611 | 1168 | | 28 | 24 | 133 |
| v/s Ratio Prot | | c0.03 | c0.40 | | | 0.00 | 0.31 | | | c0.01 | | 0.06 |
| v/s Ratio Perm | | c0.44 | | | | 0.11 | | 0.17 | | | 0.00 | |
| v/c Ratio | | 0.57 | 0.53 | | | 0.15 | 0.42 | 0.23 | | 0.46 | 0.01 | 0.82 |
| Uniform Delay, d1 | | 8.1 | 10.9 | | | 8.9 | 11.9 | 10.0 | | 117.2 | 116.3 | 108.8 |
| Progression Factor | | 1.62 | 0.44 | | | 0.72 | 0.53 | 0.26 | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 1.0 | 0.1 | | | 0.1 | 0.5 | 0.5 | | 4.4 | 0.0 | 29.6 |
| Delay (s) | | 14.2 | 4.8 | | | 6.5 | 6.7 | 3.0 | | 121.5 | 116.4 | 138.4 |
| Level of Service | | B | A | | | A | A | A | | F | F | F |
| Approach Delay (s) | | | 6.1 | | | | 5.9 | | | 119.4 | | |
| Approach LOS | | | A | | | | A | | | F | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 17.9 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.60 | | |
| Actuated Cycle Length (s) | 240.0 | Sum of lost time (s) | 29.3 |
| Intersection Capacity Utilization | 75.2% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 5 | 90 |
| Future Volume (vph) | 5 | 90 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 7.5 | 7.5 |
| Lane Util. Factor | 0.95 | 1.00 |
| Frt | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 |
| Satd. Flow (prot) | 1689 | 1583 |
| Flt Permitted | 0.95 | 1.00 |
| Satd. Flow (perm) | 1689 | 1583 |
| Peak-hour factor, PHF | 0.94 | 0.94 |
| Adj. Flow (vph) | 5 | 96 |
| RTOR Reduction (vph) | 0 | 88 |
| Lane Group Flow (vph) | 110 | 8 |
| Turn Type | NA | Perm |
| Protected Phases | 8 | |
| Permitted Phases | | 8 |
| Actuated Green, G (s) | 19.1 | 19.1 |
| Effective Green, g (s) | 19.1 | 19.1 |
| Actuated g/C Ratio | 0.08 | 0.08 |
| Clearance Time (s) | 7.5 | 7.5 |
| Vehicle Extension (s) | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 134 | 125 |
| v/s Ratio Prot | c0.07 | |
| v/s Ratio Perm | | 0.00 |
| v/c Ratio | 0.82 | 0.06 |
| Uniform Delay, d1 | 108.8 | 102.2 |
| Progression Factor | 1.00 | 1.00 |
| Incremental Delay, d2 | 30.3 | 0.1 |
| Delay (s) | 139.0 | 102.2 |
| Level of Service | F | F |
| Approach Delay (s) | 127.6 | |
| Approach LOS | F | |

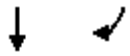
| Intersection Summary |
|---|



| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 8 | 8 | 1648 | 45 | 7 | 96 | 1230 | 31 | 55 | 10 | 101 | 17 |
| Future Volume (vph) | 8 | 8 | 1648 | 45 | 7 | 96 | 1230 | 31 | 55 | 10 | 101 | 17 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.8 | 6.8 | 6.8 | | 6.8 | 6.8 | | | 8.0 | 8.0 | 8.0 |
| Lane Util. Factor | | 1.00 | 0.91 | 1.00 | | 1.00 | 0.91 | | | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | | | 1.00 | 0.85 | 1.00 |
| Flt Protected | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | | | 0.96 | 1.00 | 0.95 |
| Satd. Flow (prot) | | 1770 | 5085 | 1583 | | 1770 | 5067 | | | 1787 | 1583 | 1770 |
| Flt Permitted | | 0.19 | 1.00 | 1.00 | | 0.12 | 1.00 | | | 0.75 | 1.00 | 0.66 |
| Satd. Flow (perm) | | 349 | 5085 | 1583 | | 220 | 5067 | | | 1399 | 1583 | 1232 |
| 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) | 9 | 9 | 1753 | 48 | 7 | 102 | 1309 | 33 | 59 | 11 | 107 | 18 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 60 | 0 |
| Lane Group Flow (vph) | 0 | 18 | 1753 | 42 | 0 | 109 | 1341 | 0 | 0 | 70 | 47 | 18 |
| Turn Type | Perm | Perm | NA | Perm | Perm | Perm | NA | | Perm | NA | Perm | Perm |
| Protected Phases | | | 6 | | | | 2 | | | 4 | | |
| Permitted Phases | 6 | 6 | | 6 | 2 | 2 | | | 4 | | 4 | 8 |
| Actuated Green, G (s) | | 209.8 | 209.8 | 209.8 | | 209.8 | 209.8 | | | 15.4 | 15.4 | 15.4 |
| Effective Green, g (s) | | 209.8 | 209.8 | 209.8 | | 209.8 | 209.8 | | | 15.4 | 15.4 | 15.4 |
| Actuated g/C Ratio | | 0.87 | 0.87 | 0.87 | | 0.87 | 0.87 | | | 0.06 | 0.06 | 0.06 |
| Clearance Time (s) | | 6.8 | 6.8 | 6.8 | | 6.8 | 6.8 | | | 8.0 | 8.0 | 8.0 |
| Vehicle Extension (s) | | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | | | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 305 | 4445 | 1383 | | 192 | 4429 | | | 89 | 101 | 79 |
| v/s Ratio Prot | | | 0.34 | | | | 0.26 | | | | | |
| v/s Ratio Perm | | 0.05 | | 0.03 | | c0.50 | | | | c0.05 | 0.03 | 0.01 |
| v/c Ratio | | 0.06 | 0.39 | 0.03 | | 0.57 | 0.30 | | | 0.79 | 0.47 | 0.23 |
| Uniform Delay, d1 | | 2.0 | 2.9 | 2.0 | | 3.8 | 2.6 | | | 110.7 | 108.3 | 106.7 |
| Progression Factor | | 0.52 | 1.01 | 0.64 | | 3.64 | 0.10 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 0.0 | 0.0 | 0.0 | | 9.0 | 0.1 | | | 33.2 | 1.2 | 0.5 |
| Delay (s) | | 1.1 | 2.9 | 1.3 | | 22.7 | 0.4 | | | 143.9 | 109.6 | 107.2 |
| Level of Service | | A | A | A | | C | A | | | F | F | F |
| Approach Delay (s) | | | 2.9 | | | | 2.1 | | | 123.2 | | |
| Approach LOS | | | A | | | | A | | | F | | |

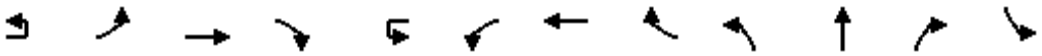
| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 9.6 | HCM 2000 Level of Service | A |
| HCM 2000 Volume to Capacity ratio | 0.58 | | |
| Actuated Cycle Length (s) | 240.0 | Sum of lost time (s) | 14.8 |
| Intersection Capacity Utilization | 75.3% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

c Critical Lane Group



| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 9 | 2 |
| Future Volume (vph) | 9 | 2 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 8.0 | |
| Lane Util. Factor | 1.00 | |
| Frt | 0.97 | |
| Flt Protected | 1.00 | |
| Satd. Flow (prot) | 1816 | |
| Flt Permitted | 1.00 | |
| Satd. Flow (perm) | 1816 | |
| Peak-hour factor, PHF | 0.94 | 0.94 |
| Adj. Flow (vph) | 10 | 2 |
| RTOR Reduction (vph) | 2 | 0 |
| Lane Group Flow (vph) | 10 | 0 |
| Turn Type | NA | |
| Protected Phases | 8 | |
| Permitted Phases | | |
| Actuated Green, G (s) | 15.4 | |
| Effective Green, g (s) | 15.4 | |
| Actuated g/C Ratio | 0.06 | |
| Clearance Time (s) | 8.0 | |
| Vehicle Extension (s) | 1.0 | |
| Lane Grp Cap (vph) | 116 | |
| v/s Ratio Prot | 0.01 | |
| v/s Ratio Perm | | |
| v/c Ratio | 0.09 | |
| Uniform Delay, d1 | 105.7 | |
| Progression Factor | 1.00 | |
| Incremental Delay, d2 | 0.1 | |
| Delay (s) | 105.8 | |
| Level of Service | F | |
| Approach Delay (s) | 106.6 | |
| Approach LOS | F | |

| Intersection Summary |
|---|



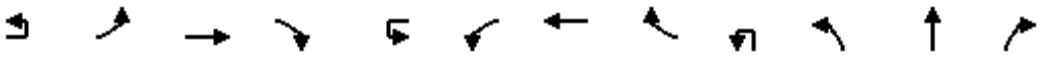
| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 249 | 1346 | 113 | 1 | 220 | 1164 | 484 | 225 | 833 | 301 | 411 |
| Future Volume (vph) | 7 | 249 | 1346 | 113 | 1 | 220 | 1164 | 484 | 225 | 833 | 301 | 411 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.3 | 7.3 | | | 7.3 | 7.3 | 7.3 | 7.1 | 7.1 | 7.1 | 7.4 |
| Lane Util. Factor | | 0.97 | 0.91 | | | 0.97 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 0.91 |
| Frt | | 1.00 | 0.99 | | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 |
| Flt Protected | | 0.95 | 1.00 | | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (prot) | | 3433 | 5026 | | | 3433 | 5085 | 1583 | 1770 | 3539 | 1583 | 1610 |
| Flt Permitted | | 0.95 | 1.00 | | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (perm) | | 3433 | 5026 | | | 3433 | 5085 | 1583 | 1770 | 3539 | 1583 | 1610 |
| 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) | 7 | 265 | 1432 | 120 | 1 | 234 | 1238 | 515 | 239 | 886 | 320 | 437 |
| RTOR Reduction (vph) | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 95 | 0 | 0 | 89 | 0 |
| Lane Group Flow (vph) | 0 | 272 | 1548 | 0 | 0 | 235 | 1238 | 420 | 239 | 886 | 231 | 280 |
| Turn Type | Prot | Prot | NA | | Prot | Prot | NA | Perm | Split | NA | Perm | Split |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | 4 | 4 | | 8 |
| Permitted Phases | | | | | | | | 2 | | | 4 | |
| Actuated Green, G (s) | | 21.1 | 83.4 | | | 19.8 | 82.1 | 82.1 | 62.3 | 62.3 | 62.3 | 45.4 |
| Effective Green, g (s) | | 21.1 | 83.4 | | | 19.8 | 82.1 | 82.1 | 62.3 | 62.3 | 62.3 | 45.4 |
| Actuated g/C Ratio | | 0.09 | 0.35 | | | 0.08 | 0.34 | 0.34 | 0.26 | 0.26 | 0.26 | 0.19 |
| Clearance Time (s) | | 7.3 | 7.3 | | | 7.3 | 7.3 | 7.3 | 7.1 | 7.1 | 7.1 | 7.4 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 301 | 1746 | | | 283 | 1739 | 541 | 459 | 918 | 410 | 304 |
| v/s Ratio Prot | | 0.08 | c0.31 | | | 0.07 | 0.24 | | 0.14 | c0.25 | | c0.17 |
| v/s Ratio Perm | | | | | | | | c0.27 | | | 0.15 | |
| v/c Ratio | | 0.90 | 0.89 | | | 0.83 | 0.71 | 0.78 | 0.52 | 0.97 | 0.56 | 0.92 |
| Uniform Delay, d1 | | 108.4 | 73.8 | | | 108.4 | 68.7 | 70.7 | 76.1 | 87.8 | 77.1 | 95.5 |
| Progression Factor | | 1.11 | 0.73 | | | 0.78 | 0.71 | 0.70 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 26.7 | 6.7 | | | 15.1 | 2.1 | 8.9 | 0.5 | 21.3 | 1.1 | 31.4 |
| Delay (s) | | 146.8 | 60.8 | | | 100.0 | 50.7 | 58.4 | 76.6 | 109.1 | 78.1 | 126.9 |
| Level of Service | | F | E | | | F | D | E | E | F | E | F |
| Approach Delay (s) | | | 73.6 | | | | 58.5 | | | 96.9 | | |
| Approach LOS | | | E | | | | E | | | F | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 80.3 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 0.92 | | |
| Actuated Cycle Length (s) | 240.0 | Sum of lost time (s) | 29.1 |
| Intersection Capacity Utilization | 97.3% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 394 | 124 |
| Future Volume (vph) | 394 | 124 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 7.4 | 7.4 |
| Lane Util. Factor | 0.91 | 1.00 |
| Frt | 1.00 | 0.85 |
| Flt Protected | 0.99 | 1.00 |
| Satd. Flow (prot) | 3345 | 1583 |
| Flt Permitted | 0.99 | 1.00 |
| Satd. Flow (perm) | 3345 | 1583 |
| Peak-hour factor, PHF | 0.94 | 0.94 |
| Adj. Flow (vph) | 419 | 132 |
| RTOR Reduction (vph) | 0 | 107 |
| Lane Group Flow (vph) | 576 | 25 |
| Turn Type | NA | Perm |
| Protected Phases | 8 | |
| Permitted Phases | | 8 |
| Actuated Green, G (s) | 45.4 | 45.4 |
| Effective Green, g (s) | 45.4 | 45.4 |
| Actuated g/C Ratio | 0.19 | 0.19 |
| Clearance Time (s) | 7.4 | 7.4 |
| Vehicle Extension (s) | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 632 | 299 |
| v/s Ratio Prot | 0.17 | |
| v/s Ratio Perm | | 0.02 |
| v/c Ratio | 0.91 | 0.08 |
| Uniform Delay, d1 | 95.3 | 80.2 |
| Progression Factor | 1.00 | 1.00 |
| Incremental Delay, d2 | 17.2 | 0.0 |
| Delay (s) | 112.5 | 80.2 |
| Level of Service | F | F |
| Approach Delay (s) | 112.3 | |
| Approach LOS | F | |

| Intersection Summary |
|---|



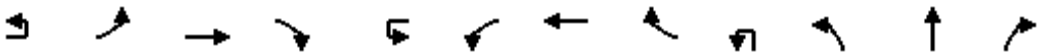
| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBU | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 3 | 42 | 2193 | 113 | 2 | 217 | 1830 | 51 | 6 | 82 | 36 | 358 |
| Future Volume (vph) | 3 | 42 | 2193 | 113 | 2 | 217 | 1830 | 51 | 6 | 82 | 36 | 358 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.2 | 7.2 | | | 7.2 | 7.2 | | | 7.6 | 7.6 | 7.6 |
| Lane Util. Factor | | 1.00 | 0.91 | | | 1.00 | 0.91 | | | 1.00 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.99 | | | 1.00 | 1.00 | | | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.95 | 1.00 | | | 0.95 | 1.00 | | | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 1770 | 5048 | | | 1770 | 5065 | | | 1770 | 1863 | 1583 |
| Flt Permitted | | 0.09 | 1.00 | | | 0.03 | 1.00 | | | 0.26 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 176 | 5048 | | | 51 | 5065 | | | 489 | 1863 | 1583 |
| 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) | 3 | 45 | 2333 | 120 | 2 | 231 | 1947 | 54 | 6 | 87 | 38 | 381 |
| RTOR Reduction (vph) | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 232 |
| Lane Group Flow (vph) | 0 | 48 | 2451 | 0 | 0 | 233 | 2000 | 0 | 0 | 93 | 38 | 149 |
| Turn Type | pm+pt | pm+pt | NA | | pm+pt | pm+pt | NA | | Perm | Perm | NA | Perm |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | | | 4 | |
| Permitted Phases | 6 | 6 | | | 2 | 2 | | | 4 | 4 | | 4 |
| Actuated Green, G (s) | | 153.4 | 153.4 | | | 175.5 | 175.5 | | | 34.7 | 34.7 | 34.7 |
| Effective Green, g (s) | | 153.4 | 153.4 | | | 175.5 | 175.5 | | | 34.7 | 34.7 | 34.7 |
| Actuated g/C Ratio | | 0.64 | 0.64 | | | 0.73 | 0.73 | | | 0.14 | 0.14 | 0.14 |
| Clearance Time (s) | | 7.2 | 7.2 | | | 7.2 | 7.2 | | | 7.6 | 7.6 | 7.6 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | | 1.0 | 1.0 | | | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 164 | 3226 | | | 251 | 3703 | | | 70 | 269 | 228 |
| v/s Ratio Prot | | 0.01 | c0.49 | | | c0.12 | 0.39 | | | | 0.02 | |
| v/s Ratio Perm | | 0.18 | | | | c0.56 | | | | c0.19 | | 0.09 |
| v/c Ratio | | 0.29 | 0.76 | | | 0.93 | 0.54 | | | 1.33 | 0.14 | 0.65 |
| Uniform Delay, d1 | | 21.5 | 30.4 | | | 89.4 | 14.3 | | | 102.7 | 89.6 | 97.0 |
| Progression Factor | | 0.29 | 0.28 | | | 0.86 | 0.55 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 0.2 | 1.2 | | | 34.1 | 0.5 | | | 218.3 | 0.1 | 5.1 |
| Delay (s) | | 6.6 | 9.7 | | | 110.7 | 8.4 | | | 320.9 | 89.7 | 102.0 |
| Level of Service | | A | A | | | F | A | | | F | F | F |
| Approach Delay (s) | | | 9.7 | | | | 19.1 | | | | 140.9 | |
| Approach LOS | | | A | | | | B | | | | F | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 31.6 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.97 | | |
| Actuated Cycle Length (s) | 240.0 | Sum of lost time (s) | 22.0 |
| Intersection Capacity Utilization | 110.5% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBL | SBT | SBR |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 120 | 104 | 97 |
| Future Volume (vph) | 120 | 104 | 97 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.6 | 7.6 | |
| Lane Util. Factor | 1.00 | 1.00 | |
| Frt | 1.00 | 0.93 | |
| Flt Protected | 0.95 | 1.00 | |
| Satd. Flow (prot) | 1770 | 1728 | |
| Flt Permitted | 0.73 | 1.00 | |
| Satd. Flow (perm) | 1364 | 1728 | |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 128 | 111 | 103 |
| RTOR Reduction (vph) | 0 | 15 | 0 |
| Lane Group Flow (vph) | 128 | 199 | 0 |
| Turn Type | Perm | NA | |
| Protected Phases | | 8 | |
| Permitted Phases | 8 | | |
| Actuated Green, G (s) | 34.7 | 34.7 | |
| Effective Green, g (s) | 34.7 | 34.7 | |
| Actuated g/C Ratio | 0.14 | 0.14 | |
| Clearance Time (s) | 7.6 | 7.6 | |
| Vehicle Extension (s) | 1.0 | 1.0 | |
| Lane Grp Cap (vph) | 197 | 249 | |
| v/s Ratio Prot | | 0.12 | |
| v/s Ratio Perm | 0.09 | | |
| v/c Ratio | 0.65 | 0.80 | |
| Uniform Delay, d1 | 96.9 | 99.3 | |
| Progression Factor | 1.00 | 1.00 | |
| Incremental Delay, d2 | 5.4 | 15.8 | |
| Delay (s) | 102.4 | 115.1 | |
| Level of Service | F | F | |
| Approach Delay (s) | | 110.4 | |
| Approach LOS | | F | |

| Intersection Summary |
|---|



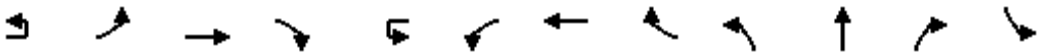
| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBU | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 125 | 2487 | 16 | 8 | 65 | 1966 | 77 | 1 | 29 | 2 | 44 |
| Future Volume (vph) | 13 | 125 | 2487 | 16 | 8 | 65 | 1966 | 77 | 1 | 29 | 2 | 44 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.2 | 7.2 | | | 7.2 | 7.2 | 7.2 | | | 7.6 | 7.6 |
| Lane Util. Factor | | 1.00 | 0.91 | | | 1.00 | 0.91 | 1.00 | | | 1.00 | 1.00 |
| Frt | | 1.00 | 1.00 | | | 1.00 | 1.00 | 0.85 | | | 1.00 | 0.85 |
| Flt Protected | | 0.95 | 1.00 | | | 0.95 | 1.00 | 1.00 | | | 0.96 | 1.00 |
| Satd. Flow (prot) | | 1770 | 5080 | | | 1770 | 5085 | 1583 | | | 1779 | 1583 |
| Flt Permitted | | 0.07 | 1.00 | | | 0.04 | 1.00 | 1.00 | | | 0.70 | 1.00 |
| Satd. Flow (perm) | | 133 | 5080 | | | 66 | 5085 | 1583 | | | 1300 | 1583 |
| 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 | 133 | 2646 | 17 | 9 | 69 | 2091 | 82 | 1 | 31 | 2 | 47 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 44 |
| Lane Group Flow (vph) | 0 | 147 | 2663 | 0 | 0 | 78 | 2091 | 65 | 0 | 0 | 34 | 3 |
| Turn Type | pm+pt | pm+pt | NA | | pm+pt | pm+pt | NA | Perm | Perm | Perm | NA | Perm |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | | | 4 | |
| Permitted Phases | 6 | 6 | | | 2 | 2 | | 2 | 4 | 4 | | 4 |
| Actuated Green, G (s) | | 208.2 | 194.9 | | | 200.6 | 191.1 | 191.1 | | | 13.6 | 13.6 |
| Effective Green, g (s) | | 208.2 | 194.9 | | | 200.6 | 191.1 | 191.1 | | | 13.6 | 13.6 |
| Actuated g/C Ratio | | 0.87 | 0.81 | | | 0.84 | 0.80 | 0.80 | | | 0.06 | 0.06 |
| Clearance Time (s) | | 7.2 | 7.2 | | | 7.2 | 7.2 | 7.2 | | | 7.6 | 7.6 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | | 1.0 | 1.0 | 1.0 | | | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 206 | 4125 | | | 122 | 4048 | 1260 | | | 73 | 89 |
| v/s Ratio Prot | | c0.04 | 0.52 | | | 0.03 | 0.41 | | | | | |
| v/s Ratio Perm | | c0.58 | | | | 0.50 | | 0.04 | | | 0.03 | 0.00 |
| v/c Ratio | | 0.71 | 0.65 | | | 0.64 | 0.52 | 0.05 | | | 0.47 | 0.03 |
| Uniform Delay, d1 | | 24.7 | 8.9 | | | 34.2 | 8.5 | 5.2 | | | 109.7 | 107.0 |
| Progression Factor | | 2.21 | 0.12 | | | 1.22 | 0.69 | 2.49 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | | 6.2 | 0.5 | | | 5.8 | 0.3 | 0.1 | | | 1.7 | 0.0 |
| Delay (s) | | 60.7 | 1.5 | | | 47.5 | 6.2 | 13.0 | | | 111.4 | 107.0 |
| Level of Service | | E | A | | | D | A | B | | | F | F |
| Approach Delay (s) | | | 4.6 | | | | 7.9 | | | | 108.9 | |
| Approach LOS | | | A | | | | A | | | | F | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 10.3 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.73 | | |
| Actuated Cycle Length (s) | 240.0 | Sum of lost time (s) | 22.0 |
| Intersection Capacity Utilization | 90.6% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBL | SBT | SBR |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 50 | 3 | 59 |
| Future Volume (vph) | 50 | 3 | 59 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.6 | 7.6 |
| Lane Util. Factor | | 1.00 | 1.00 |
| Frt | | 1.00 | 0.85 |
| Flt Protected | | 0.95 | 1.00 |
| Satd. Flow (prot) | | 1779 | 1583 |
| Flt Permitted | | 0.71 | 1.00 |
| Satd. Flow (perm) | | 1327 | 1583 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 53 | 3 | 63 |
| RTOR Reduction (vph) | 0 | 0 | 59 |
| Lane Group Flow (vph) | 0 | 56 | 4 |
| Turn Type | Perm | NA | Perm |
| Protected Phases | | 8 | |
| Permitted Phases | 8 | | 8 |
| Actuated Green, G (s) | | 13.6 | 13.6 |
| Effective Green, g (s) | | 13.6 | 13.6 |
| Actuated g/C Ratio | | 0.06 | 0.06 |
| Clearance Time (s) | | 7.6 | 7.6 |
| Vehicle Extension (s) | | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 75 | 89 |
| v/s Ratio Prot | | | |
| v/s Ratio Perm | | c0.04 | 0.00 |
| v/c Ratio | | 0.75 | 0.04 |
| Uniform Delay, d1 | | 111.5 | 107.0 |
| Progression Factor | | 1.00 | 1.00 |
| Incremental Delay, d2 | | 29.3 | 0.1 |
| Delay (s) | | 140.8 | 107.1 |
| Level of Service | | F | F |
| Approach Delay (s) | | 122.9 | |
| Approach LOS | | F | |

| Intersection Summary |
|---|



| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 120 | 2522 | 18 | 2 | 19 | 2065 | 31 | 31 | 9 | 10 | 55 |
| Future Volume (vph) | 1 | 120 | 2522 | 18 | 2 | 19 | 2065 | 31 | 31 | 9 | 10 | 55 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.4 | 7.4 | | | 7.4 | 7.4 | | | 7.2 | | |
| Lane Util. Factor | | 1.00 | 0.91 | | | 1.00 | 0.91 | | | 1.00 | | |
| Frt | | 1.00 | 1.00 | | | 1.00 | 1.00 | | | 0.97 | | |
| Flt Protected | | 0.95 | 1.00 | | | 0.95 | 1.00 | | | 0.97 | | |
| Satd. Flow (prot) | | 1770 | 5080 | | | 1770 | 5074 | | | 1758 | | |
| Flt Permitted | | 0.95 | 1.00 | | | 0.95 | 1.00 | | | 0.78 | | |
| Satd. Flow (perm) | | 1770 | 5080 | | | 1770 | 5074 | | | 1405 | | |
| 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) | 1 | 128 | 2683 | 19 | 2 | 20 | 2197 | 33 | 33 | 10 | 11 | 59 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 8 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 129 | 2702 | 0 | 0 | 22 | 2229 | 0 | 0 | 46 | 0 | 0 |
| Turn Type | Prot | Prot | NA | | Prot | Prot | NA | | Perm | NA | | Perm |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | | 4 | | |
| Permitted Phases | | | | | | | | | 4 | | | 8 |
| Actuated Green, G (s) | | 12.2 | 83.9 | | | 4.2 | 75.9 | | | 9.9 | | |
| Effective Green, g (s) | | 12.2 | 83.9 | | | 4.2 | 75.9 | | | 9.9 | | |
| Actuated g/C Ratio | | 0.10 | 0.70 | | | 0.04 | 0.63 | | | 0.08 | | |
| Clearance Time (s) | | 7.4 | 7.4 | | | 7.4 | 7.4 | | | 7.2 | | |
| Vehicle Extension (s) | | 1.0 | 1.0 | | | 1.0 | 1.0 | | | 1.0 | | |
| Lane Grp Cap (vph) | | 179 | 3551 | | | 61 | 3209 | | | 115 | | |
| v/s Ratio Prot | | c0.07 | c0.53 | | | 0.01 | 0.44 | | | | | |
| v/s Ratio Perm | | | | | | | | | | 0.03 | | |
| v/c Ratio | | 0.72 | 0.76 | | | 0.36 | 0.69 | | | 0.40 | | |
| Uniform Delay, d1 | | 52.2 | 11.6 | | | 56.6 | 14.5 | | | 52.2 | | |
| Progression Factor | | 1.06 | 1.41 | | | 0.89 | 1.28 | | | 1.00 | | |
| Incremental Delay, d2 | | 9.2 | 1.3 | | | 0.5 | 0.5 | | | 0.8 | | |
| Delay (s) | | 64.7 | 17.7 | | | 50.7 | 19.0 | | | 53.0 | | |
| Level of Service | | E | B | | | D | B | | | D | | |
| Approach Delay (s) | | | 19.8 | | | | 19.3 | | | 53.0 | | |
| Approach LOS | | | B | | | | B | | | D | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 20.9 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.78 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 22.0 |
| Intersection Capacity Utilization | 83.3% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 6 | 74 |
| Future Volume (vph) | 6 | 74 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 7.2 | 7.2 |
| Lane Util. Factor | 1.00 | 1.00 |
| Frt | 1.00 | 0.85 |
| Flt Protected | 0.96 | 1.00 |
| Satd. Flow (prot) | 1782 | 1583 |
| Flt Permitted | 0.71 | 1.00 |
| Satd. Flow (perm) | 1317 | 1583 |
| Peak-hour factor, PHF | 0.94 | 0.94 |
| Adj. Flow (vph) | 6 | 79 |
| RTOR Reduction (vph) | 0 | 72 |
| Lane Group Flow (vph) | 65 | 7 |
| Turn Type | NA | Perm |
| Protected Phases | 8 | |
| Permitted Phases | | 8 |
| Actuated Green, G (s) | 9.9 | 9.9 |
| Effective Green, g (s) | 9.9 | 9.9 |
| Actuated g/C Ratio | 0.08 | 0.08 |
| Clearance Time (s) | 7.2 | 7.2 |
| Vehicle Extension (s) | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 108 | 130 |
| v/s Ratio Prot | | |
| v/s Ratio Perm | c0.05 | 0.00 |
| v/c Ratio | 0.60 | 0.05 |
| Uniform Delay, d1 | 53.1 | 50.7 |
| Progression Factor | 1.00 | 1.00 |
| Incremental Delay, d2 | 6.3 | 0.1 |
| Delay (s) | 59.5 | 50.8 |
| Level of Service | E | D |
| Approach Delay (s) | 54.7 | |
| Approach LOS | D | |

| Intersection Summary |
|---|

| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 553 | 1894 | 206 | 11 | 236 | 1887 | 583 | 152 | 650 | 106 | 5 |
| Future Volume (vph) | 10 | 553 | 1894 | 206 | 11 | 236 | 1887 | 583 | 152 | 650 | 106 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.4 | 7.4 | 7.4 | | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | |
| Lane Util. Factor | | 0.97 | 0.91 | 1.00 | | 0.97 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | |
| Frt | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | |
| Flt Protected | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | |
| Satd. Flow (prot) | | 3433 | 5085 | 1583 | | 3433 | 5085 | 1583 | 1770 | 3539 | 1583 | |
| Flt Permitted | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | |
| Satd. Flow (perm) | | 3433 | 5085 | 1583 | | 3433 | 5085 | 1583 | 1770 | 3539 | 1583 | |
| 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) | 11 | 588 | 2015 | 219 | 12 | 251 | 2007 | 620 | 162 | 691 | 113 | 5 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 66 | 0 | 0 | 0 | 176 | 0 | 0 | 91 | 0 |
| Lane Group Flow (vph) | 0 | 599 | 2015 | 153 | 0 | 263 | 2007 | 444 | 162 | 691 | 22 | 0 |
| Turn Type | Prot | Prot | NA | Perm | Prot | Prot | NA | Perm | Prot | NA | Perm | Prot |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | 7 | 4 | | 3 |
| Permitted Phases | | | | 6 | | | | 2 | | | 4 | |
| Actuated Green, G (s) | | 41.6 | 115.5 | 115.5 | | 20.5 | 94.4 | 94.4 | 25.4 | 46.6 | 46.6 | |
| Effective Green, g (s) | | 41.6 | 115.5 | 115.5 | | 20.5 | 94.4 | 94.4 | 25.4 | 46.6 | 46.6 | |
| Actuated g/C Ratio | | 0.17 | 0.48 | 0.48 | | 0.09 | 0.39 | 0.39 | 0.11 | 0.19 | 0.19 | |
| Clearance Time (s) | | 7.4 | 7.4 | 7.4 | | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | |
| Vehicle Extension (s) | | 1.0 | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Lane Grp Cap (vph) | | 595 | 2447 | 761 | | 293 | 2000 | 622 | 187 | 687 | 307 | |
| v/s Ratio Prot | | c0.17 | 0.40 | | | 0.08 | c0.39 | | 0.09 | c0.20 | | |
| v/s Ratio Perm | | | | 0.10 | | | | 0.28 | | | 0.01 | |
| v/c Ratio | | 1.01 | 0.82 | 0.20 | | 0.90 | 1.00 | 0.71 | 0.87 | 1.01 | 0.07 | |
| Uniform Delay, d1 | | 99.2 | 53.5 | 35.8 | | 108.7 | 72.8 | 61.4 | 105.6 | 96.7 | 79.0 | |
| Progression Factor | | 0.90 | 0.95 | 1.39 | | 0.98 | 0.69 | 0.63 | 1.00 | 1.00 | 1.00 | |
| Incremental Delay, d2 | | 32.5 | 2.3 | 0.4 | | 18.1 | 16.2 | 4.1 | 30.8 | 35.8 | 0.0 | |
| Delay (s) | | 122.0 | 53.2 | 50.3 | | 125.2 | 66.7 | 42.9 | 136.5 | 132.5 | 79.1 | |
| Level of Service | | F | D | D | | F | E | D | F | F | E | |
| Approach Delay (s) | | | 67.5 | | | | 66.9 | | | 126.9 | | |
| Approach LOS | | | E | | | | E | | | F | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 79.0 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 1.01 | | |
| Actuated Cycle Length (s) | 240.0 | Sum of lost time (s) | 29.6 |
| Intersection Capacity Utilization | 106.0% | ICU Level of Service | G |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBL | SBT | SBR |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 191 | 331 | 207 |
| Future Volume (vph) | 191 | 331 | 207 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 |
| Total Lost time (s) | 7.4 | 7.4 | 7.4 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1770 | 3539 | 1583 |
| Flt Permitted | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | 1770 | 3539 | 1583 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 203 | 352 | 220 |
| RTOR Reduction (vph) | 0 | 0 | 175 |
| Lane Group Flow (vph) | 208 | 352 | 45 |
| Turn Type | Prot | NA | Perm |
| Protected Phases | 3 | 8 | |
| Permitted Phases | | | 8 |
| Actuated Green, G (s) | 27.8 | 49.0 | 49.0 |
| Effective Green, g (s) | 27.8 | 49.0 | 49.0 |
| Actuated g/C Ratio | 0.12 | 0.20 | 0.20 |
| Clearance Time (s) | 7.4 | 7.4 | 7.4 |
| Vehicle Extension (s) | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 205 | 722 | 323 |
| v/s Ratio Prot | c0.12 | 0.10 | |
| v/s Ratio Perm | | | 0.03 |
| v/c Ratio | 1.01 | 0.49 | 0.14 |
| Uniform Delay, d1 | 106.1 | 84.4 | 78.2 |
| Progression Factor | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 66.7 | 0.2 | 0.1 |
| Delay (s) | 172.8 | 84.6 | 78.3 |
| Level of Service | F | F | E |
| Approach Delay (s) | | 106.3 | |
| Approach LOS | | F | |

| Intersection Summary |
|---|

| Movement | EBU | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 5 | 393 | 1103 | 624 | 553 | 957 | 200 | 1043 | 389 | 473 | 278 | 217 |
| Future Volume (vph) | 5 | 393 | 1103 | 624 | 553 | 957 | 200 | 1043 | 389 | 473 | 278 | 217 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 10.5 | 10.5 | | 10.5 | 10.5 | | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 |
| Lane Util. Factor | | 0.97 | 0.91 | | 0.97 | 0.91 | | 0.91 | 0.91 | 1.00 | 0.91 | 0.91 |
| Frt | | 1.00 | 0.95 | | 1.00 | 0.97 | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 |
| Flt Protected | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.97 | 1.00 | 0.95 | 0.98 |
| Satd. Flow (prot) | | 3433 | 4810 | | 3433 | 4953 | | 1610 | 3296 | 1583 | 1610 | 3332 |
| Flt Permitted | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 0.97 | 1.00 | 0.95 | 0.98 |
| Satd. Flow (perm) | | 3433 | 4810 | | 3433 | 4953 | | 1610 | 3296 | 1583 | 1610 | 3332 |
| 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) | 5 | 418 | 1173 | 664 | 588 | 1018 | 213 | 1110 | 414 | 503 | 296 | 231 |
| RTOR Reduction (vph) | 0 | 0 | 43 | 0 | 0 | 14 | 0 | 0 | 0 | 156 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 423 | 1794 | 0 | 588 | 1217 | 0 | 555 | 969 | 347 | 172 | 355 |
| Turn Type | Prot | Prot | NA | | Prot | NA | | Split | NA | Perm | Split | NA |
| Protected Phases | 1 | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 |
| Permitted Phases | | | | | | | | | | 4 | | |
| Actuated Green, G (s) | | 36.1 | 77.5 | | 36.5 | 77.9 | | 65.9 | 65.9 | 65.9 | 18.9 | 18.9 |
| Effective Green, g (s) | | 36.1 | 77.5 | | 36.5 | 77.9 | | 65.9 | 65.9 | 65.9 | 18.9 | 18.9 |
| Actuated g/C Ratio | | 0.15 | 0.32 | | 0.15 | 0.32 | | 0.27 | 0.27 | 0.27 | 0.08 | 0.08 |
| Clearance Time (s) | | 10.5 | 10.5 | | 10.5 | 10.5 | | 10.1 | 10.1 | 10.1 | 10.1 | 10.1 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 516 | 1553 | | 522 | 1607 | | 442 | 905 | 434 | 126 | 262 |
| v/s Ratio Prot | | 0.12 | c0.37 | | c0.17 | 0.25 | | c0.34 | 0.29 | | c0.11 | 0.11 |
| v/s Ratio Perm | | | | | | | | | | 0.22 | | |
| v/c Ratio | | 0.82 | 1.20dr | | 1.13 | 0.76 | | 1.26 | 1.20dl | 0.80 | 1.37 | 1.35 |
| Uniform Delay, d1 | | 98.8 | 81.2 | | 101.8 | 72.6 | | 87.0 | 87.0 | 80.9 | 110.5 | 110.5 |
| Progression Factor | | 0.67 | 0.59 | | 0.77 | 0.90 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 5.7 | 74.7 | | 76.7 | 3.0 | | 132.4 | 50.7 | 9.3 | 206.7 | 182.7 |
| Delay (s) | | 72.2 | 122.4 | | 154.8 | 68.0 | | 219.5 | 137.8 | 90.2 | 317.3 | 293.2 |
| Level of Service | | E | F | | F | E | | F | F | F | F | F |
| Approach Delay (s) | | | 113.0 | | | 96.1 | | | 148.3 | | | 237.8 |
| Approach LOS | | | F | | | F | | | F | | | F |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 133.7 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.20 | | |
| Actuated Cycle Length (s) | 240.0 | Sum of lost time (s) | 41.2 |
| Intersection Capacity Utilization | 123.7% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 274 |
| Future Volume (vph) | 274 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | 10.1 |
| Lane Util. Factor | 1.00 |
| Frt | 0.85 |
| Flt Protected | 1.00 |
| Satd. Flow (prot) | 1583 |
| Flt Permitted | 1.00 |
| Satd. Flow (perm) | 1583 |
| Peak-hour factor, PHF | 0.94 |
| Adj. Flow (vph) | 291 |
| RTOR Reduction (vph) | 202 |
| Lane Group Flow (vph) | 89 |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 8 |
| Actuated Green, G (s) | 18.9 |
| Effective Green, g (s) | 18.9 |
| Actuated g/C Ratio | 0.08 |
| Clearance Time (s) | 10.1 |
| Vehicle Extension (s) | 1.0 |
| Lane Grp Cap (vph) | 124 |
| v/s Ratio Prot | |
| v/s Ratio Perm | 0.06 |
| v/c Ratio | 0.72 |
| Uniform Delay, d1 | 108.0 |
| Progression Factor | 1.00 |
| Incremental Delay, d2 | 15.3 |
| Delay (s) | 123.3 |
| Level of Service | F |
| Approach Delay (s) | |
| Approach LOS | |

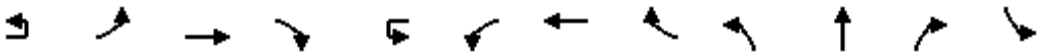
| Intersection Summary |
|---|

| Movement | EBU | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 3 | 250 | 1793 | 105 | 28 | 1405 | 74 | 70 | 15 | 21 | 104 | 15 |
| Future Volume (vph) | 3 | 250 | 1793 | 105 | 28 | 1405 | 74 | 70 | 15 | 21 | 104 | 15 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.8 | 7.0 | | 6.9 | 7.0 | | 7.5 | 7.5 | | 7.5 | 7.5 |
| Lane Util. Factor | | 1.00 | 0.91 | | 1.00 | 0.91 | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Frt | | 1.00 | 0.99 | | 1.00 | 0.99 | | 1.00 | 0.91 | | 1.00 | 0.86 |
| Flt Protected | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | | 1770 | 5043 | | 1770 | 5047 | | 1770 | 1701 | | 1770 | 1607 |
| Flt Permitted | | 0.10 | 1.00 | | 0.09 | 1.00 | | 0.40 | 1.00 | | 0.73 | 1.00 |
| Satd. Flow (perm) | | 191 | 5043 | | 159 | 5047 | | 744 | 1701 | | 1364 | 1607 |
| 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) | 3 | 266 | 1907 | 112 | 30 | 1495 | 79 | 74 | 16 | 22 | 111 | 16 |
| RTOR Reduction (vph) | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 0 | 20 | 0 | 0 | 153 |
| Lane Group Flow (vph) | 0 | 269 | 2015 | 0 | 30 | 1571 | 0 | 74 | 18 | 0 | 111 | 35 |
| Turn Type | pm+pt | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA |
| Protected Phases | 1 | 1 | 6 | | 5 | 2 | | | 4 | | | 8 |
| Permitted Phases | 6 | 6 | | | 2 | | | 4 | | | 8 | |
| Actuated Green, G (s) | | 92.3 | 82.4 | | 71.8 | 68.8 | | 13.2 | 13.2 | | 13.2 | 13.2 |
| Effective Green, g (s) | | 92.3 | 82.4 | | 71.8 | 68.8 | | 13.2 | 13.2 | | 13.2 | 13.2 |
| Actuated g/C Ratio | | 0.77 | 0.69 | | 0.60 | 0.57 | | 0.11 | 0.11 | | 0.11 | 0.11 |
| Clearance Time (s) | | 6.8 | 7.0 | | 6.9 | 7.0 | | 7.5 | 7.5 | | 7.5 | 7.5 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 366 | 3462 | | 135 | 2893 | | 81 | 187 | | 150 | 176 |
| v/s Ratio Prot | | c0.10 | 0.40 | | 0.01 | 0.31 | | | 0.01 | | | 0.02 |
| v/s Ratio Perm | | c0.46 | | | 0.13 | | | c0.10 | | | 0.08 | |
| v/c Ratio | | 0.73 | 0.58 | | 0.22 | 0.54 | | 0.91 | 0.10 | | 0.74 | 0.20 |
| Uniform Delay, d1 | | 22.4 | 9.8 | | 10.0 | 15.9 | | 52.8 | 48.0 | | 51.7 | 48.6 |
| Progression Factor | | 1.77 | 0.38 | | 0.81 | 0.84 | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | | 2.1 | 0.2 | | 0.2 | 0.5 | | 70.2 | 0.1 | | 15.1 | 0.2 |
| Delay (s) | | 41.8 | 3.9 | | 8.3 | 13.8 | | 123.0 | 48.1 | | 66.9 | 48.8 |
| Level of Service | | D | A | | A | B | | F | D | | E | D |
| Approach Delay (s) | | | 8.4 | | | 13.7 | | | 97.6 | | | 55.5 |
| Approach LOS | | | A | | | B | | | F | | | E |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 16.0 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.78 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 21.4 |
| Intersection Capacity Utilization | 81.8% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 162 |
| Future Volume (vph) | 162 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | |
| Lane Util. Factor | |
| Frt | |
| Flt Protected | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Peak-hour factor, PHF | 0.94 |
| Adj. Flow (vph) | 172 |
| RTOR Reduction (vph) | 0 |
| Lane Group Flow (vph) | 0 |
| Turn Type | |
| Protected Phases | |
| Permitted Phases | |
| Actuated Green, G (s) | |
| Effective Green, g (s) | |
| Actuated g/C Ratio | |
| Clearance Time (s) | |
| Vehicle Extension (s) | |
| Lane Grp Cap (vph) | |
| v/s Ratio Prot | |
| v/s Ratio Perm | |
| v/c Ratio | |
| Uniform Delay, d1 | |
| Progression Factor | |
| Incremental Delay, d2 | |
| Delay (s) | |
| Level of Service | |
| Approach Delay (s) | |
| Approach LOS | |
| Intersection Summary | |



| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 3 | 282 | 1486 | 124 | 1 | 352 | 1344 | 120 | 52 | 337 | 724 | 76 |
| Future Volume (vph) | 3 | 282 | 1486 | 124 | 1 | 352 | 1344 | 120 | 52 | 337 | 724 | 76 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.9 | 7.2 | | | 7.0 | 7.2 | | 6.9 | 7.3 | 7.3 | 6.7 |
| Lane Util. Factor | | 1.00 | 0.91 | | | 1.00 | 0.91 | | 1.00 | 0.95 | 1.00 | 1.00 |
| Frt | | 1.00 | 0.99 | | | 1.00 | 0.99 | | 1.00 | 1.00 | 0.85 | 1.00 |
| Flt Protected | | 0.95 | 1.00 | | | 0.95 | 1.00 | | 0.95 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (prot) | | 1770 | 5027 | | | 1770 | 5023 | | 1770 | 3539 | 1583 | 1770 |
| Flt Permitted | | 0.05 | 1.00 | | | 0.04 | 1.00 | | 0.63 | 1.00 | 1.00 | 0.46 |
| Satd. Flow (perm) | | 89 | 5027 | | | 84 | 5023 | | 1175 | 3539 | 1583 | 852 |
| 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) | 3 | 300 | 1581 | 132 | 1 | 374 | 1430 | 128 | 55 | 359 | 770 | 81 |
| RTOR Reduction (vph) | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 256 | 0 |
| Lane Group Flow (vph) | 0 | 303 | 1709 | 0 | 0 | 375 | 1554 | 0 | 55 | 359 | 514 | 81 |
| Turn Type | pm+pt | pm+pt | NA | | pm+pt | pm+pt | NA | | pm+pt | NA | Perm | pm+pt |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | 7 | 4 | | 3 |
| Permitted Phases | 6 | 6 | | | 2 | 2 | | | 4 | | 4 | 8 |
| Actuated Green, G (s) | | 122.6 | 83.6 | | | 133.1 | 88.9 | | 83.8 | 78.5 | 78.5 | 84.0 |
| Effective Green, g (s) | | 122.6 | 83.6 | | | 133.1 | 88.9 | | 83.8 | 78.5 | 78.5 | 84.0 |
| Actuated g/C Ratio | | 0.51 | 0.35 | | | 0.55 | 0.37 | | 0.35 | 0.33 | 0.33 | 0.35 |
| Clearance Time (s) | | 6.9 | 7.2 | | | 7.0 | 7.2 | | 6.9 | 7.3 | 7.3 | 6.7 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | | 1.0 | 1.0 | | 1.0 | 1.0 | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 318 | 1751 | | | 357 | 1860 | | 423 | 1157 | 517 | 319 |
| v/s Ratio Prot | | 0.15 | 0.34 | | | c0.19 | c0.31 | | 0.00 | 0.10 | | c0.01 |
| v/s Ratio Perm | | 0.33 | | | | c0.39 | | | 0.04 | | c0.32 | 0.08 |
| v/c Ratio | | 0.95 | 0.98 | | | 1.05 | 0.84 | | 0.13 | 0.31 | 0.99 | 0.25 |
| Uniform Delay, d1 | | 84.2 | 77.2 | | | 86.4 | 68.9 | | 52.5 | 60.5 | 80.5 | 55.8 |
| Progression Factor | | 0.94 | 0.89 | | | 0.77 | 0.96 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 33.8 | 14.8 | | | 54.5 | 3.4 | | 0.1 | 0.1 | 38.0 | 0.2 |
| Delay (s) | | 113.3 | 83.3 | | | 121.4 | 69.5 | | 52.5 | 60.5 | 118.5 | 55.9 |
| Level of Service | | F | F | | | F | E | | D | E | F | E |
| Approach Delay (s) | | | 87.8 | | | | 79.5 | | | 97.9 | | |
| Approach LOS | | | F | | | | E | | | F | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 84.6 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.03 | | |
| Actuated Cycle Length (s) | 240.0 | Sum of lost time (s) | 28.4 |
| Intersection Capacity Utilization | 123.6% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 164 | 186 |
| Future Volume (vph) | 164 | 186 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 7.3 | 7.3 |
| Lane Util. Factor | 0.95 | 1.00 |
| Frt | 1.00 | 0.85 |
| Flt Protected | 1.00 | 1.00 |
| Satd. Flow (prot) | 3539 | 1583 |
| Flt Permitted | 1.00 | 1.00 |
| Satd. Flow (perm) | 3539 | 1583 |
| Peak-hour factor, PHF | 0.94 | 0.94 |
| Adj. Flow (vph) | 174 | 198 |
| RTOR Reduction (vph) | 0 | 133 |
| Lane Group Flow (vph) | 174 | 65 |
| Turn Type | NA | Perm |
| Protected Phases | 8 | |
| Permitted Phases | | 8 |
| Actuated Green, G (s) | 78.5 | 78.5 |
| Effective Green, g (s) | 78.5 | 78.5 |
| Actuated g/C Ratio | 0.33 | 0.33 |
| Clearance Time (s) | 7.3 | 7.3 |
| Vehicle Extension (s) | 1.0 | 1.0 |
| Lane Grp Cap (vph) | 1157 | 517 |
| v/s Ratio Prot | 0.05 | |
| v/s Ratio Perm | | 0.04 |
| v/c Ratio | 0.15 | 0.13 |
| Uniform Delay, d1 | 57.1 | 56.7 |
| Progression Factor | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.0 | 0.0 |
| Delay (s) | 57.2 | 56.7 |
| Level of Service | E | E |
| Approach Delay (s) | 56.7 | |
| Approach LOS | E | |

| Intersection Summary |
|---|

| Movement | EBU | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 9 | 138 | 1845 | 294 | 32 | 1473 | 42 | 272 | 212 | 47 | 43 | 112 |
| Future Volume (vph) | 9 | 138 | 1845 | 294 | 32 | 1473 | 42 | 272 | 212 | 47 | 43 | 112 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.9 | 6.9 | | 6.9 | 6.9 | | 6.2 | 6.8 | | 6.2 | 6.8 |
| Lane Util. Factor | | 1.00 | 0.91 | | 1.00 | 0.91 | | 1.00 | 0.95 | | 1.00 | 0.95 |
| Frt | | 1.00 | 0.98 | | 1.00 | 1.00 | | 1.00 | 0.97 | | 1.00 | 0.92 |
| Flt Protected | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 | | 0.95 | 1.00 |
| Satd. Flow (prot) | | 1770 | 4980 | | 1770 | 5064 | | 1770 | 3443 | | 1770 | 3264 |
| Flt Permitted | | 0.09 | 1.00 | | 0.07 | 1.00 | | 0.29 | 1.00 | | 0.58 | 1.00 |
| Satd. Flow (perm) | | 163 | 4980 | | 134 | 5064 | | 542 | 3443 | | 1084 | 3264 |
| 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) | 10 | 147 | 1963 | 313 | 34 | 1567 | 45 | 289 | 226 | 50 | 46 | 119 |
| RTOR Reduction (vph) | 0 | 0 | 15 | 0 | 0 | 2 | 0 | 0 | 17 | 0 | 0 | 118 |
| Lane Group Flow (vph) | 0 | 157 | 2261 | 0 | 34 | 1610 | 0 | 289 | 259 | 0 | 46 | 129 |
| Turn Type | pm+pt | pm+pt | NA | | pm+pt | NA | | pm+pt | NA | | pm+pt | NA |
| Protected Phases | 1 | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 |
| Permitted Phases | 6 | 6 | | | 2 | | | 4 | | | 8 | |
| Actuated Green, G (s) | | 75.7 | 65.8 | | 58.6 | 55.6 | | 30.6 | 20.4 | | 13.4 | 9.4 |
| Effective Green, g (s) | | 75.7 | 65.8 | | 58.6 | 55.6 | | 30.6 | 20.4 | | 13.4 | 9.4 |
| Actuated g/C Ratio | | 0.63 | 0.55 | | 0.49 | 0.46 | | 0.26 | 0.17 | | 0.11 | 0.08 |
| Clearance Time (s) | | 6.9 | 6.9 | | 6.9 | 6.9 | | 6.2 | 6.8 | | 6.2 | 6.8 |
| Vehicle Extension (s) | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 | | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 279 | 2730 | | 106 | 2346 | | 291 | 585 | | 143 | 255 |
| v/s Ratio Prot | | c0.06 | c0.45 | | 0.01 | 0.32 | | c0.12 | 0.08 | | 0.01 | 0.04 |
| v/s Ratio Perm | | 0.29 | | | 0.15 | | | c0.13 | | | 0.03 | |
| v/c Ratio | | 0.56 | 0.83 | | 0.32 | 0.69 | | 0.99 | 0.44 | | 0.32 | 0.51 |
| Uniform Delay, d1 | | 31.5 | 22.4 | | 46.0 | 25.3 | | 41.4 | 44.7 | | 48.6 | 53.1 |
| Progression Factor | | 0.78 | 0.88 | | 1.22 | 0.94 | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Incremental Delay, d2 | | 0.5 | 1.0 | | 0.6 | 1.5 | | 50.6 | 0.2 | | 0.5 | 0.6 |
| Delay (s) | | 25.0 | 20.6 | | 56.8 | 25.4 | | 92.0 | 44.9 | | 49.1 | 53.6 |
| Level of Service | | C | C | | E | C | | F | D | | D | D |
| Approach Delay (s) | | | 20.9 | | | 26.1 | | | 69.0 | | | 52.9 |
| Approach LOS | | | C | | | C | | | E | | | D |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 30.0 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.92 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 26.8 |
| Intersection Capacity Utilization | 90.7% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 120 |
| Future Volume (vph) | 120 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | |
| Lane Util. Factor | |
| Frt | |
| Flt Protected | |
| Satd. Flow (prot) | |
| Flt Permitted | |
| Satd. Flow (perm) | |
| Peak-hour factor, PHF | 0.94 |
| Adj. Flow (vph) | 128 |
| RTOR Reduction (vph) | 0 |
| Lane Group Flow (vph) | 0 |
| Turn Type | |
| Protected Phases | |
| Permitted Phases | |
| Actuated Green, G (s) | |
| Effective Green, g (s) | |
| Actuated g/C Ratio | |
| Clearance Time (s) | |
| Vehicle Extension (s) | |
| Lane Grp Cap (vph) | |
| v/s Ratio Prot | |
| v/s Ratio Perm | |
| v/c Ratio | |
| Uniform Delay, d1 | |
| Progression Factor | |
| Incremental Delay, d2 | |
| Delay (s) | |
| Level of Service | |
| Approach Delay (s) | |
| Approach LOS | |

| Intersection Summary |
|---|

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEU | NEL | NET | NER | SWU | SWL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 19 | 23 | 23 | 50 | 1 | 24 | 7 | 11 | 1885 | 43 | 8 | 5 |
| Future Volume (vph) | 19 | 23 | 23 | 50 | 1 | 24 | 7 | 11 | 1885 | 43 | 8 | 5 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.6 | 7.6 | | 7.6 | | | 6.9 | 6.9 | | | 7.1 |
| Lane Util. Factor | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 0.91 | | | 1.00 |
| Frt | | 1.00 | 0.85 | | 0.96 | | | 1.00 | 1.00 | | | 1.00 |
| Flt Protected | | 0.98 | 1.00 | | 0.97 | | | 0.95 | 1.00 | | | 0.95 |
| Satd. Flow (prot) | | 1821 | 1583 | | 1724 | | | 1770 | 5068 | | | 1770 |
| Flt Permitted | | 0.85 | 1.00 | | 0.77 | | | 0.13 | 1.00 | | | 0.07 |
| Satd. Flow (perm) | | 1586 | 1583 | | 1378 | | | 237 | 5068 | | | 132 |
| 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) | 20 | 24 | 24 | 53 | 1 | 26 | 7 | 12 | 2005 | 46 | 9 | 5 |
| RTOR Reduction (vph) | 0 | 0 | 22 | 0 | 16 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 44 | 2 | 0 | 64 | 0 | 0 | 19 | 2050 | 0 | 0 | 14 |
| Turn Type | Perm | NA | Perm | Perm | NA | | pm+pt | pm+pt | NA | | pm+pt | pm+pt |
| Protected Phases | | 8 | | | 4 | | 1 | 1 | 6 | | 5 | 5 |
| Permitted Phases | 8 | | 8 | 4 | | | 6 | 6 | | | 2 | 2 |
| Actuated Green, G (s) | | 10.5 | 10.5 | | 10.5 | | | 88.1 | 85.3 | | | 87.9 |
| Effective Green, g (s) | | 10.5 | 10.5 | | 10.5 | | | 88.1 | 85.3 | | | 87.9 |
| Actuated g/C Ratio | | 0.09 | 0.09 | | 0.09 | | | 0.73 | 0.71 | | | 0.73 |
| Clearance Time (s) | | 7.6 | 7.6 | | 7.6 | | | 6.9 | 6.9 | | | 7.1 |
| Vehicle Extension (s) | | 4.0 | 4.0 | | 4.0 | | | 4.0 | 5.0 | | | 4.0 |
| Lane Grp Cap (vph) | | 138 | 138 | | 120 | | | 209 | 3602 | | | 132 |
| v/s Ratio Prot | | | | | | | | 0.00 | c0.40 | | | c0.00 |
| v/s Ratio Perm | | 0.03 | 0.00 | | c0.05 | | | 0.06 | | | | 0.08 |
| v/c Ratio | | 0.32 | 0.02 | | 0.53 | | | 0.09 | 0.57 | | | 0.11 |
| Uniform Delay, d1 | | 51.4 | 50.0 | | 52.4 | | | 7.9 | 8.4 | | | 11.4 |
| Progression Factor | | 1.00 | 1.00 | | 1.00 | | | 0.17 | 0.34 | | | 0.80 |
| Incremental Delay, d2 | | 1.8 | 0.1 | | 5.4 | | | 0.2 | 0.4 | | | 0.3 |
| Delay (s) | | 53.2 | 50.1 | | 57.8 | | | 1.5 | 3.3 | | | 9.4 |
| Level of Service | | D | D | | E | | | A | A | | | A |
| Approach Delay (s) | | 52.1 | | | 57.8 | | | | 3.3 | | | |
| Approach LOS | | D | | | E | | | | A | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 7.2 | HCM 2000 Level of Service | A |
| HCM 2000 Volume to Capacity ratio | 0.55 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 21.6 |
| Intersection Capacity Utilization | 64.2% | ICU Level of Service | C |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SWT | SWR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 1511 | 3 |
| Future Volume (vph) | 1511 | 3 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 6.9 | |
| Lane Util. Factor | 0.91 | |
| Frt | 1.00 | |
| Flt Protected | 1.00 | |
| Satd. Flow (prot) | 5084 | |
| Flt Permitted | 1.00 | |
| Satd. Flow (perm) | 5084 | |
| Peak-hour factor, PHF | 0.94 | 0.94 |
| Adj. Flow (vph) | 1607 | 3 |
| RTOR Reduction (vph) | 0 | 0 |
| Lane Group Flow (vph) | 1610 | 0 |
| Turn Type | NA | |
| Protected Phases | 2 | |
| Permitted Phases | | |
| Actuated Green, G (s) | 85.3 | |
| Effective Green, g (s) | 85.3 | |
| Actuated g/C Ratio | 0.71 | |
| Clearance Time (s) | 6.9 | |
| Vehicle Extension (s) | 5.0 | |
| Lane Grp Cap (vph) | 3613 | |
| v/s Ratio Prot | 0.32 | |
| v/s Ratio Perm | | |
| v/c Ratio | 0.45 | |
| Uniform Delay, d1 | 7.3 | |
| Progression Factor | 1.04 | |
| Incremental Delay, d2 | 0.2 | |
| Delay (s) | 7.9 | |
| Level of Service | A | |
| Approach Delay (s) | 7.9 | |
| Approach LOS | A | |

| Intersection Summary |
|---|

| Movement | NBU | NBL | NBT | NBR | SBU | SBL | SBT | SBR | NEU | NEL | NET | NER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 16 | 245 | 2197 | 860 | 2 | 220 | 1468 | 742 | 3 | 615 | 1053 | 173 |
| Future Volume (vph) | 16 | 245 | 2197 | 860 | 2 | 220 | 1468 | 742 | 3 | 615 | 1053 | 173 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 9.8 | 9.8 | 9.8 | | 9.8 | 9.8 | 9.8 | | 9.8 | 9.8 | 9.8 |
| Lane Util. Factor | | 0.97 | 0.91 | 1.00 | | 0.97 | 0.91 | 1.00 | | 0.97 | 0.91 | 1.00 |
| Frt | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 | | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 3433 | 5085 | 1583 | | 3433 | 5085 | 1583 | | 3433 | 5085 | 1583 |
| Flt Permitted | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 | | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 3433 | 5085 | 1583 | | 3433 | 5085 | 1583 | | 3433 | 5085 | 1583 |
| 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) | 17 | 261 | 2337 | 915 | 2 | 234 | 1562 | 789 | 3 | 654 | 1120 | 184 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 138 | 0 | 0 | 0 | 149 | 0 | 0 | 0 | 88 |
| Lane Group Flow (vph) | 0 | 278 | 2337 | 777 | 0 | 236 | 1562 | 640 | 0 | 657 | 1120 | 96 |
| Turn Type | Prot | Prot | NA | Perm | Prot | Prot | NA | Perm | Prot | Prot | NA | Perm |
| Protected Phases | 1 | 1 | 6 | | 5 | 5 | 2 | | 3 | 3 | 8 | |
| Permitted Phases | | | | 6 | | | | 2 | | | | 8 |
| Actuated Green, G (s) | | 17.3 | 104.1 | 104.1 | | 10.2 | 97.0 | 97.0 | | 27.2 | 63.3 | 63.3 |
| Effective Green, g (s) | | 17.3 | 104.1 | 104.1 | | 10.2 | 97.0 | 97.0 | | 27.2 | 63.3 | 63.3 |
| Actuated g/C Ratio | | 0.07 | 0.43 | 0.43 | | 0.04 | 0.40 | 0.40 | | 0.11 | 0.26 | 0.26 |
| Clearance Time (s) | | 9.8 | 9.8 | 9.8 | | 9.8 | 9.8 | 9.8 | | 9.8 | 9.8 | 9.8 |
| 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) | | 247 | 2205 | 686 | | 145 | 2055 | 639 | | 389 | 1341 | 417 |
| v/s Ratio Prot | | c0.08 | 0.46 | | | c0.07 | 0.31 | | | c0.19 | c0.22 | |
| v/s Ratio Perm | | | | c0.49 | | | | 0.40 | | | | 0.06 |
| v/c Ratio | | 1.13 | 1.06 | 1.13 | | 1.63 | 0.76 | 1.00 | | 1.69 | 0.84 | 0.23 |
| Uniform Delay, d1 | | 111.3 | 68.0 | 68.0 | | 114.9 | 61.5 | 71.5 | | 106.4 | 83.4 | 69.2 |
| Progression Factor | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.15 | 0.85 | 1.04 |
| Incremental Delay, d2 | | 95.2 | 37.4 | 77.3 | | 311.6 | 2.7 | 36.0 | | 319.6 | 4.1 | 0.2 |
| Delay (s) | | 206.6 | 105.3 | 145.2 | | 426.5 | 64.2 | 107.5 | | 441.8 | 75.2 | 72.2 |
| Level of Service | | F | F | F | | F | E | F | | F | E | E |
| Approach Delay (s) | | | 123.6 | | | | 110.5 | | | | 197.7 | |
| Approach LOS | | | F | | | | F | | | | F | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 145.2 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.19 | | |
| Actuated Cycle Length (s) | 240.0 | Sum of lost time (s) | 39.2 |
| Intersection Capacity Utilization | 126.7% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SWU | SWL | SWT | SWR |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 1 | 494 | 783 | 177 |
| Future Volume (vph) | 1 | 494 | 783 | 177 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 9.8 | 9.8 | 9.8 |
| Lane Util. Factor | | 0.97 | 0.91 | 1.00 |
| Frt | | 1.00 | 1.00 | 0.85 |
| Flt Protected | | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | | 3433 | 5085 | 1583 |
| Flt Permitted | | 0.95 | 1.00 | 1.00 |
| Satd. Flow (perm) | | 3433 | 5085 | 1583 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 1 | 526 | 833 | 188 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 90 |
| Lane Group Flow (vph) | 0 | 527 | 833 | 98 |
| Turn Type | Prot | Prot | NA | Perm |
| Protected Phases | 7 | 7 | 4 | |
| Permitted Phases | | | | 4 |
| Actuated Green, G (s) | | 23.2 | 59.3 | 59.3 |
| Effective Green, g (s) | | 23.2 | 59.3 | 59.3 |
| Actuated g/C Ratio | | 0.10 | 0.25 | 0.25 |
| Clearance Time (s) | | 9.8 | 9.8 | 9.8 |
| Vehicle Extension (s) | | 4.0 | 3.0 | 3.0 |
| Lane Grp Cap (vph) | | 331 | 1256 | 391 |
| v/s Ratio Prot | | 0.15 | 0.16 | |
| v/s Ratio Perm | | | | 0.06 |
| v/c Ratio | | 1.59 | 0.66 | 0.25 |
| Uniform Delay, d1 | | 108.4 | 81.4 | 72.5 |
| Progression Factor | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | | 280.4 | 1.3 | 0.3 |
| Delay (s) | | 388.8 | 82.7 | 72.8 |
| Level of Service | | F | F | E |
| Approach Delay (s) | | | 185.7 | |
| Approach LOS | | | F | |

| Intersection Summary |
|---|

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEU | NEL | NET | NER | SWL | SWT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 120 | 918 | 146 | 68 | 2 | 1 | 643 | 1294 | 198 | 3 | 894 |
| Future Volume (vph) | 38 | 120 | 918 | 146 | 68 | 2 | 1 | 643 | 1294 | 198 | 3 | 894 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 7.2 | 7.2 | | 7.2 | | | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 |
| Lane Util. Factor | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Frt | | 1.00 | 0.85 | | 1.00 | | | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 |
| Flt Protected | | 0.99 | 1.00 | | 0.97 | | | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | | 1841 | 1583 | | 1800 | | | 1770 | 3539 | 1583 | 1770 | 3539 |
| Flt Permitted | | 0.88 | 1.00 | | 0.63 | | | 0.15 | 1.00 | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | | 1635 | 1583 | | 1173 | | | 272 | 3539 | 1583 | 1770 | 3539 |
| 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) | 40 | 128 | 977 | 155 | 72 | 2 | 1 | 684 | 1377 | 211 | 3 | 951 |
| RTOR Reduction (vph) | 0 | 0 | 507 | 0 | 0 | 0 | 0 | 0 | 0 | 63 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 168 | 470 | 0 | 229 | 0 | 0 | 685 | 1377 | 148 | 3 | 951 |
| Turn Type | Perm | NA | Perm | Perm | NA | | pm+pt | pm+pt | NA | Perm | Prot | NA |
| Protected Phases | | 8 | | | 4 | | 1 | 1 | 6 | | 5 | 2 |
| Permitted Phases | 8 | | 8 | 4 | | | 6 | 6 | | 6 | | |
| Actuated Green, G (s) | | 26.0 | 26.0 | | 26.0 | | | 72.0 | 72.0 | 72.0 | 1.0 | 28.4 |
| Effective Green, g (s) | | 26.0 | 26.0 | | 26.0 | | | 72.0 | 72.0 | 72.0 | 1.0 | 28.4 |
| Actuated g/C Ratio | | 0.22 | 0.22 | | 0.22 | | | 0.60 | 0.60 | 0.60 | 0.01 | 0.24 |
| Clearance Time (s) | | 7.2 | 7.2 | | 7.2 | | | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 |
| Vehicle Extension (s) | | 3.0 | 3.0 | | 3.0 | | | 4.0 | 4.0 | 4.0 | 3.0 | 5.0 |
| Lane Grp Cap (vph) | | 354 | 342 | | 254 | | | 719 | 2123 | 949 | 14 | 837 |
| v/s Ratio Prot | | | | | | | | c0.35 | 0.39 | | 0.00 | c0.27 |
| v/s Ratio Perm | | 0.10 | c0.30 | | 0.20 | | | 0.22 | | 0.09 | | |
| v/c Ratio | | 0.47 | 1.37 | | 0.90 | | | 0.95 | 0.65 | 0.16 | 0.21 | 1.14 |
| Uniform Delay, d1 | | 41.0 | 47.0 | | 45.8 | | | 32.5 | 15.7 | 10.6 | 59.1 | 45.8 |
| Progression Factor | | 1.00 | 1.00 | | 1.00 | | | 1.00 | 1.00 | 1.00 | 1.32 | 0.47 |
| Incremental Delay, d2 | | 1.0 | 186.2 | | 31.8 | | | 22.7 | 1.5 | 0.4 | 6.9 | 74.8 |
| Delay (s) | | 42.0 | 233.2 | | 77.5 | | | 55.2 | 17.3 | 10.9 | 85.1 | 96.2 |
| Level of Service | | D | F | | E | | | E | B | B | F | F |
| Approach Delay (s) | | 205.1 | | | 77.5 | | | | 28.1 | | | 93.7 |
| Approach LOS | | F | | | E | | | | C | | | F |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 88.3 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.12 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 21.0 |
| Intersection Capacity Utilization | 152.5% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SWR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 39 |
| Future Volume (vph) | 39 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | 6.9 |
| Lane Util. Factor | 1.00 |
| Frt | 0.85 |
| Flt Protected | 1.00 |
| Satd. Flow (prot) | 1583 |
| Flt Permitted | 1.00 |
| Satd. Flow (perm) | 1583 |
| Peak-hour factor, PHF | 0.94 |
| Adj. Flow (vph) | 41 |
| RTOR Reduction (vph) | 31 |
| Lane Group Flow (vph) | 10 |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 2 |
| Actuated Green, G (s) | 28.4 |
| Effective Green, g (s) | 28.4 |
| Actuated g/C Ratio | 0.24 |
| Clearance Time (s) | 6.9 |
| Vehicle Extension (s) | 5.0 |
| Lane Grp Cap (vph) | 374 |
| v/s Ratio Prot | |
| v/s Ratio Perm | 0.01 |
| v/c Ratio | 0.03 |
| Uniform Delay, d1 | 35.2 |
| Progression Factor | 1.00 |
| Incremental Delay, d2 | 0.1 |
| Delay (s) | 35.3 |
| Level of Service | D |
| Approach Delay (s) | |
| Approach LOS | |

| Intersection Summary |
|---|

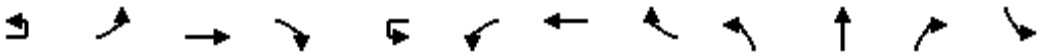
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBU | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 16 | 1780 | 154 | 246 | 1436 | 16 | 4 | 186 | 9 | 524 | 8 | 4 |
| Future Volume (vph) | 16 | 1780 | 154 | 246 | 1436 | 16 | 4 | 186 | 9 | 524 | 8 | 4 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | | | | 8.3 | 8.3 | | 8.3 |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | | | | 1.00 | 1.00 | | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | | | | 1.00 | 0.85 | | 1.00 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | | | | 0.95 | 1.00 | | 0.97 |
| Satd. Flow (prot) | 1770 | 3539 | 1583 | 1770 | 3533 | | | | 1778 | 1583 | | 1800 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | | | | 0.73 | 1.00 | | 0.75 |
| Satd. Flow (perm) | 1770 | 3539 | 1583 | 1770 | 3533 | | | | 1354 | 1583 | | 1388 |
| 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) | 17 | 1894 | 164 | 262 | 1528 | 17 | 4 | 198 | 10 | 557 | 9 | 4 |
| RTOR Reduction (vph) | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 143 | 0 | 0 |
| Lane Group Flow (vph) | 17 | 1894 | 95 | 262 | 1545 | 0 | 0 | 0 | 212 | 414 | 0 | 13 |
| Turn Type | Prot | NA | Perm | Prot | NA | | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | 1 | 6 | | 5 | 2 | | | | 4 | | | 8 |
| Permitted Phases | | | 6 | | | | 4 | 4 | | 4 | 8 | |
| Actuated Green, G (s) | 2.8 | 77.8 | 77.8 | 20.1 | 95.1 | | | | 24.1 | 24.1 | | 24.1 |
| Effective Green, g (s) | 2.8 | 77.8 | 77.8 | 20.1 | 95.1 | | | | 24.1 | 24.1 | | 24.1 |
| Actuated g/C Ratio | 0.02 | 0.54 | 0.54 | 0.14 | 0.66 | | | | 0.17 | 0.17 | | 0.17 |
| Clearance Time (s) | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 | | | | 8.3 | 8.3 | | 8.3 |
| Vehicle Extension (s) | 2.0 | 4.0 | 4.0 | 3.0 | 4.0 | | | | 3.0 | 3.0 | | 3.0 |
| Lane Grp Cap (vph) | 34 | 1910 | 854 | 246 | 2331 | | | | 226 | 264 | | 232 |
| v/s Ratio Prot | 0.01 | c0.54 | | c0.15 | 0.44 | | | | | | | |
| v/s Ratio Perm | | | 0.06 | | | | | | 0.16 | c0.26 | | 0.01 |
| v/c Ratio | 0.50 | 0.99 | 0.11 | 1.07 | 0.66 | | | | 0.94 | 1.57 | | 0.06 |
| Uniform Delay, d1 | 70.0 | 32.8 | 16.2 | 62.0 | 14.8 | | | | 59.3 | 60.0 | | 50.4 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | | 1.00 |
| Incremental Delay, d2 | 4.2 | 18.7 | 0.3 | 75.6 | 1.5 | | | | 42.5 | 272.9 | | 0.1 |
| Delay (s) | 74.1 | 51.5 | 16.5 | 137.6 | 16.3 | | | | 101.7 | 332.9 | | 50.5 |
| Level of Service | E | D | B | F | B | | | | F | F | | D |
| Approach Delay (s) | | 49.0 | | | 33.9 | | | | 269.2 | | | 50.3 |
| Approach LOS | | D | | | C | | | | F | | | D |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 79.3 | HCM 2000 Level of Service | E |
| HCM 2000 Volume to Capacity ratio | 1.12 | | |
| Actuated Cycle Length (s) | 144.1 | Sum of lost time (s) | 22.1 |
| Intersection Capacity Utilization | 109.6% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBR |
|---|---|
| Lane Configurations | |
| Traffic Volume (vph) | 14 |
| Future Volume (vph) | 14 |
| Ideal Flow (vphpl) | 1900 |
| Total Lost time (s) | 8.3 |
| Lane Util. Factor | 1.00 |
| Frt | 0.85 |
| Flt Protected | 1.00 |
| Satd. Flow (prot) | 1583 |
| Flt Permitted | 1.00 |
| Satd. Flow (perm) | 1583 |
| Peak-hour factor, PHF | 0.94 |
| Adj. Flow (vph) | 15 |
| RTOR Reduction (vph) | 12 |
| Lane Group Flow (vph) | 3 |
| Turn Type | Perm |
| Protected Phases | |
| Permitted Phases | 8 |
| Actuated Green, G (s) | 24.1 |
| Effective Green, g (s) | 24.1 |
| Actuated g/C Ratio | 0.17 |
| Clearance Time (s) | 8.3 |
| Vehicle Extension (s) | 3.0 |
| Lane Grp Cap (vph) | 264 |
| v/s Ratio Prot | |
| v/s Ratio Perm | 0.00 |
| v/c Ratio | 0.01 |
| Uniform Delay, d1 | 50.0 |
| Progression Factor | 1.00 |
| Incremental Delay, d2 | 0.0 |
| Delay (s) | 50.1 |
| Level of Service | D |
| Approach Delay (s) | |
| Approach LOS | |

| Intersection Summary |
|---|



| Movement | EBU | EBL | EBT | EBR | WBU | WBL | WBT | WBR | NBL | NBT | NBR | SBL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 1 | 84 | 1078 | 15 | 1 | 11 | 812 | 17 | 44 | 75 | 13 | 14 |
| Future Volume (vph) | 1 | 84 | 1078 | 15 | 1 | 11 | 812 | 17 | 44 | 75 | 13 | 14 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 6.9 | 6.9 | | | 6.9 | 6.9 | | 7.5 | 7.5 | | |
| Lane Util. Factor | | 1.00 | 0.95 | | | 1.00 | 0.95 | | 1.00 | 1.00 | | |
| Frt | | 1.00 | 1.00 | | | 1.00 | 1.00 | | 1.00 | 0.98 | | |
| Flt Protected | | 0.95 | 1.00 | | | 0.95 | 1.00 | | 0.95 | 1.00 | | |
| Satd. Flow (prot) | | 1770 | 3532 | | | 1770 | 3528 | | 1770 | 1821 | | |
| Flt Permitted | | 0.29 | 1.00 | | | 0.19 | 1.00 | | 0.27 | 1.00 | | |
| Satd. Flow (perm) | | 535 | 3532 | | | 361 | 3528 | | 496 | 1821 | | |
| 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) | 1 | 89 | 1147 | 16 | 1 | 12 | 864 | 18 | 47 | 80 | 14 | 15 |
| RTOR Reduction (vph) | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 6 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 90 | 1162 | 0 | 0 | 13 | 881 | 0 | 47 | 88 | 0 | 0 |
| Turn Type | Perm | Perm | NA | | Perm | Perm | NA | | Perm | NA | | Perm |
| Protected Phases | | | 6 | | | | 2 | | | 4 | | |
| Permitted Phases | 6 | 6 | | | 2 | 2 | | | 4 | | | 8 |
| Actuated Green, G (s) | | 76.3 | 76.3 | | | 76.3 | 76.3 | | 29.3 | 29.3 | | |
| Effective Green, g (s) | | 76.3 | 76.3 | | | 76.3 | 76.3 | | 29.3 | 29.3 | | |
| Actuated g/C Ratio | | 0.64 | 0.64 | | | 0.64 | 0.64 | | 0.24 | 0.24 | | |
| Clearance Time (s) | | 6.9 | 6.9 | | | 6.9 | 6.9 | | 7.5 | 7.5 | | |
| Vehicle Extension (s) | | 5.0 | 5.0 | | | 5.0 | 5.0 | | 4.0 | 4.0 | | |
| Lane Grp Cap (vph) | | 340 | 2245 | | | 229 | 2243 | | 121 | 444 | | |
| v/s Ratio Prot | | | c0.33 | | | | 0.25 | | | 0.05 | | |
| v/s Ratio Perm | | 0.17 | | | | 0.04 | | | 0.09 | | | |
| v/c Ratio | | 0.26 | 0.52 | | | 0.06 | 0.39 | | 0.39 | 0.20 | | |
| Uniform Delay, d1 | | 9.6 | 11.9 | | | 8.3 | 10.6 | | 37.9 | 36.0 | | |
| Progression Factor | | 0.35 | 0.32 | | | 0.12 | 0.16 | | 1.00 | 1.00 | | |
| Incremental Delay, d2 | | 1.5 | 0.7 | | | 0.4 | 0.4 | | 2.8 | 0.3 | | |
| Delay (s) | | 4.9 | 4.5 | | | 1.3 | 2.1 | | 40.7 | 36.3 | | |
| Level of Service | | A | A | | | A | A | | D | D | | |
| Approach Delay (s) | | | 4.5 | | | | 2.1 | | | 37.8 | | |
| Approach LOS | | | A | | | | A | | | D | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 12.6 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.59 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 14.4 |
| Intersection Capacity Utilization | 93.5% | ICU Level of Service | F |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

| Movement | SBT | SBR |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | 100 | 262 |
| Future Volume (vph) | 100 | 262 |
| Ideal Flow (vphpl) | 1900 | 1900 |
| Total Lost time (s) | 7.5 | |
| Lane Util. Factor | 1.00 | |
| Frt | 0.91 | |
| Flt Protected | 1.00 | |
| Satd. Flow (prot) | 1684 | |
| Flt Permitted | 0.99 | |
| Satd. Flow (perm) | 1665 | |
| Peak-hour factor, PHF | 0.94 | 0.94 |
| Adj. Flow (vph) | 106 | 279 |
| RTOR Reduction (vph) | 82 | 0 |
| Lane Group Flow (vph) | 318 | 0 |
| Turn Type | NA | |
| Protected Phases | 8 | |
| Permitted Phases | | |
| Actuated Green, G (s) | 29.3 | |
| Effective Green, g (s) | 29.3 | |
| Actuated g/C Ratio | 0.24 | |
| Clearance Time (s) | 7.5 | |
| Vehicle Extension (s) | 4.0 | |
| Lane Grp Cap (vph) | 406 | |
| v/s Ratio Prot | | |
| v/s Ratio Perm | c0.19 | |
| v/c Ratio | 0.78 | |
| Uniform Delay, d1 | 42.4 | |
| Progression Factor | 1.00 | |
| Incremental Delay, d2 | 10.0 | |
| Delay (s) | 52.4 | |
| Level of Service | D | |
| Approach Delay (s) | 52.4 | |
| Approach LOS | D | |

| Intersection Summary |
|---|

| Movement | EBL | EBR | SET | SER | NWU | NWL | NWT |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 0 | 1043 | 1647 | 0 | 1 | 942 | 2175 |
| Future Volume (vph) | 0 | 1043 | 1647 | 0 | 1 | 942 | 2175 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 8.1 | 8.1 | | | 8.4 | 8.1 |
| Lane Util. Factor | | 1.00 | 0.91 | | | 0.97 | 0.91 |
| Frt | | 0.86 | 1.00 | | | 1.00 | 1.00 |
| Flt Protected | | 1.00 | 1.00 | | | 0.95 | 1.00 |
| Satd. Flow (prot) | | 1611 | 5085 | | | 3433 | 5085 |
| Flt Permitted | | 1.00 | 1.00 | | | 0.95 | 1.00 |
| Satd. Flow (perm) | | 1611 | 5085 | | | 3433 | 5085 |
| Peak-hour factor, PHF | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Adj. Flow (vph) | 0 | 1110 | 1752 | 0 | 1 | 1002 | 2314 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 1110 | 1752 | 0 | 0 | 1003 | 2314 |
| Turn Type | | Perm | NA | | Prot | Prot | NA |
| Protected Phases | | | 6 | | 5 | 5 | 2 |
| Permitted Phases | | 2 5 6 | | | | | |
| Actuated Green, G (s) | | 120.0 | 63.3 | | | 40.2 | 120.0 |
| Effective Green, g (s) | | 120.0 | 63.3 | | | 40.2 | 120.0 |
| Actuated g/C Ratio | | 1.00 | 0.53 | | | 0.34 | 1.00 |
| Clearance Time (s) | | | 8.1 | | | 8.4 | 8.1 |
| Vehicle Extension (s) | | | 1.0 | | | 1.0 | 1.0 |
| Lane Grp Cap (vph) | | 1611 | 2682 | | | 1150 | 5085 |
| v/s Ratio Prot | | | 0.34 | | | c0.29 | 0.46 |
| v/s Ratio Perm | | c0.69 | | | | | |
| v/c Ratio | | 0.69 | 0.65 | | | 0.87 | 0.46 |
| Uniform Delay, d1 | | 0.0 | 20.4 | | | 37.5 | 0.0 |
| Progression Factor | | 1.00 | 1.00 | | | 1.00 | 1.00 |
| Incremental Delay, d2 | | 0.9 | 1.3 | | | 7.3 | 0.3 |
| Delay (s) | | 0.9 | 21.7 | | | 44.7 | 0.3 |
| Level of Service | | A | C | | | D | A |
| Approach Delay (s) | 0.9 | | 21.7 | | | | 13.7 |
| Approach LOS | A | | C | | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 2000 Control Delay | 13.7 | HCM 2000 Level of Service | B |
| HCM 2000 Volume to Capacity ratio | 0.81 | | |
| Actuated Cycle Length (s) | 120.0 | Sum of lost time (s) | 16.5 |
| Intersection Capacity Utilization | 143.8% | ICU Level of Service | H |
| Analysis Period (min) | 15 | | |

c Critical Lane Group

## Arterial Level of Service: EB SR 580

| Cross Street | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---|---|---|---|---|---|---|---|---|
| Main St | II | 39 | 44.7 | 20.0 | 64.7 | 0.48 | 26.7 | C |
| Patricia Ave | II | 40 | 40.8 | 22.5 | 63.3 | 0.42 | 24.2 | C |
| Crosley Dr | II | 40 | 27.9 | 5.4 | 33.3 | 0.25 | 27.4 | C |
| Lake Haven Rd | II | 40 | 15.2 | 3.4 | 18.6 | 0.13 | 25.6 | C |
| Keene Rd | II | 45 | 35.4 | 60.8 | 96.2 | 0.37 | 13.8 | E |
| Achieva Way | II | 45 | 27.9 | 10.6 | 38.5 | 0.27 | 25.1 | C |
| Overcash Dr | II | 45 | 20.0 | 1.6 | 21.6 | 0.18 | 30.6 | B |
| Pinewood Dr | II | 45 | 30.8 | 17.2 | 48.0 | 0.31 | 23.3 | C |
| Belcher Rd | II | 45 | 26.4 | 53.7 | 80.1 | 0.25 | 11.4 | F |
| US 19 Frontage | II | 45 | 42.4 | 114.1 | 156.5 | 0.53 | 12.2 | F |
| Summerdale Dr | II | 45 | 26.8 | 3.9 | 30.7 | 0.26 | 30.2 | B |
| Countryside Blvd | II | 45 | 43.6 | 82.3 | 125.9 | 0.55 | 15.6 | E |
| Landmark Dr | II | 45 | 45.8 | 18.2 | 64.0 | 0.52 | 29.3 | B |
| Charles Ave | II | 45 | 32.5 | 3.0 | 35.5 | 0.34 | 34.3 | B |
| McMullen Booth Rd | II | 45 | 23.7 | 76.4 | 100.1 | 0.22 | 7.8 | F |
| SR 590 | II | 45 | 75.7 | 58.0 | 133.7 | 0.95 | 25.5 | C |
| St Petersburg Dr | II | 45 | 97.2 | 14.4 | 111.6 | 1.22 | 39.2 | A |
| S Bayview Blvd | II | 45 | 58.7 | 5.0 | 63.7 | 0.73 | 41.5 | A |
| Tampa Rd | II | 45 | 38.1 | 14.0 | 52.1 | 0.41 | 28.0 | B |
| Total | II | | 753.6 | 584.5 | 1338.1 | 8.39 | 22.6 | C |

## Arterial Level of Service: WB SR 580

| Cross Street | Arterial Class | Flow Speed | Running Time | Signal Delay | Travel Time (s) | Dist (mi) | Arterial Speed | Arterial LOS |
|---|---|---|---|---|---|---|---|---|
| S Bayview Blvd | II | 45 | 38.1 | 2.3 | 40.4 | 0.41 | 36.1 | A |
| Forest Lakes Blvd | II | 45 | 58.7 | 39.3 | 98.0 | 0.73 | 27.0 | C |
| 2nd St | II | 45 | 97.2 | 15.3 | 112.5 | 1.22 | 38.9 | A |
| McMullen Booth Rd | II | 45 | 75.7 | 83.7 | 159.4 | 0.95 | 21.4 | D |
| Charles Ave | II | 45 | 23.7 | 7.3 | 31.0 | 0.22 | 25.3 | C |
| Landmark Dr | II | 45 | 32.5 | 22.8 | 55.3 | 0.34 | 22.0 | C |
| Countryside Blvd | II | 45 | 45.8 | 70.1 | 115.9 | 0.52 | 16.2 | E |
| Summerdale Dr | II | 45 | 43.6 | 14.9 | 58.5 | 0.55 | 33.6 | B |
| US 19 Frontage | II | 45 | 26.8 | 67.2 | 94.0 | 0.26 | 9.9 | F |
| Belcher Rd | II | 45 | 42.4 | 66.0 | 108.4 | 0.53 | 17.6 | D |
| King Arthur Ct | II | 45 | 26.4 | 20.2 | 46.6 | 0.25 | 19.6 | D |
| Overcash Dr | II | 45 | 30.8 | 6.7 | 37.5 | 0.31 | 29.8 | B |
| Sunlight Dr | II | 45 | 20.0 | 8.9 | 28.9 | 0.18 | 22.9 | C |
| CR 1 | II | 45 | 27.9 | 51.7 | 79.6 | 0.27 | 12.1 | F |
| Lake Haven Rd | II | 45 | 35.4 | 0.4 | 35.8 | 0.37 | 37.1 | A |
| Pinehurst Rd | II | 40 | 15.2 | 7.0 | 22.2 | 0.13 | 21.4 | D |
| Patricia Ave | II | 40 | 27.9 | 5.0 | 32.9 | 0.25 | 27.7 | C |
| Bass Blvd | II | 40 | 40.8 | 9.8 | 50.6 | 0.42 | 30.2 | B |
| Alt 19 | II | 39 | 44.7 | 33.5 | 78.2 | 0.48 | 22.1 | C |
| Total | II | | 753.6 | 532.1 | 1285.7 | 8.39 | 23.5 | C |

# SR 580 Corridor Planning and Concept Development Study
# APPENDIX B: DRAFT Bicycle and Pedestrian Level of Service Results

| Seg_ID | SR | Road Name | From | To | Len-gth (Ls) (mi) | Dir. of Sur. | Lanes (L) Th # | Lanes (L) Con | ADT | Tks. (HV) (%) | Post. Spd. ($SP_p$) mph | Width of Pavement $W_t$ (ft) | Width of Pavement $W_l$ (ft) | Width of Pavement $W_{ps}$ (ft) | Total Pvmt Width (TPW) (ft) | Occ. Park. (OSPA) (%) | $PC_l$ (1..5) | Bike Lane Mark (Y/N) | Cross Sec. (C/S) | Buff. Width (BW) (ft) | Tree Spcg. in Buffer (ft/ctr) | % with Sidewalk | Swalk Width (Ws) (ft) | Road Profile Cond (1,2,3) | Bicycle LOS Score (0...7) | Bicycle LOS Grade (A...F) | Pedestrian LOS Value (0...7) | Pedestrian LOS Grade (A...F) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.0 | 580 | Skinner Blvd | Broadway (Alt 19) | Douglas Ave | 0.11 | E | 4 | D | 10,600 | 3 | 35 | 14.0 | 4.0 | 0.0 | 24.0 | 0 | 5.0 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.36 | B | 2.49 | B | SW is pavers from Broadway to Trail |
| 1.0 | 580 | Skinner Blvd | Broadway (Alt 19) | Douglas Ave | 0.11 | W | 4 | D | 10,600 | 3 | 35 | 14.0 | 4.0 | 0.0 | 24.0 | 0 | 5.0 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.36 | B | 2.49 | B | SW is pavers from Broadway to Trail |
| 1.1 | 580 | Skinner Blvd | Howard Ave | Main St | 0.36 | E | 4 | S | 10,600 | 3 | 40 | 15.5 | 4.5 | 0.0 | 65.5 | 0 | 5.0 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.05 | B | 2.61 | C | Buffer is 13' E of on N side between Douglas and Highland |
| 1.1 | 580 | Skinner Blvd | Howard Ave | Main St | 0.36 | W | 4 | S | 10,600 | 3 | 40 | 15.0 | 4.0 | 0.0 | 65.5 | 0 | 5.0 | Y | C | 7.5 | | 100 | 6.0 | 1 | 2.25 | B | 2.56 | C | Buffer is 13' E of on N side between Douglas and Highland |
| 2.0 | 580 | Main St | Skinner Blvd/BassBlvd | Patricia Ave | 0.44 | E | 4 | S | 17,800 | 4 | 40 | 15.0 | 4.0 | 0.0 | 60.0 | 0 | 4.5 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.59 | C | 3.03 | C | |
| 2.0 | 580 | Main St | Skinner Blvd/BassBlvd | Patricia Ave | 0.44 | W | 4 | S | 17,800 | 4 | 40 | 15.0 | 4.0 | 0.0 | 60.0 | 0 | 4.5 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.59 | C | 3.03 | C | |
| 2.1 | 580 | Main St | Patricia Ave | Crosley Dr/Pinehurst Rd | 0.25 | E | 4 | S | 28,500 | 4 | 40 | 15.0 | 4.0 | 0.0 | 60.0 | 0 | 4.5 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.83 | C | 3.64 | D | |
| 2.1 | 580 | Main St | Patricia Ave | Crosley Dr/Pinehurst Rd | 0.25 | W | 4 | S | 28,500 | 4 | 40 | 15.0 | 4.0 | 0.0 | 60.0 | 0 | 4.5 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.83 | C | 3.64 | D | |
| 3.0 | 580 | Main St | Crosley Dr/Pinehurst Rd | Keene Rd/CR 1 | 0.50 | E | 6 | S | 31,500 | 3 | 45 | 16.0 | 4.0 | 0.0 | 95.0 | 0 | 4.5 | Y | C | 4.5 | | 100 | 6.0 | 1 | 2.52 | C | 3.36 | C | |
| 3.0 | 580 | Main St | Crosley Dr/Pinehurst Rd | Keene Rd/CR 1 | 0.50 | W | 6 | S | 31,500 | 3 | 45 | 16.0 | 4.0 | 0.0 | 95.0 | 0 | 4.5 | Y | C | 4.5 | | 100 | 6.0 | 1 | 2.52 | C | 3.36 | C | |
| 4.0 | 580 | Main St | Keene Rd/CR 1 | Belcher Rd | 1.00 | E | 6 | S | 47,500 | 3 | 45 | 16.0 | 4.0 | 0.0 | 95.0 | 0 | 4.0 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.82 | C | 3.96 | D | |
| 4.0 | 580 | Main St | Keene Rd/CR 2 | Belcher Rd | 1.00 | W | 6 | S | 47,500 | 3 | 45 | 16.0 | 4.0 | 0.0 | 95.0 | 0 | 4.0 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.82 | C | 3.96 | D | |
| 5.0 | 580 | Main St | Belcher Rd | US 19 | 0.53 | E | 6 | S | 48,500 | 3 | 45 | 16.0 | 4.0 | 0.0 | 95.0 | 0 | 4.0 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.84 | C | 3.99 | D | |
| 5.0 | 580 | Main St | Belcher Rd | US 19 | 0.53 | W | 6 | S | 48,500 | 3 | 45 | 16.0 | 4.0 | 0.0 | 95.0 | 0 | 4.0 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.84 | C | 3.99 | D | |
| 6.0 | 580 | SR 580 | US 19 | Countryside Blvd | 0.80 | E | 6 | S | 40,000 | 3 | 45 | 16.0 | 4.0 | 0.0 | 95.0 | 0 | 4.0 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.73 | C | 3.67 | D | |
| 6.0 | 580 | SR 580 | US 19 | Countryside Blvd | 0.80 | W | 6 | S | 40,000 | 3 | 45 | 16.0 | 4.0 | 0.0 | 95.0 | 0 | 4.0 | Y | C | 5.0 | | 100 | 6.0 | 1 | 2.73 | C | 3.67 | D | |
| 7.0 | 580 | SR 580 | Countryside Blvd | McMullen Booth Rd | 1.08 | E | 6 | D | 34,500 | 2 | 45 | 14.0 | 0.0 | 0.0 | 38.0 | 0 | 4.0 | N | C | 3.0 | | 100 | 5.0 | 1 | 3.67 | D | 3.65 | D | |
| 7.0 | 580 | SR 580 | Countryside Blvd | McMullen Booth Rd | 1.08 | W | 6 | D | 34,500 | 2 | 45 | 14.0 | 0.0 | 0.0 | 38.0 | 0 | 4.0 | N | C | 2.5 | | 100 | 5.0 | 1 | 3.67 | D | 3.67 | D | |
| 8.0 | 580 | SR 580 | McMullen Booth Rd | Muellers Lane | 0.49 | E | 6 | D | 37,000 | 4 | 45 | 14.5 | 0.0 | 0.0 | 38.5 | 0 | 4.0 | N | C | 3.0 | | 100 | 5.0 | 1 | 3.66 | D | 3.73 | D | |
| 8.0 | 580 | SR 580 | McMullen Booth Rd | Muellers Lane | 0.49 | W | 6 | D | 37,000 | 4 | 45 | 14.5 | 0.0 | 0.0 | 38.5 | 0 | 4.0 | N | C | 3.0 | | 100 | 5.0 | 1 | 3.66 | D | 3.73 | D | |
| 8.1 | 580 | SR 580 | Muellers Lane | Phillippe Pkwy | 0.47 | E | 4 | D | 37,000 | 4 | 45 | 15.0 | 4.0 | 0.0 | 26.5 | 0 | 4.0 | Y | C | 4.0 | | 100 | 5.0 | 1 | 3.11 | C | 4.39 | D | 2 lanes EB/3 lanes WB |
| 8.1 | 580 | SR 580 | Muellers Lane | Phillippe Pkwy | 0.47 | W | 6 | D | 37,000 | 4 | 45 | 15.0 | 4.0 | 0.0 | 38.5 | 0 | 4.0 | Y | C | 3.0 | | 100 | 5.0 | 1 | 2.90 | C | 3.72 | D | 3 lanes EB/3 lanes WB |
| 9.0 | 580 | SR 580 | Phillippe | W end bridge | 0.17 | E | 4 | D | 40,500 | 3 | 45 | 15.0 | 4.0 | 0.0 | 26.0 | 0 | 4.0 | Y | C | 4.0 | | 100 | 5.0 | 1 | 3.14 | C | 4.59 | E | |
| 9.0 | 580 | SR 580 | Phillippe | W end bridge | 0.17 | W | 4 | D | 40,500 | 3 | 45 | 15.0 | 4.0 | 0.0 | 26.0 | 0 | 4.0 | Y | C | 4.0 | | 100 | 5.0 | 1 | 3.14 | C | 4.59 | E | |
| 9.1 | 580 | SR 580 | W end bridge | E end bridge | 0.49 | E | 4 | D | 40,500 | 3 | 45 | 22.0 | 10.0 | 0.0 | 40.0 | 0 | 4.0 | Y | C | 1.0 | 1 | 100 | 5.0 | 4 | 0.00 | A | 3.72 | D | Jersey Barrier |
| 9.1 | 580 | SR 580 | W end bridge | E end bridge | 0.49 | W | 4 | D | 40,500 | 3 | 45 | 22.0 | 10.0 | 0.0 | 40.0 | 0 | 4.0 | Y | C | 1.0 | 1 | 100 | 5.0 | 4 | 0.00 | A | 3.72 | D | Jersey Barrier |
| 9.2 | 580 | SR 580 | E end bridge | St Clair Ave | 0.17 | E | 4 | D | 40,500 | 3 | 45 | 15.0 | 4.0 | 0.0 | 26.0 | 0 | 4.0 | Y | C | 4.0 | | 100 | 5.0 | 1 | 3.14 | C | 4.59 | E | |
| 9.2 | 580 | SR 580 | E end bridge | St Clair Ave | 0.17 | W | 4 | D | 40,500 | 3 | 45 | 15.0 | 4.0 | 0.0 | 26.0 | 0 | 4.0 | Y | C | 4.0 | | 100 | 5.0 | 1 | 3.14 | C | 4.59 | E | |
| 9.3 | 580 | SR 580 | St Clair Ave | St Petersburg Dr/Forest Lakes Blvd | 0.40 | E | 4 | D | 40,500 | 3 | 45 | 14.0 | 0.0 | 0.0 | 26.5 | 0 | 4.0 | N | C | 3.0 | | 100 | 5.0 | 1 | 3.97 | D | 4.65 | E | |
| 9.3 | 580 | SR 580 | St Clair Ave | St Petersburg Dr/Forest Lakes Blvd | 0.40 | W | 4 | D | 40,500 | 3 | 45 | 14.0 | 0.0 | 0.0 | 26.5 | 0 | 4.0 | N | C | 3.0 | | 100 | 5.0 | 1 | 3.97 | D | 4.65 | E | |
| 10.0 | 580 | State St | St Petersburg Dr/Forest Lakes Blvd | Hillsborough Ave | 1.10 | E | 4 | D | 22,900 | 4 | 45 | 14.0 | 0.0 | 0.0 | 26.5 | 0 | 4.0 | N | C | 3.0 | | 100 | 5.0 | 1 | 3.70 | D | 3.64 | D | |
| 10.0 | 580 | State St | St Petersburg Dr/Forest Lakes Blvd | Hillsborough Ave | 1.10 | W | 4 | D | 22,900 | 4 | 45 | 14.0 | 0.0 | 0.0 | 26.5 | 0 | 4.0 | N | C | 3.0 | | 100 | 5.0 | 1 | 3.70 | D | 3.64 | D | |